TALKEETNA COMPREHENSIVE PLAN

MATANUSKA-SUSITNA BOROUGH
PLANNING DEPARTMENT
SUPPORT SERVICES

MATANUSKA-SUSITNA BOROUGH
Adopted January 1998
Amended March 1999

ACKNOWLEDGMENTS

MATANUSKA-SUSITNA BOROUGH ASSEMBLY

Darcie K. Salmon, Mayor

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MATANUSKA-SUSITNA BOROUGH

Michael J. Scott, Manager

and

Planning Department Staff

Code Ordinance

By: D. Moore
Introduced: 1/6/98
Public Hearing: 1/22/98
Adopted: 1/22/98

MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 98-009

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY ADOPTING MSB 15.24.030(B)(13), THE MATANUSKA-SUSITNA BOROUGH TALKEETNA COMPREHENSIVE PLAN.

BE IT ENACTED:

* Section 1. Classification. Sections 1 and 4 of this ordinance are non-code. Sections 2 and 3 of this ordinance are of a general and permanent nature and shall become a part of the borough code.

* Section 2. Amendment of section. MSB 15.24.030 (B) is hereby amended to add a subsection 13, which reads as follows:

(13) Talkeetna comprehensive plan, adopted 1998.

* Section 3. Amendment of comprehensive plan. The Matanuska-Susitna Borough Comprehensive Development Plan, adopted 1970, is amended in part by the Matanuska-Susitna Borough Talkeetna Comprehensive Plan, January 1998. Only that area addressed by the Talkeetna Comprehensive Plan that is included within the planning area of the 1998 Talkeetna Comprehensive Plan is affected by this amendment.

* Section 4. Effective date. Ordinance Serial No. 98-009 shall take effect upon adoption by the Matanuska-Susitna Borough Assembly.

ADOPTED by the Matanuska-Susitna Borough Assembly this 22nd day of January, 1998.

DARCIE K. SALMON, Borough Mayor

ATTEST:

SANDRA A. DILLON, Borough Clerk

(SEAL)

Code Ordinance

By: M. Scott
Introduced: 02/16/99
Public Hearing: 03/02/99
Amended: 03/02/99
Adopted: 03/02/99

MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 99-054(AM)

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY AMENDING MSB 15.24.030(B)(13), TALKEETNA COMPREHENSIVE PLAN.

BE IT ENACTED:

Section 1. Classification. Section 1,3, and 4 of this ordinance are non-code. Section 2 is of a general and permanent nature and shall become a part of the borough code.

Section 2. Amendment of paragraph. MSB 15.24.030(B)(13) is hereby amended to read as follows:

(13) Talkeetna Comprehensive Plan, **January 1998, amended March 1999.** [ADOPTED 1998].

Section 3. Amendment of comprehensive plan. The Talkeetna Comprehensive Plan is amended as follows:

Page 6-33, add a section after the recommendation as follows:

ARTS AND CULTURAL ACTIVITIES

The Denali Arts Council, a not-for-profit corporation founded in 1981, acts as the central arts organization for the northern Susitna Valley with a single board of directors responsible for three local arts organizations: Denali Drama, the Talkeetna Greenlight Circus, and the

Talkeetna Music Academy. The arts council also sponsors visiting artists and a summer fine arts camp for children, works in partnership with local schools, and supports local artists in a variety of activities. The arts council currently operates from member's homes.

Community Arts Facility

There is currently no facility for theater, music, dance and other arts activities in the Talkeetna area. Music and drama productions, circus performances, and other public gatherings are currently held by necessity in small barrooms and restaurants or in ill-suited and frequently unavailable school buildings. There is also a need for space to exhibit the work of artists and craftspeople and for other cultural and community events.

An arts facility would provide a suitable performance space for the area's many talented musicians, actors, dancers, circus performers and other artists as well as space for other arts, cultural and community activities. An arts facility would also provide a focal point for entertainment that would clearly benefit the growing Talkeetna visitor industry.

Recommendation:

It is recommended that a community arts facility be considered for the Talkeetna area and the community should seek funding for such a facility.

Add a new Chapter 8 as follows:

COMPREHENSIVE PLAN REVISIONS

Revisions to the Talkeetna Comprehensive Plan will be necessary as development takes place within the area. The plan should be reviewed on a regular basis, at least every five years after adoption, to determine if revisions are necessary at that time. It is important that a process for revising the plan be recognized in the event revision is necessary or desirable prior to that time.

Any request for amendments will be forwarded to the borough's department of planning. When a revision is initiated by the borough planning commission, assembly, or administration the borough will schedule at least one public meeting in the community and notify the Talkeetna Community Council of the proposed revision.

If a rewrite of the entire plan or a major portion of the plan is deemed necessary or desirable, a Citizen's

Advisory Committee will be formed to work with the Matanuska-Susitna Borough Planning Department in revising the plan. Establishment of the committee will be in compliance with the policies of the borough planning commission at the time of the revision.

Section 4. Effective date. Ordinance Serial No. 99-054(AM) shall take effect upon adoption by the Matanuska-Susitna Borough Assembly.

ADOPTED by the Matanuska-Susitna Borough Assembly this 2nd day of March, 1999.

DARCIE K. SALMON, Borough Mayor

ATTEST:

SANDRA A. DILLON, Borough Clerk

(Seal)

TALKEETNA COMPREHENSIVE PLAN
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PREFACE

A comprehensive plan is a compilation of information, projections, and policies which is intended as a general guide for the development of a community. The intent of a comprehensive plan is to articulate the local population's expectations and public interests as they relate to community development so that future community growth can be consistent with these desires.

Alaska state statute and Matanuska-Susitna Borough code require comprehensive planning. Comprehensive planning is defined in Figure 1, p.i. Once comprehensive plans are adopted, they become instrumental in influencing public and private policy decisions. Comprehensive plans are consulted during government consistency determination rulings, budgetary decisions pertaining to local infrastructure and capital improvement programming, and administrative policies toward land use regulations. Comprehensive plans are adopted by ordinance by the Matanuska-Susitna Borough's assembly.

Figure 1
COMPREHENSIVE PLANNING DEFINED

A comprehensive plan is "a compilation of policy statements, goals, standards, and maps for guiding the physical, social, and economic development, both private and public," of an area. The comprehensive plan may include, but is not limited to: statements of policies, goals, and standards; a land use plan; a community facilities plan; and recommendations for implementation of the comprehensive plan.

[Alaska Statute Title 29.40.030].

Comprehensive plans are necessary for the immediate protection of the public's peace, health, safety, and welfare. Matanuska Susitna Borough Code requires the borough assembly to prepare comprehensive plans designed to:

* promote safety for vehicular and pedestrian traffic, prevent congestion and preserve the function of roads;
* secure safety from fire, flood, pollution and other dangers;
* promote health and general welfare;
* provide for orderly development with a range of population densities, in harmony with the ability to provide services efficiently, while avoiding overcrowding of population;
* provide adequate light and air;
* preserve the natural resources;
* preserve property values;
* promote economic development;
* facilitate adequate provision for transportation, water, waste disposal, schools, recreation and other public requirements.

[MSB Code 15.24.030]

Numerous planning documents and related land use plans have been adopted for lands in the Talkeetna planning area, see Figure 2, p. ii.

Figure 2
ADOPTED PLANNING DOCUMENTS AND PROCEDURES
RELATED TO TALKEETNA

The following planning documents and procedures which affect Talkeetna have been adopted by the Matanuska-Susitna Borough:

Matanuska-Susitna Borough Comprehensive Development Plan, 1970, adopted Resolution No. 70-45, on November 17, 1970, contains Talkeetna Plan, pp. 143-162.

Comprehensive Development Plan: Transportation, adopted Matanuska-Susitna Borough (MSB) Ord 84-009.

Comprehensive Development Plan: Public Facilities, adopted MSB Ord 84-044, with three additional sub-elements: Solid Waste, Water and Sewer, and Trails, adopted MSB Ord 84-061.

Matanuska-Susitna Borough Coastal Management Plan, adopted January 17, 1984 and July 17, 1984.

Matanuska Susitna Borough Assembly Resolution No. 86-7 established policy guidelines that directed the development of community based comprehensive plans.

Susitna Area Plan, adopted MSB Ord 85-08, on March 19, 1985. This plan is a land use plan for non-federal public lands within the Susitna River drainage basin of the borough. The plan designates permitted uses of public lands and suggests areas to be sold and those to be retained in public ownership. It does not control uses on private lands or on public lands designated for specific purposes, such as parks or wildlife refuges.

Susitna Basin Recreation Rivers Management Plan, adopted MSB Res 90-156 (Sub), on February 5, 1991. This plan determines the management of six rivers within the borough, including the Talkeetna River. The plan sets out a management intent for each river, regulations for recreation and commercial use, and guidelines for leases and permits on State lands and waters.

Multiple Use Forest Management Program, adopted MSB Ord 90-020, on August 8, 1990. This program identifies fourteen parcels that are recommended for classification as Forest Management Lands including their associated management policies to insure the protection of their resource values. Unit #3 is located in the Talkeetna area in the North Bartlett Hills area.

PLAN PREPARATION

The Talkeetna Community Council requested planning assistance from the Matanuska-Susitna Borough, the local government for the community, to write a comprehensive plan for the community. In support of that request, the borough's planning commission passed Resolution No. 89-23 in February 1989, see Appendix A.

An advisory committee was formed by the borough's planning commission to write the comprehensive plan. Interested community members who were either residents, property owners, or business operators in the planning area were eligible to participate on the Talkeetna Comprehensive Plan Advisory Committee. Throughout the planning effort over fifty citizens participated on the committee.

The advisory committee delineated the planning area that was to be covered in the planning effort. This area encompasses the immediate townsite area, plus the corridor along the Talkeetna Spur Road, which is the approach into the downtown townsite area, and an area extending east of the townsite into the Talkeetna Mountains, see Figure 3, p. v. The planning area includes land that is within the Talkeetna Community Council's boundary and land outside of its boundary.

After deciding the planning area, the committee identified issues/problems facing the community, selected topics for further research and analysis, and developed goals for each of the topics. The major research topics were land use and community development, public/community facilities, and transportation. Subcommittees were established to research the topics. Committee and subcommittee reports began in spring 1989 and ended May 1995, see Appendix B for a schedule of their meetings. All the meetings were open to the public.

Throughout the planning process the advisory committee requested specialized information on certain subjects of community interest. The following presentations were made by other organizations: U.S. National Park Service and Cook Inlet Region Inc., on a proposed visitor center; Alaska Department of Community and Regional Affairs, on city incorporation; and, the Alaska Department of Natural Resources, Office of History and Archeology, on historic districts. Borough planning staff also provided information on zoning, historic preservation, carrying capacity of lands, and other planning topics.

In an attempt to solicit additional public input, a community survey was conducted by Matanuska Susitna Borough staff in July 1991. One hundred households were surveyed. Although the survey was not a random sample survey and the results cannot be generalized to the entire community, the survey provided an opportunity for additional public participation in the planning process. Questions covered in the survey included the level of satisfaction with various community services, feelings about community growth, past-time activities most often engaged in, and shopping trends. The results of the survey are summarized in Appendix C. Overall, the respondents to the survey said they like the small town atmosphere and remoteness of Talkeetna and want to continue to live there because of either employment, family, or preference for the lifestyle. They are generally satisfied with the level of community services offered in the community.

PLANNING AREA
GENERAL DESCRIPTION

Generally, the planning area is bounded on the north by the Talkeetna River, on the west by the Susitna River, on the east by a line between Range 1 East and Range 2 East, Seward Meridian, Townships 24-29 North, and on the south by a line extending east from Fish Lake to T 24N R 2E, S.M.

LEGAL DESCRIPTION
TALKEETNA PLANNING AREA

T24N R1E, Sections 1-3
T25N R1E, All
T25N R1W, Sections 1-18
T25N R2W, Sections 1-18
T25N R3W, Sections 1-18
T25N R4W, Sections 1-20 and 29-32
T25N R5W, Sections East of Susitna River

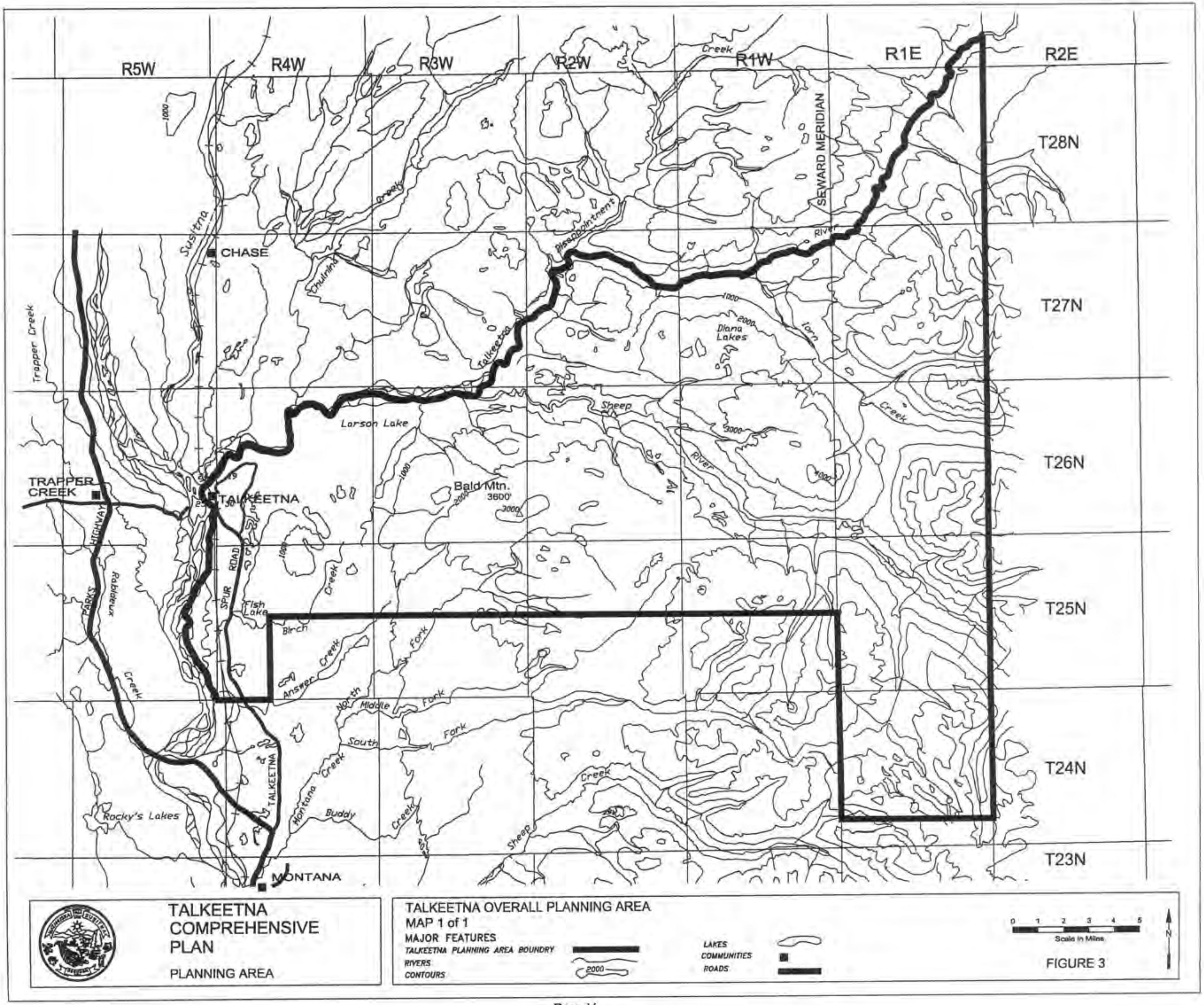
T26N R1E, All
T26N R1W, All
T26N R2W, All
T26N R3W, Sections South of Talkeetna River
T26N R4W, Sections South of Talkeetna River
T26N R5W, Sections East of Susitna River, Sections South of Talkeetna River

T27N R1E, All Sections South of Talkeetna River
T27N R1W, All Sections South of Talkeetna River
T27N R2W, All Sections South of Talkeetna River
T27N R3W, All Sections South of Talkeetna River

T28N R1E, Sections South of Talkeetna River

T29N 1E, Sections South of Talkeetna River

T = Township
N = North
E = East
W = West
R = Range


R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
T23N
SEWARD MERIDIAN
CHASE
TRAPPER CREEK
TALKEETNA
MONTANA
Bald Mtn.
3600'
Larson Lake
Diana Lakes
Fish Lake
Rocky's Lakes
Susitna
Talkeetna
River
Chulitna
Disappointment
Sheep
Iorn
Creek
Birch
Answer
North
Middle
South
Fork
Montana
Buddy
Rabideux
Trapper Creek
PARKS HIGHWAY
SPUR ROAD
TALKEETNA
TALKEETNA COMPREHENSIVE PLAN
PLANNING AREA
TALKEETNA OVERALL PLANNING AREA
MAP 1 of 1
MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS
Scale in Miles
FIGURE 3

INTRODUCTION AND MAJOR GOALS

Talkeetna is a small rural community located on the banks of the Talkeetna River in southcentral Alaska, see Location Map, Figure 4, p. 1-2. It is 115 miles north of Anchorage via the George Parks Highway and the Talkeetna Spur Road. It is also a station stop on the Alaska Railroad at Mile 226.7.

The community of approximately 500 residents serves as the social and business center for the area's population. Talkeetna is also a tourist destination, as over 30,000 tourists and recreationists visit the community during the summertime.

Impressive scenic landforms surround the community making it a desirable place to live and visit. North America's tallest peak, Mount McKinley, and the Alaska Range are situated 60 air miles northwest of the community. To the east/southeast, the Talkeetna Mountains and Bald Mountain shape the horizon. Three major rivers: the Talkeetna, the Susitna, and the Chulitna, and several smaller drainages cut through the mountains forming spectacular valleys.

The downtown commercial district of Talkeetna is picturesque and historic. Many of the downtown buildings date from the mining and railroad era of the early 1900's. In recognition of the significance of this history, in April 1994, a four-block area of the downtown had been designated on the National Register of Historic Places as a National Historic District.

Talkeetna also serves as the register check-in center for climbers on mountaineering expeditions to Mount McKinley and Mount Foraker, located in Denali National Park. During the 1994 climbing season, over 1,200 climbers registered at the Talkeetna ranger station. This influx of climbers gives the community an international aura as over forty percent of the climbers are foreigners. Several flight services operate out of Talkeetna flying these climbers to base camps in the foothills of the Alaska Range.

Talkeetna has begun to feel the impacts of its expanding population and tourism industry. This prompted community members to examine the community's position and philosophy towards growth and development. The examination led to this comprehensive plan for Talkeetna.

In these pages, you will read statistics indicating that some Talkeetna residents have a below-average standard of living. It's true that many residents earn annual salaries below the national poverty level. It's true that a good number live in small homes - many without indoor plumbing or electricity. Yet, most **choose** to live here because of this simpler lifestyle and the high **quality** of living it affords. People are here because they value clean air and water, space to live, a safe place to raise children, a sense of community, and wilderness out the back door.

It is our hope that this document can help our community remain the kind of place that provides this increasingly rare, yet invaluable, life experience for residents and visitors alike.

MAJOR GOALS

Over-all planning goals which are the common ground on which the community agrees are the basis for this plan. Eleven goals were developed by the comprehensive plan's advisory committee. They are used to guide the development of more detailed recommendations for each of the elements of the comprehensive plan.

LAND USE AND COMMUNITY DEVELOPMENT GOALS:

* Maintain the community's small town atmosphere, sense of community, and high quality of life.
* Protect and preserve the wilderness values and natural resources of the lands surrounding Talkeetna.
* Keep Talkeetna a pleasant place to live, work, and visit.
* Plan and provide for population growth which can be adequately absorbed by the area, without negative impacts on the sense of community, services, the environment, or the quality of life.
* Guide development in a manner which enhances Talkeetna's natural appeal, taking steps to ensure that future growth and change will build a desirable human environment.
* Maintain Talkeetna's major recreation and ecologically sound tourism economy and avoid conflicting activities.

HISTORIC RESOURCES GOAL:

* Respect, preserve, and enhance the historic essence of Talkeetna, which contributes to the identity and special sense of place which form an integral part of Talkeetna's appeal.

TRANSPORTATION GOALS:

* Guide the future development of roads, trails, or other access within the Talkeetna planning area with a sensitivity and respect for the natural topographic features and historic use patterns established up to this time.
* Have Talkeetna continue to be an **"END OF THE ROAD"** town, i.e. no bridges across the rivers.

PUBLIC FACILITIES AND SERVICES GOALS:

* Promote and protect the public health, safety, and general welfare of the residents of Talkeetna.
* Protect the quality of groundwater and watershed resources affecting the Talkeetna area.

BACKGROUND FOR PLANNING

CHAPTER 1: SOCIAL AND ECONOMIC ENVIRONMENT

SETTING AND SOCIAL ENVIRONMENT

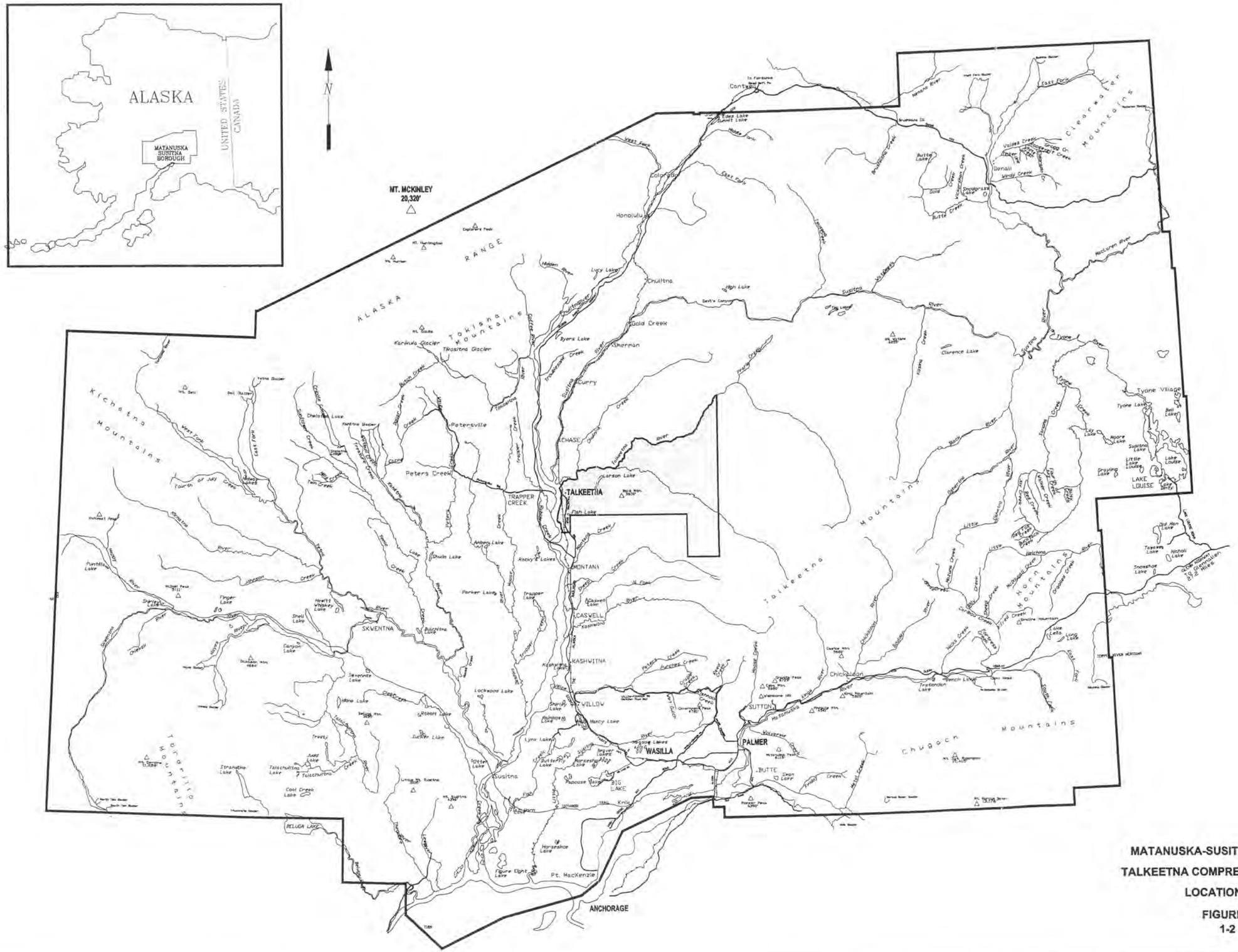
Talkeetna's location on the south bank of the Talkeetna River in southcentral Alaska is the original setting of the Alaska Commercial Company's trading post settlement started in 1909, see Location Map, Figure 4, p. 1-2. The trading post functioned as a trade and supply center for mining camps located in the surrounding mountains. River steamers traveling up the Susitna River from Cook Inlet off-loaded their supplies at Talkeetna Station.

Historical context is extremely important to Talkeetna's residents because it contributes to the community's strong sense of identity. There are four distinct historical contexts that have been documented, including: 1.) Alaskan Native use of the Talkeetna River and its surrounding area as hunting and fishing grounds; 2.) an early American period when the Alaska Commercial Company located a trading station for miners and trappers along the riverfront; 3.) the Alaska Railroad's construction period when the Alaska Engineering Commission established their district headquarters in Talkeetna and the townsite was surveyed; and, 4.) the aviation period when Talkeetna was established as the base for Mount McKinley mountaineering expeditions and as the base for mapping expeditions of the Alaska Range, most notably by explorer/cartographer, Bradford Washburn.

Talkeetna's earliest recorded inhabitants were semi-nomadic Alaskan Natives who hunted and fished throughout the river valleys. The following summary is extracted from the Alaska Department of Fish and Game's Technical Paper 161, Stanek et al, June 1988.

> "The drainage area of the middle Susitna River from its confluence with the Talkeetna River to Devil Canyon was the traditional territory of two regional bands of Athabaskan Indians in the 19th and early 20th centuries. The first, the Ahtna-speaking Dghelay Teht'ana ("Mountain People") lived in the Talkeetna Mountains and used the Susitna River drainage for salmon fishing and for hunting. The other group, the Dena'ina (Tanaina)-speaking Dashq'eht'ana ("On the Bar People") lived in winter villages along the Deshka River (Kroto Creek) and the middle Susitna River below present-day Talkeetna. They also hunted in the Talkeetna Mountains and Susitna River and Chulitna River drainages...There was intermarriage between these two bands.
>
> With the construction of the Alaska Railroad in the 1910s and the founding of Talkeetna as a construction camp and trade center, most of the Dghelay Teht'ana and many of the Dashq'eht'ana moved to Talkeetna. In 1918, this Native population was severely reduced by an influenza epidemic. Nevertheless, there continued to be seasonal use of the railroad corridor north of Talkeetna and the Chulitna and Talkeetna River drainages by Indians living in Talkeetna, Kroto Creek, Susitna Station, and elsewhere, through much of the early 20th century."

During the period of the late 19th century and early 20th century, there were also parties of exploration geologists, trappers, gold prospectors, and mountain climbers that came through the area. Non-native presence is documented by the 1890 Census:



MATANUSKA-SUSITNA BOROUGH

TALKEETNA COMPREHENSIVE PLAN

LOCATION MAP

FIGURE 4

1-2

> "Of the nature of the country intervening between the Knik and Susitna Rivers, as well as of the headwaters of these two large streams, very little is known beyond a rather vague description given by natives and a brief account obtained from prospectors who attempted to follow up the Susitna to its head. These men, after equipping themselves for a year's sojourn in the wilderness, returned in three weeks completely discouraged, and when asked what the country was like, replied that 'it might contain the most beautiful scenery in the world or the richest mines, but that clouds of mosquitoes obscured their vision and occupied their attention to the exclusion of everything else.'"

Talkeetna's permanent settlement dates from the early twentieth century when gold strikes on the Kenai Peninsula and in interior Alaska encouraged exploring parties to venture further inland to the Alaska Range and Talkeetna Mountains. The trading post of "Talkeetna Station" was established around 1909/10 by the Alaska Commercial Company following the discovery of gold at Cache Creek in the Alaska Range and at other locations in the Talkeetna Mountains.

The first travel links between Talkeetna and Mount McKinley were established during the early 1900's. Talkeetna Station was visited by Belmore Browne on his expeditions to Mount McKinley in 1910 and 1912. The Mazama Expedition, which attempted to climb Mount McKinley in 1910, also passed through the settlement. Mount McKinley National Park was established by Congress in February 1917.

In 1915 Talkeetna became the district headquarters for the Alaska Engineering Commission when the Susitna River/Broad Pass route was selected for the Alaska railroad line to be built between Anchorage and Fairbanks. During construction of the rail line the village grew to include several stores and small cabins. A post office was established in 1916 and the townsite was surveyed in 1918. In 1919 the Alaska Engineering Commission sold 80 town lots, 41 to people who had already built cabins or other structures on the land, and the remaining 39 lots were sold by public auction. In the first recorded population survey in 1920 Talkeetna had 70 people living in the community.

After the opening of the railroad station in 1920, Talkeetna continued to serve as the supply center for the area's miners and trappers. During this period many of the town's early residents were miners who lived in town during the winter and worked their claims during the summer. There were also some miners who settled in Talkeetna after they had retired from mining. From 1920 through 1940 Talkeetna's population grew to 136 residents. This growth was supported by railroad employment and the mining and trapping industries. It was during the period from 1915 to 1925, that some of Talkeetna's oldest structures were constructed, including the Talkeetna Roadhouse, the Fairview Inn, Ole Dahl Cabin, and the B & K Trading Post (moved from Susitna Station).

Talkeetna gradually evolved into a more permanent community during the 1930's. The first school classes were held in a private home in 1934-36 and the first school was built in the summer of 1936. It had one teacher and was attended by 10 students during the 1938-39 school year. This building is now listed on the National Register of Historic Places and is occupied by the Talkeetna Historical Society Museum.

The national Depression and World War II marked a time of significant change in Talkeetna. During the Depression the fur market crashed and many trappers were forced to relocate. During the war many of the gold mines in this area were shut down due to wage and cost controls and miners were forced to quit. After the war most of the mines remained closed as they had generally been played out by the late 1930's. Between 1940 to 1960 Talkeetna lost half its population, going from 136 residents to 76 in 1960. During this same period the community remained relatively remote, accessible only by air and rail.

Beginning in the mid-to-late 1950's Talkeetna became the center of operations for mountaineering expeditions to Mount McKinley. Mountain climbers and sightseers came from all over the world to have local bush pilots fly them to Mount McKinley. At this time the community had two airstrips and a small cadre of skilled pilots, including Haakon ("the Flying Dane") Christiansen, Don Sheldon, and Cliff Hudson.

In the early 1960's Talkeetna witnessed its most expansive growth period. The construction of the Parks Highway and the spur road to Talkeetna in 1964 made the community directly accessible to Anchorage and Fairbanks via the road system. After the road system was completed, the State of Alaska offered land disposal and open-to-entry (OTE) homestead programs which brought additional population to the area. Over 800 State parcels were subdivided during the 1970's and the early 1980's, though many of these lots are now owned by absentee land owners.

One distinct group of people arrived in Talkeetna in 1969-1970 to construct and operate the COMSAT Station (now called the Bartlett Earth Station). This satellite earth station brought eighteen new families into the community which produced an estimated 50% increase in the population. Their employment represented relatively well-paid, year-round jobs which strengthened the local business economy.

As people began to settle along the Talkeetna Spur road, Talkeetna's development began to change from a compact settlement located along the riverfront to a more scattered and populated rural hinterland whose population depended on the community for a range of community services. From 1960 to 1970 Talkeetna's population grew to 182 people. This population growth reflects an average growth rate of +8% each year. During this same time electricity service was improved (between 1965-1967), the community's elementary school was built in 1964, and library and fire protection services were added during the 1970's. Talkeetna's population continued to grow throughout the 1970's at a +4% annual average.

Desiring a stronger voice in the affairs of the area and in the future of the community, Talkeetna residents formed the Talkeetna Community Council in 1988. The council's expressed purpose, as outlined in its constitution, is to provide a channel of communication between groups and individuals, both within and outside the community..." The council is officially recognized by government entities at the borough, state, and federal levels. Each October between 100 and 200 registered voters elect candidates to open seats on the seven-member council. The organization has proven to be a valuable tool for the community.

Starting with the 1980 U.S. census it became possible to compare the population growth in the outlying area with the population growth occurring in the townsite core area. This comparison showed that the outlying area continued to grow throughout the 1980's at the same growth rate of +4% as during the 1970's, but that the townsite's population grew at a noticeably slower rate. From 1980 to 1994, the population in the townsite area grew by only 23 residents, for an annual average growth rate of less than +1% (+0.6%).

In 1994 Talkeetna had an estimated population of 287 residents in the townsite area and an additional 364 residents in the greater planning area, for a total population of 651 residents.

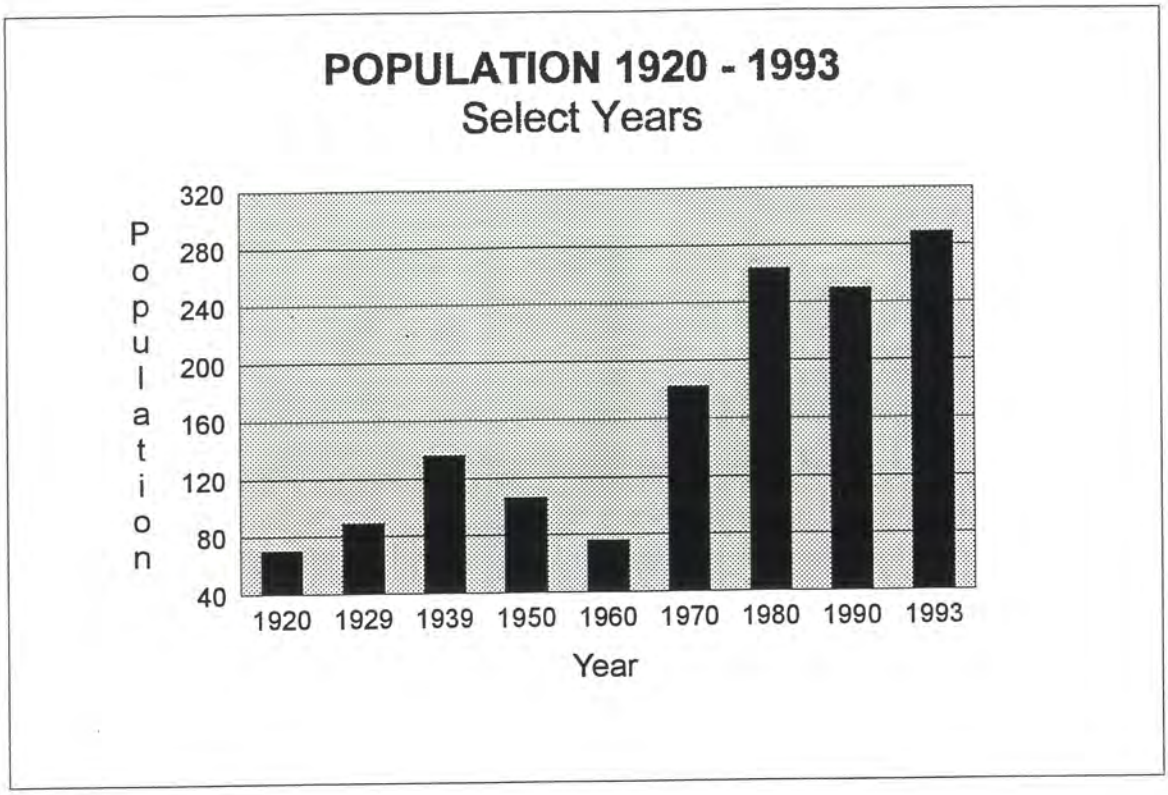
Overall, from 1920 to 1990 Talkeetna had an average annual growth rate of nearly +2% for its townsite population, see Table 1, p. 1-5 and Figure 5, p. 1-6. Since completion of the Talkeetna Spur Road in 1964, the community has grown at an average annual growth rate of +3.5%. Within the last decade from 1980 to 1990, the population in the entire planning area (townsite plus outlying area) increased by nearly 50%, growing from 376 people to 557 people, for an annual average growth rate of 4%. Detailed population characteristics are presented in Appendix D.

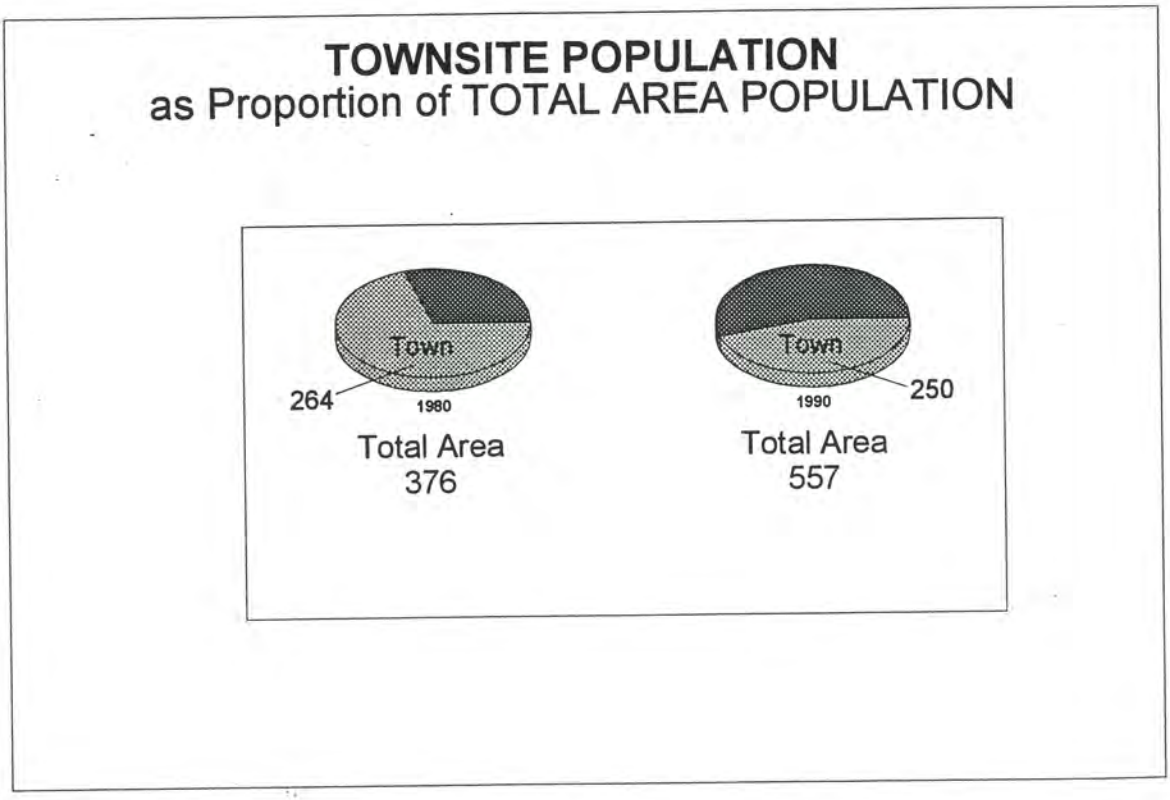
TABLE 1
HISTORICAL POPULATION TRENDS
TALKEETNA AREA, ALASKA
1920 - 1994

YEAR	TOWN POP	% CHG	ANNUAL AVERAGE GROWTH %	PLAN AREA POP	% CHG	ANNUAL AVERAGE GROWTH%
1920	70					
1929	89	27	2.6			
1939	136	53	4.0			
1950	106	-22	-2.5			
1960	76	-28	-3.3			
1970	182	139	8.2			
1980	264	45	4.0	376		
1990	250	-5.3	-0.5	557	48	4.0
1993	289	15	4.8			
1994	287	-0.7	-0.7			
1920-1990			1.6			
1960-1993			3.5			

Note: Townsite for 1980: U.S. Census, Enumeration District 1131
Planning Area for 1980: U.S. Census, Enumeration District 1131, 1160
Townsite for 1990: U.S. Census, Census Designated Place
Planning Area for 1990: U.S. Census, CDP Talkeetna, BNA 9744
Townsite for 1993, 1994: Matanuska-Susitna Borough population figures as certified by the Alaska Department of Community and Regional Affairs.

FIGURE 5


POPULATION 1920 - 1993
Select Years
Population
320
280
240
200
160
120
80
40
1920
1929
1939
1950
1960
1970
1980
1990
1993
Year


TOWNSITE POPULATION
as Proportion of TOTAL AREA POPULATION
Town
264
1980
Total Area
376
Town
250
1990
Total Area
557

Population projections for Talkeetna's future growth are based on the historical growth rate of 2% and the more recent growth rate of 4%, see Figure 5, p. 1-6; Figure 6, p. 1-7; and Table 2, p. 1-8. Talkeetna's population in 2015 is estimated to reach 914 people in the planning area using the historical growth rate of 2%. Using the higher growth rate of 4%, the population could reach 1,485 people in the planning area by 2015, over double the current population. If this higher growth rate continues, the population impacts will be similar to the growth experienced by the community during the years 1970 to 1980.

FIGURE 6

POPULATION PROJECTIONS
TALKEETNA PLANNING AREA
1990 - 2015

YEAR	HISTORIC GROWTH 2% ANN AVG	RECENT GROWTH 4% ANN AVG
1990	557	557
1994	603	651
1995	615	677
1998	653	762
2000	679	824
2003	720	927
2005	750	1003
2010	828	1220
2015	914	1485

TABLE 2

SOCIOLOGICAL PROFILE, 1990 U. S. CENSUS
TALKEETNA CORE, TALKEETNA PLANNING AREA, STATE OF ALASKA

CHARACTERISTIC	CORE AREA		PLAN AREA		STATE ALASKA	
	Pop.	%	Pop.	%	Pop.	%
SEX						
Male	144	57.6	310	55.7	289867	52.7
Female	106	42.4	247	44.3	260176	47.3
RACE						
White	246	98.4	535	96.1	415492	75.5
Black	0	0	0	0	22451	4.1
Indian/Eskimo	4	1.6	22	3.9	85698	15.6
Other	0	0	0	0	19728	4.8
AGE						
Under 18 yrs	71	28.4	177	31.8	157485	28.6
18-59 yrs	156	62.4	332	59.6	349220	63.5
60+	23	9.2	48	8.6	43338	7.9
MEDIAN AGE	34.9		34.9		29.4	
HOUSEHOLDS BY TYPE						
Total Households	114	100	224	100	188915	100
Family	55	48.3	132	58.9	132837	70.3
Non-family	59	51.7	92	41.4	56078	29.7
PERSONS PER HOUSEHOLD	2.19		2.49		2.80	
HOUSING TYPES						
Total housing units	168	100	344	100	232608	100
1-unit, detached	124	73.8	279	81.1	124185	53.4
Other/Multi	0	0	0	0	83721	36.0
Mobile, trailer	44	26.2	65	18.9	24702	10.6
HOUSING TENURE						
Occupied units	114	67.9	224	65.1	188915	81.2
Vacant units	54	32.1	120	34.9	43693	18.8
Owner occupied	75	65.8	156	69.6	106000	56.1
Renter occupied	39	34.2	68	30.4	82915	43.9

Source: U.S. Bureau of the Census, 1990
Family, defined as householder and others related by birth, marriage, or adoption.
Non-family, defined as unrelated persons or one person living alone.

ECONOMIC ENVIRONMENT

Talkeetna's historic economy derived from its location at the confluence of the Talkeetna, Susitna, and Chulitna rivers. The first industries that brought population into the community were the mining, trapping, and transportation industries. All modes of transportation, including river freighting, the railroad, aviation, and the highway contributed at various times to the community's development.

Today Talkeetna's major industries are: the trade and service industries, the transportation industry that predominately services the tourism industry, the communication industry, and government. According to a 1989 borough employment survey and the 1990 U.S. census, there are approximately 220 employed persons in the Talkeetna planning area, of which 65% work within the area (144 people) while 35% (76 people) commute outside the area for work. Of the employed residents who work in the area, approximately one-third (29%) work in the trade and service industries, approximately 15% work in the transportation/tourism industry, approximately 17% work in government, and approximately 4% work in the communication/public utility industry. Most of the trade, service, and transportation jobs support the tourism industry, which means that nearly half (44%) of Talkeetna's local economic base is dependant on the tourism industry. For a detailed description of Talkeetna's economy, refer to Appendix E.

Talkeetna's present economic base is a complex structure that eludes conventional survey methods. It has been described as "the art of surviving in a small town". Many of the residents are multi-talented individuals working in numerous and diverse trades, a feature common in small rural economies where job opportunities are limited. This diversity of jobs makes it difficult to categorize one's occupation on a standardized survey questionnaire. In addition, many businesses are multi-faceted and could be categorized in more than one category on survey questionnaires.

Many, if not most, residents are in Talkeetna because they reject urban conventional standards characterized by high crime rates, commercial and industrial pollution, oppressive population densities, drug abuse, environmental degradation, subjugation of individual identity and values, and concomitant stresses. Talkeetna's residents choose to forego city life in exchange for a rural, peaceful, friendly, and less regulated, individualistic pace of life. In addition, many of Talkeetna's residents depend on a wider range of activities to enable them to live independently and comfortably. Some residents rely on locally caught fish and game, locally grown garden produce, cottage industries like arts and crafts, or seasonal employment to supplement their incomes.

While conventional urban economic profiles are based primarily on two-income households, many families in Talkeetna willingly sacrifice financially, in order for one parent to remain in the home for the emotional and mental well-being of the children. According to the 1990 census, income levels are slightly lower in Talkeetna compared to the borough and the state's population. Median family income for Talkeetna was $35,156 in 1990, compared to $45,252 in the borough and $41,408 for the state.

Over one-third of the employed work force in the Talkeetna planning area works outside of the area. Three or four months of concentrated work outside of Talkeetna, in areas like commercial fishing, construction, or general labor, are willingly undertaken to be able to enjoy eight or nine months of subsequent high quality living in Talkeetna.

The challenge facing Talkeetna in the future as it determines its economic well-being will be to balance and sustain a healthy economy while preserving the small town ambiance and rural lifestyle desired by many of its residents. Talkeetna's existing industries are:

* the trade and service industries serving the tourism industry,
* the air transportation industry with Talkeetna as the base for mountaineering expeditions to Mt. McKinley and for flightseeing excursions,
* the railroad as an alternative mode of transportation to Talkeetna and for access into the surrounding wilderness, and
* the recreation industry for fishing, boating, winter sports, hiking, and hunting.

Tourism and the historic district

Tourism is Talkeetna's main industry which employs nearly half of all local residents. An estimated 30,000 tourists visited the community in 1990. Tourism from mid May to late September focuses on scenic mountain flights, mountain climbing, scenic river tours, fishing, scenic float trips (rafts), historic downtown day trips and shopping. Winter tourism appears to be on a decline. According to a 1992 study, Talkeetna Visitor Center Impact Assessment, within the next ten years the number of tourists is expected to double without any major tourist facilities being developed. In order for Talkeetna to prepare for an expanding industry, several improvements are needed.

Improved tourist facilities are needed. Currently the downtown district is congested and unorganized with vehicles, recreational vehicles, tour buses, and pedestrians competing for limited space. Vehicle parking areas, including recreational vehicle and tour bus sites, and pedestrian walkways are needed. Signage is needed to direct vehicles to parking areas and to direct pedestrians to local attractions. The need for public restroom facilities is urgent.

Preservation of the contributing historic structures in the downtown historic district is a high priority for the community. Low-impact, small-scale commercial type developments are desired in order to match the scale and bulk of existing historic buildings and existing commercial developments. Future commercial developments should be compatible with the community's character and natural landscape. In addition, screening of unsightly objects would help enhance the visual impression of the community to the visitor.

Eco-tourism is strongly supported by the community because it is compatible with the goals and objectives of the planning area. Eco-tourism is defined as the "responsible travel to natural areas that conserves the environment and sustains the well-being of the local people." The goal of eco-tourism is to preserve the local environment and culture and integrate the protection of the natural resources with the economic opportunities of tourism. This form of development recognizes that there is a

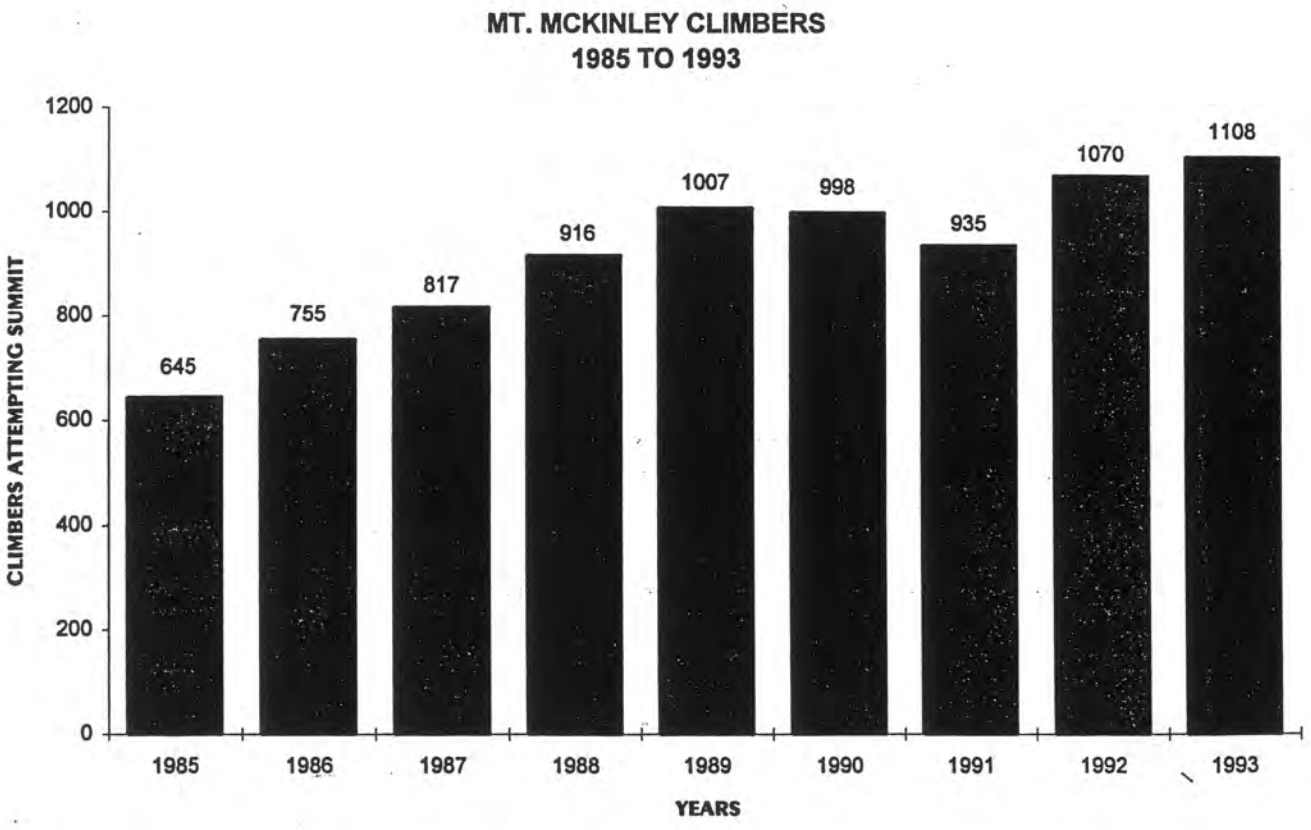
balance between the economies of protection of the pristine environment and the need to service tourists.

Air Transportation Industry

The air transportation industry currently serves three major user groups: flightseers, mountain climbers, and recreation hikers/hunters. Service to all three of these user groups is expected to increase.

Mount McKinley mountaineering expeditions have traditionally departed from Talkeetna through the numerous flight/guide services operating out of Talkeetna. Data show that the number of Mount McKinley climbers has increased from 645 climbers in 1985 to 1,277 in 1994, see Figure 7, p. 1-11. The Denali National Park Service predicts that the number of climbers will continue to grow in the future.

FIGURE 7



Improved Park Service's facilities for climbers are needed and are being scheduled for construction. A replacement downtown registration check-in center is being planned as an expanded facility, and ranger housing has already been improved. Additional improvements that would benefit the climbers would be a public restroom facility in the new check-in center and on-site parking for their vehicles.

Although mountaineering is an important element in Talkeetna's economy and one which adds a great deal of benefit to the community, flightseeing has seen even more rapid growth. During 1990 it is estimated that 15,000 customers took flightseeing trips out of Talkeetna. Air taxi operators also take numerous clients on hunting and back-country trips. Most flightseers take scenic flights around Mt. McKinley. When the mountain is not readily visible, air taxi operators have alternative flight plans. The community feels it is important to protect these scenic flight paths.

Developments that would benefit the air transportation industry are improvements to the state airport, including expanded parking areas. Noise pollution may become an increasingly noxious occurrence as this industry expands, but no solutions have been proposed at this time. Air transportation is further discussed in the Transportation Plan, Chapter 5.

Railroad Transportation

The Alaska Railroad has traditionally provided passenger and freight transportation services to the community. Since the completion of the highway system the railroad has become a secondary alternative mode of transportation to the community. The community is supportive of better services and facility amenities for rail travelers. The railroad is further discussed in the Transportation Plan, Chapter 5.

Recreation Industry

Recreational activities and their support services have been expanding in Talkeetna. Sport fishing, boating, hunting, hiking, and winter sports like skiing, dog mushing, and snow machining, are all becoming more popular in the area.

Sport fishing on the Talkeetna River has increased from 5,125 days fished in 1979 to 22,580 days fished in 1993, for an annual average growth rate of 9%, see Appendix H. Fishing days closely correspond to the king and silver salmon runs from mid-May to September. The increased fishing and boating activities have mandated needed improvements to the community's boat launch facility. An improved and expanded launch is under design by the state Department of Natural Resources with construction scheduled for 1995.

Studies that were done as part of the boat launch engineering and design phase have estimated that the use of the launch will continue to grow at 10% annually through 1998 and then taper off to 7.5% annually. If these growth rates hold true, users on the river will triple by the year 2003.

Improvements that could help mitigate the impacts of these increased users are: the planned construction of the expanded boat launch facility, improvements to the campground and sanitary facilities located near the launch, and improved parking areas for vehicles, campers, recreational vehicles, and boat trailers. It is estimated that the commercial services which support this industry, such as charter services, fishing supply stores, food and lodging, and auto services will also increase.

Other recreational activities, like hiking, hunting, and winter sports will require the development and protection of areas where these activities can take place. Trail development will benefit the hiking, skiing, dog mushing, and snow machining activities. Maintaining wilderness and undeveloped areas in their natural states will benefit wildlife habitat for hunting, as well as, offer a scenic environment for recreationists. The commercial services that support and promote these recreational and hunting activities will likely increase as this industry develops.

CHAPTER 2: NATURAL AND PHYSICAL ENVIRONMENT

It is important to understand the natural resources of an area because the character of the natural environment defines the opportunities and constraints for community development.

GEOGRAPHY AND TOPOGRAPHY

Talkeetna's townsite is located on the level floodplain of the confluence of the Susitna, Chulitna, and Talkeetna rivers. The topographic relief of the planning area is the lowland area of the Susitna River drainage basin lying between the Talkeetna Mountains and the Alaska Range.

The Susitna River drainage basin is characterized by rolling hills interspersed with swamps, bogs, lakes, and streams. Elevations in the Talkeetna area extend in a gradual slope from the townsite located at 345 foot elevation to the 1,000 ft. level at a distance of 5 to 7 miles, along a northeast to southwest direction. The Bartlett Hills which are located about 5 miles southeast of Talkeetna rise to an elevation of slightly more than 1,000 feet. Further east of Talkeetna in the foothills of the Talkeetna Mountains elevations rise from 1,000 to 2,000 feet in an almost straight north/south line. Bald Mountain located about 11 miles east of Talkeetna reaches an elevation of 3,600 feet. Outside of the planning area, the Talkeetna Mountains become much more rugged with peaks typically ranging between 5,000 to 6,000 feet.

There are three major rivers that drain the Susitna River drainage basin which are located in the planning area. The Susitna River forms the western boundary of the planning area and the Talkeetna River forms its northern boundary. The Chulitna River junctions with the Susitna River immediately north of the townsite. All three rivers are navigable by shallow draft vessels. Typical of glacial-fed rivers they flow in braided channels across broad gravel plains. River waters are milky grey-green because they contain large quantities of suspended glacial silt.

The two main tributaries of the Talkeetna River which are located in the planning area are Iron Creek and Sheep River. Other lesser but locally important streams are Twister Creek, Birch Creek, and Answer Creek.

Lakes are an important and numerous natural feature in the planning area. Larson Lake, located 6.5 miles east of Talkeetna, is 3 miles long and is the largest lake in the area. Closer to town is a string of lakes running north/south from Christiansen Lake, including the Talkeetna Lakes, Fish Lake, X Y Z Lakes, and Question Lake.

GEOLOGY AND SOILS

Six periods of glaciation sculpted the mountains and lowlands of the Talkeetna Mountains and Susitna River valley beginning as far back as 110,000 years ago. At one period ice caps completely filled the Matanuska and Susitna river valleys joining other glaciers to fill upper Cook Inlet. During the various glacial advances and retreats bedrock was scoured and debris deposited in north-south elongated drumlins. Superimposed on the glacial landforms are floodplain and terrace deposits.

The geology of the lowland relief of the Susitna River drainage basin is composed of stratified sedimentary and volcanic rocks in partly metamorphosed stages. Bedrock in the townsite and western planning area is Quaternary Pleistocene deposits characterized by alluvial, glacial, dune sand, loess, terrace and pediment gravel, and reworked sand and silt deposits.

The geology of the eastern planning area in the Talkeetna Mountains and their foothills consists of early Tertiary and late Cretaceous granitic rock. Bedrock is quartz diorite and granodiorite batholith.

No known faults or volcanoes are located in the immediate planning area. The nearest faults are in the McKinley Strand, located northwest of the planning area in the foothills of the Alaska Range, and the Talkeetna and Susitna faults, located northeast of the planning area in the Talkeetna Mountains. The nearest active volcanoes are located in the Alaska Range. Talkeetna is in seismic zone 7. Damage to structures can be expected from earthquakes greater than a magnitude 6.0 on the Richter Scale.

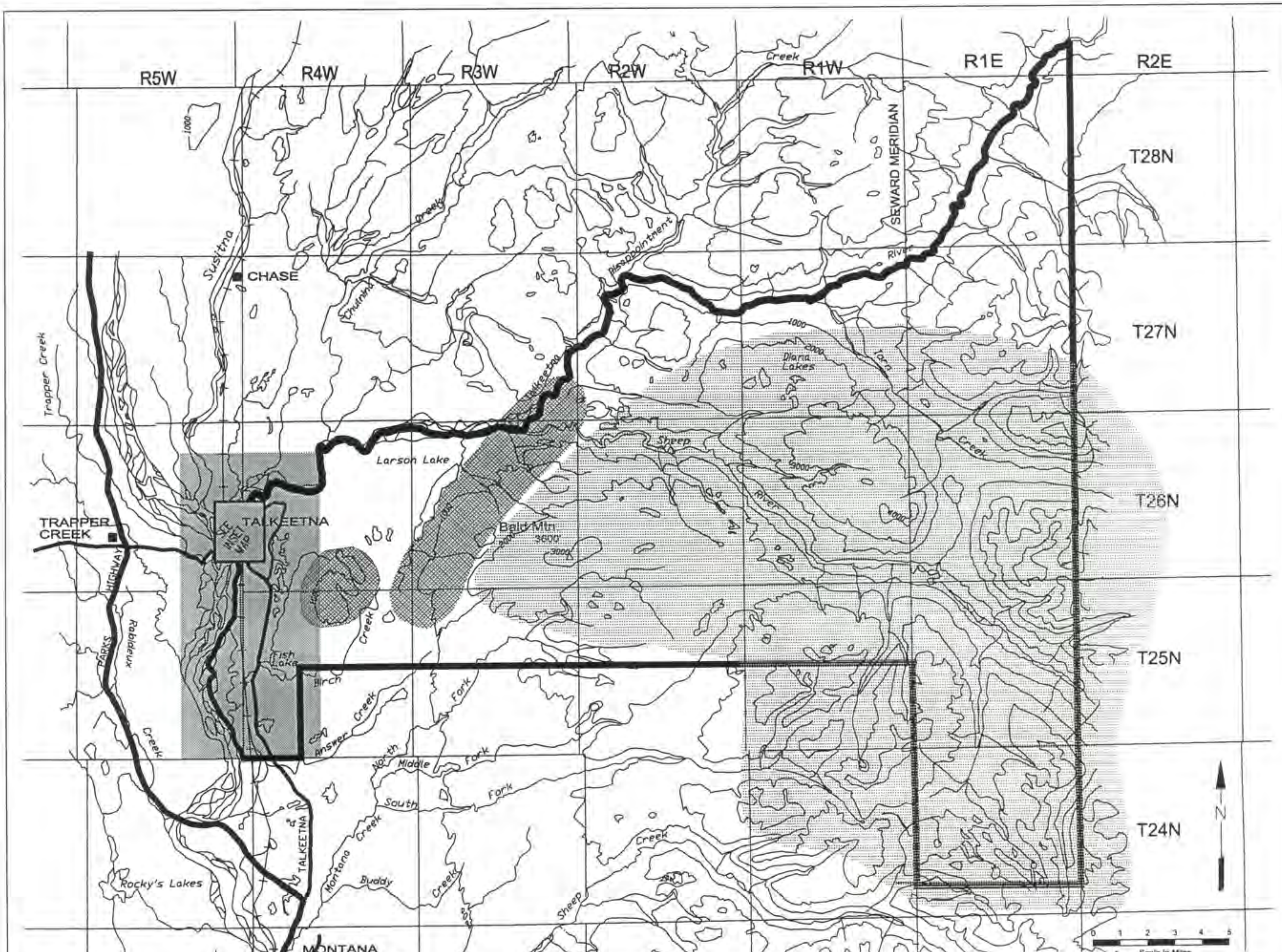
Soils, topography (contours, slopes, grade) and drainage determine which lands are easiest to develop. Some soils will require more consideration and infrastructure support in order to be capable of development, while other soils will not support buildings and developments due to conditions such as wetness, frost action, or soil strength. Certain soil types will restrict the function of septic tanks or the construction of roads, and thus impede the location of homesites and industries.

Soils in the Talkeetna area generally follow the topographic contours from the lowland floodplains to the mountains, see Figure 8, p 2-3 through 2-6, Generalized Soils, Maps 1-4. Beginning along the Susitna and Talkeetna river's floodplains, the Susivar/Niklavar soil series is prevalent. Further above the floodplains in the low stream terraces, the Susitna soil series predominates. Above the low stream terraces, in the area located along the outwash plains and higher stream terraces and in the hills and ridges, the Nancy silt loam soil series begins and intermixes with the Tokositna soil series. Interspersed between these soils, located in the bogs and fens, is the Histosol series. The mountainous regions, generally above 1000 foot elevation, are covered with the Talkeetna and Cryorthods soil series. The soil types and distributions are based on information that is available from the U.S. Soil Conservation Service.

HYDROLOGY

The entire Talkeetna townsite, along with the low lying areas to the north, east, and south of the townsite, are located in an active floodplain, Flood Zone A, and are susceptible to major damage from flooding and stream erosion, see Figure 20, p. 6-18. Three rivers, the Susitna, the Talkeetna, and the Chulitna, converge near the townsite.

The Susitna River, which has a length of about 200 miles, has a drainage area of about 11,035 square miles upriver from Talkeetna. The Susitna floodplain at Talkeetna is approximately one mile wide. River bed materials are course gravel and sand with much driftwood. Shallow draft boats can navigate the Susitna River.


R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
SEWARD MERIDIAN
CHASE
TALKEETNA
TRAPPER CREEK
MONTANA
SEE INSET MAP
Susitna
Trapper Creek
Larson Lake
Bald Mtn. 3600'
Diana Lakes
Disappointment
Talkeetna
Sheep Creek
Sheep River
Fish Lake
Birch Creek
Answer Creek
North Fork
Middle Fork
South Fork
Montana Creek
Buddy Creek
Rocky's Lakes
Rabideux Creek
PARKS HIGHWAY
TALKEETNA
Chulitna
N
Scale in Miles

TALKEETNA COMPREHENSIVE PLAN

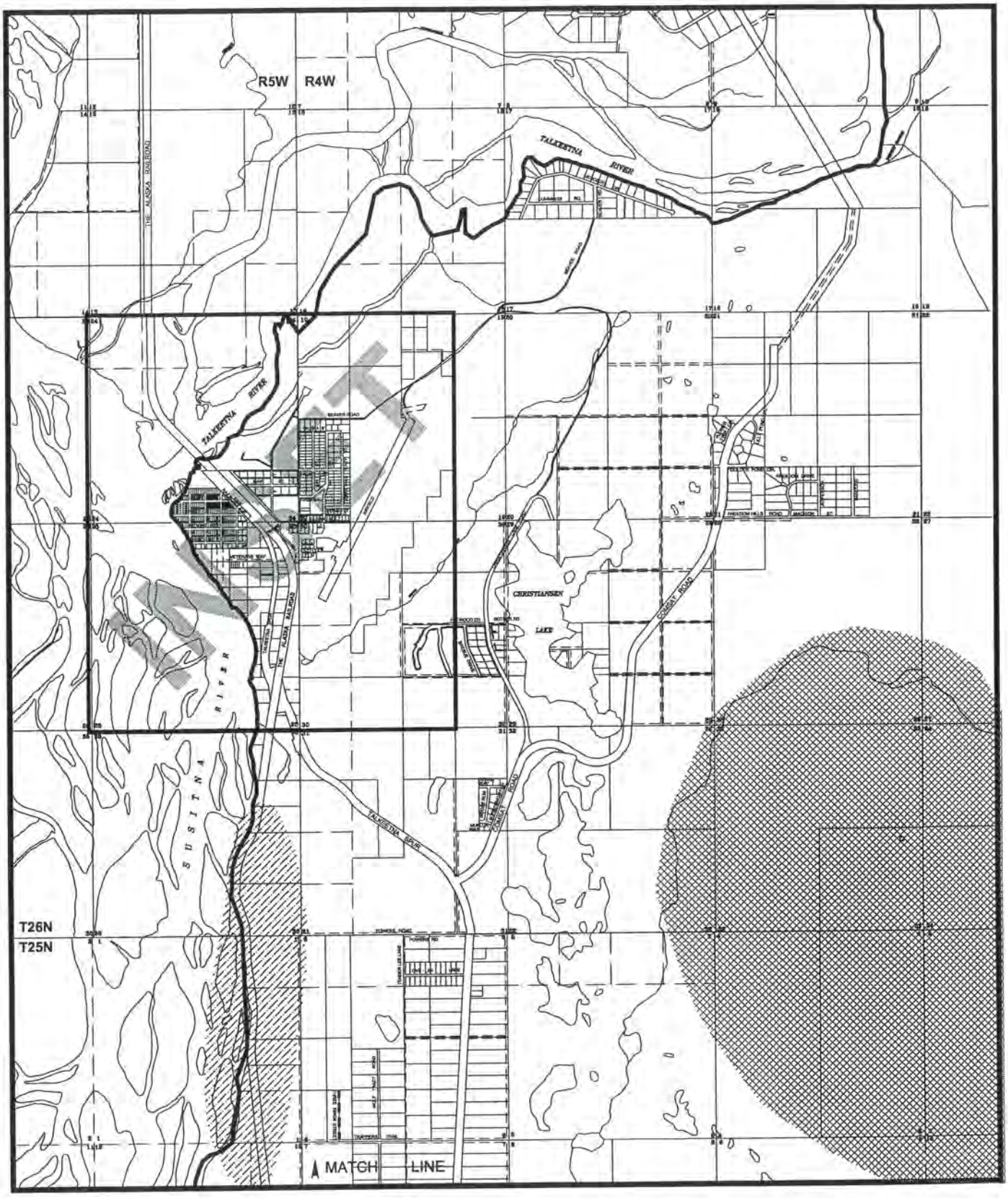
GENERALIZED SOILS

TALKEETNA OVERALL PLANNING AREA
MAP 1 of 4

MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS

SOILS
CRYORTHODS
NANCY
TALKEETNA

FIGURE 8



TALKEETNA COMPREHENSIVE PLAN

GENERALIZED SOILS

TALKEETNA CORRIDOR - NORTH
MAP 2 of 4

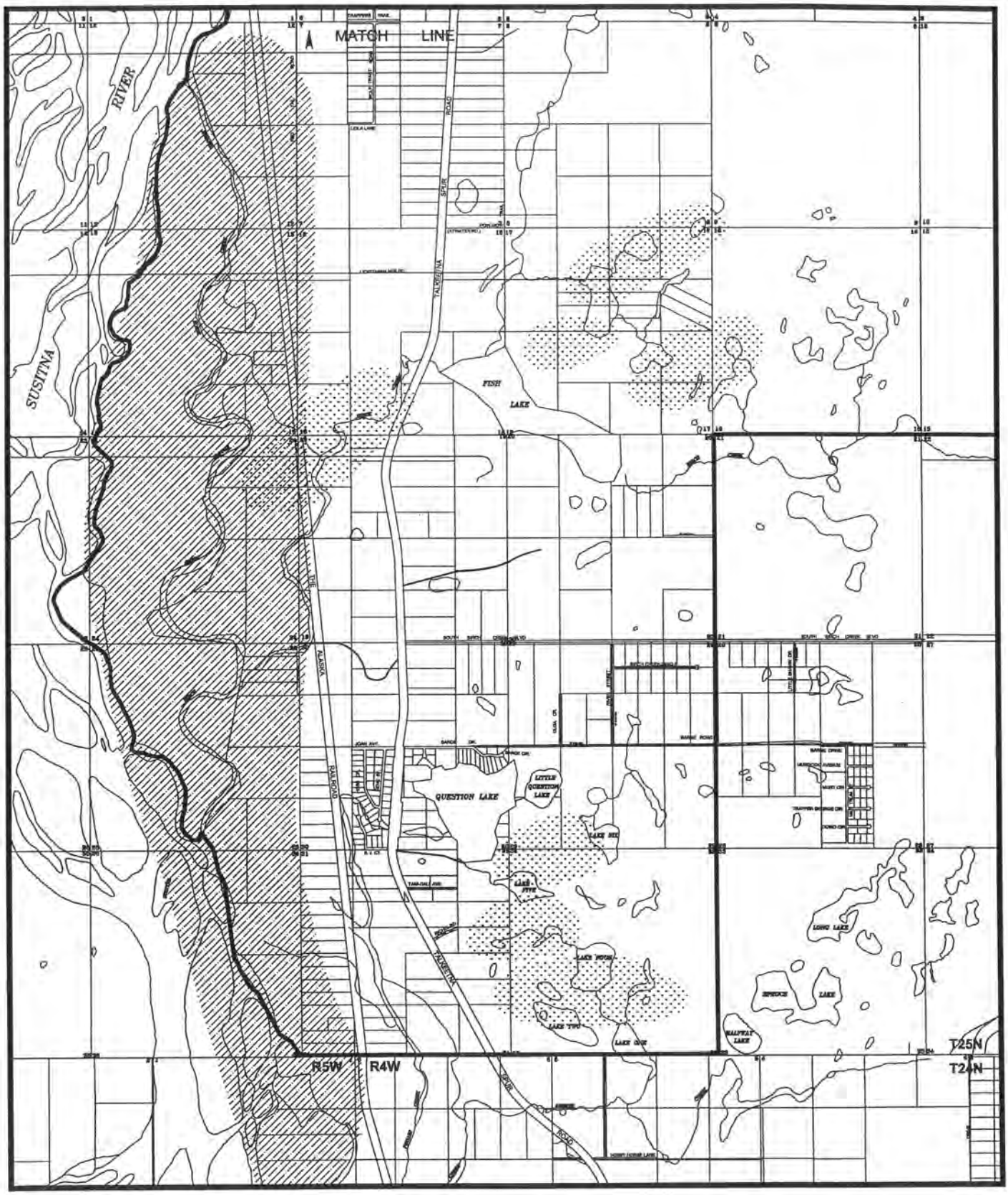
SOILS

TALKEETNA

NANCY

SUSITNA/NIKALAVAR

N



TALKEETNA COMPREHENSIVE PLAN

GENERALIZED SOILS

TALKEETNA CORRIDOR - SOUTH
MAP 3 0F 4

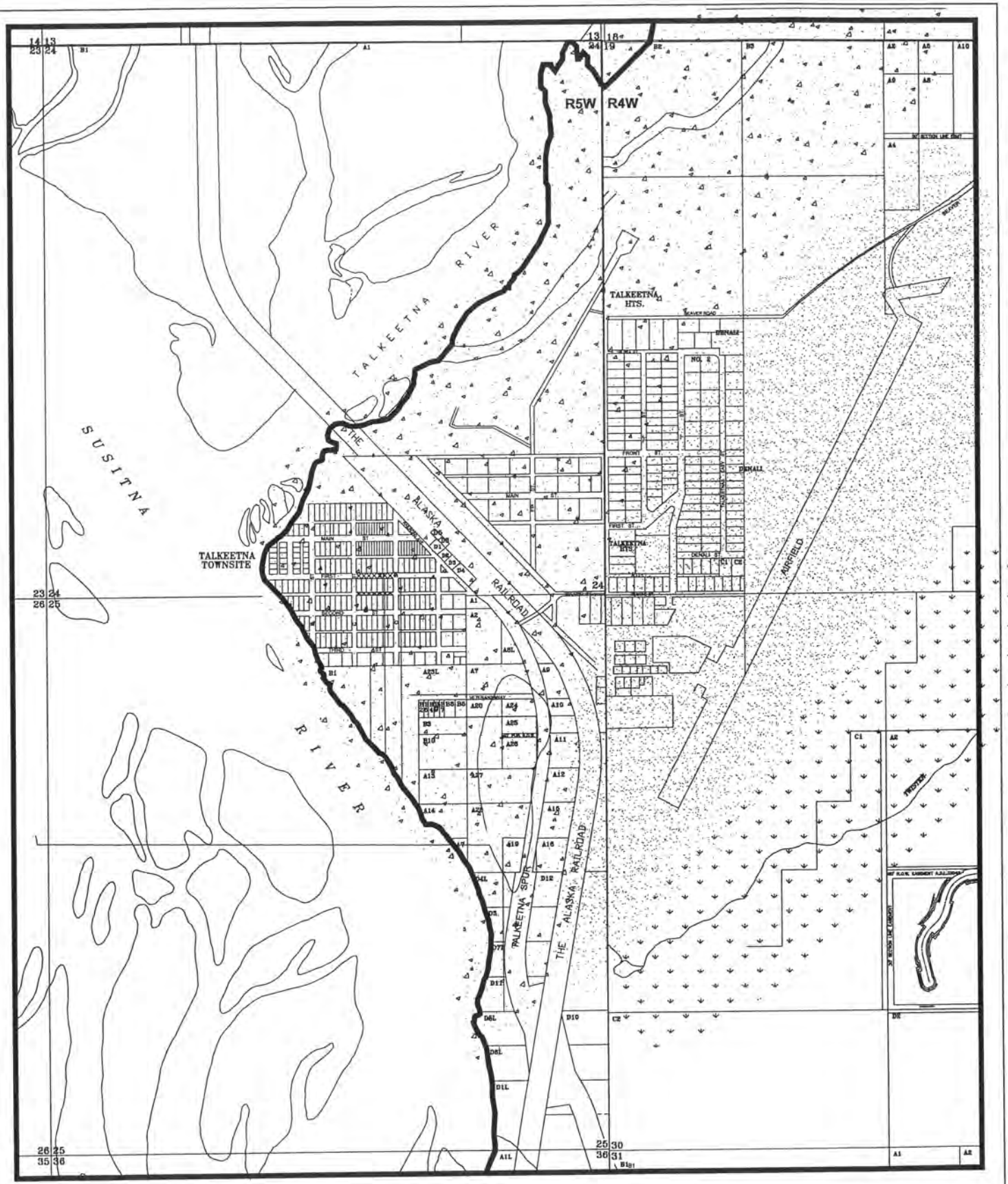
SOILS

NANCY

SUSITNA/NIKALAVAR

HISTOSOLS

N



TALKEETNA COMPREHENSIVE PLAN

GENERALIZED SOILS

TALKEETNA INSET
MAP 4 of 4

SOILS

SUSIVAR

SUSITNA

HISTOSOLS

N

The Talkeetna River is about 80 miles long and has a total drainage area of approximately 2,015 square miles. It is about 900 feet wide at its mouth where it junctions with the Susitna River. Approximately fifty miles upriver from its confluence the river runs through the narrow Talkeetna canyon at a fast rate. Below this canyon the river becomes wide and braided with numerous large forested islands.

Upstream of the Alaska Railroad bridge in the townsite, the Talkeetna River divides into two channels, encircles a small island, and then joins again. Originally the channel flowed along the right bank crossing to the left bank below the railroad bridge. In an effort to protect the bridge the Alaska Railroad realigned the channel immediately upstream of the bridge to flow along the left bank of the river above the bridge. In 1972 it was observed that the main channel was returning to the right bank above the bridge.

The Talkeetna River, like the Susitna River, is navigable by shallow draft boats. Both the Susitna and Talkeetna are glacier-fed rivers characterized as meandering, braided, and subject to high runoff. Summer streamflow depths in the Talkeetna River vary from one to six feet, and the lower channel varies in width from 200 to 500 feet. The mean annual flow is 4,063 cubic feet per second (c.f.s.), with a winter flow of approximately 500-800 c.f.s. and a summer high of approximately 11,000 c.f.s.

CLIMATE

The climate of the Talkeetna area is transitional between coastal maritime and interior continental. Talkeetna's inland location has moderately warm summers, cold winters, and pronounced temperature variations, see Figure 9, p. 2-9, Table 3, p. 2-8 and Appendix I. Cloudy and foggy conditions are typical, although Talkeetna does not receive the amount of precipitation characteristic of Alaska's southcentral coastal areas. Much of Talkeetna's precipitation occurs as snow, reflecting the community's northerly latitude.

By southcentral Alaska standards, Talkeetna's winters are relatively cold, although not as cold as locations north of the Alaska Range. The coldest months (December/January) average about 10 degrees Fahrenheit, slightly colder than Anchorage where average temperatures at that time of year are around 15 degrees. Talkeetna experiences five months per year when average temperatures are below freezing point, plus another two months when average temperatures are very close to freezing. Although temperatures as low as -53 degrees Fahrenheit have been recorded at Talkeetna, the community seldom experiences the extreme low winter temperatures characteristic of interior Alaska.

Average summer temperatures range between 55 and 60 degrees and are similar to those in Anchorage. Typical daily maximum temperatures of between 65 and 70 degrees can occur during the summer months, but lengthy periods of high temperatures are not common. The record high temperature in Talkeetna is 91 degrees, a mark set in 1953.

The area has a growing season of 71-129 days. This translates to an average 1,830 growing degree days per year (comparable to 1924 growing degree days for the Palmer Experiment Station). The period of maximum rainfall in late summer unfortunately coincides with the time that crops should be maturing.

Year-round precipitation is moderate. Total precipitation averages 28.71 inches per year with August and September being the wettest months. Talkeetna experiences significantly more snow than Anchorage primarily because of its cooler winter temperatures and higher elevation. Average annual snowfall amounts to about 115 inches versus nearly 70 inches in Anchorage. Mean snow depth at Talkeetna is about 25 inches during the winter with the average water content of that snow being approximately 5 percent. Recent winters have had heavy snowfalls, e.g. five feet in each of the months of January and February 1989/90.

TABLE 3

AVERAGE TEMPERATURES, PRECIPITATION AND WINDS
TALKEETNA, ALASKA

Month	Temperature	Total Precipitation (inches)	Snowfall (inches)	Wind	
				Prevailing	Mean Speed
January	9.7	1.61	19.4	N	6.3
February	15.4	1.58	19.3	N	5.0
March	20.7	1.59	19.1	N	4.9
April	33.0	1.18	9.7	N	4.4
May	44.8	1.38	0.8	S	4.4
June	54.7	2.13	-	S	4.3
July	57.9	3.58	-	S	3.7
August	54.9	4.82	-	S	3.0
September	46.1	4.43	0.4	N	3.1
October	32.7	3.02	10.0	NNW	3.5
November	18.5	1.78	16.6	N	5.0
December	9.9	1.61	19.5	NNW	4.9
ANNUAL	32.8	28.71	114.8	N	4.3

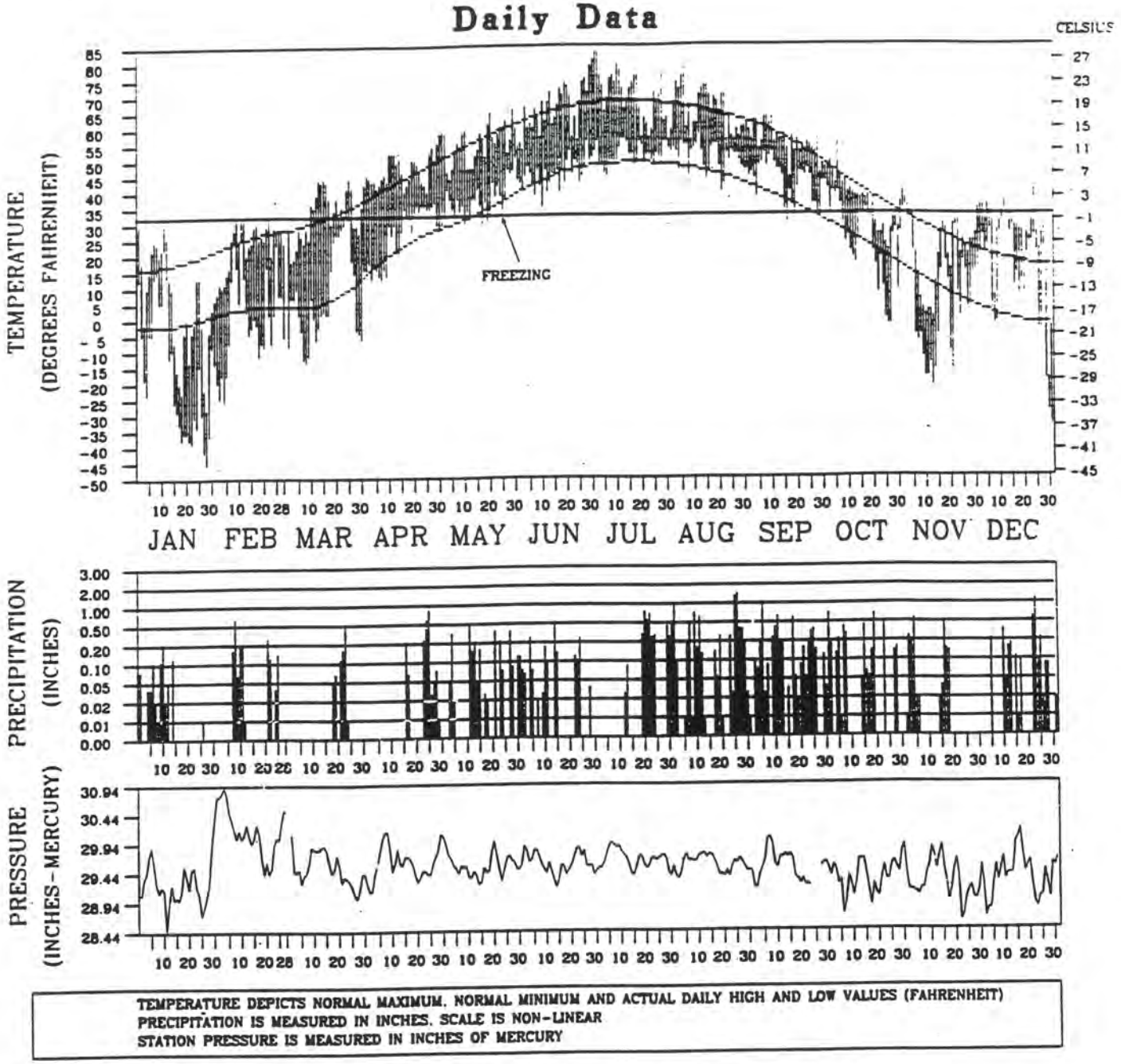
Note: Temperature and precipitation normals based on the 1922-1987 period. Wind data normals based on the 1941-1970 period.

Source: U.S. Department of Commerce, National Weather Service.

FIGURE 9

TALKEETNA, ALASKA

Daily Data



Source: National Oceanic and Atmospheric Administration, 1989

Winds in the Talkeetna area are generally light with an average wind speed of 4.3 miles per hour. The prevailing wind direction is from the north, except during the spring and summer (May through August), when winds from the south predominate.

VEGETATION

Vegetation in most of the lower elevations of the planning area is black cottonwood, alder shrub, sedge grass, mixed willow and alder, and mixed paper birch/white spruce forests. This vegetation is found throughout the Susivar/Niklavar soil series.

Vegetation prevalent in the Susitna soil series is balsam poplar, white spruce, paper birch and blue joint reedgrass. In the bogs and peaty depressions vegetation is characterized by sedge grass wet meadow and ericaceous shrubs. In the upper elevations where the Nancy, Tokositna, and Talkeetna soil series predominate, the vegetation is typically mixed paper birch and white spruce forest, with scattered alder, aspen, rusty menzesia, and black spruce.

FISH AND WILDLIFE

The habitat of the Greater Talkeetna area supports a diversity of small and large mammal species including moose, caribou, Dall sheep, brown and black bear, wolf, wolverine, beaver, otter, mink, porcupine, fox, martin, ermine, snowshoe hare, ground squirrel, voles and mice. The area also supports a large variety of song birds during the spring and summer seasons. Especially prominent are the swallow populations in the townsite area which include an estimated 300 cliff swallows, many tree swallows, and violet-greens.

The planning area is host, on a seasonal basis, to extensive flocks of varied migratory waterfowl, shore birds, and cranes. There are two known eagle nests on the lower Talkeetna River and another on the Susitna River below the rivers confluence. Nest trees are primarily black cottonwood that are over fifty-five feet tall and located near the rivers' edges.

A resident moose population lives in the area, mostly along the river basins. Moose from other areas migrate into the lower portions of the Talkeetna River during the fall and winter seasons.

Black and brown bear frequent the Talkeetna River lowlands in early May, with high spring densities of black bear at the mouth of the river. During June, July, and August bears concentrate along portions of the Talkeetna River in search of food. They depend on the river as a transportation corridor.

Alaska Department of Fish and Game harvest statistics for Game Management Unit 14B (bounded to the north and east by the Talkeetna River, to the west by the Susitna River and to the south by Willow/Peters Creek) indicate the extent to which the various major animal species are hunted, see Appendix H. Upriver portions of the Talkeetna River receive significant hunting and fishing use. The most recent change in hunting practices was a dramatic drop in moose harvests as a result of

high moose mortality due to heavy snowfall (25 feet) during the severe winter of 1989/90. No moose hunting was permitted in Game Management Unit 14B in 1990/91. Since 1991 moose harvests have resumed.

Following the volcanic eruptions in 1992 and - according to "old-timers" - after an absence of 40 years, caribou herds migrated back into the Talkeetna area and the area to the north. A high concentration of ash on feeding grounds is suspected.

Stream beds within the Talkeetna and Susitna river basins make natural spawning areas for anadromous fish. The river beds are typical alluvial gravel or sand and silt of glacial origin. Spawning runs reach the upper headwaters and streams of both the Talkeetna and Susitna rivers. All five species of pacific salmon (king-chinook, red-sockeye, silver-coho, pink-humpies, and dog-chum) are present. Prairie Creek, a tributary of the Talkeetna River, is one of the major king salmon producers in the Susitna drainage. Clear Creek is spawning habitat for chum, silver, king, and pink salmon. Clear and Lower Talkeetna River are spawning areas for grayling and rainbow trout. Red salmon spawn in several lakes draining into the Talkeetna River, including Larson Lake. These rivers are classified as anadromous by the Alaska Department of Fish and Game.

No steelhead trout are known to frequent the Talkeetna or Susitna rivers. Rainbow trout, dolly varden and grayling are resident species of both rivers. Their mass migration begins in early spring after a winter in the Susitna River and in the lower end of the Talkeetna River. Whitefish and burbot also exist in large numbers in the Talkeetna and Susitna rivers.

The peaks in recreation sport fishing corresponds to the king and silver salmon runs occurring between June 15 to July 15, and July 15 to September 15, respectively. The most popular fishing spot is the mouth of Clear Creek where all species of fish found in the river are caught. Fishing records show that the Talkeetna River and its tributaries have seen increasing anglers and fishing days. In 1993 there were 11,481 anglers registering 22,580 fishing days on the waterways. Fishing harvest records are shown in Appendix H. Other fishing spots located near the railroad bridge and at the mouth of Disappointment Creek receive less fishing use.

CHAPTER 3: EXISTING LAND OWNERSHIP AND MANAGEMENT

The physical development and general quality of life in an area is influenced by the ownership, development, and management of its lands. Because land use has such a direct effect on the physical landscape and quality of life, it is important for a community to influence the management policies and development patterns of its land.

Existing land ownership and land use regulations are summarized below. Current land use activities, issues about recent land use developments, and a future land use plan which supports the land use goals of the community are presented in Chapter 4.

EXISTING LAND OWNERSHIP

The Talkeetna planning area encompasses approximately 275,000 acres of land located south and east of the Talkeetna and Susitna rivers. Land ownership is a mix of federal, state, borough, native, private, Alaska Railroad, and University of Alaska lands, see Figure 10, Maps 1-4, p. 3-2 through 3-5.

Federal Land Ownership and Management

The federal government owns several small, but significant, tracts of land in the Talkeetna planning area. In the west townsite area the federal government owns the land where the village airstrip is located. Federal land management of the village airstrip is discussed in the Transportation Plan, Chapter 5.

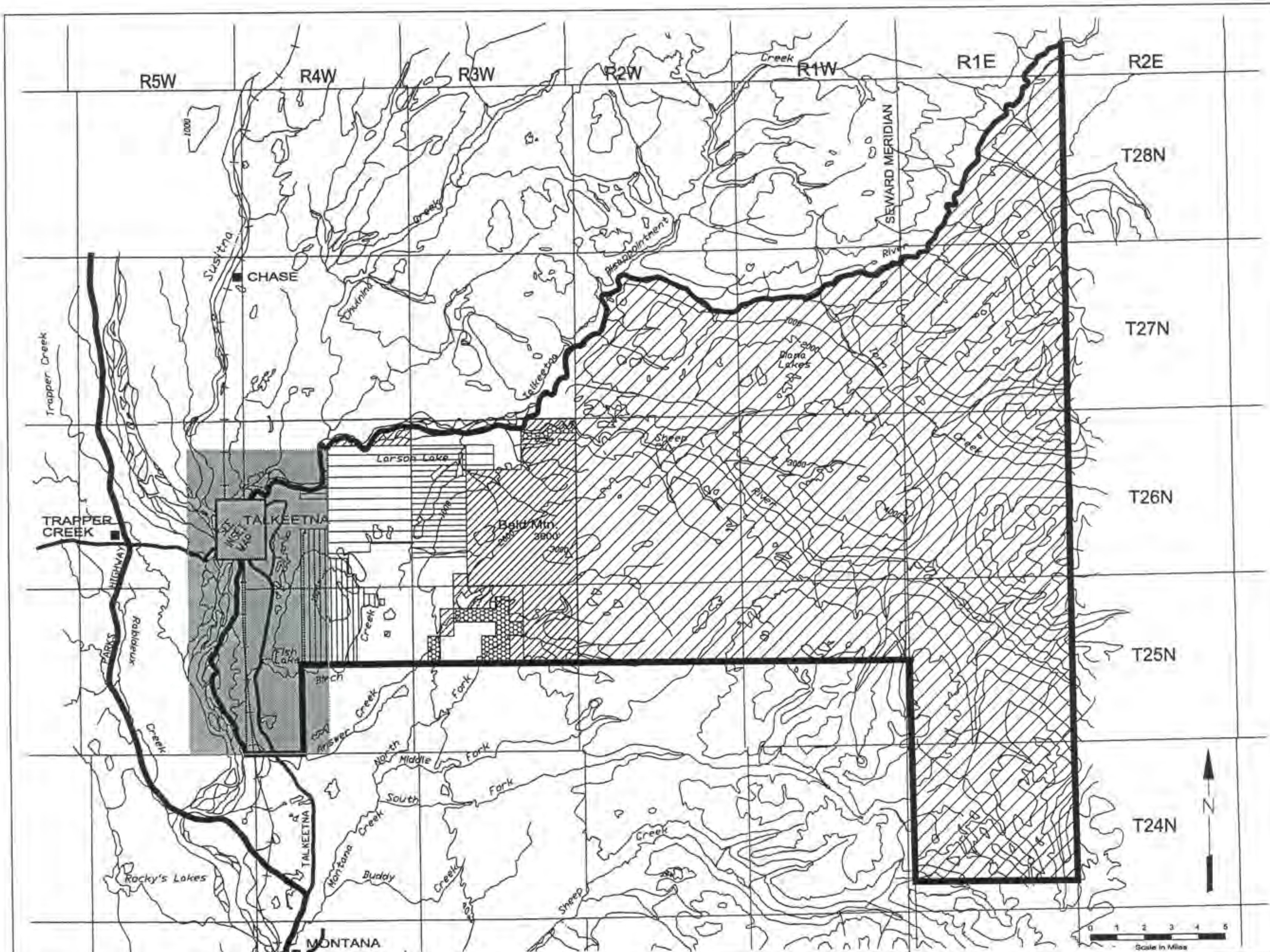
The federal government also owns forty acres of land in east Talkeetna, north of Talkeetna Heights subdivision. This land is used by the Federal Aviation Administration for the airport's UHF/VHF/AG site.

The federal government, through its respective agencies, owns the post office site and the Denali National Park Service's ranger station site (Lots 8-10, Block 10) in the west townsite. Other federally owned land is located in the outlying area, but most of it is selected by Cook Inlet Region Inc. as part of their Alaska Native Claims Settlement Act (ANCSA) native land entitlement.

State Land Ownership and Management

The majority of land in the Talkeetna planning area is state owned or state tentatively approved land. The largest block of state land (approx. 200,000 acres) is located east of Larson Lake in the Sheep River and Iron Creek drainage basins. This land is not road accessible but people do use the area for hunting, recreating, and fishing.

Two planning documents, the Susitna Area Plan and the Susitna Basin Recreation Rivers Management Plan, outline the state's management policies for state land in the Talkeetna planning area. The Alaska Department of Natural Resources is the management agency for these plans and this state land.


R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
SEWARD MERIDIAN
CHASE
TRAPPER CREEK
TALKEETNA
MONTANA
Trapper Creek
Susitna
Talkeetna
River
Larson Lake
Bald Mtn.
Fish Lake
Sheep Creek
Rocky's Lakes
Rabideux Creek
PARKS HIGHWAY
TALKEETNA
Montana Creek
Buddy Creek
North Middle Fork
South Fork
Answer Creek
Birch
Disappointment
Creek
Chulitna
Bjona Lakes
Scale in Miles
N

TALKEETNA COMPREHENSIVE PLAN

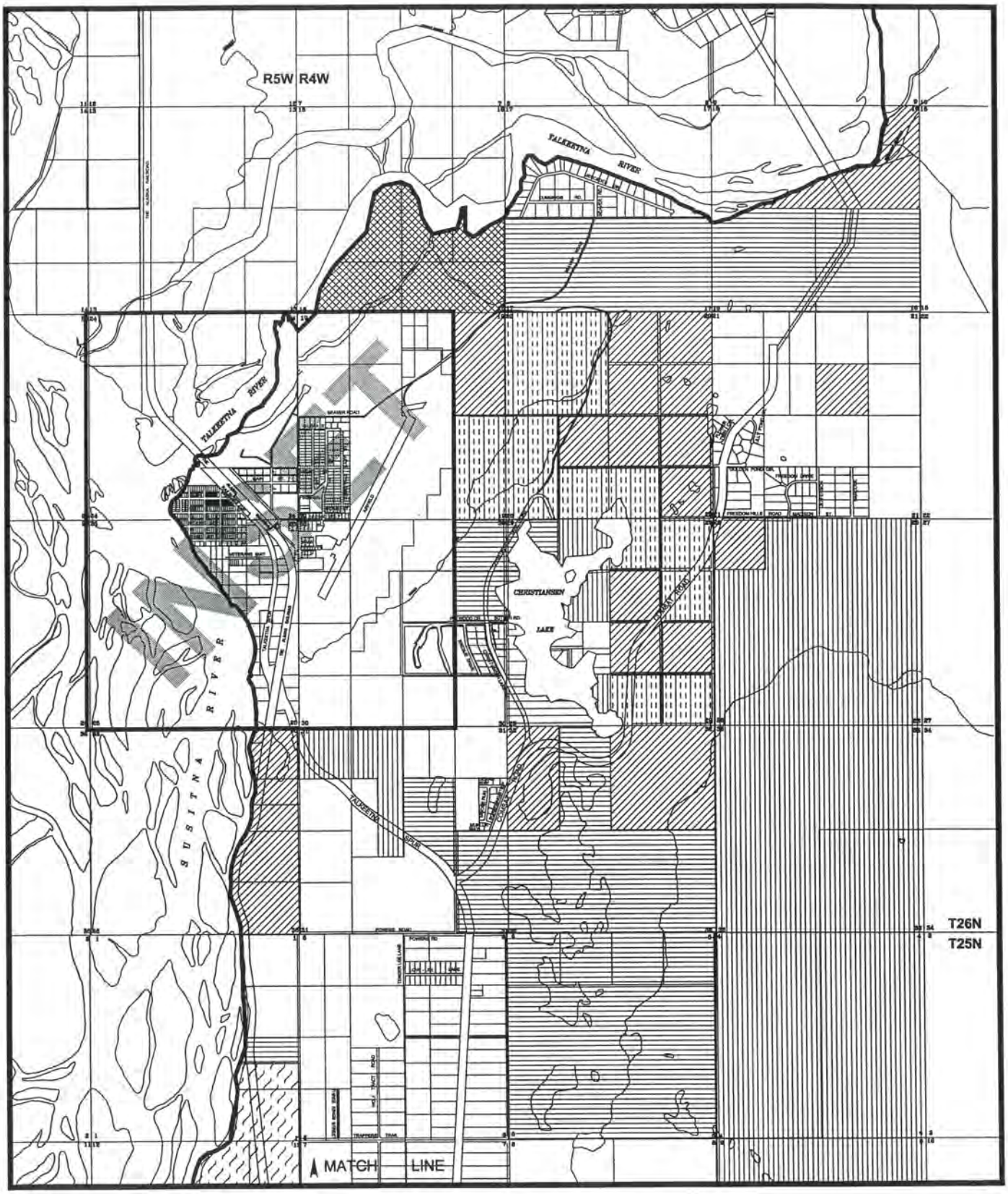
LAND OWNERSHIP

TALKEETNA OVERALL PLANNING AREA
MAP 1 of 4

MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS

LAND OWNERSHIP
BOROUGH
BOROUGH SELECTED
STATE
STATE TA'ED
PRIVATE
FEDERAL
NATIVE
UNIVERSITY
MENTAL HEALTH
HYPOTHECATED MENTAL HEALTH TRUST

FIGURE 10

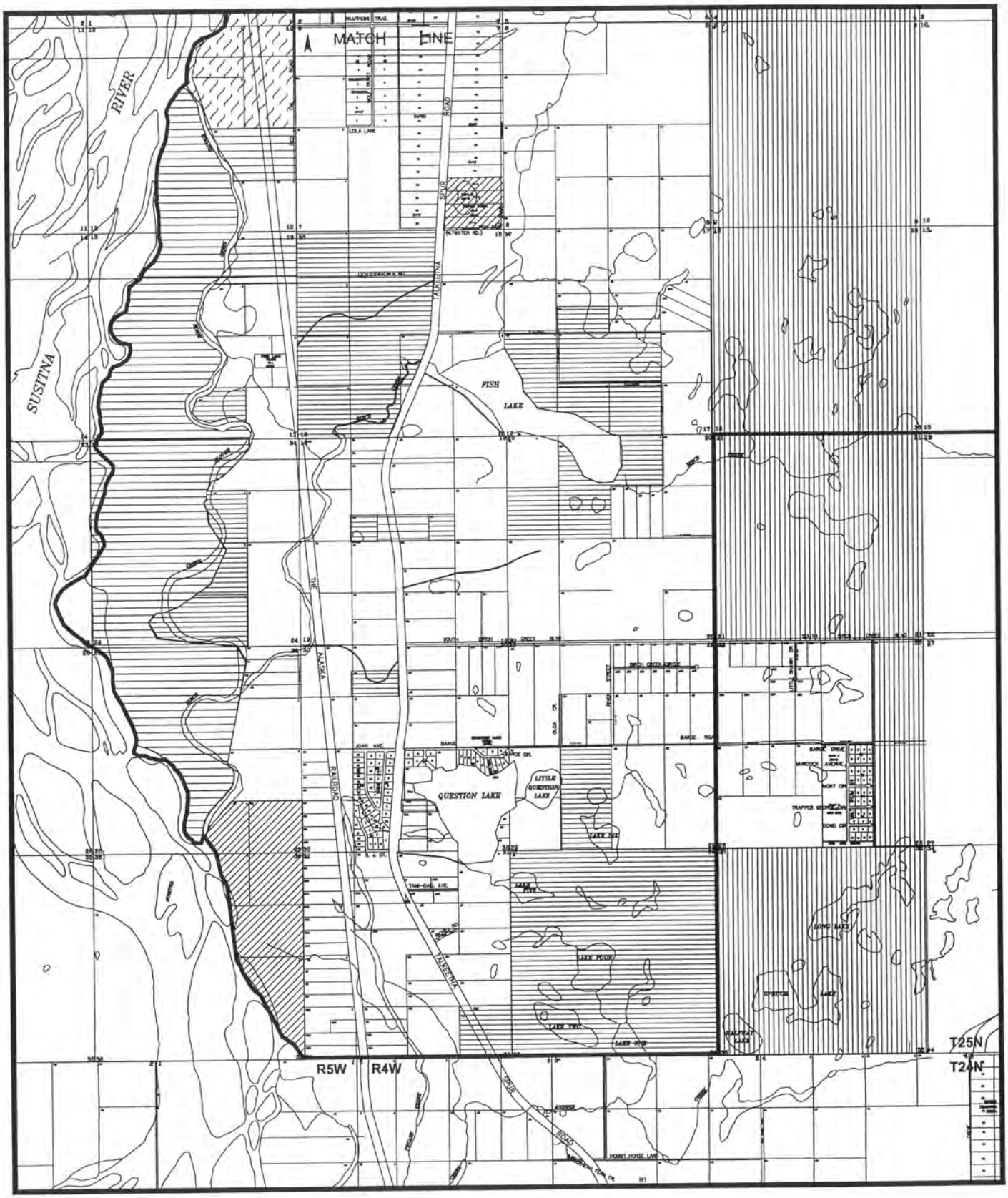


TALKEETNA COMPREHENSIVE PLAN

LAND OWNERSHIP

TALKEETNA CORRIDOR - NORTH
MAP 2 of 4

BOROUGH	NATIVE	STATE	
BOROUGH SELECTED	FEDERAL	STATE SELECTED	N
PRIVATE	UNIVERSITY	MENTAL HEALTH	
		HYPOTHECATED MENTAL HEALTH TRUST	



TALKEETNA COMPREHENSIVE PLAN

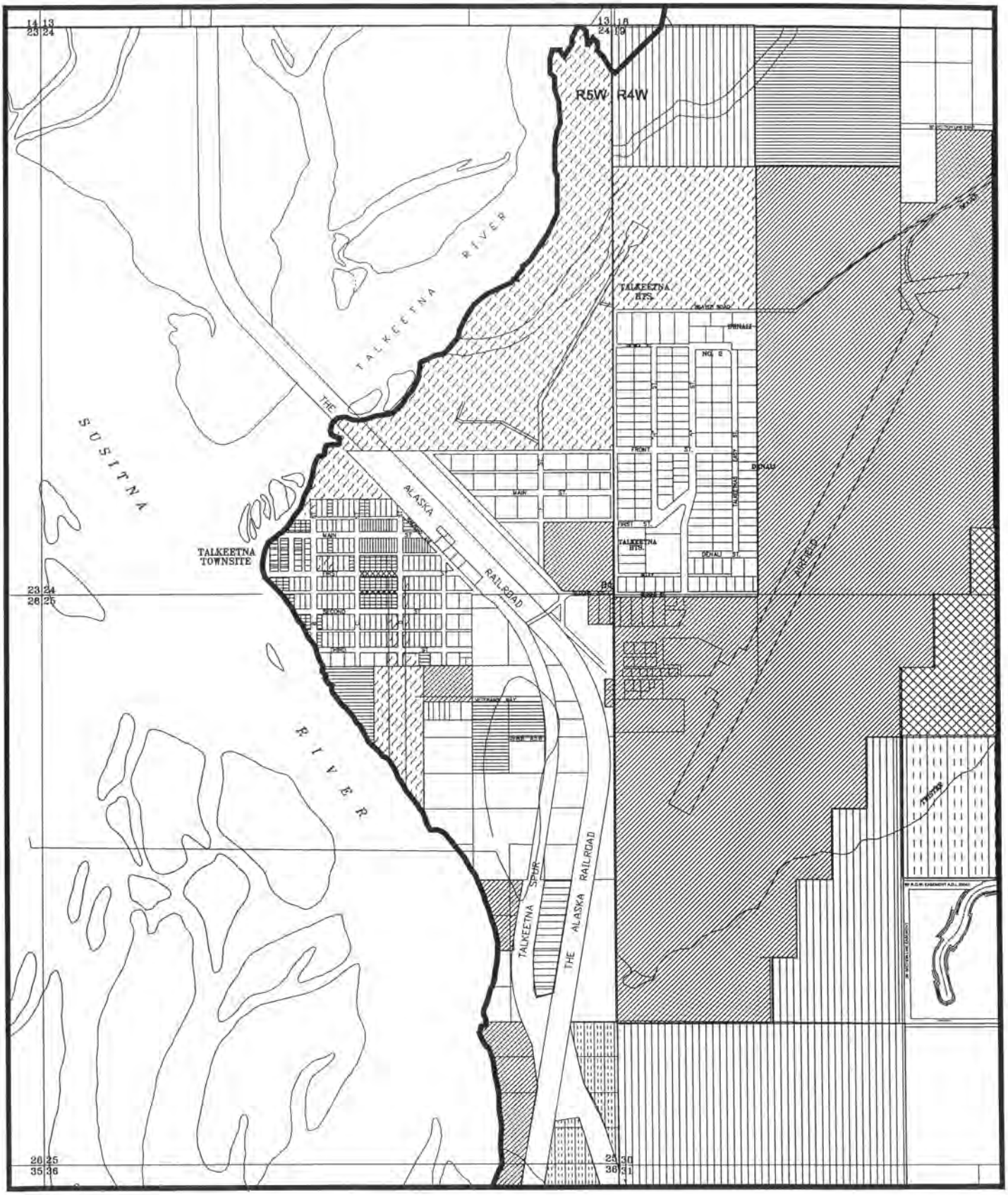
LAND OWNERSHIP

TALKEETNA CORRIDOR - SOUTH

MAP 3 0F 4

BOROUGH	NATIVE	STATE	
BOROUGH SELECTED	FEDERAL	STATE SELECTED	
PRIVATE	UNIVERSITY	MENTAL HEALTH	
		HYPOTHECATED MENTAL HEALTH TRUST	

N



TALKEETNA COMPREHENSIVE PLAN

LAND OWNERSHIP

TALKEETNA INSET
MAP 4 of 4

BOROUGH	NATIVE	STATE	
BOROUGH SELECTED	FEDERAL	STATE SELECTED	
PRIVATE	UNIVERSITY	MENTAL HEALTH	
		HYPOTHECATED MENTAL HEALTH TRUST	

N

Smaller parcels of state land are located in road accessible areas of the planning area, notably along the Talkeetna River, select parcels along Comsat Road and Beaver Road, and the state airport property. The airport property, which is approximately 600 acres, is the largest block of state land near the townsite. It is managed by the Alaska Department of Transportation and Public Facilities. Its use is discussed in greater detail in the Transportation Plan, Chapter 5.

Other large blocks of state land are located along the Susitna River (approx. 160 acres), along Comsat Road (approx. 720 acres), and along the Talkeetna River at Whiskey Slough (approx. 100 acres). These lands are undeveloped and fall under the Susitna Area Plan, Management Unit #9.

Within the townsite, the state owns the cemetery site (approx. 10 acres) and several small city lots.

Borough Land Ownership and Management

The Matanuska-Susitna Borough has ownership or tentative approval to approximately 18,000 acres in the Talkeetna planning area, making it the second largest land owner. Borough land is managed under the Susitna Area Plan and Matanuska-Susitna Borough Code. The largest blocks of borough land are located around Larson Lake (approx. 5,700 acres) and west of Larson Lake/northeast of the Bartlett Hills (approx. 7,000 acres). Another contiguous block of 640 acres is located north of the Bartlett Earth Satellite Station along the Talkeetna River.

The borough's Larson Lake land holdings are not road accessible although trails do access the area. The area is used for recreation. Larson Lake is large enough for float plane landings and take-offs. There are several private landowners on Larson Lake. The Susitna Area Plan designated this area to be primarily managed for settlement, with secondary designations of forestry, public recreation, and wildlife habitat.

Directly west of the Larson Lake land holdings is another block of borough land. This land has been selected and tentatively approved to the borough, but it has not been patented as of this time. Until the land is patented the borough does not have title to the land and it cannot be developed. The Susitna Area Plan designated this land to be managed as primarily borough land bank and settlement, with secondary designations of agriculture, forestry, public recreation, settlement, and wildlife habitat.

The borough has classified this block of land as Forest Management Unit #3 (MSB Ordinance 90-020) for possible commercial forestry management. Prior to any future forestry development of this land and its resources, a management plan would be done to inventory the resources and recommend development options. At this time the borough has no adopted management plan for the unit.

Due west of Forest Management Unit #3 (north, northwest of the Bartlett Earth Station), is approx. 640 acres of borough land classified as Resource Management. MSB Resolution No. 85-35 reserved this land for a possible future landfill. With the borough now actively closing its remote landfill sites and converting outlying areas to transfer stations, this reservation may be obsolete. The Susitna

Area Plan designated this land as borough land bank. The borough land bank designation signifies that this area will be retained by the borough, at least in the near-term, and managed for various public purposes. Lands in the borough land bank are not committed to either long-term retention or near-term sales. In the long-term these lands may be used for settlement or agriculture.

Most of the borough's large tracts of road accessible land holdings are located outside of the immediate townsite area and either along the Talkeetna Spur road or adjacent to the numerous small lakes in the area. Borough land is located on Christiansen Lake, Lake One, Lake Two, Lake Four, Lake Five, Lake Six, Fish Lake, and numerous other smaller lakes located south of Christiansen Lake. Borough land is also located at the intersection of the Talkeetna Spur road and Comsat Road. In the past, land disposal sales have been scheduled for some of these properties. The larger land holdings may need to be surveyed before they can be disposed. Although no site specific inspections have been made for these lands, there are soils and vegetation conditions resembling "wetlands" surrounding some of the various lakes. Further site analysis is needed in order to make a determination of wetlands.

The borough owns several acres of property along Christiansen Lake, of which one parcel is classified for Public Recreation and one is classified for Material site.

Within the immediate townsite area the borough owns the elementary school site, fire station site, the lots within Talkeetna River Park, the town square site, Government Lot 9, and several small lots. Some of these sites are restricted by conveyance as to their usage. Other townsite holdings are not restricted and the borough is attempting to negotiate land sales. Use of borough land in the townsite is discussed under the Land Use Plan, Chapter 4.

Native Land Ownership And Management

Cook Inlet Region, Inc. is the largest holder of Native owned land in the planning area. Cook Inlet Region, Inc. (CIRI) is a regional corporation established by Congress in 1971 under the terms of the Alaska Native Claims Settlement Act (ANSCA). Under ANSCA, CIRI has entitlement to over 700,000 acres of surface rights and over 1.7 million acres of subsurface rights throughout Alaska. Within the Talkeetna planning area, CIRI owns or has selected 6,500 acres. The largest holding is approximately 6,000 acres in the Bartlett Hills area. At this time CIRI has no development plans for this parcel.

The most familiar CIRI land holding in the area is a 240 acre parcel located approximately one mile south of the townsite on the Talkeetna Spur road. This site was under consideration in 1992 for a National Park Service visitor center for Denali National Park's South Slope Addition and as a proposed 150 room hotel developed by CIRI. Community reaction to the proposed large scale development brought mixed feelings from residents. During the project's environmental review phase conducted by the Park Service, many concerns were expressed about the scale and impact of the proposed development on the community, including increased traffic and congestion, impact on the historic character of Talkeetna, impact on the area's rural lifestyle, and size and scale not

compatible with Talkeetna's existing developments. As of this date, the Park Service is concluding its environmental review and has proposed another site for its visitor center in the near-term. The CIRI land remains a potential long-term development site for a destination-oriented park center and hotel. CIRI's near-term development plans for its hotel complex are indefinite at this time.

Other CIRI land holdings in Talkeetna include land holdings along the Talkeetna River north of the boat launch, land along Christiansen Lake, Long Lake, Spruce Lake, and Halfway Lake, and lands contiguous to the state airport (south).

University of Alaska Ownership And Management

The University of Alaska owns approximately 600 acres in the Talkeetna planning area, of which the majority is located north, northeast, and southeast of Christiansen Lake. Another tract of university land is located at the Talkeetna Spur Road and the Alaska Railroad crossing in T26N, R5W, section 25. University lands were entitled to the university system for long term financial benefit to the university. They are managed by the University's Statewide Office of Land Management. The University's development plans for their lands are indefinite at this time.

Alaska Railroad Corporation Ownership and Management

The Alaska Railroad Corporation is one of the largest land managers in downtown Talkeetna, with land in both the east and west townsites. The corporation's two principle townsite land holdings are licensed as Railroad Reserve to the corporation by the federal government. These lands are located in west Talkeetna where the community water well is located and in east Talkeetna where the boat launch and campground area are located. These parcels were previously leased to the Matanuska-Susitna Borough but have recently been relinquished back to the railroad. Future lease and management of these centrally located lands will directly affect the character and economics of downtown Talkeetna. These lands are further discussed in the Land Use Plan, Chapter 4.

Other railroad land holdings include the rail corridor that traverses the planning area and which generally runs parallel to the Talkeetna Spur road. The rail corridor is approximately 200-foot wide centered on the rail tracks, except for in the downtown area (north of Second Street) where the rail corridor width is increased to 500 ft. Within this 500 foot corridor south of Second Street the railroad has leased small tracts for commercial businesses. The railroad also has an exclusive lease to approximately 150 acres of land located along the Susitna River, west of Paper Plat and Talkeetna Estates subdivisions. This tract was under consideration for a major hotel development.

Private Ownership and Management

Private land in the planning area is primarily located along the road network, or within ten miles of the road system. Most of the private land was originally public land either sold or disposed of to private individuals through land disposal programs. For example, the original west townsite land was federal land auctioned in 1919 to the first settlers of Talkeetna. More recently, during a twenty

year period extending from 1968 to 1988, the State of Alaska offered over approximately 15,000 acres in the planning area and another approximately 11,000 acres in the surrounding region to the private sector through its land disposal programs, see Fig. 11, p. 3-10. The land disposal programs included subdivision lotteries, homesite lotteries, open-to-entry programs, homesteading programs, and agriculture lotteries. Private individuals generally acquired this land for either year-round residence, seasonal residence, seasonal recreation use, agriculture use, or investment. Major subdivisions created by the state include: Paper Plat Subdivision: This subdivision was recorded in 1966 and included 69 lots totaling about 640 acres. The lots were not surveyed; Bald Mountain Subdivision: 150 parcels; Bald Mountain II Remote Subdivision: 117 parcels of five to twenty acre lots; South Bald Mountain Subdivision, 119 parcels; Talkeetna Bluffs Subdivision: 88 parcels; and Talkeetna Bluffs Addition Subdivision: 59 lots.

Figure 11
State of Alaska
Land Disposal Programs
1968-1988
Greater Talkeetna Planning Area and Surrounding Lands

Year	Entry Program	Location
1966	Subdivision	Talkeetna
1968-73	Open to Entry	Chase
1979	Open to Entry-Agriculture	Talkeetna
1979	Agriculture Lottery	Talkeetna
1980, 1982	Bartlett Hills Tracts A-D, Residential	Talkeetna
1980	Bald Mountain, Remote	Talkeetna
1980-1984	Chase I and II Open to Entry Remote Parcel State Remote Parcel	Chase Colorado/Chulitna
1981	Talkeetna Bluffs Subd Lottery	Talkeetna
1982	Bartlett Hills	Talkeetna
1982	South Bald Mountain Lottery	Talkeetna
1982	State Subdivision	Indian River
1984	Talkeetna Bluffs	Talkeetna
1985	Lottery and Homesite	
1985	Chase III Agriculture	Chase
1985	Homestead and Remote	Sherman, Curry, McKenzie Creek
1986	Talkeetna Foothills Homestead	Talkeetna
1986	Homestead	Hurricane Pass Crk
1988	Bartlett Hills Talkeetna Bluffs Addn Bald Mountain II Remote Parcel	Talkeetna
1990	Chase II Subdivision	Chase
	Talkeetna Bluffs Addition	Talkeetna
	Bald Mountain Subdivision	Talkeetna
	South Bald Mountain Subd	Talkeetna
	Bartlett Hills Subdivision	Talkeetna
1991	Talkeetna Foothills	Talkeetna

EXISTING LAND USE REGULATIONS

Aside from the Susitna Area Plan and Susitna Basin Recreation Rivers Management Plan which manage public land in the planning area, there are other federal, state, and borough land use regulations that apply to developments on private lands.

Federal laws regulate private land use activities in the following areas:

* Developments in wetlands, under Title 33, Code of Federal Regulations and administered by the U.S. Army Corps of Engineers.
* Bridge construction over navigable waters, administered under U.S. Coast Guard regulations.
* Developments discharging waste into air or water, administered under U.S. Environmental Protection Agency, National Pollution Discharge Elimination System (water) and Prevention of Significant Discharge (air) permits.

State of Alaska laws regulate:

* Developments along anadromous streams, under Alaska Department of Fish and Game jurisdiction.
* Timber development, under the state's Forest Practices Act administered by the Alaska Department of Natural Resources.
* Placement of septic systems, water wells, and sewage setbacks from waterbodies, administered by the Alaska Department of Environmental Conservation's regulations. There are two state regulations that are administered by the Department of Environmental Conservation that apply to sewage setbacks within the state. The State of Alaska Code 18 AAC 72.015(f) requires that no person may install a wastewater collection system within 100 feet of lakes, waterbodies, or watercourses. Code 18 AAC 72.015(a) requires a minimum separation of 100 feet between wastewater collection systems (septic, privies, etc.) and water source wells.
* Developments discharging waste into air or water, administered under the Alaska Department of Environmental Conservation.

Matanuska-Susitna Borough Code regulates:

* Land use in the coastal zone, under Title 15-Planning, Coastal Zone Management Program. State Coastal Zone Program regulations also apply.
* Land use in the flood hazard area, under Title 17.29-Flood Damage Prevention which regulates development in the flood hazard zones.
* Land subdivision, under Title 16-Subdivisions which regulates the subdividing of land.

* Building setbacks, mobile home parks and various other conditional uses under Title 17-Zoning.

Borough Comprehensive Plan-1970

The Matanuska-Susitna Borough's Comprehensive Plan, which contains a Talkeetna Plan component, was adopted in 1970. The document articulates the existing borough policy for land in the planning area unless superseded by more recent adopted plans and policies. This Talkeetna Comprehensive Plan document will update and supersede the 1970 plan.

Borough Coastal Zone Management Plan

The Matanuska-Susitna Borough's Coastal Zone Management Plan was adopted in 1984. It regulates all land within its coastal zone district boundary, including land along the Talkeetna River to an elevation of 1000 feet and within a width of 200 feet from the ordinary high water mark on each bank of the river. The Talkeetna River and its adjacent land is included in the coastal zone district boundary because it is a major anadromous river.

Talkeetna's Comprehensive Plan must be consistent with the Borough's Coastal Management Plan and the State of Alaska's Coastal Management Program.

All uses and activities that require a permit from any state resource agency or for any borough regulation and are located within the district's boundaries are subject to the State of Alaska's Coastal Zone Program under AAC Title 6 and the Matanuska-Susitna Borough's Coastal Management Plan. Before a permit will be approved for any proposed use or activity in the district, the project will be reviewed for consistency with standards in the coastal zone programs. There are twelve land and water uses and activities that have State minimum standards and borough standards as shown in Figure 12, p. 3-13 thru 3-15.

FIGURE 12
MATANUSKA-SUSITNA BOROUGH
COASTAL MANAGEMENT PROGRAM

Coastal Development Standard

State minimum standard: In planning for and approving developments in coastal areas highest priority will be given to water-dependent uses; secondary priority to water-related; lowest priority to uses that are neither water-dependent nor water-related. Water dependent means a use which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body. Water related means a use which is not directly dependent upon access but which provides goods or services that are directly associated with water-dependence and which if not located adjacent to the water would result in a public loss of quality in the goods or service.

Placement of structures and the discharge of fill or dredge material into coastal waters must comply with Title 33, Code of Federal Regulations.

Borough standard: Uses which are subject to the program's rules are industrial and port development, commercial development, residential development including State land disposals, dredging and filling. Policies which are applied to these uses include the State minimum standards as listed above and the following:

Dredging and filling will not be allowed in tide flats and wetlands, submerged land and water bodies important for migration, spawning or rearing of anadromous or resident fish unless no feasible alternative exists.

Development must be sensitive to the ecosystem and minimize adverse impacts on the ecosystem.

Development must preserve natural and cultural features. Public access to these shall be preserved and maintained, and where appropriate, increased.

Physical conditions (soil characteristics, slopes, geological features, surface and subsurface drainage, watertables, floodplains, etc.) must be taken into consideration when planning development.

Residential coastal development must include:

New development will minimize its impact by consolidating development. Community open space will be identified and planned for.

Subdivisions outside the road-served area must maintain fish and wildlife existing uses to the greatest extent.

All subdivisions must provide feasible access (includes legal and physical), reasonable access to energy resources for individual heating purposes, reasonable access to suitable supply of water, environmental suitability for sewage and garbage, reasonable use and access to public lands adjoining state land disposals. The State is exempted from providing physical access in certain circumstances.

Commercial, industrial, and port development must include: minimal disturbance to anadromous streams and alteration of shoreline, tide flats, and wetlands. Industrial users must minimize negative aesthetic impacts and enhance positive visual aspects and provide recreational opportunities for viewing positive aspects. Design criteria and performance standards will be required to maintain high aesthetic appeal. Preference will be given to uses which promote physical and visual access to the shoreline.

Geophysical Hazard Standard

State minimum standard: Development may not be approved in identified known geophysical hazard areas until siting, design, and construction measures for minimizing property damage and protection against loss of life is provided.

Borough standard: Developments in the following areas will not be approved until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided: Knik/Matanuska River floodplains, Susitna River and Little Susitna River floodplains, Point MacKenzie vegetated bluffs and coastlines. Development will be precluded in rapidly eroding, slide prone, or geologically unstable shorelines. Any development proposed for these areas must be based upon geotechnical investigation attesting to the safety of the area or engineering practices that alleviate or mitigate the hazard. Surface modifications that would induce excessive erosion, undermine the support of nearby land or unnecessarily scar the land will be limited.

Recreation Standard

State minimum standard: Coastal districts must provide for recreational and tourist needs by designating areas for recreational use. Minimum criteria for areas are: they receive significant use or are a major tourist attraction, or have potential for high quality recreational use. Districts must also give high priority to maintaining public access to coastal waters.

* Consolidate facilities, consider concurrent use of facilities;
* Cooperate with landowners, developers, federal agencies;
* Sufficient acreage to allow for expansion;
* Site where existing facilities are capable of satisfying industrial requirements;
* Select harbors with least exposure to reefs, shoals, ice, etc.
* Encourage use of vessel traffic control and collison avoidance systems;
* Site where development will require minimum site clearing, dredging, and construction in protective habitats;
* Site facilities to minimize probability of spills/contamination of fishing, spawning grounds, etc. Site to allow free passage of fish and wildlife. Site facilities in areas of least biological productivity. Site facilities where airborne emissions can be dispersed.
* Select sites designated for industrial purposes and where industrial traffic is minimized;
* Select sites where vessel movements will not overcrowd harbors or interfere with fishing operations.

Borough standard: Within the Talkeetna planning area there are no designated recreation areas. Besides public access to coastal waters, the Borough will also give priority to maintaining and increasing public access to rivers, lakes, streams, and uplands for fishing, hunting, and scenic viewing. Priority will be given to multi-use trails. Areas having potential for high quality recreational use because of physical, biological, cultural, or historic features will be given priority.

Energy Facilities Standard

State minimum standard: Coastal districts must identify suitable sites for energy facilities based upon following standards:

* Minimize environmental and social effects while satisfying industrial requirements;
* Site compatible with existing and subsequent adjacent uses and community needs;
* Consolidate facilities, consider concurrent use of facilities;
* Cooperate with landowners, developers, federal agencies;
* Sufficient acreage to allow for expansion;
* Site where existing facilities are capable of satisfying industrial requirements;
* Select harbors with least exposure to reefs, shoals, ice, etc.
* Encourage use of vessel traffic control and collision avoidance systems;
* Site where development will require minimum site clearing, dredging, and construction in protective habitats;
* Site facilities to minimize probability of spills/contamination of fishing, spawning grounds, etc. Site to allow free passage of fish and wildlife. Site facilities in areas of least biological productivity. Site facilities where airborne emissions can be dispersed.
* Select sites designated for industrial purposes and where industrial traffic is minimized;
* Select sites where vessel movements will not overcrowd harbors or interfere with fishing operations.

Borough standard: Facilities must be developed and operated to minimize impacts on fish and wildlife habitats, ensure fish passage, minimize alteration of stream flows. Developers will provide studies and plans in sufficient detail for planning purposes.

Transportation and Utilities Standard

State minimum standard: Siting, design, and construction of transportation and utility routes should be compatible with district plans. Transportation and utility routes and facilities must be sited inland, unless no alternative inland route is feasible.

Borough standard: Transportation and utility design and construction will minimize alteration of wildlife habitat, watercourses, wetlands, aesthetic and recreational resources. Maintain natural drainages and viewshed protection. Maintain high aesthetic appeal and prevent unsightly incompatible development. Consolidate utility corridors.

Fish and Seafood Processing Standard

There are currently no commercial fish processing facilities within the MSB coastal area, however the Borough retains the option to designate those coastal areas suitable for commercial fishing and seafood processing facilities.

State minimum standard: District will identify and designate areas suitable for location and development of commercial fishing and seafood processing.

Timber Harvesting and Processing Standard

State minimum standard: Adopts the Forest Resources and Practices Act, AS 41.17, its regulations and procedures as part of state coastal management program.

Borough standard: Timber harvest activities will minimize adverse environmental impacts on fish and wildlife; minimize sedimentation, erosion, and interference with drainage; minimize conflicts with recreational uses. Aid preparation of land for agricultural use. Mitigation plans required for scenic viewshed protection, protect riverbank and shorelines from adverse visual impacts. Sufficiently large acres of land for viable, sustainable yield and long-term management will be provided for.

State minimum standard: Mining and mineral processing must be compatible with adjacent uses, statewide and national needs, and district plans. Sand and gravel may only be extracted from coastal waters, intertidal areas, spits, to meet public need when no feasible upland alternative exists.

Mining and Mineral Processing Standard
Borough standard: Gravel extraction will be consolidated where feasible. Minimize degradation of fish and wildlife, air and water quality, and recreational values. Reclamation plans are required. Gravel extraction parcels subject to Ord. 74-52 which states that Borough land 40+ acres that are 40% Class II and III soils will be classified agriculture. Access to viable mining and mineral processing will be provided for.

Subsistence Standard
State minimum standard: Assure opportunities for subsistence usage of coastal areas and resources. Identify areas of subsistence use of coastal resources. Identify zones where subsistence use has priority over nonsubsistence uses. Before any potentially conflicting uses can occur in zones, a study of adverse impacts must be done. Migratory fish and game resources must have compatible habitat management plans.

Agriculture Standard
Borough standard: Agriculture will practice sound soil and water conservation principles which minimize adverse impacts on air, land and water quality, fish and wildlife habitats, and recreational values.

Coastal Habitats Standard
State minimum standard: Regulations apply to offshore areas, estuaries, wetlands and tideflats, rocky islands and seacliffs, barrier islands and lagoons, exposed high energy coasts, rivers, streams, and lakes, important upland habitat. Habitats in these areas must be managed to enhance biological, physical, and chemical characteristics of the habitat to support living resources. Specific habitats will be managed according to specific standards in order to protect the natural systems, water quality, water flow, and wildlife habitats.

Borough standard: Borough regulations apply to offshore areas and estuaries, wetlands and tideflats, vegetated bluffs, rivers, lakes and streams including all major anadromous drainages up to the 1000 foot elevation. Width of this extended area is the width of the water course and 200 feet each side.

Developments must maintain a 75 foot setback from high water and sewerage disposals system must set back 100 feet from any water course.

Upland habitats will be managed to maintain productivity, natural drainage, vegetative cover, prevent erosion, provide for open space, scenic and recreational values. Activities in wetlands will maintain natural drainages and wetland productivity. Mitigation measures are required prior to developments along river, lakes and streams including replacing vegetation.

Air, Land and Water Quality Standard
State minimum standard: Statutes pertaining to regulations and procedures of the Alaska Department of Conservation are incorporated into state coastal management program.

Borough standard: Land clearing, grading, filling, and alteration of drainages will be minimized. Revegetation is required within one year to deter erosion.

Historic, Prehistoric, and Archeological Standard
State minimum standard: Identify areas which are important to national, state, local history or prehistory.

Borough standard: Developments required to meet Historic Preservation Survey (1981).

Matanuska-Susitna Borough Title 17, Zoning

Matanuska-Susitna Borough regulations in Title 17 affect: flood damage prevention, mobile home parks, residential land use districts, residential planned unit developments, setbacks, conditional uses, variances, violations and enforcement, and regulation of alcoholic beverage uses.

Chapter 17.01, Acknowledgement of Existing Land Use Regulations. Chapter 17.01 was recently adopted in 1993. It recommends that a land owner or authorized agent obtain an acknowledgement from the borough before starting the construction or reconstruction of any building in the borough. The acknowledgement is recommended for any building expansion, installation or addition of a structure or building, and recommended for any development requiring fill and excavation operations of ten cubic yards of material or greater, or fill/excavations in a flood hazard area. The intent of the ordinance is to increase the public's awareness of any applicable regulations in order to further compliance with all government regulations and avoid costly mistakes for the developer.

Chapter 17.29 Flood Damage Prevention. In 1979 the Matanuska-Susitna Borough became a participant in the National Flood Insurance Program (NFIP). This program allows owners of property located within identified 100-year floodplains to obtain federally subsidized flood insurance. Participation in the program also requires that development within these floodplain areas meet certain requirements. New construction, conversions, relocates, fill activities, or expansions must meet specifications such as: elevate the lowest floor above the base flood elevation; anchor buildings to prevent floatation collapse, or lateral movement; and locate heating, electrical, and plumbing facilities so as to prevent water from entering or accumulating within components. Fill activities or encroachments in a floodway are permitted provided they are engineered to demonstrate that the development will not increase flood levels.

Borough development permits are required prior to development within the designated flood hazard areas of Zone A and Zone B, and subject to NFIP requirements and Borough standards. As shown on Figure 16, p. 4-30, the west and east townsite areas, and the creek beds and adjoining shores of Birch Creek, Question Creek, and Answer Creek are almost entirely within the 100-year floodplain "Zone A" designation.

Chapter 17.52, Residential Land Use District. The residential land use district is zoning for areas which are predominately residential in character at the request of the property owners. The zoning guarantees that persons in such areas can expect them to remain predominately residential in character. Uses allowed in the residential land use districts are those uses which are compatible with the residential character, such as one, two, and multi-family dwellings, home occupations, day nurseries, and gardens and greenhouses incidental to residences. Conditionally permitted uses are churches, hospitals, plant nurseries, natural resource extraction, neighborhood commercial uses, public lands, and electric substations. In the Talkeetna area there is one residential land use district, the Talkeetna River Subdivision Residential Land Use District.

Chapter 17.55, Setbacks. Chapter 17.55 establishes minimum structural setbacks from lot lines, public rights-of-way, public use easements, watercourses and water bodies. The code requires that structures and buildings are setback a distance of 25 feet from rights-of-way and 10 feet from side and rear lot lines. If lot widths are less than 60 feet, then the front setback is reduced to 10 feet. Structures that are located near water and that are used for dwellings and habitation must be setback 75 feet from any watercourse or body of water. In addition, no subsurface sewage disposal system may be closer than 100 feet to any waterbody or watercourse.

Chapter 17.60, Conditional Uses. Commercial junkyards and refuse areas are only allowed in most areas of the borough provided they are reviewed and permitted as conditional uses.

Chapter 17.65, Variances. Variances are exceptions to Title 17 regulations which are granted to property owners. Certain requirements are necessary before the granting of a variance.

Chapter 17.70, Regulation of Alcoholic Beverage Uses. Establishment of business that sells liquor requires a conditional use permit.

TALKEETNA COMPREHENSIVE PLAN

CHAPTER 4: LAND USE PLAN

The objective of a land use plan is to guide future community growth and development, while at the same time, balancing and protecting values that are important to the community. Prior to recommending a land use plan which will influence the direction of future community growth, it is necessary to analyze current land use activities and issues arising from these activities, and articulate the community's goals and values relative to land development. The Talkeetna Comprehensive Plan advisory committee developed eleven over-all goals that represent their community's development goals and values. Seven of the goals relate to land use, community and economic development, and historic resources. They are listed below. Two additional goals which address transportation are included in the Transportation Plan, Chapter 5. Two other goals addressing community facilities are included in Chapter 6, the Public Facilities and Services Plan. The following goals represent the community's values concerning land use and development.

LAND USE AND COMMUNITY DEVELOPMENT GOALS

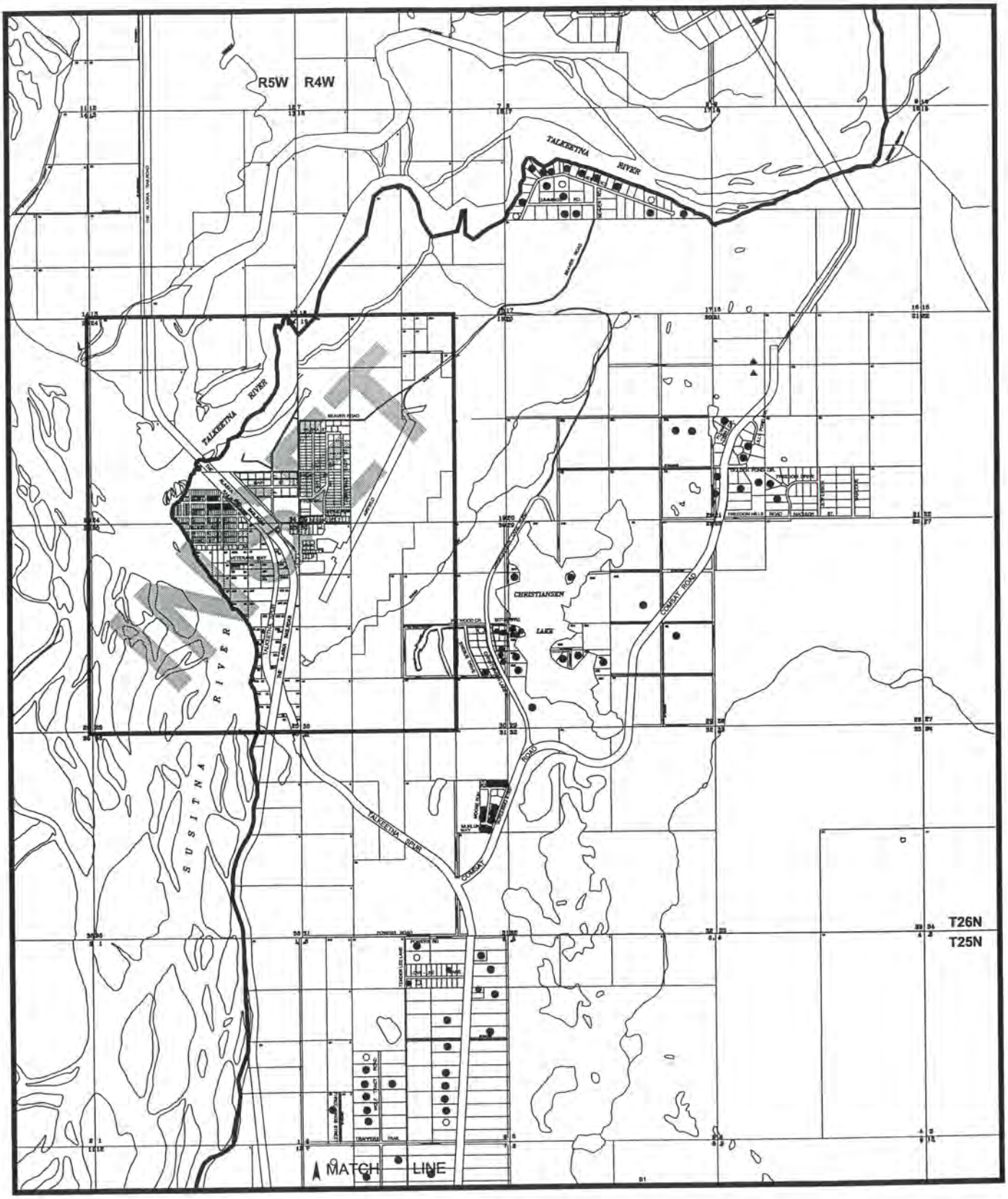
* Maintain the community's small town atmosphere, sense of community, and high quality of life.
* Protect and conserve the wilderness values and natural resources of the lands surrounding Talkeetna.
* Keep Talkeetna a pleasant place to live, work, and visit.
* Plan and provide for population growth which can be adequately absorbed by the area, without negative impacts on the sense of community, services, the environment, or the quality of life.
* Guide development in a manner which enhances Talkeetna's natural appeal, taking steps to ensure that future growth and change will build a desirable human environment.
* Maintain Talkeetna's major recreation and ecologically sound tourism economy and avoid conflicting activities.

HISTORIC RESOURCES GOAL

* Respect, preserve, and enhance the historic essence of Talkeetna, which contributes to the identity and special sense of place which form an integral part of Talkeetna's appeal.

CURRENT LAND USE

The current land use pattern is illustrated on Figure 13, p 4-2 through 4-4. Historically land has been developed in the Talkeetna planning area by residents either locating in the area because of commercial and employment opportunities or because of a desire to live in a small community and semi-wilderness setting. There is a strong commitment by the residents to maintain the small town



TALKEETNA COMPREHENSIVE PLAN

EXISTING LAND USE

TALKEETNA CORRIDOR - NORTH
MAP 1 OF 3
LAND USE

FIGURE 13

- RESIDENTIAL
- MOBILE HOME
- COMMERCIAL
- QUASI-PUBLIC
- INDUSTRIAL

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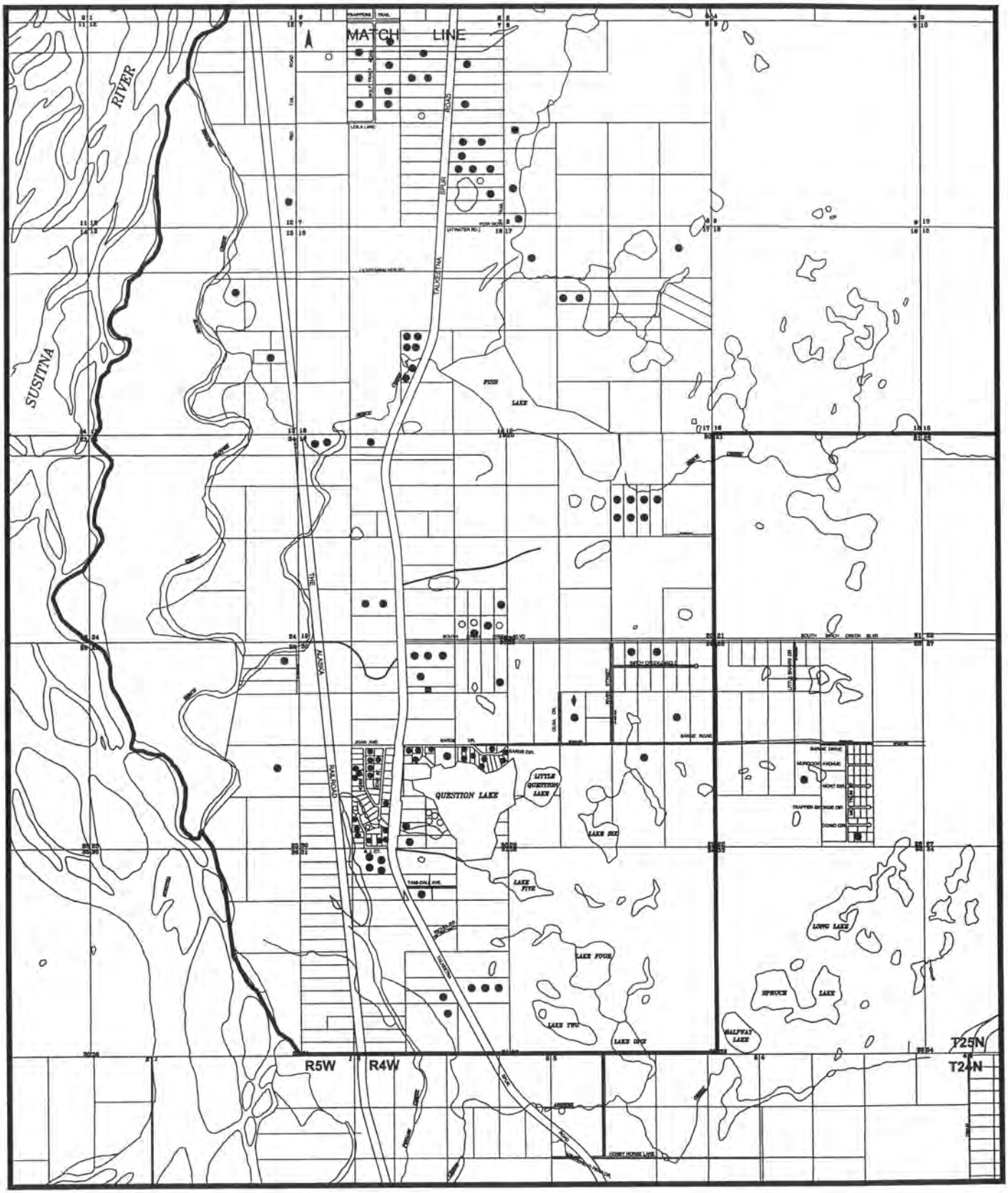

TALKEETNA COMPREHENSIVE PLAN

EXISTING LAND USE

TALKEETNA CORRIDOR - SOUTH
MAP 2 OF 3
LAND USE

FIGURE 13

- RESIDENTIAL
- MOBILE HOME
- COMMERCIAL
- QUASI-PUBLIC
- INDUSTRIAL

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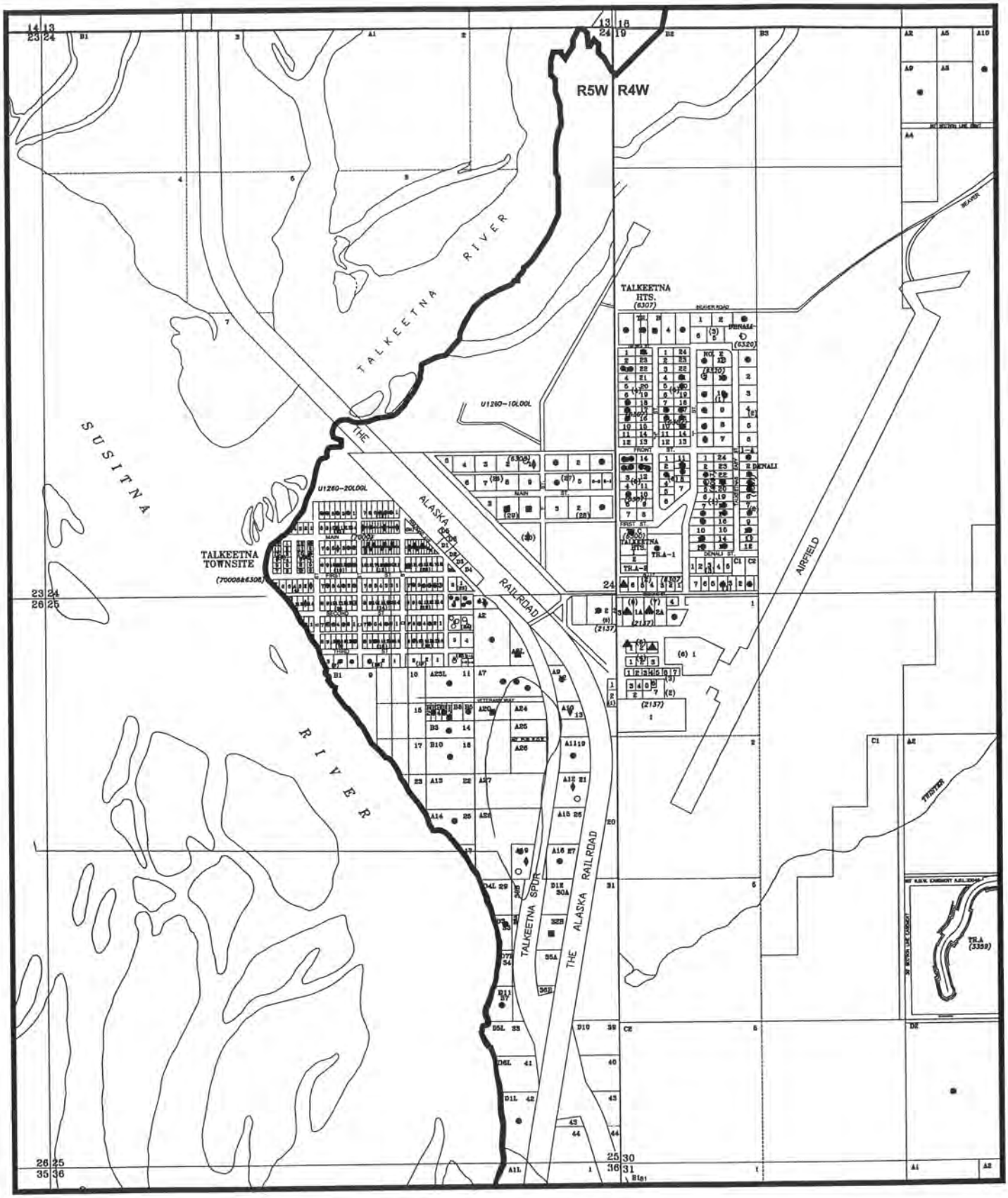


TALKEETNA COMPREHENSIVE PLAN

EXISTING LAND USE

TALKEETNA INSET
MAP 3 OF 3
LAND USE

FIGURE 13

- RESIDENTIAL
- MOBILE HOME
- COMMERCIAL
- QUASI-PUBLIC
- INDUSTRIAL

N

rural character of the community through preservation of its natural, historic, and visual features. Residents want to maintain the high quality of life in the community which includes a healthy, safe, and clean environment, friendly and helpful citizens, and an Alaskan spirit of self-sufficiency. Values important to the residents are to protect their environment from degradation, maintain their high air, land, and water qualities, and preserve the surrounding wilderness.

RESIDENTIAL LAND USE

Residential land use throughout the planning area is predominately single-family low-density housing occurring in road-accessible subdivisions. The average persons-per-household rate is 2.5 people. Housing is generally highly scattered; except for residences in the townsites, or concentrated along the Talkeetna Spur road, or along some of the lakes' water frontages. Major residential concentrations are located in the east and west townsites (approximately 135 dwellings), along the Talkeetna Spur road (approximately 30 dwellings), Christiansen Lake (approximately 15 dwellings), Question Lake (approximately 15 dwellings), and the Talkeetna River (approximately 20 dwellings). Less than half of the housing units in the planning area are located in the east and west townsites (39%) while 61% are located in the outlying area outside of the townsites. There is limited residential activity occurring in the remote trail access only within a sixty foot right-of-way areas. Detailed housing data is contained in Appendix F.

Housing in Talkeetna is either single-family dwellings or mobile homes/trailers. There was no multi-family housing counted in the 1994 special borough population census nor in the 1990 U.S. census. According to the 1994 borough census there are 135 dwellings in the east and west townsites, of which 87% are single family dwellings and 13% are mobile/trailer homes. This is similar to the 1990 U.S. census which counted 344 dwelling units in the Talkeetna planning area, of which 81% are single-family units and 19% are mobile homes/other.

Occupancy established by the 1994 borough census shows an 87% occupancy rate in the townsite and a 13% vacancy rate. The 1990 U.S. census showed a higher vacancy rate of over 30%, which indicates that Talkeetna's housing situation is getting tighter. Local residents confirm the difficulty of finding available rentals and housing.

Talkeetna's seasonal/recreational stock of residences will probably grow. According to the 1990 U.S. census, Talkeetna has approximately 21% of its housing stock as seasonal/occasional use units. As the tourism industry continues to expand, Talkeetna will likely see an increase in this housing type, as well as a tighter housing situation for these units, especially during the summer months when seasonal workers re-locate to Talkeetna for jobs.

Current housing densities are low. As Talkeetna continues to grow, the housing and population densities will probably become more concentrated. This will be particularly true in the east and west townsites because of its many small subdivided lots. Most lots in the west townsite are 7,000 square feet; some lots are as small as 2,775 square feet. Lots in the east townsite are slightly larger than lots in the west townsite, ranging from approximately 10,000 square feet and above.

At this time there are approximately 100-175 vacant privately-owned lots in the east and west townsites that are available for either future commercial or residential development. It is difficult to know for certain if these undeveloped lots are available for development since some property may not be developed, other property may not be desirable for development, and some property owners who own several contiguous lots may keep their adjoining lots undeveloped in order to ensure themselves of privacy and larger yards. For planning purposes it is assumed that nearly all of the townsite's lots will be used in the future for either commercial or residential use.

Land that is being developed for residential use outside of the townsite and the reach of the public water and sewer system is required to meet minimum standards for on-site water and sewer. The borough requires that lots where both water and sewer are provided on-site and are not served by a public water and sewer system must be a minimum of 40,000 square feet. For reference, a one-acre lot is 43,560 square feet. If one or the other utility is provided by a public system, then lot size can be reduced to 20,000 square feet. If both water and sewer is provided by a public system, then lot size can be reduced to 7,200 square feet (MSB 16.20.280B).

ISSUES AND RECOMMENDATIONS

Several residential land use issues have been identified in this plan, including:

* In-filling of existing developed areas v.s. subdivision and development of undeveloped wilderness areas.
* Residential lots with sub-standard road access and existing remote parcels without physical road access.
* Desire to maintain low density in the west townsite.
* The presence of unsightly junky yards.

Infilling of existing developed areas v.s. development of undeveloped wilderness areas

One of the land use and community development goals of the community is to conserve the wilderness values and natural resources surrounding Talkeetna. Towards that end the community favors near-term future development to in-fill those areas where existing public facilities are already located and where development has already impacted the landscape.

Currently there are in excess of over 300 subdivided lots ranging in size from under 7,200 square feet to over 20 acres that are undeveloped in the road-accessible planning area. This capacity is in excess of the housing demand to the year 2010, based on the historical growth rate projection of 2% and a persons-per-household rate of 2.5. An estimated 108 additional housing units/developable lots will be needed in the planning area to meet the projected housing demand at a 2% annual growth rate through 2010, see Appendix F. At a higher annual growth rate of 4% there will be a demand for an estimated 265 additional housing units/developable lots.

It is unknown how much of the existing subdivided land is actually available for development, since owners may be holding land for their own future use, land may be undevelopable, or land may be

held for investment purposes. It is possible under borough code for many of the already existing larger lots, in excess of 40,000 sq. ft., to be re-subdivided into 40,000 sq. ft. lots, if the owner so desires. In addition, with the installation of the public water and sewer, many lots within the reach of the utility system are now eligible to be re-subdivided into smaller lots, if they connect to the public system.

In-filling of development into the already developed areas of the community is generally supported by the community, though in-filling in the townsite areas was not unequivocally endorsed. In-filling in already developed areas will allow for a higher population base to support and reduce the cost of the operation of the various public facilities and service areas, like roads, fire protection, and emergency medical services areas. In-filling in the road service area and fire/emergency medical service area will increase the taxable population base without adding additional miles and area to the service networks.

In-filling within the townsite areas raised several concerns. The townsite areas are located within the flood hazard zone areas of the Talkeetna River and the community does not want to endorse building in these areas unless buildings are built to borough flood hazard zoning standards. The comprehensive plan advisory committee also had concerns about creating higher densities in the townsite areas due to increasing traffic congestion and noise. Generally, the advisory committee was supportive of providing a mix of housing types in the planning area, which would allow residents an opportunity to experience all types of housing choices, from downtown smaller lots to larger lots offering an Alaskan rural lifestyle.

As there does not appear to be a pressing need for additional public land for residential use, the Talkeetna community is not supportive of additional public land disposal programs at this time in their area. Beginning in the 1960's and extending throughout the 1980's the Talkeetna area experienced an aggressive State-sponsored land disposal program that has had mixed impacts on the area. Although many new people moved into the area which helped reduce the cost of providing for certain services, the new population also required new and expanded services: roads, a water and sewer system, a new high school, and the expansion of the elementary school, yet to be constructed. The consequences of past land disposal practices in Talkeetna are that the community is now faced with a scattered low-density distribution of population on a road network with low volumes and high maintenance costs, and a fire/emergency medical service area that is stretched over a large area. Currently Talkeetna has no local government with which to supervise the provision of these public services.

Based on housing projections prepared in this plan, see Appendix F, it appears likely that the existing available land base in private ownership will be able to supply the residential housing market demand for developable land to the year 2010. Additional land disposal programs are not desired and may actually increase the cost of operation and maintenance of the various service areas and public facilities, if the service areas were to be expanded and roads extended.

Talkeetna residents do not want to see additional subdividing in the west and east townsite areas which would reduce the acreage of these existing lots, as these lots are already either below existing

borough minimum requirements or near minimum standards. In addition, both the west and east townsites are located within the Talkeetna River flood zone and the community does not want to encourage high density development in these areas. Rather, the community favors the development of the numerous vacant lots that are located along the existing road network.

Recommendations:

* **Where possible, in-filling of residential development within already developed areas should be encouraged where various service amenities are available. Within the east and west townsites, further subdivision is discouraged in order to maintain the existing density pattern.**
* **Public lands should continue to be made available to the public for purchase.**
* **Future development and subdivisions in remote areas should have a minimum lot size of ten acres or larger.**

Residential lots with sub-standard road access and existing remote parcels without physical road access.

Currently homeowners in many of the road-accessible subdivisions do not have adequate roads built to borough standards. Inadequate roads exist either because the subdivisions were built before the borough's adopted road standards, or the subdivisions were created by the state land disposal program and were not required to provide roads. Consequently, the road service area, which is responsible for the operation and maintenance of roads, is now straddled with the high cost of maintenance and repair of these substandard roads and the eventual re-construction of these roads.

Residential land uses in the remote areas of the Talkeetna planning area are occurring on lots that were made available to the public from the numerous state land disposal programs of the last two decades. Many of these subdivisions were platted with dedicated road rights-of-way within the subdivision, but actual road construction was not required and physical connection to the existing road network was not provided or engineered. At the time of the land disposal the state simply noted to the prospective owners that access could be by foot, all-terrain vehicle, fly-in, river boat, or utilizing section line easements. This practice has created a situation whereby property owners do not have developed road access to their lots, yet they have the legal right-of-way. Those owners not wanting to wait for roads to be built properly to borough standards and, usually through such mechanisms like local improvement districts, are building substandard trails without borough approval, and any planning and engineering for proper site selection, system continuity, and compatibility.

Other property owners in the trail access only within a thirty foot right-of-way areas are not in favor of roads being constructed. They prefer the area to remain remote and trail access only within a sixty foot right-of-way and feel that roads will increase the public's use of the area, thus impacting their privacy and the wilderness environment. Roads are further discussed in the Transportation Plan in Chapter 5.

The community supports the improvement of its substandard roads within its road service area, especially on high volume roads. The community also supports keeping some remote areas as trail access only within a sixty foot right-of-way areas.

Recommendations:

* **Land use recommendations in the comprehensive plan should make provisions for trail access within a dedicated sixty foot right-of-way.**
* **Existing substandard roads should be brought up to an acceptable and safe standard, especially on high volume roads.**
* **Trailhead parking to access remote lands should be improved.**

Desire to maintain low density in the west townsite.

Residential land use in the west townsite area is currently single-family low-density development. The community would like to maintain this scale and density of development for both future residential and commercial developments in the west townsite. This low-density scale is compatible with the existing scale and bulk of the historic district and the existing commercial businesses. In order to preserve and enhance the historic district, the community is supportive of limiting scale and bulk in the west townsite, so as to not over-shadow the character of the historic buildings. In addition, the community does not want mobile homes, trailers, or quonset huts allowed in the historic district. These restrictions will be voluntary until such time as the community adopts land use regulations.

Recommendations:

* **Within the west townsite area, residential development should be limited to not more than one or two-family structures.**
* **Mobile homes (trailers) and quonset huts should not be permitted within the historic district.**

Presence of unsightly junky yards.

Throughout the eighty years that Talkeetna has evolved into a community many residents have accumulated and stored various items in their yards. Today many of these items are considered an eyesore by other residents. Residents are supportive of screening unsightly junky yards.

Recommendation:

* **Junky yards and storage of unsightly objects should not be visible from public highways or roads.**

COMMERCIAL LAND USE

The majority of commercial development in Talkeetna is concentrated along Main Street in the west townsite. This area is considered the "downtown" of Talkeetna. Additional commercial activity is spreading out south of the downtown along the Talkeetna Spur road and along Second Street and "F" Street in east Talkeetna. These routes are highly visible to the traveling public.

Within the west townsite, a forty-three lot area lying between "C" and "D" streets and First and Front streets, has been designated on the National Register of Historic Places as the Talkeetna Historic District. This designation recognizes the importance of thirteen contributing historic buildings located in the area. The historic district encompasses Main Street and many other commercial buildings.

Commercial, industrial, and residential land uses are not segregated by zones in Talkeetna. This mixture of different uses and activities often works well together provided user conflicts can be minimized. Typical user conflicts between residential, commercial, and industrial users include: industrial noises disturbing residences, dust and dirt from heavy traffic, and commercial traffic on residential roads.

Measures used in other communities to minimize some of the effects of non-compatible users include: segregating uses into zones, screening of commercial and industrial uses and their parking from residential homes, keeping buildings compatible in bulk and scale with existing developments, and controlling noise and traffic impacts. In Talkeetna there is only one residential land use district (Talkeetna River Subdivision) where commercial and industrial uses are prohibited. Otherwise there are no other land use districts which segregate the residential/commercial/industrial uses into zones. In Talkeetna the only land use controls which can help to minimize the effects of non-compatible uses are the borough's residential land use district ordinance (Mat-Su Borough Code Chapter 17.52) and the setback ordinance (MSB Code Chapter 17.55). For a description of these regulations, see Chapter 3. There are no other borough land use controls which would protect residential uses from commercial or industrial impacts, or screen uses and parking, or control noise to protect residential users from commercial or industrial activities.

Currently the commercial and industrial land activities are of a scale, size, bulk, and intensity that are similar to the existing residential uses. The predominate features of existing commercial and residential structures are low-impact activities in single-story wood-frame buildings.

ISSUES AND RECOMMENDATIONS

Several commercial land use issues have been identified in this plan, including:

* Commercial and residential uses with encroachment and building setback problems in the rights-of-way.
* Traffic congestion, lack of a traffic circulation pattern, lack of pedestrian facilities, and lack of parking areas in the west townsite.

* An over-flow and spillage effect of commercial development spreading out of the existing downtown area.

* Need for historic district planning.

Commercial and residential uses with encroachment and building setback problems.

Downtown Talkeetna is the oldest section of the community dating back to the turn of the century. Throughout the many years that the area has developed there has been minimal over-sight for the placement of buildings. Consequently, today there are situations where buildings and structures are found to be encroaching in the public rights-of-way, alleys, or within the building setback lines. These encroachments are causing problems for the maintenance of utility easements and rights-of-way, as well as, crowding sight-distance triangles for traffic turning movements. The encroachments should be corrected and resolved on a case-by-case basis.

Another problem that is particularly burdensome for property owners and potential commercial developers in the west townsite is the requirement to meet current borough setback regulations. Borough code (MSB 17.55) requires a minimum of a 10 foot building setback from any public rights-of-way, including access easements, for all residential and commercial buildings on pre-existing lots of 60 feet or less. For lots in excess of 60 feet in width, the building setback requirement is even greater at 25 feet from any rights-of-way. Most of Talkeetna's west townsite lots are eligible for the 10 foot setback requirement, since they are platted at 50 feet in width and pre-date the borough's 1973 qualifying deadline. In addition to the right-of-way setback, borough code also requires that side and rear building lines must be a minimum of 10 feet from the property line.

These setback requirements greatly reduce the allowable building area on the small townsite lots, thus impacting the size and design of developments. For example, a 7000 square foot lot that has minimum 10 foot front, sides, and rear setbacks is reduced to an allowable building area of 3,600 square feet, nearly half the lot's total acreage. The restriction also impacts on-site parking. Although parking is allowed within the building setback area, the small lot sizes limit the parking that can be provided on-site. At this time many existing commercial businesses do not provide parking for their customers on their lots because of the small lots and because there are no regulations that require on-site parking.

Different setbacks should be examined for commercial developments in the west townsite, especially for those businesses along Main Street. When the townsite was originally platted in 1918, the subdivision design was based upon the traditional style of downtowns at the turn of the century -- narrow lots allowing for storefront buildings fronting on wooden boardwalks with minimal separation from adjoining businesses. This development concept could work today, if the community is supportive of changing the setbacks within the west townsite, and provided the commercial businesses will conform to State Fire codes which will require additional fire wall protection or sprinkled fire protection systems.

Recommendation:

* **Existing Borough building setback requirements do not "fit" much of the downtown townsite area. It is recommended that these setbacks be reevaluated. Existing setback violations could be grandfathered, but new construction shall follow Borough setback requirements to relieve congestion.**

Traffic congestion, lack of a traffic circulation pattern, lack of pedestrian facilities, and lack of parking areas in the west townsite.

Downtown Talkeetna is experiencing traffic congestion problems, parking problems, and pedestrian/traffic conflicts because its transportation system has not kept pace with its expanding tourism industry. Talkeetna's narrow roads are not designed to handle the volume and size of recreational vehicles, tour buses, and pedestrians that compete for limited space in the roadway. In addition, there is no easy flow of traffic through the downtown, or signage directing vehicles to parking areas or their destination. There is not enough designated parking areas and there are no developed pedestrian walkways.

Because of the small downtown lots and because on-site parking is not required of commercial businesses, most businesses do not provide any customer or employee parking on their property. Rather, the customer is forced to find available parking either on the street, or wherever parking is available.

In the past, there was a designated parking area that was leased by the Matanuska-Susitna Borough that was located on Alaska Railroad property. This area is located north of the Village Park and was used by the general public and northbound railroad transiters. Unfortunately, the parking lot was not actively managed and it became overrun by stored vehicles. Today this parking area is no longer leased by the borough, but rather managed by the Alaska Railroad. Parking is still available on the property, but it is mostly used by railroad transiters. The area provides some general parking for the business district, but it is not designated as such. There are no other centralized or designated parking areas in the downtown area that can be used by commercial traffic at this time.

Traffic congestion is occurring in the downtown district because of the narrow streets and because there is no perceived route to and through the downtown area, or to parking areas. Generally, all traffic travels down the length of Main Street and dead ends at the river. Traffic is then forced to either turn around or take various side streets to return to the business district. Large recreational vehicles have the most difficulty maneuvering through the city streets and finding adequate parking spaces. There are no special parking areas provided for over-sized vehicles or for disabled persons.

Traffic congestion is also occurring because there are numerous pedestrians walking in the roadways of the main business district. There are no established sidewalks, boardwalks, or trails designated for pedestrian use. The Talkeetna Historical Society has produced a historic walking tour based on a plan to utilize the existing platted alleyways, but funding to develop the walkways has not been secured.

Solutions to these problems are beyond the scope of this planning effort and will require additional planning. The community is supportive of a traffic plan and master downtown plan. This effort will require the cooperation and coordination of affected property owners, businesses, public agencies, and community residents. Funding for this planning effort may be available through the Alaska Department of Community and Regional Affairs', Community Block Grant Program.

Recommendations:

Traffic Congestion

* **Efforts should be made to relieve traffic congestion in the downtown area by establishing more efficient street patterns. Possible solutions may be replatting Front Street, developing a loop road, establishing additional parking areas, establishing other parking areas with a shuttle service, restricting hours of parking on Main Street, and encouraging walking. A popular suggestion would be one-way traffic around Village Park to and along right-of-way north of Front Street and loop around to Main Street. Main Street would be one-way.**

* **A traffic plan(ner) is needed.**

* **Need for a new formal right-of-way for the relocated Front Street. Front Street would now be on railroad property. Front Street would also serve as an alternative route when Main Street is blocked.**

* **Improved access to new Front Street (via Railroad Avenue and D Street) will also be needed.**

* **Discourage parking areas and flow-through traffic (i.e. buses) through Blocks 7, 8, 15, and 16.**

* **Get lower speed limits through Talkeetna starting at 35 mph at lower Alaska Railroad crossing, 20 mph at elementary school and rest of town.**

* **Drainage problems should be addressed in the downtown core area.**

* **Encroachments on main street right-of-way creates a safety hazard and unnecessary congestion--these need to be eliminated.**

Parking

* **Pursue more public parking areas near downtown, enhance off-street parking with signs and road rights-of-way improvements.**

* **Motor homes need to be appraised of cramped corner in downtown area through signage. Signage should specify specific parking areas. No Main Street parking for motor home vehicles.**

* **Future commercial developments should provide for adequate parking facilities for their customers. Require future downtown developers to provide for their own parking.**

* **The railroad land north of Front Street should be developed as a small to moderate-size parking area with a greenbelt between the parking lot and the river.**

* **A small to moderate-size parking lot north of Front Street would allow traffic to loop back out of town via Main Street.**

* **Another highly desirable parking area would be the railroad land north of the Second Street turn-off to the airport and between Railroad Avenue and the trails.**

* **Cemetery Association lease property (west side of "F" Street) would be an ideal day-use parking place.**

* **Existing downtown railroad parking area should be used for short-term and day parking only.**

* **Traditional downtown long-term parking lot users should be accommodated by the state of Alaska.**

* **The community supports private enterprise providing vehicle space rental for long-term or short-term parking (for north-bound railroad passengers).**

* **Make provisions for handicapped parking in downtown Talkeetna.**

<u>Pedestrian Facilities</u>

* **A safe walk-way is needed from east Talkeetna into town.**

* **First Street, between C Street and the village airstrip, should be vacated.**

* **Downtown Talkeetna, especially Main Street, should be made safe for pedestrians.**

<u>Over-flow of commercial uses outside of the downtown area.</u>

Talkeetna is fortunate in that it has an established downtown business district in the west townsite and that only limited commercial development has taken place outside this core area to date. Commercial developments, especially tourist-related businesses, will likely want to locate within the west townsite in the near-term, as it is a popular sightseeing destination and a recognized historic district. Future commercial developments can be expected to locate on or near Main Street, the main thoroughfare, or along the highly visible traffic routes. Future commercial developments along the main traffic routes will develop in a strip pattern unless the community encourages these developments to a higher standard. By providing guidance to private developers and articulating a long-term direction that the community wishes to achieve, the community will be able to attain an aesthetically pleasing and functionally operative road system and roadside developments. Developments along the Talkeetna Spur Road are further discussed in the Transportation Plan, Chapter 5.

Recommendations:

* **A conditional use permitting system for businesses which would create large traffic generation and parking. Businesses should be required to get a conditional use permit to show how they would mitigate those impacts through site improvements, traffic improvements and other means.**

* **The borough or private enterprise should be encouraged to develop parking areas outside of the townsite to further encourage foot traffic.**

* **From the downtown business district to the Railroad crossing on the Spur Road, small aesthetically pleasing businesses or residences (mixed use) should be encouraged. Landscaped or greenbelt areas are encouraged.**

* **The importance of cottage industries in the Talkeetna area should be recognized and encouraged.**

* **Development outside the downtown area should be designed and landscaped in an aesthetically pleasing manner keeping the natural beauty of the area in mind. All health and safety standards must be strictly observed in any future development.**

* **Development along state and borough highways and roads should have access that does not create traffic or safety hazards.**

* **Junky yards and storage of unsightly objects should not be visible from public highways or roads.**

* **Natural buffers, landscaping, clustering and/or setbacks should be required to conserve the area as a pleasing natural setting for all residents, property owners and visitors.**

* **Strip development is discouraged. (It was suggested that this policy not refer only to strip commercial development.)**

* **Guidelines for signage outside the downtown area should be developed, including recommendations for size, style and materials.**

* **The zone along the Talkeetna Spur Road of mixed residential and commercial, a conditional use permit be required for businesses that generate large amounts of traffic, have large sewer and water uses, or create any other major impacts to current business mix along the highway.**

* **Within the residential zone, the following activities are permitted: bed and breakfast accommodations; separate cabin cottages, not to exceed twelve; home based businesses; cottage industries, such as arts and crafts; flight services; and those uses requiring a conditional use permit.**

Need for historic district planning.

The Talkeetna Historic District was recognized on the National Register of Historic Places by the National Park Service in April 1994. The register identifies properties that are older than fifty years old and that have a national historical significance. Currently there are only 320 Alaskan entries on the national register.

The Historic District in Talkeetna is a forty-three lot area whose purpose is to recognize the structures and significance of thirteen "contributing" structures that are located within the district boundaries and that were built during the time period from 1919-1939. The district boundaries and the thirteen contributing structures are shown in Figure 14, p. 4-18. Contributing structures are eligible for rehabilitation grants through the National Park Service.

Other buildings, sites, and properties are also located within the historic district's boundaries. These structures are considered "non-contributing" structures because they either are not eligible or do not contribute to the significance of the district.

The Historic District is an asset to the community and a popular tourist attraction. It has been successfully promoted by the Talkeetna Historical Society which has responsibility for numerous historic buildings in the district. Unfortunately, the district is impacted by many of the problems in the downtown area. Traffic congestion, lack of parking, and lack of pedestrian facilities make access to and through the district difficult. Additionally, there is no public restroom for the convenience of the many visitors and tourists. They are left to use the restroom facilities in surrounding local businesses and the museum, thus disrupting the services of these businesses. A public restroom is needed in downtown Talkeetna.

The newly created district does not have any guidelines for historic preservation, other than the National Park Service's guidelines for rehabilitation. In order to maintain the integrity of the district the community needs to set some standards for the district. These standards should ensure that new buildings in the district are compatible with the existing structures. New structures need not replicate the existing structures, but they should be compatible in height, scale, and style. Design guidelines would assist future commercial developers to recognize such architectural qualities like facade openings, building-to-street orientation, mass and height, and materials that would be compatible with the district. One of the existing attributes of the district that is important to the community is its natural charm. Overly ambitious signage, manicured landscaping, and excess development would negatively impact the existing rustic charm of the district.

Recommendations:

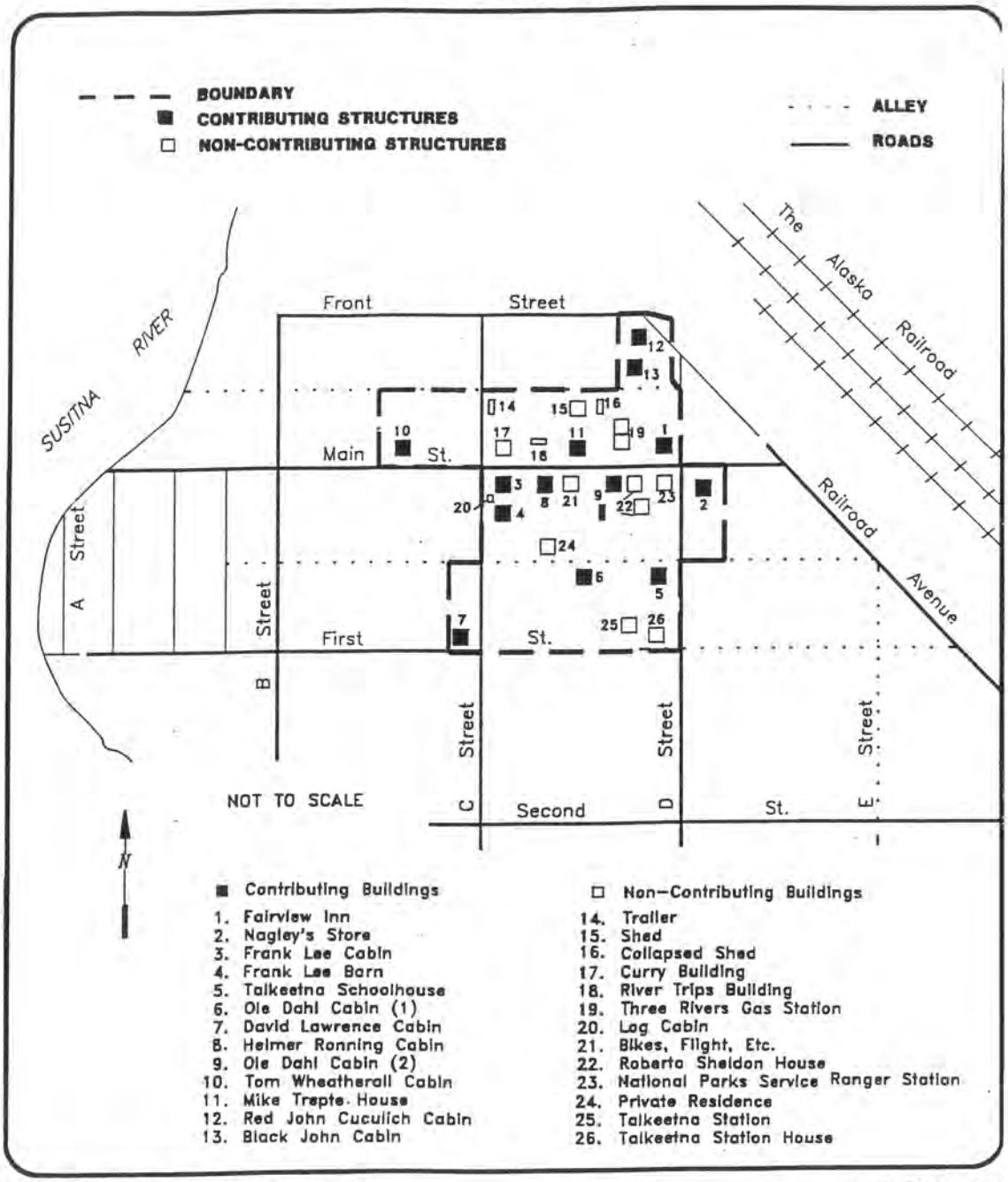
* **The historic nature of the downtown "core" area is preserved through inclusion within a National Register Historic District. Zoning regulations could be adopted to ensure that new buildings are in keeping with the rustic character of the townsite and do not detract from the existing historic structures because of inappropriate size or building materials.**
* **Mobile homes (trailers) and quonset huts should not be permitted within the historic district.**

FIGURE 14

TALKEETNA HISTORIC DISTRICT

MATANUSKA-SUSITNA BOROUGH, ALASKA

AHRS SITE NO. TAL-033



MSB PLANNING DEPT./GRAPHICS SECTION

AUGUST 13,1992

INDUSTRIAL LAND USE

Industrial activities in Talkeetna includes the air fields, float planes, the railroad, the Bartlett Earth Station communication system, gravel pits and quarry sites, and other industrial-related uses like bulk fuel storage, auto body repair and machine shops, heavy equipment rental and storage, and other uses that may generate noise, dust, odor, smoke, and fumes. Currently industrial uses are interspersed with the residential and commercial uses and present no compatibility problems except for possible screening. Industrial uses around the airports will probably present the most noxious problems (noise) in the near-future.

Additional space requirements for industry in the Talkeetna area are expected to be relatively modest during the next 20 years. The space requirements for the Bartlett Earth Station and community utilities are not expected to change significantly during the next 20 years. However, the needs of railroad and airport operations are likely to be greater than they are at present. These transportation facilities are important to Talkeetna's expanding tourism and recreation industries and are further discussed in the Transportation Plan, Chapter 5.

Industrial uses which are appropriate in the Talkeetna planning area are those light industrial uses that do not have manufacturing or other uses which produce noise, smoke, glare, or other characteristics that could be detected from off-site. Prohibited industrial uses would be those which cause or may reasonably be expected to cause excessive noise, vibration, odor, smoke, dust, or other particulate matter, toxic or noxious matter, humidity, heat, glare at or beyond the lot lines on which it is located. Excessive is defined for these purposes as a degree exceeding that generated by uses in the planning area that are occurring in a customary manner of operation or to a degree injurious to the public's health, safety, welfare, and convenience.

Recommendations for Industrial Development:

* **Lands associated with the Talkeetna State airport should be managed for airport-related operations only so that the continued efficiency of this important facility is maintained.**
* **In the longer term, extension of the State airport runway may be justified.**
* **The Talkeetna Village airstrip should remain in public ownership and should continue to be an airstrip and remain open for air traffic. In the event that historic Village airstrip can no longer be used in this traditional manner, it should be designated as a community park honoring the aviation history of the community.**
* **Increased space requirements associated with the railroad passenger amenities and parking in Talkeetna are needed.**

AGRICULTURE LAND USE

At present there are a few small to medium-size commercial farming operations occurring in the Talkeetna planning area. Most of the commercial agricultural activity is located near the Bartlett Hills Subdivision off Mastadon Road/Birch Creek Road in the southeast section of the planning area. In 1979 the State of Alaska disposed of 27 parcels in this area, ranging in size from 60 acres to 800 acres, as part of an agricultural lottery. Of the 27 parcels, over half (15) have met the State Division of Agriculture's program requirements and are now patented to the owners. To date, only three of the parcels have reverted back to the state.

Additional land outside of the planning area was also offered as agriculture parcels by the state. These parcels are located near Montana Creek (south), in the Trapper Creek /Petersville Road area (west), and in the Chase area (north).

The state's agriculture program requires the successful applicant to submit a Farm Conservation Plan which outlines a schedule for development. Development is based on the amount of Class II and Class III soils in the units. Within five years the applicant is required to develop 25% of all Class II and III soils. Fifty percent of all Class II and III soils had to be developed within ten years of the time from when a feasible road is built for access. Several of the farms in the planning area do not have feasible road access at this time and are not under a development time schedule.

Other agricultural activities occurring throughout the planning area are located on private land and is mostly personal-use small-scale farming. In addition, many of the local residents garden for enjoyment and to help defray their food costs.

Successful commercial agricultural production requires appropriate soils and weather conditions, as well as, economic markets and adequate infrastructure. Weather in Alaska is the most limiting factor affecting crop choice. Only crops that grow in cool climates and are winter hardy are suitable for Alaska. Root and leafy vegetables that mature early are particularly well-suited to Alaska, as are the principal hay and silage crops of bromegrass, oats, timothy and barley.

Although soils which are conducive to agriculture have not been studied or identified in great detail in the Talkeetna planning area, most soil conditions present in the planning area limit its agricultural potential. The United States Department of Agriculture, Soil Conservation Service, (SCS) has prepared soil survey maps that show "generalized" soil series and management capabilities for crops and pasture lands in Alaska and the Talkeetna planning area. According to the SCS, soils in Alaska are divided into capability classes ranging from Class I soils to Class VIII soils. Class I soils have few limitations that restrict their use for agriculture. According to SCS, there are no Class I soils in Alaska. Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices. Class III - VIII soils have more severe limitations that require careful management practices or restrict their use.

Soils classes in the Talkeetna planning area range from Class II to Class VIII. Generally soils that are located on level or near-level slopes fall into the Class II category. Most of the soils in the planning area fall into the higher classes because of their steepness, shallow soil depths, or other soil characteristics. Management practices that are needed to improve production in all classes include, adding lime to neutralize the acidic nature of the soil and adding fertilizer or organic matter to improve tilth. A local farmer (Martin Hoskins, 1995) reports that soil tests (100 mol calcium chloride) on some vicinity farms have yielded soluble aluminum levels of from 8 to 30 ppm. Soluble aluminum above certain concentrations will either prevent or limit production of certain crops.

Volcanic ash derived agricultural soils (including most of agricultural parcels in the Talkeetna area) have near the highest absorption rate of phosphorous, thereby requiring larger amounts of fertilizer to make phosphorous available to plants.

In addition, most of the acreage in the planning area is wooded and clearing is required for agriculture. Clearing is an expensive operation that makes agriculture start-up very costly to the prospective farmer.

Both the state of Alaska and the Matanuska-Susitna Borough require that public lands be classified for agriculture prior to disposal for agriculture purposes. Currently there is only one small state land parcel classified for agriculture in the planning area that has not been disposed of in the agricultural lottery. This parcel is located near the Bartlett Hills Subdivision area. At this time the state does not have any near-term plans to re-classify other state lands in the planning area as agriculture. Any future land re-classification could be accomplished administratively by the Department of Natural Resources.

The Matanuska-Susitna Borough has a policy of encouraging the agricultural use of its lands when such land is suitable for agriculture. According to the recently adopted Borough Code, Chapter 23, borough land may be offered for agriculture land sales after it is classified or zoned solely for agriculture purposes. Lands that are classified as agriculture are those lands which, because of soils, location, physical or climate features, or adjacent development, are presently or potentially valuable for the production of agricultural crops. The borough's agricultural and forestry advisory board and the planning commission make recommendations to the assembly on agricultural classifications. At this time the borough does not have any lands classified as agriculture in the planning area.

Between 1977 and 1983 the borough sold or leased agricultural rights to fifty parcels of borough land, all of which were located outside of the Talkeetna planning area. The borough's program resulted in approximately half of the parcels either being in arrears, abandoned, or having difficulty meeting the program's requirements. As a result of the poor performance of the program, the borough in Selected Lands Report and Balances, 1991, recommended that prior to any future agricultural disposal programs, a complete analysis of the 1977-1983 program should be completed.

Both the state and the borough's agricultural disposal programs rely on the SCS's soil classifications to determine the suitable soils for agriculture classification and disposal. Past agricultural sales have shown that in some cases these soil classifications are inaccurate due to the generalized nature of the soil maps. Prior to any future agriculture classifications, a more detailed soils analysis is needed in order to determine the extent of viable soils and the appropriateness of agriculture development in the area.

Successful agriculture requires economic markets and the necessary infrastructure to get farm products to potential customers. In the planning area the agriculture parcels located off of Birch Creek Road and Mastadon Road, are on borough maintained roads, but these roads are of substandard design. In order for agriculture to succeed good access is critical. Any future agriculture program should consider the infrastructure needs of the industry.

Currently the agriculture production in the planning area is concentrated in potato, hay, vegetable, and some livestock production. The industry is in its developing stages. Most of the farms are not self-supporting at this time. Most owners must work other jobs in order to supplement their farm incomes, which is not a unique dilemma since nation-wide a large percentage of farms depend on off-farm incomes.

As a developing industry there are other crops and activities that can be explored for an improved and expanded agriculture industry in the area. Tree farming, honey production, nursery and greenhouses, truck farming, and game ranching are all possible future agricultural activities compatible with the area's development. Generally the planning area residents support small-scale agricultural activities.

Recommendations for Agriculture Development:

* **Previously offered agricultural parcels might be reoffered, but it is recommended that soils on such parcels be tested for soluble aluminum prior to disposal.**

* **The existing state and borough's agriculture programs need to be reconstructed so that relinquished parcels are re-evaluated, all parcels are accessible by existing roads, and that smaller farmsteads may be a more practicable alternative to large scale agriculture.**

FORESTRY LAND USE

The forests surrounding Talkeetna have provided numerous benefits to the public as a source for fuelwood, houselogs, settlement, recreation, and hunting. The forest's watersheds help maintain the area's high water quality and the forests provide valuable habitat for wildlife and birds.

Large scale commercial harvesting has not occurred in Talkeetna. Historically some timber harvesting probably took place during the railroad expansion period, but since the 1920's commercial use has been light with harvest primarily aimed at providing firewood and houselogs for personal use.

According to the State's area forester there is currently 1-3 small sawmills operating in the northern district of the Susitna River valley. At this time most timber harvesting is done by small scale operators cutting on private land. There are no current state timber sales or state leases for timber harvesting in the Talkeetna planning area and none planned within the next five years. Lack of road access and low timber volume and quality are the factors limiting further state involvement in the area. According to the state forester there is not enough high value and high quality timber for any large scale commercial timber activity. The forester also notes that there is not any spruce bark beetle infection or other diseases in the northern district that are pressing enough to warrant large scale harvesting and preventative measures.

The nearest timber harvesting on state land is occurring off of Oil Well Road and West Petersville Road in an area located west of the Talkeetna planning area. The state is planning future timber sales of 5-10 acres within the next five years in the Rabideau Creek area, Cottonwood Creek area, and East Petersville area; none of which are located in the Talkeetna planning area.

Forest resource development on all land, both private and public, in the Talkeetna planning area is regulated under the State's Forest Resources and Practices Act (FPA, AS 41.17). State lands with forest resources are additionally managed by the Department of Natural Resources under the Susitna Area Plan (1985) and the Susitna Forestry Guidelines (1991). The Susitna Area Plan contains a "Forestry" element which offers recommendations for the management of forested lands. Susitna Forestry Guidelines, contains the following paragraph on Page 13:

> **South Parks Highway 9c - Talkeetna Woodlot.** The Talkeetna Community Council is interested in establishing a community woodlot. This subunit is a candidate for a woodlot for the Talkeetna area, particularly if a woodlot could be established on both state and borough lands.

In order to help achieve the standards of the Forest Resources and Practices Act, the State Division of Forestry has developed a Forest Practices Field Manual containing "best management practices" (BMP's) for timber operations. Most of the BMP's address road construction, erosion control, and road maintenance. The BMP's are guidelines; not mandatory.

Any forestry activity occurring within the banks of an identified anadromous waterbody must receive a fish habitat permit from the State Department of Fish and Game. Habitat permits are required to ensure that human activities within fish streams do not impede the free and efficient passage of fish. Waterways containing anadromous fish are protected under the Anadromous Fish Act (AS 16.05870) and the Fishway Act (AS 16.05.840).

For state and borough lands in the Talkeetna planning area that are located south of the Talkeetna River and east of the Bartlett Earth Station and around Larson Lake (Units 5a, 5b, 5c), the Susitna Area Plan (SAP) does not recommend any land for forestry designation as a primary use. Rather, the SAP recommends that public lands be designated for settlement as a primary use, and secondary land use designations are for forestry, public recreation, and wildlife habitat.

The 1985 Susitna Area Plan designated the borough land in Unit 5d, north of the Bartlett Hills, as "borough land bank". The borough land bank designation left the decision regarding the appropriate use of this land to a later date. In 1990 the borough classified this area as Forest Management Lands, Unit #3 (Ord 90-020AM). No other areas of public land in the planning area were designated forest management.

Forest management lands are defined as "those lands which because of physical, climatic, and vegetative conditions are presently or potentially valuable for the production of timber and other forest products. Forest management shall emphasis the multiple use concept. It is the intent of the [Borough] Assembly that the renewable resources on lands of this classification shall be managed under the sustained yield principle on a long-term basis. "Multiple use" means the management of all the various resources of the borough's forests so that: they are utilized in the combination which best meets the needs of borough residents with periodic adjustments in use to conform to changing needs and conditions; some land will be used for less than all of the resources, without impairment of the productivity of the land, and with consideration being given to the relative values of the various resources, not necessarily the combination of uses which will give the greatest dollar return of the greatest unit output."

Management plans that are site-specific for each forest management unit must be developed by the borough prior to any commercial timber harvest operation as required by Ordinance 90-020AM. At this time the borough does not have a Management Plan for Unit #3, nor does the borough have any plans for commercial timber harvesting of the area in the near-term.

As part of the borough's research prior to adoption of the seventeen (borough-wide) Forest Management Units, a timber supply report was prepared (1989). This report describes Unit #3 as containing 5,098 acres, of which 64% (3,282 acres) are considered commercial forest land, of the total 3,482 acres forested. Commercial forest land is defined as forest land capable of producing at lease 20 cubic feet per acre of timber per year under management.

The report describes the majority of the Unit #3 forest to be closed mixed-forest with old age trees (over eighty years old) and some closed mixed-forest with medium age trees (40-80 years old). Closed mixed-forest has a crown cover exceeding 50% of which the predominate trees are birch. The closed mixed-forest type is classed as averaging 219 trees per acre and 1,074 cubic feet of volume per acre in trees five inches or larger. Unit #3 has the potential of producing nearly 3.5 million cubic feet of timber.

By comparison with other borough forest management units, this unit represents a mid-size management unit. Whiskers Creek and Chijuk Creek are the borough's largest forest management units, with 20,457 acres and 17,068 acres of commercial forest lands, respectively. Of the total borough-wide inventory of timber, 90% is classed as mature and over-mature birch.

The borough recently proposed development of its Chijuk Creek forest management unit. An attempt was made to attract private industry to harvest the area. Under a forest management agreement a private company studied the economic viability of the current wood products markets and concluded that the markets would not support the development of the Chijuk Creek forest in the near-term. Left unresolved in the report, is the economic viability of the other borough forest management units, most of which are of smaller yield, like Unit #3 in the Talkeetna area.

Forest resource development has been studied in the past in the Susitna Cooperative River Basin Study: Economic Development Analysis: Talkeetna Subbasin, (1976). This report concluded that timber activity could be viable provided it did not have to share the burden of road construction costs or cover the value of the standing timber. Essentially the industry would either have to be located in areas where roads are already existing, or have to be subsidized in order for it to be economically viable at the present time. In another report, Susitna Area Plan, Forestry, Oct 1983, it also concluded that "if road costs are assessed against timber values only a portion of Susitna area forests can be harvested economically" p. 60. The report indicated that lands along the Talkeetna Spur road and in the Bartlett Hills area are recommended for first priority commercial forest management due to the fact the areas are currently on roads or likely to have road access in five years. Commercial harvest along the Talkeetna Spur Road in the Planning Area would be highly objectionable and is contrary to the goals of this comprehensive plan.

The community is supportive of forestry development on a small-scale personal use basis only. Since half of the community uses wood as its fuel source for heating, the community would like wood lots to be designated for community use.

Recommendation for Forestry Development:

* **That the North Bartlett Hills, Forest Management Unit Number 3 be designated a "forest trust" to be managed by a local board for sustained yield that maintains access through trails within dedicated sixty foot right-of-ways. This use should be considered prior to entering into any forest management agreement with a private party.**

PUBLIC LANDS

State-owned and Matanuska-Susitna Borough owned lands in the planning area are managed under the Susitna Area Plan and the Susitna Basin Recreation Rivers Management Plan.

The Susitna Area Plan was adopted by the Commissioners of the Alaska Department of Natural Resources and Alaska Department of Fish and Game and by the Matanuska-Susitna Borough Assembly on March 19, 1985, and should be revised every five years. The plan was prepared by an interagency team from the government agencies. It represents a land use plan for public lands in the entire Susitna River drainage basin area. Those areas in Talkeetna that are subject to the plan fall into the South Parks Highway subregion: Management Unit 9 (Talkeetna), Unit 8 (Bartlett Hills), Unit 7 (Bald Mountain), Unit 6 (Upper Talkeetna River), Unit 5 (Larson Lake), and the Talkeetna Mountain subregion: Management Unit 3 (West Side) (see Figure 15, p 4-26). The South Parks Highway subregion includes public lands that are located east and south from the Talkeetna River extending to the foothills of the Talkeetna Mountains and to beyond the boundaries of this planning area. The South Parks Highway subregion's overall management goal is to preserve much of the character of the area by retaining habitat and recreation lands, protecting visual qualities along the highway, and maintaining low population densities in some settlement areas, while providing for future growth in the area.

According to the plan most of the state-owned lands near the Parks Highway is recommended to be retained in public ownership to provide for recreation sites, material sites, woodlots, and open spaces. Other public lands further from the highway will be retained in public ownership for forestry, fish and wildlife habitat, and recreation. According to the plan most borough land is to be designated borough land bank and retained for the near-term to be managed for various public uses, including recreation, wildlife habitat, and forestry. In the long-term these lands are to be used for settlement or agriculture.

The Susitna Area Plan left open to mining and oil and gas exploration all public lands not included in the Recreation Rivers corridors and those classified as settlement and agriculture. Proposed transportation corridors included in the plan are roads to Larson Lake and to the Chase III subdivision area. These transportation corridors are further discussed under the Transportation Plan, Chapter 5.

The following is a brief summary of the primary land use designations:

Management Units 9a-9d. Primary land use designations for public lands around the Talkeetna townsite and nearby surrounding area include: Borough land bank, primarily private, public recreation, and wildlife habitat. Secondary designations include agriculture and forestry.

Management Units 5a-5d. Primary land use designations for public land around Larson Lake include: settlement, public recreation, wildlife habitat, and borough land bank. Secondary designations include forestry and agriculture.

Management Units 7a-7d. Primary land use designations around Bald Mountain and south of Bald Mountain include: settlement, public recreation, and wildlife habitat. Secondary designations include forestry.

SUSITNA BASIN RECREATION RIVERS MANAGEMENT PLAN

TALKEETNA RIVER

SUBUNITS
- 3a Lower Talkeetna River
- 3b Middle Talkeetna River
- 3c Clear (Chunilna) Creek
- 3d Talkeetna Canyon

SUSITNA AREA PLAN

SOUTH PARKS HIGHWAY

MGT.UNIT 2-SUSITNA/CHULITNA RIVER
- 2 FORESTRY, WATER RESOURSES, PUBLIC REC., WILDLIFE HAB.

MGT.UNIT 5-LARSON LAKE
- 5a SETTLEMENT; (existing subdivisions); forestry (personal use) public rec., wildlife hab.
- 5c SETTLEMENT; forestry (personal use), public rec., wildlife hab.
- 5d BOROUGH LAND BANK-Values: agric., forestry, public rec., settlement, wildlife hab.

MGT.UNIT 6-UPPER TALKEETNA RIVER
- 6b PUBLIC REC., WILDLIFE HAB.; forestry

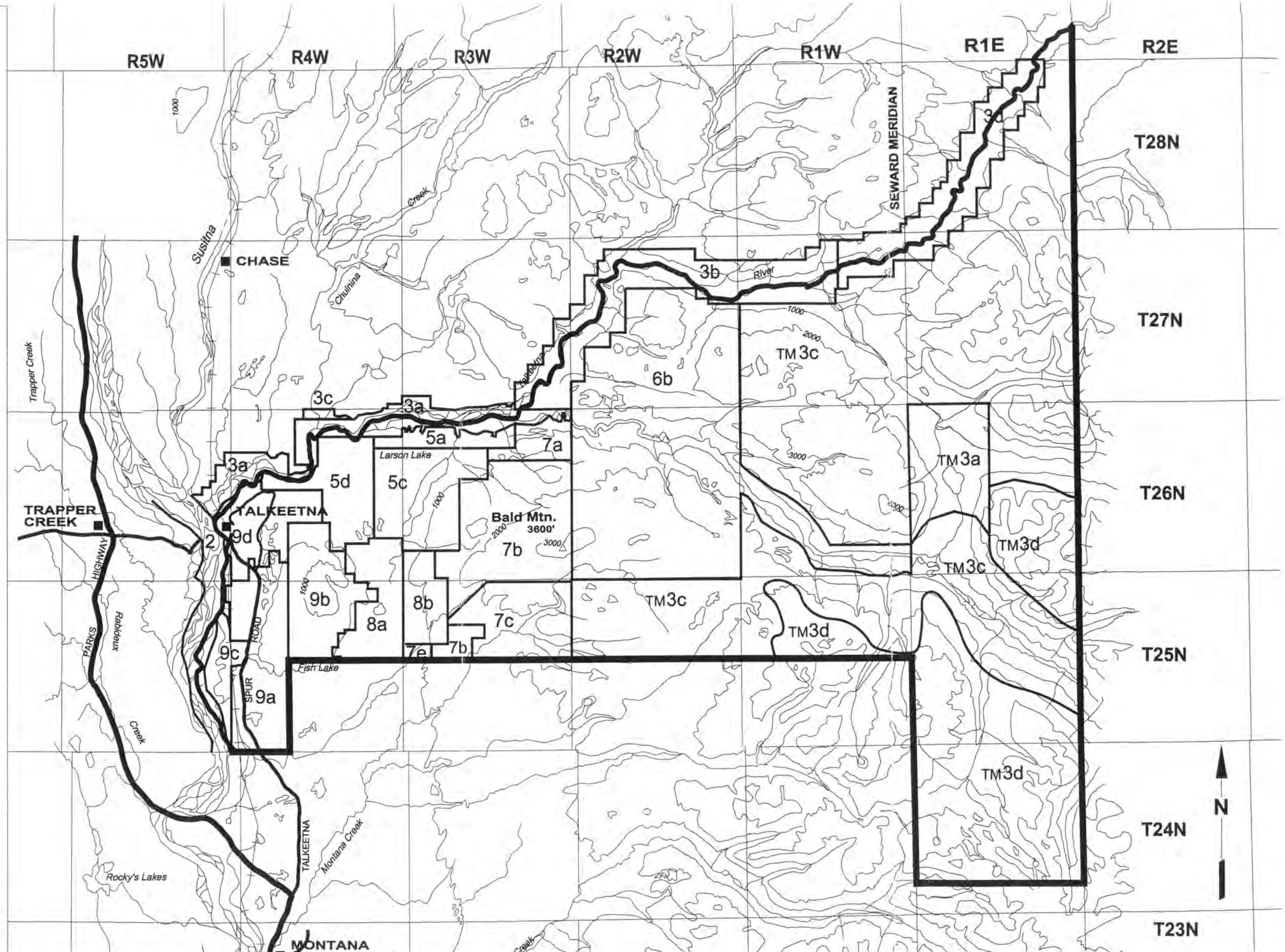
MGT.UNIT 7-BALD MOUNTAIN
- 7a SETTLEMENT; forestry, wildlife hab.
- 7b SETTLEMENT; (past remote parcel and subd. offerings); forestry, public rec., wildlife hab.
- 7c SETTLEMENT; forestry, wildlife hab.
- 7e SETTLEMENT; public rec., wildlife hab.

MGT.UNIT 8-ANSWER CREEK
- 8a AGRICULTURE (past sales); forestry, public rec., wildlife hab.
- 8b PRIMARILY PRIVATE LAND

MGT.UNIT 9-TALKEETNA
- 9a BOROUGH LAND BANK-Values: Agric., forestry ,public rec., settlement, wildlife hab.
- 9b PRIMARILY PRIVATE LAND
- 9c PUBLIC REC., WILDLIFE HAB.; forestry
- 9d PRIMARILY PRIVATE LAND

TALKEETNA MOUNTAINS

MGT.UNIT 3-WESTERN TALKEETNAS
- TM3a PUBLIC REC., WILDLIFE HAB.; remote cabins; grazing
- TM3c PUBLIC REC., WILDLIFE HAB., grazing, remote cabins
- TM3d PUBLIC REC., WILDLIFE HAB.; remote cabins



TALKEETNA COMPREHENSIVE PLAN

PUBLIC LAND USE

PUBLIC LAND USE DESIGNATIONS:
PRIMARY....................... CAPITALS
SECONDARY.................. SMALL LETTERS

TALKEETNA PLANNING AREA BOUNDARY

CONTOURS 2000
RIVERS/CREEKS
LAKES
COMMUNITIES
ROADS

SCALE
0 1 2 3 4 5 6
MILES

FIGURE 15
Page 4 - 26

Management Units 8a-8c. Primary land use designations around Answer Creek and Bartlett Hills include: agriculture, primarily private, and settlement. Secondary designations include forestry, public recreation, and wildlife habitat.

Management Unit 3, Talkeetna Mountains, West Side, Units 3a-3d. These lands are located in the upper reaches of the Talkeetna River, Sheep River, Iron Creek, Montana Creek, and Sheep Creek area. Subunit 3a surrounds Rainbow Lake and is to be managed primarily for public recreation and wildlife habitat. Secondary designations are for grazing and remote cabins.

Subunit 3b is the Talkeetna River corridor which has been superseded by the Recreation Rivers Act and its management intent. Subunit 3c is the State land between the Talkeetna River and Iron Creek and is to be managed primarily for public recreation and wildlife habitat. Grazing and remote cabins are secondary designations.

Subunit 3d is mountainous lands in the upper reaches of Sheep River. This unit is to be managed primarily for public recreation and wildlife habitat. Located within this unit is a mineral lick which is used by wildlife during the spring and early summer. The management intent for the area around this lick is to protect its value for wildlife. This unit and all other state land not designated as agriculture or settlement is open to mineral exploration and possible mineral development. The Department of Natural Resources will develop stipulations on a case-by-case basis for mining leases to protect the natural resources, fish and wildlife habitat, and this mineral lick.

Located east, southeast of the planning area and outside of the planning area is the Nechina Public Use area created by the Legislature in 1985. The establishment of this area is to protect and maintain the fish and wildlife habitat, particularly the caribou calving areas, trumpeter swan nesting areas, and habitats for moose, Dall sheep, and brown bear. The unit was also created to perpetuate and enhance the public's enjoyment of fish and wildlife and their habitat and to enhance public recreation. The unit is managed by the Department of Natural Resources. It is open to mineral entry, exploration, development, and extraction compatible with the area's management intent.

The Talkeetna River is one of six state recreation rivers that was established by the Recreation Rivers Act (AS 41.23.400-500) in order to maintain and enhance the land and water for recreation purposes. The Susitna Basin Recreation Rivers Management Plan was adopted in August 1991 to outline the state's management intent for the recreation rivers. The primary purpose for the management of the rivers is for a variety of resources and uses including, fish and wildlife, recreation, economic use, the enjoyment of the public, multiple use of the uplands, and the accommodation of access.

Forty-five miles of the Talkeetna River from its mouth (confluence with the Susitna River) to the middle of Talkeetna canyon is designated as a recreation river per the act. It is managed as the "Talkeetna Management Unit" by the Alaska Department of Natural Resources. The Recreation Rivers Act management policies apply only to state land and water within the management unit. In the management plan the Talkeetna River is designated as a motorized river.

The Talkeetna Canyon subunit (River Mile 32 to 44.5) is approx. 9,000 acres and extends upstream from the mouth of Iron Creek to the middle of Talkeetna Canyon. In this area the river is restricted to a steep-walled canyon and offers nearly 14 miles of whitewater rapids of the Class III and Class IV levels. This whitewater is one of the longest stretches of continuous whitewater in North America. Technical skill is required to float this stretch of whitewater, consequently this area is used by a limited number of recreationists. The management intent of this unit will be to maintain low levels of camp encounters, protect the recreation opportunities and wildlife habitat, and maintain the area in an essentially unmodified natural environment.

The Recreation Rivers Management Plan recommends that this unit be expanded in the future to include up to river mile 51.5 located at the mouth of Prairie Creek. There is a one-acre public site easement at the mouth of Prairie Creek which would be recommended as a public use site, if this unit is expanded. This site easement restricts the use of the site to only members of the public traversing the Talkeetna River by watercraft and for use as a temporary camping site. No fishing is permitted. All surrounding upland is native-owned.

The State of Alaska is in the process of adopting regulations to administer uses and activities within the recreation rivers. Uses that are generally allowed are shown in Figure 16, p. 4-31 and 4-32. Uses that will not be allowed without authorization of a permit and a fee include: use of public use cabins, commercial use permits, and recreation rivers permits. During the 1994 season commercial operators will not be required to acquire commercial use permits. In the future, before issuance of a commercial use permit, the applicant will be required to insure and bond the activity/use. Annual reporting will also be required.

Trespass on state land or water is prohibited and activities that are considered trespass include: unauthorized use of state land or water, damage to state land or resources, unauthorized taking of state resources, unauthorized placement of improvements or personal property on state land or water, unauthorized operation of a commercial activity, and unauthorized travel across state land.

FIGURE 16
GENERALLY ALLOWED USES WITHIN THE
STATE RECREATION RIVERS
Division of Land
January 1994

The following uses and activities are generally allowed on state land managed by the Alaska Division of Land within the Recreation Rivers Management Plan area that are not in any special management category of status. Uses listed as generally allowed do not require any permits from the Department of Natural Resources. Note that this list does not apply to private land or land owned or managed by the Matanuska-Susitna Borough. Before beginning an activity within the Recreation Rivers plan area, the user should check to be sure it is **generally allowed** in that particular area. This does not preclude the necessity of obtaining other state or local permits as required by law.

The list of generally allowed uses and activities is as follows:

Travel across state land by hiking, backpacking, skiing, climbing, bicycling, horseback, dogsled, or other pack animals.

Operation of an off-road vehicle under 1000 pounds on existing trails or cross country when there is sufficient snow cover and ground frost as specified in Chapter 2 of the Recreation Rivers Management Plan. DNR will announce each year when there is adequate/inadequate cover in the spring and fall through news releases or other means.

Operation of a highway vehicle on a road or trail built and maintained for use by highway vehicles.

Operation of a boat, canoe, raft, kayak, or any other form of water transportation except as restricted in Chapter 2 of the Recreation Rivers Management Plan.

Landing of fixed wing aircraft or helicopters, except as restricted in Chapter 2 of the Recreation Rivers Management Plan or by other state or federal regulations.

Hunting, fishing, or trapping in accordance with Board of Game or Fisheries regulations and regulations of the Guide licensing and control board.

Harvesting of wild plants, mushrooms, berries, and other plant material for personal use; using dead and down timber as firewood for cooking or warming fires, unless the area has been closed to all fires due to wildfire danger and except that all dead and down timber greater than 7" in diameter that lies below ordinary high water may not be harvested.

The use of light portable field equipment, such as hand - operated pick, shovel, pan, earth auger, backpack power drill or auger, or the use of a suction dredge with up to a 6" intake and a 16h motor that is capable of pumping no more than 30,000 gallons of water per day for prospecting and recreational mining activities that are not in an active river channel.

Establishing and using a primitive tent camp or recreational use site for recreational use for no more than four days in any one location between May 15 and August 31 and no more than 14 days during the rest of the year. The use of a site may not cause lasting damage to vegetation, drainage, or soil stability; interfere with public access or other public purposes; or involve harassment or disturbance of fish or wildlife other than lawful hunting, trapping, or fishing.

Storing or parking of vehicles, equipment, and boats, for no more than four days at one location between May 15 and August 31 and no more than 14 days for the rest of the year except that vehicles used to drop off or pick up non-commercial recreational users of a recreation river may remain parked as long as the recreational activity is occurring on a continuous basis.

Establish an open campfire, except as otherwise restricted by law due to fire hazard and except where fire-rings or some other specific structure is provided for fires.

The use of weapons, except as otherwise restricted by state law, and except for within a one quarter mile of the Deshka River between its mouth and the Fish and Game camp at approximately mile 2 of the Deshka from May 15 to August 31 and at any other area that is designated in the future as an area of high public use where the use of firearms constitutes a threat to public safety.

An organized assembly of up to 14 persons in a Class 1 area and up to 49 persons in all other areas except for organized promotional or entertainment events.

Brushing survey lines and trails less than three feet wide where there is no disturbance of the ground vegetation or the root systems of the brush being cut and where such trails do not constitute a right-of-way. Only trees that are four inches or less in diameter at breast height may be cut.

The construction, placement, and use of a floating dock for personal or community (non-commercial) use on state waters, except in class one areas, if the following conditions are met.

(a) Docks must be placed adjacent to an upland property that is owned or leased by one of the owners/users of the dock.

(b) Docks must be removed prior to ice formation on the water body.

(c) The total surface area of a personal use dock may not exceed 100 square feet and 300 square feet for a community dock.

(d) Docks and the boats tied to them shall not constitute a hazard or impede navigation.

(e) Docks may not extend more than 15 feet from the edge of the water.

(f) Walkways or ramps connecting the dock to the shore may not exceed four feet in width.

(g) Surface treated or creosote treated wood shall not be used in contact with the water. If drums are used they shall be clean and sealed.

(h) Cantilevered, fill supported, or pile supported docks are not generally allowed.

A **livestock drive** of less than 100 animals.

Floating Facilities are specifically not allowed within a recreation river.

During the course of this planning effort several issues related to public land use have been identified in this planning effort. They include:

* Need to review the management designations and management guidelines for public lands as contained in the Susitna Area Plan.
* Need to address the management guidelines for development along lakes, streams, other water bodies, and the Talkeetna River.

Need to review the management guidelines for public lands as contained in the Susitna Area Plan. The Susitna Area Plan is a document that articulates the State of Alaska's and the Matanuska-Susitna Borough's intent for management of its public lands in the region. The document was written in 1985 and a review of its management guidelines for public land in the Talkeetna planning area is timely as part of this comprehensive planning effort. The Talkeetna Comprehensive Plan should contain recommendations for clarifications and/or changes to the Susitna Area Plan, if needed. Any changes proposed to the Susitna Area Plan from this comprehensive planning effort would be directed to a future update of the plan or amendments to the plan. The Talkeetna Comprehensive Plan should be consistent with the Susitna Area Plan.

Public land managers benefit from knowing the local community's important values and interests as they relate to public lands surrounding the community. By knowing the local community's interests, land managers will be better able to balance the state's and borough's interests with those of the community.

Recommendations for land use designations within management units that are located in the Talkeetna planning area as follows:

Recommendations:

SOUTH PARKS HIGHWAY SUBREGION

Management Unit 5 - Larson Lake

Subunit 5a

Primary: Settlement, public recreation and wildlife habitat

Secondary: Forestry (personal use)

It is recommended that the existing number of parcels in the area be counted and a carrying capacity study done to determine how many dwellings can be supported by the resources - including existing disposals; and that no new disposal or subdivision of public lands in remote areas (i.e. those areas

not accessible by road) within the planning area should be permitted until such time as there is a demonstrated lack of available remote residential lands.

Future development and subdivisions in remote areas should have a minimum lot size of forty acres or larger as determined by carrying capacity analysis.

Subunit 5b

Shown as 3a and 3b on Public Land Use, which are subunits within the Susitna Basin Recreation Rivers Management Plan.

No change

Subunit 5c

Primary: Settlement, public recreation and wildlife habitat

Secondary: Forestry (personal use)

Larson Lake is rich in natural resources. The Lake and its outlet stream are home to a variety of fish - sockeye, coho, chum, pink, chinook salmon, rainbow and lake trout, dolly varden, whitefish, longnose sucker, slimy sculpin, burbot, and three spine stickleback. The Lake is a major sockeye salmon spawning ground for the Talkeetna River drainage. According to Cook Inlet Aquaculture Association studies, there is an out-migration in a range of 77,874 to 643,856 sockeye smolts and an escapement into the Lake of from 16,753 to 35,254 adult sockeye salmon.

The multitude of wetlands at the south end of the Lake and on various surrounding lands protects the water quality and provides food for the fisheries.

The cultural resources of the Larson Lake area must be considered when land use is proposed. There has been no archaeological survey of the Lake although there is a good possibility of the presence of an historical site according to an oral history provided by Shem Pete, the Athapaskan recognized as an expert on Dena'ina history and folklore. According to the Susitna River Basin Study Cultural Resource Assessment, the Larson Lake location was reportedly a stopping place for tea when the trip up into the mountains to hunt occurred.

Before future land settlement or road building occurs in the area, archaeological analyses of the area should be done.

No new disposal or subdivisions of public lands in remote areas (i.e. those areas not accessible by road) within the planning area should be permitted until such time as there is a demonstrated lack of available remote residential lands.

Future development and subdivisions in remote areas should have a minimum lot size of forty acres or larger as determined by carrying capacity analysis.

Subunit 5d

This is Borough Forest Management Unit 3. It is recommended that this Management Unit be designated a "Forest Trust" by the Borough to be managed by a local forestry advisory board (See "Forestry Land Use" section).

Management Unit 6 - Upper Talkeetna River

Subunit 6a

Shown as subunit 3d on the Public Land Use map. Subunit 3d is a subunit of the Susitna Basin Recreation Rivers Management Plan.

No change

Subunit 6b

No change

Management Unit 7 - Bald Mountain

Subunit 7a

Primary: No change

Secondary: Amend: Forestry to Forestry (personal use)

Subunit 7b

Primary: Amend: Settlement to Settlement; Add Wildlife Habitat

Secondary: Amend: Forestry to Forestry (personal use) Delete: Wildlife Habitat

It is requested that the presence of the Nelchina caribou herd in the area in the summer be noted.

It is further recommended that the carrying capacity of the natural resources in the area to support/tolerate settlement (dwelling units) should be calculated and compared to the number of dwellings that are possible/probable on existing disposals.

No new disposal or subdivisions of public lands in remote areas (i.e. those areas not accessible by road) within the planning area should be permitted until such time as there is a demonstrated lack of available remote residential lands.

Future development and subdivisions in remote areas should have a minimum lot size of forty acres or larger as determined by carrying capacity analysis.

Subunit 7c

Primary: Amend: Settlement to Settlement; Add: Wildlife Habitat

Secondary: Amend: Forestry to Forestry (personal use); Delete: Wildlife Habitat

It is requested that the presence of the Nelchina caribou herd frequently use the area in the summer be noted.

No new disposal or subdivisions of public lands in remote areas (i.e. those areas not accessible by road) within the planning area should be permitted until such time as there is a demonstrated lack of available remote residential lands.

Future development and subdivisions in remote areas should have a minimum lot size of forty acres or larger as determined by carrying capacity analysis.

Subunit 7e

No change

Management Unit 8 - Bartlett Hills

Subunit 8a

Primary: Add: Settlement

Settlement in this subunit is justified as it is on the road system. Minimum lot size within this subunit should be five acres.

Subunit 8b

Although primarily private native land, the Committee recommends settlement as a primary use for the lands with recreation, limited forestry, and wildlife habitat as secondary uses. It is further recommended that if logging occurs in the area, the Forest Practices Act be followed, including protection of riparian zones; and that conservation measures be adopted. Large scale forest clearing is not desirable.

Future development and subdivisions in remote areas should have a minimum lot size of forty acres or larger as determined by carrying capacity analysis.

Management Unit 9 - Talkeetna

Subunit 9a

It is recommended (see also Additional Parklands in Chapter 6) that the block of State and Borough land around X, Y, Z and Tigger Lakes; the block of contiguous public land north of Fish Lake; and the block of Borough land around Number Lakes be reserved for "park and preserve" purposes. It is recommended that the remainder of Borough land in the subunit be designated for Settlement, as appropriate.

The Committee recommends that the material sites be recognized as a resource value in this subunit.

Minimum lot size in this subunit should be five acres.

Subunit 9b

No change

Minimum lot size in road-accessible areas should be five acres; while the minimum lot size in areas that are **not** road-accessible should be forty acres.

Subunit 9c

Primary: Add Settlement (on high ground, keeping stream corridors in public ownership)

Settlement in this subunit is justified as it is on the road system. Minimum lot size within this subunit should be five acres.

Subunit 9d

Add Secondary Use: Forestry (personal use) and materials source

TALKEETNA MOUNTAINS SUBREGION

Management Unit 1 - Denali Highway

Subunit 1a

No change

Management Unit 3 - West Side

Commercial grazing of non-indigenous species may be incompatible with other management goals of this unit. Impacts should be carefully considered before permits are granted.

Subunit 3a

No change

Subunit 3b

This subunit is now part of the Talkeetna River Management Unit, Subunit 3d of the Susitna Basin Recreation Rivers Management Plan

No change

Subunit 3c

No change

Subunit 3d

No change

Need to address management guidelines for development along water bodies and the Talkeetna River.

Land use regulations that apply to State waters and lands adjacent to water bodies are covered by State of Alaska and Matanuska-Susitna Borough regulations.

Borough regulations require a minimum setback of 75 feet from water bodies or watercourses for all dwelling structures or habitable buildings or garages (MSB Title 17.55.020). Non-habitable structures, like boat houses, docks and piers, airplane hangers, etc. may be located closer than the required setback provided they are not used for habitation. Subsurface sewage systems are required to setback a minimum of 100 feet from any water body or water course. Borough code Title 9 outlaws the pollution of State waters.

State of Alaska regulations cover activities along anadromous streams under the Anadromous Fish Act (AS 16.05.870) and the Fishway Act (AS 16.05.840). In addition, State and Borough regulations contained in their coastal zone management programs regulate uses and activities within coastal habitats, including estuaries, wetlands, rivers, streams, lakes, and important upland habitats within the boundaries of the coastal zone district.

Although existing regulations do not mandate lakeshore management and stream corridor management, the State and Borough have been reserving easements and buffers along public lands prior to past land disposals according to recommendations in the Susitna Area Plan. The Susitna Area Plan recommends several lakeshore management guidelines including:

* Retaining all islands and at least 50% of all public lands within 500 feet of the lakeshore in public ownership on all lakes with significant recreation values. Retained lands would include 50% of the actual shoreline.
* Retaining a minimum 50 foot public access easement along the shoreline for lakefront property conveyed to private ownership.
* Designating lakes as either general development lakes, recreational development lakes, or wilderness lakes.

For stream corridor guidelines, the Susitna Area Plan recommended:

* Prior to disposal of stream corridor lands, the State Department of Natural Resources, in consultation with other affected agencies and the public, will assess existing and projected public use needs associated with the stream corridor.
* Public access easements of a minimum width of 50 feet landward from the ordinary high water mark may be used to protect the public's right to travel along a stream bank.
* Publicly owned buffers of a minimum recommended width of 200 feet landward from the ordinary high water mark may be used on a stream to provide opportunities for private ownership while protecting the public interest or habitat values of a stream.

The Talkeetna Comprehensive Plan's advisory committee recommended that lakes and stream banks should be addressed in the comprehensive plan.

Recommendations:

* **All lakes in the Talkeetna comprehensive planning area have significant recreational value and should be managed accordingly.**
* **Management and protection of lakes within the comprehensive planning area in accordance with Susitna Area Plan management guidelines.**
* **Greenbelts should be established along riverbanks and streambanks within the comprehensive planning area in accordance with Susitna Area Plan management guidelines.**
* **Sections between Old Lake Road and Talkeetna River should be a wildlife/bird sanctuary.**
* **Larson Lake shall be retained as a recreation area with consideration to protect the large sockeye salmon run and scenic value of the area. There is private land along the lake. Fishing, boating, and multiple-use year-round recreation.**

* **Heavy volume of river boat traffic increases congestion, safety problems, noise pollution, bank erosion, and marine pollution on the rivers. This issue should be addressed within the Recreation Rivers Management Plan.**

FUTURE LAND USE PLAN

The proposed land use plan as shown in Figure 17, maps 1-4, p 4-40 through 4-43 applies the recommendations from this Plan. The recommendations of adopted Susitna Area Plan and Susitna Basin Recreation Rivers Management Plan (to which amendments have been recommended herein) are to be incorporated as well. The proposed land use plan does not recommend major changes to the existing pattern of development. One commercial cluster is indicated at the intersection of Comsat and Talkeetna Spur Roads.

Non-road accessible lands are recommended to remain in a "Remote" status. Lands in this classification should be those which are isolated from the road network and due to either natural features, topography, or valuable habitat are not recommended for development. Dispersed recreational activities including recreation cabins, lodges, or seasonal recreational facilities could be allowed provided they meet strict health and safety and conservation standards. The intent of this district is to maintain the area in a near-wilderness environment.

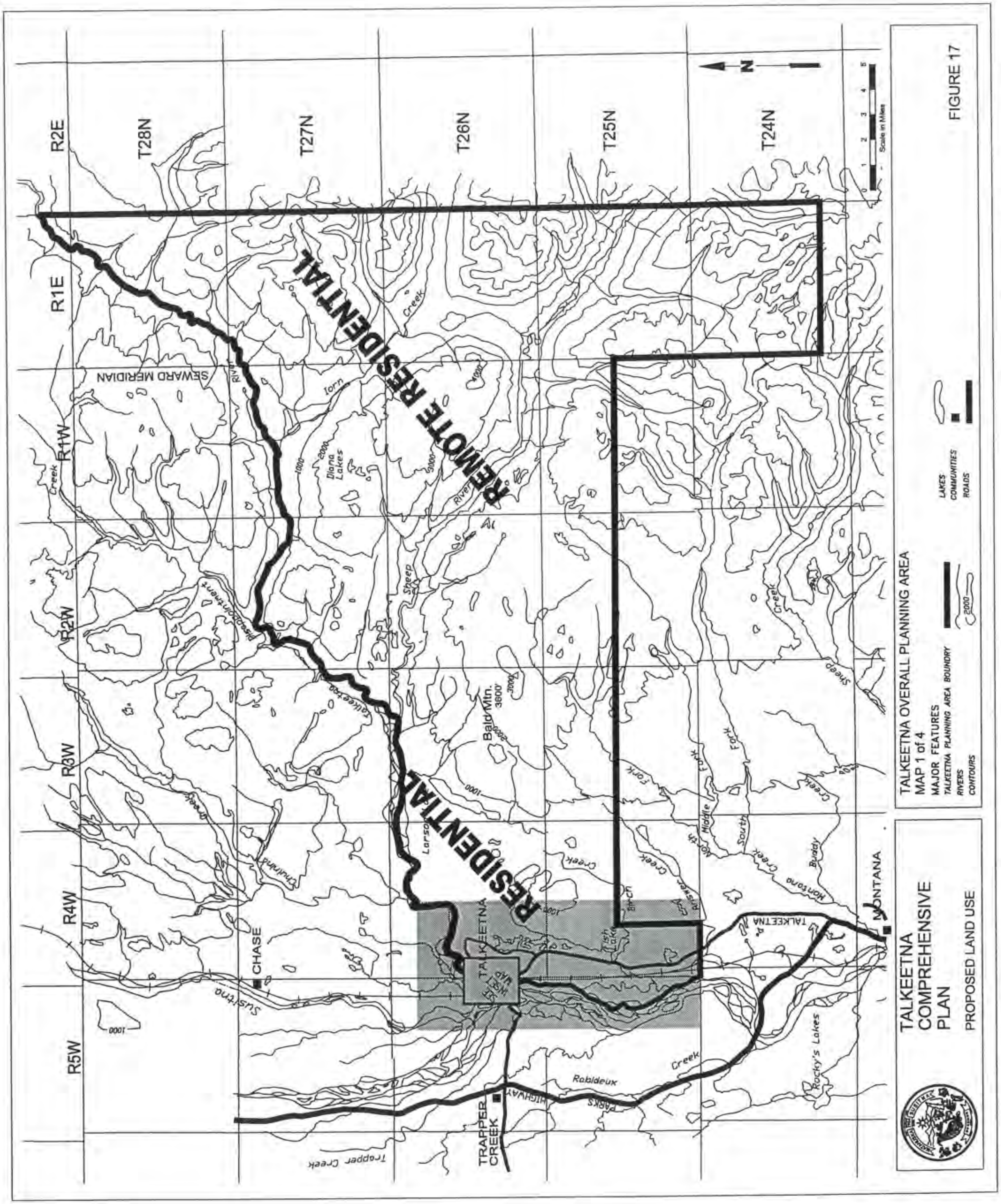
The majority of lands that are located in the road-accessible areas and outside of the main road corridors is recommended for a general "Residential" classification. This district would provide for low-density residential use where there is no public water and sewer system. Lots without public water and sewer need to be adequate in acreage to allow for on-site water and sewer systems. For those lots served by the water and sewer system, density could increase. It is assumed that the existing borough subdivision standards which allow for 7,200 square foot, 20,000 square foot, and 40,000 square foot lots, depending on the availability of public water and sewer, will remain in effect. Commercial uses and dispersed recreational activities would be recommended for this district provided they meet certain development standards. Cottage industries and home occupations would be recommended as an accessory use to residential uses.

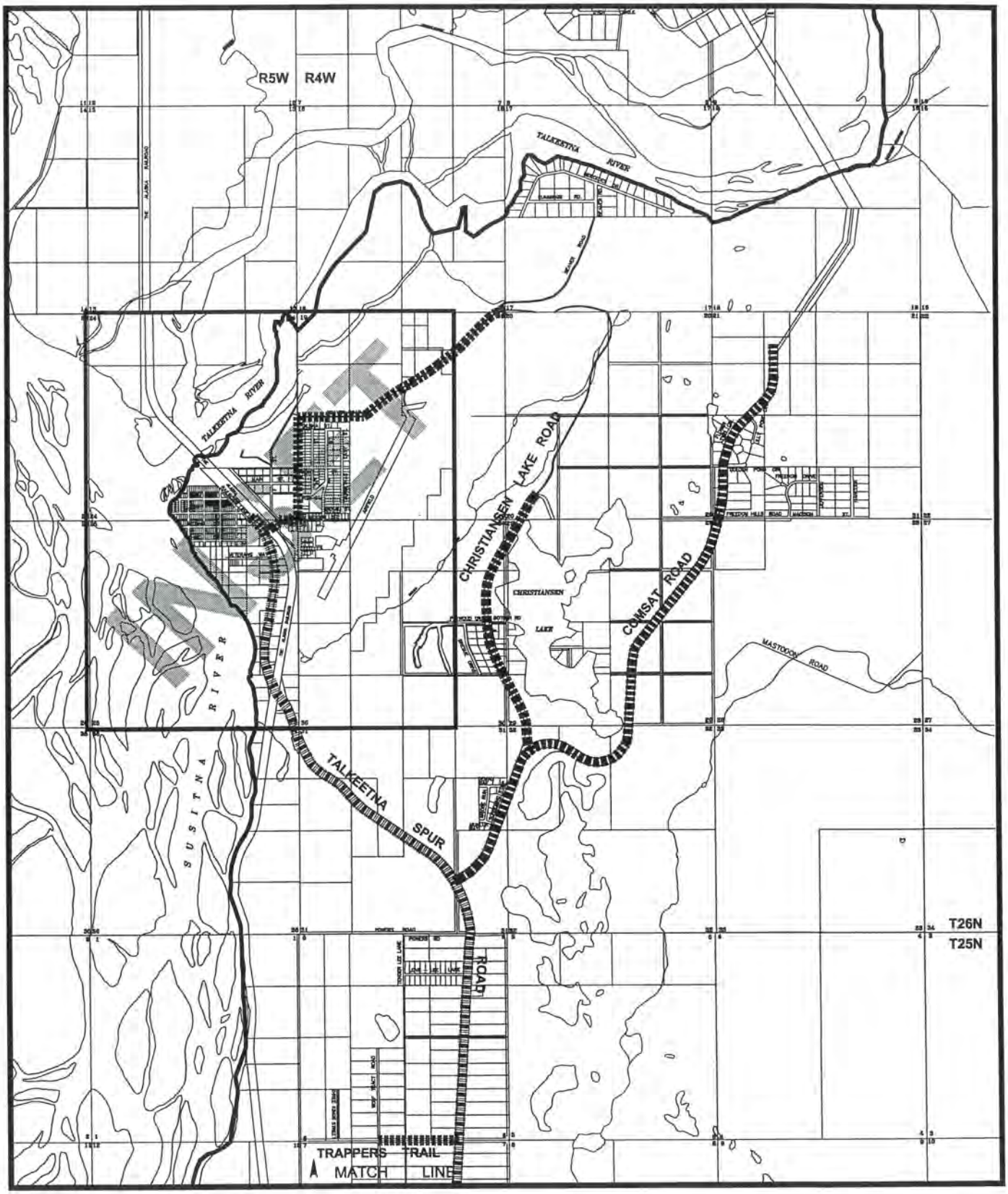
"Mixed Residential and Commercial" use is proposed for the land along the Talkeetna Spur road and within the east and west townsites. A possible commercial cluster is identified at the intersection of Comsat Road with the Talkeetna Spur Road.

An area that has been identified as an "Industrial" cluster is located around the Second Street/Talkeetna Spur road intersection and the state airport. This area could develop as a support area for the air transportation industry, with planning consideration given to the adjacent residential area. Residential uses in this area near the airport are not recommended because of industrial noise.

The Historic District could have stricter development standards, if the community desires to preserve its existing character.

While a future land use plan can be proposed within a comprehensive plan to guide future developments, it is not enforceable unless land use regulations are adopted. Implementation measures of this comprehensive plan are discussed in Chapter 7.


TALKEETNA
COMPREHENSIVE
PLAN
PROPOSED LAND USE
TALKEETNA OVERALL PLANNING AREA
MAP 1 of 4
MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS
FIGURE 17
Scale in Miles
REMOTE RESIDENTIAL
RESIDENTIAL
R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
SEWARD MERIDIAN
CHASE
TALKEETNA
TRAPPER CREEK
MONTANA
Bald Mtn. 3600'
Susitna
Talkeetna
Chulitna
Trapper Creek
Robideux Creek
Rocky's Lakes
PARKS HIGHWAY
Sheep Creek
Montana Creek
Birch Creek
Larson
Disappointment
Diana Lakes
Iron Creek
North Fork
Middle Fork
South Fork
Buddy Creek



TALKEETNA COMPREHENSIVE PLAN

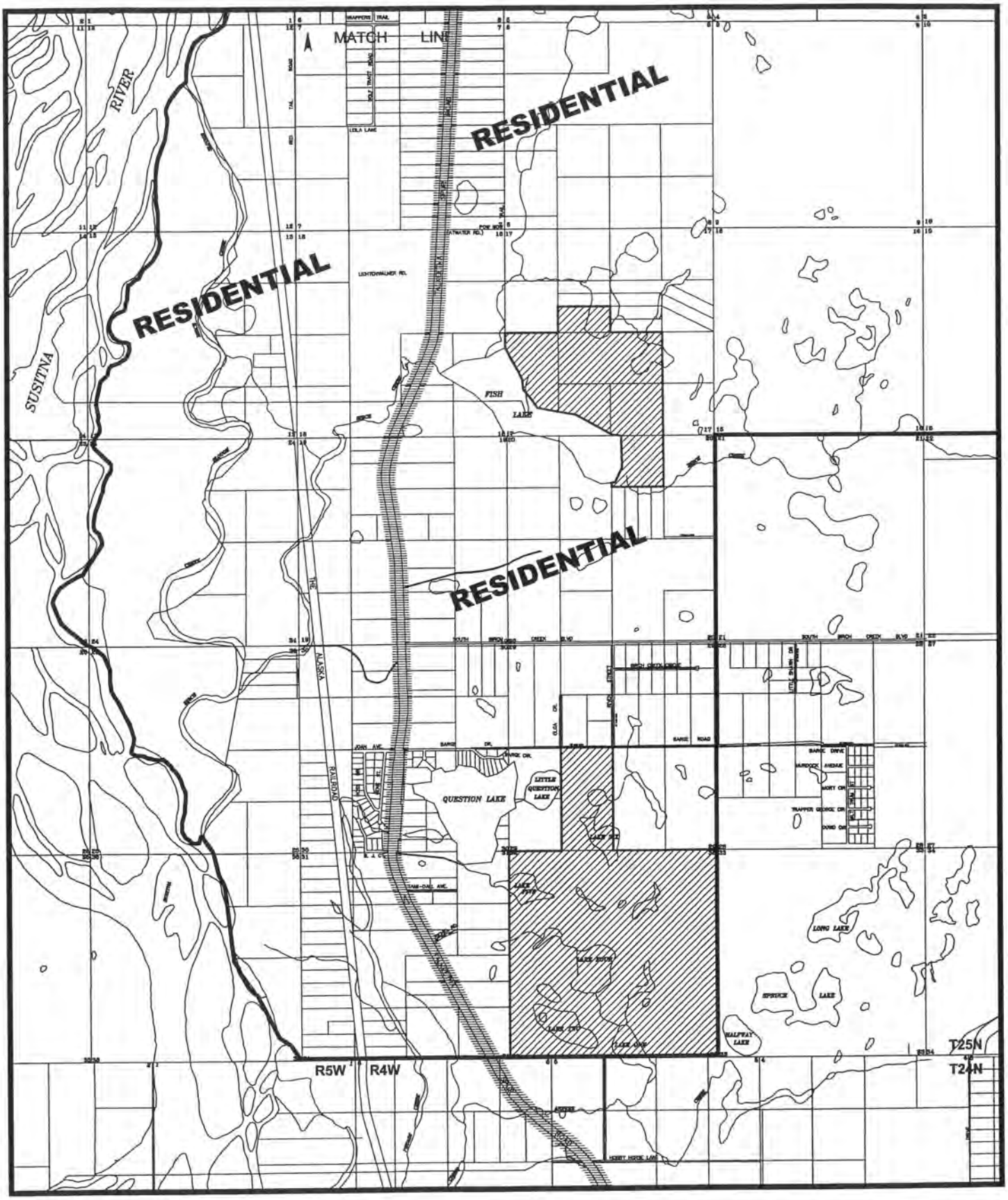
TRANSPORTATION

TALKEETNA CORRIDOR - NORTH
MAP 2 of 4

FUTURE ROAD CLASSIFICATION

ARTERIAL

COLLECTOR



TALKEETNA COMPREHENSIVE PLAN

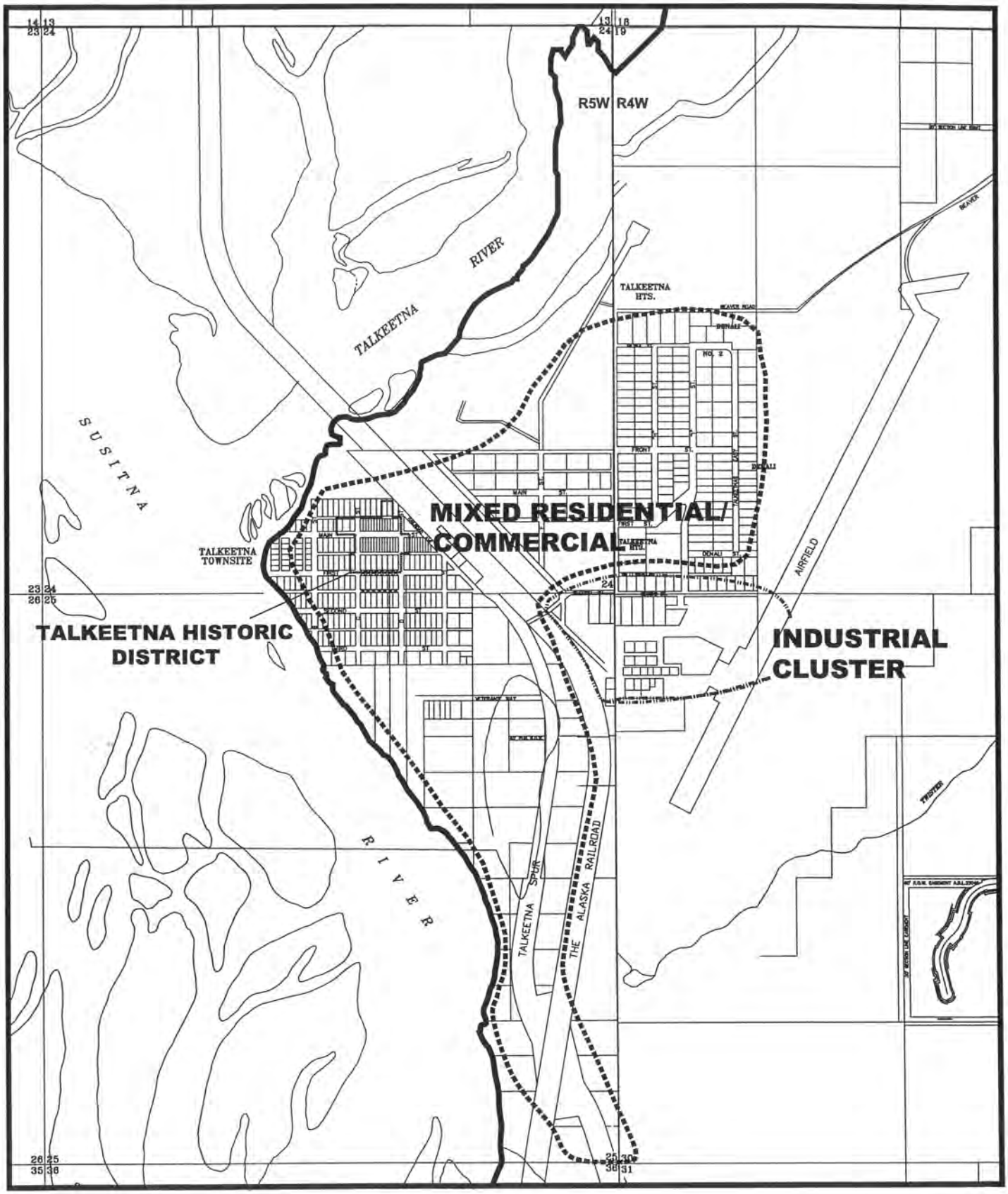
PROPOSED LAND USE

TALKEETNA CORRIDOR - SOUTH
MAP 3 0F 4

MIXED RESIDENTIAL/COMMERCIAL

ADDITIONAL PARK LAND

N



TALKEETNA COMPREHENSIVE PLAN

PROPOSED LAND USE

TALKEETNA INSET
MAP 4 of 4

MIXED RESIDENTIAL/COMMERCIAL

INDUSTRIAL CLUSTER

N

CHAPTER 5: TRANSPORTATION PLAN

An integrated, efficient, safe, and reliable transportation system is necessary in order to facilitate the movement of goods and people through a community. A well-designed transportation infrastructure is one in which roads serve the function for which they are designed so that traffic does not fail to flow through the system. Road should take people to their destinations without bringing unwarranted traffic through neighborhoods Parking areas should be adequate to get vehicles off of the traveled roadways so as to avoid congestion. Safe pedestrian facilities should be provided in areas where pedestrian traffic is high.

This chapter outlines the issues, goals, and recommendations for each of the various modes of transportation in Talkeetna. The Talkeetna Comprehensive Plan advisory committee developed two over-all goals that represent their important values concerning transportation.

TRANSPORTATION GOALS

* Guide future development of roads, trails, or other access within the Talkeetna planning area with a sensitivity and respect for the natural topographic features and historic use patterns established up to this time.

* Have Talkeetna continue to be an "**END OF THE ROAD**" town, i.e. no bridges across the rivers.

HISTORICAL TRANSPORTATION

The first transportation of goods and people into Talkeetna was via mining supply trails and river barges sailing up the Susitna and Talkeetna rivers. River barge transportation was used from the late nineteenth century until 1915 after which it was abandoned when the railroad line was constructed through Talkeetna. Between 1915-1964 the railroad and air transportation were the principal transportation modes for the community.

Talkeetna's early community development and road network is characteristic of European and coastal communities where commerce and business activities are concentrated along the waterfront. Talkeetna began on the river's frontage with the earliest road network radiating from this center.

In 1919 the U.S. Government surveyed the original townsite and created approximately eighty lots, fifteen roadways, and several alleys. The initial streets were: Front Street, Main Street, Second Street, Third Street, Nagley Street, "A" Street, "B" Street, "C" Street, "D" Street, "E" Street, "F" Street, "G" Street, First Street, Railroad Avenue, and Terminal Avenue. All of these platted roads are still recorded today, except for Front Street which has been recently vacated. Roadway widths vary from 50 to 60 feet for rights-of-way, while alleys are platted at 20 feet.

Air transportation played an important role for the residents beginning in the late 1930's. The village airstrip was built in 1938 and the Talkeetna state airport was built in 1941. Talkeetna's early aviators established the community as the departure point for Mount McKinley climbing expeditions and as a major hunting and recreation destination.

Today Talkeetna is served primarily by road, rail, and air. Water access is still available, but it is not used for freighting. Today most water use is recreation-oriented.

HIGHWAY AND ROAD SYSTEM

Talkeetna is located at the end of the Talkeetna Spur road. The Talkeetna Spur runs approximately fourteen miles from the junction with the Parks Highway, the state's major north-south transportation corridor. Completion of the Spur road in 1964 opened Talkeetna to tourists who visit the historic community. Today traffic congestion and lack of parking in the downtown core area are problems occurring as a result of this increased tourism.

The existing traffic circulation pattern in Talkeetna has most vehicles traveling down the Talkeetna Spur road from either the Parks Highway or the outlying streets and residences and funneling into the downtown at the intersection of Main Street. The Talkeetna Spur is the main arterial into town. Main Street is the main road in the downtown commercial district. The Main Street and Talkeetna Spur intersection functions primarily as a left-turn intersection, although it is not designated as such. Probably 99% of all vehicles turn left at the intersection.

The Talkeetna Spur road and Main Street, part of B Street, and Comsat Road are the only paved roads in the planning area. Other roads within the townsite and most older roads in the outlying area evolved into their present condition without being built to any road standard. Consequently, most of Talkeetna's roads do not have curbs and gutters, adequate drainage, defined roadway widths or shoulders, or pedestrian facilities. Some roads have encroachments within their rights-of-way. To further complicate the situation, there is no flowing traffic circulation pattern in the downtown district.

Residential and commercial development is occurring along the length of the Talkeetna Spur road. Commercial activity on the Talkeetna Spur road is mostly concentrated between Main Street and the Talkeetna Library.

The Alaska Railroad's tracks bisect Talkeetna into the west townsite (downtown district) and the east side of Talkeetna. East Talkeetna contains several commercial businesses, the community's boat launch and campground, the State airport, two churches, the cemetery, and several residential subdivisions. The only access into east Talkeetna is via Second Street which crosses the railroad tracks.

Other main outlying roads in the planning area, which intersect with the Talkeetna Spur and funnel traffic to it, are Barge Drive, South Birch Creek Road, and Comsat Road. Outlying minor roads which channel traffic onto these collectors are Beaver Road, Christiansen Road, South Answer Creek, and Mastodon Road.

There is an estimated 170 miles of roads within the Greater Talkeetna Road Service Area #29 of which approximately 150 miles are borough roads or alleys and 20 miles are state roads. The Greater Talkeetna Road Service Area is responsible for maintenance of the borough's roads. The road service area extends beyond the planning area boundaries delineated in this plan, see Figure 18, p. 5-5 through 5-8.

STREET CLASSIFICATION SYSTEM

A street classification system is used in transportation planning to describe and plan the function that roads are to perform within the road network. All roads perform two functions: mobility, or traffic movement, and access to adjacent property. Within a transportation network it is desirable to have some roads favor through-traffic movements (mobility) in order to move vehicles without hindrance across greater distances. In local neighborhoods it is desirable to discourage through-traffic and encourage access to individual lots using lower traffic speeds.

The Matanuska-Susitna Borough uses road classifications which are defined in their Subdivision Construction Manual. Non-residential roads are classified as: Highways, Arterials, and Non-residential roads. Residential roads are classified as: Residential Collectors, Subcollectors, Residential Streets, Frontage Access, Mountain Access, Pioneer Access, Single Lanes, and Alleys.

In the Subdivision Construction Manual non-residential roads are referenced to the American Association of State Highway and Transportation Officials (AASHTO) standards. These standards define highways as roadways that provide through-travel to destinations outside the area and normally feature partial or full access control. Travel speeds are 40 to 55 miles per hour. The Parks Highway is an example of a highway.

The arterial system interconnects with the highway system. Arterials handle moderate trip lengths at lower overall speeds. They provide cross-borough and intra-city movement. Average running speeds range between 35 to 55 mile per hour. Access to the arterial system should be limited to collector roads. Generally arterials do not traverse neighborhoods. Right-of-way width is established at 100 feet in width plus slope easements. The Talkeetna Spur road is an example of an arterial.

Residential roads, as defined by the borough's manual, are either residential collectors, residential subcollectors, or residential streets. Residential streets are intended to carry the least amount of traffic at the lowest speeds. They provide access to abutting property and should be designed to serve only local traffic. Average daily traffic volumes should not exceed 200 vehicles per day. Minimum right-of-way width is 50 feet.

Residential subcollectors carry more traffic than residential streets. They provide access to abutting property but also move traffic from the residential streets to higher capacity streets. Average daily traffic volumes should not exceed 500 vehicles per day. Minimum right-of-way width is 60 feet.

Residential collectors carry the largest volumes of residential traffic at higher speeds. These streets carry traffic from one residential area to another or to other areas of the community. Residential collectors are unsuitable for providing direct access to abutting property, but when this restriction is not possible, any residential lots fronting on a collector should be at least 100 feet or greater. Minimum right-of-way width is 60 feet. Average daily traffic might range from 1000 to over 2000 vehicles per day. On-street parking is frequently prohibited on collectors.

The borough's Subdivision Construction Manual also provides for Pioneer and Mountain Access roads, when either topography or other circumstances dictate. Frontage roads and alleys are also allowed, where appropriate.

The Talkeetna Spur road is currently functioning as an arterial whose primary purpose is to provide corridor movement of traffic between the community and the Parks Highway. Optimally the road should continue to provide long uninterrupted traffic movement. The road also provides unrestricted access to adjoining lots which will eventually impact the road's mobility function. The Alaska Department of Transportation and Public Facilities currently classifies the road as a rural major collector due to its low traffic volume.

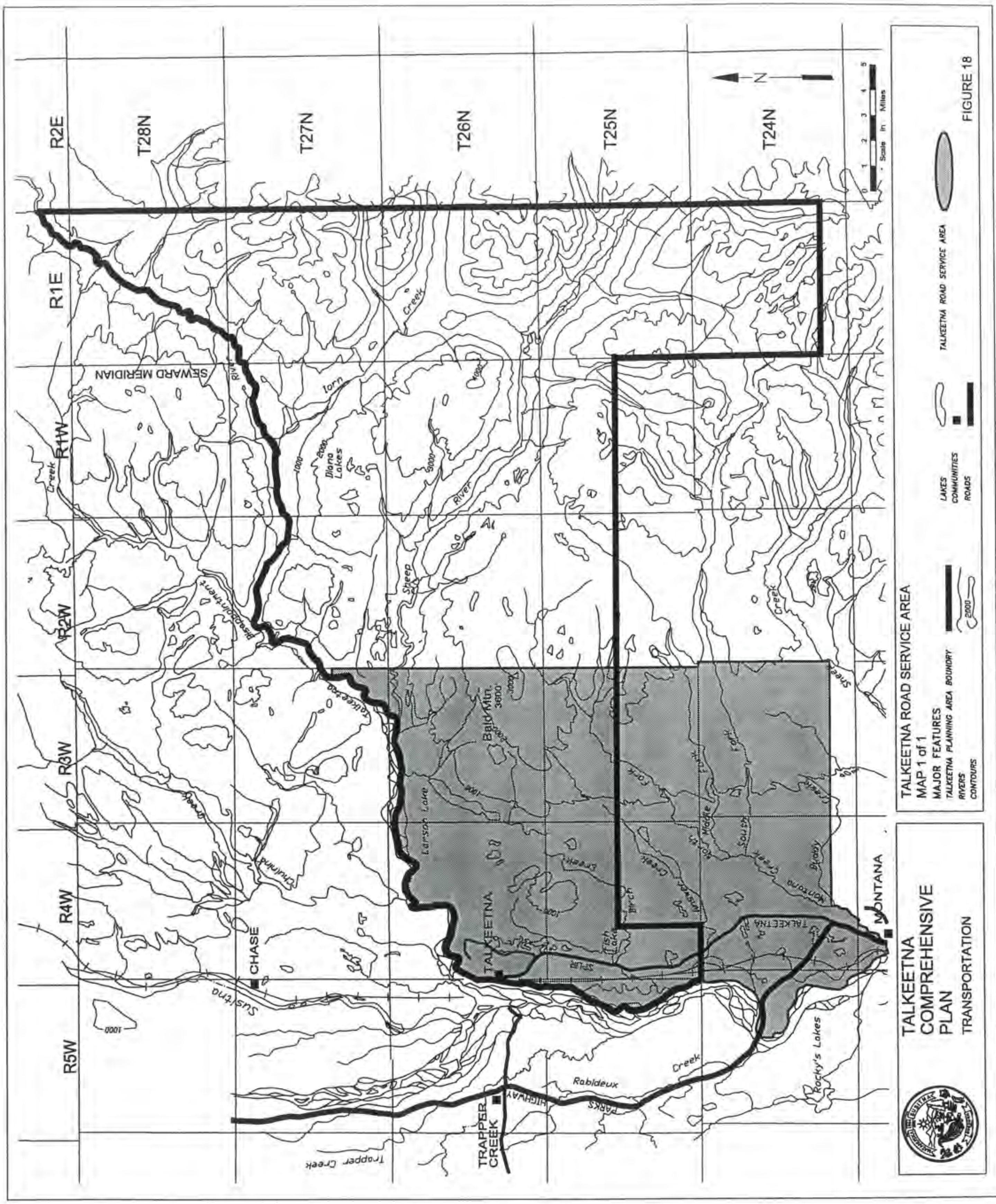
Low traffic volumes are recorded on all of Talkeetna's roads where traffic counts have been taken. In designing a street classification system for the planning area, greater emphasis should be placed on the over-all function of the road within the network, rather than on the current traffic volumes. The placement of the road in the over-all network plan and the probable future traffic volumes based on land use will determine the recommended street classification in this planning effort, see Figure 18, Maps 2-4 p. 5-5 through 5-8.

Streets that currently function as minor collectors due to low traffic counts, but will function as major collectors in the future, are: Main Street, Second Street, G Street, Comsat Road, South Birch Creek Road, and Barge Drive. Of these roads, the Alaska Department of Transportation and Public Facilities currently classifies Comsat Road as a rural minor collector.

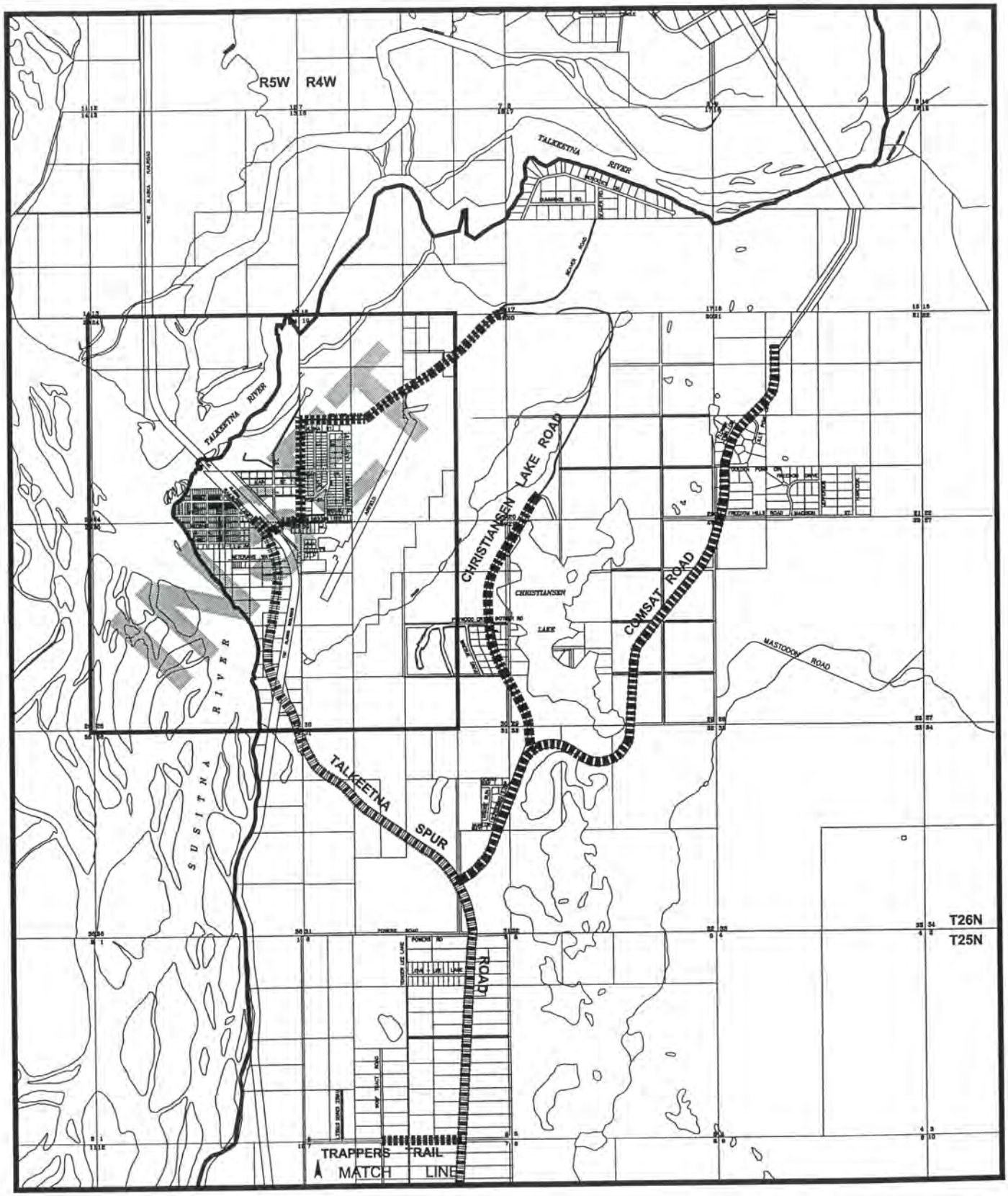
Other rural outlying roads that function as minor collectors are Beaver Road (Talkeetna River Road), Christiansen Lake Road, Trapper Trail, North Answer Creek, and Mastodon Road. Christiansen Lake Road is classified by the Alaska Department of Transportation and Public Facilities as a rural minor collector.

All other roads in the planning area, outside of the downtown district, serve as residential streets and provide access to residential lots.

Within the downtown commercial district, streets are used for both residential and commercial traffic. Most of the non-residential traffic in the downtown district travels to the end of Main Street creating congestion as confused drivers try to find their way back to the Talkeetna Spur Road. A "loop" or other such solution should be found to facilitate the orderly flow of traffic into and out of the downtown district.


TALKEETNA
COMPREHENSIVE
PLAN
TRANSPORTATION
TALKEETNA ROAD SERVICE AREA
MAP 1 of 1
MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS
TALKEETNA ROAD SERVICE AREA
FIGURE 18
Scale in Miles
R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
SEWARD MERIDIAN
CHASE
TALKEETNA
MONTANA
TRAPPER CREEK
PARKS HIGHWAY
Bald Mtn. 3600
Larson Lake
Diana Lakes
Fish Lake
Rocky's Lakes
Rabideux Creek
Trapper Creek
Susitna
Chulitna
Talkeetna
Sheep Creek
Montana Creek
Birch Creek
SPUR

Page 5-5

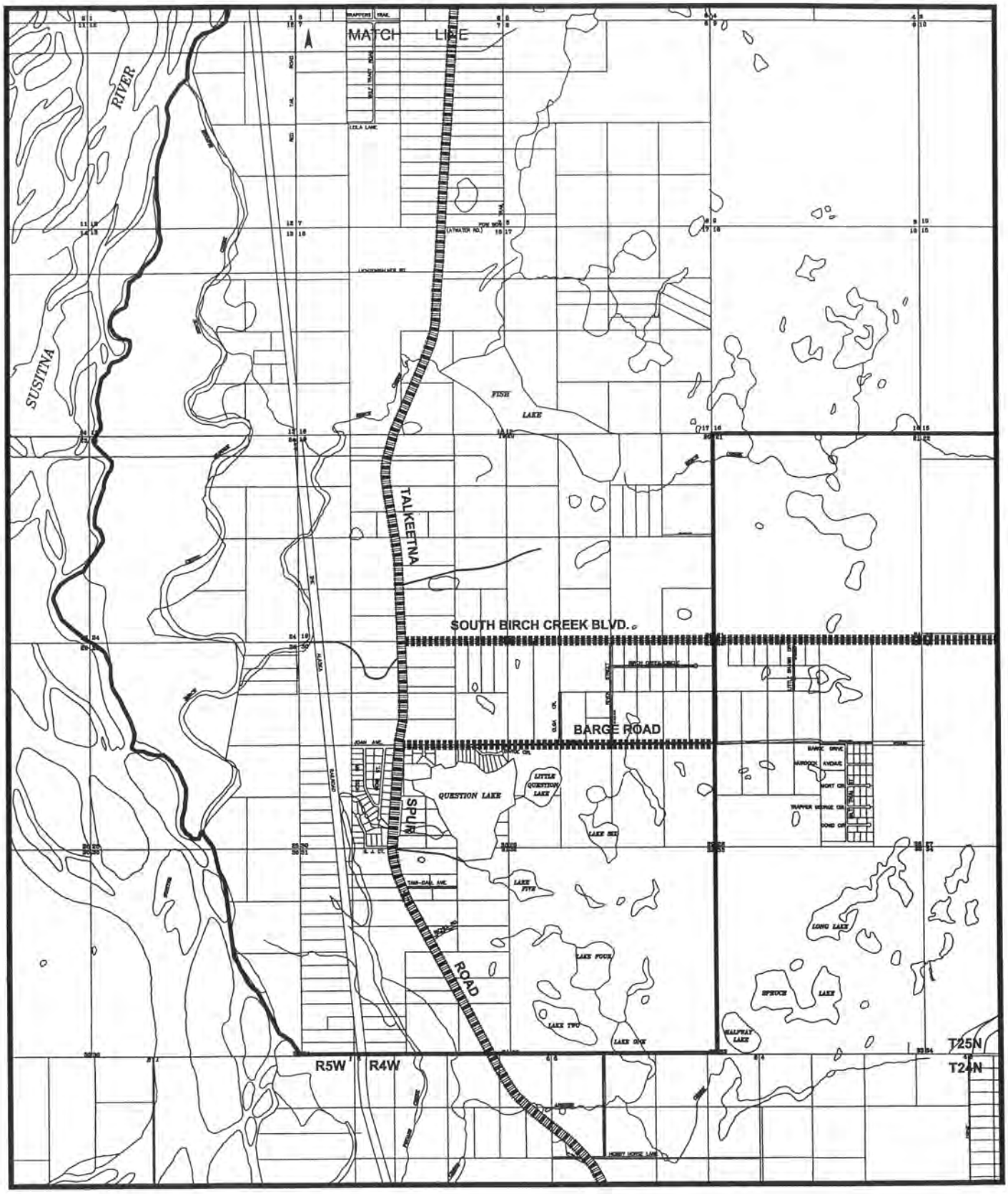


TALKEETNA COMPREHENSIVE PLAN

TRANSPORTATION

TALKEETNA CORRIDOR - NORTH
MAP 2 of 4

FUTURE ROAD CLASSIFICATION
ARTERIAL
COLLECTOR



TALKEETNA COMPREHENSIVE PLAN

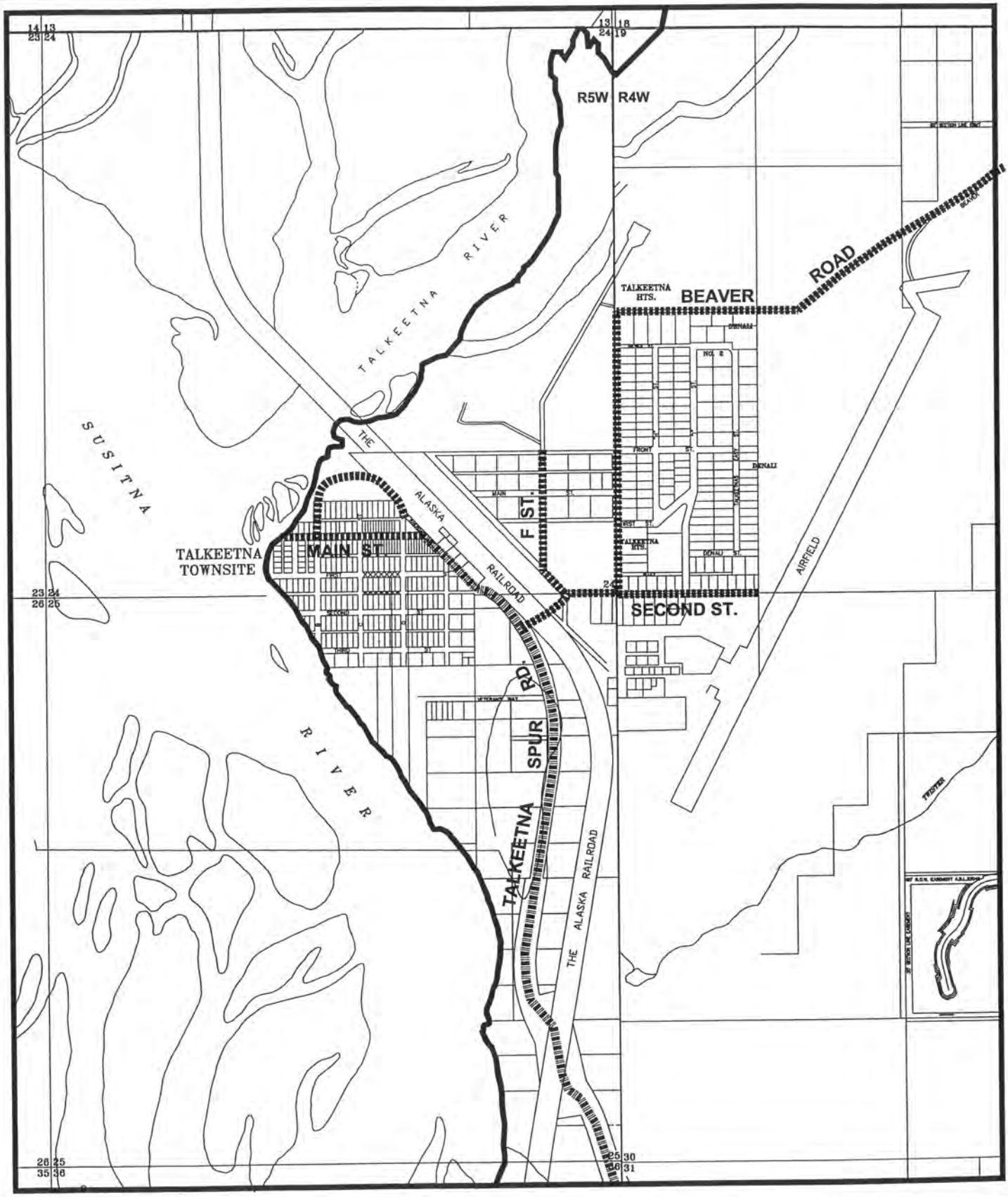
TRANSPORTATION

TALKEETNA CORRIDOR - SOUTH
MAP 3 of 4

FUTURE ROAD CLASSIFICATION

ARTERIAL

COLLECTOR



TALKEETNA COMPREHENSIVE PLAN

TRANSPORTATION

TALKEETNA INSET
MAP 4 of 4

FUTURE ROAD CLASSIFICATION

ARTERIAL

COLLECTOR

N

Within East Talkeetna, most commercial traffic either travels to the boat launch and campground via Second Street and "F" Street or to the airport via Second Street. These roads should be classified as "non-residential" streets and be designed to a modified commercial street standard.

ROAD MAINTENANCE

The Alaska Department of Transportation and Public Facilities and the Matanuska Susitna Borough provide the maintenance for Talkeetna's roads. The State maintains the Talkeetna Spur road, Comsat Road, and Christiansen Lake Road, for a total of approximately 20 miles.

The Matanuska-Susitna Borough through the Greater Talkeetna Road Service Area (#29) maintains 73.88 miles of the estimated 150 miles of borough roads in the planning area. Roads must be certified by the borough before they are eligible for maintenance. In order for a road to be certified it must meet certain design and construction standards. In the past many of Talkeetna's roads were certified for maintenance without being constructed to an acceptable standard. Today these substandard roads increase the cost of maintenance and upgrade for the road service area. Borough roads can be maintained either year-round or summer only. Most summer-only maintained roads provide access to seasonal residences.

TRAFFIC VOLUMES

Traffic volume counts are taken by the Alaska Department of Transportation and Public Facilities for State-maintained roads. Volume counts, see Table 4, p. 5-10, show that there are approximately 1,000 annual average daily traffic (AADT) traveling on the Talkeetna Spur road and approximately 200 annual average daily vehicles on Comsat Road. Comsat Road near the Christiansen Lake Road intersection has approximately 75 cars per day average during the summer.

The non-state maintained roads that have had traffic counts taken on them by the Matanuska Susitna Borough were South Birch Creek Road and the road leading into the borough's landfill site. In 1984 the borough counted 55 vehicles per day on South Birch Creek Road. This count was not an annual average but rather a periodic sample. In summer 1992, the borough counted 193 cars per day average that used the landfill site road during a 21 day period.

Based on traffic counts the Talkeetna Spur road is well within the design and capacity load for the roadway. According to Alaska Department of Transportation and Public Facilities the Talkeetna Spur is adequate for traffic to 12,000 annual average daily volume. The state does not anticipate any need for road improvement within the foreseeable future for the Talkeetna Spur road, except for possible pavement rehabilitation.

TABLE 4
TRAFFIC VOLUMES
Talkeetna Area
State - Maintained Roads
Annual Average Daily Traffic (AADT)

ROAD NAME	1987	1988	1989	1990	1991	1992	1993
Talkeetna Road, Parks Highway - Talkeetna							
Junction with Parks Hwy	710	780	671	700	700	700	844
Junction with Fiddlehead Circle (MP 5)	730	733	750	780	836	940	1000
Junction with Comsat Road	650	658	846	870	870	959	1000
Comsat Road							
Junction with Talkeetna Road	180	197	200	200	200	190	200
Junction with Christiansen Road	43	45	50	50	50	60	75
Christiansen Lake Road							
Junction with Comsat Road	80	83	85	90	n/a	n/a	n/a

Source: Alaska Dept of Transportation and Public Facilities, Central Region, Traffic Volume Reports

Capacity problems do not occur on any of Talkeetna roads, except for vehicle congestion on the downtown streets during the summertime. This congestion is due to several factors, mainly on-street parking due to lack of off-street parking areas, lack of pedestrian walkways that force pedestrians onto the roads thus reducing the width of the traveled roadways, and lack of a traffic flow pattern. Since it will be necessary to improve the downtown streets at some time in the future, traffic counts should be taken on Main Street, "B" Street, First Street, Second Street, Third Street, and "F" Street in order to get statistical information on traffic use.

ACCIDENT DATA

Accident data is prepared by the Alaska Department of Transportation and Public Facilities as part of their Highway Safety Improvement Program (HSIP). This data is compiled from police accident reports and traffic counts on state-maintained streets and highways. Computerized reports are generated based on clustering of accident occurrences per segment length of roads. Accidents are ranked by the number and seriousness of injuries and by over-all traffic volumes.

State HSIP data from 1989 to 1992 was reviewed as part of this plan and no roads in the planning area were found to be particularly hazardous. Unfortunately this data is only applicable to state-maintained roads and most of Talkeetna's roads are borough-maintained roads.

According to Alaska State Troopers, accidents have occurred on the Parks Highway, Talkeetna Spur road, and on local roads. Since the Parks Highway is outside of this planning effort, further analysis

was not done for this road. For Talkeetna's roads, State Troopers reported that there are no specific hazardous road segments that contribute to repeated accident occurrences. Rather, according to the Troopers, weather and alcohol play a more significant role in contributing to local accidents. Lower speed limits and lower traffic volumes on local roads help in reducing all types of accidents.

ISSUES AND RECOMMENDATIONS

During the course of this planning effort several issues and problems related to the road transportation network have been identified. They include:

* Need to upgrade and pave the substandard roads that either receive heavy traffic use, are unsafe, or require high maintenance effort.
* Need to correct the traffic congestion, drainage, and circulation problems in the downtown, including providing pedestrian facilities.
* Need to maintain the Talkeetna Spur road as an arterial level road and provide a separated pedestrian/bike trail alongside it.
* Need to upgrade existing roads before other new road extensions are funded.
* Desire to maintain Talkeetna as an "end of the road" town and commercial center for the outlying area.

Upgrade and pave certain substandard roads.

The need to upgrade and pave certain local substandard roads was identified as an issue by the advisory board preparing this plan, the road service area's Board of Supervisors, and by two-thirds (66%) of the residents who responded to the borough's volunteer survey taken as part of this planning effort. In the survey, no other publicly provided facility or service was rated as poorly as roads. Most respondents felt that more and better grading and regular maintenance were needed. Respondents also wanted better snow removal; this was the second highest concern of respondents.

Talkeetna's road network is extensive and poorly constructed which creates high maintenance and upgrade costs. The Greater Talkeetna Road Service Area maintains 73.88 miles of roads at a budgeted cost of approximately $158,000 in FY95. The road service area's total costs per mile of road in FY95 was $2,138.

It is estimated that approximately half of Talkeetna's roads are not built to any construction standard. Consequently, roads problems include: substandard subgrades which cause frost heaves and poor drainage, dangerous grades and switchbacks, inadequate culverts and lack of drainage, narrow road widths insufficient for snow storage, dust conditions during dry summers, and roads not built in designated rights-of-ways.

Substandard roads and their high cost of maintenance affect all property owners in the planning area because they are assessed taxes for road service area work. In 1994 property owners in the Greater Talkeetna Road Service Area were assessed a three mil levy (2.5 mils in FY95). In 1993 this levy

raised about $114,000 in revenues based on an assessed valuation of $44.3 million. Talkeetna has the highest road service mil levy among all the borough's road service areas. The three mil rate was levied in 1989 after the area incurred substantial debt to clear a particularly heavy winter snow storm (over eight feet of snow within 24 hours). In 1993 the debt was repaid. The road service area's Board of Supervisors and the borough want to maintain the three mil levy in order to use revenues to cover proposed cuts in state shared revenues and to make needed road improvements to the substandard roads.

Aside from the road service mil levy, there are four other revenue sources available for road projects in the Talkeetna planning area. Two of the sources are restricted to maintenance and upgrade of existing roads and two sources are available for capital road improvement projects.

One source, state shared revenues, is allocated to the Matanuska-Susitna Borough who distributes the funds to road service areas based on the miles of road certified for maintenance. In Talkeetna, this funding source adds approximately $63,000 annually to the road service area budget in FY95. These funds are restricted for operations, maintenance, and upgrade of existing roads. Over the past thirteen years this funding source has been declining from a rate of over $2,500 per mile in 1981 to $855 per mile in FY95. Declines are expected to continue in the future as the state reduces funding to local governments. This reduction of state shared revenue is one reason that the road service area mil rate will probably need to be increased in order to cover this lost revenue.

Another source of funding available to the road service area for upgrade and improvements of existing roads is the borough's Road Upgrade/Paving matching grant program. This borough-wide program has been funded by legislative grants over the last three years. The program received approximately $500,000 in fiscal year 1992, $700,000 in fiscal year 1993 and $500,000 in fiscal year 1994. This grant source was not funded for fiscal year 1995. Grant funds are allocated to the borough's road service areas based on their total mileage of certified roads. For the Greater Talkeetna Road Service Area, funding ranged from $35,000 to $50,000 per year. Since this grant source was not funded for fiscal year 1995, the road service area will need to make up this loss of revenue from other sources, if improvement projects are to continue.

Recent road improvements that were financed by this funding source include: upgrades to Easy Street, Foraker Drive, Marcus Loop, Malispina Loop, Moose Hollow Road, and Yoder Road. Projects planned for 1994 include "C" and "D" streets overlays and improvements to Hillside Drive, McKinley View Drive, and Hunter Drive.

Major road capital improvement projects, either road extensions, new roads, or major realignments and/or upgrades are funded through the borough's Transportation Improvement Program, a sub-category of its Capital Improvement Program. The Transportation Improvement Program's projects are funded from a combination of revenue sources, including federal revenue distributed to the Alaska Department of Transportation and Public Facilities, state gas tax revenues also administered by the state transportation department, and state general fund revenues. The borough requests project funding for road projects from the State Department of Transportation and Public Facilities who has final authorization over the projects.

There is one road project located in the Talkeetna planning area that is included in the borough's Transportation Improvement Program. The Talkeetna Spur Road and the Talkeetna Elementary School intersection is identified as a safety improvement project in the program. One other project that is requested for improvement which is outside of the planning area is located on the Parks Highway. This project is safety improvements to the Su Valley High School/Parks Highway intersection.

Similar to the borough's Transportation Improvement Program, the State Department of Transportation and Public Facilities has a State-wide Transportation Improvement Program (STIP) which outlines the projects the state intends to fund in the coming years. Their program has a preliminary planning process, Transportation Needs and Priorities, that prioritizes projects in a four-tier ranking system. Priority #1 projects are highest priority over lower ranked projects. There is one road project, one airport project, and one building project on the state's list for the Talkeetna area. The Talkeetna Spur Road is listed as a priority #2 project for pavement rehabilitation. The Talkeetna airport is listed for various improvements, including a helipad, partial parallel taxiway, access road reconstruction and improved equipment storage area. The state's list also proposes improvements for the State's Talkeetna Maintenance Station.

The fourth possible funding source for road projects is state general fund revenues. These funds are appropriated by the Legislature and approved by the Governor each fiscal year. In the past, area legislators were able to fund some road projects through discretionary appropriations. In fiscal year 1995 there was no discretionary funds available for capital projects. Any road project funded through this source needs the support of the area legislator. The road projects compete with all other non-road capital projects.

According to the transportation sub-committee of this plan's advisory board, the following roads in the planning area need upgrade: F Street to include paving, Second Street (airport side) to include paving, I Street, and G Street. The subcommittee recommends that Old Lake Road be constructed to connect with Comsat Road. An alternative route that would provide alternative access to East Talkeetna would be a road leaving the Spur Road just before the railroad crossing and paralleling the tracks into East Talkeetna. The committee also recommends that a bike path be included along Talkeetna Spur Road. Brush clearing along the Talkeetna Spur road is also needed in order to improve the visibility for moose.

Recommendations:

* **Upgrade streets and roads that receive heavy traffic usage.**
* **Next time roads are blacktopped, make wider paved shoulders for bike trails.**
* **Re-construct or create dedicated public rights-of-way where there is current common usage on unplatted roads and trails. (D Street, North F Street, First Street by the post office to the Spur Road from D Street with parking in that area, and others.)**

* **Substandard easements on old roads create severe problems for installing utilities, road maintenance, and snow removal. Public awareness is needed.**

* **Encroachment and set-back regulations should be enforced.**

Downtown traffic congestion, drainage, and parking.

Discussion of the downtown traffic problems, including congestion, drainage problems, and need for a better traffic circulation flow pattern, is discussed in the Commercial land use section of Chapter 4, Land Use Plan.

Preserve the Talkeetna Spur road arterial function.

As mentioned earlier, the Talkeetna Spur road is a state-maintained road currently classified as a major collector. The future function of this road within the context of the road system is that it should function as an arterial that provides long, uninterrupted traffic movements. This function should be protected since this is the only road corridor connecting Talkeetna with the main highway system. All types of traffic use the road as a corridor, including freight, tourists, and commuter traffic.

Roadway corridor planning should to be done for the Talkeetna Spur road in order to protect its function, make it more efficient and safer, and preserve its scenic qualities. During this planning effort the community expressed a strong desire to prevent strip development, both residential and commercial, along the road. Strip development is generally characterized by large free-standing and portable signs, large unscreened expanses of parking lots, little or no landscaping, few or no pedestrian improvements, and numerous and closely spaced driveways. Probably the worst feature of commercial strip development is the clutter of bigger, taller, and brighter signs that invade the envelope of the street.

When planning for new growth and development along the Talkeetna Spur road there are several workable solutions that can be considered. In order to protect the scenic integrity of the road, a scenic corridor study should be undertaken to determine the features and areas most valued for preservation. The study will point out the priorities for the roadway, its vegetation and other natural features, and where commercial activities can be encouraged.

In order to protect the arterial function of the road, access will need to be partially controlled. Access control offers the potential for slowing the cycle of functional obsolescence before the roadway meets its design life, and for maintaining safe and acceptable operating conditions. Fortunately at this time there are few private and commercial business driveways along the road, so the community has the opportunity to shape the development along the road corridor.

Elsewhere in Alaska where commercial development has concentrated along the highway network, the function and sometimes aesthetics of the highway have diminished. Steps can be taken to

preserve the arterial function of the Talkeetna Spur road by limiting access points. Access can be restricted to roads, frontage roads, commercial nodes, common-share driveways, or adequately spaced driveways. Usually higher intensity developments are encouraged to locate at the intersections of major collectors and arterials, while moderate and lower intensity developments can be encouraged at the intersections of minor collectors or allowed private or shared driveways. At this time these suggestions require the voluntary participation of adjoining property owners and the cooperation of the State Department of Transportation and Public Facilities who issues permits for right-of-way access to the Talkeetna Spur Road.

Recommendations:

* **During the next 20 years the Talkeetna Spur Road is expected to be able to handle additional traffic destined for the community without a need for significant changes to the route or width.**

* **Developments along state and borough highways and roads should have access that does not create traffic or safety hazards.**

* **Outside of the west and east townsite areas, no multi-parcel subdivisions should be approved which have lots with individual access to the Talkeetna Spur Road.**

Upgrade existing substandard roads before other new road extensions are funded

It is estimated that approximately half of Talkeetna's existing roads are considered substandard to borough specifications. Substandard roads not only cost the service area more money to maintain but they may constitute a safety hazard. Roads that have unsafe alignments, grades, and surface conditions may prevent emergency vehicles and school buses from using them. It is the desire of the community that the existing substandard roads should be brought up to acceptable and safe standards before funding is spent on new roads extensions.

Possible road extensions can be either to existing subdivisions, to lands that are now trail access only within a sixty foot right-of-way, or to and within new subdivisions yet to be built. New subdivision roads are regulated by Borough Code, Titles 16 and 11 which require private developers to construct new roads within subdivisions to borough standards.

Road extensions constructed to outlying remote subdivisions or trail access only within a sixty foot right-of-way lands are more difficult to address as more factors come into play. Generally property owners located in existing remote subdivisions who want to extend a road to their subdivision would form a local improvement district to construct the road. Local improvement districts are regulated by Borough Code Title 3.28 and the local improvement district would be required to build the road to borough standards.

At this time there are no trail access only within a sixty foot right-of-way subdivisions in the planning area petitioning for road extensions and/or formation of local improvement districts. In many cases the road extensions will be costly and this deters interest. In the meantime outlying property owners are accessing their property by various methods other than standard roads, i.e. all-terrain vehicles, fly-in, river access.

Two possible road extensions have been discussed in past planning documents. In the 1970 Talkeetna Comprehensive Plan and the 1985 Susitna Area Plan a bridge/road extension across the Talkeetna River was identified, and in the Susitna Area Plan a road to Larson Lake was identified. The road to Larson Lake was included in the Susitna Area planning document because at the time the borough was requesting legislative funding for the road. Since that time no legislative funding has been secured. These roads are not in keeping with the goals and objectives of this Plan.

Both of these road extensions would be costly to construct and maintain; and besides, they are undesirable regardless of cost. The community places a higher priority on future funding being allocated to road improvements on the existing road network. New roads, bridges, or road extensions are not recommended as a high priority for future public funding in this plan until the existing substandard roads are improved.

Recommendation:

* **Before new roads are built, existing roads should be upgraded to borough-approved specifications.**

The desire to maintain Talkeetna as an "**END OF THE ROAD**" town and commercial center for the outlying area.

Talkeetna is located at the end of the Talkeetna Spur road and serves as the commercial service center for the outlying area. Being at the end of a road connotes a certain exclusivity about it, as well as a choice for living on the fringes of the surrounding wilderness. Also, visits are intentional rather than pass-through.

In the 1970 Talkeetna Comprehensive Plan and during the recent development of the Chase Comprehensive Plan a possible road extension to the north into the Chase area was identified. This extension would require building a bridge across the Talkeetna River that would connect the Talkeetna area with the Chase and Curry trail access only within a sixty foot right-of-way areas via Comsat Road.

The bridge issue became highly controversial during the course of the planning process and remains so following adoption of the Chase Plan by the Assembly with wording **allowing** motor vehicle facilities within existing platted rights-of-way. Some Chase residents opposed the development of roads into the area and the subsequent loss of their trail access only within a sixty foot right-of-way status. Some of these residents challenged the legality of the Borough process that allowed the adoption of the controversial access; this challenge now exists as a case pending before the Supreme Court of Alaska. Currently there is no vehicle access into the area and there are only a few vehicles in the predominately trail access only within a sixty foot right-of-way area. The approximately fifty year-round residents of the area use several modes of access to their residences, including either the train, the existing railroad bridge trestle limited to all-terrain vehicles (ATV), snowmachines, off-road vehicles (ORV), and foot traffic, or fly-in planes, or boat use on the Talkeetna River.

The access issue revolved around whether legal and physical access must be provided to the nearly 200 subdivided lots in the Chase II subdivision and surrounding area. During the course of subdividing this previously state-owned land into remote subdivisions and open-to-entry land, the state platted legal rights-of-way and a bridge right-of-way across the Talkeetna River. Legal right-of-way access must be provided to subdivided lots as per Matanuska-Susitna Borough Code, Title 16. And, although legal road rights-of-way and the bridge right-of-way are platted, there are no built roads or bridges into the area, other than the existing railroad bridge trestle in downtown Talkeetna and some trails.

The actual cost of building a vehicle bridge across the Talkeetna River has not been estimated, but it would be expensive. Factors that would make the facility costly include its length, required environmental impact studies, and opposition that can delay the planning and programming process. At this time no planning or engineering has been done and the Alaska Department of Transportation and Public Facilities does not have this project listed in their Statewide Transportation Improvement Program which contains their priority list of construction projects planned by the state in the near-term.

It is the feelings of the Talkeetna community that a vehicle bridge across the Talkeetna River should not be included in any future comprehensive plans or capital improvement programming plans because such a bridge is in conflict with the stated goals and objectives of this Plan. It has not been identified as a road extension in this transportation plan nor included in the capital improvement program.

In October 1993 the Matanuska-Susitna Borough Assembly adopted the Chase Comprehensive Plan. The plan recommends that the railroad remain the primary transportation link for the Chase planning area and that trails be the primary transportation facility within that area. The plan further recommends that trails provide the principal physical access and that a crossing be located within the right-of-way of the existing railroad bridge trestle. This crossing would be designed to accommodate only ATV, snowmachine and foot traffic. As adopted, the Plan "allows" motor vehicle facilities within the platted legal rights-of-way, but no planned roads or any capital road improvements were adopted in the plan. Rather, the plan recommended the establishment of a trails service area. The provision allowing road construction within existing rights-of-way is involved in a court case that is unresolved at this writing.

In October 1992 the Chase Trail Service Area No. 134 was created to provide for the construction, maintenance, and operation of the access trail from Talkeetna to the Alaska Railroad Milepost 232, paralleling the track bed. The ordinance establishing the trail service area anticipated that the cost of operation and maintenance for the trail for the first year would not exceed $3,200. State funds are available to finance the trail construction and the Alaska Railroad Corporation is expected to build it.

The Chase Comprehensive Plan also listed several overall goal statements that addressed commercial development in the area. The goal statements advocate preservation of the present character of the area without large scale commercial development. The plan adds that any economic development will evolve around small to medium scale economic enterprises and that all existing lifestyles and land use patterns will be preserved. These goal statements support the continuation of Talkeetna as an "end of a road" town and as the commercial supply center for the area.

Since the bridge right-of-way has already been platted and accepted by the borough as part of the subdivision plat process, the only recourse for individuals opposed to roads into the Chase area will be to vacate the right-of-way as per Borough Code Title 16.15.035. Any vacation will require that equal or better access be provided before the existing right-of-way is vacated. In addition, no objection from adjoining property owners or state agencies responsible to the public who may be affected by the vacation can be received. Unless these conditions are met and the vacation be approved, the possibility of legal access via a proposed bridge right-of-way will remain.

Recommendations:

* **No extension of the Talkeetna Spur Road, Comsat Road, or other feeder roads north across the Talkeetna River is desired.**

* **No extension of the Talkeetna Spur Road, Comsat Road, or other feeder roads north across the Talkeetna River is desired. Chase II Subdivision has been platted with roads serving all lots. The Chase II Plat includes a designated bridge crossing of the Talkeetna River at the gauging station. The road rights-of-way within Chase II have been dedicated to the public. A homeowners association was established at the time the plat was recorded, as an instrument to build and maintain roads.**

* **Land use recommendations in this comprehensive plan should make provision for trail access within dedicated sixty foot rights-of-way.**

RAIL TRANSPORTATION

From the early 1900's to the mid-1960's the railroad played a significant role in the development and economy of Talkeetna. During this time the railroad was a major employer in Talkeetna. The railroad also provided the only access into the outlying area for miners, trappers, and prospectors, thereby directly supporting these industries. Today the railroad provides passenger and freight service to the area. It has a maintenance crew and signalman stationed in Talkeetna.

The Alaska Railroad line parallels the Susitna River corridor until it crosses the Talkeetna River at downtown Talkeetna. The railroad tracks run roughly parallel to the Talkeetna Spur road from the Parks Highway junction. At mile 13 of the Talkeetna Spur road the tracks cross the road and then at Second Street they cross again. These two railroad crossings are marked.

Talkeetna's first rail station opened in 1915. This first depot was destroyed by fire in 1930 and replaced with a single-story wood structure. In 1989 this wood structure was replaced by a concrete shelter. The old wood depot has been moved next to the museum and is now a non-contributing

historic structure within the Talkeetna Historic District. In 1997 the Alaska Railroad opened a new depot with a new access road about ½ mile south of Talkeetna.

The Talkeetna station is a regular passenger stop on the route from Anchorage to Fairbanks. During the summer season (mid-May to mid-Sept.), the train runs daily from Anchorage to Fairbanks round-trip, and three times a week round-trip from Anchorage to Hurricane Gulch (north of Talkeetna). During the rest of the year the train runs once a week from Anchorage to Fairbanks round-trip, and once a month round-trip from Anchorage to Hurricane Gulch. Besides passenger service the railroad also provides non-scheduled freight service to Talkeetna.

The Alaska Railroad does not keep specific statistics on passenger embarkation/debarkation at the Talkeetna station, but railroad ridership for the line routes is shown in Table 5, p. 5-19. Ridership on the Anchorage to Fairbanks route has increased nearly 9% annually in the last seven years. Between 1987 to 1993 ridership rose from 129,742 passengers to 235,380 passengers. Ridership on the Anchorage to Hurricane local "flag stop" route has remained relatively constant at 8,000 passengers per year between 1989 to 1993. Ridership on this route peaks in the summer season with over 1,600 passengers in July and drops to about 130 passengers in February.

TABLE 5
ALASKA RAILROAD CORPORATION
Passenger Ridership

	1987	1988	1989	1990	1991	1992	1993
Anchorage/Fairbanks*	129,742	157,208	171,621	196,311	212,029	214,797	235,380
Anchorage/Hurricane Anchorage/Fairbanks Fall/Winter/Spring	N/A	3,070	8,107	7,425	8,293	8,838	8,195

* Includes dome pulls and local hurricane turn

The Alaska Railroad was acquired from the federal government by the State of Alaska in 1985. Today it is run as a state-owned corporation as the Alaska Railroad Corporation. In addition to acquiring the rolling stock the Alaska Railroad Corporation also acquired extensive real estate holdings state-wide. In downtown Talkeetna they became a major land owner. Besides owning the 200 foot railroad right-of-way running into downtown and the 500 foot right-of-way through town, they also own two large parcels of land fronting on the railroad tracks. One parcel of approximately 19 acres is located in downtown Talkeetna, north of Main Street and along the Talkeetna River. This parcel is the site of the community water well.

The other railroad property is approximately 122 acres located in east Talkeetna along the riverfront where the community boat launch and campground are located. Both of these tracts of land were previously leased to the Matanuska-Susitna Borough, but have since been relinquished back to the railroad. Since these parcels contain important community facilities, future coordination with the Alaska Railroad Corporation will be critical to the successful management and protection of these facilities. These facilities are discussed in the Public Facilities and Services, Chapter 6.

The Alaska Railroad Corporation has no specific development plans or improvement plans in its five year capital improvement program for its property and facilities in Talkeetna; however, the Railroad Corporation has become very active in commercial leasing of its holdings to commercial interests in Talkeetna. The Alaska Railroad does not consider Talkeetna a major destination and its emphasis is on passenger service direct to Denali National Park and Fairbanks.

ISSUES AND RECOMMENDATIONS

As part of this comprehensive plan, several rail transportation issues were identified:

* Need to improve Talkeetna station amenities and parking areas.
* Need to improve pedestrian crossings between east Talkeetna (campground and boat launch) and west Talkeetna (downtown).
* Need to improve vehicular access to east Talkeetna.
* Need to plan for future industrial growth.

Station amenities and parking area improvements

The existing railroad depot does not provide any covered waiting area, historic or pleasing ambiance, or restroom facilities for railroad passengers. In other communities where there are embarkation/debarkation stations for bus, train, and airport travelers these facilities usually provide a waiting area, public restroom, and other amenities for the comfort and convenience of the traveling public. Staffing is then usually required in order to maintain and supervise the use of the facility. The Alaska Railroad has no plans to staff its Talkeetna station and consequently no plans to improve its station's amenities.

Restroom facilities are particularly needed in Talkeetna because the tourism industry is expanding and there are no other public restroom facilities located within walking distance of the train station. The community recommends that a waiting area and restroom facility be constructed adjacent to or near the existing depot. Additionally, improvements to the existing station could be made to enhance its compatibility with the historic district, as part of Talkeetna's efforts to maintain its downtown historic attractions.

In addition to improved station facilities, parking areas also need to be improved. An employee parking area close to downtown is needed, as well as parking areas for short-term and long-term train users. Any railroad parking area that is to be located in the downtown area should be used for short-term and day-use parking only.

Longer term parking is needed for those passengers who take the train into their remote homesteads. Long-term parking areas should be located outside of the main commercial district. The community supports private enterprise providing long-term parking storage for north-bound railroad passengers' vehicles and supplies.

Recommendations:

* **Increased space requirements associated with railroad passenger amenities in Talkeetna are likely to be needed. Railroad passenger amenities in the form of at least a covered waiting room with restrooms are needed. They are recommended to be constructed near the existing facilities.**

* **The railroad needs designated employee parking.**

Need to improve pedestrian crossings.

Access across the railroad tracks between west and east Talkeetna is either via Second Street, a non-signalized intersection, or by various common use unmarked pedestrian crossings. Pedestrians coming from the east-side campground and boat launch into downtown Talkeetna cross the railroad tracks wherever it is convenient for them to cross. There are no marked pedestrian crossings. A safe pedestrian crossing across the tracks where pedestrian traffic is highest and near to downtown is needed.

Pedestrians who use the Second Street crossing to cross the tracks have to walk in the traveled roadway as there is not a pedestrian path alongside the road. A pedestrian path should be included in any future upgrade of "F" Street, Second Street, and Talkeetna Spur Road.

Recommendation:

* **A pedestrian trail for access between downtown and east Talkeetna should be officially established and maintained.**

Need to improve access to east Talkeetna.

Current access to east Talkeetna is via Second Street. Vehicle movement on Second Street is periodically interrupted when trains stop to load/unload passengers and freight. This access interruption could present a safety problem if emergency vehicles had to use Second Street at the same time as the roadway is blocked. Finding another route into east Talkeetna would be preferable, but building this road is hampered by the State airport location and a topographic bench. This issue needs further study and analysis. One possible solution is to improve alternate access via Beaver Road, Christiansen Lake Road, and/or Comsat Road, a much longer route, but nevertheless more financially feasible.

Recommendation:

* **Another route to east Talkeetna may be needed since the railroad blocks Second Street for extended periods of time.**

Need to plan for future industrial areas.

Mentioned as part of this planning effort is the need to provide for future freight siding areas for possible industrial growth outside of the townsite. This issue is discussed in the Land Use Plan in Chapter 4.

AIR TRANSPORTATION

Air transportation services in Talkeetna are provided by private air taxi operators. There is no scheduled flight service to Talkeetna. The air taxi services operate out of either the State-maintained Talkeetna Airport, the village airstrip, or at various lakes, if float-equipped.

VILLAGE AIRSTRIP

The first airstrip in Talkeetna was the village airstrip created by Executive Order in 1914, modified in 1937. The airfield was constructed in 1938 and continues to be used today, although most air services have now relocated to the state-maintained airport. The village airstrip is not publicly maintained and has no airport runway lighting or building facilities. It is an unmarked gravel runway approximately 30 feet by 1000-1200 feet.

The airstrip is located in downtown Talkeetna along "D" Street, south of Main Street, and between First Street and the Susitna River. Several rights-of-way (First, Second and Third streets) intersect the runway at right angles and "D" Street parallels the airfield. The "D" Street right-of-way is probably being used as part of the runway. There are also several buildings, overhead utility lines, antennas, and other obstructions that exceed the airspace standards set by the FAA. Additionally, the village airstrip and the state-maintained airport have airspace fly-zone overlaps. The Federal Aviation Administration does not recommend this airstrip to be used by transient aircraft users.

The 1937 federal Executive Order which withdrew the townsite land for aviation field purposes is still in effect today, consequently the airstrip is being administered by the U.S. Bureau of Land Management. Since the Bureau of Land Management (BLM) is not an aviation/transportation agency, the airstrip is not being actively managed by them as a airfield facility. The Federal Aviation Administration (FAA), which is the federal government's air transportation agency, is concerned about the potential safety of the airstrip and in 1990 requested that BLM close the airstrip.

Even though the airstrip is substandard when measured against FAA standards, it is accident-free. This is probably due to the skill and knowledge of the local pilots who use the runway. The runway is being used mostly during the winter and spring by local pilots with ski-equipped planes that cannot land at the state-maintained airport since it is plowed.

Local pilots and many people in the community want the airstrip to remain open. The community wants to protect the airstrip as a contributing historic structure within the downtown historic district. The airstrip has traditional and very high historic value to the community.

Several issues related to the village airstrip have been identified in this plan:

* Need to ensure the safety of the facility
* Need to resolve land ownership and conflicting use activities.

Need to ensure the safety of the facility.

In 1992 the BLM re-classified the airport from public to private use of public lands. As a private use airport it is no longer required to meet federal airport standards. But, in order for the airstrip to remain a safe and useable facility, several issues need to be resolved. The sponsorship and maintenance responsibility for the airstrip should be determined in order for the runway to be maintained. In the past local pilots who used the facility did the maintenance on it and this arrangement could be continued. Neither the State of Alaska, the federal government, nor the Matanuska-Susitna Borough will maintain a private use airstrip. Local pilots have formed the Talkeetna Airmens' Association to maintain the operation and safety of the airstrip.

Recommendation:

* **The village airstrip is an integral and necessary aspect of the transportation network of Talkeetna. The airstrip should remain in public ownership and should continue to be an airstrip and remain open for air traffic. In the event that the historic Village airstrip can no longer be used in this traditional manner, it should be designated as a community park honoring the aviation history of the community.**

Need to resolve land ownership and conflicting use activities.

Current air plane traffic across the dedicated road rights-of-way needs to be addressed in order to separate vehicle traffic from air traffic. Currently vehicles use "D" Street alongside the runway. To clarify the use of the dedicated streets and the runway it is necessary to determine the actual location of all of the affected properties. This determination should include the location of any encroachments by utilities, buildings, or other obstructions. An as-built survey will be required prior to any further planning for the airstrip and road facilities. Once a survey is completed and a determination is made as to where everything is located in relation to where facilities are platted, then re-platting can be done, if necessary. This survey should be done as part of the downtown master plan as proposed in the Land Use Plan in Chapter 4. Prior to any vacations of any rights-of-way, the borough must maintain the public's right to access their property and the safe and efficient circulation of traffic through the downtown area.

Recommendations:

* **The present road bordering the airstrip should be permanently dedicated as the road and the airstrip shall exist within the boundaries that it currently occupies with continuing access from Main Street and D Street. The present airstrip, including the portion of D Street, needs to be re-platted to reflect its existing location.**

* **East-west streets that terminate at the village airstrip should be marked with signs and barricaded to keep vehicles off the airstrip.**

* **Existing platted roads within the airstrip need to be vacated and the area being used as a road ("D" St.) needs to be dedicated as such.**

* **Continued operation of the Talkeetna Village Airstrip by a public body may require assumption of responsibility, if the Bureau of Land Management disposes of the property.**

* **Obtain legal description of Airmen's Association property.**

* **Obtain legal description of Village Airstrip property.**

* **Identify road access (map if necessary).**

STATE AIRPORT

The State of Alaska Department of Transportation and Public Facilities owns and operates the public airport in Talkeetna. It is located in east Talkeetna. Access is via Second Street.

The airport was originally built by the federal government in 1941 and the state acquired the property in 1965. Since then the state has made improvements to the runway, apron, and lighting in 1980 and 1987. In 1997 the state completed a multi-million dollar upgrade to the airport. Currently there are four air taxi services and approximately 40 single engine aircraft based at the airport. All 28 of the existing aircraft tie-downs are occupied. In addition, there are approximately 500 military operations at the airport each year. During training exercises the military lands CH-47 helicopters at the south end of the runway.

The existing visual approach aid at the airport is VASI. Existing instrument approaches at the airport include VOR and NDB. There is a Federal Aviation Flight Service station located at the airport which is staffed by two flight service specialists. The National Weather Service provides weather information from the Flight Service station.

The existing paved runway is 75' X 3500'. There is a 40' wide partial taxiway that begins at the mid-point of the runway with a 79' safety area. During periods of heavy traffic, planes back up on the apron taxiway and into the approach pattern. It is common for pilots to taxi to the end of the runway in groups for take-off. Pilots also taxi on the gravel outside of the lights to get clear of arriving and departing planes.

There is currently no defined automobile parking areas for airport visitors. The existing equipment storage building is a 1950's quonset hut.

The Airport System Plan, Upper Cook Inlet, prepared for the Alaska Department of Transportation and Public Facilities, was reviewed for recommendations pertaining to air service operations in Talkeetna. The state defines the Talkeetna airport as a local airport. Local airports serve as secondary access to a community served by another mode as primary access. The Parks Highway is considered the primary access to Talkeetna.

The state plan also addressed float plane use. The study reviewed three options: either allow users to base their float planes at any of the lakes in the borough, designate several lakes for float plane operations, or develop two to four major new facilities, by either developing natural lakes or constructing new facilities.

Most float plane use in the borough and in Talkeetna occurs at lakes that also accommodate residential and recreational uses. Float plane users are either local residents or guide-oriented recreational services. If the present method of allowing float plane landings on any and all lakes continues, land and water use conflicts will increase between the aviation, recreation, and residential users.

If lakes could be designated to serve as float plane facilities through a planning process, then the public is put on notice that certain areas will be reserved for aviation uses and these uses will have the highest priority. This process could allow for proper buffers to reduce the noise of aviation users. It would also encourage the consolidation of aviation support facilities.

The Airport Systems Plan concluded that accommodating future float plane activity in the borough would probably require the continued use of several lakes where residential development has occurred, and that although this use may lead to incompatibilities, the cost of entirely new facilities would be high in relation to the levels of activity accommodated.

The plan recommended Christiansen Lake as a planned float plane facility to be included in the recommended system of airports for the region to the year 2000. It noted that master planning for the Christiansen Lake facility would be needed to determine suitability for development.

By year 2000 the plan estimated that use at the Talkeetna airport could reach 100 aircraft with over 46,000 aircraft operations and that Christiansen Lake could see 35 float planes with over 7,000 operations. These estimates seem high given that 1993 use at the airport is 40 planes and Christiansen Lake has only two taxi services using the lake for their seasonal fly-in business.

One state airport issue that has been identified in this plan is:

* Need to provide for the continued improvement of the state airport.

Need to provide for the continued improvement of the state airport.

The community favors continued improvements to the state airport. Additionally, the transportation sub-committee of this plan recommends that the existing flight service station be kept operational.

Recommendations:

* **Lands associated with the Talkeetna state airport should be managed for airport-related operations only so that the continued efficiency of this important facility is maintained.**

* **The Talkeetna airport should be expanded through the addition of a taxiway and expansion of the apron area when needed to handle air taxi traffic. In the longer term, extension of the state airport may be justified.**

* **Additional airplane tie-downs will be needed.**

* **The Flight Service station should remain operational and staffed due to significant air traffic during the summer months.**

* **A float/ski plane strip parallel to the state airstrip should be considered. It could alleviate the congestion and possible fuel contamination at Christiansen Lake.**

* **Increasing noise is of concern to the community. Fixed-wing and rotary-powered aircraft should be routed to minimize the impact of noise on the community.**

CHAPTER 6: PUBLIC FACILITIES AND SERVICES PLAN

Community utilities and facilities are provided to protect the public's health and safety and to provide for the general welfare of the citizens. Community facilities and services usually cover such essential functions such as water and sewer systems, flood control and drainage management, public safety, and education. Other public services, like libraries, museums, and parks and recreation, can be provided to enhance the well-being of the population.

This chapter outlines the issues, goals, and recommendations for each of the public facilities and services provided in Talkeetna. The Talkeetna Comprehensive Plan advisory committee developed two over-all goals that represent their community's important values concerning public facilities and services.

PUBLIC FACILITIES AND SERVICES GOALS

* Promote and protect the public health, safety, and general welfare of the residents of Talkeetna.

* Protect the quality of groundwater and watershed resources affecting the Talkeetna area.

The Matanuska-Susitna Borough exercises area-wide, non area-wide, and service area powers to provide for the various public utilities and facilities in the Talkeetna planning area. Area-wide and non area-wide powers are funded from taxes levied on all taxable properties in the borough. Area-wide functions that the borough must perform, as required by Alaska state statutes, are education, assessment and taxation, and planning, platting, and land use regulation. The borough also has elected to perform parks and recreation, ambulance service, ports and harbors, and historic preservation on an area-wide basis.

There are two non area-wide powers that are currently exercised by the borough in the planning area. These are solid waste disposal and library services.

There are also four service areas in the planning area that perform other community functions: the Talkeetna Water and Sewer Service Area, the Talkeetna Fire Service Area, the Greater Talkeetna Road Service Area, and the Talkeetna Water Erosion and Flood Control Service Area. These service area functions are funded by special taxes that are levied on properties located within the boundaries of each unique service area.

WATER UTILITY

Talkeetna's residents get their domestic water supply either through the public water system, or through private on-site wells, or other means (hauling water, cisterns, etc.). Outside of the

boundaries of the public water system, most residents use on-site water and sewer systems. Based on current census data and water utility connections it is estimated that approximately 87% of all households in the planning area use wells or other on-site water systems, while 13% of all households are connected to the public water system.

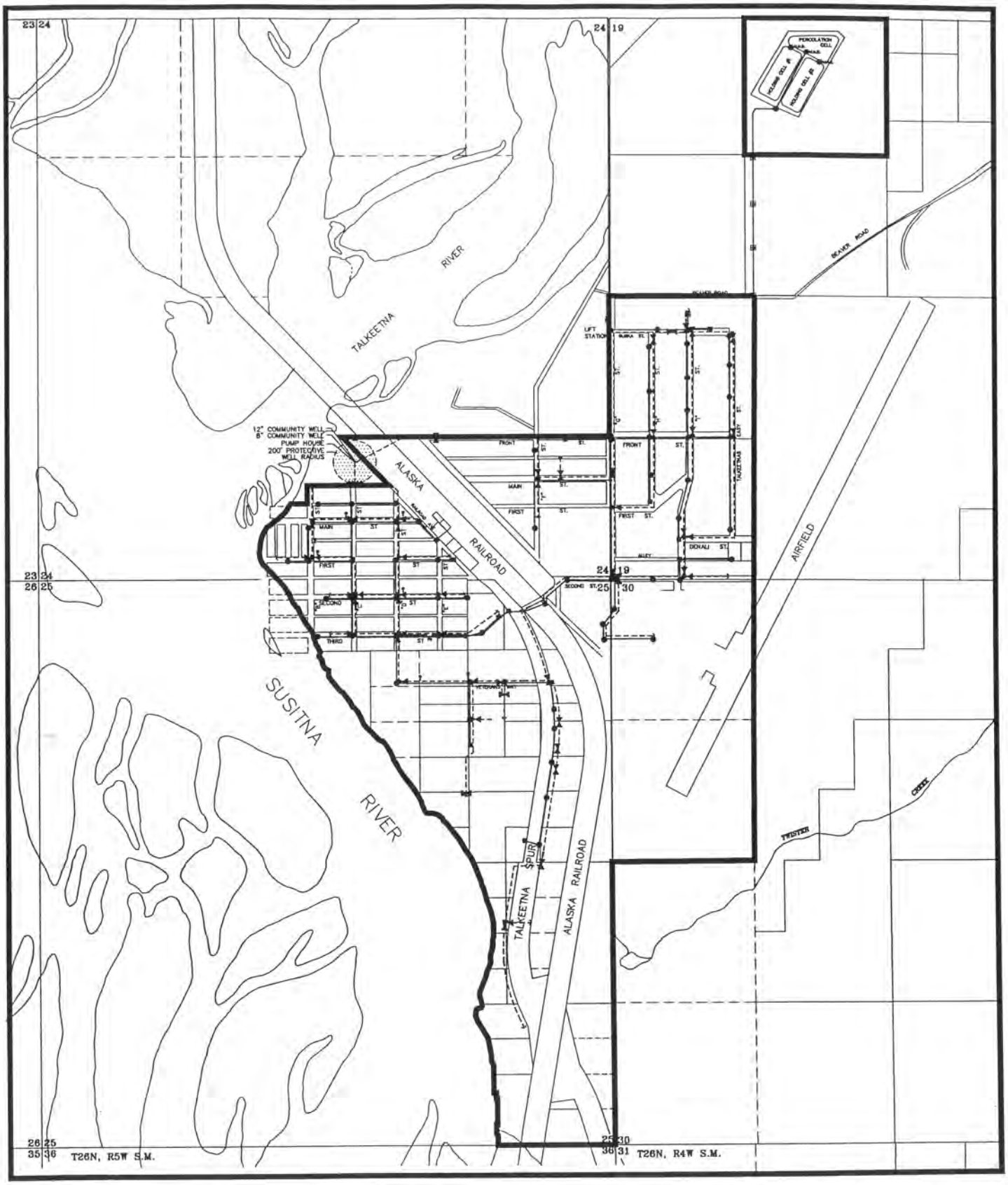
Since the majority of all households in the planning area use on-site water systems, it is important to ensure the safety and high quality of the area's groundwater. At this time groundwater contamination does not appear to be a prevalent problem in the outlying region of the planning area. Several factors contribute to this situation, including: existing lot sizes that are sufficiently large enough to ensure adequate separation from septic systems, land use that is sparsely developed, and soil conditions that are adequate for on-site systems. There are some soil conditions present in the planning area which do place constraints on septic drainfield absorption, therefore property owners should be aware of these marginal soil types and plan for larger separation zones.

Prior to the construction of the community's water system in 1988, all residents used either on-site wells or other means for securing their water. As population densities increased in the townsite area and as water wells and septic systems became more and more densely concentrated, concerns arose about the possibility of groundwater contamination in the townsite. The water wells in the townsite are especially susceptible to potential groundwater contamination because of their shallow well depth, sometimes only 15 feet to 30 feet below the surface, the high water table, and the porous soils in the area. A minimum separation of 100 feet between water source and waste disposal system is required by the Alaska Department of Environmental Conservation and many of the older platted lots in the townsite could not meet this separation.

In 1983 the borough requested the Alaska Department of Environmental Conservation (ADEC) to study the feasibility of constructing a community water and sewer system in Talkeetna. The study began by testing for contamination in townsite water wells and, although it did not find positive evidence of pollution at that time, the study did note the contamination potential and recommended that a water and sewer system be constructed. The study recommended that the system be constructed in the east and west townsites and that an improvement district be formed to operate and maintain the system.

Community residents petitioned the borough in 1984 (Ord. 84-79) to conduct a ballot measure to form and define the water and sewer service area. In later years the service area was expanded to include the sewage lagoon property (Ord. 88-89). Figure 19, p. 6-3, shows the existing water and sewer system and the boundary of the service area.

In October 1986 flooding from heavy rains caused the Talkeetna River's water table to rise, which subsequently contributed to the contamination of some of the townsite's water wells. Testing done in 1986 through 1987 confirmed that coliform bacteria was found in 30% (1986) and 18% (1987) of the water wells tested. Most of the contamination was found in the east townsite's wells. After



TALKEETNA COMPREHENSIVE PLAN

UTILITIES

TALKEETNA
WATER AND SEWER

SERVICE AREA
#36

FIGURE 19

WATER

WATER LINE

- GATE VALVES
- FIRE HYDRANT
- CAP

SEWER

SEWER LINE

- MANHOLE
- CLEANOUT
- FORCED MAIN

N

the contamination was discovered, the borough applied for and was awarded several ADEC Village Safe Water Program grants in order to finance the construction of the water and sewer system. Initially, a sewer mound system was proposed for installation at the southern portion of the downtown townsite. This was abandoned when some residents expressed concerns about disturbance to the Village Airstrip, and questioned the prudence of locating a sewerage collection site in the most populated part of Talkeetna. In July 1988 work began on installing the system in the west townsite. This area was chosen for the initial construction due to its higher population density and commercial and tourism use. Lot sizes are also smaller in the west townsite and residences are more closely concentrated.

By November 1989 the west side system was operational. It consisted of two source wells and a facultative lagoon for sewage. The distribution system entailed 18,000 linear feet of water line and 15,000 linear feet of sewer line, lift stations, and a force water and sewer main line located on G Street to connect the system to the sewage lagoon. The sewage lagoon was located approximately one mile northeast of town.

Between June 1992 through November 1993 the water and sewer system was constructed in the east townsite. It consisted of approximately 15,000 linear feet of water line and 14,000 linear feet of sewer line, fire hydrants, a lift station, manholes, and stub-out connections. Construction cost for the entire system is estimated at over $7 million.

The system is designed for a population of 600 users based on the sewage system's capacity. Currently there are 82 water connections, 76 sewer connections, and 92 stub-outs on the system (4/94). Current water consumption averages an estimated 14,000 gallons per day, based on the sewage system's wastewater flow.

There are currently 57 residential connections on the system. With an average 2.5 persons-per-household, there are an estimated 143 residential users served by the water system. Based on the average daily water consumption rate of 14,000 gallons, the daily water rate is less than 100 gallons per person, not counting the commercial users. This is comparable to the national average for water consumption of 100 gallons per person per day.

The water source for the system is an unconfined aquifer adjacent to the Talkeetna River. The source wells are located on Alaska Railroad Corporation reserve property at C Street and vacated Front Street. Two wells and turbine engine driven pumps, one an 8" inch and the other a 12" inch diameter, pump water through the distribution lines to individual services. Well depths are about 160 feet. The 8" well is the primary well while the 12" well is designed for high demand use, fire fighting, and for back-up. The wells have an ADEC required 200-foot protective radius around them to protect the source from contamination. Any potential source of contamination is prohibited within this protective zone.

Except for a 2000 gallon pressure tank, the water system has no storage capacity.

Water quality is considered good and no treatment is required at this time. The system is designed to handle this capability, if chlorination is needed.

ISSUES AND RECOMMENDATIONS

Several issues related to the water system have been identified in this plan:

* Need for the utility system to be self-sufficient.
* Need to continue monitoring of the water supply to guarantee safe water quality.
* Need to reserve an eventual relocation site for the source wells.

Need for the utility system to be self-sufficient.

The Talkeetna Water and Sewer Service Area is responsible for the provision of water and sewer treatment services and facilities, including the construction, operation and maintenance of such facilities for the water and sewer service area. A five-member Board of Supervisors is appointed by the borough Mayor and approved by the Assembly to recommend building programs, equipment acquisition, administrative policies and procedures, maintenance needs, and an annual budget for the service area.

One of the requirements of the ADEC grant is that local residents will pay for the operation and maintenance of the system. The borough Assembly adopted rates and regulations for the water and sewer service area in 1989 by Ord. 89-223. Initially residential water fees were set at $18.68 per month and sewer fees were set at $20.61. The residential rates have since been increased to $25.00/month for water and $25.00/month for sewer. Commercial rates were initially set at $18.68/month for water and $32.10/month for sewer, or $50.78/month for both services. Water meters were to be installed on the commercial connections with an additional fee assessed for each 1,000 gallons used. As of this date, some commercial users are metered but not yet changed for metered usage. Residential services are not planned to be metered.

The water and sewer system is not financially self-sufficient at this time. The service area fund is carrying debt from previous years' operations and debt service. In addition, the current fee structure is not covering the yearly operation and maintenance of the system. The borough has established a separate enterprise accounting fund for the service area and, in order to keep the system operational, is essentially "borrowing" money from other revolving loan funds to cover the short-fall for the service area.

Since it was always the intent that the system would pay for its operation and maintenance, the Board of Supervisors and borough Assembly periodically evaluates the rate structure and recommends adjustments to the Rules, Rates, and Procedures of the service area. In their 1992 review of the system, the Board of Supervisors proposed to keep current on the debt interest and operational costs and continue to borrow as necessary to cover the debt liability of the system (AM 92-063). The Board estimated that within five years the system's income would exceed operational costs and be able to begin payments on the debt. Their projections depend on an annual increase of 5% of new users to the system. Other recommendations from the 1992 review included: an increased monthly fee (already instituted for residential users but not for commercial users), mandatory hook-ups for systems that fail, establishing equitable commercial rates, a possible service area mill levy, and annual examinations of the rate schedule.

At this time the current rate structure and five-year payment schedule should be re-examined and recalculated based on current service connections, revenues, projections, and operational costs. A review of the rate structure is necessary because the current rate structure is not meeting operational costs and is not equitable to all users. Basically the rate structure groups all users into either residential or commercial users and charges them the same rate. However, not all commercial users (restaurants, hotels, launderettes, school) place the same demands on the system as other commercial users or other residential users. Currently each residential connection is paying more for water service than commercial users and only sightly less for both services than the commercial users. At a minimum, the service area should investigate an equitable rate structure with possible metering of the commercial users or increased commercial fees.

At the time the water and sewer service area was created there was no requirement for existing establishments in the service area to hook up to the system. Consequently, it is estimated that only about half of the occupied residences and commercial users in the east and west townsites is served by the system. Potential well contamination still exists in the townsite, as some wells are still being used. Any commercial business serving the general public from an on-site well should be strongly encouraged to connect to the public water system. All new commercial and residential developments in the service area are required to connect to the public system.

The system needs more users on the system in order to reduce the cost to all the users. One of the recommendations from the Board of Supervisors is to mandate that any current on-site water well that fails should be required to connect to the system. This recommendation should be implemented but there is currently no enforcement or testing of wells to determine compliance.
At some point in the future, and in order for the service area fund to be truly self-sufficient, the service area should calculate into its rate schedule the costs of depreciation of the system, future replacements, utility extensions, and emergency savings, as a cost of the system. Failure to plan for these replacement costs in the system will only make it more difficult in the future to replace worn pipes and parts, extend the utility, or handle emergency repairs.

Need to continue monitoring to guarantee high water quality.

The water wells are located in the west townsite, an area that has tested positive for coliform bacteria in the past, so continued monitoring is recommended. Since the wells are located downstream from the sewage lagoon this situation also warrants continued monitoring. ADEC's drinking water standards require the ongoing monitoring of the water supply. The borough is required to test monthly for coliform and periodically for other tests. Testing to date has indicated no problems or contamination of the water.

Need to reserve an eventual relocation site for the source wells.

As mentioned earlier, the water source wells are located on Alaska Railroad Corporation reserve land. At the time the wells were installed the Borough and the Alaska Railroad entered into a Contract agreement (No. 6087) which permitted the use. The contract is a non-exclusive permit with

an expiration date of 2008, fourteen years from now. The contract also contains a 120-day notice of termination, which would allow either party to terminate the contract with little notice. Prior to expiration or termination of the contract the borough is required to remove its improvements.

This lease option leaves the wells in a precarious situation. Although highly unlikely that the Alaska Railroad would terminate the lease and require the removal of the wells, it could happen on short notice. Regardless, after 2008 the wells may need to be re-located if the lease is not re-negotiated. The cost of moving the wells will be expensive if they have to be re-located. At a minimum, their replacement cost should be factored into the current fee structure so that the future expense will be covered. If the water wells have to be re-located, a suitable site will need to be identified. The service area's Board of Supervisors should begin to evaluate other potential sites and solutions to the situation. In the meantime, the 200-foot protective radius should be retained and any developments proposed around the water wells should be reviewed for compatibility.

Recommendations:

* **An alternate wellsite be set aside on Matanuska-Susitna Borough land in East Talkeetna; and a site for the eventual relocation of the source wells should be reserved.**
* **The water utility system should be made self-sufficient, including evaluating and periodically adjusting rates.**
* **Monitoring of the water supply system should continue to guarantee safe water quality.**
* **Any (property currently utilizing) an on-site well that fails should be required to connect to the utility system.**
* **A water utility reserve fund should be established.**
* **Copies of water quality sample (test results) should be sent to the Community Council.**
* **The Borough should seek a long term lease with the Railroad for the wellsite.**

SEWER UTILITY

Sewage in the Talkeetna planning area is disposed of either through the community's sewer system or by on-site systems such as septic systems, privies, or alternative systems like composting toilets. Septic and other on-site systems are used throughout most of the planning area. It is estimated that 85% of all households in the planning area use some type of on-site sewage system, while 15% of all households are connected to the public system. The only areas that are served by the sewer system are the east and west townsites and lands along the Talkeetna Spur road to the elementary school and Lot A19.

Installation of the public sewer system was constructed between 1988 and 1993 at the same time as the water system. Currently there are 50 residences and 26 commercial establishments connected to the sewer system.

The sewer system is a gravity system with a force main, collector lines, lift stations, and a facultative lagoon. The lagoon is on forty-acres of borough-owned property located one mile northeast of town. The lagoon is a lined two-celled stabilization pond with 9 million gallons total volume capacity. It also has a percolation cell where, after domestic waste is settled in the stabilization ponds, the treated effluent enters the percolation cell and is subsequently discharged into the ground. Since the start-up operation of the sewage system in 1989 the percolation cell has been dosed annually.

Because the lagoon is located up river from the community's water source wells, the Alaska Department of Environmental Conservation (ADEC) requires, as a condition of the wastewater discharge permit granted to the borough, that the borough monitor the discharge events. There are nine monitoring wells around the lagoon from which samples are drawn. To date, monitoring before and after the discharge events has shown no problems or violations with the discharges. At this time there does not appear to be any pollution of the groundwater aquifer. Continued monitoring will be done to assess the aquifer's condition.

The sewage system is designed for a maximum daily discharge of 54,000 gallons of domestic wastewater per day, with an average daily discharge of 30,000 gallons per day. This enables the system to handle a maximum population of 600 people disposing of an average of 90 gallons per day of domestic wastewater. Currently the system is handling 14,000 gallons per day. In the future, when the maximum discharge point is reached, the system will be required to either add another treatment cell or add mechanical aeration to the lagoon. The existing site is capable of handling either alternative, although power will need to be extended to the lagoon for the aeration option.

One sewage issue that will have to be addressed in the future is the provision for sludge disposal. Sludge is the waste product that does not breakdown into effluent. Since wastewater disposal into the sewage lagoon is very low at this time and the amount of sludge is insignificant, no sludge is being withdrawn for further treatment. When increased capacities are reached and the system begins generating sufficient sludge quantities, the sludge will need to be disposed of as allowed and permitted by ADEC. This disposal will increase the operational cost of the system unless the Borough aerates the lagoons, in which case there will be no sludge.

The sewer system's rate structure is similar to the water system's structure, as discussed above. The borough Assembly sets the service rates based on recommendations from the Talkeetna Water and Sewer Service Area's Board of Supervisors. The current sewage rate structure should be reviewed in order to determine an adequate and equitable fee that will provide for a self-sustaining utility fund.

The majority of those residents not served by the public sewer system continue to provide for their sewage disposal by on-site sewage systems. The most common type of on-site system is the septic system with absorption drainfield. Septic systems require a periodic pump-out and this waste is

called septage. Septage is currently disposed of by private carriers who transport the waste to the Municipality of Anchorage for treatment and disposal.

There are locations in the planning area that have marginal soil conditions which can create problems for on-site septic systems. These soil conditions can include high groundwater table, poor drainage or absorption, excessive permeability, and in the higher elevations, bedrock conditions. Residences located in the Nancy soil series should be aware of the fast permeability of its gravelly substrata and plan on-site septic systems accordingly. This soil type will allow septic discharges to move through the soil faster than the soil can filter out the impurities. Septic systems located in the Nancy soils need to be located away from water source wells to prevent any possible groundwater contamination.

Another prevalent soil series in the area, the Tokositna series, has a different problem. This soil type is not very permeable, consequently the soil does not absorb the discharges and the drainfields drain poorly. Wastewater can migrate across impermeable layers and possibly pollute groundwater sources. To compensate for this deficiency septic drainfields should be designed to flow away from possible water sources.

As of July 1993 the Alaska Department of Environmental Conservation (ADEC) no longer certifies on-site water wells or sewage systems for private family homes through its certified installer program. If a homeowner intends to either sell or purchase a home through a lending institution which requires a certified installed system, the owners must now have a professional engineer certify the design and installation of the systems. Even if a homeowner does not intend to sell or buy through a lending institution, the ADEC encourages the homeowner to use an engineer to add assurance that the systems will perform adequately and to aid in the future sale of the home. It will be much more costly for the homeowner to have a system certified after it has been installed.

The Borough's code Title 9.08 outlaws pollution and requires that any sewage disposal be discharged and disposed of in such a manner that wastes will not gain access to any surface or subsurface waters of the state unless such sewage is first treated to prevent water pollution. Borough code stipulates that disposal systems cannot be located within 100 feet of a well or within 100 feet of a lake's shore, stream, or other water body (MSB 9.08.030).

ISSUE AND RECOMMENDATION

The community identified the following issue related to the sewer system:

* Need to protect the sewage lagoon from flooding and erosion.

<u>Need to protect the sewage lagoon from flooding and erosion.</u>

Because the sewage lagoon is located near the floodplain of the Talkeetna River, concerns have been raised about the fear of flooding and the possibility of erosion. At the time the system was engineered, base flood elevations from the 100-year floodplain and the 1986 flood (lower than the 100-year floodplain) were evaluated. The sewage lagoon was subsequently constructed about two

feet above the 100-year base flood elevation. ADEC has determined that the sewage lagoon is a low risk for future flooding and does not recommend any additional protections at this time. Their estimates have shown that in the event of a major flood, the entire downtown community will be flooded to a depth of eight feet of water before the sewage lagoon will be flooded.

Another concern raised with the location of the lagoon and its nearness to the Talkeetna River is the possibility of erosion. There is an active slough to the north of the lagoon and an inactive slough to the south. In order to assess whether there was a need for additional erosion protection for the lagoon, the borough had a hydrology investigation done in 1992. This investigation determined that the slough flow is actually decreasing based on vegetative growth patterns. The study concluded that the stable vegetative banks between the slough and the lagoon are highly resistant to bank erosion and channel migration. The stability of the vegetation on the banks show that the slough is not migrating and that the lagoon does not appear to be in any danger from erosion. The report noted that should these conditions subsequently reverse themselves there would be adequate time for remediation measures to control any erosion.

Recommendation:

* **The sewerage lagoon should be monitored and protected with rip-rap from a near-by source on Alascom Road as needed.**

SOLID WASTE

Solid waste disposal is provided as a non area-wide service by the Matanuska-Susitna Borough. Recently the borough evaluated its waste management practices in a report, Solid Waste Management Study (CH2M Hill). The study recommended that due to stricter environmental regulations and monitoring requirements, the borough should close out its remote landfills and convert them to transfer sites. Landfill operations would be centralized into a central landfill. Over the past several years the borough has closed out its remote landfills and converted the landfill site on Moffitt Road to the central landfill site. The central landfill is located between Palmer and Wasilla. The site is open on Tuesday, Friday, Saturday and Sunday.

Talkeetna's landfill has been one of the remote sites that has been closed and converted to a transfer operation. The current transfer station is located at the old landfill site. The old landfill site which began operation in 1972 is now being monitored for possible groundwater contamination. Monitoring wells were installed in 1984 and sampling is done bi-annually. Monitoring is scheduled to continue for another ten years. To date no groundwater contamination has been recorded.

With the change in operation to a transfer site the borough has begun to charge a nominal fee for disposing of waste. Previously there was no charge to dispose of waste in the landfill and no hours of operation. There was also no monitoring of what was being dumped into the landfill. Alaska Department of Environmental Conservation's regulations do not allow the disposing of hazardous waste into sites not approved for hazardous waste dumping.

The transfer site system now requires hours of operation and the presence of a gate-keeper. The site is open Thursday through Tuesday. This security provides for monitoring of what is being disposed. Residents dispose of their garbage into two 40-cubic yard dumpsters and one 28 yard dumpster. The dumpsters are then taken to the central landfill site and emptied. Hazardous waste is not accepted at the transfer site; however, waste oil and batteries are accepted. Individuals are responsible for taking their other hazardous wastes to the Central Landfill on the last Saturday of each month.

Talkeetna's solid waste disposal needs cover a variety of different substances including: general household and business waste, tourist waste, recreational vehicle pumping disposal, bulk item storage and disposal, tree stumps and organic materials, septage disposal, and hazardous waste disposal. Currently there is approximately 100 cubic yards per week of waste generated in the summertime in Talkeetna. During the winter waste volumes drop to about half the summer volumes.

The community is generally supportive of recycling materials that can be recycled. At present the community recycles aluminum through a volunteer effort to collect and transport the material to a collection site. The borough does not provide any public recycling option for the Talkeetna community. In April 1993 the Talkeetna Community Council requested that the borough adopt waste reduction and recycling operations and provide recycling bins in Talkeetna.

ISSUES AND RECOMMENDATIONS

The following solid waste issues were identified in this plan:

* Continued monitoring of the landfill site is desired.
* Recycling facilities are desired.
* No toxic landfill should be constructed in Talkeetna.

Continued monitoring of the landfill site.

The community recommends that monitoring of the former Talkeetna landfill should be continued. The borough currently monitors the site and has plans to continue monitoring the site.

Recommendations:

* **Monitoring of the former Talkeetna landfill should be continued and data results are sent to the Talkeetna Community Council.**

* **Longer hours at the Transfer Station during the summer.**

* **To keep a transfer site in Talkeetna.**

Recycling facilities should be provided.

The community would like the solid waste transfer collection facilities to include separate containers for the security and transfer of recyclables and toxic materials. In addition, the community desires

a supervised landfill that would be used for the disposal of organic and vegetative matter, such as tree stumps and grass clippings. Currently small quantities of grass clippings and brush is accepted at the transfer site.

Recommendations:

* **Solid waste collection facilities should include separate containers for the security and transfer of recyclable and toxic materials.**

* **A supervised landfill should be developed for the disposal of organic and vegetative matter, such as tree stumps and grass clippings.**

Toxic material dumping should be prohibited in Talkeetna.

Currently there is no provision for toxic or infectious materials to be disposed of either at the transfer site or in the Talkeetna planning area. Hazardous materials are not accepted at the Talkeetna transfer site, but are at Central Landfill. According to state and federal laws all hazardous waste must be disposed of in approved facilities that can handle hazardous waste materials.

The community strongly opposes a toxic sanitary landfill or any commercial disposal or incineration of toxic or infectious materials allowed within the planning area.

Recommendations:

* **No commercial disposal or incineration of toxic or infectious materials will be allowed within the Talkeetna planning area.**

* **No toxic sanitary landfill should be developed in the planning area.**

FLOOD CONTROL

According to the U.S. Army Corps of Engineers, Talkeetna is located in the floodplain of three major rivers: the Talkeetna River, the Chulitna River, and the Susitna River, (Flood Plain Information Report, 1972), see Figure 20, p. 6-18. Floodplains are areas subject to inundation by either the overflow of inland or tidal waters, or the unusual and rapid accumulation of runoff of surface waters from any source. Talkeetna's location at the mouth of the Talkeetna River where it junctions with the Susitna and Chulitna rivers exposes the community to flooding from rapid runoff from all three major rivers when flood conditions are present. Conditions that can cause flooding of the rivers include: heavy rains, rapid snow melt, the sudden release of ice jams and associated back water, or a combination of any of these conditions.

River length and drainage area for the Talkeetna River, Chulitna River, and the Susitna River is presented in Table 6, p. 6-13. The Talkeetna and Chulitna rivers are major tributaries of the Susitna River. All of these glacier-fed rivers are meandering, braided, and subject to high runoff.

Mean monthly flow data for the Susitna River near Gold Creek, is shown in Table 7, p. 6-14 and for the Talkeetna River (near its mouth) is shown in Table 8, p. 6-15.

TABLE 6
RIVER AND DRAINAGE AREA
Talkeetna River, Chulitna River, and Susitna River

	River Length	Drainage Area
Talkeetna River at mouth	80 Miles	2,015 sq. miles
Chulitna River at mouth	80 Miles	2,630 sq. miles
Susitna River at Talkeetna	200 Miles	11,035 sq. miles

TABLE 7
SUSITNA RIVER AT GOLD CREEK

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949-1992, BY WATER YEAR (WY) IN CUBIC FEET PER SECOND												
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6198	2638	1864	1576	1379	1270	1570	13360	27260	24390	21630	13610
MAX	12680	4192	3264	2452	2028	1900	4250	25630	50580	34400	37870	26510
(WY)	1987	1980	1958	1961	1972	1968	1990	1990	1964	1963	1981	1990
MIN	3124	1215	866	724	723	713	745	3745	15500	16100	8879	5093
(WY)	1970	1970	1970	1969	1969	1964	1964	1971	1969	1969	1969	1969

SUMMARY STATISTICS	WATER YEARS 1949-1992	
	CUBIC FT PER SEC	YEAR
ANNUAL MEAN	9765	
HIGHEST ANNUAL MEAN	13020	1990
LOWEST ANNUAL MEAN	5597	1969
HIGHEST DAILY MEAN	85900	Jun 7, 1964
LOWEST DAILY MEAN	600	Feb 16 - 20, 1950
INSTANTANEOUS PEAK FLOW	90700	Jun 7, 1964
INSTANTANEOUS PEAK STAGE	16.58	Jun 7, 1964
INSTANTANEOUS PEAK STAGE	24.48	May 10, 1954

Station Location: 0.1 mile downstream from Gold Creek and 2 miles downstream from Indian River.

TABLE 8
TALKEETNA RIVER NEAR TALKEETNA

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964-1992, BY WATER YEAR (WY)
IN CUBIC FEET PER SECOND

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2874	1182	849	700	588	528	653	4526	11170	10520	9247	5777
MAX	10000	1992	1122	996	990	1058	1912	11510	19040	15410	16770	11000
(WY)	1987	1987	1987	1990	1990	1990	1990	1990	1971	1981	1971	1990
MIN	1450	672	540	459	401	285	396	2145	5207	7080	3787	2070
(WY)	1970	1992	1992	1969	1969	1982	1986	1971	1969	1969	1969	1969

SUMMARY STATISTICS	WATER YEARS 1964-1992	
	CUBIC FT PER SEC	YEAR
ANNUAL MEAN	4063	
HIGHEST ANNUAL MEAN	5389	1990
LOWEST ANNUAL MEAN	2249	1969
HIGHEST DAILY MEAN	63200	Oct 11, 1986
LOWEST DAILY MEAN	260	Feb 27 to Mar 20 1982
INSTANTANEOUS PEAK FLOW	75700	Oct 11, 1986
INSTANTANEOUS PEAK STAGE	17.38	Oct 11, 1986*

WY = Water Year
* = at different site and datum
Station Location: 3.8 miles northeast of Talkeetna and about 5 miles upstream from mouth.

TABLE 9

FLOOD FLOW DATA
Talkeetna River and Susitna River

Flood Frequency	Talkeetna River at mouth	Susitna River at Talkeetna	Talkeetna elevation (feet, mean sea level)
50-year	84,000 c.f.s.	243,000 c.f.s.	
100-year Base	97,000 c.f.s.	268,000 c.f.s.	351.8 ft.
Standard Project	121,000 c.f.s.	315,000 c.f.s.	354.4 ft.
August 1971 Flood			346.9 ft.
Approx. elevation of Main St.			349.8 ft.

c.f.s. = cubic feet per second

As can be seen from the above data in Table 9, p. 6-16 the estimated flood flow for the Talkeetna River for a 100-year frequency flood is 97,000 cubic feet per second, as calculated by the Corps of Engineers. Flooding for the Susitna River for a 100-year flood is 268,000 cubic feet per second. The one hundred-year flood can be interpreted as a flood which will be equaled or exceeded once in 100 years on the average, with a 1% possibility of occurring in any given year. The Corps of Engineers estimates that Talkeetna is susceptible to even greater flood hazards and calculated Standard Project flood flows to 121,000 cubic feet per second for the Talkeetna River and 315,000 cubic feet per second for the Susitna River. Out-of-bank flooding will inundate the community at the 15-year flood frequency level for the Talkeetna River and at the 25-year flood frequency level for the Susitna River.

Talkeetna has experienced floods in its past, although very little historical information is available on flooding prior to the 1942 flood. According to the Corps of Engineers, major floods have occurred during spring, summer, and fall seasons. River stages can rise from normal flow to extreme flood flow in a relatively short time. The largest know flood occurred in September 1942 after 48 hours of heavy rains in the mountains and associated glacial melt. The Talkeetna River rose six feet which flooded homes and businesses in the community with two feet of water and caused significant damage and inconvenience.

According to the Anchorage Times, Sept 23, 1942 edition, the "flood waters reached within eight inches of the dike. It was at that time that the entire town was threatened for had the dike not held against the great rush of water Talkeetna would have been wiped out. Travelers told too of the swollen creeks, some of which widened to half a mile from their normal few yards." The town was evacuated during this flood. The referenced dike in the 1942 article was a structure built prior to any of the existing flood and erosion control structures.

Other more recent floods have occurred in August 1971 and October 1986. The 1971 flood was estimated to be about the 20-year frequency event. This flood caused considerable bank erosion and flooding at the west end of the townsite, but did not require the evacuation of town.

The most recent near-flood event in Talkeetna occurred in October 1986 after heavy rains. Out-of-bank flooding did occur during these rains and bank erosion resulted from the high water velocities. This flooding also contributed to the contamination of the water wells in the east and west townsites.

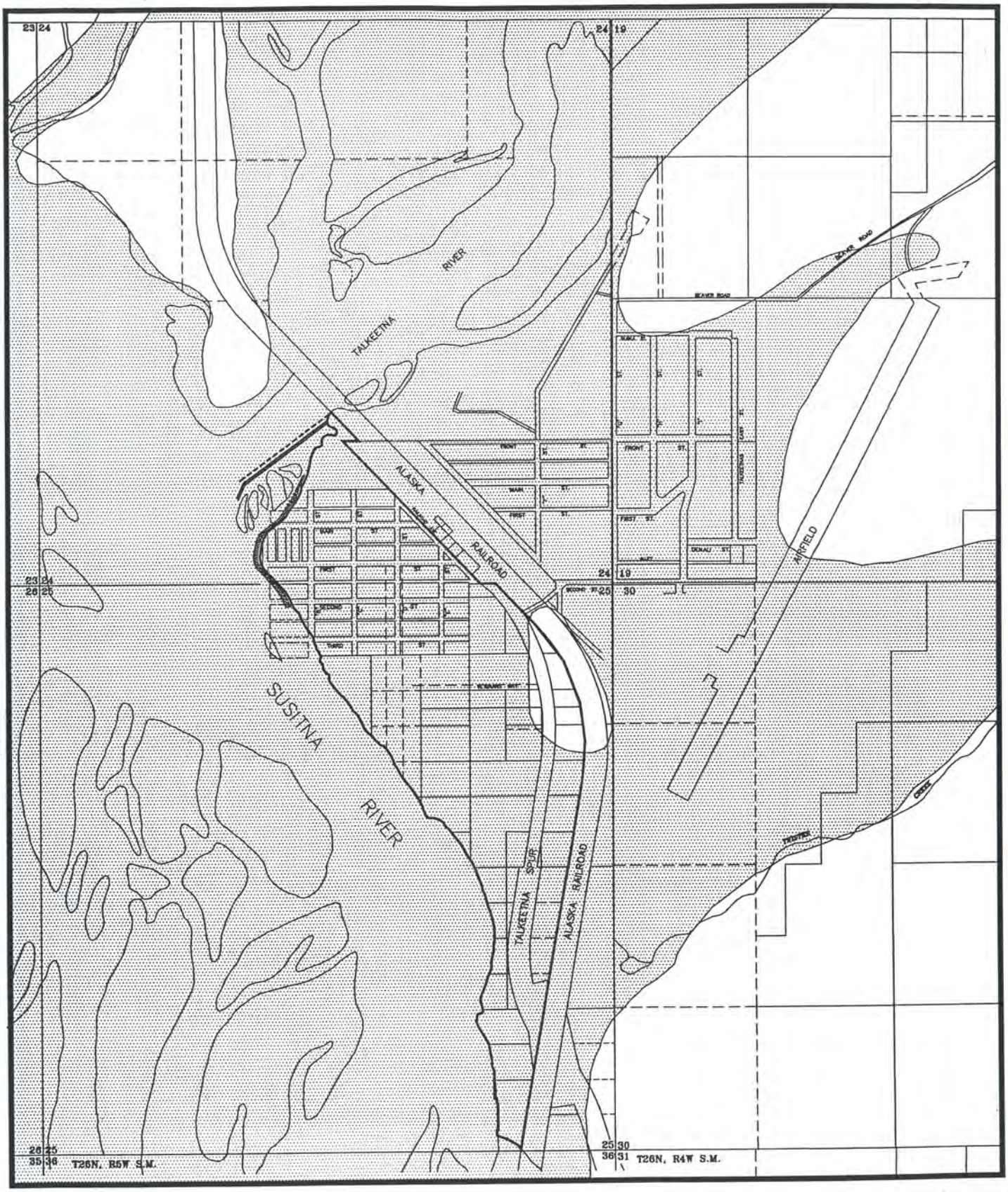
Three flood control structures have been built to help contain flood waters and protect the community of Talkeetna from erosion. They are a fascine, a dike, and a revetment, see Figure 20, p. 6-18. The dike and revetment were designed to the Susitna River's 50-year flood flow. Information is not available to determine the design criteria of the fascine.

The fascine was the first flood control structure to be built in Talkeetna. It was built under authority of the Flood Control Act of 1946. The U.S. Army Corps of Engineers built the 1,000 foot timber and brush fascine in 1951 as an emergency measure to help reduce the land erosion that was occurring in the west townsite. The fascine begins at the Alaska Railroad bridge embankment and extends downstream along the south bank of the Talkeetna River. The structure offered adequate protection throughout the early years, but it has since deteriorated because little maintenance was done on it. Today it continues to offer a limited degree of protection as a first line of defense against flooding.

In 1972 after the Talkeetna River had cut several small channels through the fascine structure, the Corps of Engineers re-studied the situation to see if other additional flood protection was needed. Their report estimated the extent of the floodplain for a 100-year flood and for an even greater "standard flood", both of which are possible flooding events in Talkeetna. The report concluded that in order for Talkeetna to have complete structural protection against the 100-year flood and the standard project flood, major levees would have to be built around all four sides of the community, plus an interior drainage system would be needed. This system was judged not-acceptable and non-economical, and was not considered in any further detail. Instead, the report recommended that design criteria for the fifty-year flood flows in the Talkeetna and Susitna rivers be used for construction of a 600 foot dike and 1,600 foot rock revetment.

Prior to construction of the improvements, the Corps of Engineers required local maintenance of the structures and the Matanuska-Susitna Borough proceeded to establish the Talkeetna Water Erosion and Flood Control Service Area, which was formed in 1974 (Resolution Nos. 73-119, 74-50 and 74-56). The boundaries of the service area is shown in Figure 20, p. 6-18.

In 1979 the Corps of Engineers constructed the existing 1,150 foot dike and 1,650 foot rock revetment to help control and divert the river away from the riverbank north of town and to prevent cutting of the east riverbank from the Susitna and Talkeetna rivers. The fascine that was built in 1951 was left in place. Since 1979 no other structural flood control projects have been added.



TALKEETNA COMPREHENSIVE PLAN

FLOOD MAP

TALKEETNA FLOOD MAP

SERVICE AREA #7

FIGURE 20

FLOOD ZONE A

FLOOD FASCINE
LENGTH 1000'

DIKE
LENGTH 1180'

REVETMENT
LENGTH 1660'

N

According to the most recent annual assessment of the dike and revetment completed by the Corps of Engineers, the condition of the dike and revetment needs to be improved. Missing rock from the crest along several areas of both the dike and revetment must be replaced in order to prevent future flood waters from overtopping the structures at these low spots. In addition, the vegetation that has grown on the revetment and dike should be removed. During a flood this vegetation could snag debris and be pulled out, thus losing the rock integrity of the structures, and destroying the structures when they are needed the most. The Corps recommends that both structures be brought back to their full crest elevations and design grade and then be maintained.

None of the existing flood control structures offers any flood or erosion control protection to properties located further upstream of the railroad bridge or below the revetment on the Susitna River. These areas are experiencing active erosion. Other locations of the planning area, besides those along the rivers, that are also subject to flooding and bank erosion are located along the major creeks: Birch Creek, Answer Creek, and Question Creek.

After the period of heavy rain and near-flood conditions in 1986, the Borough requested an appraisal by the Corps of Engineers of the riverbank erosion problem occurring along the Talkeetna River in the Talkeetna River Subdivision. This problem is characteristic of conditions faced by developments along active river channels. The Corps concluded that the erosion problem was not the result of flooding but was rather riverine erosion. They recommended that the private property owners either re-locate their residences further from the river or build some erosion protection measures along the river, essentially leaving the solution to the private property owners.

The threat of erosion and bank undercutting caused by the constant changing course and new channels that is characteristic of all three of the area's braided and meandering rivers should be a concern of the community. This hazard can occur during non-flood periods of high or even moderately high water and can be as devastating as flooding itself. Traditional flood protection techniques, such as elevation and flood proofing, do not adequately address this hazard. The ever-changing feature of the rivers makes it impossible to map the floodway with any certainty, leaving people uncertain as to whether and how much property is erosion prone.

Flooding and bank erosion problems will continue to be potential hazards for the community as long as the community is located in the floodplain and within the rivers' meanderbelts. Ideally, in order to be fully protected from major floods or riverine erosion, the community and private developments along the river should be re-located out of the floodplain and erosion zones. Since this option is an unacceptable solution to the community, other mitigating measures will have to be selected to help reduce the exposure of the community to potential loss of life and property and minimize the extent of public expenditures for costly flood control projects and property loss claims.

Participation in the National Flood Insurance Program is one measure that the borough has selected which allows individuals to build structures within floodplains, while at the same time, assuring access to privately-sponsored flood insurance for these structures. The program requires all new construction located in the flood hazard areas to have the lowest floor elevated above base flood elevations and to be anchored to prevent flotation, lateral movement, and collapse. Construction

materials must be resistant to flood damage and electrical and plumbing fixtures must be located to avoid water damage. Standards are codified in the Matanuska-Susitna Borough Code Title 17.29.

The National Flood Insurance Program maps the floodplain areas into different zones which correspond to flooding hazards. Zone A is an unnumbered area of the 100-year flood and is shown is Figure 20, p. 6-18. The entire east and west townsites, as well as lands along the Talkeetna Spur Road to Second Street are classified as Zone A. Property adjacent to portions of Birch Creek, Answer Creek, and Question Creek are also located in Zone A. Within this zone all new construction is required to get a development permit from the borough in order to determine compliance with Title 17.29. In most cases getting a development permit will require the assistance of an engineer or surveyor to determine base flood elevations and proper building techniques.

The additional development costs for constructing buildings to withstand flooding is off-set by the benefits occurred to the community. Without Title 17.29 the community would not be eligible for flood insurance through the National Flood Insurance Program or for Federal Emergency Management Agency assistance in the event of a flood. All buildings constructed to withstand flooding now will reduce the potential problem of either re-locating after a flood, or re-building.

All the community's downtown investments, including the community's historic buildings, boat launch and campground, are susceptible to major damage from flooding and erosion. Additionally, boat tie-ups along the river's banks have contributed to bank erosion. This problem will be mitigated somewhat by the new boat launch facility but other areas along the river, outside of the launch facility, can still pose an erosion problem.

At a minimum, the community needs to ensure that the integrity of the dike and revetment remain sound. Motorized access on the structures should be discouraged. Rocks and material should not be removed from the slopes. Additional public education may be necessary in order to inform the public of the importance of the structures.

The Talkeetna Erosion and Flood Control Service Area was established at the time that the service area was created in 1974. The service area is designed to have three supervisors oversee the service area. The board is the appropriate organization to be responsible for flood awareness education, much like the fire prevention awareness program sponsored by fire personnel. The board should also watch for problems and request structural improvements if needed for dike and revetment repairs. The Corps of Engineers annually inspects the dike and revetment and their report should be reviewed by the Board of Supervisors.

Recommendations:

* **Maintain the integrity of existing flood control structures.**
* **Require future public infrastructures and investments to re-locate out of the floodplain, if practicable.**
* **Provide for conservation easements along the river to create a buffer zone for erosion areas.**
* **Require all flood and erosion damaged buildings to be raised to meet the standards of the Borough Flood Damage Prevention Ordinance, if replaced.**

PUBLIC SAFETY

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

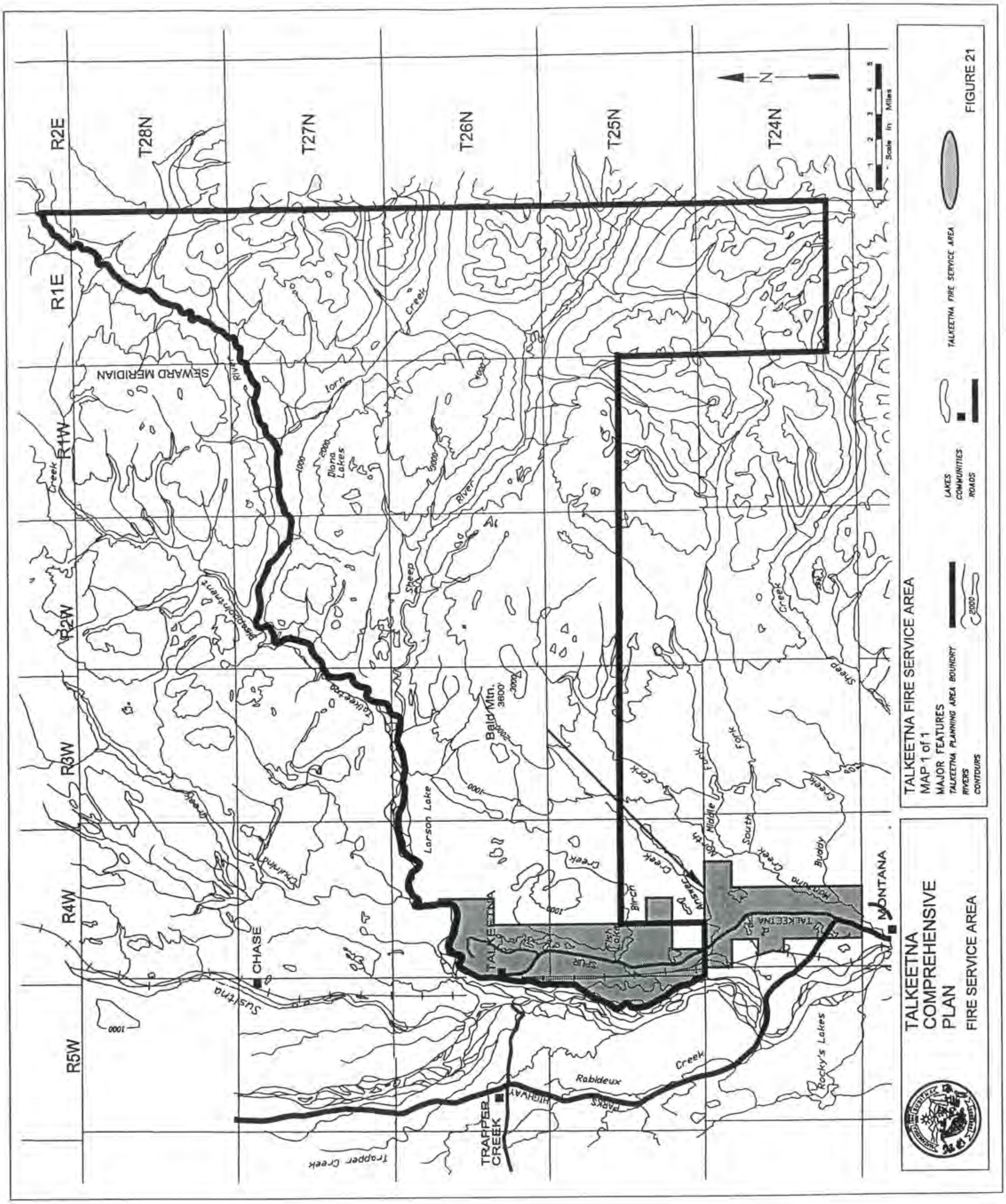
Fire protection and emergency medical services in the Talkeetna planning area is provided by the borough through the Talkeetna Fire Service Area. The fire service area encompasses approximately forty square miles, extending from the west townsite to the Parks Highway, see Figure 21, p. 6-22. The fire service area was formed in 1978 and expanded to its present boundaries in 1985. Emergency medical services are provided by the borough on an area-wide basis. This service began in 1976. Ambulances in the northern region of the borough are stationed at Willow, Trapper Creek, Sunshine, Talkeetna, and Valdez Creek.

Fire and emergency medical response is provided by an all volunteer response team. The Talkeetna Fire department is the only fire department in the borough that is not paid for their services. There are approximately 15 individuals who are trained in fire fighting and 21 individuals who are trained in emergency medical services, either as EMT-I, EMT-II, or EMT-III. The borough provides for the volunteer training.

In 1993 a total of 78 man-hours were spent responding to 10 fire incidents. The Talkeetna area including the Sunshine area averages about 80 ambulance calls per year. The borough charges a fee for ambulance response.

There are two fire stations within the Talkeetna Fire Service Area. The Talkeetna fire station is located on the Talkeetna Spur road immediately north of the Talkeetna Elementary School. It was built in 1976 and expanded in 1983. It has three large bays for the fire apparatus and a 12,000 gallon water storage tank.

A second fire station is located on the Parks Highway at the Sunshine Community Health Center Building. It has two bays. An emergency radio communication station is located on Federal Aviation Administration property at the VOR access road.


TALKEETNA COMPREHENSIVE PLAN
FIRE SERVICE AREA
TALKEETNA FIRE SERVICE AREA
MAP 1 of 1
MAJOR FEATURES
TALKEETNA PLANNING AREA BOUNDRY
RIVERS
CONTOURS
LAKES
COMMUNITIES
ROADS
TALKEETNA FIRE SERVICE AREA
Scale In Miles
FIGURE 21
N
R5W
R4W
R3W
R2W
R1W
R1E
R2E
T28N
T27N
T26N
T25N
T24N
SEWARD MERIDIAN
CHASE
TALKEETNA
MONTANA
TRAPPER CREEK
Trapper Creek
Susitna
PARKS HIGHWAY
Rabideux
Creek
Rocky's Lakes
Larson Lake
Bald Mtn. 3600'
Sheep
Creek
River
Diana Lakes
Birch
Creek
Montana
Buddy
South
Middle
North
Fork
SPUR
TALKEETNA

Fire fighting equipment in the Talkeetna Fire Service Area includes:

Apparatus	Make	Pumping Capacity	Holding Capacity
Engine	1995 Pierce Responder	1250 gallons per minute	1000 gallons
Engine	1980 International	250 gallons per minute	500 gallons
Engine	1985 Ford	1000 gallons per minute	600 gallons
Tanker	1984 International	1250 g.p.m.	2500 gallons
Tanker	1985 Ford	500 g.p.m.	1500 gallons
Brush Trailer	1968 4X4 Jeep	340 g.p.m.	

In addition, there is a four-wheel drive ambulance in Talkeetna and a reserve ambulance in Sunshine.

The Talkeetna Fire Service Area has an Insurance Services Office (ISO) rating of 8 for residential properties, effective February 1987.

Talkeetna has had few serious fire events in recent years. However, the downtown community is particularly vulnerable to major fire damage because of its many old wooden buildings and their close proximity to each other.

Fire fighting capabilities have been recently upgraded with the installation of fire hydrants as part of the newly installed water and sewer system. In areas outside of the water system the fire department uses tanker storage and/or lakes and streams, if nearby.

ISSUES AND RECOMMENDATIONS

Several issues related to fire and emergency medical services have been identified in this planning effort:

* Scattered development pattern which makes service response times slow.
* Need for expanded/improved fire station near Sunshine.
* Fire hydrants should be kept clear of snow in winter.

Scattered development pattern which makes service response time slow

Development in much of Talkeetna is low-density dispersed residential on roads which are substandard. This combination of factors makes fire and emergency response efforts either slow or dangerous at times. Improvements to the exiting substandard roads will benefit the service providers.

The dispersed development pattern also requires the fire service area and the borough to provide services to a small population over a large area. In-filling the existing populated area will improve the provision of services as it will concentrate population within the existing service area.

Recommendations:

* **No new disposals or subdivisions of public lands in remote areas (i.e. areas not accessible by road) within the planning area should be permitted until such time as there is a demonstrated lack of available remote residential lands.**

* **Upgrade streets and roads that receive heavy traffic usage. Before new roads are built, existing roads should be upgraded to borough-approved specifications.**

Need for expanded/improved fire station at Sunshine

The Talkeetna Fire Service Area is requesting a three-bay fire and ambulance substation be built near the Sunshine area to provide for expanded fire and ambulance protection. The Talkeetna Fire Chief estimates that the cost of the facility will be about $260,000 and has requested the project on the borough's Capital Improvement Program.

Recommendations:

* **The existing Talkeetna public safety building site is adequate to meet the conceivable future community needs for fire protection and emergency medical services. However, expansion of the building and upgrading of equipment should be reviewed within five years.**

* **Keep fire hydrants clear of snow in winter.**

POLICE PROTECTION

Police protection in the Talkeetna planning area is provided by the Alaska State Troopers. The Matanuska-Susitna Borough has not assumed police powers.

Since July 1988 the Alaska State Troopers have been based out of the Sunshine Community Health Center located on the Parks Highway. In addition to the three State Troopers and one radio dispatcher, there are two seasonal State Fish and Wildlife Protection officers who are trained as Troopers and who enforce state fish and game regulations.

The State Troopers cover a large territory ranging from Talkeetna to MP 66.5 - MP 176 on the Parks Highway. Serious crime is rare in the area and most of their activity is related to traffic accidents, burglaries/theft, and search and rescue.

The Troopers use new communication equipment which accesses the Chulitna repeater. The system is based out of Anchorage and operates through the Anchorage Trooper dispatch during the off-hours.

Recommendation:

* **There is no need for community-based police protection services or facilities in the near future, although the amount of time spent in Talkeetna by State Troopers should increase during the summer and fall tourist season.**

OTHER FACILITIES AND SERVICES

HEALTH AND CEMETERY

Other facilities and services available in the Talkeetna planning area are health services provided by a private physician and burial services at the Talkeetna Cemetery.

The Talkeetna cemetery is located on approximately ten acres of state-owned land in east Talkeetna. This land was reserved in the original townsite plat of 1918. The Talkeetna Cemetery Association operates the cemetery and contributes many volunteer hours.

Recommendations:

* **Presently there are no public health facilities within the Talkeetna planning area. No public health facilities are anticipated to be needed.**

* **The existing Talkeetna cemetery is adequate to meet foreseeable community needs for the next twenty years.**

* **Other grave sites around town should be identified and marked.**

COMMUNITY CENTER

The community of Talkeetna is presently unincorporated. However, incorporation as a city is likely during the next 20 years. If this occurs, a logical site for a city hall might be adjacent to an existing public facility such as the library and where adequate parking space is available for both municipal vehicles and the public.

Recommendation:

* **Talkeetna may need a community multi-purpose building for community events within 20 years. Available public land or facilities should be considered for this facility, such as Borough land adjacent to the library. A combined library/community center should be considered.**

EDUCATION, CULTURAL, AND RECREATION FACILITIES

EDUCATION

Public education throughout the borough is provided by the Matanuska-Susitna Borough School District. There is one public elementary school, the Talkeetna Elementary School, and one public high school, the Susitna Valley High School, that serve the planning area. The schools' service boundaries extend from downtown Talkeetna to the Parks Highway, north to the Susitna River, and south to Sheep Creek Lodge.

ELEMENTARY SCHOOL

The Talkeetna Elementary School is located on a 12.21 acre site on the Talkeetna Spur road, approximately .25 miles south of downtown. The original site was 5 acres, however in 1997 the borough purchased an additional 7.21 acres for the school site. The school building is approximately 14,000 square feet and serves kindergarten through sixth grade. The school has five general classrooms plus a gym, computer room, library, nurse's rooms, kitchen, teacher's workroom/store room, teacher's lounge, and office. Four portable modular units have been added for use as additional classrooms for general teaching, the music/extended learning program, a Special Services program, and a custodial/storage building. The oldest of the four portables was added in 1985 and the most recent was added in 1990. Speech services are provided in available space when the speech specialist arrives; no designated room is reserved for this program.

The school was designed for a maximum of 100 students in 1970 and at the beginning of the 94-95 school year was over-capacity at about 130 students. Historic, current, and projected enrollment is shown in Table 10, p. 6-27. Enrollment is projected to reach between 160 and 200 students by 2000.

In addition to school activities, the school building is also used extensively by the community for various community school activities, community gym programs, and special community meetings and events.

The elementary school was built in 1964 with a major addition added in 1969. The school was recently connected to the public water and sewer system. Other improvements to the building were made in 1986 when an asbestos abatement project was completed and in 1982 when an outdoor skating rink was constructed on the school site.

A paved parking lot is located in front of the school and has space for approximately 15 vehicles. This parking lot is also used for playground and physical education activities.

ISSUE AND RECOMMENDATION

One issue related to the elementary school was identified in this planning effort:

* Need for expanded/improved elementary school facilities.

Need for expanded/improved school facilities

The elementary school is suffering from space shortages and several structural and mechanical problems. The school lacks needed classrooms and program rooms. In addition, the gym is undersized for the school's population, and storage and work areas are inadequate. The use of the four portable classrooms is considered by the school district as a stopgap measure before building expansion is needed. The portable units are often less efficient and more expensive to maintain than regular classrooms and are not considered a permanent solution to space shortages at the school.

TABLE 10
TALKEETNA ELEMENTARY
SCHOOL ENROLLMENT TRENDS BY GRADE
HISTORIC, CURRENT AND PROJECTED
1979 to 1999

SCHOOL YEAR	FINAL ENROLLMENT BY GRADE							TOTAL
	K	1	2	3	4	5	6	
HISTORIC								
1979-80	0	9	8	13	13	8	14	65
1980-81	0	5	12	6	18	14	11	66
1981-82	2	8	3	11	10	14	15	61
1982-83	6	11	10	9	15	9	15	75
1983-84	5.5	13	13	16	11	17	11	86.5
1984-85	6.5	14	10	10	15.5	12	22	90
1985-86	3.5	14	9	10.5	10	14	9	70
1986-87	7.5	9	16	11	10	11	14	78.5
1987-88	4	16	9	14	11	12	12	78
1988-89	4	12	14	12	11	10	9	72
1989-90	7	12	16	18	15	12	9	89
1990-91	5	15	12	16	16	13	11	88
1991-92	7 half	14	21	13	18	15	16	104
1992-93	7 full*	17	16	17	17	18	19	118
1993-94 (10-18-93)	17 full	12	16	16	17	19	18	115
1994-95 (9-13-94)	20 full	13	16	19	22	18	18	126
PROJECTED								
SY 95-96 (Sept 15 '95)								135
SY 96-97								138
SY 97-98								149
SY 98-99								161

Source: Matanuska-Susitna Borough School District
Reflects between five and six percent yearly increase (which in turn, reflects the District yearly increase). TKA increase since 1989 has been eight percent per year.

* Reflects the fact that Kindergarten went full time.

The school site is too small to meet the borough's recommended minimum school site size of 30-40 acres. Complicating the space problem, the building is located on the site in such a manner that it makes the remaining acreage insufficient for expanded parking areas or for recreation activities. Borough standards recommend that about 14 acres of a school site be reserved for building, access, and other developed space.

In addition to the space and site shortages, the school has several structural and mechanical problems. The school's roof has drainage problems which causes leaking and the school's water and heating systems periodically malfunction.

The School District has a $6.3 million capital improvement request for an addition and renovation to the school. The improvements would add approximately 20,000 square feet to the building, more than doubling the size of the existing building. The school's Parents and Teachers Association (PTA) is actively lobbying for this capital funding.

Although the building addition is possible on the existing site, the addition then decreases the size of available outdoor recreation areas and parking areas. Additional acreage will be needed to provide for the school's recreational and parking needs. This item should be included in the capital funding request. In Talkeetna there are few other recreational facilities in the community other than the school's gym, skating rink, and playground. The outdoor recreational facilities at the school site are used extensively by the school and the general public.

Recommendations:

* **The Talkeetna Elementary School is older than 20 years and exceeding its capacity and this situation needs to be addressed. The current facility should be renovated and enlarged.**
* **The existing seven acre Talkeetna elementary school site should be enlarged in order to meet borough minimum site standards.**
* **Children's playground facilities at the Talkeetna Elementary School should be improved.**

HIGH SCHOOL

High school services (Grades 7-12) are provided for students from the Talkeetna area, Trapper Creek area, and areas north of Willow to the Susitna River, by the Susitna Valley Junior-Senior High School. The school is located on the Parks Highway at Mile 98.4, just south of the Talkeetna Spur road and centrally located for the area's population.

The Matanuska-Susitna Borough School District operates the school facility which was built in 1972. The original building was approximately 32,000 square feet. In 1983 a 6,300 square foot addition was added to provide a band room and vocational shop. In 1984 an athletic field was built. By 1991 an approximately 8,500 square foot addition was needed for general classrooms and an upgrade/renovation was done on the existing building. The school has its own water well and septic system.

The school site is forty acres. A paved parking area is provided for approximately 40 vehicles. Outdoor recreation facilities include a soccer field, running track, softball diamond, and cross country ski/running trail.

Historical, current, and projected enrollment is shown in Table 11, p. 6-30. Current enrollment is about 180 students. The School District's projected enrollment for next year is 213 students. The facility is designed for a 300 student capacity and District projections do not anticipate reaching that enrollment within the next five years.

LIBRARY

Talkeetna's public library is located on the Talkeetna Spur road, a half-mile distance from downtown. The library is open forty hours per week and is staffed by a librarian, on-call personnel[1], and volunteers. On average about 750 patrons use the library monthly and 14,525 items are circulated annually, see circulation statistics, Table 12, p. 6-31. Based on an area-wide population of 1500 people, this represents an estimated ten items per person per year circulation rate.

The library building is located on a 1.9 acre borough-owned lot. The oldest part of the library is the original 1960's Federal Aviation Administration building, Building #107, purchased and moved to the lot by the borough in 1981. The building had been remodeled in 1982 for $70,000 and expanded in 1986 for $75,000. The library is a single-story, wood-frame structure of 3,552 square feet served by public water and on-site septic. The building is handicapped accessible.

The condition of the building is fair/good, although aging. The original building is approaching 35 years old. The roof is in good condition although it may not be adequate for the snow load in the area. The 1986 roof addition was not properly constructed resulting in ice dams and glaciation. Problems have also been reported with the building's foundation shifting.

The library provides books and magazines, tapes, videos, copy machine, micro fiche reader, typewriter, laminator, film and slide projectors, and computer and printer. There are somewhat less than 10,000 items in the circulating collection. The library collection is considered above average for the population level, at 6.24 volumes per capita. National standards call for a minimum of 3-4 books per capita.

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[1]Work on-call for limited number of hours per year. A particular individual may not be available when needed.

TABLE 11
SU VALLEY HIGH
SCHOOL ENROLLMENT TRENDS BY GRADE
HISTORIC, CURRENT AND PROJECTED
1979 to 1999

SCHOOL YEAR	FINAL ENROLLMENT BY GRADE						TOTAL
	7	8	9	10	11	12	
HISTORIC							
1979-80	20	25	24	19	18	17	123
1980-81	20	19	25	23	20	13	120
1981-82	20	18	20	19	24	17	118
1982-83	34	23	20	21	22	19	139
1983-84	23	35	23	24	15	21	141
1984-85	29	30	38	21	16	17	151
1985-86	22	23	29	29	19	15	137
1986-87	21	24	22	25	28	13	133
1987-88	21	18	25	22	19	23	128
1988-89	21	22	22	19	16	19	119
1989-90	21	21	24	20	13	20	119
1990-91	18	20	18	19	19	13	107
1991-92	21	21	20	13	16	20	111
1992-93 (5/20/93)	25	25	22	22	12	17	123
1993-94	37	23	26	24	20	13	143
1994-95 (5-14-95)	44	39	25	27	22	21	178
PROJECTED							
SY 95-96							213
SY 96-97							238
SY 97-98							243
SY98-99							248
SY 99-00							253

Source: Matanuska-Susitna Borough School District

TABLE 12
TALKEETNA PUBLIC LIBRARY
1987 - 1993

	FY 87	1988	1989	1990	1991	1992	1993
Patrons	9,100	10,400	10,400	7,390	8,545	10,612	9,227
Hours of Operation	40	43	40	40	40	40	40
Circulation	11,456	10,203	9,602	9,886	11,805	14,859	14,525
Operating Expenditures					$74,431	$86,866	$89,222

Building Additions: $70,000 1992
$75,000 1986

Source: MSB Community Services Division
MSB Approved Annual Budgets

The library is divided into main library, reference room, workroom and solarium, and restroom. The reference area currently houses the TV and VCR as well as video's. This is not conducive to an adequate reference area. Also, as technology changes more reference will be available on CD ROMS thus, a computer for reference will be needed. The reference room is also currently used as a meeting room and when the table is removed will only accommodate 20 adults. This does not provide space for special programs, author visits, or workshops which are sponsored by the library. Nor does this provide an adequate meeting area for the community.

The solarium which the draft states is a "day meeting area" is only large enough to hold about eight people. Adults also use this area as a quiet study area.

The workroom is an area used by the librarian for cataloging, processing of materials, preparation for storytime, library storage, media equipment, etc. The workroom is also the public use computer area. Currently two computers are housed here. This situation is overcrowded and not desirable or workable for the librarian or the public.

Since 1981 library service has been provided on a non area-wide basis by the borough. The library serves the immediate Talkeetna area, plus the Chase, Trapper Creek and "Y" outlying areas. Originally library service was provided by the Talkeetna Library Association which no longer exists. The FY95 budget for the library is $79,416, which represents a per capita cost of $52.94/person, based on an area-wide population of 1500 people. The borough pays for 90% of the costs and the state pays for 10% of the cost.

Reading is the most popular pastime activity of the residents of Talkeetna, according to the community survey conducted in 1990. According to the survey, 99% of all households read as a pastime, and 95% of the respondents rated the library's level of service as good/acceptable.

Recommendation:

* **The Talkeetna public library is in need of expansion - a need which will only increase as area population increases. A combined library/community center might be considered. New or additional facilities and parking should be located on borough property adjacent to the present site.**

MUSEUM

The Talkeetna Historical Society Museum is owned and operated by the Talkeetna Historical Society, a non-profit organization. The building was originally built as the community's school in 1936 and has been used as the museum since 1974. In addition to the main museum building, the Historical Society also owns and operates several associated buildings including: the Talkeetna section house, the railroad depot building, and the Ole Dahl cabin. The 1936 school house and the Ole Dahl cabin are listed as National Historic Places and are contributing historic structures in the Talkeetna National Historic District.

The buildings are located on three downtown city lots: lots 17, 19 and 20 of Block 13, an area of approximately 14,000 square feet. The entire Block 13 (approximately 1.125 acres) is borough-owned property. The buildings face onto an alley behind the downtown area and are located adjacent to the village airstrip.

The main museum building is an attractive one and one-half story wood-frame building served by public water and sewer. The first floor serves as the main gallery for museum exhibits, gift shop, and administration. The second floor apartment is rented out for additional income for the Society. The associated buildings are also attractive buildings being used as additional exhibits to show Mt. McKinley's history and scaled model, early Talkeetna log structures and living conditions, and Talkeetna's railroad, aviation, and transportation history. The railroad depot was moved to the site in 1989 and has since been restored. All the buildings are in good condition.

The Historical Society is responsible for the operations, planning, staffing, fund raising, restoration, and historical preservation of the buildings and archives. In the past, the ownership and maintenance responsibilities for the buildings have been confusing for the borough and the Historical Society. Negotiations are underway to resolve the confusion. The borough is interested in having the Historical Society purchase the property for a nominal fee and assume responsibility for the museum, associated buildings, and property.

Traffic circulation, vehicle parking, handicapped parking and access, and pedestrian circulation are important issues that the museum is addressing. Currently there is not sufficient vehicle parking, parking for large tour buses, or designated handicapped parking; however, there is handicapped building access. Vehicle access to the museum is via "D" Street, a partially constructed roadway.

There are no constructed walkways for pedestrian traffic at this time, although the Historical Society has requested funding for walkway construction and is planning for parking and walkway improvements. The Society has organized a walking tour brochure that directs pedestrians to the museum's various buildings and the historic district's main historic features.

There are several historic buildings in the downtown area that the Historical Society is interested in preserving. One of these buildings, the Harry Robb cabin, is owned by the borough and is in need of immediate stabilization work in order to save the foundation. This cabin is listed as a National Historic Place. Another partial structure known as Belle McDonald's Horse Barn is also being preserved as part of a future historic park.

The restoration project has been a top priority of the borough's Historical Preservation Commission for capital improvement funding for the last several years. This year the project was the commission's #1 priority. The borough Assembly included the project for funding in their adopted Capital Improvement Program, as part of a Municipal Capital Grant Matching Program.

The museum is open daily during the summer and on week-ends during the fall until December. It is closed to the public from January through March, except for arranged engagements. Figures for the past three years show an increase in attendance from 6,709 in 1991 to 8,453 in 1992 and 8,002 in 1993. The most well-attended weekends are during the community-sponsored events like the Moose Dropping Festival. The museum has noticed increased attendance from tourists on packaged tours offered by Anchorage-based tour companies.

Recommendation:

* **The Talkeetna Historical Society Museum and associated buildings are a valuable community asset. It is important that periodic upgrading of the museum not detract from the buildings' historic integrity.**

ARTS AND CULTURAL ACTIVITIES

The Denali Arts Council, a not-for-profit corporation founded in 1981, acts as the central arts organization for the northern Susitna Valley with a single board of directors responsible for three local arts organizations - Denali Drama, the Talkeetna Greenlight Circus, and the Talkeetna Music Academy. The arts council also sponsors visiting artists and a summer fine arts camp for children, works in partnership with local schools, and supports local artists in a variety of activities. The arts council currently operates from member's homes.

Community Arts Facility

There is currently no facility for theater, music, dance and other arts activities in the Talkeetna area. Music and drama productions, circus performances, and other public gatherings are currently held by necessity in small barrooms and restaurants or in ill-suited and frequently unavailable school buildings. There is also a need for space to exhibit the work of artists and craftspeople and for other cultural and community events.

An arts facility would provide a suitable performance space for the area's many talented musicians, actors, dancers, circus performers and other artists as well as space for other arts, cultural and community activities. An arts facility would also provide a focal point for entertainment that would clearly benefit the growing Talkeetna visitor industry.

Recommendation:

* **It is recommended that a community arts facility be considered for the Talkeetna area and the community should seek funding for such a facility.**

PARKS AND RECREATION

Parks and recreation activities are important elements of the Talkeetna community as evidenced by the comprehensive range of facilities in the community and the volunteer efforts of private individuals and organizations to maintain and enhance the facilities. Throughout the years the state and borough have financed park and recreation facility improvements, but it has been the local residents who have contributed time and sweat equity into making Talkeetna a recreation destination.

Participation by local residents in recreation-related activities is high, according to the community survey conducted in 1990 as part of this comprehensive planning effort. Recreation activities that received high ratings where respondents indicated either a "sometimes" or "often" participation rate were: reading, rated by 99% of the respondents, walking, rated by 92%, fishing at 87%, photography at 85%, arts and crafts at 75%, boating/rafting at 72%, swimming at 64%, camping at 64%, snowmobile riding at 61%, cross country skiing at 60%, target shooting at 60%, hunting at 55%, skating at 52%, and softball at 44%. Other recreation activities that had lower participation rates were: volleyball at 34%, basketball at 28%, hockey at 24%, dog mushing at 24%, and downhill skiing at 20%. Certain activities, like soccer, probably had low participation rates because there are no facilities within the community. The survey did not ask respondents to list their recreation needs.

The established park facilities located in the planning area include: Village Park, River Park, Talkeetna River boat launch and campground, and Christiansen Lake Park. The established recreation facilities within the planning area include the softball field, and the elementary school's ice skating rink, outdoor playground, and gym for indoor activities, and the high school's playing fields and indoor gym. In addition, there are numerous trails used for hiking, snowmobiling, and skiing that are not officially established.

PARK FACILITIES

VILLAGE PARK

Village Park is a small improved triangular park located in the heart of the downtown area. It is a highly visible park as it is at the intersection of the Talkeetna Spur road and Main Street. The park contains a pavilion, covered barbecue pit, and playground equipment. This pocket park is heavily used by residents and visitors and has been maintained in the past by volunteers.

The village park was developed years ago without benefit of an accurate survey and consequently the barbecue pit, pavilion, and playground equipment were not constructed within the park's boundaries. The pavilion is actually located within the unconstructed right-of-way of Railroad Avenue (an extension of Talkeetna Spur Road) and the barbecue pit and playground equipment are located on Alaska Railroad land. The park does not have any designated parking spaces for its users.

Within the past year the borough, Alaska Railroad Corporation, and community volunteers have been working together to correct some of the encroachment problems within the rights-of-way. The primary concern of the borough and Alaska Railroad is the liability exposure of having unsupervised park and play equipment on their property. Additionally, the borough does not have the funding necessary to maintain the facility. Currently the borough and the Talkeetna Chamber of Commerce are working towards a management agreement for this park. Additionally, the Chamber is negotiating with the Alaska Railroad for management of railroad park lands. The Chamber will take over management and maintenance of the park and has plans for improvements such as flush toilets.

The Talkeetna Comprehensive Plan Advisory Board feels that the park is an integral part of the community and issues like ownership and boundaries should be formalized so that it remains as a park. The committee is in favor of re-platting the park's boundaries to reconfigure and reclaim the area to more nearly conform to its actual boundaries. Improvements to protect the area and its users from traffic also need to be addressed.

Recommendations:

* **Improvements to protect this area and its users from traffic need to be addressed.**

* **Issues such as ownership and boundaries should be formalized so that it remains a park. Work with appropriate agencies to preserve the park's current boundaries and configuration.**

TALKEETNA RIVER PARK

Talkeetna River Park is located on approximately 19 acres of Borough lots and Alaska Railroad Corporation property. The land is located between the railroad bridge and downtown Talkeetna at the site of the community water wells. The property was previously leased to the Borough. The park is unimproved and is capable of accommodating about twelve campsites, though there are no sanitary facilities. Since the Borough relinquished its lease of the property back to the Alaska Railroad, the park is no longer a sponsored facility. The Talkeetna Chamber of Commerce is working with the Alaska Railroad to negotiate a management agreement for this park. The community is supportive of a park facility at River Park. The Talkeetna Community Council recommends the following program for the Park:

Recommendations:

* **Limit camping to existing sites on Borough land. These sites would be available for tent camping as well as RV parking. A rate of $8.00 per night is proposed. In addition, a limited number of walk-in tent sites would be made available in the brush area of the sand bar. There would be a limit of three days to camping at all sites. All other areas that have traditionally been used for camping would become day-use areas - with no overnight camping. Motorized access of any kind would be prohibited to the sand bar.**

* **A park host program is desired with the park host responsible for collecting fees, collecting trash, and patrolling the entire park.**

* **The Council offers to organize a volunteer clean up of the area - to include grading the road, leveling the camp sites, development of fire pits, and construction of picnic tables.**

* **The Council requests that the Borough: Assist in blocking motor vehicle access to the sand bar; initiate a campground host program; provide materials and guidelines for signage; provide portable toilets and maintenance for them; dedicate fees collected to current and future maintenance of the area; provide liaison with the Railroad and the State to assure continued use of the park area on their property; and encourage maintenance of Main and B Streets by the Talkeetna Road Service Area.**

TALKEETNA RIVER BOAT LAUNCH AND CAMPGROUND

The Talkeetna River boat launch and campground is located in east Talkeetna on Alaska Railroad Corporation land. The facility is approximately 120 acres. The park was previously managed by the Talkeetna Chamber of Commerce and is now managed by the Alaska Railroad. The borough had leased the land from the railroad but the lease has since been relinquished.

The launch and campground facility is heavily used during the summer months for fishing, camping, picnicking, and general outdoor recreation activities. It provides the principal access to the river. In 1989 over 5,000 individuals used the park. Amenities within the campground include pavilions, picnic tables, and 30 campsites, plus parking for boat trailers and vehicles. Existing sanitary facilities are privies and they are not adequate.

Through coordination between various state agencies and the federal government improvements and an expansion were made to the boat launch in 1997. The Governor dedicated it in October of 1997.

Recommendations:

* **The Talkeetna boat launch needs to be upgraded for reasons of safety. As part of this upgrading, improved parking amenities, restrooms, and additional campground space should also be provided.**

* **Heavy volume of river boat traffic increases congestion, safety problems, noise pollution, bank erosion, and marine pollution on the rivers. This issue should be addressed in the Recreation Rivers Management Plan.**

* **Areas should be designated for public boat launching and tie-ups. Public launching or tying up of boats in other areas should be discouraged.**

CHRISTIANSEN LAKE PARK

Christiansen Lake Park is located on Christiansen Lake Road on Matanuska-Susitna Borough property. The park is an attractive 39 acre site on the shores of Christiansen Lake. It had previously been managed by the Talkeetna Chamber of Commerce, but they no longer manage the facility.

Christiansen Lake is a popular boating, swimming, and fishing lake. The lake is stocked by the Alaska Department of Fish and Game with silver salmon and rainbow trout. There are several picnic tables and pavilions. Prior to 1991 the park was used for camping, but this use has been discontinued. Sanitary facilities are lacking.

The lake is used by float plane operators.

Recommendations:

* **Christiansen Lake Park should be classified as a Matanuska-Susitna Borough park and should be retained for local recreation purposes. For reasons of safety, swimming areas should be clearly delineated. If needed, this park could be expanded in the future.**
* **Christiansen Lake Park will be day use only until a means of managing an overnight camping facility are identified and funded.**
* **Park hours set at 6 am to midnight until a means of managing an overnight camping facility are identified and funded.**
* **Walk in swimming area, no motor vehicles in the beach area.**
* **Swimming area cordoned off. No fishing or motorized watercraft within this cordoned area.**
* **Boat Launch established on the point.**
* **Speed restriction of 40 mph on the lake for watercraft.**
* **Restricted float plane parking to a designated area in the Park and maintain the present float plane parking area.**
* **No bulk fuel storage in the Park on the shore without a temporary catchment for spillage.**
* **Quiet time established for the entire lake set at 11 pm to 7 am. Quiet time exceptions for aircraft landings only and motorized watercraft limited to 5 mph.**

ADDITIONAL PARKLAND

The Planning Advisory Committee recognizes the need to ensure sufficient lands for future park areas in the Talkeetna area. Both of our present park spaces, Talkeetna River Park and Christiansen Lake, are beginning to suffer from overcrowding and user conflicts. While Talkeetna's geographic location provides access to world-class recreational activities such as mountaineering, fishing,

hunting, and river rafting, there is an increasing need to provide more immediately accessible outdoor recreational activities for both residents and visitors.

Three outstanding natural areas in the vicinity were identified by the committee: 1) the block of State and Borough land around X, Y, Z and Tigger Lakes; 2) the block of contiguous public land north of Fish Lake; and 3) the block of Borough land around Number Lakes (see Figure 22, p 6-39 - 6-40.

The three areas identified not only have high recreational and scenic value, but also provide important wildlife habitat. Grizzly and black bear, moose, beaver, otter, wolf, fox, muskrat, five salmon species, trout, and a large variety of songbirds, raptors, and waterfowl utilize these areas. Talkeetna's residents all share a common feeling of good fortune to have such quality wildlife habitat so close to our town. We wish future generations to have the same good fortune.

Another benefit of preserving these lands as parks is that it provides a solid foundation for long range economic planning in keeping with the Plan's overall goals and objectives. These objectives include:

* "to guide development in a manner which enhances Talkeetna's natural appeal" (#9).
* "to provide for population growth that can be adequately absorbed by the area" (#10).
* "to protect and conserve the wilderness values and natural resources of the lands surrounding Talkeetna" (#6).
* "to maintain Talkeetna's major recreation and ecologically sound tourism economy" (#4).

The Susitna Area Plan recognizes the importance of these public lands as well, noting, "Recreation and habitat value should be protected by following the guidelines for lakeshore and rivers by retaining at least 50% of the Talkeetna Lakes area in public ownership." (p.115)

Recommendations:

* **It is recommended that a portion of State and Borough lands around X, Y, Z and Tigger Lakes, a portion of contiguous Borough land north of Fish Lake, and a portion of Borough land around Number Lakes should be reserved for park and preservation. Any future designated lands for public parks should go through the proper public hearing process and not use the comprehensive plan to mandate park area. Financial commitment and considerations for maintenance, such as sanitary facilities, safety parking and access should be given before establishment.**

* **It is recommended that a citizens' Park Advisory Board be created to guide the management of these and other area parks in order to maximize both their wildlife habitat and compatible recreation values.**

RECREATION FACILITIES

SOFTBALL FIELD

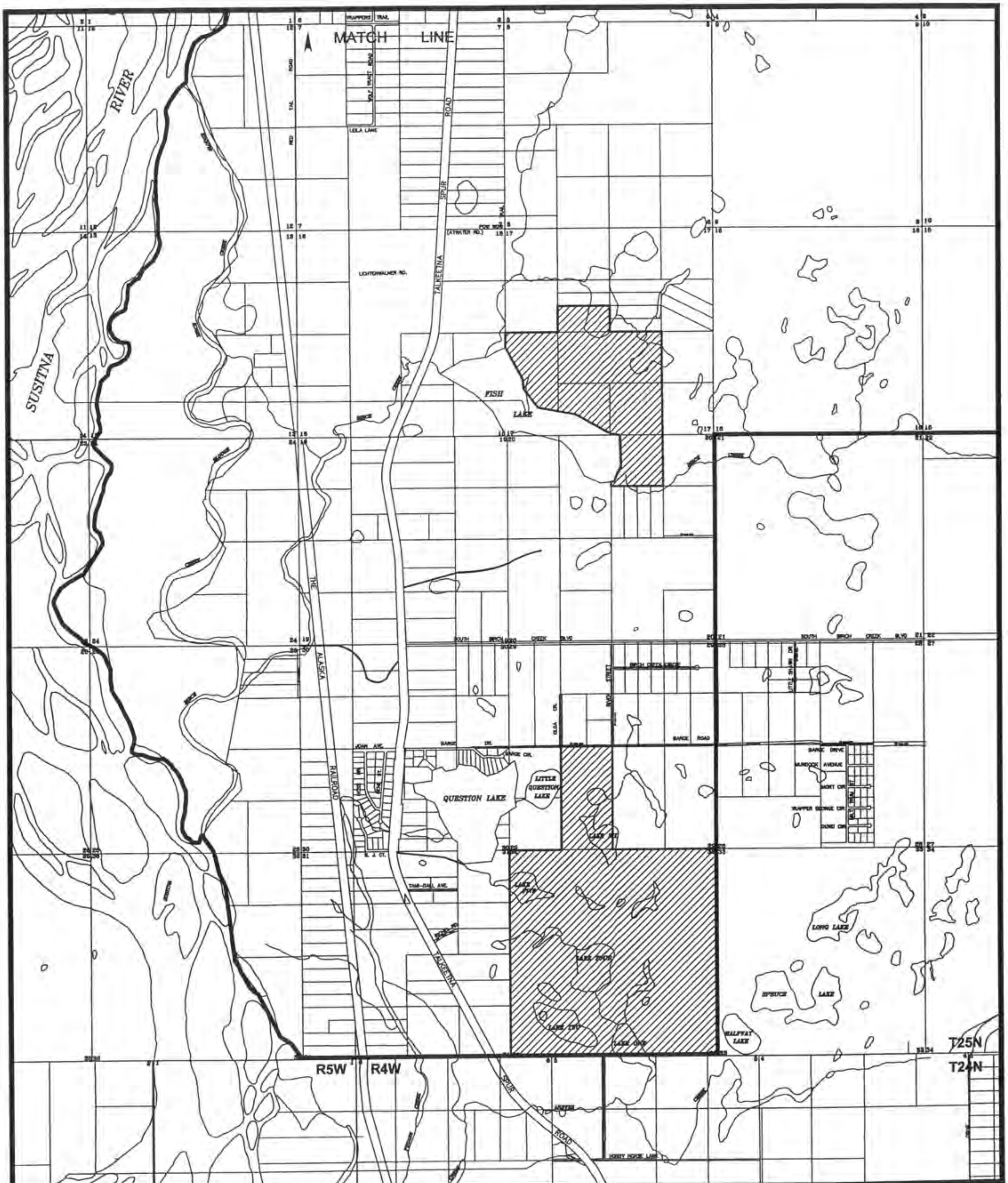
The Talkeetna ballfield is located on borough property on vacated First Street behind the Talkeetna Historical Museum. The field was built by the Upper Susitna Softball Association in 1985/86 with grant money from the borough. It is a popular facility that the community would like to see remain where it is currently located. The facility lacks restrooms and this has caused sanitary problems in the past. There is no off-street parking provided for users.

Recommendations:

* **Restrooms and parking should be added at the Talkeetna ballfield.**

* **The existing ballfield is an important part of the community and should remain where it is.**

* **Land, not necessarily in the townsite area, should be set aside for additional ballfields and/or recreational fields that may be needed in the future.**



TALKEETNA COMPREHENSIVE PLAN

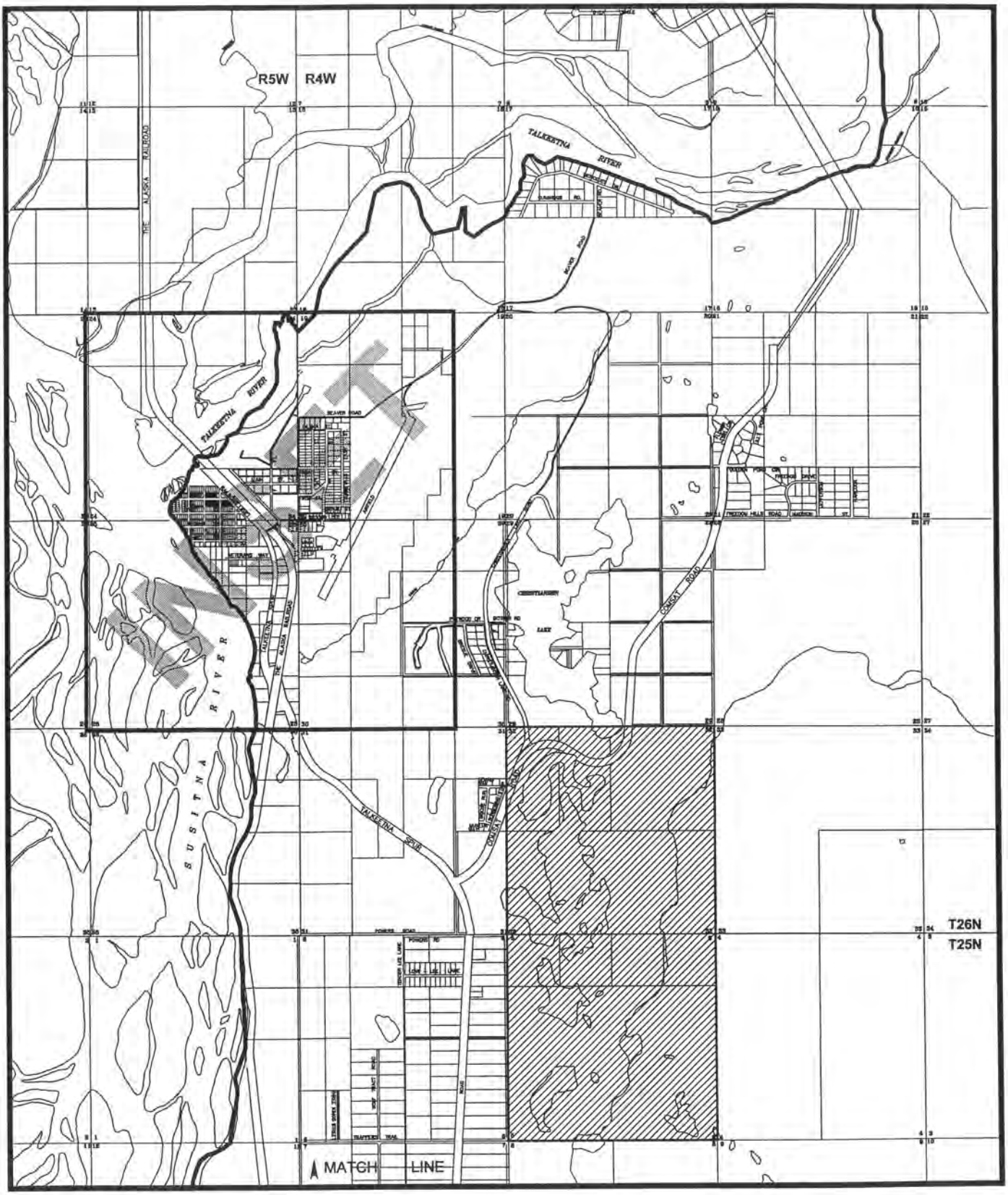
ADDITIONAL PARK LAND

TALKEETNA CORRIDOR - SOUTH
MAP 2 0F 2

ADDITIONAL PARK LAND

FIGURE 22

N



TALKEETNA COMPREHENSIVE PLAN

ADDITIONAL PARK LAND

TALKEETNA CORRIDOR - NORTH
MAP 1 of 2

ADDITIONAL PARK LAND

FIGURE 22

N

RECREATION TRAILS

Surrounding the community are approximately 20 miles of cross country ski and hiking trails constructed by the Talkeetna Chamber of Commerce and maintained by the Denali Nordic Ski Club and other volunteer help. These trails have open shelter and foot bridges. Other trails extend out from Talkeetna into the Talkeetna Mountains. These trails provide access to hunting areas and remote sites.

Recommendations:

* **Existing multiple-use trails, as shown on the existing land use map within the comprehensive plan, should be retained, surveyed, and designated as "multiple-use trails", i.e., restricted from use by highway vehicles.**

* **New trails and/or recreation areas should be identified, reserved, and established. These could be limited to specific and/or single seasonal uses such as: skiing, hiking, mushing, nature trails, sledding, snowmachining, ice skating, fishing, mountain biking, horseback riding, etc.**

* **Trails and recreation areas should have adequate lands reserved for anticipated facilities and staging areas (such as parking and sanitary facilities) to ensure the safety and health of the activity.**

* **Specific sites for recreational uses include, but are not limited to:**

A) **VOR Triangle: A trail system for cross-country skiing and hiking has been approved by the Borough and is being developed. The trails will be closed to all other uses. Location: West of Talkeetna Spur Road by the scenic overlook, north of the VOR access road and southeast of Twister Creek. The land is owned by the State.**

B) **Twister Creek: Retain as open space for wildlife habitat and winter multiple-use trails. No motorized vehicle use would be permitted in this area during the summer months. Location: The wetlands and low lying forest along Twister Creek from the Old Lake Road to the Susitna River.**

C) **Talkeetna Townsite Riverside Trail: Retain as a public right-of-way compatible with flood control purposes. Location: West end of Main Street along the river to the south end of the village airstrip.**

D) **Government Lot #9: Retain as a natural vegetation greenbelt and retain the trail as listed in "c". Location: Wooded area west of the village airstrip to the river and south of the private land on the south side of Third Street.**

E) **Old Talkeetna River Subdivision Road: Retain old roadbed as a trail and wildlife viewing area. Close the roadbed to vehicle use and camping. Location: Old roadbed on the northwest side of the Talkeetna River Subdivision road paralleling the slough.**

F) **Develop a multi-use trail connecting downtown Talkeetna to the Parks Highway. This trail would begin at the railroad crossing to East Talkeetna and proceed south along the west side of the railroad track (behind the Latitude 62, Talkeetna Tesoro, and the library) crossing to the west side of the Talkeetna Spur Road at the railroad crossing. It would proceed south along the west side of the Spur Road connecting with the Ski Hill trails and continue south along the Spur Road to the Parks Highway.**

G) **A ski trail should connect the Talkeetna Lakes park system with the public lands at North Fish Lakes, Number Lakes and Christiansen Lake. Route options include: 1) obtain trail easements from private property owners - especially CIRI, 2) use section line easements, and 3) use public access easements along lakes and streams.**

H) **Bald Mountain: Retain the public alpine lands around Bald Mountain for winter multiple-use recreation. Off-road vehicle use in the tundra should be allowed only on existing easements and rights-of-way when there is not sufficient snow to protect the vegetation.**

I) **Larson Lake: Retain as a recreation area with consideration to protect the large sockeye salmon run and scenic value of the area. There is private land along the lake. Fishing, boating, and multiple-use year-round recreation.**

A few additional facilities have been recently added or are expected for the near future in Talkeetna. The National Park Service Mountaineer Contact Station was completed in time for use during the 1997 climbing season. The McKinley Princess Lodge was completed in the spring of 1997 at mile 133 of the Parks Highway. An additional 38 rooms are expected to be completed in 1999. Visitors to the lodge come to Talkeetna on a daily basis, either by bus, boat or train. CIRI has plans to construct a lodge, to be completed in 1999, at mile 12.5 of the Talkeetna Spur Road. The Denali Arts Council currently uses a large circus tent for summer performances and community gatherings. The Arts Council has acquired several lots in downtown Talkeetna, and they are in the process of planning and raising funds for the construction of a permanent performing arts/community building. Additionally, Talkeetna's local radio station, KTNA, has been on the air since January of 1993. KTNA relies heavily on volunteers.

CHAPTER 7 : IMPLEMENTATION

A comprehensive plan is a collection of statements of community values which express the character and design the community wishes to achieve in the future. In order for a comprehensive plan to be meaningful, it must be implemented with actions that will accomplish the plan's goals. Land use regulations, subdivision ordinances, and capital improvement planning/budgeting are the most frequently used mechanisms to implement comprehensive plans.

The over-all goals and specific recommendations that the community expressed in this comprehensive plan indicate a desire to have some local control over the direction the community will grow in the future. This degree of control will need to be balanced with the philosophy which motivated many people to move into the area -- individualism, a desire for remoteness, and a lack of government interference in one's life. In order to accomplish the goals expressed by the community, this chapter will look at the existing mechanisms available to implement the goals and what other options could be used if desired.

EXISTING MECHANISMS

There are several organizations and agencies in Talkeetna which can act in various ways to implement the goals in this plan. The main organizations include the Matanuska-Susitna Borough, the Talkeetna Community Council, the Talkeetna Historical Society, the Talkeetna Chamber of Commerce, the State of Alaska's Departments of Public Safety, Transportation and Public Facilities, Fish and Game, and Natural Resources, and the Alaska Railroad Corporation.

Since Talkeetna is not incorporated as a political entity, the community does not have any governmental powers and is thus dependent on services provided by the Matanuska-Susitna Borough, the State of Alaska, and the various non-governmental organizations.

The Matanuska-Susitna Borough was incorporated as a second class borough in 1964. Its services include areawide powers of administration, taxation, planning, zoning, education, and parks and recreation. The borough also exercises non-areawide powers of solid waste management and libraries. The borough administers the Talkeetna Fire Service area, the Talkeetna Water/Sewer Service Area, the Talkeetna Water Erosion and Flood Control Service Area, and the Greater Talkeetna Road Service area.

The borough's planning, capital budget programming, platting, and zoning functions are existing mechanisms that can be used to implement some of the goals in this plan.

The borough's planning function is being accomplished through this comprehensive planning effort, and by incorporating the Talkeetna area into other borough planning efforts. The borough is directed by State law to do comprehensive planning under AS 29.40.030. In 1985 the borough Assembly directed that plans should be done at the local level where they would more easily reflect the community's desires.

Comprehensive planning conducted in conformance with Alaska State Statutes, Title 29 is the advisory step undertaken before examining land use regulation, such as zoning. Once the Talkeetna Comprehensive Plan is adopted by the Assembly it becomes part of the comprehensive development plan for the Matanuska-Susitna Borough. All land use and zoning must be in accordance with the comprehensive plan.

One aspect of planning that is important to the implementation of comprehensive plans is the capital improvement programming process for financing public facilities. The Borough is required by borough code to undertake capital improvement programming, as per MSB Code Title 3.04.060. The borough manager prepares the capital improvement program (CIP) for all public facilities of general government, including schools. The School District recommends the capital improvement program for schools.

The general government capital program lists all the capital improvements which are proposed to be undertaken during the next six fiscal years and the documentation of need for those improvements. Many goals from a comprehensive plan can be implemented by making recommendations for projects in the capital improvement program.

Existing regulations that the borough can use to implement some of the goals in this comprehensive plan include MSB Code Title 15, Planning; Title 16, Subdivisions; Title 17, Zoning.

Chapter 15.12.010 requires the borough's Planning Commission to recommend to the Assembly a Comprehensive Plan, a zoning ordinance to implement the plan, a subdivision ordinance and an official map of the borough. The Commission is required to investigate the location and design of any public facility, including public buildings, docks, beaches, ski grounds, parks, playgrounds, public streets, and memorials and statues. The Commission will give recommendations to the Assembly concerning building and land use regulations for the purpose of promoting the public health, safety, and morals. The Assembly can regulate the height of buildings, number of stories, the size of buildings and other structures, the percentage of lot that may be occupied, the size of yards, the density of population, the location and use of buildings, structures and land for trade, industry, residence or other purposes, and may enact a building code.

Chapter 15.28.010 provides that the Assembly can divide the borough into such districts as will best accomplish the purposes of the comprehensive plan and accommodate the building and land use regulations authorized by law.

Land use regulations that currently exist in the borough are included in Title 17, Zoning. Title 17 establishes various special use districts and the boundaries for each district. Special land use districts that currently exist include Nancy Lake State Recreation Area, Hay Flats Recreation Area, City of Palmer, Denali State Park, Chickaloon, City of Houston, and City of Wasilla. Each land use district is different with varying degrees of regulations. Wasilla's is the most complicated, incorporating performance standards for major developments.

Other land use regulations in Title 17 are Residential Land Use Districts, Setbacks, and Conditional Uses, which regulate the placement of junkyards, refuse areas, and auto wrecking yards. Establishment of business that sells liquor requires a conditional use permit.

Currently Talkeetna does not have any land use regulations that affect private land beyond those borough-wide regulations mentioned above.

Special use district zoning is an option that Talkeetna can select to accomplish some of its goals. Special use district zoning is a land use control that classifies land into districts according to use, and establishes permitted uses, uses that are conditionally permitted, and prohibited uses. Zoning can accomplish the following goals: maintain the small town atmosphere, protect the historic character of the historic district, protect the public's health, safety & welfare, guide development, regulate density, concentrate uses and activities, reduce setbacks, zone residential, commercial and industrial districts, require buffers and landscaping, and control strip development.

Title 16 regulates the subdivision of land in the borough. These regulations require that legal and physical access must be provided to lots, minimum lot sizes are stipulated, lot and block design is regulated, and the filing procedures for plat review are outlined.

The Platting Board is the authority which reviews all preliminary and final subdivision plats. The Platting Board approves plats upon finding that the plats conform to the standards set forth in the title and other applicable statutes and ordinances. The Board approves all public use easements, section line vacations, and other platting matters.

Once this Plan is adopted, this Committee recommends that the Community Council request assistance from the Borough in developing a special land use district to implement the recommendations of this plan.

INCORPORATION

Talkeetna can choose to incorporate as a political entity. The type of municipality is regulated by State law. Talkeetna qualifies as a home rule municipal corporation as its planning area's population base of 625 residents exceeds the required population of 400 residents for home rule municipalities.

As a general rule municipality Talkeetna could qualify as either a first or second class city. First class status requires the following:

* 400 or greater population,
* boundaries include all areas to provide municipal services on an efficient scale,
* the economy can provide the municipal services,
* population is stable to support the government,
* demonstrated need.

Second class status requires all the above, except the 400 population.

In order for an area to incorporate, the incorporators must file a petition, showing the proposed boundaries, a proposed operating budget projecting sources of income and expenditures through the first fiscal year of operation, and based on the number who voted in the last general election, the signatures and resident addresses of 25 voters or 15% of the voters in the proposed city, whichever is greater. Fifteen percent of Talkeetna voters (201) in the last general election would be 30 petitioners.

In order for Talkeetna to incorporate as first class it must have a population of 400 people located in an area where municipal services can be provided. Water and sewer services would be one of the services examined. These services are currently provided to the west and east townsite areas and extending down the Spur Road to the library for water, and past the elementary school for sewer. This area has a population base of 250 people according to the 1990 census. According to the 1993 Borough certified census there are 289 people in this area; insufficient to quality for first class status. Talkeetna has the population to meet the requirements to incorporate as a second class city, but the actual boundaries would have to be determined.

The most critical requirement under review in any incorporation process is whether the local area can support the operation of a municipal government. One requirement of incorporation is that any service area in a new municipality must be integrated into the municipality within two years. On integration the municipality succeeds to all the rights, powers, duties, assets, and liabilities of the service area. After integration, the municipality can levy and collect special charges, taxes, or assessments necessary to amortize the bonded indebtedness incurred by the service area.

The indebtedness of the Talkeetna service areas would need to be reviewed before residents can determine the assets and liabilities of a new government entity. Generally financial lenders consider a 5 to 10% ratio of debt to assessed valuation to be an acceptable level of municipal debt. Talkeetna's townsite area assessed valuation is approximately $4 million. Five percent of $4 million is $200,000.

Besides assuming the liabilities, a new municipality must also assume the services. It will be necessary for local residents to know the annual cost to operate the water/sewer service, maintain local roads, provide for general government, provide for fire service (if assumed), and any other duties the municipality will assume.

A cursory review of the existing service area operating fund balances show the following. The Talkeetna Water/Sewer Service Area operates as a special revenue fund in which the revenues are to match the expenditures. The fund is operating in FY95 with revenues of $70,000 collected from fees, and expenditures of $83,771. The existing deficit is balanced by a $55,000 loan.

The Talkeetna Water Erosion and Flood Control Service Area is not actively operating at this time. It has a fund balance of $4,000.

The Talkeetna Fire Service Area fund also operates as an enterprise fund. For FY94 revenues collected from a 1.7 mill assessment (on $37 million valuation) are estimated at $59,000. Expenditures for FY94 are budgeted at $59,000.

The Talkeetna Greater Road Service Area is funded by revenues generated from a 3.0 mill tax levy on assessed valuation of $44 million, for $114,000, and a State shared revenue grant of $72,000 for 73.88 miles.

In addition, Talkeetna residents are assessed a 15.78 mill levy for general property taxes (areawide) and .92 for non-areawide property taxes. Using the water/sewer assessed valuation for the core townsite area of $4 million, real property taxes (areawide) generate approximately $630,000 for this area.

Funding municipal government is usually accomplished by a combination of revenues from numerous sources, such as property taxes, State shared revenue (declining), Municipal assistance (declining), Federal intergovernmental transfers (declining), fees, admissions, special revenues (i.e. bed tax, sales tax), enterprise funds, interest, and possible other smaller funds.

For Talkeetna the biggest operating expense will be to cover the cost of general government expenditures, of which personnel will be the highest expense. Full or part-time personnel for the new city would probably include, at a minimum, an administrator, clerk/treasurer, public works operator and/or public works manager, and possibly fire station manager, depending on what services the new city elects and is permitted to provide to its residents. Other expenses that need to be examined are the cost of offices, vehicles, equipment, insurance, and other government expenses. As of December 1997 a petition to the Alaska Department of Community and Regional Affairs for the incorporation of the Talkeetna Community Council area as a homerule city had been submitted.

CAPITAL IMPROVEMENT PROGRAM

The Talkeetna Community Council has identified the following projects as their highest priority projects for the Borough's FY96-2001 capital improvement program:

1. Funding for the Talkeetna Elementary School.
2. Public Restrooms and public water source in downtown Talkeetna.
3. Funding for road improvements and parking as addressed in this comprehensive plan.
4. Funding for traffic planning in downtown Talkeetna.

One project that is recommended by the Talkeetna Fire Service Area is a new fire station facility at the "Y". This project has been added to the borough's CIP and is under review by the borough's Director of Public Safety for scheduling.

CHAPTER 8: COMPREHENSIVE PLAN REVISIONS

Revisions to the Talkeetna Comprehensive Plan will be necessary as development takes place within the area. The plan should be reviewed on a regular basis, at least every five years after adoption, to determine if revisions are necessary at that time. It is important that a process for revising the plan be recognized in the event revision is necessary or desirable prior to that time.

Any request for amendments will be forwarded to the borough's department of planning. When a revision is initiated by the borough planning commission, assembly, or administration the borough will schedule at least one public meeting in the community and notify the Talkeetna Community council of the proposed revision.

If a rewrite of the entire plan or a major portion of the plan is deemed necessary or desirable, a Citizen's Advisory Committee will be formed to work with the Matanuska-Susitna Borough Planning Department in revising the plan. Establishment of the committee will be in compliance with the policies of the borough planning commission at the time of the revision.

APPENDIX A

MATANUSKA-SUSITNA BOROUGH

PLANNING COMMISSION RESOLUTION SERIAL NO. 89-23

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION IN SUPPORT OF COMPREHENSIVE PLANNING ASSISTANCE FOR TALKEETNA

WHEREAS, the Talkeetna Community Council passed a motion in December 1988 expressing interest in a comprehensive plan; and

WHEREAS, the Talkeetna Community Council requested Borough planning staff to attend a public meeting held on January 10, 1988 to explain what is involved in a comprehensive plan and to outline the Borough's comprehensive planning process; and

WHEREAS, a majority of persons attending that meeting voted in favor of initiating the Borough comprehensive planning process for Talkeetna; and

WHEREAS, the Talkeetna Community Council has formally requested the Borough to initiate that process.

NOW THEREFORE, BE IT RESOLVED, that the Planning Commission of the Matanuska-Susitna Borough supports the Talkeetna Community Council's request and directs Borough planning staff to advertise for advisory committee members.

ACCEPTED AND APPROVED by the Planning Commission of the Matanuska-Susitna Borough this 8th day of February, 1989.

John Duff, Planning Director

ATTEST:

Mary Utter, Planning Clerk

APPENDIX B
TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
Schedule of Meetings

ADVISORY COMMITTEE	ADVISORY COMMITTEE	ADVISORY COMMITTEE	TRANSPORTATION SUBCOMMITTEE
May 9, 1989	January 9, 1992	October 27, 1994	November 8, 1989
September 11, 1989	February 20, 1992	November 3, 1994	December 6, 1989
September 26, 1989	March 26, 1992	November 17, 1994	January 3, 1990
October 25, 1989	April 29, 1992	December 1, 1994	April 4, 1990
November 29, 1989	May 6, 1992	January 12, 1995	May 2, 1990
January 31, 1990	October 15, 1992	January 26, 1995	
March 21, 1990	October 29, 1992	February 9, 1995	**PUBLIC FACILITIES AND UTILITIES SUBCOMMITTEE**
April 25, 1990	November 12, 1992	February 23, 1995	
May 23, 1990	December 3, 1992	March 9, 1995	November 15, 1990
November 7, 1990	December 17, 1992	March 23, 1995	January 10, 1990
December 5, 1990	January 14, 1993	April 6, 1995	April 11, 990
January 24, 1991	January 28, 1993	April 20, 1995	
February 21, 1991	February 11, 1993	May 4, 1995	**LAND USE SUBCOMMITTEE**
March 6, 1991	February 25, 1993	May 18, 995	
March 20, 1991	March 18, 1993	May 25, 1995	November 29, 1989
March 27, 1991	April 8, 1993	May 30, 1995	January 4, 1990
April 3, 1991	April 22, 1993	July 27, 1995	February 8, 1990
April 10, 1991	May 13, 1993		April 18, 1990
April 17,1991	May 27, 993		May 16, 1990
April 24, 1991	October 28, 1993		April 22, 1993 (Remote Lands)
May 1, 1991	November 18, 1993		
September 26, 1991	September 15, 1994		
November 7, 1991	September 22, 1994		
December 4, 1991	October 13, 1994		

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
Subcommittees
1989-90

TRANSPORTATION SUBCOMMITTEE

NAME	11/8 '89	12/6 '89	1/3 '90	4/3 '90	5/2 '90
BERRYMAN, GERALD	P	P	A	A	A
DENKEWALTER, GERALDINE	P	A	P	A	A
EBLING, ELENORE	P	P	P	A	A
FLEMING, KATHLEEN	P	P	A	P	P
JEENE, GENE	P	P	P	P	A
JENNE, ROSE	P	A	A	A	A
KELLARD, JIM	P	P	P	P	P
KELLARD, SUZY	P	P	P	P	P
KOMIS, BRYAN	P	A	A	A	A
MOORE, KANDACE	P	A	P	A	A
PETTY, KIMBERLY	P	A	A	A	A
ROBINSON, PAM	P	P	A	P	P
ROMANO, JOSE	P	A	A	A	A
TOMLINSON, CLIFF	P	A	A	A	A
WEST, FLOYD	A	A	P	A	A
WETTANEN, ART	A	A	P	P	A
THEODORE, HURB	A	A	A	P	A

PUBLIC FACILITIES AND UTILITIES SUBCOMMITTEE

NAME	11/15 '89	1/10 '90	4/11 '90		
DENKWALTER, GERI	P	A	A		
DUNN, RITA	P	P	T		
DUNN, ROD	P	P	T		
FLEMING, KATHLEEN	P	A	E		
HOSKINS, MARTY	P	A	N		
JENNE, GENE	P	P	D		
KELLARD, JIM	P	P	A		
KELLARD, SUSAN	P	P	N		
MAHAY, CHRIS	P	A	C		
PAGE, JOE	P	P	E		
SHELDON, ROBERTS	P	A	NOT		
VOLPE, GERI	P	A	TAKEN		

LAND USE SUBCOMMITTEE					
NAME	11/29 '89	1/4 '90	2/8 '90	4/18 '90	5/16 '90
ALDRICH, RONALD	P	A	A	A	A
AULMAN, ERIN	P	T	A	A	A
BERRYMAN, GERALD	P	T	A	A	A
JENNE, GENE	A	E	A	A	P
JENNE, ROSE	P	N	P	P	P
FITZGERALD, BILLY	A	N	A	P	A
KELLARD, JIM	A	D	A	P	A
KELLARD, SUZY	P	A	A	P	P
LANGFORD, KELLY	P	N	A	A	A
LEE, DON	P	C	A	A	A
LONG, BECKY	P	E	A	A	A
LUTHMAN, VERN	P		A	A	A
MANNIX, ART	A		A	A	P
MANNIX, BARBARA	P	N	P	P	A
MANNIX, KAREN	A	O	P	A	A
NELSON, SUSAN	P	T	A	A	A
OKONEK, BRIAN	P		A	A	A
OKONEK, JIM	P		A	A	A
PAGE, JOE	P	T	A	P	P
PETERSEN, ARTHUR	P	A	A	A	A
PETERSEN, SARAH	P	K	A	A	A
RANSY, DENIS	P	E	A	A	A
ROBINSON, PAM	P	N	A	P	P
ROBINSON, ROGER	P		A	P	A
SAYRE, CARI	P		A	A	A
SHELDON, ROBERTA	P		P	P	A
SULLIVAN, K.R.	P		A	A	A
WOLF, ELLEN	P		A	A	A

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1995

NAME	1/12 '95	1/26 '95	2/9 '95	2/23 '95	3/9 '95	3/23 '95	4/6 '95	4/20 '95	5/4 '95	5/18 '95	5/25 '95	5/30 '95	7/27 '95
AISENBREY, DAVID	A	A	A	A	A	A	A	A	A	A	A	A	A
AISENBREY, EVELYN	A	A	A	A	A	A	A	A	A	A	A	A	A
ANDERSON, TIM	A	A	A	A	A	A	A	A	A	A	A	A	A
AULMAN, ERIN	A	A	A	A	P	P	A	A	A	A	A	A	A
AULMAN, HARRY	A	A	A	A	A	A	A	A	A	A	A	A	A
BALE, NANCY	A	A	A	A	A	A	A	A	A	A	A	A	A
BRATTON, PAUL	A	A	A	A	A	A	A	A	A	A	A	A	A
BROCKE, DEBORAH	A	A	A	A	A	A	A	A	A	A	A	A	A
CIKANEK, BOBBYE	P	A	P	A	A	P	A	A	P	A	P	A	P
CORREIRA, LINDA	A	A	A	A	A	A	A	A	A	A	A	A	A
DENKEWALTER, GERI	A	A	A	A	A	A	A	A	A	A	A	A	A
DENNY, JOHN	A	A	A	A	A	A	A	A	A	A	A	A	A
DOLECKI, SUSAN	A	A	A	A	A	A	A	A	A	A	A	A	A
EBLING, ELINORE	A	A	A	A	A	A	A	A	A	A	A	A	A
EBLING, MYRON	A	A	A	A	A	A	A	A	A	A	A	A	A
FAUROT, MICHELE	A	A	A	A	A	A	A	A	A	A	A	A	A
FINEBERG, RICHARD	A	A	A	A	A	A	A	A	A	A	A	A	A
FISHER, MICHAEL	A	A	A	A	A	A	A	A	A	A	A	A	p
FITZGERALD, BILLY	A	A	A	A	A	P	A	A	A	A	A	A	A
FLEMING, KATHLEEN	P	P	P	P	P	P	P	P	P	P	P	P	P

NAME	1/12 '95	1/26 '95	2/9 '95	2/23 '95	3/9 '95	3/23 '95	4/6 '95	4/20 '95	5/4 '95	5/18 '95	5/25 '95	5/30 '95	7/27 '95
FOSTER, PEG	A	A	A	A	A	A	A	A	A	A	A	A	A
GERLACH, ROBERT	A	A	A	A	A	P	P	A	A	A	P	A	A
GREER, JORDON	A	A	A	A	A	A	A	A	A	A	A	A	A
HENRY, MARY LOU	A	A	A	A	A	A	A	A	A	A	A	A	A
HOLCOMB, SCOTT	A	A	A	A	A	A	A	A	A	A	A	A	A
HOLT, KAREN	A	A	A	A	A	A	A	A	A	A	A	A	A
HOLT, ROBERT	A	A	A	A	A	A	A	A	A	A	A	A	A
HUBER, RENAE	P	A	P	P	P	A	A	A	A	A	A	A	A
HUDSON, CLIFF	A	A	A	A	A	P	P	A	A	A	A	A	A
HUDSON, CHUCK	A	A	A	A	A	A	A	A	A	A	A	A	A
HUMPHREYS, PECOS	A	A	A	A	A	A	A	A	A	A	A	A	A
JENNE, GENE	A	P	A	A	P	A	P	P	A	P	P	P	A
JENNE, ROSE	P	P	A	A	P	P	P	P	P	P	P	P	P
JOHNSTON, DAVE	A	A	A	A	A	A	A	A	A	A	A	A	A
JOHNSTON, GALEN	A	A	A	A	A	A	A	A	A	A	A	A	A
KEEFE, DONALD	A	A	A	A	A	A	A	A	A	A	A	A	A
KELLARD, JIM	A	A	P	P	P	A	P	A	A	A	A	A	A
KELLARD, SUZY	A	A	P	A	P	P	P	P	P	P	A	A	A
LANGHAM, JOHN	A	A	A	A	A	A	A	A	A	A	A	A	A
LANGNER, LINDA (Stone)	A	A	A	A	A	P	P	A	A	A	A	A	A
LEAVITT, KEN	A	A	A	A	A	A	A	A	A	A	A	A	A
LEE, DON	A	A	A	A	A	A	A	A	A	A	A	A	A

NAME	1/12 '95	1/26 '95	2/9 '95	2/23 '95	3/9 '95	3/23 '95	4/6 '95	4/20 '95	5/4 '95	5/18 '95	5/25 '95	5/30 '95	7/27 '95
LEMON, BILL	A	P	P	P	P	P	P	A	P	P	P	A	P
LONG, BECKY	P	A	P	A	P	P	P	A	A	A	P	A	A
LOWE, PAPPY	A	A	A	A	A	A	A	A	A	A	A	A	A
MACIOLKE, KRISTA	A	A	A	A	A	A	A	A	A	A	A	A	A
MAHAY, KRIS	A	A	A	A	A	A	A	A	A	A	A	A	A
MAHAY, STEVE	A	A	A	A	A	A	A	A	A	A	A	A	A
MANNIX, ART	A	A	A	A	P	P	P	A	A	A	P	A	A
MANNIX, BARBARA	A	A	A	A	A	P	A	A	A	A	P	P	A
MANNIX, CHRIS	A	A	A	A	P	A	A	P	A	A	P	A	A
MANNIX, KAREN	A	A	A	A	A	A	A	A	A	A	A	A	A
MC KELVEY, KATE	A	A	P	P	P	P	P	A	A	A	P	P	P
MOLLER, WAYNE	A	A	A	A	A	A	A	A	A	A	A	A	A
MOORE, BOB	A	A	A	A	A	A	A	A	A	A	A	A	A
MOORE, KANDACE	A	A	A	A	A	A	A	A	A	A	A	A	A
NORBERG-SHOULDERS, SANDRA	A	A	A	A	A	A	A	A	A	A	A	A	A
OKONEK, BRIAN	A	A	A	A	A	A	A	A	A	A	A	A	A
OKONEK, DIANE	A	A	A	A	A	A	A	A	A	A	A	A	A
OKONEK, JULIE	A	A	A	A	A	A	A	A	A	A	A	A	A
PAGE, JOE	P	P	P	P	P	P	A	P	A	P	P	P	P
PARROTT, MARY	A	A	A	A	A	A	A	A	A	A	A	A	A
PARROTT, STANLEY	A	A	A	A	A	A	A	A	A	A	A	A	A
PARRY, JACKSON	A	A	A	A	A	A	A	A	A	A	A	A	A

NAME	1/12 '95	1/26 '95	2/9 '95	2/23 '95	3/9 '95	3/23 '95	4/6 '95	4/20 '95	5/4 '95	5/18 '95	5/25 '95	5/30 '95	7/27 '95
PERKINS, GRETE	A	A	A	A	A	A	P	A	A	A	A	A	A
PETTY, KIM	A	A	A	A	A	A	A	A	A	A	A	A	A
PRICE, JUDY	A	A	A	A	A	A	A	A	A	A	A	A	A
RANSY, DENIS	P	A	A	A	P	P	P	A	A	P	P	A	A
RAUCHENSTEIN, RENAMARY	A	A	A	A	A	A	A	A	A	A	A	A	A
RICHARDSON, JEFF	A	A	A	A	A	A	A	A	A	A	A	A	A
ROBINSON, JEFFREY	A	A	A	A	A	A	A	A	A	A	A	A	A
ROBINSON, PAM	A	A	A	A	A	P	A	A	A	A	A	A	A
ROBINSON, ROGER	A	A	A	A	P	P	P	A	A	P	A	A	A
SCHWAB, MAX	n/a	n/a	A	A	A	A	A	A	A	A	A	A	A
SALASKY, SHOO	A	A	A	A	A	A	A	A	A	A	A	A	A
SAYRE, CARI	n/a	n/a	A	A	A	A	A	A	A	A	A	A	A
SEIBERT, BOB	A	A	A	A	A	A	A	A	A	A	A	A	A
SHELDON, ROBERTA	P	P	P	P	A	P	P	P	P	A	P	P	A
SMITH, DOUG	A	P	A	P	P	P	P	A	A	P	P	A	P
SMITH, TED	A	A	A	A	A	A	A	A	A	A	A	A	A
SOUSA, GERALD	A	A	A	A	A	A	A	A	A	A	A	A	A
STASIK, MARK	A	A	A	A	A	A	A	A	A	A	A	A	A
STEVENS, MYRON	A	A	A	A	A	A	A	A	A	A	A	A	A
STONE, JIMMY	A	A	A	A	A	A	A	A	A	A	A	A	A
SULLIVAN, KATHY	A	A	A	A	P	A	A	A	A	A	A	A	A
TERSTEGGE, LYNN	A	A	A	A	A	A	A	A	A	A	A	A	A

NAME	1/12 '95	1/26 '95	2/9 '95	2/23 '95	3/9 '95	3/23 '95	4/6 '95	4/20 '95	5/4 '95	5/18 '95	5/25 '95	5/30 '95	7/27 '95
TOBIASON, SHANNON	A	A	A	A	A	A	A	A	A	A	A	A	A
TRUMP, NANCY	A	A	A	A	A	A	A	A	A	A	A	A	A
ULVESTAD, LAURA	P	P	A	P	A	P	P	P	A	P	P	P	P
VALENTINE, CHAD	A	A	A	A	A	A	A	A	A	A	A	A	A
VOLPE, GERI	A	A	A	A	A	A	A	A	A	A	A	A	A
WEISNER, JERE	A	A	A	A	A	A	A	A	A	A	A	A	A
WETTANEN, ART	P	P	P	P	P	A	P	A	A	A	A	A	A
WILDERMUTH, MARK	A	A	A	A	A	A	A	A	A	A	A	A	A
WOLF, ELLEN	A	P	A	A	P	P	P	P	P	P	P	P	P
WOLLER, KIM	A	A	A	A	A	A	A	A	A	A	A	A	A
WOLLER, WAYNE	A	A	A	A	A	A	A	A	A	A	A	A	A

A - Absent P - Present N/A - Not a member at this Time C - Cancelled N/Q No Quorum Committee members shall be deemed active and in good standing until a third consecutive absence from advertised committee meetings. Membership can be reactivated by meeting attendance.

Quorums consist of five (5) committee members or 20% or the entire active membership of the committee whichever is larger.

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1994

NAME	9/15 '94	9/22 '94	10/13 '94	10/27 '94	11/3 '94	11/17 '94 CANCELED	12/1 '94
AISENBREY, DAVID	A	A	A	A	A		A
AISENBREY, EVELYN	A	A	A	A	A		A
ANDERSON, TIM	A	A	A	A	A		A
AULMAN, ERIN	A	A	A	A	A		A
AULMAN, HARRY	A	A	A	A	A		A
BALE, NANCY	A	A	A	A	A		A
BRATTON, PAUL	P	A	A	A	A		A
BROCKE, DEBORAH	A	A	A	A	A		A
CIKANEK, BOBBYE	P	P	A	A	P		P
CORREIRA, LINDA	A	A	A	A	A		A
DENKWALTER, GERI	A	A	A	A	A		A
DUNN, RITA (mail returned)	n/a	A	A	A	A		A
DUNN, ROD (mail returned)	n/a	A	A	A	A		A
DENNY, JOHN	A	A	A	A	A		A
DOLECKI, SUSAN	A	A	A	A	A		A
EBLING, ELINORE	A	A	A	A	A		A
EBLING, MYRON	A	A	A	A	A		A
FAUROT, MICHELE	A	A	A	A	A		A
FINEBERG, RICHARD	A	A	A	A	A		A
FISHER, MICHAEL	A	A	A	P	A		A
FITZGERALD, BILLY	A	A	A	A	A		A
FLEMING, KATHLEEN	P	A	P	A	A		P
FOSTER, PEG	A	A	A	A	A		A
GERLACH, ROBERT	n/a	n/a	P	A	A		A
GREER, JORDON	A	A	A	A	A		A
HENRY, MARY LOU	A	A	A	A	A		A
HOLCOMB, SCOTT	A	A	A	A	A		A
HOLT, KAREN	n/a	n/a	P	A	A		A
HOLT, ROBERT	n/a	n/a	n/a	A	A		A

NAME	9/15 '94	9/22 '94	10/13 '94	10/27 '94	11/3 '94	11/17 '94 CANCELED	12/1 '94
HUBER, RENAE	n/a	n/a	P	P	P		P
HUDSON, CLIFF	A	A	A	A	A		A
HUDSON, CHUCK	A	A	A	A	A		A
HUMPHREYS, PECOS	A	A	A	A	A		A
JENNE, GENE	P	A	A	A	A		A
JENNE, ROSE	P	A	P	P	P		A
JOHNSTON, DAVE	A	A	A	A	A		A
JOHNSTON, GALEN	A	A	A	A	A		A
KEEFE, DONALD	A	A	A	A	A		A
KELLARD, JIM	P	P	A	P	P		A
KELLARD, SUZY	A	P	A	P	P		P
LANGHAM, JOHN	A	A	A	A	A		A
LANGNER, LINDA (Stone)	A	A	A	A	A		A
LEAVITT, KEN	A	A	A	A	A		A
LEE, DON	A	A	A	A	A		A
LEMON, BILL	A	A	A	P	A		A
LONG, BECKY	P	A	A	P	A		A
LOWE, PAPPY	A	A	A	A	A		A
MACIOLKE, KRISTA	A	A	A	A	A		A
MAHAY, KRIS	A	A	A	A	A		A
MAHAY, STEVE	A	A	A	A	A		A
MANNIX, ART	A	P	A	P	A		A
MANNIX, BARBARA	A	A	P	A	A		A
MANNIX, CHRIS	A	A	A	A	A		A
MANNIX, KAREN	A	A	A	A	A		A
MC KELVEY, KATE	A	A	A	A	A		A
MOLLER, WAYNE	A	A	A	A	A		A
MOORE, BOB	A	A	A	A	A		A
MOORE, KANDACE	A	A	A	A	A		A
NORBERG-SHOULDERS, SANDRA	A	A	A	A	A		A
OKONEK, BRIAN	A	A	A	A	A		A
OKONEK, DIANE	A	A	A	A	A		A

NAME	9/15 '94	9/22 '94	10/13 '94	10/27 '94	11/3 '94	11/17 '94 CANCELED	12/1 '94
OKONEK, JULIE	A	A	A	A	A		A
PAGE, JOE	P	P	P	P	A		P
PARROTT, MARY	A	A	A	A	A		A
PARROTT, STANLEY	A	A	A	A	A		A
PARRY, JACKSON	A	A	A	A	A		A
PERKINS, GRETE	A	A	P	P	A		A
PETTY, KIM	A	A	A	A	A		A
PRICE, JUDY	A	A	A	A	A		A
RANSY, DENIS	P	A	A	P	A		A
RAUCHENSTEIN, RENAMARY	A	A	A	A	A		A
RICHARDSON, JEFF	A	A	A	A	A		A
RIDLING, SUE (mail returned)	n/a	A	A	A	A		A
ROBINSON, JEFFREY	A	A	A	A	A		A
ROBINSON, PAM	A	A	P	A	A		A
ROBINSON, ROGER	A	A	A	P	A		A
SALASKY, SHOO	A	A	A	A	A		A
SAYRE, CARI	A	A	A	A	A		A
SEIBERT, BOB	A	A	A	A	A		A
SHELDON, ROBERTA	P	P	P	P	P		A
SMITH, DOUG	P	A	P	P	A		A
SMITH, TED	A	A	A	A	A		A
SOUSA, GERALD	A	A	A	A	A		A
STASIK, MARK	A	A	A	A	A		A
STEVENS, MYRON	A	A	A	A	A		A
STONE, JIMMY	A	A	A	A	A		A
SULLIVAN, KATHY	A	P	P	P	A		A
SWED, J.D. (returned mail)	A	A	A	A	A		A
TERSTEGGE, LYNN	A	A	A	A	A		A
TOBIASON, SHANNON	A	A	A	A	A		A
TRUMP, NANCY	A	A	A	A	A		A
ULVESTAD, LAURA	n/a	na/	n/a	n/a	n/a		P
VALENTINE, CHAD	A	A	A	A	A		A

NAME	9/15 '94	9/22 '94	10/13 '94	10/27 '94	11/3 '94	11/17 '94 CANCELED	12/1 '94
VOLPE, GERI	A	A	A	A	A		A
WEISNER, JERE	A	A	A	A	A		A
WETTANEN, ART	P	A	P	P	P		A
WILDERMUTH, MARK	A	A	A	A	A		A
WOLF, ELLEN	P	P	P	P	P		A
WOLLER, KIM	A	A	A	A	A		A
WOLLER, WAYNE	A	A	A	A	A		A

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1993

NAME	1/14 '93	1/28 '93	2/11 '93	2/25 '93	3/18 '93	4/8 '93	4/22 '93	5/13 '93	5/27 '93	10/28 '93	11/18 '93
AISENBREY, DAVID	A	A	A	A	A	A	A	N/Q	A	A	A
AISENBREY, EVELYN	A	A	A	A	A	A	A	N/Q	A	A	A
ANDERSON, TIM	A	A	A	A	A	A	A	N/Q	A	A	A
AULMAN, ERIN	A	A	A	A	A	A	A	N/Q	A	A	A
AULMAN, HARRY	A	A	A	A	A	A	A	N/Q	A	A	A
BALE, NANCY	A	A	A	A	A	A	A	N/Q	A	P	P
BRATTON, PAUL	P	A	A	A	A	A	P	N/Q	A	P	P
BROCKE, DEBORAH	A	A	A	A	A	A	A	N/Q	A	A	A
CIKANEK, BOBBYE	A	P	A	P	A	A	A	N/Q	A	A	A
CORREIRA, LINDA	A	A	A	A	A	A	A	N/Q	A	A	A
DENKWALTER, GERI	A	A	A	A	A	A	A	N/Q	A	A	A
DUNN, RITA	A	A	A	A	A	A	A	N/Q	A	A	A
DUNN, ROD	A	A	A	A	A	A	A	N/Q	A	A	A
DENNY, JOHN	A	A	A	A	A	A	A	N/Q	A	A	A
DOLECKI, SUSAN	A	A	A	A	A	A	A	N/Q	A	A	A
EBLING, ELINORE	A	A	A	A	A	A	A	N/Q	A	A	A
EBLING, MYRON	A	A	A	A	A	A	A	N/Q	A	A	A
FAUROT, MICHELE	A	A	A	A	A	A	A	N/Q	A	A	A
FINEBERG, RICHARD	A	A	A	A	A	A	A	N/Q	A	A	A
FISHER, MICHAEL	A	A	A	A	A	A	A	N/Q	A	A	A
FITZGERALD, BILLY	A	A	P	A	P	A	P	N/Q	A	P	A
FLEMING, KATHLEEN	A	A	A	A	P	P	A	N/Q	P	A	P
FOSTER, PEG	A	A	A	A	A	A	A	N/Q	A	A	A
GREER, JORDON	A	A	A	A	A	A	A	N/Q	A	A	A
HENRY, MARY LOU	A	A	A	A	A	A	A	N/Q	A	A	A
HOLCOMB, SCOTT	A	A	A	A	A	A	A	N/Q	A	A	A
HUDSON, CLIFF	A	A	A	A	A	A	A	N/Q	A	A	A
HUDSON, CHUCK	A	A	A	A	A	A	A	N/Q	A	A	A

NAME	1/14 '93	1/28 '93	2/11 '93	2/25 '93	3/18 '93	4/8 '93	4/22 '93	5/13 '93	5/27 '93	10/28 '93	11/18 '93
HUMPHREYS, PECOS	A	A	A	A	A	A	A	N/Q	A	A	A
JENNE, GENE	A	P	P	A	P	A	A	N/Q	A	A	A
JENNE, ROSE	P	P	P	P	P	P	A	N/Q	A	P	A
JOHNSTON, DAVE	A	A	A	A	A	A	A	N/Q	A	A	A
JOHNSTON, GALEN	A	A	A	A	A	A	A	N/Q	A	A	A
KEEFE, DONALD	A	A	A	A	A	A	A	N/Q	A	A	A
KELLARD, JIM	A	A	A	A	A	A	A	N/Q	A	A	A
KELLARD, SUZY	P	P	P	P	P	P	P	N/Q	P	A	A
LANGHAM, JOHN	A	A	A	A	A	A	A	N/Q	A	A	A
LANGNER, LINDA (Stone)	A	A	A	A	A	A	A	N/Q	A	A	A
LEAVITT, KEN	A	A	A	A	A	A	A	N/Q	A	A	A
LEE, DON	A	A	A	A	A	A	A	N/Q	A	A	A
LEMON, BILL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/Q	n/a	P	A
LONG, BECKY	A	A	A	A	A	P	P	N/Q	A	A	A
LOWE, PAPPY	A	A	A	A	A	A	A	N/Q	A	A	A
MACIOLKE, KRISTA	P	A	A	A	A	A	A	N/Q	A	A	A
MAHAY, KRIS	A	A	A	A	A	A	A	N/Q	A	A	A
MAHAY, STEVE	A	A	A	A	A	A	A	N/Q	A	A	A
MANNIX, ART	A	P	A	A	P	A	P	N/Q	A	A	A
MANNIX, BARBARA	P	A	P	A	A	P	A	N/Q	A	A	A
MANNIX, CHRIS	A	P	A	A	P	A	P	N/Q	A	A	A
MANNIX, KAREN	A	A	A	A	A	A	A	N/Q	A	A	A
MC KELVEY, KATE	A	A	A	P	A	A	A	N/Q	P	A	A
MOLLER, WAYNE	A	A	A	A	A	A	A	N/Q	A	A	A
MOORE, BOB	A	A	A	A	A	A	A	N/Q	A	A	A
MOORE, KANDACE	A	A	A	A	A	A	A	N/Q	A	A	A
NORBERG-SHOULDERS, SANDRA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/Q	n/a	P	A
OKONEK, BRIAN	A	A	A	A	A	A	A	N/Q	A	A	A
OKONEK, DIANE	A	A	A	A	A	A	A	N/Q	A	A	A
OKONEK, JULIE	A	A	A	A	A	A	A	N/Q	A	A	A
PAGE, JOE	P	P	P	A	P	P	P	N/Q	P	A	A
PARROTT, MARY	A	A	A	A	A	A	A	N/Q	A	A	A

NAME	1/14 '93	1/28 '93	2/11 '93	2/25 '93	3/18 '93	4/8 '93	4/22 '93	5/13 '93	5/27 '93	10/28 '93	11/18 '93
PARROTT, STANLEY	P	P	P	A	P	A	A	N/Q	P	A	A
PARRY, JACKSON	A	A	A	A	A	A	A	N/Q	A	A	A
PERKINS, GRETE	P	P	P	P	P	P	A	N/Q	P	P	A
PETTY, KIM	A	A	A	A	A	A	A	N/Q	A	A	A
PETTY, PAT (deceased)	A	A	A	A	A	A	A	N/Q	A	A	A
PRICE, JUDY	A	A	A	A	A	P	A	N/Q	A	P	A
RANSY, DENIS	A	A	A	A	A	A	P	N/Q	A	A	A
RAUCHENSTEIN, RENAMARY	A	A	A	A	A	A	A	N/Q	A	A	A
RICHARDSON, JEFF	A	A	A	A	A	A	A	N/Q	A	A	A
RIDLING, SUE	A	A	A	A	A	A	A	N/Q	A	A	A
ROBINSON, JEFFREY	A	A	A	A	A	A	A	N/Q	A	A	A
ROBINSON, PAM	P	P	P	A	P	A	A	N/Q	A	A	A
ROBINSON, ROGER	P	P	A	P	P	A	A	N/Q	A	A	A
SALASKY, SHOO	A	A	A	A	A	A	A	N/Q	A	A	A
SAYRE, CARI	A	A	A	A	A	A	A	N/Q	A	A	A
SEIBERT, BOB	A	A	A	A	A	A	A	N/Q	A	A	A
SHELDON, ROBERTA	P	P	P	P	P	P	P	N/Q	P	P	A
SMITH, DOUG	P	A	A	A	A	A	A	N/Q	A	A	A
SMITH, TED	A	A	A	A	A	A	A	N/Q	A	A	A
SOUSA, GERALD	A	A	A	A	A	A	A	N/Q	A	A	A
STASIK, MARK	A	A	A	A	A	A	A	N/Q	A	A	A
STEVENS, MYRON	A	A	A	A	A	A	A	N/Q	A	A	A
STONE, JIMMY	A	A	A	A	A	A	A	N/Q	A	A	A
STONE, LINDA	A	A	A	A	A	A	A	N/Q	A	A	A
SULLIVAN, KATHY	A	A	A	A	A	A	A	N/Q	A	A	P
SWED, J.D.	n/a	n/a	n/a	n/a	P	A	A	N/Q	A	A	A
TERSTEGGE, LYNN	A	A	A	A	A	A	A	N/Q	A	A	A
THEODORE, HERBERT (deceased)	A	A	A	A	A	A	A	N/Q	A	A	A
TOBIASON, SHANNON	A	A	A	A	A	A	A	N/Q	A	A	A
TRUMP, NANCY	A	A	A	A	A	A	A	N/Q	A	A	A
VALENTINE, CHAD	A	A	A	A	A	A	A	N/Q	A	A	A
VOLPE, GERI	A	A	A	A	A	A	A	N/Q	A	A	A

NAME	1/14 '93	1/28 '93	2/11 '93	2/25 '93	3/18 '93	4/8 '93	4/22 '93	5/13 '93	5/27 '93	10/28 '93	11/18 '93
WEISNER, JERE	A	A	A	A	A	A	A	N/Q	A	A	A
WETTANEN, ART	P	P	P	A	P	P	A	N/Q	A	A	P
WILDERMUTH, MARK	A	A	A	A	A	A	A	N/Q	A	A	A
WOLF, ELLEN	P	P	P	A	A	A	P	N/Q	A	P	P
WOLLER, KIM	A	P	A	A	A	A	A	N/Q	A	A	A
WOLLER, WAYNE	A	A	A	A	A	A	A	N/Q	A	A	A

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1992

NAME	1/9 '92	2/20 '92	3/26 '92	4/29 '92	5/6 '92	10/15 '92	10/29 '92	11/12 '92	12/3 '92	12/17 '92
AISENBREY, DAVID	A	A	A	A	A	A	A	A	A	A
AISENBREY, EVELYN	A	A	A	A	A	A	A	A	A	A
ANDERSON, TIM	A	A	A	A	P	A	A	A	A	A
AULMAN, ERIN	A	A	A	A	A	A	A	A	A	A
AULMAN, HARRY	A	A	A	A	A	A	A	A	A	A
BALE, NANCY	A	A	A	A	A	A	A	A	A	A
BRATTON, PAUL	P	A	A	P	A	A	P	A	P	A
BROCKE, DEBORAH	A	A	A	A	A	A	A	A	A	A
CIKANEK, BOBBYE	A	A	A	A	P	P	A	A	P	A
CORREIRA, LINDA	A	A	A	A	A	A	A	A	A	A
DENKWALTER, GERI	A	A	A	P	P	P	A	A	A	A
DUNN, RITA	A	A	A	A	A	A	A	A	A	A
DUNN, ROD	A	A	A	A	A	A	A	A	A	A
DENNY, JOHN	A	A	A	A	A	A	A	A	A	A
DOLECKI, SUSAN	A	A	A	A	A	A	A	A	A	A
EBLING, ELINORE	A	A	A	A	A	A	A	A	A	A
EBLING, MYRON	A	A	A	A	A	A	A	A	A	A
FAUROT, MICHELE	A	A	A	A	A	A	A	A	A	A
FINEBERG, RICHARD	A	A	A	A	A	A	A	A	A	A
FISHER, MICHAEL	A	A	A	A	A	A	A	A	A	A
FITZGERALD, BILLY	A	A	A	A	P	P	P	P	P	A
FLEMING, KATHLEEN	P	P	P	P	P	P	A	A	P	A
FOSTER, PEG	A	A	A	A	A	A	A	A	A	A
GREER, JORDON	A	A	A	A	A	A	A	A	A	A
HENRY, MARY LOU	P	A	A	A	A	P	A	A	A	A
HOLCOMB, SCOTT	A	A	A	A	A	A	A	A	A	A
HUDSON, CLIFF	A	A	A	P	A	P	A	A	A	A
HUDSON, CHUCK	A	A	A	A	A	A	A	A	A	A

NAME	1/9 '92	2/20 '92	3/26 '92	4/29 '92	5/6 '92	10/15 '92	10/29 '92	11/12 '92	12/3 '92	12/17 '92
HUMPHREYS, PECOS	A	A	A	A	A	A	A	A	A	A
JENNE, GENE	P	A	P	P	P	A	A	P	P	P
JENNE, ROSE	P	A	P	P	A	A	A	P	P	P
JOHNSTON, DAVE	A	A	A	A	A	A	A	A	A	A
JOHNSTON, GALEN	A	A	A	A	A	A	A	A	A	A
KEEFE, DONALD	A	A	A	A	A	A	A	A	A	A
KELLARD, JIM	P	A	A	A	A	A	A	A	A	A
KELLARD, SUZY	P	P	P	P	P	P	P	P	P	P
LANGHAM, JOHN	A	A	A	A	A	A	A	A	A	A
LEAVITT, KEN	A	A	A	A	A	A	A	A	A	A
LEE, DON	A	A	A	A	A	A	A	A	A	A
LONG, BECKY	P	P	A	A	P	P	A	A	A	A
LOWE, PAPPY	A	A	A	A	A	A	A	A	A	A
MACIOLKE, KRISTA	A	A	A	A	A	A	A	A	P	P
MAHAY, KRIS	A	A	A	A	A	A	A	A	A	A
MAHAY, STEVE	A	A	A	P	P	A	A	A	A	A
MANNIX, ART	A	A	P	P	P	P	A	A	P	A
MANNIX, BARBARA	A	A	P	P	A	P	A	A	P	A
MANNIX, CHRIS	P	A	A	A	A	A	A	A	A	P
MANNIX, KAREN	A	P	A	A	A	A	A	A	A	A
MC KELVEY, KATE	A	A	A	A	A	P	A	A	P	P
MOLLER, WAYNE	A	A	A	A	A	A	A	A	A	A
MOORE, BOB	A	A	A	A	A	A	A	A	A	A
MOORE, KANDACE	A	A	A	A	A	A	A	A	A	A
OKONEK, BRIAN	A	A	A	A	A	A	A	A	A	A
OKONEK, DIANE	P	A	A	A	P	A	A	A	A	A
OKONEK, JULIE	P	A	A	A	A	A	A	A	A	A
PAGE, JOE	P	P	P	P	A	P	P	A	P	A
PARROTT, MARY	A	A	A	A	A	A	A	A	A	A
PARROTT, STANLEY	A	A	A	A	P	P	A	P	P	P
PARRY, JACKSON	A	A	A	A	A	A	A	A	A	A
PERKINS, GRETE	A	A	A	A	A	A	A	P	P	P

NAME	1/9 '92	2/20 '92	3/26 '92	4/29 '92	5/6 '92	10/15 '92	10/29 '92	11/12 '92	12/3 '92	12/17 '92
PETTY, KIM	A	A	A	A	A	A	A	A	A	A
PETTY, PAT	A	A	A	A	A	A	A	A	A	A
PRICE, JUDY	P	A	A	A	A	A	A	A	A	A
RANSY, DENIS	A	P	P	A	P	A	A	A	A	A
RAUCHENSTEIN, RENAMARY	P	P	P	P	P	A	A	A	P	A
RICHARDSON, JEFF	A	A	A	A	A	A	A	A	A	A
RIDLING, SUE	A	A	A	A	A	A	A	A	A	A
ROBINSON, JEFFREY	A	A	A	A	A	A	A	A	A	A
ROBINSON, PAM	A	A	A	A	A	A	A	A	P	P
ROBINSON, ROGER	A	A	P	A	A	P	A	P	P	A
SALASKY, SHOO	A	A	A	A	A	A	A	A	A	A
SAYRE, CARI	A	A	A	A	A	A	A	A	A	A
SEIBERT, BOB	A	A	A	A	A	A	A	A	A	A
SHELDON, ROBERTA	P	P	P	P	P	P	P	P	P	P
SMITH, DOUG	A	A	A	A	P	P	P	A	P	P
SMITH, TED	A	A	A	A	A	A	A	A	A	A
SOUSA, GERALD	A	A	A	A	A	A	A	A	A	A
STASIK, MARK	A	A	A	A	A	A	A	A	A	A
STEVENS, MYRON	A	A	A	A	A	A	A	A	A	A
STONE, JIMMY	A	A	A	A	A	A	A	A	A	A
STONE, LINDA	A	A	A	A	A	A	A	A	A	A
SULLIVAN, KATHY	A	A	A	A	A	A	A	A	A	A
SWED, J.D.	A	A	A	A	A	A	A	A	A	A
TERSTEGGE, LYNN	A	A	A	A	A	A	A	A	A	A
THEODORE, HERBERT	A	A	A	A	A	A	A	A	A	A
TOBIASON, SHANNON	A	A	A	A	A	A	A	A	A	A
TRUMP, NANCY	A	A	A	A	A	A	A	A	A	A
VALENTINE, CHAD	A	A	A	A	A	A	A	A	A	A
VOLPE, GERI	A	A	A	A	A	A	A	A	A	A
WEISNER, JERE	A	A	A	A	A	A	A	A	A	A
WETTANEN, ART	P	A	A	P	P	A	A	A	P	A
WILDERMUTH, MARK	A	A	A	A	A	A	A	A	A	A

NAME	1/9 '92	2/20 '92	3/26 '92	4/29 '92	5/6 '92	10/15 '92	10/29 '92	11/12 '92	12/3 '92	12/17 '92
WOLF, ELLEN	P	P	P	P	P	P	P	A	P	P
WOLLER, KIM	A	A	A	A	P	A	A	A	A	A
WOLLER, WAYNE	A	A	A	A	A	A	A	A	A	A

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1991

NAME	1/24 '91	2/21 '91	3/6 '91	3/20 '91	'3/27 '91	4/3 '91	4/10 '91	4/17 '91	4/24 '91	5/1 '91	9/26 '91	11/7 '91	12/4 '91
ANDERSON, TIM	A	A	A	A	A	A	A	A	A	A	A	A	A
AULMAN, ERIN	A	A	A	A	A	A	P	P	A	P	A	A	P
BALE, NANCY	A	A	A	A	A	A	A	A	A	A	A	A	P
BRATTON, PAUL	A	A	A	A	A	A	A	A	A	A	A	A	A
BROCKE, DEBORAH	A	A	A	A	A	A	A	A	A	A	A	A	P
CIKANEK, BOBBYE	A	A	A	A	A	A	A	A	A	A	A	A	A
CORREIRA, LINDA	A	A	A	A	A	A	A	A	A	A	A	A	P
DENKWALTER, GERI	P	P	A	A	A	A	A	A	A	P	A	A	A
DUNN, RITA	P	A	A	A	A	A	A	A	A	P	P	A	A
DUNN, ROD	A	A	A	A	A	A	A	A	A	P	P	A	A
DENNY, JOHN	A	A	A	A	A	A	A	A	A	A	A	A	P
DOLECKI, SUSAN	A	A	A	A	A	A	A	A	A	A	A	A	P
EBLING, ELINORE	P	P	P	P	A	A	A	P	P	A	P	A	A
FAUROT, MICHELE	A	A	A	A	A	A	A	A	A	A	A	A	P
FINEBERG, RICHARD	A	A	A	A	A	A	A	A	A	A	A	A	P
FISHER, MICHAEL	A	A	A	A	A	A	A	A	A	A	A	A	P
FITZGERALD, BILLY	A	A	A	P	P	P	A	A	A	A	A	A	P
FLEMING, KATHLEEN	P	P	P	A	P	P	A	P	P	A	P	P	P
FOSTER, PEG	A	A	A	A	A	A	A	A	A	A	A	A	P
GREER, JORDON	A	A	A	A	A	A	A	A	A	A	A	A	P
HENRY, MARY LOU	A	A	A	A	P	P	P	P	P	P	A	A	A
HOLCOMB, SCOTT	A	A	A	A	A	A	A	A	A	A	A	A	P
HUDSON, CLIFF	A	P	A	A	A	A	A	A	A	A	A	A	A
HUDSON, CHUCK	A	A	A	A	A	A	A	A	A	A	A	A	P
HUMPHREYS, PECOS	A	A	A	A	A	A	A	A	A	A	A	A	P
JENNE, GENE	P	P	P	P	P	P	P	P	P	P	P	P	P
JENNE, ROSE	A	P	P	P	P	P	A	P	P	P	A	P	P
JOHNSTON, DAVE	A	A	A	A	A	A	A	A	A	A	A	A	P

NAME	1/24 '91	2/21 '91	3/6 '91	3/20 '91	'3/27 '91	4/3 '91	4/10 '91	4/17 '91	4/24 '91	5/1 '91	9/26 '91	11/7 '91	12/4 '91
JOHNSTON, GALEN	A	A	A	A	A	A	A	A	A	A	A	A	P
KEEFE, DONALD	A	A	A	A	A	A	A	A	A	A	A	A	P
KELLARD, JIM	P	P	P	P	A	P	P	P	P	A	P	A	A
KELLARD, SUZY	P	P	P	P	P	P	P	P	P	P	P	P	A
LANGHAM, JOHN	A	A	A	A	A	A	A	A	A	A	A	A	P
LEAVITT, KEN	A	A	A	A	A	A	A	A	A	A	A	A	P
LEE, DON	P	A	A	A	A	A	A	A	P	A	A	A	A
LONG, BECKY	A	P	A	A	A	A	P	A	A	A	A	A	A
LOWE, PAPPY	A	A	A	A	A	A	A	A	A	A	A	A	P
MACIOLKE, KRISTA	P	A	A	A	A	A	A	A	A	A	A	A	P
MAHAY, KRIS	P	A	P	A	A	P	A	A	A	A	A	A	A
MAHAY, STEVE	P	A	A	A	A	A	A	A	A	A	A	A	A
MANNIX, ART	P	P	A	A	A	A	A	A	A	A	A	A	A
MANNIX, BARBARA	P	P	P	A	P	A	A	P	A	P	P	A	P
MANNIX, CHRIS	A	A	A	A	A	A	A	A	A	A	A	A	A
MANNIX, KAREN	A	A	A	A	A	A	A	A	A	A	A	A	A
MOORE, BOB	A	A	A	A	A	A	A	A	A	A	A	A	P
MOORE, KANDACE	A	A	A	A	A	A	A	A	A	A	A	A	P
OKONEK, BRIAN	A	A	A	A	A	A	A	A	A	A	A	A	P
OKONEK, DIANE	A	A	A	A	A	A	A	A	A	A	A	A	P
OKONEK, JULIE	A	A	A	A	A	A	A	A	A	A	A	A	A
PAGE, JOE	P	P	P	A	P	A	P	P	P	P	A	A	A
PARROTT, MARY	A	A	A	A	A	A	A	A	A	A	A	A	P
PARROTT, STANLEY	A	A	A	A	A	A	A	A	A	A	A	A	P
PERKINS, GRETE	A	A	A	A	A	A	A	A	A	A	A	A	P
PETTY, KIM	A	A	A	A	P	A	A	A	A	A	A	A	A
PETTY, PAT	P	A	A	A	P	A	A	A	A	A	A	A	A
PRICE, JUDY	A	A	A	A	A	A	A	A	A	A	A	A	A
RANSY, DENIS	A	P	P	A	A	A	P	A	A	A	A	A	A
RAUCHENSTEIN, RENAMARY	P	P	A	A	A	A	A	A	A	A	P	A	A
RIDLING, SUE	A	A	A	A	A	A	A	A	A	A	P	A	A
ROBINSON, JEFFREY	A	A	A	A	A	A	A	A	A	A	A	A	P

NAME	1/24 '91	2/21 '91	3/6 '91	3/20 '91	'3/27 '91	4/3 '91	4/10 '91	4/17 '91	4/24 '91	5/1 '91	9/26 '91	11/7 '91	12/4 '91
ROBINSON, PAM	P	P	P	P	P	P	P	P	P	A	A	A	A
ROBINSON, ROGER	P	P	P	P	A	P	A	P	P	P	P	P	P
SALASKY, SHOO	A	A	A	A	A	A	A	A	A	A	A	A	P
SAYRE, CARI	A	A	A	A	A	A	A	A	A	A	A	A	P
SEIBERT, BOB	P	P	P	P	A	A	A	P	P	P	A	A	A
SHELDON, ROBERTA	P	P	P	P	A	P	P	P	P	P	P	P	P
SMITH, DOUG	A	A	A	A	A	A	A	A	A	A	A	A	A
SMITH, TED	A	A	A	A	A	A	A	A	A	A	A	A	P
SOUSA, GERALD	A	A	A	A	A	A	A	A	A	A	A	A	P
STASIK, MARK	A	A	A	A	A	A	A	A	A	A	A	A	P
SULLIVAN, KATHY	P	A	A	A	A	A	A	A	A	A	A	A	A
TERSTEGGE, LYNN	A	A	A	A	A	A	A	A	A	A	A	A	P
TOBIASON, SHANNON	A	A	A	A	A	A	A	A	A	A	A	A	P
TRUMP, NANCY	A	A	A	A	A	A	A	A	A	A	A	A	P
VOLPE, GERI	A	A	A	A	A	A	A	A	A	A	A	A	P
WEISNER, JERE	A	A	A	A	A	A	A	A	A	A	A	A	P
WETTANEN, ART	P	P	A	A	A	P	P	P	P	P	A	A	P
WILDERMUTH, MARK	A	A	A	A	A	A	A	A	A	A	A	A	P
WOLF, ELLEN	A	A	A	A	A	A	A	A	A	A	P	A	P
WOLLER, KIM	A	A	A	A	A	A	A	A	A	A	A	A	A
WOLLER, WAYNE	A	A	A	A	A	A	A	A	A	A	A	A	P

TALKEETNA COMPREHENSIVE PLAN ADVISORY COMMITTEE
ATTENDANCE RECORD
1989-1990

NAME	5/9 '89	9/11 '89	9/26 '89	10/25 '89	11/29 '89	1/31 '90	3/21 '90	4/25 '90	5/23 '90	11/7 '90	12/5 '90
ADAMS, GLEN	A	A	A	A	A	P	A	A	A	A	A
AISENBREY, DAVID	A	A	A	A	A	P	A	A	A	A	A
AISENBREY, EVELYN	A	A	A	A	A	P	A	A	A	A	A
ALDRICH, RONALD	A	A	P	P	P	P	A	A	A	A	A
ANDERSON, ROGER	A	A	A	P	P	P	A	A	A	A	A
AULMAN, ERIN	P	A	A	P	P	A	A	A	A	A	A
BERRYMAN, GERALD	P	A	P	P	P	P	A	A	A	A	A
BERRYMAN, SHERRY	A	A	A	A	P	P	A	A	A	A	A
DENKWALTER, GERI	A	A	A	P	P	P	P	A	A	P	A
DUNN, RITA	P	A	P	P	A	P	P	P	P	A	P
DUNN, ROD	P	A	P	P	A	A	P	P	P	A	A
EBLING, ELINORE	P	A	A	A	P	P	A	A	A	A	A
EVANS, J. T.	P	A	A	A	A	A	A	A	A	A	A
FLEMING, KATHLEEN	A	A	P	P	P	A	P	P	P	P	A
GROTHE, LEE	P	A	A	A	A	A	A	A	A	A	A
HOSKINS, MARTY	A	A	A	A	A	P	A	A	A	A	A
JENNE, GENE	A	P	P	P	P	A	P	P	A	P	A
JENNE, ROSE	A	A	P	P	P	P	P	A	P	P	A
JOHNSTON, DAVE	A	A	A	P	A	A	A	A	A	A	A
KALISCH, CINDY	A	A	P	P	A	A	A	A	A	A	A
KALISCH, KRAIG	A	A	P	P	A	A	A	A	A	A	A
KASO, KATHLEEN	P	A	A	A	A	A	A	A	A	A	A
KELLARD, JIM	P	P	P	P	A	A	P	P	P	P	P
KELLARD, SUZY	P	A	P	P	P	A	P	P	P	P	P
KOMIS, BRYAN	A	A	A	P	A	A	A	A	A	A	A
LANGNER, LINDA (STONE)	A	A	P	P	A	A	A	A	A	A	A
LANKFORD, KELLY	A	A	A	P	P	P	A	A	A	A	A
LANKFORD, STEVE	A	A	A	A	A	P	A	A	A	A	A
LEE, DON	A	A	P	A	P	A	A	P	A	A	A
LONG, BECKY	P	A	P	P	P	A	P	A	P	A	A

NAME	5/9 '89	9/11 '89	9/26 '89	10/25 '89	11/29 '89	1/31 '90	3/21 '90	4/25 '90	5/23 '90	11/7 '90	12/5 '90
LUTHMAN, VERNON	A	A	P	A	A	P	A	A	A	A	A
MACIOLKE, KRISTA	P	A	A	P	P	A	P	A	A	P	P
MAHAY, KRIS	A	A	P	A	P	A	A	A	A	A	A
MAHAY, STEVE	A	A	P	A	A	A	A	A	A	A	A
MANNIX, ART	A	A	A	A	P	P	A	P	A	P	A
MANNIX, BARBARA	A	A	P	P	P	A	A	A	A	P	A
MANNIX, KAREN	A	P	A	P	P	A	A	A	A	A	A
MINCHER, T. RAY	A	A	A	A	A	P	A	A	A	A	A
MOORE, KANDACE	P	A	P	P	P	P	A	A	A	A	A
MOORE, ROBERT	A	A	A	A	P	P	A	A	A	A	A
NELSEN, SUSAN	A	A	A	A	P	A	A	A	A	A	A
NICHOLS, DOROTHY	A	A	A	A	A	P	A	A	A	A	A
OKONEK, DIANE	A	A	P	A	A	A	A	A	A	A	A
PAGE, JOE	A	P	P	P	P	P	A	P	A	A	P
PETERSEN, ART	A	A	A	A	P	P	A	A	A	A	A
PETERSEN, SARAH	A	A	A	A	P	P	A	A	A	A	A
PETTY, KIM	A	A	P	A	P	A	A	A	A	A	A
PETTY, PAT	A	A	A	A	P	A	A	A	A	A	A
PIRONE, JOAN	A	A	A	P	A	A	A	A	A	A	A
PIRONE, NICHOLAS	A	A	A	P	A	P	A	A	A	A	A
RANSY, DENIS	P	A	P	P	P	A	A	A	P	A	A
RAUCHENSTEIN, RENAMARY	A	A	P	A	P	A	P	P	A	P	A
ROBINSON, PAM	A	A	P	P	P	A	P	P	P	A	A
ROBINSON, ROGER	A	A	P	P	P	A	P	P	A	A	A
ROMANO, JOSE	A	A	A	P	A	P	A	A	A	A	A
SAYRE, CAROLYN	A	A	P	P	A	A	A	A	A	A	A
SEIBERT, BOB	A	A	A	A	A	P	A	A	A	A	P
SHADE, CATHERINE	A	A	A	A	A	P	A	A	A	A	A
SHADE, JIM	A	A	A	A	P	A	A	A	A	A	A
SHELDON, ROBERTA	A	P	P	P	P	P	P	P	P	A	P
STEVENS, MYRON	A	P	A	A	A	A	A	A	A	A	A
STONE, JIMMY	P	A	A	P	A	A	A	A	A	A	A

NAME	5/9 '89	9/11 '89	9/26 '89	10/25 '89	11/29 '89	1/31 '90	3/21 '90	4/25 '90	5/23 '90	11/7 '90	12/5 '90
SULLIVAN, KATHY	A	A	P	P	A	A	A	A	A	A	A
THOMAS, BRENDA	P	A	P	A	P	P	A	A	A	A	A
THOMAS, CARL	P	A	P	A	A	A	A	A	A	A	A
TOMLINSON, CLIFF	P	A	A	P	A	P	A	A	A	A	A
VALENTINE, CHAD	A	A	P	P	A	P	A	A	A	A	A
WATTS, JOHN	A	A	A	A	A	P	A	A	A	A	A
WATTS, MERILEE	A	A	P	A	A	A	A	A	A	A	A
WEST, FLOYD	A	A	P	A	A	P	A	A	A	A	A
WETTANEN, ART	A	A	A	A	A	P	A	A	A	A	A
WOLF, ELLEN	P	A	P	P	P	A	A	A	A	P	P

APPENDIX C

TALKEETNA AREA COMMUNITY SURVEY

As a means of involving the largest possible number of Talkeetna area citizens in the planning process, a detailed socioeconomic survey was developed and carried out in July 1990. Many of the survey findings have been incorporated into the recommendations made in this comprehensive plan.

In all, 128 questions were asked. They covered a range of topics, including why people live in the Talkeetna area, where they came here from and why they have stayed; where they live and in what type of housing; opinions on the proposed National Park Service visitor center and multiple use forest management; local use of wood products; participation in recreation activities; ratings of community facilities and services plus organizations serving the Talkeetna area; opinions on municipal incorporation, historic preservation and zoning; shopping patterns; plus questions relating to household size, household income, and the age, gender, occupation and race of each person interviewed.

A sample of 100 households was surveyed. This number was deemed to be more than adequate to obtain a good gauge of community opinion. At the same time, it has the advantage of reflecting both actual numbers and percentages, thus avoiding the need for conversion between whole and relative numbers.

After the field work was completed, the answers to each question were coded in order for the survey to be computer tabulated. In addition, twelve key questions which had been asked in the survey were selected to be run as cross-tabulations. This was done so that the answers to any given question could be more fully analyzed and a better understanding gained as to which groups of people tended to answer in a certain way or to have certain opinions. The questions selected for cross-tabulation related to the age, sex and occupation of each person interviewed, household size and household income; home location, length of residency and reasons for staying in the Talkeetna area; and opinions on several key issues facing the community. These related to the proposed National Park Service visitor center, multiple use forest management, municipal incorporation and zoning.

The survey results indicated that the majority of respondents to the questionnaire had lived in the Talkeetna area over ten years (56%) with another 35% living in the area over three years to ten years. Residents moved to Talkeetna from other areas in Alaska (61%) and from the lower United States (37%). The reasons given for moving to Talkeetna included employment, family, and remoteness of the town. The reasons for staying in Talkeetna included employment, the small town atmosphere, and liking it.

Most of the respondents live in either single family housing (82%) or in trailers/mobile homes (13%). Household size is generally between one to three persons (69%).

Nearly all the respondents were white (98%) aged between 30 to 49 years old (62%) and 50 to 65+ years old (30%). The separation between male and female was nearly evenly split (51% to 49% respectively).

Income level for the respondents was evenly divided between three income categories: below $20,000 at 29%, 20,000 to 50,000 at 29% and over $50,000 at 18%. Nearly one quarter of the respondents choose not to answer this question (24%). When asked to list their occupations the most frequent categories were professional/technical (38%), services (17%), housewife (12%), retired (10%), and clerical/sales (7%).

Several questions asked residents how they felt about the level of service of various services. Overall responses noted that road maintenance was the one service felt to be most in need of improvement, with snow removal on roads the second area of concern. Borough roads were rated as good/acceptable by 34% of the respondents, while 66% felt the roads were bad. Most comments directed at the roads noted the need for grading and regular maintenance. Solid waste collection was the third area noted as most in need of improvement. Those services that the respondents felt were good/acceptable include: emergency medical (96%), library (95%), fire protection (90%), police (89%), parks and recreation (67%), elementary and high school (62%), garbage (63%), snow removal (51%), and road service (48%). The State operated airport was given a good/acceptable rating by 93% of the respondents, while the village airstrip was noted as a safety concern by 72%. The boat launch was rated as good/acceptable by only 34% of the respondents. Most comments indicated that the launch was inadequate for the number of users. The rail service was rated as good/acceptable by 74% of the respondents.

Service organizations were also evaluated and most respondents felt that they were doing a good to fair job, with the lowest scores for the Matanuska-Susitna Borough (49%) and the Road Service area (51%). Other organizations and their ratings for good/fair were, in decreasing order: historical society (87%), VFW (73%), Chamber of Commerce (71%), Community Council (61%), and school (60%).

Several questions asked respondents how they felt about community growth. When asked about the possibility of Talkeetna incorporating as a city, only a slight majority (52%) were in favor of it. An over whelming majority (93%) were in favor of preserving the historic structures of Talkeetna for historic reasons and for tourist appeal. When asked if they were in favor of creating an historic district, only a slight majority indicated approval (65%). When asked if they were in favor of zoning, 42% indicated they were in favor, 46% indicated they were opposed, and 12% didn't know. Those in favor of zoning felt that it would control development, protect property, and maintain the town character. Those respondents opposed to zoning felt it would be too restrictive and there would be a loss of individual freedom.

Respondents were asked how they felt about the National Park Service's proposed visitor center and whether it would be good or bad for Talkeetna. The results were evenly split between good (47%) and bad (47%). Those feeling the project would be good for Talkeetna felt the impacts would be good for business/economy (25%), create more jobs (6%), and other reasons (11%).

Those respondents not in favor of the proposed project felt the impacts would be too large/too many people (26%), too much change (13%), and too much traffic (3%). When asked how to mitigate the traffic the project would generate, most respondents favored some form of shuttle bus (15%), parking at the visitor center (14%), road improvements (19%), and other measures like limiting traffic in town, creating loop in town, RV parking, or pedestrian trails/paths.

The Matanuska-Susitna Borough has identified an area east of Talkeetna as being suitable for multiple use forest management. When asked if respondents felt this would be good/bad for Talkeetna, over half (52%) felt it would be bad, 32% felt it would be good, and 16% had no opinion. Those opposed to the forestry management cited the incompatibility with tourism (11%), against commercial logging (14%), and preference to leave area as it is (13%). When asked if there was anything which would change their opinion, 17% responded no, while others felt if it was small scale only (5%), no clear cutting (5%), or other (14%). A majority of respondents used local timber products in 1990 for firewood (65%) and nearly one quarter (24%) used timber for house logs.

Several questions were asked to determine what kinds of activities and the frequency of activities participated in by area residents. The most popular activity that was sometimes or often engaged in was reading by 99% of the respondents, listening to music (95%), visiting (95%), watching videos (91%), walking (92%), fishing (87%), carpentry (80%), boating (72%), watching television (73%), swimming (66%), sewing (63%), snowmobiling (61%), cross country skiing (60%), target shooting (60%), and hunting (55%).

Other questions asked where Talkeetna residents did their shopping and business. Most respondents went to either Wasilla (98%), Anchorage (93%), or Palmer (72%) for their shopping needs.

Although the/this survey was not a random sample survey and the results cannot be generalized to the entire community, the survey provided an opportunity for additional public participation in the planning process.

APPENDIX D

TALKEETNA POPULATION CHARACTERISTICS, 1990 U.S. CENSUS

The 1990 U.S. census is the most current compilation of population data for the Talkeetna area. The 1990 census counted a population of 250 people in the Talkeetna Census Designated Place (CDP), which closely corresponds to the west and east townsite areas. In order to count the greater Talkeetna planning area's population for purposes of this comprehensive planning effort, another 207 people living in the surrounding area were added to the CDP population, giving the planning area a total population count of 557 people. By 1994 Talkeetna's population has grown to an estimated 651 people. Population characteristics are not believed to have significantly changed from the 1990 census, therefore the following sociological profile has been prepared based on the 1990 U.S. census.

As can be seen from the data in Table D-1, the population in Talkeetna's planning area is predominately white (96%) with Indian/Eskimo/Aleut comprising the remaining 4% of the population. Males out-number females, 56% to 44%. By comparison, the state of Alaska has a greater diversity of races, with 75% white and 25% black/Indian/Eskimo/other, and a more even distribution of sex, 53% male to 47% female.

The majority of the population (60%) in the Talkeetna area is within the middle age group, aged 25-59 years. The next most populous age group is children under eighteen years old, at 32% of the population. This is similar to the state-wide percentages of 62% for middle-aged residents and 31% for children.

There are few young adults aged 18-24 (3%) in Talkeetna. This is lower than the state-wide percentage of 10% for the over-all state's population. This scarcity of young people probably reflects the loss of young adults who pursue education or jobs elsewhere. This is typical of small rural communities where higher educational facilities are lacking or where job opportunities are limited.

Eight percent of the population in Talkeetna is over sixty years old, slightly higher than the state-wide average of 6.4%. A comparison of age groupings for Talkeetna for 1980 and 1990 is shown in Table D-2. The median age in Talkeetna is 34.9 years, slightly older than the state of Alaska's median age of 29.4 years.

Talkeetna's population is well-educated with 91% attaining a high school degree or higher, and 9% having a college degree or higher. Within the state of Alaska, 87% of the population has a high school or higher degree and 23% have college degrees.

Several statistics on households show differences in Talkeetna as compared to the rest of Alaska. Households are defined by the U.S. census as either "family" or "non-family". Family households are defined as a householder and other persons related by birth, marriage, or adoption living together. Non-family households are either single persons living alone or unrelated individuals living together.

Population characteristics presented in Table D-1 are given for the Talkeetna townsite core area,

the entire planning area, which includes the townsite core area and the surrounding area, and for comparison purposes, the state of Alaska, as reported in the 1990 census.

TABLE D-1

SOCIOLOGICAL PROFILE, 1990 U.S. CENSUS
TALKEETNA CORE, TALKEETNA PLANNING AREA, STATE OF ALASKA

CHARACTERISTIC	CORE AREA		PLAN AREA		STATE OF ALASKA	
	Pop.	%	Pop.	%	Pop.	%
SEX						
Male	144	57.6	310	55.7	289,867	52.7
Female	106	42.4	247	44.3	260,176	47.3
RACE						
White	246	98.4	535	96.1	550,043	75.5
Black	0	0	0	0	22,451	4.1
Indian/Eskimo	4	1.6	22	3.9	85,698	15.6
Other	0	0	0	0	26,402	4.8
AGE						
Under 18 yrs	71	28.4	177	31.8	172,344	31.3
18-59 yrs	156	62.4	332	59.6	342,433	62.3
60+	23	9.2	48	8.6	35,266	6.4
MEDIAN AGE	34.9		34.9		29.4	
HOUSEHOLDS BY TYPE						
Total Households	114	100	224	100	188,915	100
Family	55	48.3	132	58.9	132,837	70.3
Non-Family	59	51.7	92	41.4	56,078	29.7
PERSONS PER HOUSEHOLD	2.19		2.49		2.80	
HOUSING TYPES						
Total Housing Units	168	100	344	100	232,608	100
1-Unit, Detached	124	73.8	279	81.1	124,185	53.4
Other/Multi	0	0	0	0	83,721	36.0
Mobile, Trailer	44	26.2	65	18.9	24,702	10.6
HOUSING TENURE						
Occupied Units	114	67.9	224	65.1	188,915	81.2
Vacant Units	54	32.1	120	34.9	43,693	18.8
Owner Occupied	75	65.8	156	69.6	105,989	56.1
Renter Occupied	39	34.2	68	30.4	82,926	43.9

Source: U.S. Bureau of the Census, 1990
Family, defined as householder and others related by birth, marriage, or adoption. Non-family, defined as unrelated persons or one person living along.
Note: Plan area includes core area plus outlying area.

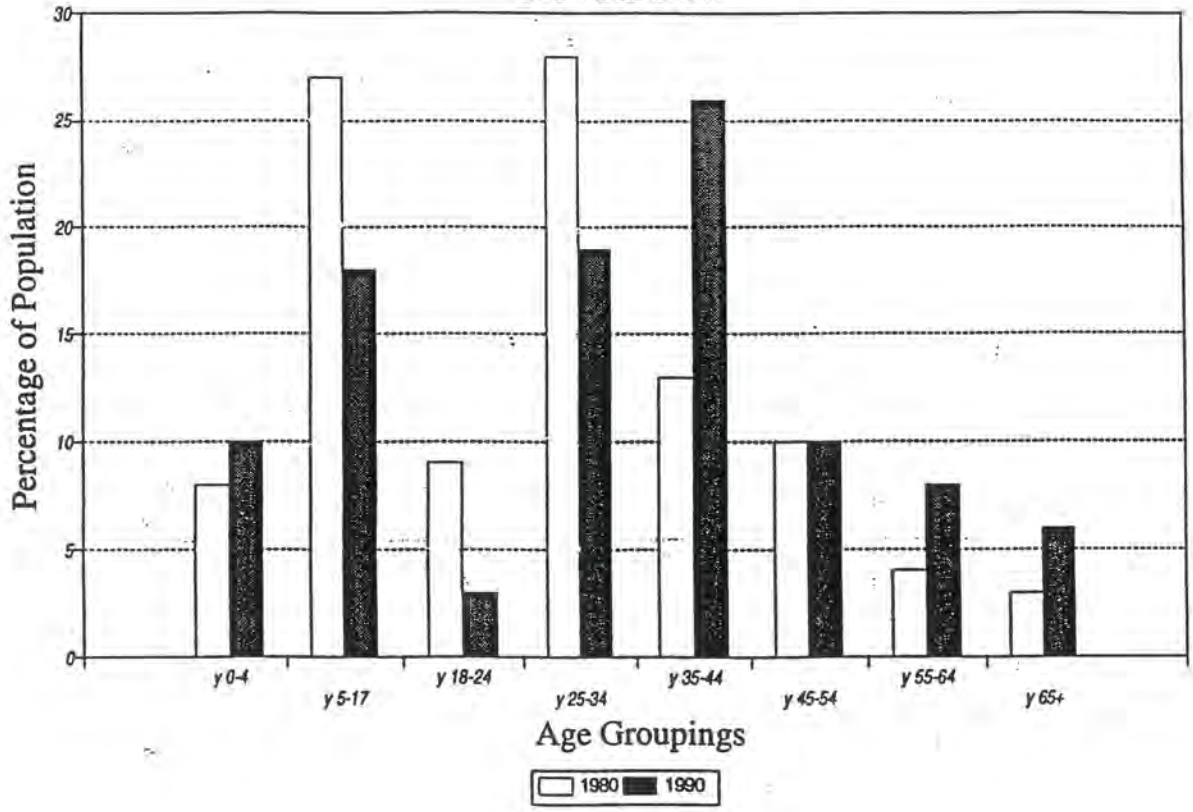
Within the state there are 70% family households and 30% non-family households, whereas in Talkeetna there are 59% family households to 41% non-family households. This percentage of non-households is greater in the Talkeetna townsite area where non-households represent over half (52%) of all households.

The persons-per-household average is 2.8 for the state of Alaska, while in Talkeetna there is a lower persons-per-household average of 2.5. The townsite area has an even lower person-per-household average of 2.19.

Length of residence is slightly longer in the Talkeetna townsite core area than for the rest of the state. Eleven percent of the population in Talkeetna lived in the same housing unit from 1969 or earlier. In the state of Alaska, 8% has lived in the same house in 1969 or earlier. This continuity of residence is also reflected in a 1990 borough community survey. In that survey the majority (56%) of the respondents reported to have lived in the area for over ten years, with another 35% living in the area between three to ten years.

Within the Talkeetna planning area, slightly more than half of the population (55%) lives outside the east and west townsite areas, as counted by the census. Of those living in the townsite areas, a few more people (136) live in the east townsite than in the west (114). Fewer children live in the west townsite area than in the east townsite area or the outlying area. When the total number of households is examined, it is apparent that the population in the west townsite area is older and includes more single people without children. This is not surprising since the west townsite is the oldest part of town.

TABLE D-2
TALKEETNA AGE GROUPINGS
1980 and 1990



Technical Note:
In 1990 the U.S. Census instituted a new methodology for surveying the population and for differentiating population units within the survey. Block Numbering Areas (BNA's), Block Groups (BG's), Census Designated Places (CDP's), and Blocks (B) were used to map the population. BNA's reflect the largest areas surveyed, while Blocks represent the smallest areas.

Talkeetna is located in BNA #9744 which extends from Caswell to Trapper Creek. The Talkeetna townsite core area is in a Census Designated Place (CDP) composed of blocks. In order to arrive at a population that closely matched the planning area, the Matanuska-Susitna Borough Planning Department used computerized census block data and special computer software to delineate the planning area and its corresponding population. BNA #9744 was massaged to eliminate the areas around Caswell and Trapper Creek and to only reflect the planning area. The Talkeetna CDP was used to represent the townsite core area. Both areas combined give the totals for the planning area.

Summary Tape File 1A (STF1A) and Summary Tape File 3A (STF3A) for U.S. Census 1990 were used for population characteristics. STF1A is based on a 100 percent sample of all residents, while STF3A is extrapolated from partial sample data; therefore minor discrepancies in totals may arise.

APPENDIX E
TALKEETNA ECONOMIC PROFILES, 1980 AND 1990

Information on Talkeetna's economic base for 1980 and 1990 have been compiled from the U.S censuses. Comparisons between the two decile censuses show interesting changes in Talkeetna's economy. According to the U.S. census conducted in 1980, 60% of the employed population in Talkeetna's labor force worked in the private sector, while 40% of the employed population worked in the public sector. The private sector employed people in the retail trade industry, the guiding and tourism industries, and at COMSAT communication station (Bartlett satellite earth station). Of the 60% of the employed population in the private sector, 17% were self-employed.

By 1990, a greater share of Talkeetna's employed labor force (69%) worked in the private sector, while 31% worked in the public sector, according to the 1990 census. Of those employed in the private sector in 1990, nearly half (31%) were self-employed, a noticeably higher percentage than the 17% that were self-employed in 1980.

In 1980 over one-third (36%) of the population was employed in the trade and service industries, nearly one-third (28%) was employed in the public administration sector, 14% was employed in the professional/education services sector, and 12% was employed in the transportation industry. Other industries represented by employment were the manufacturing industry employing 4% and agriculture/fishing/forestry employing 5% of the labor force, see Table E-1. By occupation nearly one-half (44%) of all employed workers were either technicians, sales clerks, or clerical/administrative support personnel.

In order to profile Talkeetna's 1990 industries and occupational work force, three different sources were compared: the 1990 U.S. census, a detailed employment survey conducted by the Matanuska-Susitna Borough in 1989, and the local knowledge of the comprehensive plan's advisory board.

During a review of the 1990 census it was noticed that at the time of the census count, a major water and sewer project was under construction in Talkeetna, and consequently, the construction industry and labor force statistics were inflated for that industry. Table E-2 shows the 1990 U.S. census figures for employed person 16+ years by industry.

According to the 1990 census, approximately 70% of the planning area's population is persons 16 years and older, which is considered the eligible labor force for the area. Of this labor pool, two-thirds are in the employed labor force (66%) while one-third is not (34%). Those not actively participating in the labor force could be either older persons over 60 years of age (11% of the population), young teens (10% of the population), mother with children at home (41%), or people unable to work.

In 1990, there was 30% of the population employed in the trade and services industries, 24% employed in the construction industry reflecting the major construction work underway, 20% employed in public administration, and 16% employed in professional and related services. By occupation nearly one-quarter (24%) of the employed work force was in service occupations, 15% were in administrative support occupations, 12% were managerial, 11% were professional specialty occupations, and 11% were machine operators.

TABLE E-1
EMPLOYED PERSONS 16+ YEARS BY INDUSTRY
1980 U.S. CENSUS
Talkeetna Enumeration District

INDUSTRY	# EMPLOYED	PERCENT
Agriculture/Fish/Forest/Mining	6	5.0
Construction	-	-
Manufacturing, Nondurable, Durable Goods	5	4.0
Transportation	15	12.0
Communications and Other Pub Utilities	-	-
Trade, Wholesale and Retail	36	28.5
Services: Finance, Business, Repair, Personal Services, Recreation, Entertainment	10	8.0
Professional and Related Services:		
Health Services	-	-
Education Services	10	8.0
Other Professional and Related	8	6.0
Public Administration	36	28.5
TOTAL	126	100

Source: U.S. Bureau of the Census, 1980

TABLE E-2
EMPLOYED PERSONS 16+ YEARS BY INDUSTRY
1990 U.S. CENSUS
Talkeetna Planning Area

INDUSTRY	# EMPLOYED	PERCENT
Agriculture/Fish/Forest/Mining	15	7.0
Construction	54	24.0
Manufacturing, Nondurable, Durable Goods	7	3.0
Transportation	-	-
Communications and Other Pub Utilities	-	-
Trade, Wholesale and Retail	37	17.0
Services: Finance, Business, Repair, Personal Services, Recreation, Entertainment	29	13.0
Professional and Related Services:		
Health Services	-	-
Education Services	17	8.0
Other Professional and Related	17	8.0
Public Administration	43	20.0
TOTAL	219	100

Source: U.S. Bureau of the Census, 1990

Because the 1990 census data seemingly inflated the construction industry statistics, it was necessary to compare this data with a 1989 survey collected by the Matanuska-Susitna Borough. Table E-3 shows adjusted industry data for those residents that work within the area. The 1989 survey did not query commuter workers, so it is not possible to determine the industries where these workers are employed.

According to the 1989 Matanuska-Susitna Borough survey and the 1990 U.S. census, of the 220 persons employed in the work force in 1990, 144 residents (65%) work within the area, while 76 residents (35%) work outside the area.

TABLE E-3

EMPLOYED PERSONS 16+ YEARS BY INDUSTRY
1990 U.S. CENSUS and MSB 1990 SURVEY
Talkeetna Planning Area

INDUSTRY	# EMPLOYED	PERCENT
Agriculture/Fish/Forest/Mining		
Construction		
Manufacturing, Nondurable, Durable Goods		
Transportation	33	23.0
Communication and Other Pub Utilities	10	7.0
Wholesale and Retail Trade and Services	63	44.0
Professional and Related Services Health Education Other Professional Public Administration	38	26.0
SUBTOTAL RESIDENT WORK FORCE	144	100
TOTAL RESIDENT WORK FORCE	144	65.0
TOTAL COMMUTER WORK FORCE	76	35.0
TOTAL	220	100

Source: 1990 U.S. Bureau of the Census and 1989 Matanuska-Susitna Borough Survey

According to the 1989 Matanuska-Susitna Borough's survey there are sixty-three residents, nearly half (44%) of the resident work force, employed in the trade and service industries which services the tourism industry, and thirty-three residents, nearly one quarter (23%), employed in the transportation industry which also predominately services the tourism industry.

Future economic activity in Talkeetna will probably reflect conditions throughout the state. Economic forecasts prepared by the Alaska Department of Labor predict that Alaska's over-all economy will continue to grow at a 2.2% annual growth rate in 1994 and at a 1.3% annual

growth rate through 1995. According to the Labor department, the state has averaged a 2% annual growth rate since 1990 and predicts this growth rate will drop slightly in the next few years. They predict that the retail and services sectors will be the leading sources of job gains state-wide.

Other projections, prepared by the Institute of Social and Economic Research (ISER) in Economic Projections for Alaska and the Southern Railbelt: 1993-2020, predict a slower growth rate for the state. According to ISER, the state's employment rate is projected to grow at less than 1% (0.7%) annually for the remainder of the decade, 0.8% annually between 2000 to 2010, and 1.2% annually thereafter. Their forecast is based on the assumption of continued competitiveness of Alaska's export industries, as well as the downsizing of state and local governments in response to reduced petroleum revenues. Their projections also predict that growth in real income will be lower than the historic levels because of the slower growth in jobs, the continuing shift toward lower wage industries, and declining government payments to individuals.

For this comprehensive plan a 1% annual growth rate is used as the "base" case for employment growth in Talkeetna, and a higher growth rate of 2% is used as the "high" case. Historically Talkeetna's employment base grew at a 5.4% annual average between 1980 to 1990. Within the last decade there was an additional 94 persons in the employment sector, rising from 126 employed persons in 1980 to approximately 220 employed persons in 1990. It is not known whether these employment positions are in the local job market or represent commuter jobs.

In order to achieve a 1% annual employment growth rate, Talkeetna will need to generate an additional 28 jobs within the next decade to year 2005, or an additional two jobs per year, see Table E-4. If Talkeetna would achieve a higher employment growth rate of 2%, there would need to be an additional 71 jobs in the labor force by year 2005, or approximately 4 to 7 jobs per year, see Table E-4.

TABLE E-4
EMPLOYMENT PROJECTIONS
1990 to 2010
Talkeetna Planning Area

YEAR	BASE 1% # EMPLOYED	HIGH 2% # EMPLOYED
1980	126	126
1990	220	220
2000	238	265
2005	248	291
2010	258	319

APPENDIX F

TALKEETNA HOUSING
CURRENT AND PROJECTED

Talkeetna's housing is predominately single-family dwelling units with about 2.5 persons average per household. The most recent housing count for Talkeetna is derived from the special census conducted by the Matanuska-Susitna Borough in 1994. This census counted a total of 135 housing units in the townsite (west and east areas) with a population of 287 persons. Of the 135 housing units counted, there were 118 single family housing units, representing 87% of all housing units, and 17 mobile homes/trailers, representing 13% of all housing units. No multi-family units were counted. There were 18 single-family units that were vacant, yielding a vacancy rate of 15%. No mobile homes/trailers were vacant.

Compared to the 1990 U.S. census, the 1994 borough census counted slightly more population in less housing units, see Table F-1. The differences can be explained by the use of dissimilar geographic survey areas.

TABLE F-1
Population and Housing Units
Talkeetna Townsites and Greater Planning Area
1990 and 1994

	Townsite Core			Greater Plan Area		
	Population	Housing	P.P.H.	Population	Housing	P.P.H.
1990 U.S. Census	250	168	2.19	557	344	2.49
1994 MSB Census	287	135	2.45	NA	NA	NA

P.P.H. = persons per household (population divided by occupied housing units)
Source: U.S. Bureau of the Census, 1990
Matanuska-Susitna Borough, 1994 Census

The 1994 borough census did not sample the planning area in the same detail as the townsite areas, therefore current housing data for the planning area is not available. The most recent housing data for the planning area is the 1990 U.S. census.

According to the 1990 census, there was a total of 344 housing units in the planning area (comprising the townsite areas and the outlying area), of which nearly half, 168 units (49%), were located in the townsite areas and another half, 176 units (51%), were located outside the townsite areas.

Housing stock in the planning area was similar to the housing found in the townsite areas, which was predominately single-unit detached housing (81%) and mobile homes/other (19%). There was no multi-unit housing counted in the outlying area by the 1990 census.

In comparison with the state of Alaska there is a greater diversity of housing types in the state as compared to Talkeetna, probably reflecting the multi-unit housing variety found in the larger cities. According to the 1990 census, 53% of Alaska's housing units are single-unit detached, while there are 36% multi-unit types and 10.6% mobile/other units.

In 1990, 65% of all housing units in the Talkeetna planning area were occupied, while 35% were considered vacant and unoccupied, see Table F-2. Of the housing units counted as vacant, 60% were considered residences for either seasonal, recreational, or occasional use. In 1994 the borough counted 135 housing units in the townsite, of which 117 were occupied, for a occupancy rate of 87% and a vacancy rate of 13%.

TABLE F-2
HOUSING UNITS
Talkeetna Core Area and Planning Area

	1994 CORE AREA		1990 PLANNING AREA*	
	UNITS	%	UNITS	%
Total Units	135	100	344	100
Occupied	117	87	224	65
Vacant	18	13	120	35
		% of vacant		% of vacant
Seasonal/occasional			73	61

* Planning area includes core area and outlying area
Source: 1990 U.S. Bureau of the Census
1994 Matanuska Susitna Borough Special Population Census

According to the 1990 census, 70% of the housing units that were occupied in the Talkeetna planning area were owner-occupied, while 30% were renter-occupied. State-wide averages in 1990 for owner-occupied housing units were lower, at 56% owner-occupied and 44% renter-occupied.

Median value of owner-occupied units in the planning area was $50,500, while the townsite areas had a slightly lower valuation of $47,900. In comparison, median value of Anchorage housing was double at $109,800 and Wasilla's was $82,300 and Palmer's was $54,300, according to the 1990 census.

The age of housing stock in the Talkeetna townsite area was found to be older than most housing in the borough. Over one-quarter (28%) of the townsite's homes were built prior to 1960, one-quarter (26%) were built since 1980, and nearly one-half (42%) of all housing units were built

between 1970 to 1979. There was little building activity in the Talkeetna townsite area during the early 1960's, with only 3% of the homes being built during that period.

Housing age in the outlying planning area is noticeably more recent than the townsite housing. Nearly half (46%) of all housing units in the outlying area were built between 1980 to 1990. During the 1970's, there was little housing construction activity occurring (15%) in the outlying area and before 1970 only 18% of the homes were constructed. See Table F-3.

This is different than the borough's southern regional housing activity. In the southern region of the borough, two-thirds (67%) of its housing construction occurred between 1980 to 1990.

It is interesting to note that there is a nearly equal number of homes in both the townsite area (11.4%) and the outlying area (12%) that were built prior to 1939. By comparison, the borough-wide average of homes built before 1939 is much lower at 2%.

Based on data from the 1990 U.S. census, over-all housing stock in the planning area is relatively new, as 65% of the all homes were built since 1970.

TABLE F-3
Year Residential Structure Built
Talkeetna, Alaska

Year Structure Built	Core Area Number	%	Outlying Area Number	%	Combined Number	%
1985 to March 1990	14	8.0	43	23	57	16
1980 to 1984	32	18.3	43	23	75	21
1970 to 1979	74	42.3	27	15	101	28
1960 to 1969	6	3.4	39	21	45	12
1950 to 1959	11	6.3	7	4	18	5
1940 to 1949	18	10.3	4	2	22	6
1939 to earlier	20	11.4	22	12	42	12
TOTAL	175*	100	185*	100	360*	100

* = Sample data
Source = U.S. Bureau of the Census, 1990

Talkeetna's population is well-established in their homes. Over half (54%) of the population were settled prior to 1984 and the other half (46%) moved into their residences since 1985. Within the few years before the 1990 census less than ten percent (9%) of the population were new residents.

A comparison of length of residence with other select locations is shown in Table F-4. This table shows that whereas half of Talkeetna's townsite area population moved into their residences prior to 1985, only one-third of Palmer, Wasilla and Anchorage's population did likewise.

TABLE F-4
Year Householder Moved Into Home
Talkeetna and Select Locations, 1990

Year Householder Moved In	Percent of Householders			
	Talkeetna	Palmer	Wasilla	Anchorage
1989 to March 1990	9.0	36.8	39.0	37.7
1985 to 1988	37.0	31.2	29.2	31.0
1980 to 1984	34.0	11.8	20.1	17.6
1970 or earlier	20.0	20.2	11.7	15.8
TOTAL	100.0 (N=238)	100.0 N=998)	100.0 (N=1,410)	100.0 (N=82,702)

N = Estimated number based on sample.
NOTE: Figures do not add up to 100% due to rounding error.
Source: U.S. Bureau of the Census, MSB Core Area Comprehensive Plan

At the time of the 1990 census only a small percentage, 3%, of Talkeetna's housing in the planning area was serviced by public water and sewer. The majority (72%) of homes had individual drilled wells as their source of water. One-quarter (25%) of the homes in the area had "other" sources of water rather than the public system, or wells. Current water and sewer connections are discussed under the Public Utilities and Services Plan, Chapter 6.

Septic tanks or cesspools were used by a majority (62%) of all homes in the planning area for their sewage systems. Thirty-five percent of the homes in the planning area had "other" types of sewage systems. One-third (34%) of the housing units in the planning area lacked complete plumbing facilities.

Nearly one-half (47%) of the occupied homes in the planning area use wood as their source of home heating, and another half (46%) use fuel oil, kerosene, etc. Only a small percentage of homes (6%) use electricity or bottled gas for heating.

Based upon population projections prepared for this plan, it is estimated that by the year 2000 an additional 50 to 100 more housing units will be needed in the planning area to meet residential demand, see Table F-5. This estimate is based upon a 2.5 persons-per-household average. The fifty additional housing units would be needed if the area's population grows at a 2% annual rate. This percentage growth rate is half the actual growth that has been occurring in the planning area in the last ten years. If the planning area grows similar to the last ten years, at a 4% annual average, then there will be a need for approximately 100 additional housing units by the year 2000.

These same growth rates, 2% and 4%, were used to estimate the housing need to the year 2010. Based on a 2% annual average growth rate and a 2.5 persons-per-household unit, there will be a need for approximately 110 additional homes by the year 2010. Based on a 4% annual average growth rate, there will be a need for 265 housing units in the planning area within the next twenty years.

It is assumed that the majority of this housing will be either single-unit detached structures or mobile units, as this is the predominate housing in Talkeetna. It is anticipated that these single-unit structures will be on individual lots. Some multi-unit housing may be provided, but it is not anticipated to be statistically significant.

The national and state-wide trend towards smaller families may also be felt in Talkeetna. If the rate for person-per-household should decrease, then additional housing may be needed. Estimating housing demand using a 2.0 person-per-household rate, it is forecasted that by year 2000, there may be a need for 60 to 135 housing units, based on a 2% and 4% growth rate, respectively. This demand is slightly higher than the 2.5 persons-per-household demand by about 10 to 35 housing units.

Estimating housing demand to the year 2010 using a 2.0 persons-per-household rate, there will be a need for 135 to 330 housing units, based on a 2% and 4% annual average growth rate, respectively. This estimate is higher than the 2.5 persons-per-household rate by about 35 to 65 housing units.

TABLE F-5
Current and Projected Housing Demand
Talkeetna Planning Area
1990, 2000 and 2010

	2% Growth 2.5 P.P.H.	2% Growth 2.0 P.P.H.	4% Growth 2.5 P.P.H.	4% Growth 2.0 P.P.H.
1990 Population	557	557	557	557
Housing Units	344	344	344	344
2000 Population	679	679	824	824
Housing Units	393	405	451	477
2010 Population	828	828	1220	1220
Housing Units	452	479	609	675

P.P.H. = persons-per-household

APPENDIX G
SOILS IN TALKEETNA PLANNING AREA

Soils underlying the entire Talkeetna townsite, the western half of east Talkeetna, and west of the Talkeetna Spur Road nearest the Susitna River are Susivar/Niklavar and Susivar/Moose complex soils. Table G-1, Soil Type Characteristics, summarizes the characteristics of the major soil series in the Talkeetna planning area. The Susivar/Niklavar and Susivar/Moose soils are generally found adjacent to active river channels and in level floodplains. They are fine sandy silt loams that are somewhat poorly drained with moderate permeability in the surface stratified layer becoming rapidly drained in the underlaying sand and gravel layer.

Susivar/Niklavar and Susivar/Moose are subject to frequent flooding and have high water tables (20-40 inches from the surface). The water tables intrude into the permeable sand and gravel layer creating the potential for water well contamination from septic drainfields. The soils also have severe limitations for developments like homesites, roads, and cropland due to potential stream bank erosion and flooding. Any land clearing will increase the hazard of wind erosion, therefore developments should minimize soil displacement, leave vegetative cover or quickly replace the cover, and/or retain wind breaks.

Although these soils are listed as having severe limitations for development, proper engineering can enable development to occur. A case in point is the east and west townsite areas. Although these areas are within an active floodplain and have a shallow water table, the community has countered these site constraints by constructing flood and erosion protection structures and installing a public water and sewer system. The community established a flood control service area and is participating in the National Flood Insurance Program. Participation in this program requires permits from the borough to ensure that new construction within the flood hazard area meets certain requirements.

Directly above the floodplains in the lower stream terraces, the Susitna soil series predominates. This soil is found around the airport and the eastern section of the east townsite. The Susitna soil is a well-drained silt loam to a depth of five feet, above a very gravelly sand substrata. Permeability in the sand strata is rapid, similar to the Susivar series. The water table is lower than the Susivar series; generally below five feet. Development limitations are not as severe as the Susivar series. Flooding is rare, though possible, making for moderate limitations on site developments. Frost action becomes a development related factor. Wind erosion is possible if the top layer of organic mat and vegetation is removed.

The predominate soil series along the Talkeetna Spur Road extending to the foothills of the Talkeetna Mountains is the Nancy soil series. Intermixed with the Nancy series is the Tokositna series and a Nancy-Tokositna complex. These soils are well drained silt loams with a low water table, generally below five feet. The Nancy series has a gravelly substrata that begins only one-two feet below the surface. This gravel strata has a rapid permeability which may allow effluent from septic systems to pollute the water table, if housing concentrations become dense.

The Tokositna series has a different soil profile from the Nancy series, which makes it less susceptible to groundwater contamination, but also not as permeable. Below its top two foot layer of silt loam lies a cobbly/sandy loam which has a moderately slow absorption rate. Septic drain fields can be expected to function poorly in this soil type due to its restricted permeability. A management option for development in this soil type, if contamination problems arise, would be to increase the size of the septic absorption area in order to compensate for the soil's restricted permeability.

Both the Nancy and Tokositna soil types can occur anywhere within the level outwash plains all the way to the steep and sloping ridges in the Talkeetna foothills. Slopes can range from nearly level to 60%. The steeper the slope the more severe the development limitations. The design and construction of buildings and roads should take into consideration the slope and compensate for their steepness. Frost action is likely in these soils. Building footings should be installed below the frostline. When building roads the silty surface layer may need to be removed and a special base substituted to prevent frost heave damage.

Interspersed between the various soil series, located in the depressions and bog areas, is the Histosol series. This soil is generally known as peat and mucky peat. It is a very poorly drained soil with a high water table at or near the surface, generally located within 10 inches of the surface. This soil type has severe limitations for development and cropland due to its wetness and low soil strength. It is generally considered "wetlands" and subject to the U.S. Army Corps of Engineers' determination for wetlands. Based upon the Corps' determination, mitigating measures may be necessary prior to any development.

Beginning in the foothills and back slopes of the Talkeetna Mountains is the Talkeetna soil series. This soil type is well drained with a low water table, generally located below five feet. Because of its steepness of slope and length of slopes, it has severe limitations for development. Water runoff is rapid creating a potential for erosion. The soil is also susceptible to wind erosion, frost action, and restricted permeability. This soil series has a good substrata useful as a source for roadfill.

Located on the escarpments and between the rock outcrops of the Talkeetna Mountains, where slopes are in excess of 30%, is the Cryorthods soil series. This series, like the Talkeetna series, has severe limitations for development due to its steep slopes, rapid water runoff, wind erosion, and restricted permeability.

These soil descriptions represent the major soil types located within the Talkeetna planning area. Other minor soil types are also present, such as Talkeetna-Deneka association, Goldcord-Tsadaka complex, Kidazqeni-Niklason complex. On-site evaluations are necessary in all cases to determine specific soil types.

TABLE G-1

SOIL TYPE CHARACTERISTICS

SOIL TYPE	SLOPE	DRAINAGE	PERMEABILITY	ORGANIC MAT ON SURFACE	DEPTH TO WATER TABLE	HAZARDS OF EROSION	HAZARDS OF FLOODING	MANAGEMENT CONSIDERATIONS
SUSIVAR/NIKLAVAR	0-4%	Poor	Moderate	0-3"	10-40"	Severe if organic mat removed	Frequent	Severe limitations for cropland due to wetness and flooding; severe limitations for homesites and roads due to bank erosion and flooding
SUSITNA	0-2%	Well drained	Moderate	1-3"	>60"	Severe if organic mat removed	Rare	Moderate limitations for cropland due to flooding and late summer precipitation; severa limitations for homesites and roads due to flooding
NANCY, LEVEL TO UNDULATING	0-3%	Well drained	Moderate	1-3"	>60"	Severe if organic mat removed	None	Moderate limitations for homesites due to wind erosion, frost action, and excessive permeability
NANCY, SLOPING TO MODERATELY STEEP	2-12% 12-35%	Well drained	Moderate	1-4"	>60"	Severe if organic mat removed	None	Moderate to severe limitations depending on slope and due to excessive permeability of substratum, frost action, erosion
NANCY, STEEP AND SLOPING	20-60%	Well drained	Moderate	2-6"	>60"	Severe if organic mat removed	None	Severe limitations due to steepness of slopes. Cutbacks subject to slumping
TOKOSITNA, SLOPING AND MODERATELY STEEP	2-12% 12-35%	Well drained	Moderate	2-4"	>60"	Severe if organic mat removed	None	Moderate to severe limitations due to steepness, erosion, restricted permeability, frost action
TOKOSITNA, STEEP AND SLOPING	20-26%	Well drained	Moderate	1-4"	>60"	Severe if organic mat removed	None	Severe limitations due to steepness of slopes.
HISTOSOLS	0-7%	Very poorly drained	Moderate or moderately rapid	16-60"	0-10"	Slight	None	Severe limitations due to wetness and low soil strength
TALKEETNA	15-45%	Well drained	Moderate	1-4"	>60"	Severe if organic mat removed	None	Severe limitations due to steepness of slopes
CRYORTHODS	30-37%	Well to excessive	Variable	1-5"	>60"	Severe if organic mat removed	None	Severe limitations due to steepness of slopes

Source: U.S. Department of Agriculture, Soil Conservation Service

VOLCANIC-ASH-AFFECTED SOILS OF SOUTHCENTRAL ALASKA: SOME CHEMICAL AND MINERALOGICAL PROPERTIES

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For some time agriculturalists have known that Alaskan soils are usually low in available phosphorus, and require frequent and substantial fertilization in order to produce satisfactory crop yields. Recently, phosphorus fixation was discovered in soils of the lower Kenai Peninsula (9). That discovery was not unexpected since in such acidic soils phosphorus commonly combines with iron and aluminum forming insoluble compounds. More recent investigations, however, suggest that phosphorus fixation was probably due to the presence of allophane, an amorphous gel of silica and aluminum hydrous oxides ($Al_2O_3 \cdot SiO_2 \cdot nH_2O$) which carries both negative and positive charges.

Since the phosphate ion is negatively charged, it is believed to be attracted to the positively charged sites on the allophane particle thus becoming unavailable to plants. Other negatively-charged, essential plant nutrients may be similarly attracted to allophane (including nitrate, chloride, sulfate, boron, and molybdate); however, phosphate fixation has been studied more than fixation of other nutrients. Problems with the phenomenon have been reported in several areas on the Pacific Rim, including Chile, New Zealand, Japan, and Hawaii.

Allophane in Alaskan Soils

Reports of volcanic ash deposits in certain Alaskan soils were given by Capps (2) and Kellogg and Nygard (7). Simonson and Rieger (12) identified volcanic ash deposits in profile descriptions of Kachemak silt loam, Kodiak silt loam and Island very fine sandy loam soils. They also indicated that allophane was a predominant clay-sized mineral in the island soil and suspected that the same was true for the Kodiak and Kachemak series.

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Our own laboratory evidence suggests that allophane affects phosphorus availability in the Kachemak series. Table 1 shows the effects of phosphorus adsorption on the cation exchange capacity (CEC) of the Kachemak series under four different types of vegetation. As phosphorus applications increased, CEC and adsorbed P also increased. Since CEC is a measure of the net negative charge on soil particles and this increased with the adsorption of negatively charged phosphorus ions, it was concluded that phosphorus ions were effectively cancelling positively charged sites on the allophane particles.

These findings agree with those of Mekura and Vehara (8) in Hawaii and those of Schalscha, *et al.* (11) in Chile. In both of those reports, scientists were studying soil formed from volcanic parent materials. For the Kachemak soils, each millimole of phosphate adsorbed increased the CEC an average of 0.91 milliequivalents compared to 0.8 and 0.6 for the Hawaiian and Chilean soils, respectively. Translated to field conditions, that would indicate that for each 100 lbs of P adsorbed by the Kachemak soil there would be a corresponding increase in that soil's capacity to hold either 114 lbs of potassium (K^+) or 39 lbs of ammonium (NH_4^+) on the cation exchange complex.

Measuring Allophane Content of Soils

Precise measures for allophane content in soil are not presently available. However, deVilliers (5) reported a qualitative estimation method based on observations that amorphous aluminum and silica are more soluble in an alkaline solution (0.5 M NaOH) than their

Table 1. The effect of phosphorus adsorption on cation exchange capacity in Kachemak silt loam under four vegetation types.

Organic matter %	Soil pH	P Added	P Adsorbed	CEC	Change in CEC	Change in CEC/ P adsorbed
		(mmole/100 g)		(meq/100 g)		(meq/mmole)
			Alder			
27	3.95	0		24.8		
		10	4.9	30.4	5.6	1.14
		20	9.3	32.8	8.0	0.86
		40	13.2	40.4	15.6	1.18
			Spruce			
24	4.55	0		23.2		
		10	7.4	29.6	6.4	0.86
		20	13.2	31.6	8.4	0.64
		40	18.2	37.2	14.0	0.77
			Fireweed			
21	4.60	0		19.6		
		10	6.5	27.2	5.6	0.86
		20	11.9	28.2	8.6	0.72
		40	16.6	30.4	10.8	0.65
			Bluejoint			
16	5.10	0		14.0		
		10	5.7	23.6	9.6	1.47
		20	9.6	26.8	12.8	1.08
		40	12.7	26.0	12.0	.72
				Overall Average		0.91

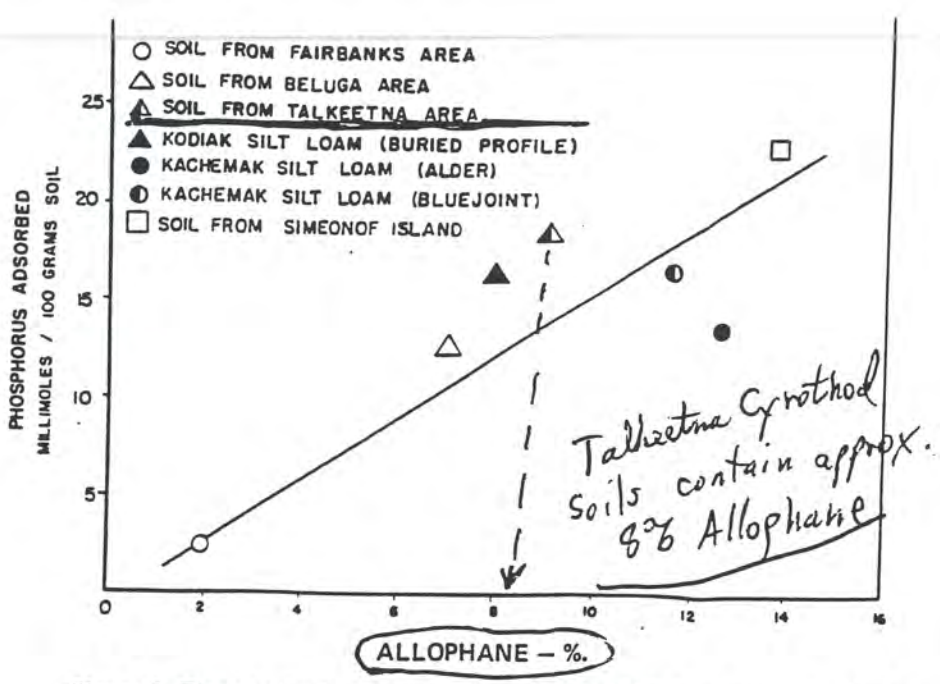

Figure 1. The relationship between the estimated allophane content and the amount of phosphorus adsorbed by seven Alaskan soils.

be one of the major consider
when evaluating Alaska's potentia
cultural areas which were recently estimated to be about 21,110 square miles (1). □

Acknowledgments

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crystalline counterparts. Figure 1 shows the relationship between the estimated allophane and the amount of phosphorus adsorbed by seven Alaskan soils. These data indicate that generally the highest phosphorus fixation occurred among the allophanic soils.

Soils of southcentral Alaska (Figures 2 and 3), the Alaska Peninsula and the Aleutian Islands (3) have been affected variously by volcanic activity. Also, in about 100-600 A.D. a rather extensive ash fall covered a sizeable area of eastern Alaska and adjacent Yukon territory, (Capps 2 and Fernald 6). There are much older ash layers which are usually buried in soil profiles of the Interior, such as in the Fairbanks area (10). Thus, the surface soil at Fairbanks (Figure 1) had a low allophanic content and an insignificant phosphorus fixation capacity. A number of soils were tested from various locations in Alaska for phosphorus adsorption capacity. Curiously, a soil sample from the most recent ash fall on Kodiak Island had a relatively low phosphorus adsorption response in this test (Figure 4). It may be that either weathering or accumulations of organic matter contribute significantly to the phosphorus fixation capacity of volcanic ash.

If the relative adsorption capacities of those soils (Figure 4) are reasonable indexes to their phosphorus fertility requirements, it is possible that phosphate fertilizer costs could vary several-

Figure 2. Examining an exposed ash layer in an Alaskan soil profile.

Table H - 1

GAME HARVEST BY SPECIES
GAME MANAGEMENT UNIT 14B
1987 - 1993

	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Moose	111	38	31	0*	53	34
Dall Sheep	9	15	12	4	8	9
Brown Bear	9	4	7	1	7	5
Black Bear	11	13	11	**	14	15
Beaver	65	42	20	16	96	67
Otter	4	0	2	0	9	4
Wolf	0	0	0	0	0	4
Wolverine	***	2	0	0	4	2
Caribou	#	#	#	#	22	34

* Season closed.
** Data not available.
*** No data.
\# Between 1989-1991, between 11-29 caribou were harvested in Unit #14B.
Source: Alaska Department of Fish and Game

Table H - 2

FISH HARVEST BY SPECIES
Clear Creek, Prairie Creek and Other Talkeetna River Tributaries
1979-1993

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
King Salmon	312	172	373*	450*	934*	1122*	829*	908*	1639*	1762*	2372*	2358*	2025*	3338*	4729*
Silver Salmon	1248	661	422	996	836	1334	707	3376	2608	2929	2775	2539	3435	5531	5830
Red Salmon	31	6	29	115	534	599	478	1597	580	1110	617	1506	1280	1356	2560
Pink Salmon	645	622	19	220	73	611	120	399	272	182	379	130	135	394	486
Chum Salmon	355	385	57	31	650	337	299	799	1032	1255	626	197	356	562	181
Rainbow Trout	1373	950	1226	608	1836	910	832	1234	869	1110	822	1109	1076	665	242
Dolly Varden	827	751	1418	1069	1962	1521	1248	2396	2680	2146	1719	2369	1171	1647	971
Grayling	1045	1348	996	943	1553	1335	1613	3049	2481	1000	1063	605	617	383	471
Whitefish	n/a	n/a	n/a	n/a	n/a	n/a	105	363	272	146	46	319	78	55	17
Burbot	9	32	0	0	84	0	0	0	145	55	9	67	88	211	310
Other	64	32	38	10	126	49	0	0	0	0	0	0	0	31	0
TOTAL	5909	4959	4578	4442	8588	7818	6231	14121	12578	11695	10428	11199	10261	14173	15797

* Includes Jack (Small salmon less than 16")
Source: Alaska Department of Fish and Game

ALASKA CLIMATOLOGICAL DATA

HISTORICAL[1]

GEOGRAPHICAL LOCATION	RECORD[2]		GROWING SEASON[3] (DAYS)		AVERAGE AIR TEMPERATURE						AVERAGE PRECIPITATION					
Station Name	Max/Min	Length	Average	Range	May	June	July	Aug	Sep	Season	May	June	July	Aug	Sep	Total
MATANUSKA VALLEY																
Anchorage Airport	86/-38	72	136	113-170	46.7	54.5	58.1	56.2	48.3	52.8	0.63	1.04	1.90	2.52	2.64	8.73
Matanuska AFES	91/-41	74	112	80-140	47.0	54.7	57.8	55.5	47.6	52.5	0.74	1.50	2.50	2.40	2.42	9.56
Palmer AFES	87/-38	42	119	82-158	46.8	54.5	57.4	55.2	47.7	52.3	0.68	1.35	2.24	2.35	2.42	9.04
Alaska Plant Mat. Ctr.	85/-45	17	100	83-114	47.9	55.0	58.0	55.6	47.6	52.8	0.61	1.42	2.31	1.77	2.33	8.44
Point MacKenzie	*		*	* *	*	*	*	*	*	*	*	*	*	*	*	*
Talkeetna Airport	91/-53	73	102	71-129	45.1	54.8	58.2	55.0	46.0	51.8	1.46	2.40	3.54	4.57	4.24	16.21
Wasilla 3 S	90/-50	38	106	52-126	47.7	55.1	58.8	56.5	48.7	53.4	0.88	1.59	2.57	2.63	2.78	10.45
TANANA VALLEY																
Big Delta Airport	92/-63	49	105	44-137	47.0	57.1	60.0	55.4	44.2	52.7	0.89	2.47	2.56	1.94	1.15	9.01
Clearwater	93/-72	27	56	6- 98	45.8	55.6	58.4	53.4	42.3	51.1	1.03	2.52	2.83	1.92	1.35	9.65
Eielson Field	93/-64	47	110	75-140	47.7	58.4	59.3	55.9	43.4	52.9	0.73	1.69	2.40	2.26	1.42	8.50
Fairbanks Airport	96/-66	65	113	75-145	48.6	59.8	61.0	56.5	45.1	54.4	0.59	1.34	1.83	1.84	1.06	6.66
UAF Exp. Stn.	99/-65	87	96	72-123	47.9	58.6	60.9	56.1	45.0	53.7	0.69	1.78	1.74	2.23	1.24	7.68
KENAI PENINSULA																
Homer Airport	81/-24	59	117	80-160	42.7	49.2	53.2	53.1	47.5	49.1	1.06	0.99	1.51	2.40	3.08	9.04
Kenai Airport	93/-48	48	102	73-148	43.7	50.2	54.3	53.6	47.0	49.8	1.00	1.18	1.82	2.67	3.30	9.97
OTHER AREAS																
Kodiak Airport	86/-16	49	149	111-205	43.6	49.8	54.1	55.1	50.1	50.5	7.04	4.38	3.93	4.92	7.48	27.75
McGrath Airport	90/-75	49	105	71-132	44.8	55.6	58.5	54.3	44.0	51.4	0.85	1.41	2.17	2.78	2.20	9.41
Juneau Airport	90/-22	42	140	93-189	47.0	53.1	56.0	54.9	49.4	52.1	3.25	3.00	4.06	5.28	6.70	22.29
Haines	98/-14	19	162	121-204	49.6	55.8	58.5	57.2	50.9	54.4	1.69	1.56	1.50	2.59	5.27	12.61

1 All data found under the headings Growing Season, Average Air Temperature, and Average Precipitation are derived from up to 41 years of information (1951-1991) depending on the length of the individual station record.

2 Record max/min air temperatures January 1 - December 31.

3 Growing season is defined as: the number of consecutive days >32°F prior to June 30 of a given year, plus the number of consecutive days >32°F after June 30 of the same year.

* Insufficient data. A minimum of 10 consecutive years of information is required.

Historical data obtained from National Weather Service state climatological records.
Compiled by Patrick V. Mayer, University of Alaska Fairbanks, AFES.

ALASKA SEASON GROWING DEGREE DAYS (Base 40° F.) 1/

Station	May		Jun		Jul		Aug		Sep		Total	
	1992	Avg	1992	Avg	1992	Avg	1992	Avg	1992	Avg	1992	Avg
TANANA VALLEY												
Fairbanks Ap	56	295	600	604	747	712	512	531	0	143	1915	2284
University Exp. Sta.	12	259	573	556	710	668	499	501	0	129	1794	2112
Eielson Field	53	256	588	560	729	660	496	505	0	126	1977	1981
Big Delta Ap	74	232	504	513	667	632	629	490	0	119	1874	1985
Clearwater	7	183	489	464	667	581	620	424	0	50	1783	1701
MATANUSKA VALLEY												
Anchorage Ap	189	212	477	433	605	570	490	506	9	232	1769	1954
PMC-Butte	186	256	459	449	736	558	477	484	0	215	1858	1946
Palmer AES	183	223	459	434	558	547	465	495	0	225	1665	1924
Matanuska Exp. Sta.	167	217	468	425	589	549	484	486	0	214	1708	1891
Wasilla 3S	195	239	477	453	608	590	636	527	9	253	1924	2062
Pt.MacKenzie	213	*	507	*	614	*	507	*	6	*	1845	*
Talkeetna Ap	105	168	483	439	601	574	446	478	0	173	1635	1830
KENAI PENINSULA												
Homer Ap	102	99	369	287	481	424	431	420	84	227	1467	1456
Kenai Ap	99	126	348	313	487	453	437	426	0	194	1371	1512
Kasilof 3 NW	0	60	291	263	459	406	412	383	0	164	1162	1276
OTHER AREAS												
Kodiak Ap	140	117	327	293	477	447	425	466	192	300	1561	1623
Nome Ap	0	0	231	200	372	382	257	330	0	67	860	979
McGrath Ap	0	161	531	472	654	595	474	460	0	112	1659	1800
Juneau Ap	198	229	456	400	527	504	496	477	204	287	1881	1898
Haines Ap	270	267	588	460	589	561	558	524	180	302	2185	2114
Kenny Lake	81	137	447	398	530	525	384	413	0	103	1442	1577

1/ Averages based on Historical records from 1970-1992 when data available. Growing degree days are based on monthly average temperatures.
* Not enough data for average.

MATANUSKA-SUSITNA BOROUGH

ORDINANCE SERIAL NO. 90-020 AM

AN ORDINANCE OF THE ASSEMBLY OF THE MATANUSKA-SUSITNA BOROUGH ADOPTING THE BOROUGH FOREST MANAGEMENT PLAN

BE IT ENACTED:

Section 1. Classification. This ordinance is of a general and permanent nature and shall become part of the Borough Code.

Section 2. The Borough Forest Management Plan (March 1990 edition), as revised by the Planning Department and Planning Commission, is adopted by the Assembly of the Matanuska-Susitna Borough. Those lands designated by the plan as forest management units are classified as forest management units. The legal descriptions of the units are identified within the plan.

Section 3. The definition of Forest Management Lands in Borough Code (13.05.010 B.3) is amended to read as follows:

"Forest management lands" are those lands which, because of physical, climatic and vegetative conditions, are presently or potentially valuable for the production of timber and other forest products. Forest management shall emphasize the multiple use concept. It is the intent of the Assembly that the renewable resources on lands of this classification shall be managed under the sustained yield principle on a long-term basis.

"Multiple use" means the management of all the various renewable surface resources of the Borough's forests so that: they are utilized in the combination

which will best meet the needs of Borough residents, with periodic adjustments in use to conform to changing needs and conditions; some land will be used for less than all of the resources, without impairment of the productivity of the land, and with consideration being given to the relative values of the various resources, not necessarily the combination of uses which will give the greatest dollar return of the greatest unit output.

Section 4. Finding. The Assembly finds that the classification of the proposed management units totalling approximately 138,000 acres will minimize the land rendered unsuitable for agricultural use and minimize the adverse impact on agricultural use within the units on nearby lands.

Section 5. Effective Date. This ordinance becomes effective upon its passage and approval.

Introduction: _____

First Reading: _____

Public Hearing: _____

ADOPTED by the Assembly of the Matanuska-Susitna Borough this 7 day of August, 1990.

Dorothy A. Jones
Dorothy A. Jones
Mayor
Matanuska-Susitna Borough

ATTEST:

Linda Dahl
Linda Dahl
Borough Clerk

ORD NO. 90-020AM
AM NO. 90-071

BOROUGH ASSEMBLY DOCUMENT
CONTROL & AM/IM FORM

Matanuska-Susitna Borough
P. O. Box 1608
Palmer, Alaska 99645-1608

SUBJECT: Borough Forest Management Plan

For Agenda of: March 6, 1990 No. AM90-071

ATTACHMENTS: Ordinance 90-020
Forest Management Plan
Public Comment

Route to:	Dept/Committee/Individual (Please review & return to originator)	Initials	Remarks
1	Planning Director	JD	Originator
	Borough Assessor		
	Public Works Director		
2	Finance Director		
3	Borough Attorney		
4	Borough Manager		
	Mayor		

Introduction The Borough contracted with Resource Management Associates to develop a forest management plan for Borough owned forest lands. In developing the plan the consultants completed an inventory and supply analysis of Borough forest lands, reviewed market/economic options and completed a survey of Borough residents. Copies of the full reports were distributed under separate cover in order to reduce impact on Assembly packet xeroxing. This plan and ordinance is being brought forward for the Assembly's consideration at this time at the request of Assemblyman Levesque.

FISCAL ACTION (TO BE COMPLETED BY FINANCE) FISCAL IMPACT? YES/NO
AMOUNT REQUESTED $ undetermined at this time FUNDING SOURCE
FROM ACCOUNT # PROJECT #
TO ACCOUNT # PROJECT #
VERIFIED BY: CERTIFIED BY:
DATE: DATE: 2-20-90

RECOMMENDED ACTION: The Borough Administration respectfully recommends adoption of the Borough Forest Management Plan and the classification of the seventeen management units as forest management units.

APPROVED BY:
Donald L. Moore
Borough Manager

The proposed Forest Management Plan makes six major proposals:

1) Recommends that approximately 112,000 acres of land within 14 distinct management units be classified as forest management lands; and
2) Recommends that the existing definition of forest management lands within Borough code be revised to allow for the inclusion of wilderness; and
3) Recommends a 5 year timber harvest schedule; and
4) Recommends that not less than 20% of the annual allowable cut (AAC) be made available in harvest units of 160 acres; and
5) Recommends management guidelines for Borough lands adjoining water bodies and streams; and
6) Recommends that notice of sales be mailed to all property owners within 1/4 mile of a proposed sale or the nearest 25 property owners of record.

Discussion The consultants utilized a steering committee to assist in developing recommendations for the plan. The committee was composed of Borough and Anchorage residents, state agencies and members of the development and environmental communities (see attached). The committee unanimously recommended adoption of the proposed plan.

As part of the analysis for the forest plan the Borough's 350,000 acre (approximate) entitlement was reviewed. Of this acreage about 160,000 were found to be forest lands. After conducting a timber type analysis, timber volume analysis, access potential, land status, adjoining land ownership and review of past/existing timber harvest areas a recommendation was made to classify 111,456 acres of land within 14 units as forest management lands. The units range in size from about 30,000 acres to 400 acres. Most of the lands are within the Susitna Basin, north of Willow. Considering these 14 units the Borough's timber supply is assumed to be 1.5 million cubic feet (or 4.5 million board feet). The consultant's report suggests that the Borough's timber supply (considering Borough lands only) is most suited to small to medium sized sawmills.

A telephone survey of 250 households within the Borough was also completed. The majority of the respondents (79%) replied in the affirmative that a timber industry is compatible with other forest dependent uses although most respondents qualified their responses by also stating that proper management and active enforcement were needed. About 75% of all responses indicated that the Borough should dedicate borough owned lands to long term multiple use forest management, including some timber harvesting. Most respondents believe that the industry should pay for the costs of road construction, reforestation and management.

Public Comment Written public comment was obtained and is included with the copies of the reports. The majority of comments oppose the classification of the 111,456 acres of land as forest management lands. The principle reason for opposing the classification is that large scale

timber harvesting will occur, and if it does, the harvesting will have a large negative impact on the existing tourism industry.

In addition to written comments several meetings were held throughout the Borough in conjunction with community council meetings and/or comprehensive plan advisory committee meetings. Comments at meetings held in the Talkeetna, Skwentna and Chase areas are overwhelmingly opposed to classification of the proposed units as forest management lands. Reasons for opposition are: damage to the tourism industry that is based on wilderness areas and damage to fish and wildlife habitats. The Chase and Talkeetna comprehensive plan advisory committees have also requested that no decision be made on those proposed management units in their planning areas until their comprehensive plans are completed. There was some support for allowing the timber on these lands to be used for local personal use firewood and houselogs. Comments from other areas of the Borough: supported the proposed classifications, requested that more land be set aside for settlement and disposals and requested that more lands be set aside for personal use firewood.

Agriculutural Use The classification of the lands as forest management lands will not render the lands unsuitable for agricultural use, rather, utilizing the multiple use concept land may actually be developed for agriculuture particularly grazing. As the site specific management unit plans are completed the actual land set aside for agriculture as well as other uses will be determined. Indeed, Borough Code states that forest management lands are not to be considered lands that render the land unsutiable for future agriculture development. Moreover, classifying the lands as forest management lands will minimize any adverse impact on agricultural use within the units and on nearby lands since the units will be managed under the multiple use concept where all of the various uses of the land are considered. Indeed, Borough Code states that forest management lands are not to be considered lands that render the land unsutiable for future agriculture development.

Agriculture and Forestry Board The Agriculture and Forestry Board has not issued their comments on the plan. The Board is now awaiting comments from the Timber Task Force. Comments from the Timber Task Force are expected to be forwarded in six weeks to four months.

Planning Commission The Planning Commission is expected to issue their recommendation following the closure of their March 5, 1990 public hearing. Public testimony on the plan will also be forwarded after the public hearing has been closed.

Recommendation

1) Classify the 14 units recommended by RMA as forest management units.

2) Modify both the existing definition of forest management lands as well as the RMA recommendation to as follows:

"Forest management lands" are those lands which, because of physical, climatic and vegetative conditions, are presently or

potentially valuable for the production of timber and other forest products. Forest management shall emphasize the multiple use concept.

"Multiple use" means the management of all of the various renewable surface resources of the Borough's forests so that they are utilized in the combination that will best meet the needs of Borough residents; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

3) Modify the timeframe of the proposed 5 year timber schedule to 2 years. Because the amount of Borough forest lands is relatively small adequate notice can be given over a 2 year period.

4) The proposal to set aside 20% of the AAC in units of 160 acres or less was proposed for small scale operators in the event that management agreements were entered into with large operators. In reviewing present timber sales it appears that 160 acre units may not be economical for small operators. It would be better to recommend that if long term forest management agreements are considered that the agreement address how small operators will be provided access to the timber resource.

5) The plan recommends that the stream side and lake shore buffer widths for <u>building</u> development be incorporated into the management plan. These buffer widths are generally 100 feet. Since the Borough code requires a 75 foot waterbody setback it is recommended that the plan incorporate the existing Borough code waterbody setback of 75 feet. The State Forest Practices Act will set regulations regarding the management of the forests along waterbodies.

6) The plan recommends that public notices be mailed to property owners within 1/4 mile of a proposed harvest unit or the nearest 25 property owners of record. It is recommended that the public notice mailings be standardized for all land use actions in the Borough. The current standard is property owners within 600 feet of a proposed site.

7) Classify three additional units as forest management units. These units are: Moose Creek (7,218 acres), Bunco Hills (7,680 acres) and Parks Highway (11,060 acres). With the addition of these three units the total amount of acreage recommended for classification as forest management lands is approximately 138,000 acres.

Depending upon the final recommendation revisions to the Susitna Area Plan and Willow Sub-basin plan may be required.