CHASE COMPREHENSIVE PLAN

2017
ADOPTED

Matanuska-Susitna Borough Planning Department

Photos Courtesy of Matthew McSorley

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CODE ORDINANCE

Sponsored By: Borough Manager
Introduced: 11/07/17
Public Hearing: 11/21/17
Adopted: 11/21/17

MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 17-140

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY AMENDING MSB 15.24.030(B)(7), ADOPTING THE CHASE COMPREHENSIVE PLAN.

BE IT ENACTED:

Section 1. Classification. This ordinance is of a general and permanent nature and shall become a part of the Borough Code.

Section. 2. Adoption of plan. The Assembly hereby adopts the Chase Comprehensive Plan.

Section 3. Amendment of section. MSB 15.24.030(B)(7), is hereby amended as follows:

(7) Chase Comprehensive Plan, adopted 2017.

Section 4. Effective date. This ordinance shall take effect upon adoption.

ADOPTED by the Matanuska-Susitna Borough Assembly this 21 day of November, 2017.

VERN HALTER, Borough Mayor

ATTEST:

LONNIE R. McKECHNIE, CMC, Borough Clerk

(SEAL)

PASSED UNANIMOUSLY: Sykes, Beck, McKee, Leonard, Mayfield, Doty, and Kowalke

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Acknowledgments

MATANUSKA – SUSITNA BOROUGH ASSEMBLY

Vern Halter, Mayor

Jim Sykes, Assembly District 1

Mathew Beck, Assembly District 2

George McKee, Assembly District 3

Steve Colligan, Assembly District 4

Dan Mayfield, District 5

Barbara J. Doty, Assembly District 6

Randall Kowalke, Assembly District 7

PLANNING COMMISSION

Colleen Vague, Chair, District 4

Mary Anderson, District 1

Thomas Healy, District 2

Patricia Chesbro, District 3

Chris Elder, District 5

Stafford Glashan, District 6

Vern Rauchenstein, District 7

DEPARTMENT OF PLANNING AND LAND USE

Eileen Probasco, Planning Director

Jessica Smith, Planning Division Services Manager

Taunnie L. Boothby, Planner II, Project Manager

The original Chase Comprehensive Plan was developed by the Chase Citizens' Planning Advisory Committee with the assistance of Borough staff in the interest of protecting the public's peace, health and safety dated May 5, 1992 and adopted as amended by Matanuska-Susitna Borough Ordinance No. 93-071AM (1).

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The Chase Community Council approved a request to update the comprehensive plan on April 4, 2014. The request was forwarded to the Matanuska Susitna Borough (MSB) on October 13, 2014 and was approved through the Assembly on, April 21, 2015, to begin the update.

The Chase Community Council reconsidered their request following some economic changes at the State and a reevaluation of their current plan. The amended request was for a variance to the normal planning process as outlined in Resolution 09-14(AM) dated April 6, 2009. The MSB Planning Commission granted approval to proceed with the update on June 20, 2016 as stated in Resolution number 16-24. The approved request is for a limited update to the plan of statistical data, reference plans that have completed a public process, and pertains to the Chase Community.

The 2017 plan has incorporated new statistical data with the 1993 plan data. In this process, it was noticed that the table and figure numbers in the 1993 plan had been changed within the quoted citations from the technical paper. In an effort to maintain consistency with the technical paper, the table and figure numbers have been corrected to reflect the numbers from the technical paper. In doing that, it has caused some duplication of table and figure numbers as well as caused the numbers to not be listed numerically within the document. To assist in identifying the appropriate resource document; tables, figures and other items will have the year of the document next to the table or figure number. Additionally, no changes were made to the goals of the plan (pages 78 – 156).

Summary of Changes

Changes to the plan:

- Chase Community Council Approval
- Added Introduction 2017
- Added Preface Background Studies – 2017
- Updated Chase Community Council Area Map
- Updated Location Map
- Removed “The Three Study Areas in Southcentral Alaska for phase Two of the “Resource Uses in new Communities” Project” map
- Updated “Summary of Land Disposals in Study Area Chart
- Updated Historic Sites Chart and Map
- Updated Census Designated Place map
- Updated/removed “Population information and chart
- Updated Employment chart
- Updated Estimated Earned Income chart
- Removed Moose/Caribou Map
- Removed Salmon/Freshwater Fish Map
- Added “Harvest Assessment” section
- Removed several tables and figures in “Harvest Area” section
- Updated Climate chart and graph
- Updated Agriculture Suitability Map
- Added Firewood Harvesting, Natural Hazards and Trails section with map
- Added Susitna Matanuska Area Plan (SMAP), 2011
- Added All Land and Building Values in the MSB by City and Community Council Chart.
- Corrected all cited table and figure numbers that were changed from the Stanek Technical Paper to be consistent with the technical paper.

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Statement of Matanuska-Susitna Borough Policy Regarding the Chase Comprehensive Plan - 1993

1. The Matanuska Susitna Borough planning process is based on local input. The intent is to have comprehensive plans developed by the people so that the land use preferences of the residents may be preserved. In the case of the Chase Plan, we believe that the residents have a right to preserve – to the extent consistent with State and Borough law – their subsistence, wilderness lifestyle.

2. Those affected by the plan must not be led into believing that the plan does things that it is not capable of doing: the plan does not supersede the Susitna Area Plan or the Susitna Forestry Plan as to State lands; Borough classifications and ordinances as to Borough lands; the State Forest Practices Act; Fish & Game regulations regarding activity in anadromous waters; or Borough platting requirements as to all lands, public or private. Its purpose is to provide a database and rationale for zoning decisions. At best the plan can provide a guide for management decisions by public agencies, but it can have no effect on private lands. Only when the plan is implemented by adoption of zoning regulations will it be fully effective.

3. The issues of roads versus trails is simply solved. The planning area should be designated a remote area so that the provisions of MSB 16.20.100.B* will apply. This permits the Platting Board to waive road construction as a condition of plat approval. This should be done as part of the implementation process for those subdivisions established by the State since at the time they were sold, the State was exempt from Borough regulation. The realities of the budget process will work in favor of those who do not wish to encourage road development. With the competition for available road funds, it is unlikely that roads will be constructed over the substantial objections of the residents. Subdivisions can still be platted subject to existing platting and zoning regulations.

4. The questions of carrying capacity of the land and the allowable density are much more difficult. The State policies in the area were driven by a legislative mandate to dispose of 100,000 acres per year with an exemption from Borough regulations. Accordingly, there was little planning for the consequences of establishing city-style subdivisions in remote areas such as Chase. We believe that there is no legal imperative or requirement that the State or Borough guarantee the continued availability of public resources to support a subsistence lifestyle. However, since the problem does exist as a result of government actions, government has a moral duty to solve it if possible. The basic principle that no public resources shall be converted to private use without compensation is sound. State lands belong to all the people of the State, and to convert State resources in the Chase area to private use without appropriate compensation is obviously unfair. The plan recommends

that the State adopt legislation that would permit present owners in the area to supplement their holdings up to a maximum of 40 acres. We agree, and suggest the Borough, in cooperation with the State, could make some or all of its land in the area available, provided that the acquisition is at fair market value. An innovative approach needs to be found for management of forest resources in the area with the objective of supplying a continuing source of fuel wood and house logs, while ensuring reforestation and providing some compensation to the public for the conversion to private use. A multiple use management agreement with a viable entity in the area may be one method. The zoning decisions on parcel size will depend in part on how these questions are answered. It is pointless to attempt to forecast those decisions.

5. Additional residential land disposals in the area should at least be deferred until some of the decisions as to carrying capacity and density are made.

6. The agricultural disposals made in the past suffer from overcontrol of the property. We believe that both the State and Borough will amend the law to permit conveyance of fee title subject to zoning in advance of the sale in organized municipalities or some inclusion of title restrictions where there is no zoning authority. Most of the problems in agriculture have resulted from government rules about how, where and when the farmer can farm. We believe the owner should have the most freedom possible to make how own management decisions and fail or prosper because of them. We would, therefore, oppose a requirement for organic farming only, and feel there should be a moratorium on further sales pending changes in the agricultural program.

* The Codes and Programs of the Matanuska Susitna Borough have changed.

Introduction 1993

This document presents a comprehensive plan for the management and development of lands within the Chase Planning Area as illustrated on the following page. It also makes recommendations with respect to various modes of transportation and the provision of public services within the area.

The Plan was developed with Borough staff assistance by the Chase Citizens' Planning Advisory Committee appointed by the Borough Planning Commission. Residents, land owners and persons with business interest within the planning area were eligible for membership on the Committee.

The Chase area is not road accessible and a majority of the lands are owned by the state of Alaska or the Matanuska-Susitna Borough, and are subject to the management guidelines contained within the Susitna Area Plan. However, over 900 parcels have passed into private control through one or another of the state's disposal programs - including Remote Parcel, Open-to-Entry, agricultural, subdivision, and homestead programs, as well as through state mineral leases and federal patented mining claims. The juxtaposition and dispersion of these diverse holdings within a matrix of publicly owned lands has created a diversity of expectations among the various land holders and a necessity to balance public and private rights to access the area and for use of its resources.

As in any planning process, compromise was needed among the various interests represented on the Planning Committee, and the Committee believes that this Plan represents reasonable accommodation of all existing interests and allows all parties continuing enjoyment of their various properties.

The Plan was developed through an inventory and analysis of existing natural and cultural conditions within the area leading to the development of an overall planning goal which guided the development of the three major elements of the plan - land use, transportation, and public facilities and services. It largely incorporates guidelines set forth in the Susitna Area Plan for the management of state and borough lands within the area while making recommendations for that Plan's amendment and for supplementary regulations.

Introduction 2017

This document is the framework of the 1993 plan with updates to statistical data revisions (i.e. population) and updated referenced plans that pertain to Chase.

The 2017 plan has incorporated new statistical data with the 1993 plan data. In this process, it was noticed that the table and figure numbers in the 1993 plan had been changed within the quoted citations from the technical paper. In an effort to maintain consistency with the technical paper, the table and figure numbers have been corrected to reflect the numbers from the technical paper. In doing that, it has caused some duplication of table and figure numbers as well as caused the numbers to not be listed numerically within the document. To assist in identifying the appropriate resource document; tables, figures and other items will have the year of the document next to the

table or figure number. Additionally, no changes were made to the goals of the plan (pages 78 – 156).

As identified in the 1993 introduction the Chase area is not road accessible and a majority of the lands are owned by the state of Alaska or the Matanuska-Susitna Borough, and are subject to the management guidelines contained within the Susitna Matanuska Area Plan for State Lands, August 2011.

PREFACE BACKGROUND STUDIES

Much of the information included in the Background Studies for the 1993 Comprehensive plan came from the Subsistence Division of the Alaska Department of Fish and Game.

The Harvest and Use of Fish. Game, and Plant Resources by the Residents of Chase. Gold Creek - Chulitna. and Hurricane - Broad Pass. Southcentral Alaska. Ronald T. Stanek, Dan J. Foster, and James A. Fall, Technical Paper No. 161, Alaska Department of Fish and Game, Division of Subsistence, Anchorage, AK, June 1988. Visit http://www.adfg.alaska.gov/techpap/tp161.pdf.

This report is a summary of the results of research conducted by the Subsistence Division concerning patterns of use of fish, game, and other wild resources in three areas illustrated on the following. The first area, Area A on the map, is called Chase-Sherman and is largely contained within the Chase Planning Area including most of the latter's populated area. The second area, Area B, called Gold Creek-Chulitna is also along the Alaska Railroad north of Chase. A small amount of the southern portion of this area is included within the Chase Plan. The third area, Area C, called the Hurricane-Broad Pass Area, is along the Parks Highway between Mileposts 132.8 and 202.1. The material from the study describing the Chase-Sherman area is representative of the Chase Planning Area.

The 2017 Chase Comprehensive Plan update will also reference:

The Harvest and Use of Wild Resources in Cantwell, Chase, Talkeetna, Trapper Creek, Alexander/Susitna, and Skwentna, Alaska 2012. Davin Holen, Sarah M. Hazell, James M. Van Lanen, Joshua T. Ream, Sean P. A. Desjardins, Bronwyn Jones, and Garrett Zimpelman, Technical Paper No. 385, Alaska Department of Fish and Game, Division of Subsistence, Anchorage, AK, February 2014, pages 97-127. http://www.adfg.alaska.gov/techpap/TP%20385.pdf

Matanuska Susitna Borough Hazard Mitigation Plan (2013) – https://www.commerce.alaska.gov/dcra/DCRARepoExt/RepoPubs/Plans/Mat%20anuska-Susitna%20Borough%20Hazard%20Mitigation%20Plan.pdf

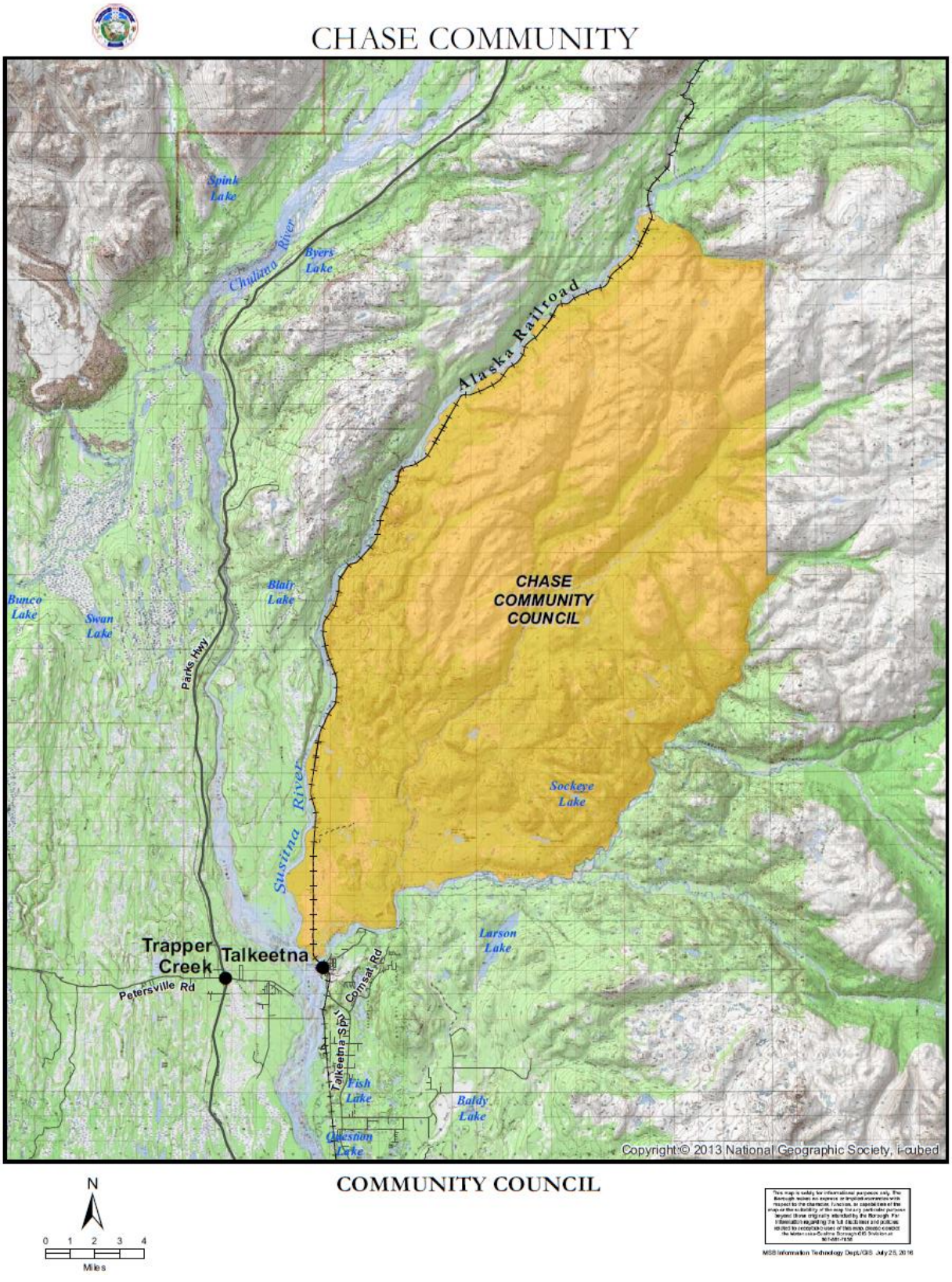

Figure 1 (2017)

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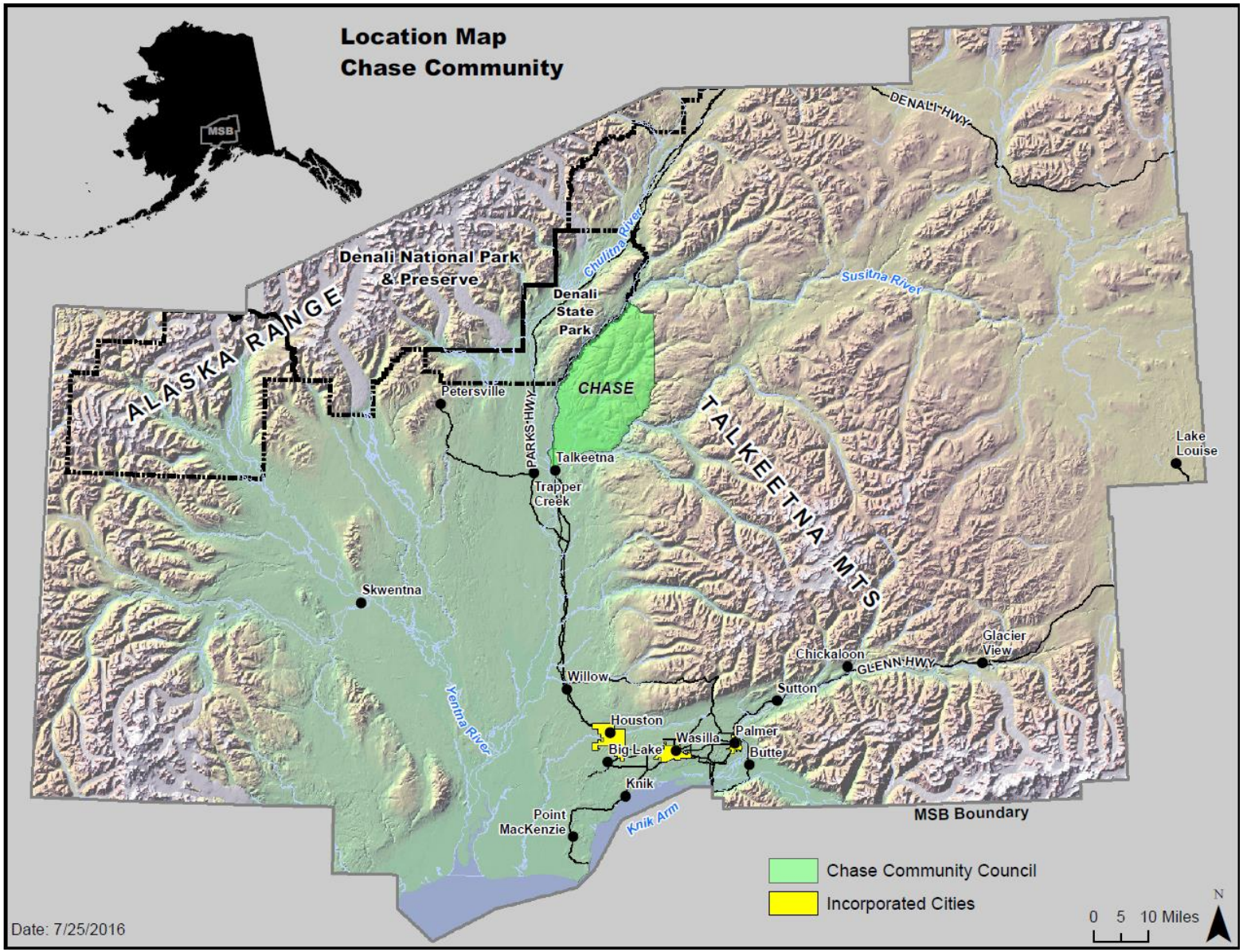

Location Map
Chase Community
MSB
Denali National Park & Preserve
ALASKA RANGE
Denali State Park
CHASE
Petersville
PARKS HWY
Talkeetna
Trapper Creek
Skwentna
Willow
Yentna River
Houston
Big Lake
Wasilla
Palmer
Butte
Knik
Point MacKenzie
Knik Arm
Chulitna River
Susitna River
DENALI HWY
TALKEETNA MTS
Lake Louise
Chickaloon
GLENN HWY
Glacier View
Sutton
MSB Boundary
Chase Community Council
Incorporated Cities
Date: 7/25/2016
0 5 10 Miles
N

Figure 2 (2017)

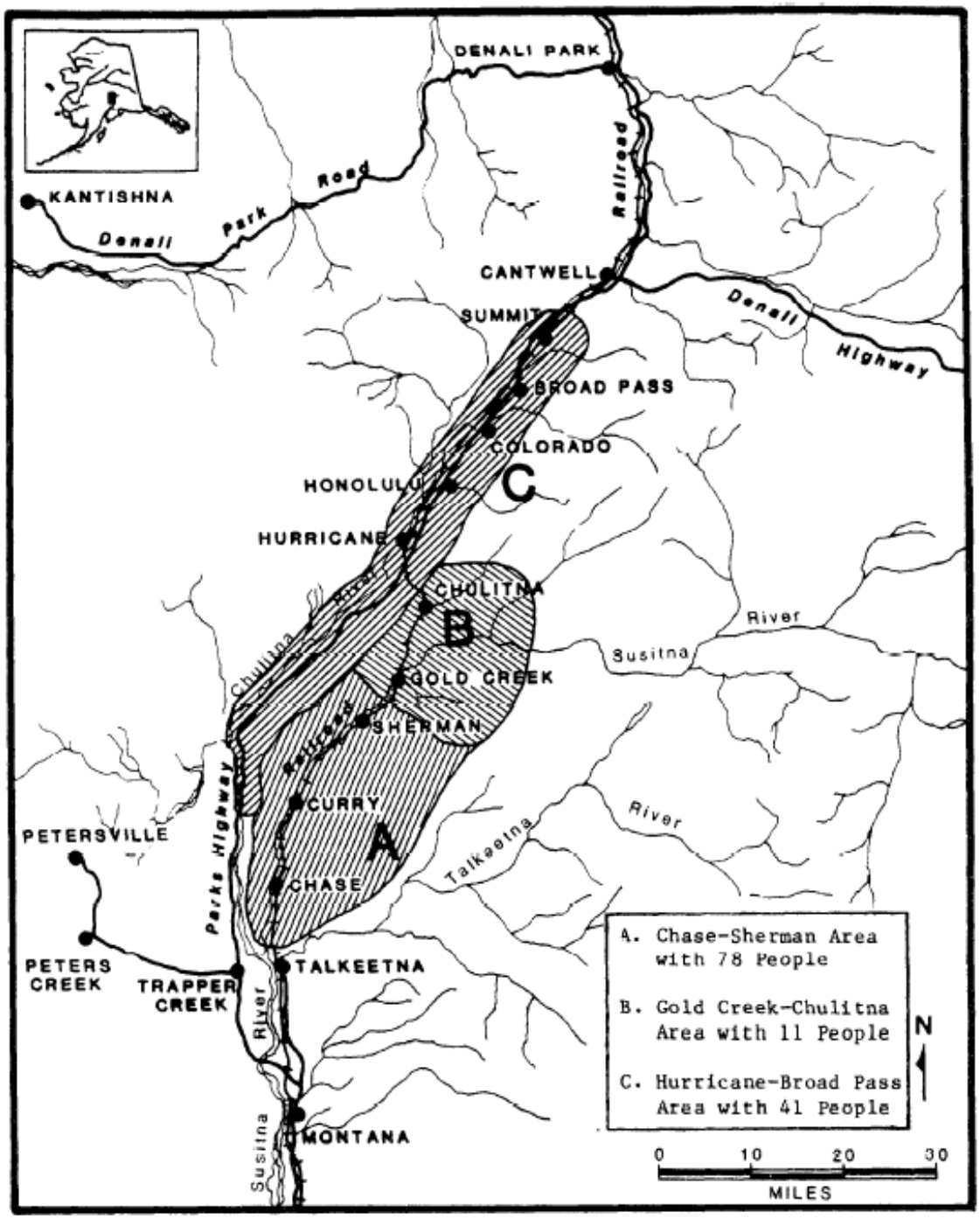


Figure 1. The Three Study Areas in Southcentral Alaska for Phase Two of the "Resource Uses in New Communities" Project.

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Figure 3 in the 1993 Chase Comprehensive Plan)

HISTORY

The following historical review is extracted from the Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.

Prehistory and Historical Ethnography

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 (Kari and Fall 1987). The first, the Ahtna-speaking Dghelav 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 within the study area. There was intermarriage between these two bands. In the late 19th century, there was a small year-round Indian population at Chuqikaq', the mouth of the Indian River, although these people moved to Knik sometime before 1900 (Kari and Fall 1987:187).

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 Dghelav Teht'ana and many of the Dashq'eht'ana moved to Talkeetna. Others lived at Montana Creek, just to the south of the study area. In 1918, this Native population was severely reduced by an influenza epidemic (Fall 1987). 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.

Alaska Railroad

The construction of the Alaska Railroad through the Susitna Basin from 1915 through 1923 radically changed settlement patterns in the study area. Talkeetna, established about 1915 as a railroad construction camp (at Alaska Railroad Milepost 226.7), replaced Susitna Station as the main supply center for the Susitna River Basin. Most of the localities named along the railroad within the study area originated as construction camps, stations, or flag stops. As listed in the railroad's first official timetable in 1922 (Orth 1967[1]), these localities were spaced about five to ten miles apart. From south to north these places included Chase (Milepost 236.2), Lane (Milepost 242.0), Curry (Milepost 248.5), Sherman (Milepost 258.3), Gold Creek (Milepost 263.2), Canyon (Milepost 268.4), Chulitna (Milepost 273.8), Hurricane (Milepost 281.4), Honolulu (Milepost 288.7), Colorado (Milepost 297.1), Broad Pass (Milepost 304.3), and Summit (Milepost 312.5).

[1] Orth, Donald J., 1967 Dictionary of Alaska Place Names. Geological Society Professional Paper 567. Washington, D.C.: Government Printing Office.

Only one of these places, Curry, had a sizable population before statehood. Curry was at the approximate half-way point on the rail line between Fairbanks and Seward. Travel by train between these two cities, and between Fairbanks and Anchorage, required several days until diesel locomotives began replacing steam engines in the late 1940s (Prince 1964:817[2], Fitch 1967.30[3]). Consequently, the railroad developed tourist facilities at Curry, where the trains discharged their passengers in the evening for an overnight stay at the hotel operated by the railroad. Curry's population was 91 in 1930, 45 in 1938, 183 in 1950, and 44 in 1958 (Rollins 1978[4], Orth 1967). By the early 1950s, one day train travel between Fairbanks and Anchorage was the norm, and the McKinley Park Hotel outstripped Curry as a tourist destination. When the Curry Hotel burned to the ground in April 1957, it was not rebuilt (Prince 1964:55-60, 869; Fitch 1967:30, 92). The railroad closed the remainder of its Curry facilities in 1959, and by 1960, only three people remained at the locality (Orth 1967:252).

During much of the early period of railroad operation, the railroad operated section houses near many of the named stops along the route. Many of the people living between Talkeetna and Cantwell along the railroad corridor were associated with these section houses as maintenance crews for the line. Over time, the number of separate maintenance facilities along the railroad decreased (Fitch 1967:30).

Talkeetna was connected by road to Anchorage by 1964, and the Denali Highway (open in summers only) linked Cantwell to Alaska's highway system by 1957. However, the railroad remained the only means of motorized ground access to the entire study area until the completion of the Parks Highway in 1971. This highway crosses the Susitna River south of Talkeetna (Milepost 104.3), and does not intersect the Alaska Railroad again until Milepost 194.3. The highway and the railroad share a common alignment from Hurricane to Cantwell.

Consequently, following the construction of the Parks Highway, Study Areas A and B, including Chase, Sherman, Gold Creek, and Chulitna, remained accessible only by railroad. A section of Study Area C along the Parks highway from the Chulitna River bridge at Milepost 132.8 to Hurricane became only by motorized ground transportation for the first time, while the remainder of Study Area C, from Hurricane to Cantwell, is now within both the highway and railroad corridors.

Settlement Entry Programs

Since Alaska's statehood in 1959, much of the land in the study areas has passed into private ownership through several land disposal or settlement entry programs. For example, over 52,000 acres (over 10 percent of the total acreage) in the South Parks Highway Sub region of the Susitna Area Plan (Alaska Department of Natural Resources

[2] Price, Bernadine Lemay, 1964 The Alaska Railroad in Pictures, 1914-1964. Anchorage: Ken Wray.

[3] Fitch, Edwin, 1967, the Alaska Railroad. New York: Frederick A. Praeger.

[4] Rollins, Alden M., 1978, Census Alaska: Numbers of Inhabitants, 1792-1970. Anchorage: University of Alaska Anchorage Library.

1985.-87-88[5]), which includes the Chase area, has been offered for settlement by the state or the Matanuska-Susitna Borough, mostly in five acre tracts. This acreage includes much of the most desirable lands for settlement in lower elevations with proximity to road access and established communities. The state's Susitna Area Plan recommended that 10,330 acres in the South Parks Highway Sub region be offered to the public for settlement over a 20 year period. In addition, the plan recommended an offering of 22,000 acres in the North Parks Highway Sub region, including the Hurricane - Broad Pass area included in this study (Alaska Department of Natural Resources 1985:71-72). Table 2 provides a list of the major settlement programs that have occurred in the study area and their general locations.

Individuals have acquired land through these state programs for, basically, three different reasons. For some, acquisition of the land is an investment, speculating that land values will increase in the future with the demand for recreational and settlement sites (Durr 1974:33). Another reason, not exclusive of the first, has been to obtain land for seasonal recreational use. The owners do not intend to occupy the land year-round, but rather visit periodically for fishing, hunting, or simply relaxing.

The third reason for obtaining land through the state settlement entry program characterizes the majority of the people interviewed during this study, especially those living in the Chase area. These people obtained their land in order to live full-time on the parcel As characterized by Durr (1974:13-20[6]) in the mid-1970s, the motivations leading people to settle in the Chase area included a desire to live a life with a slower pace than that of a city, to live "close to nature," and to seek a "healthier lifestyle" removed from the "pollution of industrialization." These settlers sought a perceived self-reliant way of life based on hunting, fishing, and growing their own foods. Additionally, the settlers believed that living in an area of low population density promoted cooperative social relationships. Durr (1974:35) found that there was a concern among Chase area residents that further land disposals near their lands would unacceptably increase population densities, resulting in crowding and pressure on the area's resources. Their recommendations included closing the area to further entry, increasing the size of settlement parcels, establishing "green belts" around areas of high settlement, and prohibiting land speculation (Durr 1974:35-38).

In 1987, when asked why they moved to the study areas, most respondents in the divisions survey cited reasons similar to those which Durr documented in the mid-1970s. Typical responses included:

I moved to Chase to pursue a bush way of life, to enjoy the quiet of the area, the wildlife, and having nature close by.

[5] Alaska Department of Natural Resources, 1985, Susitna Area Plan. Anchorage.

[6] Durr, Robert A., 1974, land: Bridge to community in the Open to Entry Area North of Talkeetna. A Project of the Alaska Humanities Forum and the Talkeetna Historical society. Anchorage: Alaska Humanities Forum.

I moved to this area to be able to hunt and fish, for the high quality environment, and the relatively low population density.

We wanted to live a subsistence lifestyle and enjoy the peace and quiet and beauty of the area.

We wanted to live a simple natural lifestyle.

We wanted to get away from all the regulations in the city, and love the land

I have lived a rural lifestyle most of my life. We found land we like and decided to move here. This is a healthy lifestyle.

In summary, during the study period, residents of the study area cited the desire to live a particular lifestyle, to enjoy a peaceful and beautiful area, and the availability of good land, as reasons for living in the study area. These points of view were most notable in the Chase area, and are consistent with earlier findings for the 1970s."

SUMMARY OF LAND DISPOSALS IN THE STUDY AREA

Year	Entry Program	Location
1968-73	Open-to-Entry	Chase
June 1980	Chase I Open-to-Entry	Chase
198-84	Chase II Remote Remote Parcel	Chase
1980-84	State Remote Parcel	Colorado Chulitna
December 1982	State Subdivision	Indian River
1985	Chase III Agricultural Offering (Halted by Court Order)	Chase
1985	State Homestead and Remote Disposal	Sherman, Curry McKenzie Creek
1986	State Homestead	Hurricane Pass Creek
2008-2009	17 Remote Parcels	Cache Lake Area

(Stanek, et al, 1988 – Table 2 information 1968-1986)
(Alaska Department of Natural Resources – Div. of Mining, 2016)

HISTORIC SITES

The Alaska Office of History and Archaeology of the Alaska Department of Natural Resources has information on the following historic sites within the Community Council. Many more sites than these undoubtedly exist within the Area, but have not been studied. None of these sites have as yet been processed for the National Register of Historic Places. The location of these sites is indicated on the accompanying illustration.

CHASE AREA
CULTURAL RESOURCES
Alaska Heritage Resources Survey

Site #	Site Name	Date	Resource	Site Condition	Site Reliability
TAL-00003	CHASE R.R. STATION (NANCHASE)	AD 1919	SITE: TRANSPORTATION, RAILROAD, STATION	E	B3
TAL-00004	CURRY (DEAD HORSE)	AD 1916	SITE: FOUNDATIONS, SIDING	BC3	A1
TAL-00009	DEADHOUSE HILL ROADHOUSE	AD1920S	SITE: ROADHOUSE	E	B3
TAL-00015	TALKEETNA RIVER R.R. BRIDGE	AD 1926	STRUCTURE: RAILROAD, BRIDGE	A	B1
TAL-00016	LANE CREEK R.R. BRIDGE	AD 1925	STRUCTURE, BRIDGE	A	B1
TAL-00081	MILEPOST 233.4 BRIDGE, ARRC TIMBER BRIDGE NO 172, TALKEETNA MAIN LINE MP 233.4 TRESTLE	AD 1919-1952	STRUCTURE: BRIDGE, RAILROAD, TIMBER TRESTLE	BC	A1
TAL-00082	AK R.R. TRESTLE MP 233.6, SUSITNA RIVER AT CHASE MILEPOST 233.6 BRIDGE	AD 1919-1952	STRUCTURE: BRIDGE, RAILROAD, TIMBER TRESTLE	BC	A1

Site #	Site Name	Date	Resource	Site Condition	Site Reliability
TAL-00083	AK R.R. BRIDGE MP 239.0, ALASKA RAILROAD BRIDGE MP 239.0	AD 1919-1923	SITE: TRANSPORTATION	A	A1
TAL-00084	AK R.R. BRIDGE MP 239.1, ALASKA RAILROAD BRIDGE MP 239.1	AD 1919-1923	SITE: TRANSPORTAION	A	A1
TAL-00085	AK R.R. BRIDGE MP 238.4, ALASKA RAILROAD BRIDGE MP 238.4	AD 1919-1923	SITE: TRANSPORTATION	A	A1
TAL-00100	CH'ANILKAQ SITE, CHUNILNA CREEK	PREHISTORIC	SITE: CACHE PITS	AC3	A1
TAL-00107	CURRY AIRSTRIP	AD 1932	SITE: AIRSTRIP	C	A1
TAL-00111	RAILROAD BRIDGE, BRIDGE 233.9, ARRC BRIDGE MP 233.9	AD 1949-1957	SITE: TRANSPORTAITON	A	A1
TAL-00112	SMITH CREEK RAILROAD BRIDGE, BRIDGE 244.6 ARRC BRIDGE MP 244.6	AD 1949-1957	SITE: TRANSPORTATION	A	A1
TAL-00113	ARRC TIMBER BRIDGE MP 248.7, ARRC BRIDGE MP 248.7, DEAD HORSE CREEK BRIDGE	AD 1979	STRUCTURE: BRIDGE, TRANSPORTATION, RAILROAD	BC	A1
TAL-00122	ARRC TIMBER BRIDGE MP 233.3, ARRC BRIDGE MP 233.3	AD 1949, AD 2006	STRUCTURE: BRIDGE, TRANSPORTATION, RAILROAD	B2C	A1

Site #	Site Name	Date	Resource	Site Condition	Site Reliability
TAL-00127	ALASKA RAILROAD BRIDGE 227.9, BILLION SLOUGH BRIDGE, ARRC BRIDGE MP 227.9	AD 1949, 1984	STRUCTURE: RAILROAD, TRANSPORTATION	C	A1
TLM-00004	SHERMAN R.R. ATION	AD 1920	SITE: RAILROAD, STATION	E	B1
TLM-00005	GOLD CREEK (SUSITNA RIVER R.R. STATION)	AD 1920	SITE: RAILROAD, STATION	E	B1
TLM-00006	SUSITNA RIVER R.R. BRIDGE	AD 1920	STRUCTURE: RAILROAD, BRIDGE	A	A1
TLM-00011	BENCHMARK DEAD CAMP		SITE	C	A1
TLM-00267	AK R.R. BRIDGE MP 260.3	AD1919-1923	SITE: TRANSPORTAITON	A	A1
TLM-00279	ARRC TIMBER BRIDGE MP 255.7, ARRC BRIDGE MP 255.7	AD 1962, AD 1994	SITE: RAILROAD, BRIDGE, TIMBER	B1	A1
TL-00280	RAILROAD BRIDGE, BRIDGE 256.2, ARRC BRIDGE MP 2656.2	AD 1949-1957	SITE: TRANSPORTATION	A	A1

SOURCE (First Character)

A: Professional Reports, records, and field studies.
B: Historical, non-professional sources of apparent reliability
C: Reports of unknown reliability

LOCATION (Second Character)

1. Location exact and site existence verified
2. Location vague or approximate, but existence verified
3. Location exact but present existence not verified
4. Location vague and existence not verified

SITE CONDITION DEFINITION	**CODE**
Normal state of weathering, undisturbed by vandalism, Construction, or abnormal weathering such as flooding, Or earthquakes	A
Disturbed site, degree unknown	B
Partially Destroyed	B1
Totally Destroyed	B2
Site Archaeologically or historically investigated	C
Tested only	C3
Partially Excavated	C4
Totally Excavated	C5
Site Undergoing Historical Restoration, Alteration or Other preservation activity	D
Planned	D6
Partially complete	D7
Totally reconstructed or preserved	D8
Unknown	E

(Alaska Department of Natural Resources - Office of History & Archaeology, 2016)

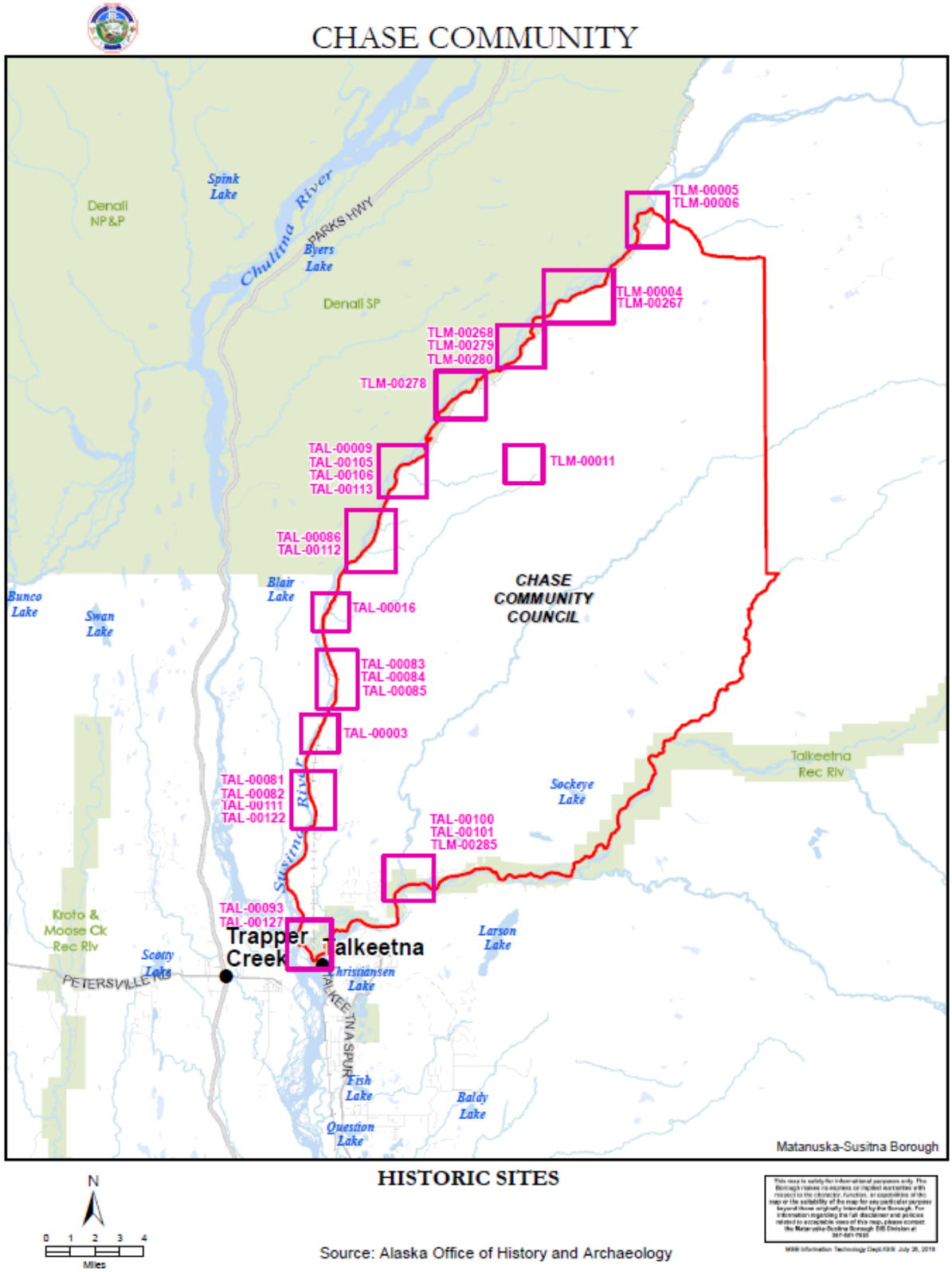


Figure 4 (2017)

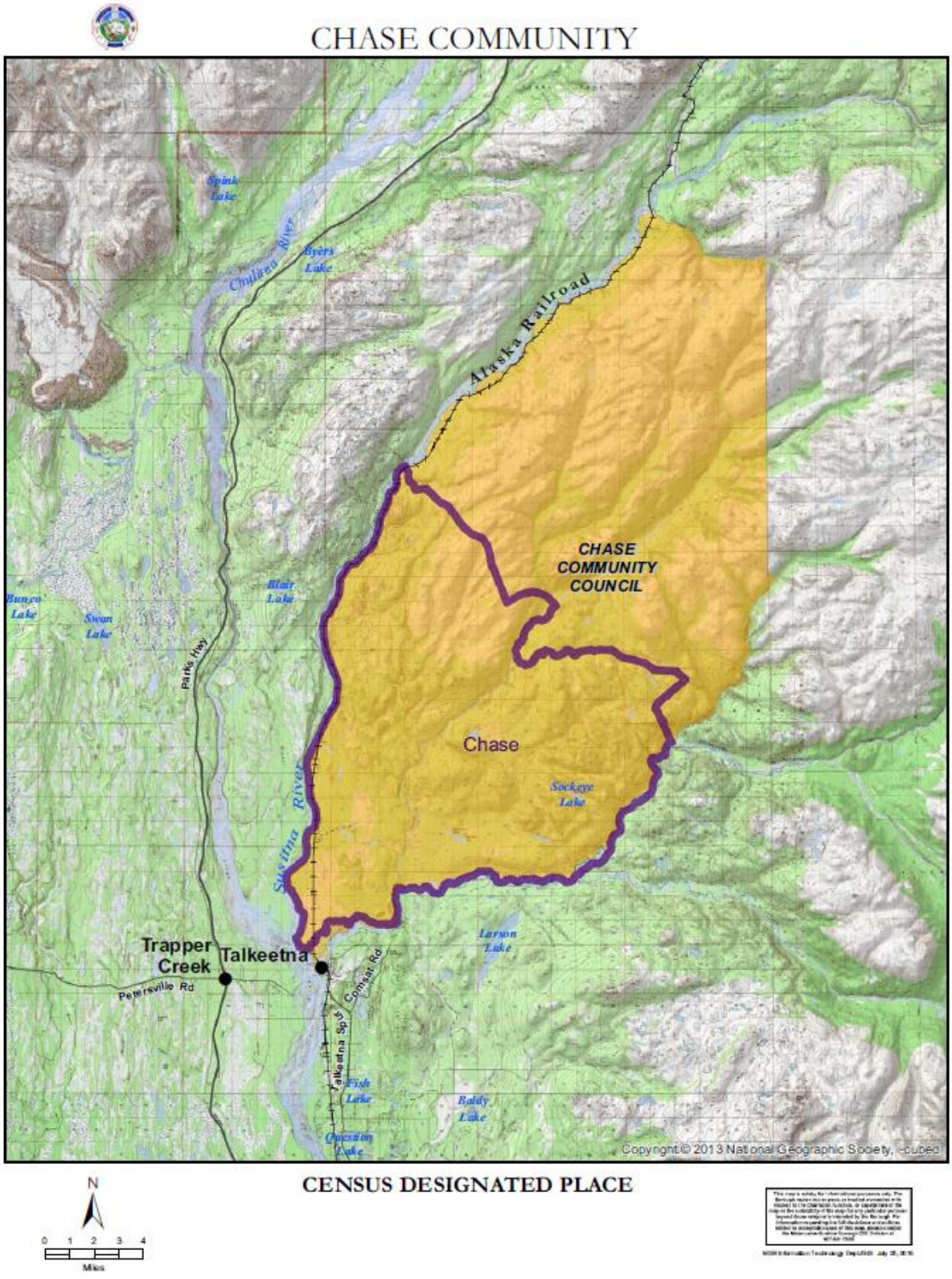


Figure 5 (2017)

POPULATION

The population of Chase has been consistent since 1990 and the data shows:

1990 Census Data Total Population	2000 Census Data Total Population	2010 Census Data Total Population	2015 Estimate July, 2015
38	41	34	37

(State of Alaska Department of Labor and Workforce Development, 1990 - 2010)

In Holen et al, a survey was completed that showed 2012 estimated population and number of households.

2012 Est. Population	Households	Male	Female
35	18	55%	45%

(Holen, et al, 2012)

Table 1 (2017)

Additional information can be found in “The Harvest and Use of Wild Resources in Cantwell, Chase, Talkeetna, Trapper Creek, Alexander/Susitna, and Skwentna, Holen, et al, Alaska 2012. Technical Paper No. 385.

HOUSING

Total Housing Units	1990	2000	2010
Total Housing Units	54	90	209
Occupied Housing (Households)	19	21	18
Vacant Housing	35	69	191
Owner-Occupied Housing	0	19	17
Renter Occupied Housing	0	2	1
Total Occupied Housing Units			
Total Households	19	21	18
Average Household Size	2	2	2
Family Households	12	10	10
Non-related Households	7	11	8

(DCCED, DCRA Community Database)

Table 2 (2017)

ECONOMY

STRUCTURE OF THE ECONOMY

Stanek et al, characterize the Chase economy as a combination of seasonal wage employment, craft production for local use and sale, the harvest of wild fish, game, and plant resources, and horticultural production (small scale farming). They state that, "This combination allows them (Chase residents) to live in an area that is marginal to the economic opportunities found in more densely populated parts of south central Alaska. Even the contrast between the three study communities and the road-connected areas just to the south around Trapper Creek and Talkeetna is notable. The economy of this latter area is organized around providing services to highway travelers and visiting recreationalists (Fall and Foster 1987[7]). Most households in the Trapper Creek - Talkeetna area use and harvest wild foods, but harvest quantities are relatively low. In contrast, harvest at Chase, Gold Creek - Chulitna and Hurricane - Broad Pass are much higher and approach those of other communities off the road system such as Skwentna and Tyonek. Especially when the large harvest of garden produce at Chase is considered, it is likely that most of these households are producing much of their own food supplies. This economic pattern is a product of the relatively high availability of wild resources, a low population density, a marginal cash economy, and a value orientation conducive to living in a relatively remote area." Such an economy might be characterized as "Semi-subsistence" in that it is based upon use of local natural resources subsidized and supported by a cash income derived from seasonal employment.

[7] Fall, James A., and Dan J. Foster, 1987, Fish and Game Harvest and Use in the Middle Susitna Basin: The Results of a Survey of Residents of Game Management Units 14B and 16A, 1986. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 143. Juneau.

EMPLOYMENT

In the 2012 Fish and Game study, Holen et al, completed a survey which included employment information:

Table 3-3. – Employment by industry, Chase, 2012.

Industry	Jobs	Households	Individuals	Percentage of income[a]
Estimated total number	**28.1**	**13.5**	**26.5**	
Local government, including tribal	**5.9%**	**8.3%**	**6.3%**	**5.3%**
Service occupations	5.9%	8.3%	6.3%	5.3%
Mining	**17.6%**	**16.7%**	**18.8%**	**25.5%**
Engineers, surveyors, and architects	5.9%	8.3%	6.3%	2.9%
Construction and extractive occupations	11.8%	16.7%	12.5%	22.6%
Construction	**23.5%**	**33.3%**	**25.0%**	**12.9%**
Construction and extractive occupations	17.6%	25.0%	18.8%	11.8%
Handlers, equipment cleaners, helpers, and laborers	5.9%	8.3%	6.3%	1.1%
Manufacturing	**5.9%**	**8.3%**	**6.3%**	**4.6%**
Precision production occupations	5.9%	8.3%	6.3%	4.6%
Retail trade	**5.9%**	**8.3%**	**6.3%**	**1.7%**
Service occupations	5.9%	8.3%	6.3%	1.7%
Services	**41.2%**	**50.0%**	**43.8%**	**50.1%**
Executive, administrative, and managerial	11.8%	16.7%	12.5%	18.4%
Social scientists, social workers, religious workers, and lawyers	5.9%	8.3%	6.3%	23.7%
Writers, artists, entertainers, and athletes	5.9%	8.3%	6.3%	2.0%
Technologists and technicians, except health	11.8%	16.7%	12.5%	5.9%
Mechanics and repairers	5.9%	8.3%	6.3%	0.1%

Source ADF&G Division of Subsistence household surveys, 2013.

a. Income by category as a percentage of the total *wage-based* community income.

(Holen, et al, 2012) (2017)

> "Employed adults in Chase in 2012 worked an average of 6 months, with only 34% employed year-round. Fourteen of the 18 households in the community were employed (75%), and each household had an average of approximately 2 jobs. Of the jobs held by members of Chase households, on 24% were located in Chase, with the greatest percentage (47%) located in Talkeetna and the rest located elsewhere across the state." Reported in Holen et al, pages 29 and 30. (Holen, et al, 2012)

INCOME

Income information is cited in Holen et al, 2012 Department of Fish and Game resource use report beginning on page 82 where Table 3-2 is located.

Table 3-2. – Estimated earned and other income, Chase, 2012.

Income source	Number of people	Number of households	Total for community	Mean per household[a]	Percentage of total[b]
Earned income					
Services	11.6	6.8	$415,086	$23,060	42.3%
Mining	5.0	2.3	$210,844	$11,714	21.5%
Construction	6.6	4.5	$106,443	$5,914	10.9%
Local government	1.7	1.1	$43,579	$2,421	4.4%
Manufacturing	1.7	1.1	$38,131	$2,118	3.9%
Retail trade	1.7	1.1	$14,163	$787	1.4%
Earned income subtotal	**26.5**	**13.5**	**$828,246**	**$46,014**	**84.5%**
Other income					
Social Security		3.4	$33,165	$1,843	3.4%
Pension/retirement		1.1	$28,125	$1,563	2.9%
Alaska Permanent Fund dividend		16.9	$26,669	$1,482	2.7%
Disability		2.3	$25,819	$1,434	2.6%
Food stamps		3.4	$19,533	$1,085	2.0%
Unemployment		2.3	$15,300	$850	1.6%
Longevity bonus		2.3	$2,498	$139	0.3%
Energy assistance		2.3	$878	$49	0.1%
Adult public assistance		0.0	$0	$0	0.0%
Supplemental Security income		0.0	$0	$0	0.0%
Workers' compensation/insurance		0.0	$0	$0	0.0%
Veterans assistance		0.0	$0	$0	0.0%
Native corporation dividend		0.0	$0	$0	0.0%
Child support		0.0	$0	$0	0.0%
Other		0.0	$0	$0	0.0%
Foster care		0.0	$0	$0	0.0%
Citgo fuel voucher		0.0	$0	$0	0.0%
Other income subtotal		**16.9**	**$151,986**	**$8,444**	**15.5%**
Community income total			**$980,233**	**$54,457**	**100.0%**

Source ADF&G Division of Subsistence household surveys, 2013.

a. The mean is calculated using the *total* number of households in the community, not the number of households for this income category.

b. Income by category as a percentage of the total community income from all sources (wage-based income *and* non-wage-based income.)

(Holen, et al, 2012) (2017)

LOCAL INDUSTRY AND COMMERCE

Local industry and commerce is very limited and does not provide a significant number of local jobs. There is a small amount of agricultural activity in the area; some placer gold mining; some cottage industry - i.e. hand crafts - and some fur trapping.

Only two active commercial establishments are known to exist in the Planning area: Clear Creek Lodge, at the mouth of Clear (Chunilna) Creek on the Talkeetna River; and a tavern.

The potential exists for expansion of the local economic base in agriculture, mining - especially placer gold mining, recreation, and forest products.

Location of Jobs Held by Adults in Sampled Households, 1996

	Chase (N=17hh)		Gold Creek – Chulitna (N=5hh)		Hurricane Broad Pass (N=8hh)	
Location	# of Jobs	% of Total Jobs	# of Jobs	% of Total Jobs	# of Jobs	% of Total Jobs
Study Area	7	22.6%	2	71.4%	9	64.3%
Other Mat-Su Borough	3	9.7%	0	0	2	14.3%
Anchorage	7	22.6%	2	28.6%	1	7.1%
North Slope	4	12.9%	0	0	0	0
Other Alaska[a]	8	25.8%	0	0	2	14.3%
"Statewide"[b]	2	6.5%	0	0	0	0
TOTAL	**31**	**100.0%**	**7**	**100.0%**	**14**	**100.0%**

Table 6
Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 3 in the 1993 Chase Comprehensive Plan)

RESOURCE HARVEST AND USE

The principal purpose of the Department of Fish and Game's 1988 study: *The Harvest and Use of Fish. Game, and Plant Resources by the Residents of Chase, etc.,* was to study and report on the patterns of fish and game harvest and use in the three study areas. Portions of the 1988 Fish and Game study are again quoted or reproduced, and demonstrate the heavy reliance of residents of the area on the availability of fish, game, cord wood, house logs, and edible plants.

SPECIES USED AND SEASONAL ROUND OF HARVEST ACTIVITIES

> *"Table 9 lists the fish, game, and wild plant resources which households in Chase harvested or used during the study period in 1986. The total includes 69 resources, with 14 species or categories of fish, 5 species of marine invertebrates, 18 species of game and furbearers, 10 types of birds, and 22 kinds of edible wild plants. On average, households in the sample used 11.7 categories of wild resources, attempted to harvest 11.5 categories, and harvested 10.0 categories Table 10.*
>
> *Figure 5 depicts the seasonal round of resource harvest activities in the three study areas, including Chase. For the most part, resource harvests occurred within regulated seasons. Early spring resources, taken in late April and May, included several species of freshwater fish, such as trout, grayling, and Dolly Varden. Black bear were also hunted in the spring months. Summer harvest activities included fishing for various species of salmon, as*

well as other fish species in fresh water. Berry picking began in August, as did caribou hunting. Other fall activities included hunting for moose, black bear, ptarmigan, grouse, and ducks, as well as fishing for silver salmon. Resource harvests in winter included hunting for ptarmigan and grouse, furbearer trapping, and fishing through the ice for trout and burbot. There was also a winter season for caribou scheduled for January and February, although caribou were generally not available near Chase during this season. Finally, wood harvests occurred year-round. "

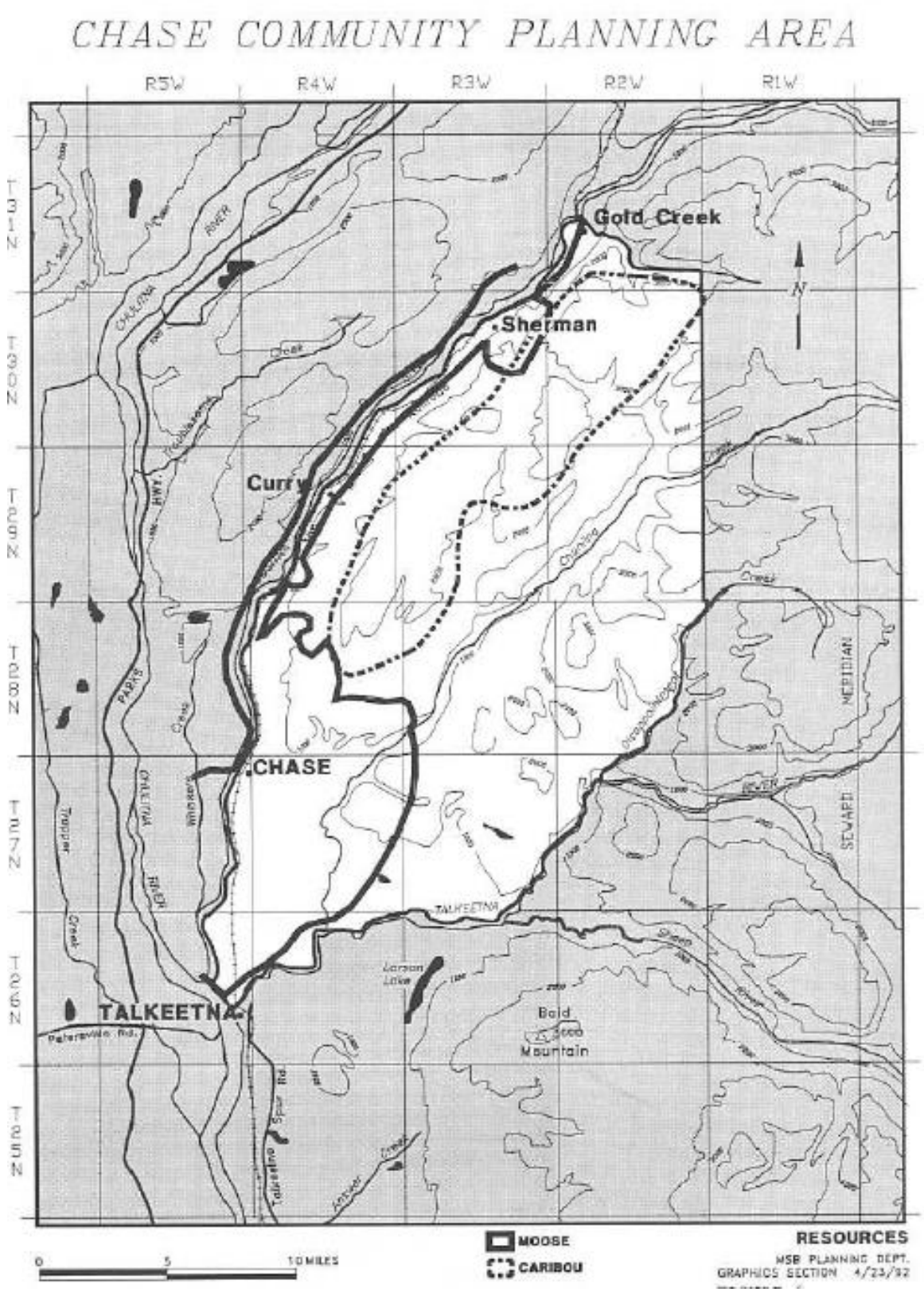


Figure 6 (1993)

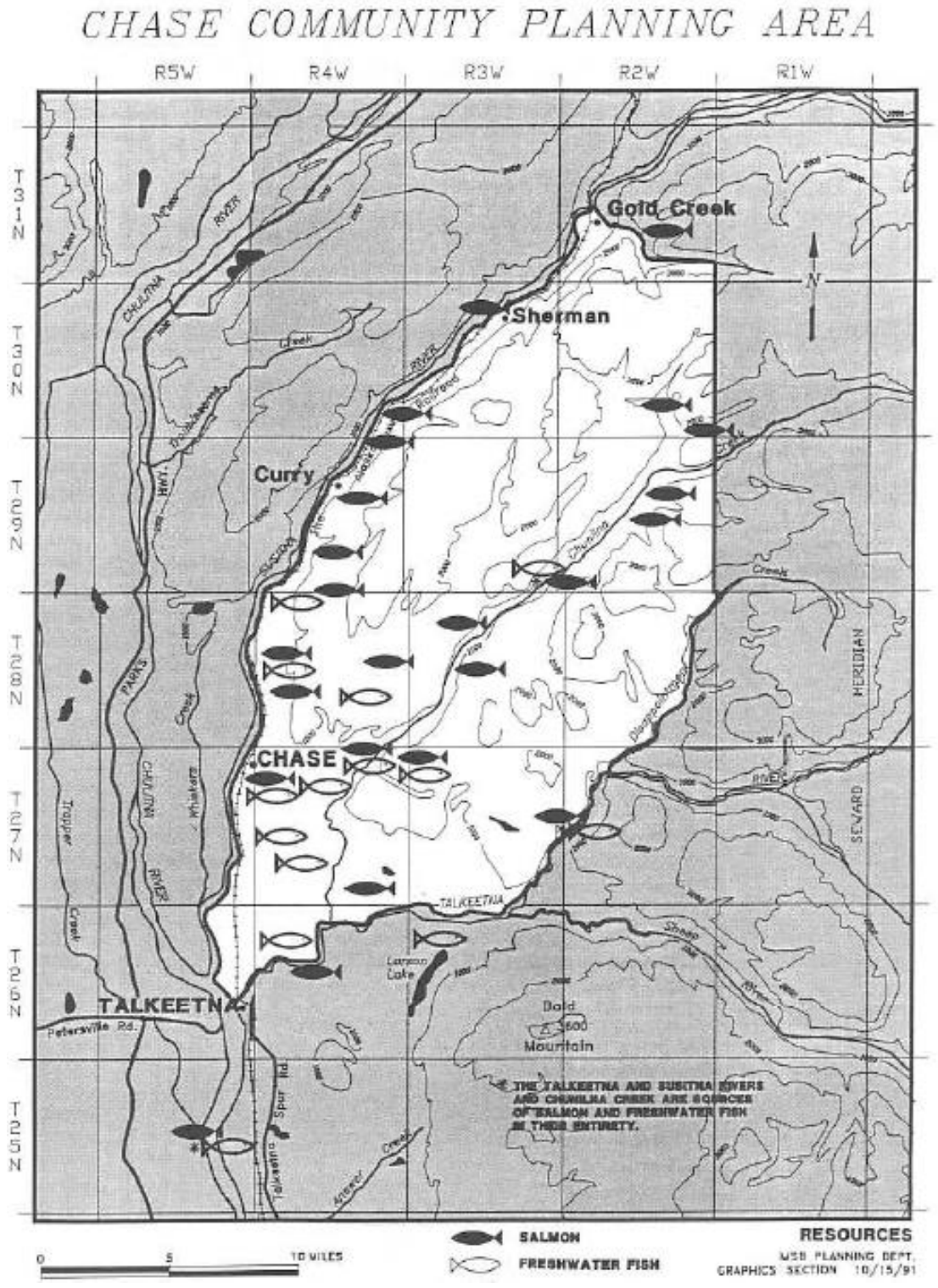


Figure 9

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Figure 7 in the 1993 Chase Comprehensive Plan)

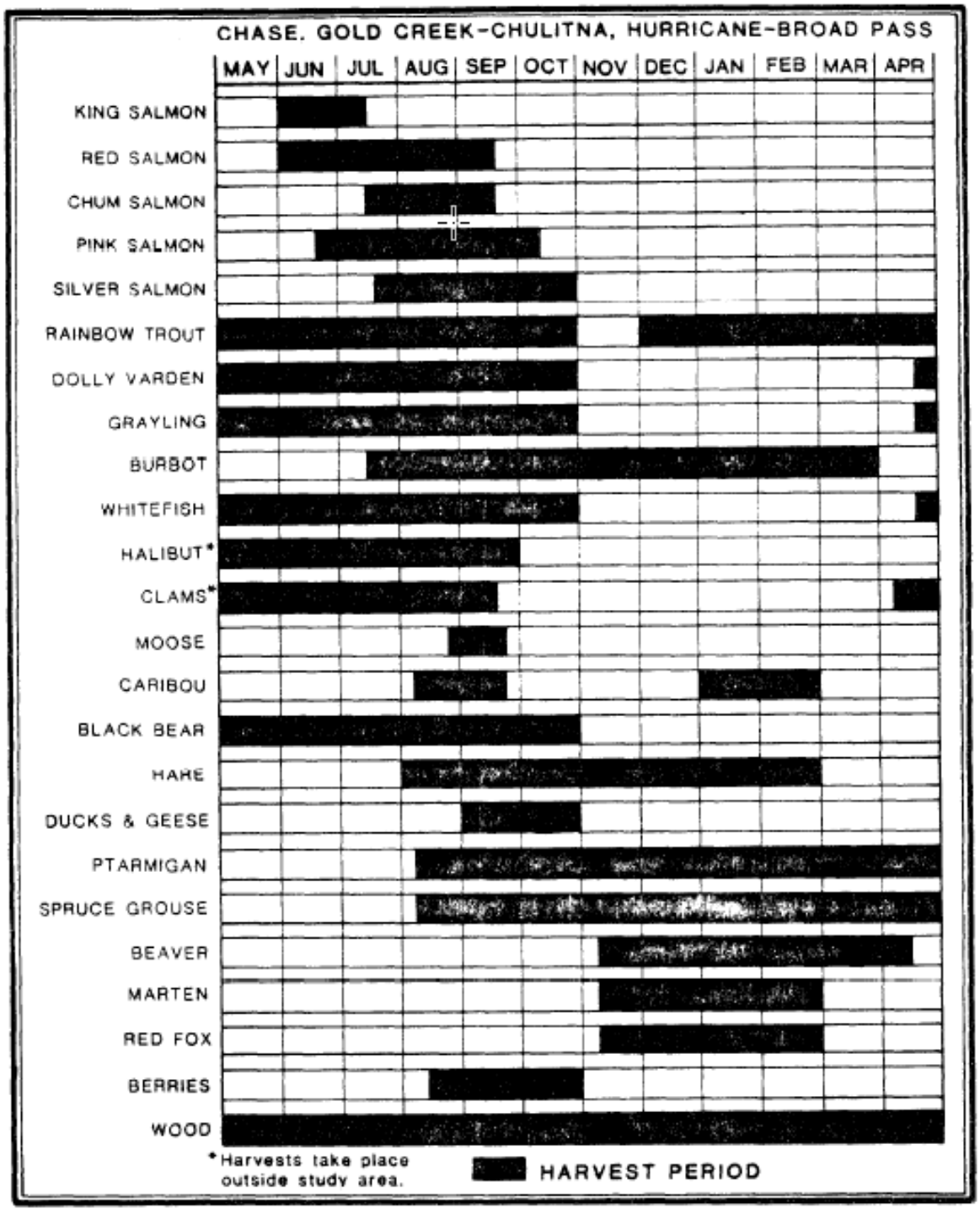


Figure 5. Seasonal Round of Resource Harvest Activities, Chase, Gold Creek-Chulitna, and Hurricane-Broad Pass.

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Figure 8 in the 1993 Chase Comprehensive Plan)

HARVEST AREAS

The figures 6 & 7 identify approximate areas wherein caribou, moose, salmon, and freshwater fish were harvested between 1968 and 1986 by Chase households interviewed in the Fish and Game study. Moose have been much more important to the local diet than caribou as moose have been more accessible. Moose killed by trains along the tracks through the area have also been salvaged by local residents.

Harvest Quantities

"The mean household harvest of wild resources by the Chase sample in 1986 was 553.8 pounds edible weight. The community per capita harvest was 209.2 pounds (Table 10). This compares to a United States mean of 222 pounds per capita of meat, fish, and poultry purchased and brought into the kitchen for home use in 1978 (U.S. Department of Agriculture 1983). By far, land mammals, mostly moose, contributed the largest share of community's resource harvest as measured by edible weight (Table 6). The sample's households harvested a mean of 303.8 pounds of land mammals, 114.8 pounds per capita. This category represents 54.9 percent of all resources harvested during the study year of 1986. Salmon ranked second in terms of harvest weight, with a mean household harvest of 131.2 pounds, 49.6 pounds per capita, for 23.7 percent of the total harvest. Edible plants were next, with 49.2 pounds per household, 18.6 pounds per capita, for 8.9 percent of the total, followed by freshwater fish (42 pounds per household, 15.9 pounds per capita, for 8.9 percent of the total, followed by freshwater fish (42 pounds per household, 15.9 percent per capita, 7.6 percent of the total), birds (12.2 pounds per household, 4.6 pounds per capita, 2.2 percent of the total), marine fish (4.4 pounds per household, 1.7 pounds per capita, .8 percent of the total), and marine invertebrates (3.8 pounds per household, 1.4 pounds per capita, .7 percent of the total). No Chase household harvested marine mammals in 1986.

In terms of specific resources, moose was the most notable component of the sample's resource harvests as measured by edible weight. The sample's households harvested an average of 264.7 pounds of moose in 1986. This was 87.1 percent of all land mammals harvested, and 47.8 percent of all harvests during the study year. Silver salmon ranked second in terms of harvest weight with 38.8 pounds per household. Other resources with a mean household harvest of 20 pounds or more during 1986 were berries (34.4 pounds), king salmon (33.9 pounds), chum salmon (27.9 pounds), red salmon (33.9 pounds), and caribou (22.9 pounds) (Table 11)."

Sharing and Receiving Wild Resources

"During the study year, it was most common for households to give away game, with 52.9 percent of the sample doing so (Table 11, Fig. 7). Over one third of the sample (35.3 percent) gave away salmon, 17.6 percent gave away edible plant harvests, and 17.6 percent gave away freshwater fish. Very few households gave away marine invertebrates (11.8 percentage), birds (11.8 percent), furbearers (5.9 percent), or wood (5.9 percent). By far, moose was the resource that the most households (47.1 percent) gave away. Also, 17.6 percent gave away red salmon, chum salmon, or berries (Table 11)."

"A large percentage of the sample (52.9 percent) received game from other households in 1986 (Table 11, Fig. 7). In addition, 41.2 percent received marine fish, 23.5 percent received salmon, 17.6 percent received freshwater fish, 17.6 percent received birds, 17.6 percent received marine invertebrates, 11.8 percent received furbearers, and 5.9 percent received edible plants, freshwater fish, or marine mammals. No households received cordwood or house logs from other families in 1986. Not surprisingly, moose meat was received by the most households, 41.2 percent. One unexpected finding was that 41.2 percent of the households also received gifts of halibut from others who had fished in lower Cook Inlet. Silver salmon ranked third, with 17.6 percent of the sample receiving this resource as gifts during the study year (Table 11)."

Wild Resources Harvested or Used by Sampled Households in Chase, Gold Creek – Chulitna, and Hurricane – Broad Pass, 1986

		Used and/or Harvested in 1986		
Resource	Scientific Name	Chase	Gold Creek – Chulitna	Hurricane – Broad Pass
SALMON				
King Salmon	Oncorhynchus tshawytscha	X	X	X
Sockeye Salmon	Onchorhynchus nerka	X	X	X
Chum Salmon	Oncorhynchus keta	X	X	
Pink Salmon	Oncorhynchus gorbuscha	X	X	X
Silver Salmon	Oncorhynchus kisutch	X	X	X
FRESHWATER FISH				
Rainbow Trout	Salmo gairdneri	X	X	X
Lake Trout	Salvelinus namaycush			X
Dolly Varden	Salvelinum malma	X	X	
Arctic Grayling	Thymallus arcticus	X	X	X
Burbot	Lota lota	X	X	X
Whitefish	Coregonus spp.	X	X	
MARINE FISH				
Halibut	Hippoglossus stenolepis	X	X	X
Pacific Cod	Gadus microcephalus			X
Hooligan	Hypomesus pretiosus	X		
Herring	Clupea harengus pallasi	X		
Herring Spawn-on-Kelp		X		X
MARINE INVERTEBRATES				
Razor Clams	Siliqua patula	X	X	X
Butter Clams	Saxidomis giganteus	X		
King Crab	Paralithodes camtschatica	X		
Dungeness Crab	Cancer magister	X		
Shrimp	Pandalus spp.	X		
MARINE MAMMALS				
Harbor Seal	Phoca vitulina richardsi	X		
Belukha	Delphinapterus leucas	X		
LAND MAMMALS				
Moose	Alces alces gigas	X	X	X
Caribou	Rangifer tarandus	X	X	X
Dall Sheep	Ovis dalli dalli	X		
Mountain Goat	Oreamnos americanus	X		
Black Bear	Ursus americanus	X	X	X
Brown Bear	Ursus arctos	X		
Elk	Cervus elaphus roosevelti			X
Sitka Black-tailed Deer	Odocoileus hemionus sitkensis	X		
Porcupine	Erethizon dorsatum	X		X
Snowshoe Hare	Lepus americanus	X	X	X

TABLE 9

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 4 in the 1993 Chase Comprehensive Plan)

TABLE 9 Continued

Wild Resources Harvested or Used by Sampled Households in Chase, Gold Creek – Chulitna, and Hurricane – Broad Pass, 1986

		Used and/or Harvested in 1986		
Resource	Scientific Name	Chase	Gold Creek – Chulitna	Hurricane – Broad Pass
BIRDS				
Ptarmigan	Lagopus spp.	X	X	X
Spruce Grouse	Canachites Canadensis	X	X	X
Canada Geese	Branta Canadensis	X		
Ducks	a	X	X	X
FURBEARERS				
Beaver	Castor Canadensis	X		X
Land Otter	Lutra Canadensis	X		
Mink	Mustela vison	X		X
Marten	Martes Americana	X		X
Wolverine	Gula gulo			X
Wolf	Canis lupus			X
Red Fox	Vulpes vulpes	X		X
Red Squirrel	Tamia sciurus hudzonicus	X	X	
Short-tailed Weasel	Mustela ermine	X		X
EDIBLE PLANTS				
Berries	b	X	X	X
Other Plants	c	X	X	X

[a] Types of ducks included mallards (Anas platyrhynchos), green-winged teals (Anas crecca carolinensis), pintails (Anas acuta), northern schovelers (Anas clypeata), buffleheads (Bucephala albeola), common goldeneyes (Bucephala clangula Americana), and red-breasted mergansers (Mergus serrator).

[b] types of berries included blueberries, currents, high bush cranberries, low bush cranberries, raspberries, cloudberries, crowberries, watermelon berries, salmon berries, nagoon berries, and trailing strawberries.

[c] Other plants included fiddle head fern, rosehips, wild celery, wild cucumber, fireweed, and Labrador tea.

Source: Division of Subsistence, Alaska Department of Fish and Game, Resource Harvest Survey 1987.

Resource Harvest and Use Characteristics of Study Communities

	Chase N=17	Gold Creek Chulitna N=5	Hurricane Broad Pass N=8
MEAN NUMBER OF RESOURCE CATEGORIES[A] USED PER HOUSEHOLD	11.7	11.2	10.1
MEAN NUMBER OF RESOURCE CATEGORIES[A] ATTEMPTED TO HARVEST HOUSEHOLD	11.5	9.8	9.4
MEAN NUMBER OF RESOURCE CATAGORIES [A] HARVESTED PER HOUSHOLD	10.0	9.0	7.8
MEAN NUMBER OF RESOURCE CATEGORIES [A] RECEIVED	2.9	3.2	3.1
MEAN NUMBER OF RESROUCE CATEGORIES[A] GIVEN AWAY	2.4	2.4	1.9
MEAN HOUSEHOLD HARVEST, POUNDS EDIBLE WEIGHT	553.8#	347.9#	600.5#
COMMUNITY PER CAPITA HARVEST[B] IN POUNDS EDIBLE WEIGHT	209.2#	041.0#	177.9#
HOUSEHOLD PER CAPITA HARVEST[B] IN POUNDS EDIBLE WEIGHT	224.5#	158.9#	203.5#
PERCENT USING ANY RESOURCE	100.0%	100.0%	100.0%
PERCENT ATTEMPTING HARVEST OF ANY RESOURCE	100.0%	100.0%	100.0%
PERCENT HARVESTING ANY RESOURCE	100.0%	100.0%	100.0%
PERCENT RECEIVING ANY RESOURCE	70.6%	100.0%	75.0%
PERCENT GIVING AWAY ANY RESOURCE	58.8%	40.0%	62.5%

TABLE 10

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 5 in the 1993 Chase Comprehensive Plan)

[A] Categories are those which appear as 'resources' on Tables 11, 19, and 20 – located in the original ADF&G survey document 1987.

[B] Community per capita harvest equals the total resource harvest in pounds edible weight divided by the number of people in each sample. Household per capita harvest is computed by dividing each household's harvest by its size, and then averaging across households for each sample.

Source: Division of Subsistence, ADF&G, Survey 1987.

Levels of Household Harvest and Use of Wild Fish, Game, and Plant Resources
Chase 1986 (N=17 households)

Resource	% HH Used	% HH Attempt Harvest	%HH Harvested	% HH Received	% HH Gave Away	Mean HH Harvest, Lbs.	Total Sample Harvest, Numbers *
SALMON	**82.4**	**70.6**	**70.6**	**23.5**	**35.3**	**131.2**	**374**
King Salmon	47.1	47.1	41.2	11.8	11.8	33.9	32
Red Salmon	47.1	41.2	41.2	11.8	17.6	25.4	108
Chum Salmon	29.4	29.4	29.4	5.9	17.6	27.9	79
Pink Salmon	29.4	29.4	29.4	0	5.9	5.2	44
Silver Salmon	64.7	52.9	52.9	17.6	11.8	38.8	110
FRESHWATER FISH	**76.5**	**76.5**	**76.5**	**5.9**	**17.6**	**42.0**	**--**
Rainbow Trout	76.5	76.5	76.5	5.9	5.9	11.7	133
Lake Trout	0	5.9	0	0	0	0	0
Dolly Varden	52.9	52.9	52.9	5.9	0	12.3	209
Grayling	64.7	64.7	64.7	5.9	11.8	16.2	344
Burbot	11.8	11.8	11.8	0	0	.7	5
Whitefish	11.8	11.8	11.8	0	0	1.1	18
MARINE FISH	**52.9**	**29.4**	**17.6**	**41.2**	**11.8**	**4.4**	**--**
Halibut	47.1	17.6	5.9	41.2	0	.7	1
Cod	0	0	0	0	0	0	0
Hooligan	5.9	5.9	5.9	0	5.9	.9	5g
Herring	5.9	5.9	5.9	5.9	5.9	2.4	100
Herring Roe-on-Kelp	5.9	5.9	5.9	5.9	0	.4	1
MARINE INVERTEBRATES	**41.2**	**35.3**	**35.3**	**17.6**	**11.8**	**3.8**	**--**
Razor Clamps	5.9	5.9	5.9	0	0	1.3	90
Butter Clams	11.8	11.8	11.8	0	5.9	.7	NA
King Crab	17.6	11.8	11.8	11.8	5.9	.7	5
Dungeness Crab	11.8	5.9	5.9	5.9	0	.2	6
Shrimp	11.8	11.8	5.9	5.9	0	.9	NA
MARINE MAMMALS	**5.9**	**0**	**0**	**5.9**	**0**	**0**	**0**
Harbor Seal	5.9	0	0	5.9	0	0	0
Belukha	5.9	0	0	5.9	0	0	0

TABLE 11

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 6 in the 1993 Chase Comprehensive Plan)

TABLE 11 Continued

Levels of Household Harvest and Use of Wild Fish, Game, and Plant Resources
Chase 1986 (N=17 households)

LAND MAMMALS	**82.4**	**82.4**	**70.6**	**52.9**	**52.9**	**303.8**	**--**
Moose	76.5	70.6	52.9	41.2	47.1	264.7	9
Caribou	17.6	17.6	11.8	5.9	5.9	22.9	3
Sheep	5.9	5.9	5.9	5.9	0	3.8	1
Goat	5.9	0	0	5.9	0	0	0
Black Bear	23.5	23.5	11.8	11.8	5.9	6.8	2
Brown Bear	5.9	5.9	0	5.9	0	0	0
Elk	0	0	0	0	0	0	0
Deer	17.6	5.9	5.9	11.8	0	2.5	1
Porcupine	5.9	5.9	5.9	0	0	.5	2
Hare	41.2	47.1	41.2	0	0	2.6	30
BIRDS	**76.5**	**76.5**	**76.5**	**17.6**	**11.8**	**12.2**	**--**
Ducks	11.8	23.5	11.8	0	0	1.1	12
Geese	5.9	5.9	5.9	0	0	.2	1
Spruce Grouse	70.6	70.6	70.6	11.8	11.8	8.6	293
Ptarmigan	47.1	47.1	41.2	11.8	5.9	2.3	77
FURBEARERS	**29.4**	**35.3**	**29.4**	**11.8**	**5.9**	**7.2**	**--**
Beaver	17.6	23.5	17.6	0	5.9	7.2	14
Muskrat	0	0	0	0	0	0	0
Land Otter	5.9	11.8	5.9	0	0	0	1
Mink	11.8	11.8	11.8	0	5.9	0	3
Marten	17.6	29.4	17.6	0	5.9	0	11
Wolverine	0	5.9	0	0	0	0	0
Wolf	0	5.9	0	0	0	0	0
Coyote	0	17.6	0	0	0	0	0
Red Fox	11.8	11.8	5.9	5.9	0	0	4
Red Squirrel	17.6	17.6	17.6	5.9	5.9	0	18
Weasel	11.8	11.8	11.8	5.9	5.9	0	6
EDIBLE PLANTS**	**94.1**	**94.1**	**94.1**	**5.9**	**17.6**	**49.2**	**--**
Berries	88.2	88.2	88.2	5.9	17.6	34.4	584qt
Other Plants	82.4	82.4	82.4	5.9	5.9	14.8	251qt
WOOD	**100.0**	**100.0**	**100.0**	**0**	**5.9**	**--**	**--**
Cordwood	100.0	100.0	100.0	0	5.9	--	95c
House Logs	52.9	52.9	52.9	0	0	--	449
ALL EDIBLE WILD RESOURCE***	**100.0**	**94.1**	**94.1**	**70.6**	**58.8**	**553.8**	**--**
ALL RESOURCES	**100.0**	**100.0**	**100.0**	**70.6**	**58.5**	**--**	**--**

* Harvest are reported in numbers of fish or animals, except resources marked by “b” (five gallon bucket”, “g” (gallons), “qt” (quarts), or “c” (cords).

** Does not include garden-grown produce

*** Deleting cordwood and house logs

Source: Division of Subsistence, ADF&G, Survey 1987.

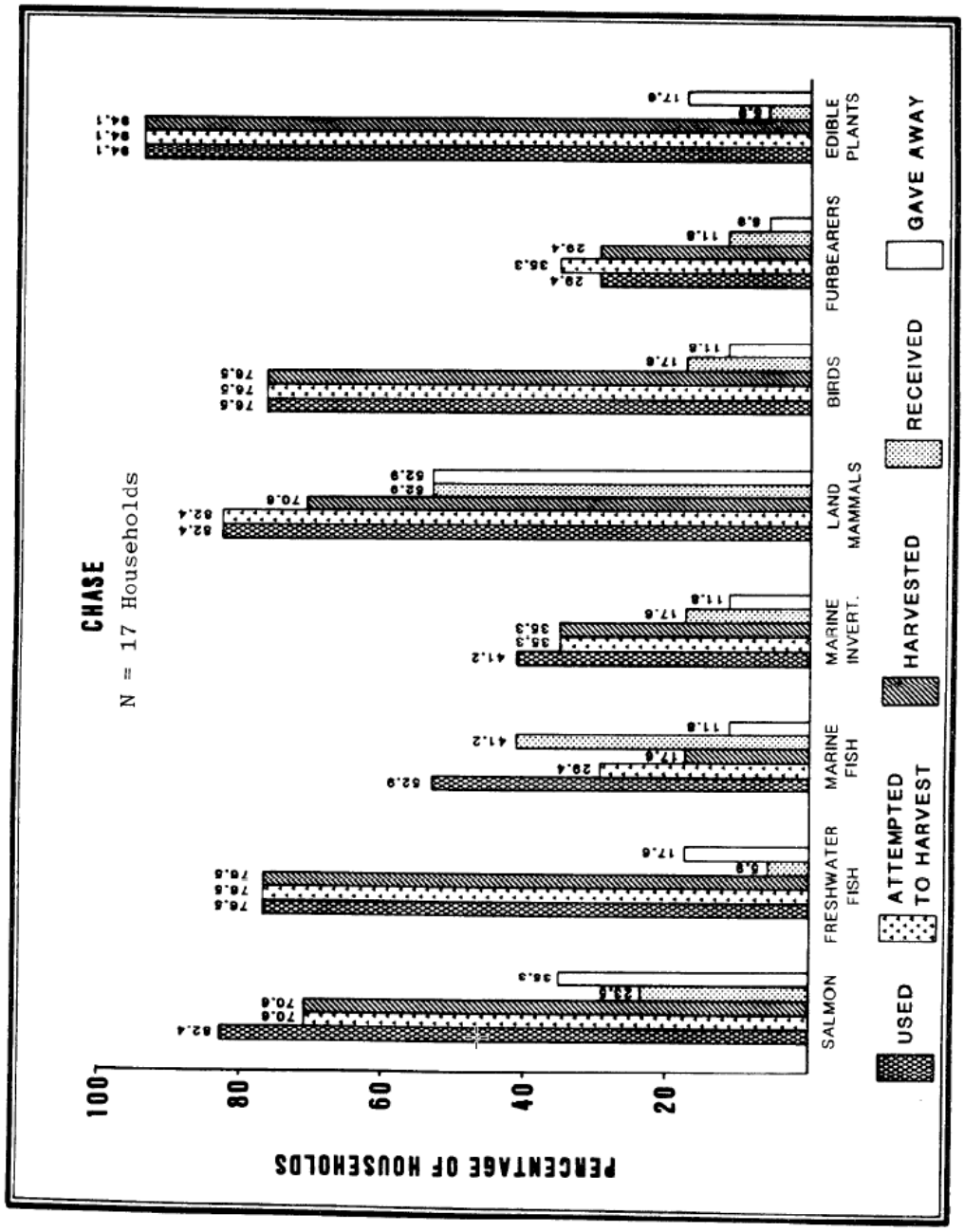


Figure 7. Percentage of Sampled Chase Households Using, Attempting to Harvest, Harvesting, Receiving, and Giving Away Eight Categories of Wild Resources, 1986.

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Figure 9 in the 1993 Chase Comprehensive Plan)

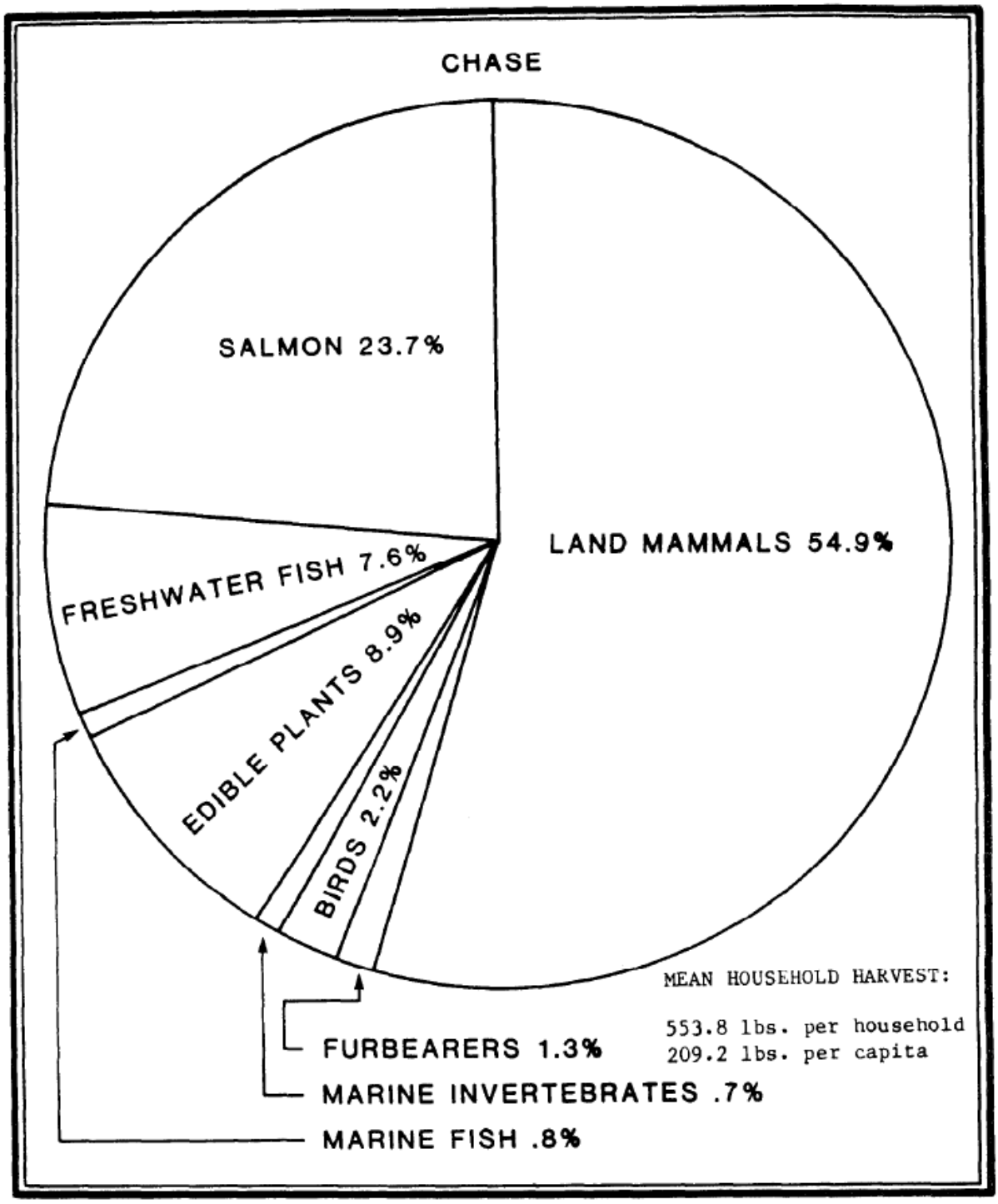


Figure 8. Composition of Wild Resource Harvest by Resource Category, Chase, 1986.

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Figure 10 in the 1993 Chase Comprehensive Plan)

Furbearers

"In 1986, 35.3 percent of the sampled Chase households attempted to trap furbearers, and 29.4 percent were successful (…..). Overall, the community took seven kinds of furbearers during the study year. These were beaver (17.6 percent harvesting), marten (17.6 percent), red squirrel (17.6 percent), mink (11.8 percent). Additionally, a few sampled households tried unsuccessfully to harvest wolverine, wolf, and coyote (Table 11). Of these species, only beaver were used for food in Chase, with a mean household harvest of 7.2 pounds, 1.3 percent of the community's resource harvest total. The following figure depicts the areas that Chase households indicated they had used for trapping during their years of residence in the community."

"Residents who moved to Chase in the late 1960s reported good trapping for marten, lynx, and fox at that time. Since settlement has increased, these species have declined dramatically. Marten were almost nonexistent in the Chase area in 1986 according to local trappers. Also, coyotes were more abundant in 1981 than in 1986. Several households reported letting their traplines rest in 1986 because of the decline in furbearer populations."

"Several households used wild furs and hides including hare, moose, caribou, and red squirrel for making clothing such as hats and mittens. Weasel was used for hats, slippers, and small bags, and was often used as trim. Red squirrel was used as trim and making small items for children. Also, crafts were made for personal use, traded and bartered for debts and favors, and sold at stores, bazaars, and to individuals."

"Furs were an important reserve source of cash and barter for these Chase households unable to earn adequate amounts of cash during the year. Table 17 reports the potential value of the Chase sample's 1986 furbearer harvest. The total value catch was $1,704..64, and average of $100.27 per household for the entire sample and $340.93 per trapping household. Because most furs were not sold, but were used for the manufacture of craft items or clothing for local use, this value does not represent actual cash income ."

CHASE COMMUNITY PLANNING AREA

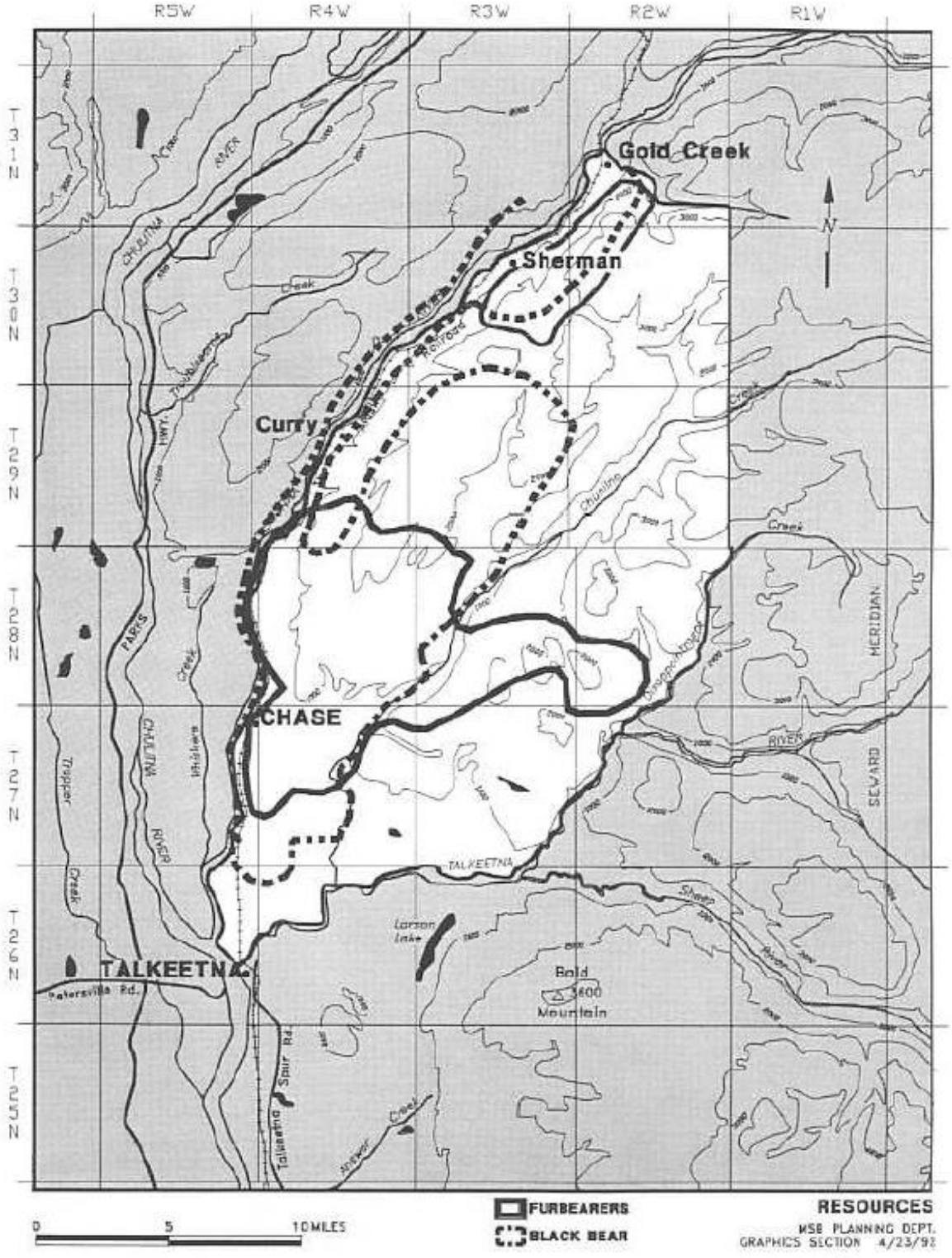


FIGURE 11

(1993)

Potential Value of Fur Harvests by Chase and Hurricane – Broad Pass Households, 1986

		Chase[a]		Hurricane – Broad Pass[a]	
Resource	Value per Pelt[b]	Catch	Total Value	Catch	Total Value
Beaver	$ 35.00	14	$ 490.00	6	$ 210.00
Land Otter	45.00	1	45.00	0	0
Mink	17.88	3	53.64	8	143.04
Marten	90.00	11	990.00	18	1,620.00
Red Fox	30.00	4	120.00	9	270.00
Weasel	1.00	6	6.00	4	4.00
Wolf	350.00	0	0	1	350.00
Wolverine	500.00	0	0	2	1,000.00
Total Value			$1,704.64		$3,597.04
Average per Sampled Household			100.00		449.63
Average per Trapping Household			340.93		1,798.52

TABLE 17

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 7 in the 1993 Chase Comprehensive Plan)

[a] For Chase, the sample included 17 households, 5 of which trapped furbearers in 1986. For Hurricane-Broad Pass, the sample included 8 households, 2 of which trapped furbearers in 1986.

[b] For beaver, land otter, marten, and red fox, average price per pelt in 1986-1987 offered by the Seattle fur market for southcentral Alaska furs (Herbert Melchior, Alaska Department of Fish and Game, personal communication, 1988). For the other species, average price per pelt paid to trappers in the Western Susitna basin in 1984 (Stanek 1987:141).

HARVEST ASSESSMENT

In Holen et al, The harvest assessment summary states:

> "For 10 resource categories and for all resources combined, survey respondents were asked to assess whether their uses and harvest in the 2012 study year were less, more or about the same as other recent years. "Other recent years" was defined as about the last 5 years. Figure 3-17 depicts responses to the "less, same, more" assessment question.

Taking all the resource categories into consideration, many households, 50%, said they used less wild resources in general over the previous 12 months compared to recent years."

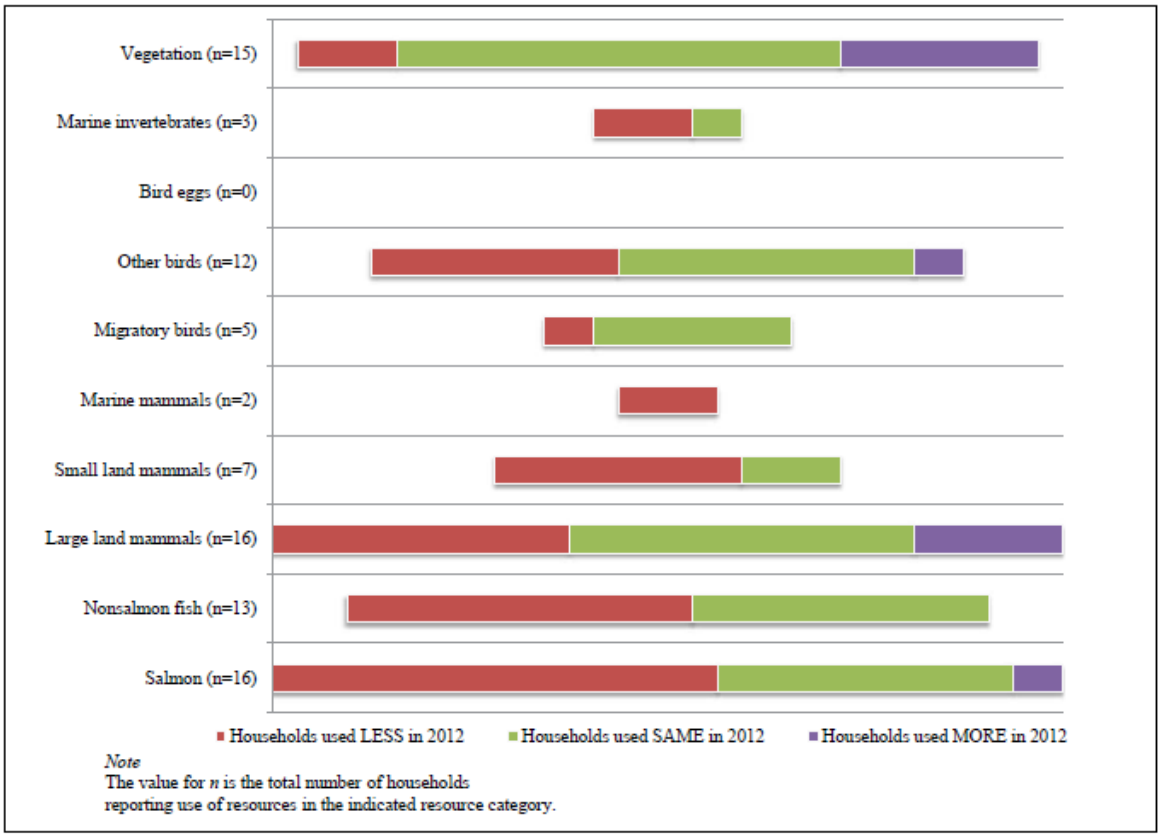


Figure 3-17. – Number of households using a resource and reporting LESS, SAME, or MORE use as compared to previous years, Chase, 2012.

Horticultural Practices

"Chase residents took pride in their gardening efforts and their ability to grow the majority of their fresh produce. Most households considered horticulture (small scale farming) essential in order to live in the area. This is reflected in the wide variety of crops and large quantities of annual production. Residents pointed out that it took experimentation with different crops and methods over the years to achieve consistently high levels of production. The sizes of gardens varied from 20 feet by 40 feet to 100 feet square. Most households had several plots for tilling and planting annuals and rows of perennial berry bushes and herbs. The average garden area utilized by the ten reporting households was 4,500 square feet."

"Several practices which contributed to successful horticultural production were composing, crop rotation, frequent soil analysis, and use of only the essential fertilizers. Lime was the most commonly noted mineral added to garden soils. Other materials added to improve soil conditions and nutrient levels included bone meal, blood meal, ashes, fish, green manure, and manure from domestic animals and moose."

"Proper garden site selections were well-drained with good exposure to sunlight, especially early spring sunlight to warm the soil. Many homes were equipped with large, south-facing window areas where plants could be started in the spring and later set outside."

"The careful selection of the types of crops to grow was also important to extended months of garden production. Particularly, crops tolerant of cold weather like cabbage, broccoli, cauliflower, and kale were essential. Potatoes and root crops of varieties suited to Alaskan soils and temperatures rounded out Chase gardens."

"The average household grew 12.2 kinds of garden produce and harvested 579.6 pounds of these foods during the study year. Households at Chase have, through practice and experimentation, developed ways to grow and store these vegetable foods under relatively severe local conditions. Most believed that gardening along with hunting and fishing, was an essential component of the local economy. Combining wild resources with garden produce, Chase households, on average, produced 1,133.4 pounds of food

in 1986. Horticulture did not play a similar major role in the other two samples areas."

Garden Produce Storage and Preservation

"Chase households utilized a variety of methods to store and preserve garden produce. These methods included canning, drying, and use of cold cellars. Carefully maintained cold cellars allowed the use of fresh vegetables like potatoes, carrots, cabbage, and turnips for as long as nine months of the year. Dried grass and moss were used in cellars for packing and insulating vegetables. Canning and drying most of these crops, as well as beans, beets, peas, and others, provided a year-round supply of produce. Many crops like broccoli, cabbage, kale, and cauliflower produced fresh harvests in the garden well into October until the first hard frosts. If slightly protected from freezing nights, kale lasted until the ground froze, even with snowfall."

"In addition to the staple crops listed in Table 18, Chase households grew a variety of garden herbs and spices. Examples include peppermint, spearmint, sage, and parsley. These were usually preserved by drying and canning."

Edible Wild Plants

"Almost all (94.1 percent) of the sampled Chase households used and harvested edible wild plants during the study year (Figure 7). The mean household harvest of 49.2 pounds was 8.8 percent of the community's total resource take (Figure 8), the third highest percentage after land mammals and salmon. Berries made up about two thirds of the wild plant harvest. Types of berries included blueberries, currents, high bush cranberries, low bush cranberries, raspberries, strawberries, cloudberries, crowberries, watermelon berries, and salmon berries. Additionally, 82.4 percent of the households used and harvested other edible wild plants. These included fiddlehead ferns, rosehips, wild celery, wild cucumber, fireweed, sweet gale, Labrador tea, mushrooms, and water cress."

Comparisons With Other Southcentral Alaska Communities

"Table 21 presents recent information on the size and composition of wild resource harvests of communities in southcentral Alaska based upon research by the Division of Subsistence. Figure 26[1] compares per capita resource harvests of several communities in the Cook Inlet drainage area (plus Cantwell, which is just to the north of this drainage). The per capita harvests of wild foods in 1986 for samples of households at Chase (209 pounds), Gold Creek – Chulitna (174 pounds), and Hurricane-Broad Pass (178) were notably higher than those reported for most communities along the road system in the Cook Inlet basin, such as Kenai (37 pounds),

Talkeetna (55 pounds), Trapper Creek (66 pounds), Ninilchik (76 pounds), and Homer (104 pounds). Harvests by the three study communities most closely resembled those of Skwentna (178 pounds), Tyonek (272 pounds), and Alexander Creek (313 pounds), all Cook Inlet basin communities off the road system. The study communities' harvests also resembled those in the upper range of Copper Basin communities, such as Chitina (190 pounds) or Gakona (192 pounds), but exceeded those of many other Copper Basin communities such as Mentasta (109 pounds) and Copper Center (113 pounds). These comparisons suggest that, within the context of southcentral Alaska, wild resource harvests play a relatively large role in the economy of Chase, Gold Creek-Chulitna, and hurricane-Broad Pass."

"In terms of harvest quantities and composition of wild resource harvests, the three study communities have the most in common with Skwentna. Per capita harvests are in the 170 to 200 pound range. Also, in all four areas, land mammals, rather than salmon, make up the largest portion of the harvests. There are several reasons for these similarities. First, as in Skwentna, seasonal patterns of wage employment are the norm in the three study areas. Chase, Gold Creek-Chulitna, and Skwentna are not road connected, and, along with the Hurricane-Broad Pass area, are geographically marginal to the employment opportunities and services found in the more densely populated portions of southcentral Alaska (cf. Stanek 1987). In these relatively sparsely settled regions, wild resources, such as moose and salmon, are relatively abundant and accessible. Regulations governing moose hunting favor local residents in both areas; Skwentna residents may hunt during a winter season, and residents of GMU13 (including residents of all three study areas) may take any bull moose rather than one with an antler spread of 36 inches or more (the bag limit for other hunters). Finally, although salmon are plentiful in the Susitna basin, residents of all four areas are restricted to rod and reel gear and bag limits in their salmon fishing; they are not eligible for any subsistence fisheries. This may in part account for the dominance of moose over salmon in these areas in contrast to, for example, Tyonek or most Copper basin communities that have access to the use of more efficient subsistence gear types (gill nets for Tyonek, fishwheels and dip nets for the Copper Basin)."

"There are also some notable similarities between the study communities and Cantwell, which is immediately north of the Hurricane-Broad Pass sampling area. For example, in 1982, land mammals, mostly caribou and moose, dominated Cantwell's harvest of wild foods, making up 73 percent of the total harvest as measured in pounds edible weight (Table 21; Stratton and Georgette 1984:178). This compares with 56.2 percent for Chase, 44.5 percent for Gold Creek-Chulitna, and 68.0 percent for Hurricane-Broad Pass. Also, although Cantwell's per capita harvest of wild foods of 130 pounds in 1982 was lower that the harvests reported for the study

communities in 1986, Department of Fish and Game subsistence permit data for moose and caribou suggest that Cantwell residents' harvests of these species have increased substantially since 1982. This is a consequence of regulatory changes which have provided enhanced opportunities for Cantwell residents to obtain subsistence hunting permits for caribou and moose. Based on 1986-1987 regulatory year permit data and comparisons with 1982 survey data, it is estimated that the per capita harvest of wild foods in Cantwell for the 1986-1987 regulatory year was 214 pounds, very similar to those reported for the three study populations as well as Skwentna (Files, Division of Subsistence, Anchorage)."

[1] *Figure 26 located in ADF&G Tech Paper 161, Stanek et al, 1988.*

TABLE 21. COMPARISON OF PER CAPITA WILD RESOURCE HARVESTS AND THE COMPOSITION OF WILD RESOURCE HARVESTS BY RESOURCE CATEGORY IN SELECTED SOUTHCENTRAL ALASKA COMMUNITIES

Community[a]	Per Capita Harvest, Pounds	Percent of Harvest Composed of: Salmon	Other Fish	Marine Invert.	Land Mammals	Marine Mammals	Birds & Eggs	Wild Plants
Cook Inlet, Coastal								
Homer	104	16.0	32.0	22.0	29.0	0	b	1.0
Kenai	37	42.0	29.0	9.0	18.0	0	b	2.0
Ninilchik	76	24.0	28.0	18.0	27.0	0	b	3.0
Seldovia	52	35.0	25.0	16.0	16.0	0	b	8.0
Tyonek	272	71.0	3.0	2.0	21.0	1.0	1.0	1.0
Susitna River Basin								
Alexander Creek[c]	313	24.9	5.3	NA	58.9	0	2.0	2.4
Cantwell	130	5.0	19.0	0	73.0	0	b	3.0
Chase	209	23.7	8.4	.7	56.2	0	2.2	8.9
Gold Creek - Chulitna	174	29.8	14.3	0	44.5	0	4.1	7.4
Parks Highway	58	37.3	4.3	1.5	50.7	0	.7	5.5
Hurricane - Broad Pass	178	16.2	6.0	0	68.0	0	1.2	8.6
Petersville Road	167	39.7	10.2	.5	43.5	0	3.2	2.8
Skwentna[c]	178	24.9	5.3	NA	58.9	0	2.0	2.4
Talkeetna	55	40.1	17.6	.6	31.1	0	1.4	9.1
Trapper Creek	66	52.9	21.5	1.2	16.4	0	1.6	6.4
Copper River Basin								
Chistochina	115	37.0	8.0	0	43.0	0	b	12.0
Chitina	190	61.0	4.0	0	28.0	0	b	7.0
Copper Center	113	62.0	21.0	0	13.0	0	b	5.0
Gakona	192	56.0	13.0	0	28.0	0	b	3.0
Glennallen	71	44.0	10.0	0	42.0	0	b	4.0
Gulkana	114	49.0	14.0	0	33.0	0	b	5.0
Mentasta	109	19.0	4.0	0	63.0	0	b	14.0
Prince William Sound								
Chenega Bay	361	21.0	16.0	1.0	20.0	39.0	1.0	1.0
Cordova	151	39.0	22.7	6.2	26.9	<.1	1.5	3.6

[a] Study years: Homer, Kenai, Ninilchik, and Seldovia, 1982 (Reed 1985); Tyonek 1982-3 (Fall et al 1984); Alexander Creek and Skwentna, 1984 (Stanek 1987); Cantwell, Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, and Mentasta, 1982 (Stratton and Georgette 1984); Parks Highway, Petersville Road, Talkeetna, Trapper Creek, 1985-86 (Fall and Foster 1987); Chenega Bay 1986 (Stratton and Chisum 1986); Cordova, 1986 (Stratton 1987).

[b] Included in game.

[c] Harvest composition is based on combined Alexander Creek and Skwentna harvests.

HARVESTS OF GARDEN PRODUCE, CHASE, 1986

Type of Produce	Percent of HHs Growing	Total Lbs. of Production	Mean HH Lbs. Of Production	Per capita Harvest lbs.
Beans	9.1	4.0	0.4	0.1
Beets	72.7	247.0	22.5	8.2
Broccoli	90.1	500.0	45.5	17.9
Brussel Sprouts	36.4	67.0	6.1	2.4
Cabbage	90.9	573.0	52.1	20.5
Carrots	100.0	705.0	64.1	25.2
Cauliflower	63.6	104.0	9.5	3.7
Celery	9.1	18.0	1.6	0.6
Chives	9.1	3.0	0.3	0.1
Crab Apples	9.1	200.0	18.2	7.1
Jerusalem Artichoke	9.1	10.0	0.9	0.4
Kale/Collards	45.5	401.0	40.1	16.7
Kohlrabi	18.2	15.0	1.5	0.6
Lettuce	81.8	186.0	23.3	9.8
Mustard Green	18.2	78.0	7.1	2.8
Onions	72.7	402.0	36.5	14.4
Parsnips	9.1	20.0	1.8	0.7
Peas	54..5	50.0	4.5	1.8
Peppers	9.1	11.0	1.0	0.4
Potatoes	100.0	1,865.0	169.5	66.6
Radishes	45.5	43.0	3.9	1.5
Rhubarb	45.5	83.0	7.5	3.0
Rutabaga/Turnip	45.5	270.0	24.5	9.6
Spinach	36.4	68.0	6.2	2.4
Swiss Chard	27.3	44.0	4.0	1.6
Tomatoes	45.5	213.0	19.4	7.6
Squash	18.2	41.0	3.7	1.5
Zucchini	45.5	154.0	15.4	6.4
TOTALS	100.0	6,375.0	579.6	227.7

TABLE 18

Alaska Department of Fish and Game Technical Paper 161, Stanek et al, June 1988.
(Listed as Table 8 in the 1993 Chase Comprehensive Plan)

[a] N=11 households which provided information on garden produce harvests. N= 10 for zucchini, kohlrabi, and kale/collards. N= 8 for lettuce.

Source: Division of Subsistence, Alaska Department of Fish and Game, Survey, 1987.

Vegetation

In Holen et al, Department of Fish and Game resource use report states, "Wild plants were used by 100% of households in the Chase in 2012 and all households were successful in harvesting vegetation. The community harvested a total of 1,061 lb. of vegetation equating to 59 lb. per household and 30 lb. per capita. The composition of this harvest was 89%(940 lb.) berries and 11% (122 lb.) plants/greens/mushrooms. Figure 3-15 identifies the composition of the vegetation harvest by species."

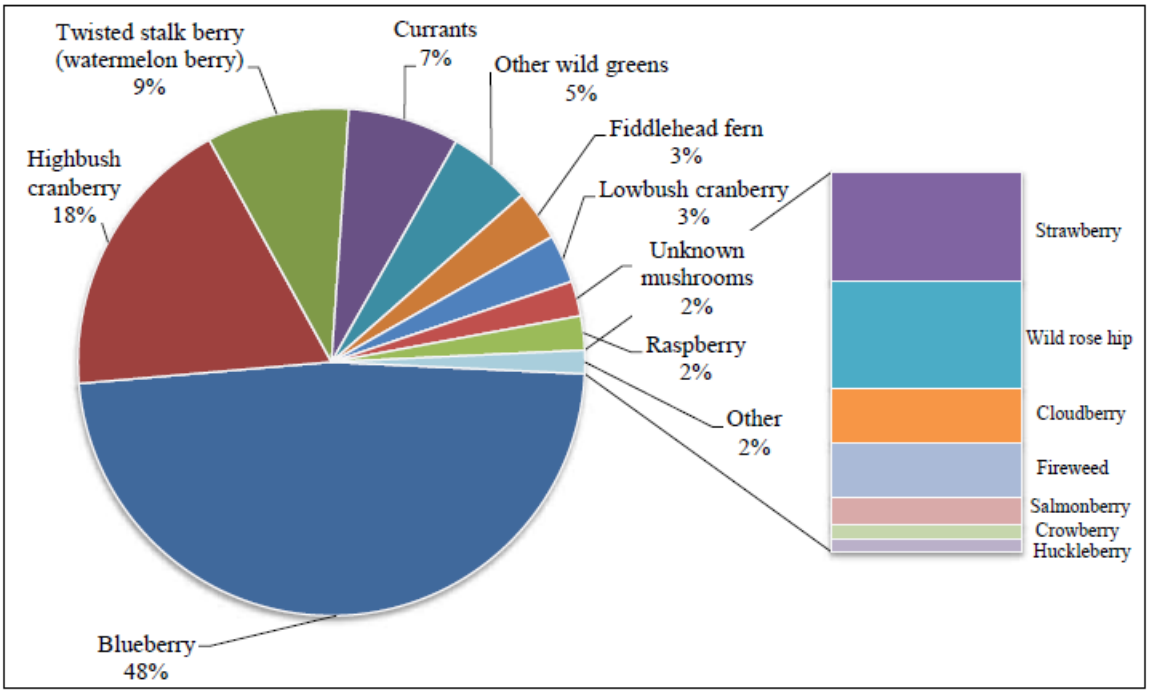


Figure 3-15. – Composition of vegetation harvest, Chase, 2012.

(Holen, et al, 2012) (2017)

Figure 3-16 depicts the areas where vegetation was gathered to include berries, mushrooms, and other plants.

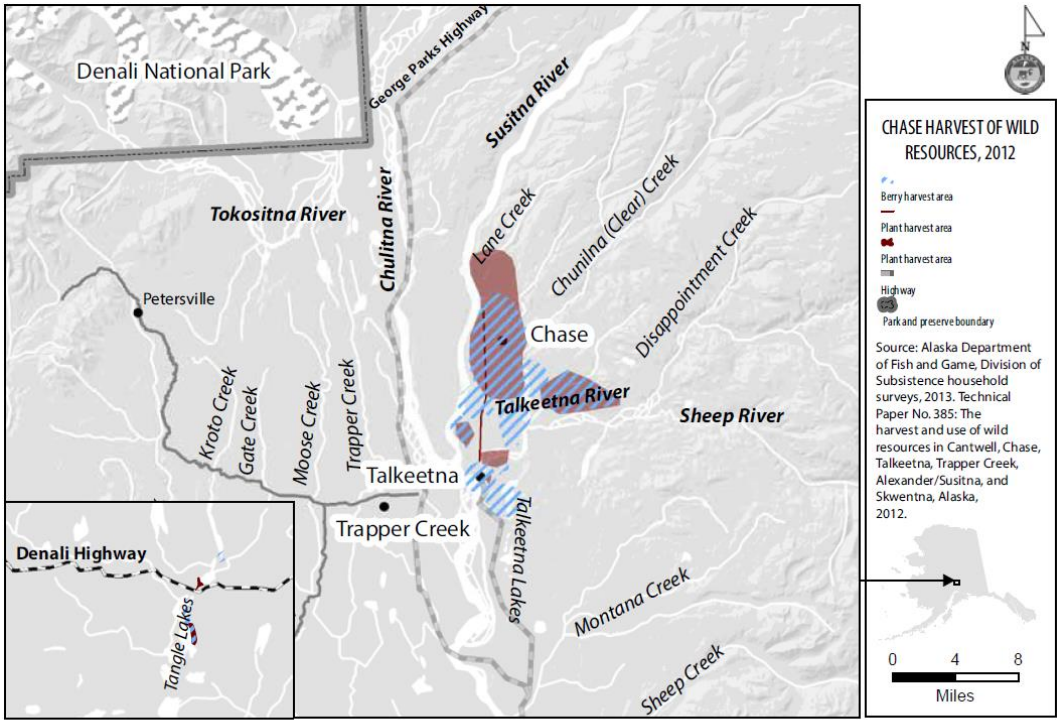


Figure 3-16. – Berries and plants, greens, and mushrooms search and harvest areas, Chase, 2012.
(Holen, et al, 2012) (2017)

"In 2012, residents of Chase reported harvesting 457 total pounds of nonsalmon fish, equaling 13 lb. per capita and representing 23% of the total fish harvest. A total of 69% of households used nonsalmon fish, and of the 56% that attempted to harvest, all were successful. Halibut was the most frequently used nonsalmon fish species, with 44% of households using the resource, and, of the 25% of households attempting to harvest this species, all were successful." (Holen, et al, 2012)

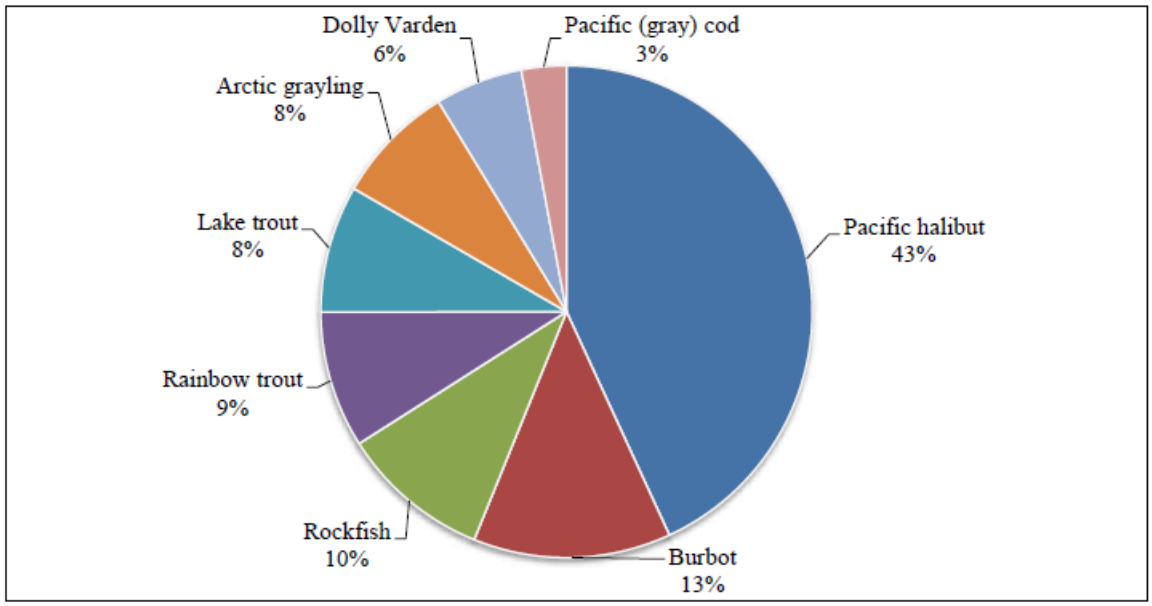


Figure 3-7. – Composition of nonsalmon fish harvest, Chase, 2012.

(Holen, et al, 2012) (2017)

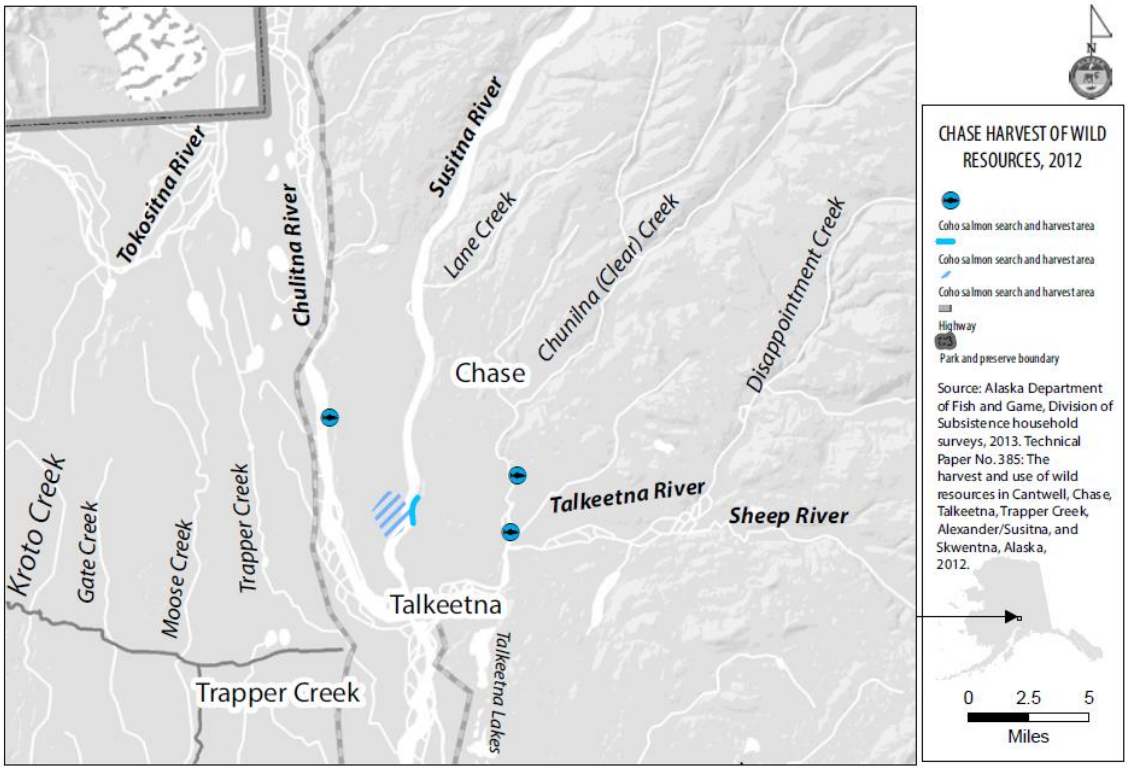


Figure 3-6. – Coho salmon search and harvest areas, Chase, 2012.

(Holen, et al, 2012) (2017)

“In 2012, residents of Chase reported harvesting 1,561 total pounds of salmon equaling 45 lb. per capita. A vast majority of households reported using salmon (94%) and (69% of households attempted to harvest salmon. Overall all households that attempted to harvest salmon were successful, though not for all species.” (Holen, et al, 2012)

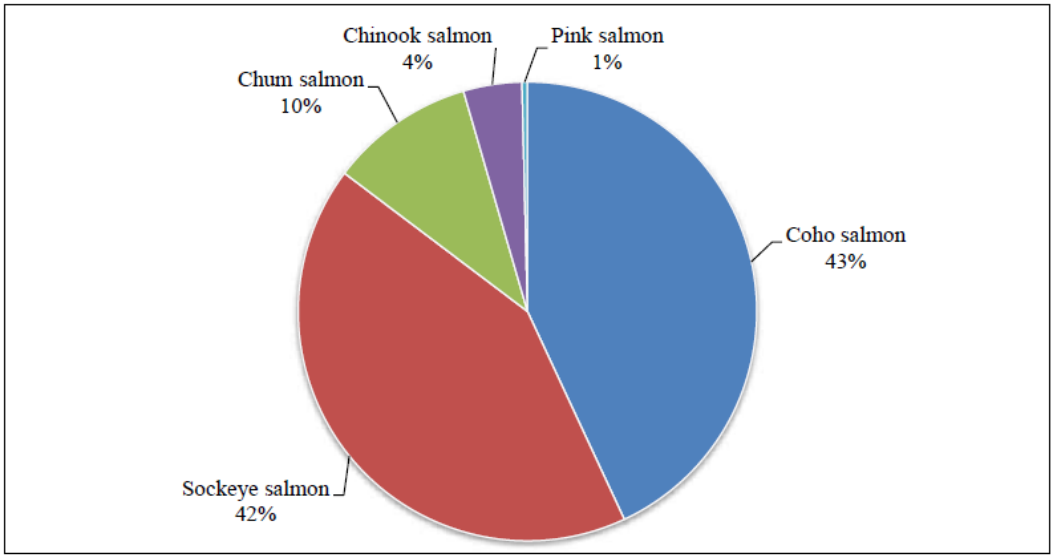


Figure 3-5. – Composition of salmon harvest, Chase, 2012.

(Holen, et al, 2012) (2017)

CLIMATE

The weather station nearest the Chase Area for statistical information is located in Talkeetna just to the south.

Average monthly temperatures, precipitation and wind speed are listed on table 10 below. The average temperature range is from 9.0 degrees in December to almost 60 degrees in July. Temperature extremes range from -48 degrees to 90 degrees.

The average yearly precipitation is shown as about 29 inches. Much of this comes in the form of snowfall, which averages 108 inches per year.

If the Planning Area is similar to Talkeetna, it has a frost-free season of 87 days (June 2 – August 25).

AVERAGE TEMPERATURES, PRECIPITATION AND WINDS
TALKEETNA, ALASKA

Month	Temperature (°Fahrenheit)	Total Precipitation (Inches)	Snowfall (Inches)	Wind	
				Prevailing Direction	Mean Speed (m.p.h.)
January	9.4	1.63	17.9	N	6.3
February	15.3	1.79	17.8	N	5.0
March	20.0	1.54	17.1	N	4.9
April	32.6	1.12	8.5	N	4.4
May	44.7	1.46	0.9	S	4.4
June	55.0	2.17	T	S	4.3
July	57.9	3.48	-	S	3.7
August	54.6	4.89	T	S	3.0
September	46.1	4.52	0.1	N	3.1
October	32.1	2.54	9.9	NNW	3.5
November	17.5	1.79	16.1	N	5.0
December	9.0	1.71	19.8	NNW	4.9
Annual	32.8	28.64	108.1	N	4.3

NOTE: Normals based on the 1941 – 1970 period.
SOURCE: U.S. Department of commerce, National Weather Service.

TABLE 10 (1993)

Per the National Weather Service U.S. Climate Data Website, the current information is listed below.

Climate Talkeetna - Alaska

°C | °F	JAN	FEB	MAR	APR	MAY	JUN
Avg. high in ° F	22	28	36	46	58	67
Avg. low in °F	6	9	14	26	37	47
Avg. precipitation in inch	1.38	1.46	1.06	1.3	1.61	1.93
Avg. snowfall in inch	22	22	15	8	1	0

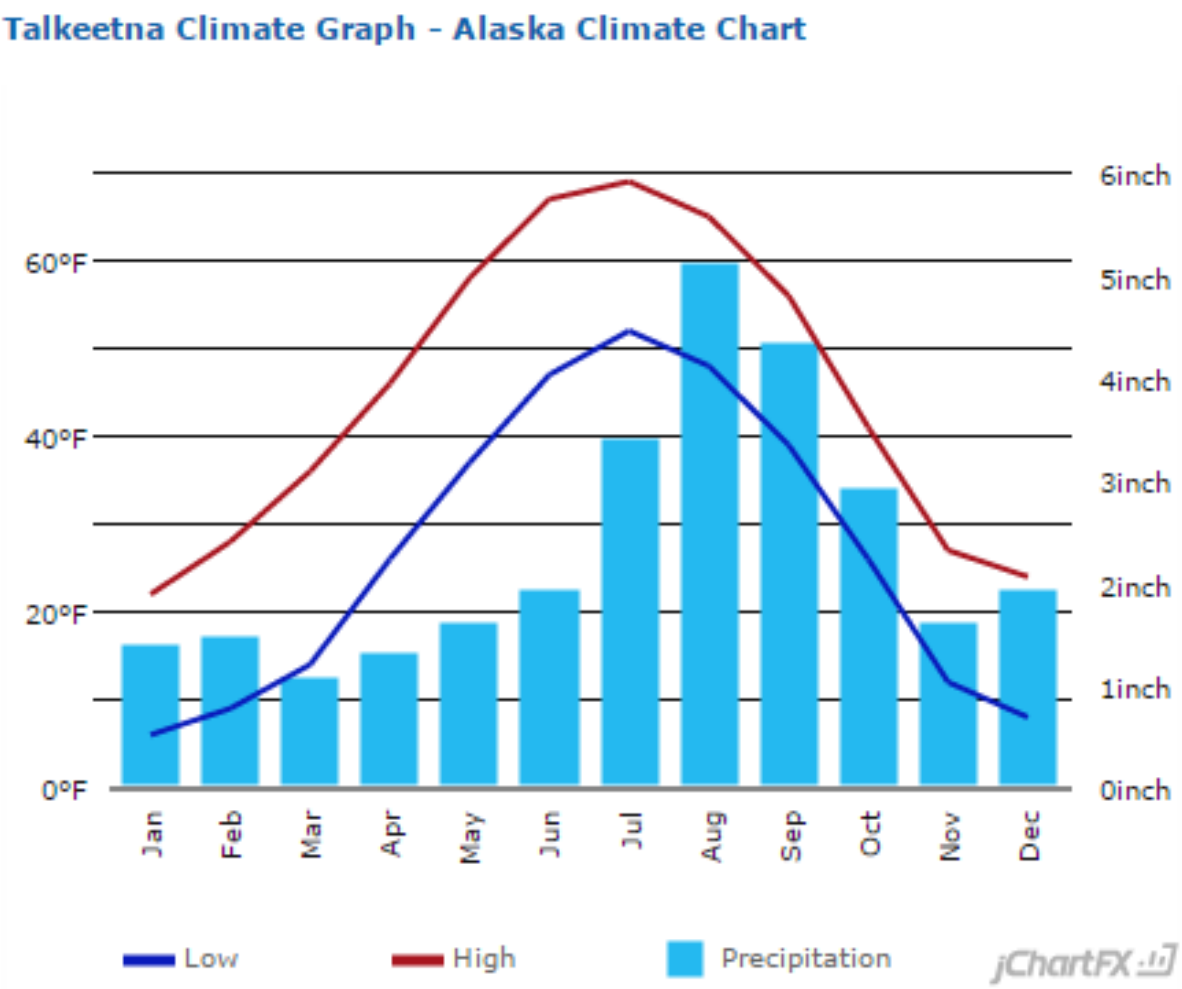
°C | °F	JUL	AUG	SEP	OCT	NOV	DEC
Avg. high in ° F	69	65	56	41	27	24
Avg. low in °F	52	48	39	26	12	8
Avg. precipitation in inch	3.39	5.12	4.33	2.91	1.61	1.93
Avg. snowfall in inch	0	0	1	13	23	32

Climate data for Talkeetna ap, Longitude: -150.095, Latitude: 62.32
Average weather Talkeetna, AK - 99676 - 1981-2010 normals
Jan: January, Feb: February, Mar: March, Apr: April, May: May, Jun: June, Jul: July, Aug: August, Sep: September, Oct: October, Nov: November, Dec: December

Talkeetna weather averages

Annual high temperature	44.9°F
Annual low temperature	27°F
Average temperature	35.95°F
Average annual precipitation – rainfall	28.03 inch
Average annual snowfall	137 inch

Table 10-1 (2017)



(http://www.usclimatedata.com/climate/talkeetna/alaska/united-states/usak0236, 2016)

Table 10-1 Continued (2017)

The U.S. Soil Conservation Service has provided a table of growing degree days by month for the area, along with a chart of required frost free season and total growing degree days for three sample crops – barley, potatoes and grass. All three of the sample crops could be grown in the area – except that the required number of frost free days for barley is marginal. Table 18 in a preceding section lists crops that have been grown in gardens in the planning area.

GROWING DEGREE DAYS
1989

	AVERAGE
MAY	
Average Temp. 45.9	165
(45.9 - 40) (31) = 183 based on 40	
JUNE	
(55.4 - 40) (30) = 462 based on 40	425
(55.4 - 50) (30) = 162 based on 50	N.A.
JULY	
(60.4 - 40) (31) = 632 based on 40	570
(60.4 - 50) (31) = 322 based on 50	N.A.
AUGUST	
(57.6 - 40) (31) = 546 based on 40	477
(57.6 - 50) (31) = 236 based on 50	N.A.
SEPTEMBER	
(48.7 - 40) (30) = 261 based on 40	175
TOTAL	Average Total
2,084 based on 40 720 based on 50	1,812

SOURCE: Soil Interpretation Procedure Guide, Alaska - September 1984
USDA-SCS

Check climate data for survey area or subarea, note FFS (Frost Free Season) and degree days, determine from table below how many key crops can be grown.

KEY CROPS	REQUIRED FFS (Frost Free Season)	REQUIRED DEGREE DAYS (40 BASE)
Barley	90	1500
Potatoes	80	1250
Grass	30	-

GEOLOGY

The geology of the planning area is very generally illustrated on the following figure, which is explained on the accompanying legend. Mineralization is also indicated on this map along with mining activity of record as of the date of the map. Both mines indicated were gold mines and would have been placer mines. Chunilna (Clear) Creek and its tributaries have attracted many mining claims including some patented federal claims. Mineral known to be present include gold, lead and molybdenum – especially gold.

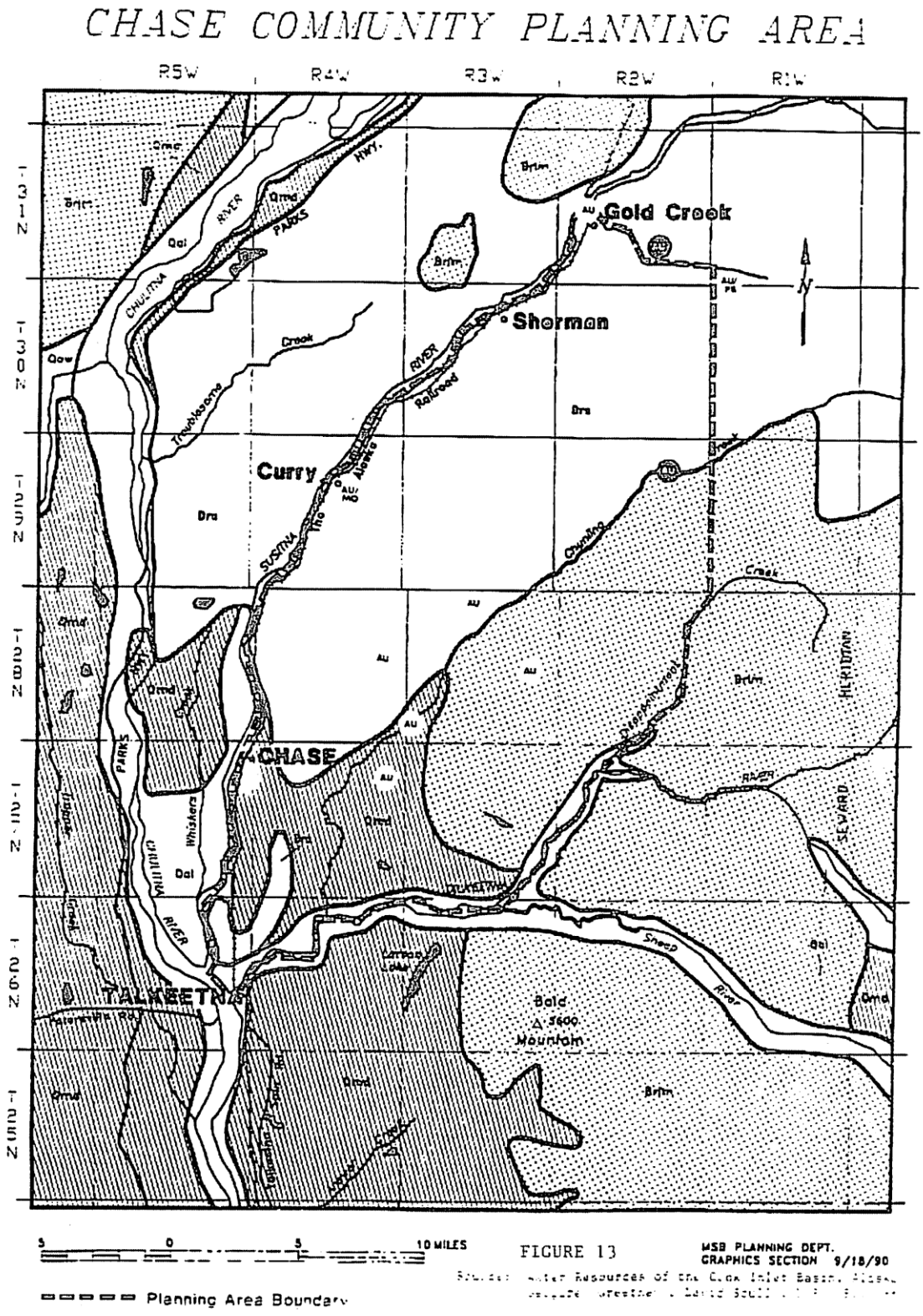


Figure 13 (1993)

TABLE 11 (1993)

GEOLOGY

MAP UNIT	Igneous and metamorphic bedrock	Sedimentary bedrock	Moraines and other unsorted glacial drift
LITHOLOGY	Igneous and highly metamorphosed rocks, usually well consolidated and dense; jointing and faulting common. Lower grade metamorphic rocks are less consolidated and less dense.	Well-consolidated to poorly consolidated sedimentary rocks, including arkose, graywacke, gravel conglomerate, sandstone, siltstone, shale, coal, and limestone.	Heterogeneous blend of gravel, sand, silt, and clay, and with discontinuous lenses consisting largely of well-sorted material.
LANDFORMS AND OCCURRENCE	Underlies entire basin. Exposed in ridges and rounded hills near the foot of mountain ranges and on steep hills and peaks in the Chugach, Kenai, and Alaska Ranges. Found at shallow depths in some places under Quaternary sediments near the mountain fronts.	Forms ridges, rounded hills, and bluffs in the Talkeetna and Chugach Mountains, steeper slopes and hills on the west side of Cook Inlet in the Alaska Range; found at shallow depths beneath Quaternary sediments on the southern half of the Kenai Peninsula and in places near mountain fronts.	Forms hummocky terrain with muskeg- and marsh-filled depressions, in places extensively dissected by postglacial erosional processes. Typically occurs near the upland areas of basins where bedrock may be at shallow depths.
SURFACE DRAINAGE, INFILTRATION, AND PERMEABILITY	Surface drainage very good. Infiltration poor to moderate. Primary permeability poor; secondary permeability in fault zones and jointed areas poor to moderate.	Surface drainage good. Infiltration poor to moderate. Primary permeability poor to good, depending on coarseness of material, type of cementation, and degree of consolidation. Secondary permeability in fault zones and joint systems, poor to moderate.	Surface drainage moderate to good on slopes, poor in depressions. Infiltration poor to good, depending on soil texture and grain size. Permeability poor to good, depending on amount of fine-grained materials.
POTENTIAL FOR GROUND-WATER USE	Ground-water potential poor because of low permeability and limited saturated thickness. Many wells drilled into this type of material are dry. Nearly all ground-water yields are less than 5 gallons per minute.	Ground-water potential poor where rocks are well consolidated or consist mostly of fine-grained rock types such as siltstone, shale, or graywacke. Ground-water potential poor to good in poorly consolidated formations of coarse-grained sandstone and gravel conglomerate.	Ground-water potential ranges from poor to moderate, depending on grain size of underlying material, saturated thickness, and availability of recharge. Typical domestic wells are finished in a relatively shallow lens of coarse-grained material which yields enough water for a household supply. Few large-yield wells have been drilled in areas underlain by this material.

Source: Water Resources of the Cook Inlet Basin, Alaska
Geoffrey W. Freethey and David Scully
U.S. Geological Survey

● KNOWN HISTORIC AND ACTIVE MINES
○ KNOWN MINERAL PROSPECTS

(AU) GOLD
(PB) LEAD
(MO) MOLYBDENUM

GEOLOGY

MAP UNIT	Qal Holocene flood plains, terraces, and alluvial fans.
LITHOLOGY	Well stratified silt, sand, and gravel. Coarser grained materials near mountains grading to sand and silt away from mountains.
LANDFORMS AND OCCURRENCE	Forms alluvial flood plains, alluvial fans, and terraces along most streams. Long, narrow deposits too small to be shown at the map scale used.
SURFACE DRAINAGE, INFILTRATION, AND PERMEABILITY	Surface drainage, infiltration, and permeability moderate to good.
POTENTIAL FOR GROUND-WATER USE	Ground-water potential usually good because of abundant sources for recharge and, normally, large saturated thickness. Wells drilled into this material usually obtain adequate domestic supplies at less than 100 feet. A few yields greater than 1,000 gallons per minute have been reported.

SOILS

Highland masses of the Talkeetna Mountains occupy the majority of the northern half of the planning area with most of this area above tree-line – approximately 2000 feet. Exceptions include the valleys of Clear Creek and its major tributaries and bench lands dissected by streams draining into the Susitna River along the areas western boundary. The Soil Survey of Susitna Valley Area, Alaska prepared by Dale Schoephorster and Robert Hinton of the U.S. Soil conservation Service, and issued in 1973 includes only that part of T26N and T27N R5W and T26N R4W and a portion of T27N R4W within the planning area. This is the southern end of the area. The Soil Survey describes the soils in this area as silty and sandy loams over sand or gravelly sand. Except for poorly drained portions, these soils are suited to varying degree to cultivation (see following illustration.

An agricultural homestead sale – Chase III – was proposed by the State in this area and a court challenge has halted that sale pending the development of an appropriate plan.

In 1984, the Soil Conservation Service conducted a field verification of the soil survey for the Chase III sale area. The results of that field work are contained in a letter from Mr. Calvin Steele dated January 4, 1990. In 1990, the Solid Conservation Service conducted new field work in the lower portion of the planning area and mapped soils as “better suited”, “somewhat suitable” and “not suitable” for agriculture. That map has been reproduced in the following pages and indicates that at least portions of the Chase III agricultural homestead are better suited or somewhat suitable for agriculture. It also shows that a large part of the soils that are better suited to agriculture are under Borough ownership, and that some of these better-suited soils have been included in the Chase II Subdivision.

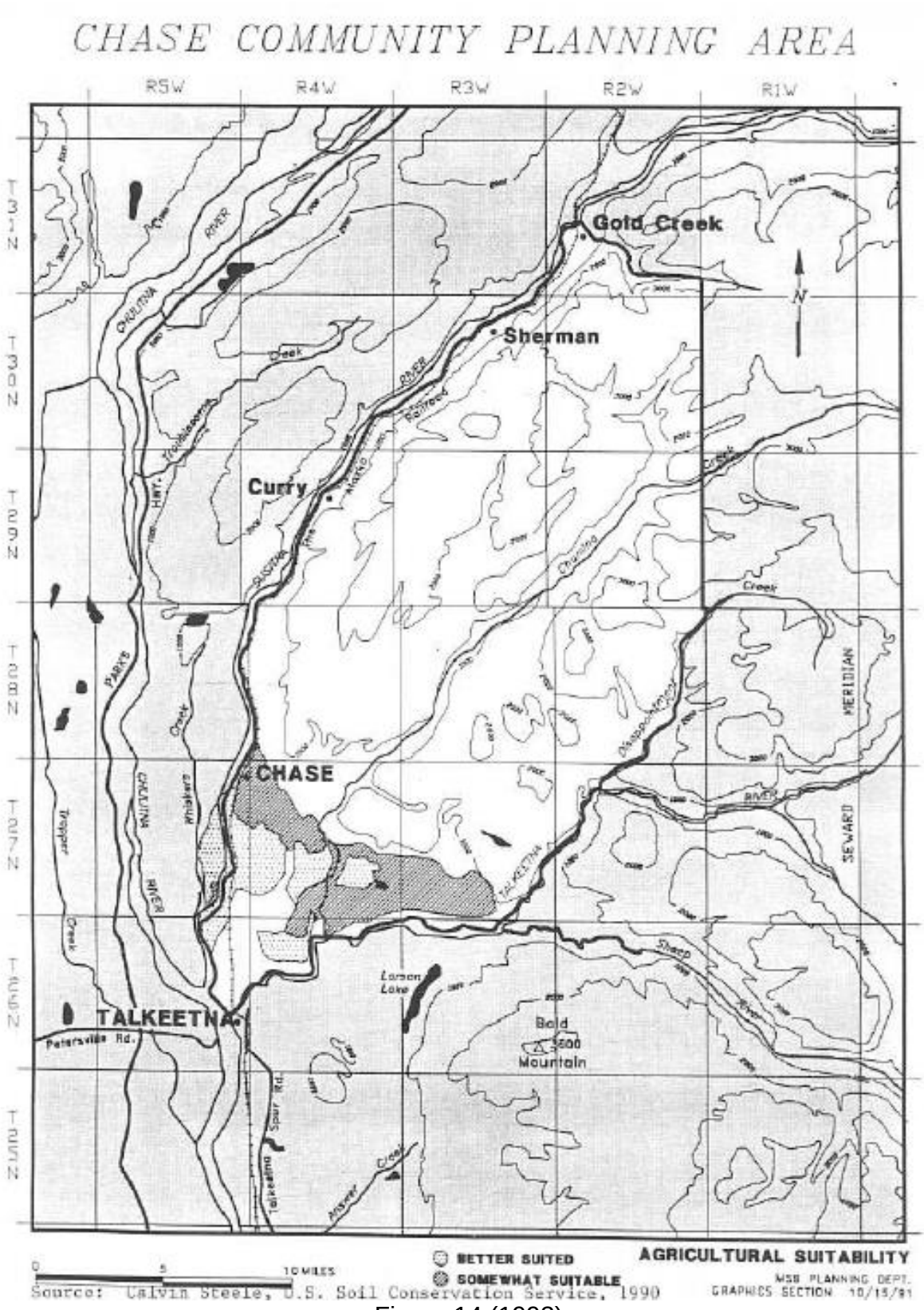


Figure 14 (1993)

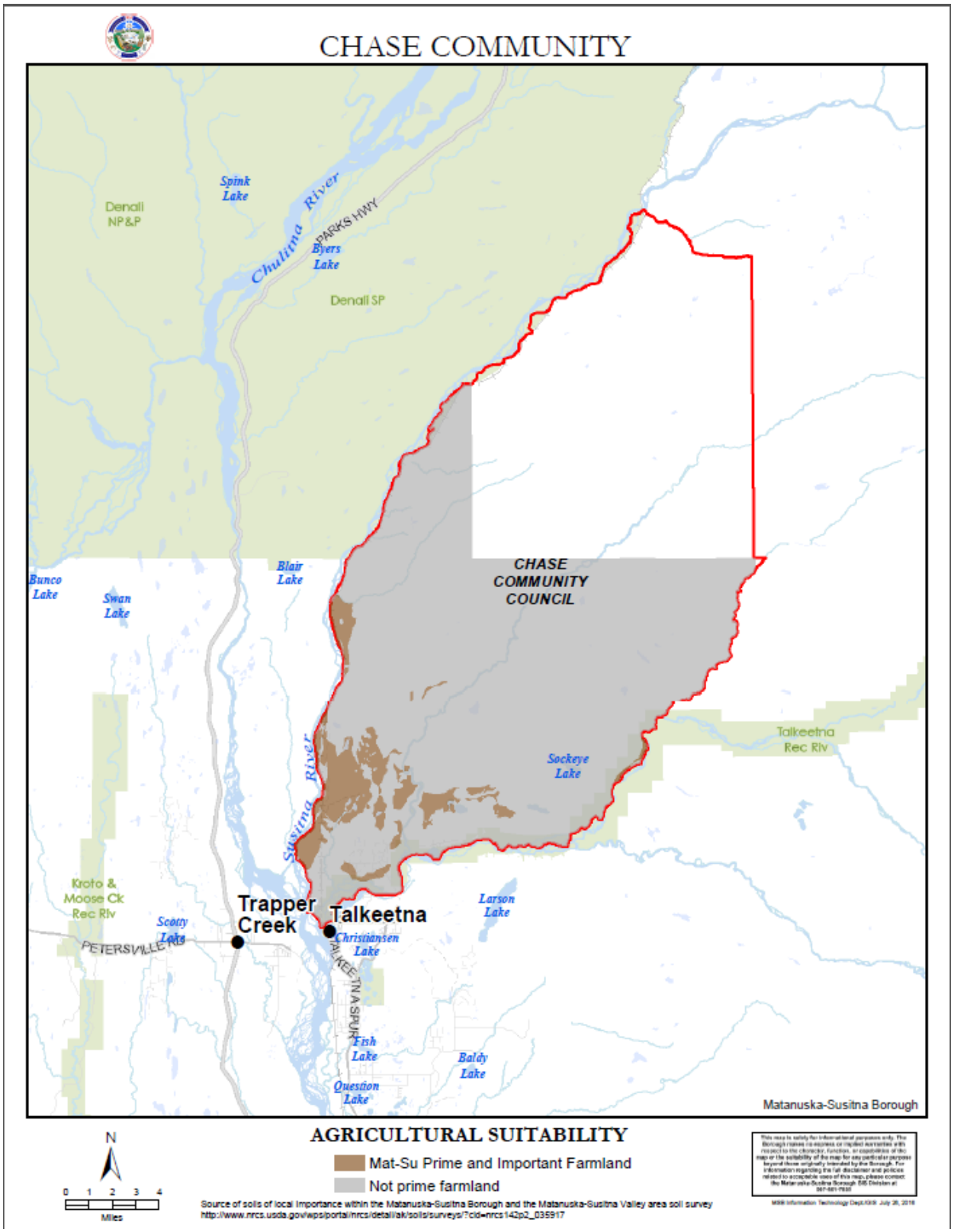


Figure 14a (2017)

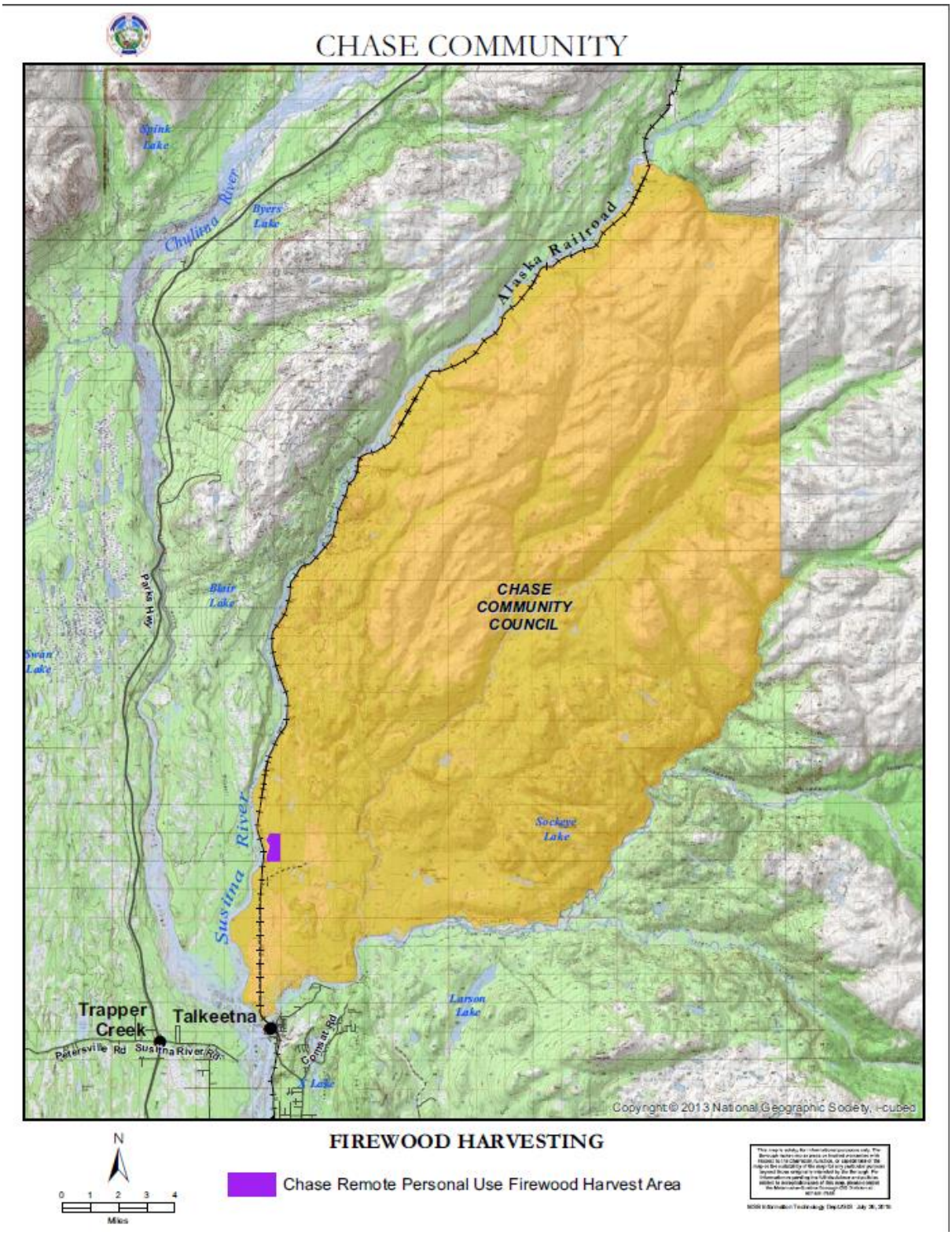


Figure 15 (2017)

Firewood Harvesting

The Community of Chase currently has approved area for harvesting personal use firewood. The permit #MSB003092 for Remote Personal Use Firewood Harvesting opened March 11, 2016 and is located east of the Chase Trail with in Section 24 township 27N R5W Seward Meridian.

Forest Products

All of the 17 households interviewed by the Stanek et al in their Chase area harvested cordwood for home heating in 1986. The average usage was 5.6 cords for the year. The following figure illustrates the areas used to collect firewood. Over half of the chase sample also harvested house logs in 1986.

Natural Hazards

The Matanuska Susitna Borough Hazard Mitigation Plan of 2008 revised in 2013 is intended as a guide for reducing losses, both human and economic, due to natural disasters
https://www.commerce.alaska.gov/dcra/DCRARepoExt/RepoPubs/Plans/Mat%20anuska-Susitna%20Borough%20Hazard%20Mitigation%20Plan.pdf

The document follows the required processes of identification of hazards, mapping the potentially impacted areas, tallying risks and vulnerabilities, and presenting mitigation strategies to meet requirements of the Hazard Mitigation Act of 2000.

The Chase Community is not specifically identified separately for hazard identification. However, Chase shares hazards with communities near them such as Talkeetna and Willow. General hazard information is listed below and the broad general mitigation goals and objectives are viable for every community within the Matanuska-Susitna Borough.

The primary goals of the MSB HMP are to:

- Minimize injuries and loss of life;
- Minimize damages;
- Facilitate post-disaster restoration of public services; and
- Promote economic development.

To attain the goals, the MSB Hazard Mitigation Plan will include measures to:

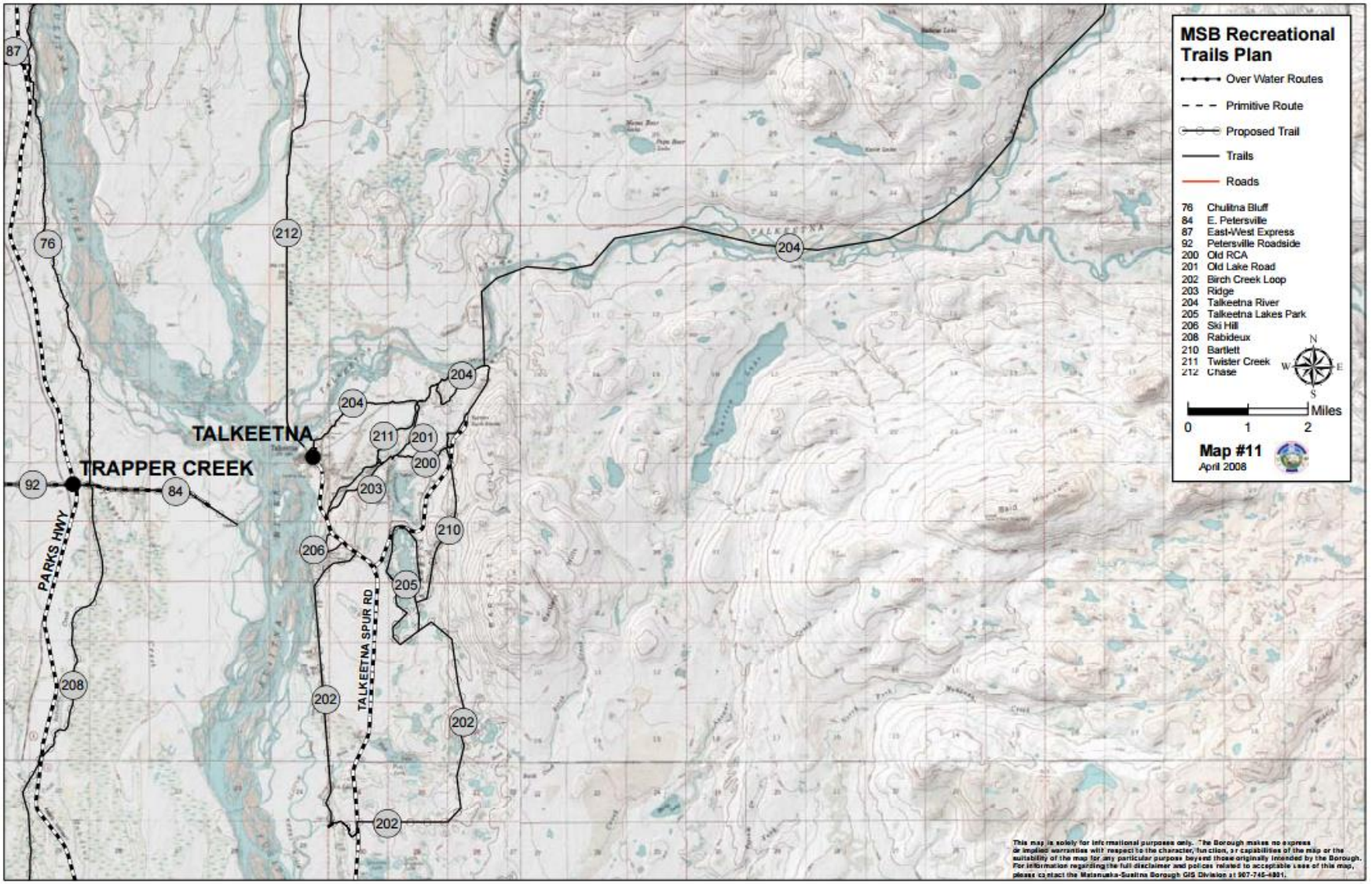
- Save lives and reduce injuries;
- Prevent or reduce property damage;
- Reduce economic losses;
- Minimize social dislocation and stress;
- Maintain critical facilities in functional order;
- Protect infrastructure from damage; and

Protect legal liability of government and public officials. The potential disasters in the area include:

- Wildfire;
- Flooding;
- Earthquakes;
- Power outages;
- Communication blackout;
- Parks Hwy interruptions;
- Train derailment or semi-trailer accident resulting in hazardous materials release

TRAILS

The Chase trail is identified in the MSB Recreational Trails Plan of 2000 updated in 2008 as trail #212. "A multi-use trail located adjacent to the Alaska Railroad line north of Talkeetna that provides an access route for Chase residents. It is also used by recreationalist shown on Map #11". The Nodwell trail is currently going through the process to be recognized as an official trail by the MSB. Other trails in the area provide access to private property including the Clear Creek road trail which is a platted right of way for access.


MSB Recreational Trails Plan
Over Water Routes
Primitive Route
Proposed Trail
Trails
Roads
76 Chulitna Bluff
84 E. Petersville
87 East-West Express
92 Petersville Roadside
200 Old RCA
201 Old Lake Road
202 Birch Creek Loop
203 Ridge
204 Talkeetna River
205 Talkeetna Lakes Park
206 Ski Hill
208 Rabideux
210 Bartlett
211 Twister Creek
212 Chase
N
W
E
S
Miles
0
1
2
Map #11
April 2008
TALKEETNA
TRAPPER CREEK
PARKS HWY
TALKEETNA SPUR RD
This map is solely for informational purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-745-4801.

CHASE COMMUNITY

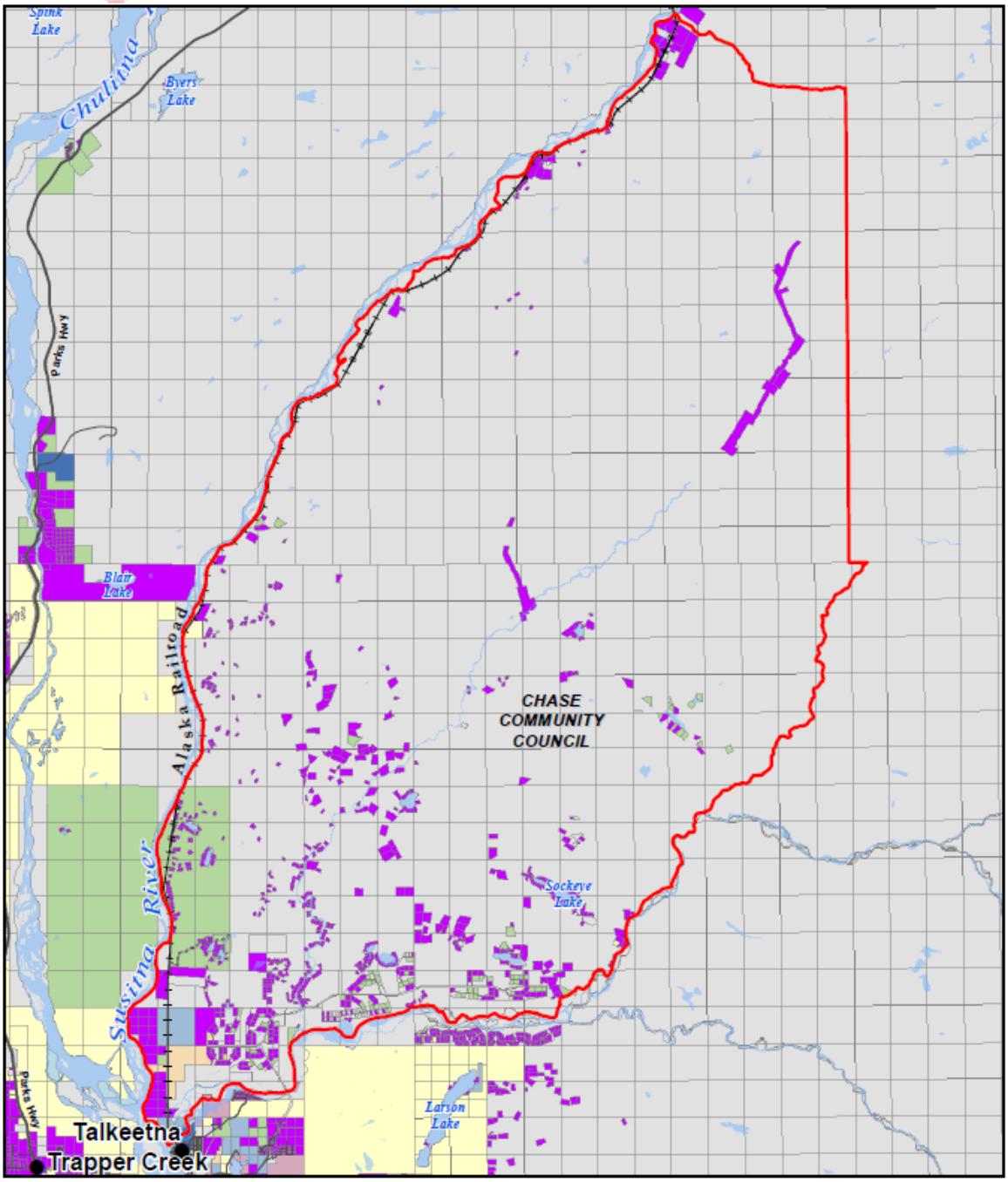


Figure 16A (2017)

OWNERSHIP AND EXISTING LAND USE:

The Matanuska Susitna Borough soils map shows prime and important farmland. Additionally, the land ownership is depicted in the Land ownership map. Lands in the title conveyance process from the state to the borough, when tentatively approved, authorizes the borough management authority over those lands prior to patent. For additional information see MSB Community Development.

In the Matanuska Susitna Borough Hazard Mitigation Plan of 2013 - Appendix M shows the land and building values for Chase as listed in the following table:

All Land & Building Values in the MSB by City and Community Council

	Parcel Count	Acres	Land Appraisal	Building Appraisal	Total Land & Building Appraisal	Number of Structures
Chase	1758	227,625	$14,371,700	$5,127,497	19,499,197	256

*From 2012 certified property tax rolls.

SUSITNA MATANUSKA AREA PLAN (SMAP), 2011

The 2011 Susitna Matanuska Area Plan (SMAP) sites the reasons for updating the Susitna Area Plan (SAP) of 1985 states:

> *"Since the adoption of the Susitna Area Plan in 1985, much has changed in the Susitna and Matanuska Valleys, with much of the area along the Parks and Glenn Highways being developed. A variety of economic and demographic trends have accelerated growth and probably will continue to create growth in the areas most readily accessible from the developed roads or major regional trails. Another major change has been the marked decline in the inventory of state land, which has been particularly noticeable in the areas along and adjoining the Parks and Glenn Highways. In the early 1980s, the state was the principal land owner in these areas. Since that time the amount of state land has steadily decreased with state land being conveyed to the Matanuska-Susitna Borough; Cook Inlet Region, Inc.; the Mental Health Trust; the University of Alaska; and to private parties through state land and agricultural land sales and settlements. This has resulted in a decreased and dispersed state land base in areas near the two highways, although extensive state holdings remain in the more remote and inaccessible parts of the planning area. Additionally, the 1985 area plan has been found difficult to use for decision making in DNR since its land ownership patterns and land classification designations do not reflect the current patterns of state ownership or land classification. For these and other reasons, revision of the 1985 plan was appropriate and was undertaken beginning in 2009. Area plans are intended to be updated on a 15 to 20 year schedule."*

Ownership

The general ownership pattern in 1993 within the Chase planning area is summarized below:

Generalized Ownership
Chase Planning Area

State..... 211,519 acres
Borough..... …4,290 acres
United States..... ……5 acres

Private:

Individuals & non-profits..... .10,887 acres**
Alaska Railroad..... …4,440 acres
Native (Cook Inlet Region Inc.) ..... ……5 acres

TOTAL: 231,146 ACRES

***** May include some U.S. Government ownership

** Borough assessment records identify 930[8] parcels in private ownership or under lease, totaling 10,887[9] acres. Many more small parcels are still under state ownership, but have not been purchased or proved up. Patented federal mining claims would be included in this total since surface rights are conveyed with such patents; but mining claims and mineral surveys are not since the Borough only taxes surface rights.

Borough land consists mostly of a large block bordering the railroad within Township 27N Ranges 4 and 5 West and consisting of 4,145 acres (exclusive of private land); and a 132.5 acre parcel farther north within T28N R4 and 5 West. The larger block has been tentatively approved for patent to the Borough, while the smaller parcel has been patented to the Borough. The Borough exercises management control over both.

Another large tract of some 7,200 acres within T28N R4W has been selected by the Borough, but this selection has not been finalized and the Borough does not have management control of it.

The Alaska Railroad owns a block of approximately 4,440 acres along the railroad in the north-central part of the planning area. The addresses of owners of property within the area in

[8] Borough Assessment, August 22, 1992

[9] Borough Assessment, August 22, 1992

individual or non-profit ownership were analyzed with the following results (Note that the total is 933 - with more than in the above total - and attributed to tabulation error):

ADDRESS	No. of Parcels	% of Total
Talkeetna	109	11.7
Other Borough	98	10.5
Anchorage	423	45.3
Other Alaska	89	9.6
Other U.S.	213	22.8
Foreign	1	0.1
TOTAL	933	100.0

Note: Some owners own more than one parcel

STATE DISPOSALS ACTIVITY

Disposal activity in the area has occurred within at least the following categories:

Open-to-Entry (OTE): No longer in use, but many parcels were staked within the area under this program. Allowed the staking of up to five acres of land with no development or residency requirements.

Surveyed Open-to-Entry: Similar to the OTE program except that parcels were surveyed prior to disposal.

Remote Parcel: No longer is used, but allowed the staking of up to 40 acres with no use restrictions or residency requirements.

Homestead: Allows the staking of up to 40 acres, and requires either outright purchase or the construction of a dwelling within three years and occupancy for a minimum of 25 months within five years.

Agricultural Homestead: Allows the staking of up to 160 acres, and requires either purchase or the construction of a dwelling within three years and occupancy for a minimum of 25 months. Either option requires clearing and preparation for cultivation. Title limited to agricultural use only.

Agricultural Sale: Parcels of any size offered for farm development by lottery or public auction leading to agricultural rights-only patent Farm conservation plans, but not farm development plans were required for such sales in the Chase area.

Subdivision: Pre-surveyed and platted parcels sold by lottery. No restrictions on use. The Chase II Subdivision includes platted (But not constructed) roads serving each lot.

Home site: Acquisition by lottery of entry permit for surveyed parcel up to five acres in size. Parcel may be "proven up" by occupying for 35 months within seven years and constructing a dwelling within five year; or may be purchased outright. Under the purchase option, construction of a dwelling within five years is required, but occupancy is not.

Mineral Entry: Allows staking of parcel for development of subsurface only – no surface rights conveyed. Mineral claims on state land may be converted to leases or leasehold locations depending on the land use classification assigned to an area.

On federally-owned lands, mining claims may be patented, which includes transfer of fee-simple surface title as well. A mineral survey is an interim step between staking a claim and patenting it.

Therefore, residential use is encouraged or required by some programs, while others are limited to agricultural use or subsurface mineral interest. Commercial and industrial uses would also be allowed on lots with fee simple title.

The Chase III Agricultural Homestead disposal has been stopped pending the development of a regional plan which demonstrates the need for a suitability of it.

Of the 930[10] private parcels on Borough assessment records, 22, representing 1,024.79 acres are limited to agricultural use only. The remaining 908 parcels are not restricted in use.

ACCESS PROVISIONS

While legal – but not necessarily feasible – access is provided for all types of disposals, not all subsequent uses have the same access requirements. While minimal trail access may be satisfactory for cabin dwellers, agricultural users will want sufficient access to bring equipment and supplies in and to send produce to market. Mineral claims need access for mining equipment and supplies, but such needs are ordinarily infrequent.

Chase II Subdivision is a special case in that its 197 lots are served by platted – but not constructed roads. A platted road, with the name "Clear Creek Road" connects the subdivision to the railroad and another road leads to a proposed bridge crossing of the Talkeetna River within Section 16 of T26N R4W. A road from the other side of this bridge would connect with Comsat Road and then with the Talkeetna Spur Road.

[10] 889 Parcels as of August 22, 1992

The platting of roads within the Chase II Subdivision has raised expectations among lot buyers that roads will be constructed within those rights-of-way. Unless rights-of-way are vacated, they are available for development with a permit from the State. Covenants were recorded for the subdivision, which create a homeowners' association with the authority to construct capital improvements - including roads - and to assess members for costs of construction and maintenance.

EXISTING LAND USE

Existing land use in the planning area may be summarized as follows:

USE	ACRES	NO. UNITS
Residential	327*	70
Full Time **	---	22
Part Time **	---	22
Vacant **	---	26
Agriculture ***	995	---
Commercial	15	3
Clear Creek Lodge	5	1
Vacant	10	2
Mining (Many claims but no data on active mines)		
Open Space/Water/Vacant ****	229,809	
Total	231,146	

***** If the dwelling unit could not be identified with a particular parcel, or if the unit is on a parcel larger than five acres, then five acres were assigned to residential use associated with that unit

** The basic distinction between occupied and vacant units was made by committee members. Distinctions between full-time (more than six months) and part-time residence were estimated by residence of owner according to Borough tax records.

*** Agricultural tracts identified from Borough assessment records.

**** A small part of Denali State Park lies within the planning area.

The great majority of residential lots are approximately five acres in size - insufficient to provide a continuous supply of firewood for the residents.

It appears that approximately 1/3 of the residential units in the area are occupied by only part-time - and probably for recreational purposes. Part-time use will

reduce demand on local resources such as cordwood, fish and game; and indicates that the population of the area can vary greatly from time to time.

QUALITATIVE ANALYSIS

The following observations can be made concerning the existing settlement pattern within the Chase planning area:

* Since the vast majority of the area is in state ownership, the recent ownership and land use pattern of the planning area has been set by the state disposal system - indeed, perhaps the most pressing need for planning in the area is the resolution of issues created by the diversity of disposal types within the area.

* Parcel locations and types are generally determined by the various staking or disposal areas in the area - e.g. Remote, Homestead, Agricultural, subdivision, etc. - but the majority of all types are within the southern half of the area - i.e. below the township line between townships 28 and 29 north.

* Parcels tend to cluster along the railroad (which is the principal means of access into the area) and along streams and lakes. The Chase II Subdivision just north of the Talkeetna River accounts for another large cluster of lots. Agricultural disposals have, of course, been located on suitable soils; and mining claims and mineral surveys are almost all located along Chunilna Creek (Clear Creek) and its tributaries - attracted by placer gold.

* Most of the existing agricultural parcels are convenient to the railroad just north of Talkeetna.

* Cabins are mostly located along the railroad with a secondary clustering along Clear Creek. Principal concentrations of occupied cabins are around Snowy and Kelly Lakes relying on trail access from Mile 232 of the railroad; and around the old center of Chase at Mile 236 of the railroad. The majority of all occupied cabins are within nine miles of Talkeetna.

* The Chase community does not have a commercial center; nor does it have local public facilities such as schools, fire stations, etc. This is partly due to small population and low population density; partly due to chosen semi-subsistence lifestyles; and partly owing to reliance on services and facilities located across the river in Talkeetna, or in more distant centers.

* A major electrical power transmission line - the Anchorage - Fairbanks Intertie passes through the planning area from north to south. It carries very high voltages which have to be stepped down through expensive transformers to be used as a conventional power supply.

PLANNING ISSUES

AND

OVERALL GOAL OF THE PLAN

PLANNING ISSUES AND OVERALL GOAL

Many issues, concerns, and desires were identified by the Committee during the development of this Plan. They have been listed here by category - i.e. land use, transportation, public facilities and services, natural environment, and economy. Many of these are reflected in the recommendations of this Plan and in the overall goal statement which was adopted by the Committee to guide its development.

As can be seen, some of the issue statements are in conflict with one another indicating the need for compromise and accommodation which to a large extent has been achieved in the development of the Plan which follows.

ISSUES

I. LAND USE

1. General
   - Mapping of historical use and existing uses and development of buffers
   - Management plan should be based on existing uses and lifestyles
   - Define existing lifestyles and philosophies

2. State Land Disposals
   - Options for existing property owners to increase land holdings
   - State and Matanuska-Susitna Borough should consider this plan in future land disposal actions
   - Designate areas for potential land uses
   - Limit/encourage State land disposals compatible with area lifestyles
   - Current residents who were originally limited to five acres should be able to get to increase their holdings to 40 acres
   - Review history of land disposals

3. Subsistence Uses (personal use)
   - Maintain existing subsistence (including trapping) activities
   - Buffer zones (multiple use)
   - Maintain existing rural lifestyles
   - Late subsistence moose hunt for personal use
   - No general stock grazing on public land
   - Develop policies that prohibit displacement or depletion of wildlife by livestock or public lands
   - Alaska Department of Fish & Game studies – review findings
   - Note relationship between subsistence lifestyles, low population, and lack of road

4. Aesthetic Considerations in Development
   - Encourage development of greenbelts (buffers) around water areas
   - Building setbacks from streams

5. Protection of Wilderness
   - Study carrying capacity of the land for different areas
   - Ensure major projects are compatible with existing development
   - Identify public landfill sites

6. Public Land Management
   - Review Susitna Area Plan and other Borough and State plans affecting this area

7. Public Land Use
   - Identify public landfills
   - Identify wood lots on public lands
   - Use of buffer areas
   - Manage lands for multiple and singular uses (e.g., mining, recreation)
   - Borough/State preferential land sale
   - Preference rights for land owners (ability to increase property holdings)
   - Review existing preference rights law (AS 38.05)
   - Plat trail systems with buffers – non-motorized only
   - Consider Borough land disposal plans
   - Map coal and gravel deposits for area resident use

8. Commercial Activity
   - Minimize large commercial uses
   - Keep government intervention to a minimum/preserve rural lifestyle
   - Consider methods of managing different land uses
   - Commercial activity should be compatible with existing lifestyles

9. Resource Development

   A. General
   - Manage lands for land owners
   - Resource development should minimize adverse impacts on the community
   - Determine which areas have the greatest potential for resource development
   - Ensure that utilization of the subsurface estate is compatible with surface rights/use
   - Examine tourist uses of area (Denali Park Plan)

   B. Timber Use
   - Address large scale and wood lot uses
   - Selective logging rather than clear-cut
   - Limit commercial use of timber
   - Consider personal use of timber for house logs

   C. Water Rights and Water Use

   D. Agriculture
   - Evaluate proper timing/phasing of additional agricultural development
   - Evaluate small-scale agricultural development on suitable sites

   E. Mining
   - Compensation to individuals for use of mineral rights
   - Mining activity should not adversely affect water quality. In-stream flow should be maintained
   - Maintain trail quality

F. Fish and Game Utilization
- Maintain healthy fish and game (especially moose) populations in the Susitna River drainage
- Maintain healthy game populations
- Limit sports fishing in some manner

G. Grazing – Do Not Recommend

10. Recreation
- Encourage small-scale recreation activities only
- Develop recreation plan which is compatible with existing uses
- Review recreation rivers plan for the Susitna River
- Close marten trapping for at least three (3) years to allow their reintroduction into the area
- Review Fish and Game guild policies within the area

II. TRANSPORTATION

1. School Transportation
- Get children safely to school
- Consider transportation to future school site(s) within the area
- Document and locate children needing transportation (review School District records)
- Use of Railroad
- Review State/Federal laws pertinent to this subject, including safety issues
- Develop legal physical access across the Talkeetna River

2. Legal Access
- Review existing laws
- Obtain legal access along railroad corridor
- Consider all legal access options everywhere
- Obtain authorization to launch/land/dock boats on river
- Identify trails. Grandfather existing trails, including non-motorized trails
- Assure reasonable legal access to all parcels that doesn't infringe on other property owners

3. Physical Access
- Review existing standards for physical access
- Develop trail standards
- Limit development of existing trails
- Define areas wherein access is limited to certain types
- Consider implications of access
- Develop a trail system on the basis of need (present and future)
- Identify/develop railroad crossing(s)
- Develop public dock/slip/moorage facilities
- Consider ATC/footbridge access at Talkeetna River gauging station

4. Trail Management
   - Identify trail uses
   - Develop maintenance program
   - Investigate limited and regular road service areas
   - Investigate trail service areas

5. Traffic Management
   - Review railroad scheduling and seek local input
   - Make trail users aware of private property
   - Formulate enforcement methods
   - Plowed parking lot requirement for Chase residents in Talkeetna
   - Seek better rail rate for the area

6. Access to Agricultural Areas
   - Explore special railroad rates for agricultural purposes
   - Identify agricultural areas (include review of available documents) and identify access to the railroad for them. Identify other access options.

7. Airstrips
   - Review USKH study of Talkeetna Airport airspace
   - Identify existing airstrips
   - No new developed airstrips
   - Identify emergency helicopter landing areas
   - Study non-airstrip, wheeled landings
   - Identify airport reservations and lands dedicated for future airport use

8. Transportation Aspects of Susitna Area Plan
   - Look at all alternative river crossings, including the intertie corridor

9. Railroad
   - Maintain minimum service (current level at least)
   - Provide school transportation per AS 45.2400
   - Integrate railroad with the transportation system as it develops
   - Make railroad corridor accessible to off-road modes of transportation
   - Provide safe snowmachine crossing at Mile 232
   - Provide an additional service bridge for the railroad, west of the existing bridge, to provide an alternative during repairs
   - Provide a railroad bridge and spur terminating at Mile 230.5, affording access to the existing trail system
   - Provide a footbridge at the gauging station
   - Local input into railroad rate schedule
   - Investigate community transit system grants

10. Access to Future Land Disposals
   - Evaluate physical access to future disposals
   - Provide legal access within the railroad corridor

III. PUBLIC FACILITIES AND SERVICES

1. Emergency Medical Services
   - Develop emergency communications stations every 3-4 miles (i.e. telephones along the railroad)
   - Provide/identify future EMT/fire station sites and set aside for future use
   - Do not provide for future EMT/fire station sites
   - Interconnect the emergency communications net with the citizens band

2. Schools
   - Provide transportation to existing schools
   - Future arts academy on the Hodge property
   - Identify a school site

3. Police Protection
   - No police protection (wanted)
   - Establish a neighborhood watch

4. Susitna Area Plan
   - Examine for consistency with (this) plan's goals

5. Recreation
   - Post “No Road Vehicle” signs
   - Information signs encouraging safe and courteous use of the area
   - Non-motorized vehicle trail system with buffers (at least corridors for future use of same)
   - Heavy fines for littering
   - Consider a place to keep (store) boats in Talkeetna
   - Set aside a site for a community meeting hall
   - Investigate horsepower limits and size of boats allowed on the Talkeetna River

6. Government
   A. Self-Government
   - Review train speeds
   - Establish a site for a U.S. flagpole and erect one
   - Continue to use the community council system as the form of government town meeting at least one a year

   B. Review of Existing Rights
   - Look at rights of property owners with respect to wood lots, buffers, etc.
   - Provide for input from local area before the State of Borough dispose of land (in the area) or takes other action affecting the area

IV. NATURAL ENVIRONMENT ISSUES

1. Protection of Wilderness
   - Control density (refer to) carrying capacity
   - Refer to earlier items in these regards
   - Recognize subsistence lifestyle

2. Water Quality Protection (Surface and Ground Water)
   - Promote small scale (less than 160 acres) organic agriculture
   - Identify greenbelt, setback areas for water quality protection
   - Do not promote any agriculture
   - Do no promote commercial timber sales
   - Maintain water quality with mining
   - Make any natural resource development compatible with other resources (e.g. do an environmental impact statement). Conduct cost/benefit analysis of resource development and consider aesthetic and subsistence values as well as cash values
   - Limit the number of miners per stream
   - Provide advance notice of permitting for all development
   - Check State and federal laws relating to mining equipment
   - Address/minimize stream crossings by heavy equipment
   - Limit size of equipment which can be used around streams
   - Address future maintenance of electric power intertie and minimizing of stream crossings

3. Pollution
   - We don't want any
   - No landfills

4. Use of Herbicides and Pesticides
   - Use none, including chemical fertilizers
   - Develop a permitting process for pesticide, etc. use
   - Require the railroad to use proven alternative methods (to control plant growth)
   - Improve communications between the railroad and community groups

5. Fish and Game Policy
   - Create Game Management Unit 13F
   - The Department of Fish and Game should be more active in protecting/enhancing king salmon in Clear Creek
   - Require reclamation bonds for mining, etc.
   - Recognize the importance of fish and game resources
   - Change the subsistence season from summer to winter/fall

V. ECONOMY

1. Subsistence
   - Preserve, enhance and make people aware of its value
   - Recognize that most people (in the area) are "migrant workers" by federal definition

2. Economic Value of Wilderness

3. Resource Development
   - Allow small scale, organic farming that is compatible with the environment
   - Do not use bulldozers to clear land for agriculture

VI. OTHER

1. Propose a review process for (this) plan.

OVERALL GOAL STATEMENT FOR CHASE PLANNING AREA

Manage natural resources in support of a local subsistence economy. Preserve the present character of the area without large-scale commercial development.

Economic development will evolve around small to medium scale economic enterprises while retaining the natural character and aesthetics of the land, water, fish and wildlife.

All use of the area should respect and be compatible with the natural environment; and extraordinary care should be taken to preserve and protect the area's natural beauty and wildlife.

All existing lifestyles and land use patterns will be accommodated and preserved.

Due to the relatively high density of private parcels scattered throughout the area and the resulting dependence on local wood resources, use of such resources will be limited to small-scale operations designed to provide firewood, logs, and/or lumber for personal use - such use to be coordinated by a local board with the appropriate agency or agencies.

Assure reasonable legal access to all parcels, recognizing the existing trail systems. A basic ORV/snowmachine trail parallel to the railroad may be considered from the Talkeetna River north to ARR Milepost 232, with a crossing connecting to the existing agricultural trail (approximately ARR Milepost 230.5). The planning area will be served primarily by trails; however, motor vehicle facilities will be allowed in legal rights-of-way.

It is anticipated that the railroad will remain a primary transportation link for the entire planning area. A safe means of transporting children to school will be sought.

PLAN RECOMMENDATIONS

LAND USE PLAN

INTRODUCTION

Future use of lands within the Chase planning area will be guided by the following:

1. Goals and objectives of this Plan - under the general guidance of the Overall Goal for the area.

2. Environmental capability and carrying capacity.

3. Existing land use patterns.

4. Provisions of the Susitna Area Plan (SAP) for State lands. This plan may make recommendations for amendments of the S.A.P. and may suggest additional standards which might be implemented through exercise of the Borough's area wide zoning authority.

5. Provisions of the Susitna Basin Recreation Rivers Management Plan for state lands along the Talkeetna River.

6. Borough land management policy as maybe amended and as supplemented by this Plan.

The Susitna Area and Susitna Basin Recreation Rivers Management Plans define existing policy for state lands within the area, and the former also indicates blocks of Borough land which are in the Borough Land Bank. Management Subunits from the Susitna Area Plan are reproduced on the following map, with a table describing primary and secondary use determinations for each Subunit. These designations as well as policies and guidelines of the Susitna Area Plan remain in effect until that Plan is amended or supplemented by policies of this Plan and Borough regulations implementing this Plan.

Subunits which are designated for settlement are areas within which most land disposals have occurred or will take place. Some disposals have occurred in units indicated for future public land management, so that privately owned lands are not restricted to only those areas designated as either settlement or private lands on the accompanying map.

There is also a block of Borough land designated for forest management by the Borough.

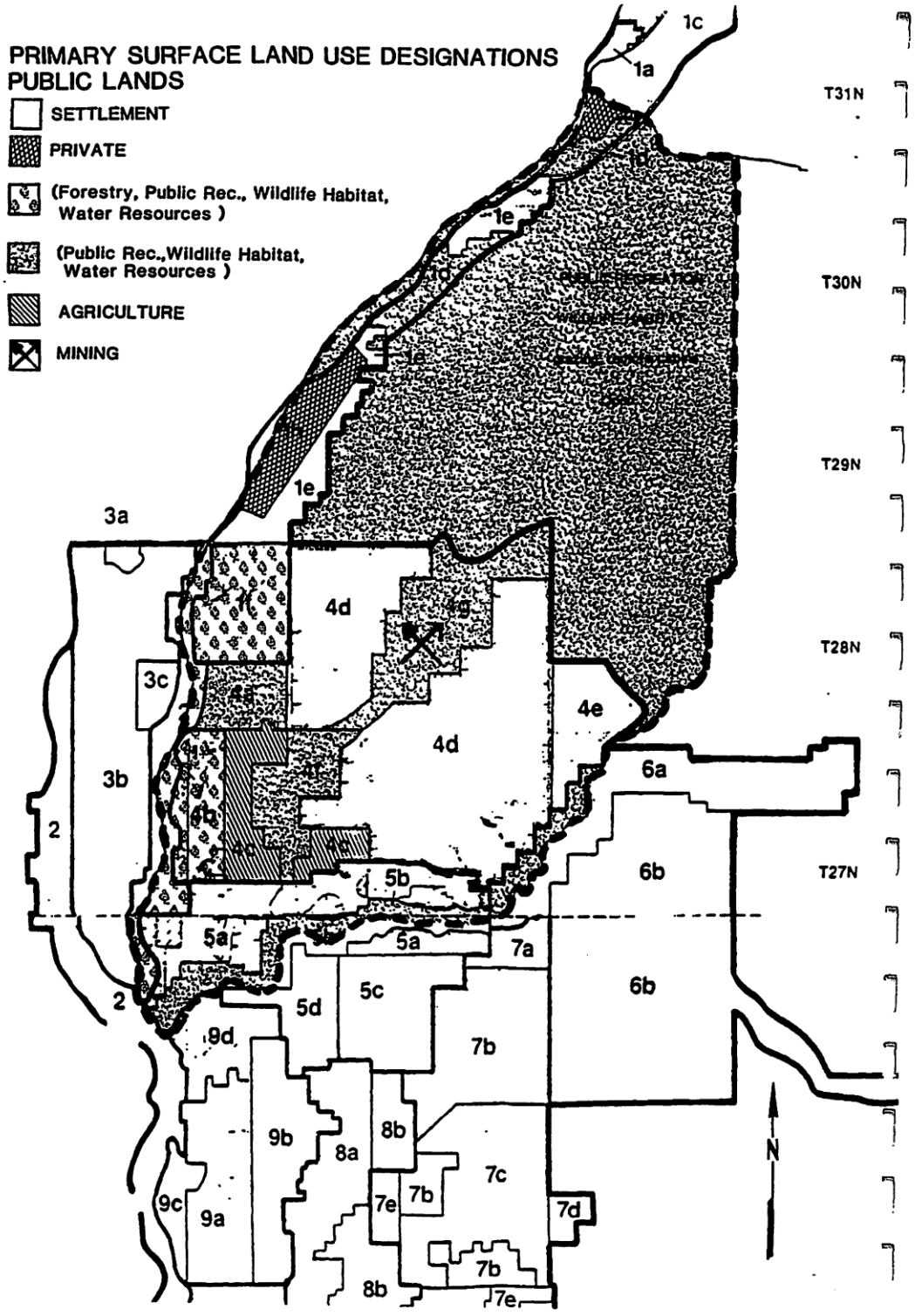


Figure 16 (1993)

LAND USE DESIGNATIONS

for

State and Borough Lands

(Susitna Area Plan)

Designations in capital letters are primary use designations; those in lower case letters are secondary use designations; areas marked with asterisks are proposed for legislative or administrative designation. Statements in bold letters indicate whether areas are open or closed to mineral location and coal leasing; all areas are available for oil and gas leasing.

MANAGEMENT UNIT 1 - GOLD CREEK

1c RESERVED USE: **closed**

1d PUBLIC REC, WILDLIFE HABITAT; forestry; **open**

1e SETTLEMENT; public rec, wildlife habitat; **closed prior to disposal**

1f BOROUGH LAND BANK – Values: Forestry, public rec., settlement, wildlife habitat; open

1h AK RAILROAD LAND - not available for public use

MANAGEMENT UNIT 2 - SUSITNA/CHULITNA RIVERS

2 FORESTRY, PUBLIC REC, WATER RESOURCES, WILDLIFE HABITAT; **partially open**

MANAGEMENT UNIT 4 – CHASE

4a PUBLIC REC, WILDLIFE HABITAT; forestry; **open**

4b BOROUGH LAND BANK - Values: Agriculture, forestry, public recreation, settlement, wildlife habitat; **open**

4c AGRICULTURE (past sale); forestry, wildlife habitat; **closed**

4d SETTLEMENT (past remote parcel offering); forestry, wildlife habitat; **closed**

4e SETTLEMENT; public rec, wildlife habitat; **closed prior to disposal**

4f PUBLIC REC, WATER RESOURCES, WILDLIFE HABITAT; forestry; **closed**

4g MINERALS, PUBLIC REC, WATER RESOURCES, WILDLIFE HABITAT; forestry; **open**

MANAGEMENT UNIT 5 - LARSON LAKE

5a SETTLEMENT (existing subdivision); forestry, public rec., wildlife habitat; **closed**

5b* PUBLIC REC, WILDLIFE HABITAT; forestry; **closed**

MANAGEMENT UNIT 6 - UPPER TALKEETNA RIVER

6a* PUBLIC REC, WILDLIFE HABITAT; forestry**; closed**

LAND USE AND RESOURCE MANAGEMENT

HISTORIC/ARCHAEOLOGIC PRESERVATION

Historic sites have been identified in the area and it is possible that significant archaeologic sites might be found there.

RESIDENTIAL USE

Residences on homesteads, patented mining claims, remote cabin sites, and other parcels are and will continue to be the principal type of structure within the planning area. Residence will continue to be the principal use. Without access to the road system and with few or no local employers, residents of the area are heavily dependent upon access to local resources for subsistence. A subsistence economy and lifestyle is valued by the Chase Citizens' Planning Advisory Committee and its perpetuation included as an essential element of the overall goal for this Plan.

Residential carrying capacity of the planning area, then, is defined by the limits of local resources to support residential use. Resources most critical to such an analysis include cordwood, house logs, fish, game, and drinking water. Wood for fuel is probably the most significant constraint on the settlement in the area, since vegetables can and are grown in abundance in local gardens, and residents can go outside the area for fish and game, or buy food in Talkeetna or farther away along the road system with income earned from part-time or seasonal employment (typical of the area). While propane is a viable supplementary fuel, it would be too expensive to be exclusively used as a heating fuel.

In 1982, Dr. Martha Welbourn in the Land and Resource Planning Section of the State Department of Natural Resources authored a study to provide information to assist decisions on the location and size of disposals in remote areas. The study was entitled, Carrying Capacity of Remote Lands for Settlement. In her introduction to the study, Dr. Welbourn explained the need for consideration of the concept of carrying capacity in remote areas and provided definition to the concept:

"In order for state programs to fulfill the expectations of the people acquiring land, however, disposals must be planned with an understanding of both the resource and amenity needs of the people involved, and the ability of the land to meet those needs. This is particularly critical in remote areas where new settlers as well as current residents may depend on the land to meet a large portion of their requirements for food, fuel, water, building materials, and other resources.

Lands vary in their ability to support increasing degrees of settlement while continuing to provide these resources. Many factors are involved, including availability of water and wildlife, soil properties and permafrost, recreational and scenic qualities, access, and existing use. . .

The ability of a natural system to support human population without seriously impairing the natural or human environment is called its carrying capacity for settlement. 1) Vegetative carrying capacity is one of its components. It is defined as the capability of vegetation in a given area to provide wood resources. Vegetative carrying capacity is expressed as the number of acres required to ensure a supply of house logs and firewood sufficient to build and support a cabin. In many remote areas of Alaska there are no reasonable alternatives to the use of native woods for heat and construction materials. It has been noted that "building materials and fuel obligate a substantial part of most budgets in a conventional lifestyle. If purchased in the bush, the cost would be prohibitive, 2) Vegetative carrying capacity is therefore a critical element in assessing the ability of a site to support human settlement.

However, Dr. Welboum notes that the state Department of Natural Resources does not guarantee that wood on state land will always be the fuel supply for private cabins.

Psychological carrying capacity is the second factor considered here. This is the ability of an area of land to meet the lifestyle expectations of settlers in that area. Psychological carrying capacity goes beyond resource requirements to address the desires of remote area residents for such characteristics as privacy, quiet, and aesthetically pleasing surroundings. If these attributes are ignored in planning for disposals, settlers' expectations for a remote Alaskan lifestyle may not be satisfied even though their physical needs are met."

As noted above, firewood is probably the most critical, measurable resource upon which the present and desired lifestyle of the Chase area depends. Based upon measurement of forest types within the Chase planning area, Dr. Welboum has estimated the firewood carrying capacity of the area. Her report containing her assumptions and calculations are included here as Appendix A. Given her assumptions, Dr. Welboum found that the forest lands in the Chase planning area are capable of providing firewood to approximately 700-900 dwellings at a rate of 6 cords per dwelling per year. If we recall that there are approximately 889 individual parcels in the area, then there could be at least 889 dwellings in the area - more or close to more than the area could support with firewood if all were occupied year-round.

The following comments are made relative to the assumptions of the study.

1. Private parcels are included in the resource base inventory as trees on these lands are available to the land owner as well as to anyone the owner may allow to cut on his property. An exception to this rule is the 4,440 acre block of land owned by the Alaska Railroad which is excluded from the available resource base as it is private property, not available for timber cutting.

2. Separate estimates for spruce have been provided; but for these purposes, spruce is included in the resource base available for harvest of cordwood.

3. An average consumption rate of 6 cords per year per cabin is assumed based upon year-round use. Several factors would affect this rate of use including seasonal rather than year-round use. The Chase community desires to use the safe assumption of year-round use since, even if it were desirable, there is no mechanism to prohibit persons from occupying their land year-round, and such an assumption protects against overuse of the resource. In her Carrying Capacity, study, Dr. Welbourn states that, "For the near future, then, pressure on the resources in remote disposal areas may be less than is indicated by the number of parcels sold. It is impossible to predict how many of these will eventually be developed, however, or for what purposes. Therefore, it should be assumed that all parcels sold will be developed at some future date." (p.24). Dr. Welbourn notes more recently that, "The 10 years since the study was published contradict the original assumption.[9] She now states that assuming that all parcels will be developed for full-time use will grossly overestimate the actual demand for timber.

4. No forest type mapping was available for approximately 10,450 acres of the planning area, therefore it was assumed that the proportion of forest types in the unmapped area was similar to that in the mapped area.

5. Some lands which are not accessible to cordwood harvest are included in the acreage used to estimate cordwood capacity - e.g. the width of the Alaska Railroad right-of-way through the planning area and agricultural lands which once salvaged for timber would remain cleared and would not regenerate timber for future harvesting.

6. The accessibility of timber to each parcel is also not factored in. Production estimates were made for the entire area regardless that some of the timber would be far from many users. Existing disposals are not evenly distributed throughout the area, and are in fact concentrated in certain areas. This means that some timber is beyond a reasonable distance for wood hauling from many parcels; and timber resources in areas of concentrated settlement will require more intensive management.

7. The Chase Citizens' Planning Advisory Committee believes that the growing season in the Chase area is shorter than the average for the Susitna Valley as used by Dr. Welboum, that there is a periodic need for additional houselogs for out-buildings,

> additions, and to replace houses that have burned; and that the estimated number of houselogs needed in the study is for a very small house. Therefore, the Committee believes that the carrying capacity is overestimated in Dr. Welbourn's study.

As noted, there are criteria other than how much land is needed to support the population in the area - including subjective criteria such as that which attracts people to an area in the first place. Chase residents live in a virtual wilderness, and they value wilderness. It was the quiet and beauty of the wilderness that attracted them to the area, and the overall goal for their plan – this plan - includes the statements, "Preserve the present character of the area without large-scale commercial development," and, "All use of the area should respect and be compatible with the natural environment; and extraordinary care should be taken to preserve and protect the area's natural beauty and wildlife."

These are the criteria that determine the "psychological" carrying capacity of an area. Recall that Dr. Welbourn's definition of psychological carrying capacity includes factors like privacy, quiet, and aesthetically pleasing surroundings. Under "Recommendations Regarding Psychological Carrying Capacity" in her Carrying Capacity study, Dr. Welbourn states that,

> "On the basis of the scant information presently available on psychological carrying capacity, it is impossible to present a general formula for allocating land to meet the aspirations of residents and applicants. Estimates of land ownership needs vary considerably.
>
> It is universally agreed that the amount of land used covers a much greater area than the amount of land privately owned, covering an area large enough to make individual ownership impossible in most cases. The amount of land needed also is dependent on the degree of self-sufficiency and privacy desired, and the length of residency per year. In order to allocate land to meet the aspirations of remote area residents, a particular remote lifestyle must be defined and specified." (p.24)

In her conclusions, she further states,

> "In a broader view, the amount of land needed per cabin involves desires for beauty, privacy and other amenities as well as resource supplies. Preliminary information is inadequate for deriving an approximation of the amount of land need to meet these lifestyle expectations." (p.27)

In his August 1974, 'Land: Bridge to Community in the Open-to-entry Area North of Talkeetna' (Alaska Humanities Forum), cited in Appendix B of Carrying Capacity of Remote Lands for Settlement, R.A. Durr observed:

> "The two most common proposals for allowing new land disposals in the area while protecting the interest of existing residents were to a) maintain the current population density, which amounts to approximately 32 acres per person; or b)

> increase the acreage allowed each entryman from 5 acres per entry to 10 acres per person, or 40 acres per family unit"

These proposals support a maximum density limit of 40 acres per dwelling unit; and the Committee believes that this density should be used where appropriate in the area south of a line drawn from Chase to Katie Lake. The area north of this line is characterized by higher country with thinner stands of trees to treeless areas similar to the more open regions described on page 19 of "Carrying Capacity of Remote Lands for Settlement", 1982, for which that study states that 170-1000 acres/cabin would be required for self-sufficiency in wood resources.

It has also been pointed out by a member of the Carrying Capacity Subcommittee that there are uses of the forest other than harvest of cordwood and houselogs. It is also habitat for a complex ecosystem. Some species, such as moose, may thrive on the regrowth of harvested areas, but others may be driven away by timber harvest.

Finally, by far the majority of lands in the Chase area are public lands and available to non-residents of the area. Dr. Welboum also addresses this topic in her study,

> "Land surrounding cabins also may be used by non-residents. While non-resident use of wood resources in remote areas is very limited, impacts of non-resident hunting and fishing may be severe...
>
> The dichotomy between private rights and public property has not been resolved in state policy, and is a major source of disagreement between existing residents in remote areas who are already dependent on the resources, and state officials trying to meet disposal quotas in these areas."

Dr. Welboum now believes that the 1982 Study is outdated, and offers the following more recent expression of the position of the Department of Natural Resources taken from Susitna Forestry Guidelines - Response to Comments on the Public Review Draft, May 1991, p.99: "It would be irresponsible of DNR to ignore concerns of private landowners about the impacts of activities on adjacent state land on their property. Therefore, the guidelines restrict certain activities next to private property. However, it would also be irresponsible of DNR to grant individual private landowners a veto over use of public lands. Therefore, the guidelines do not prohibit all timber harvesting, and allow for management needed to prevent or control outbreaks of insects, disease, or wildfire, or remove hazards to public safety."

Thus the impact of non-resident users on resources in the Chase area must also be factored in -arguing for even more conservative estimation of residential carrying capacity.

In conclusion, it appears that on the bases of both vegetative and psychological carrying capacity with due consideration to other uses of the forest and non-residential use, disposals in the Chase area have exceeded the carrying capacity should they all be occupied year-round.

However, the existing more-dense settlement pattern in the southern portion of the planning area -including the Chase II Subdivision with 10 acre combined lots - and the high probability that not all lots will be occupied year-round support a recommended higher density in the area south of the Chase to Katie Lake line, while the relatively inhospitable nature of the area north of that line supports a recommendation for lower density.

Recommendations

* Additional disposals of parcels in the area are allowed. Prior to any new land disposals in the planning area, a feasibility study of such a disposal will be completed and reviewed by the Planning Commission.

* Lots in the planning area should be relatively large to accommodate a remote lifestyle and gross residential density should not exceed the capability of the surrounding area to support area lifestyles on a continuing basis.

* Residential density in the area south of the Chase-to-Katie Lake line should be higher than in the area north of that line.

* Parcels used for residential purposes should support no more than one residential unit other than transient or short-term institutional units.

COMMERCIAL USE

The Chase community is content to use Talkeetna as its commercial center and does not encourage the development of commercial retail or service establishments in the area. On the other hand, home occupations are traditional and encouraged. Commercial recreational establishments such as lodges and guiding businesses that meet appropriate access and scale criteria may be appropriate.

Recommendations

* Home occupations which are clearly secondary to a principal residential use are encouraged.

* Non-recreationally oriented commercial business is discouraged in the area as a primary use.

* Free-standing recreationally oriented businesses should be reviewed for appropriateness on a case by case basis.

INDUSTRIAL USE

Industry may be defined as those activities associated with extraction, storage, or handling of raw materials for gain; or the commercial fabrication of products from raw materials or lesser components. Except for mining, such activity for its own sake is not generally consistent

with the overall goal of this Plan. Industrial activity in the area should be limited to those activities which are clearly secondary to or demonstrably directly supportive of the predominant subsistence lifestyle. Harvest of cordwood and house logs, and other forest management practices prescribed under the "Forestry" subheading, small lumber mills, trapping, and cottage industry (that is, manufacturing of products on predominantly residential property) are examples of industry, which is or would be consistent with the goals of this Plan.

Utility installations and activities associated with operation and maintenance of the transportation industry - such as the railroad - may be exceptions to the general rule of inconsistency but should be reviewed for consistency with goals, policies and recommendations of this Plan.

Construction and mining activities are considered under separate heading.

Recommendations

* An adequate area near the railroad siding and Mile 232 should be reserved for materials storage and stockpiling. Materials might include timber, gravel, agricultural produce, construction materials, etc.

* Industrial activity within the planning area should generally be limited to that which is secondary to, supportive of, or compatible with a subsistence lifestyle. Cottage industry, personal use timber harvest, storage of materials being shipped into or out of the area, and activities necessary to the operation and maintenance of the railroad are examples of industry which is compatible with this Plan.

MINING

Gold is the principal mineral known in the planning area, plus one known prospect of molybdenum near Curry. Placer gold deposits occur throughout the length of Clear Creek and most of its tributaries - reflected by a dense pattern of mining claims lining these streams. Currently, there is just one active placer mine on a federal claim mid-way up Clear Creek.
Gold mining is a traditional industry in the planning area and is accommodated in this Plan. Such mining has been limited to prospecting and recreational mining in the past and is expected to remain so in the future. There are two issues associated with placer mining which are potentially problems for other users of the area - access for mining equipment and stream contamination from mining operations.

Heavy equipment moving mining machinery through the area has caused damage to tundra and other sensitive surfaces and can cause damage to salmon streams when they are forded. There also can be dangerous conflicts when ATVs encounter "cats" on the trail. This subject is addressed under the Transportation element of this Plan.

Placer mining has the potential to adversely affect streams by (1) increasing turbidity, (2) introducing toxic chemicals or other pollutants, and/or 3) reducing stream flow. To protect fish

habitat and to preserve the quality of waters which are frequently used as a source of domestic supply, these hazards must be controlled.

The following illustration indicates areas currently closed to further mineral entry. Most of these areas are closed pending completion of disposal programs, including agricultural disposals. It is the State's intent not to reopen heavily settled areas to mineral entry. There are areas which contain concentrations of disposals, which are not currently closed.

Recommendations

* Access problems and conflicts must be resolved – see recommendations for mining access under Transportation element of this Plan.

* Mining permits and leases should contain conditions adequate to protect water quality and in-stream flow and be developed in accordance with existing state and federal regulations. It is recommended that the state include community review in its permitting process.

* It is recommended that areas containing concentrations of disposals be or remain closed to further mineral entry.

* Large scale mining along Clear Creek and its tributaries should be discouraged - elsewhere it should be reviewed on a case-by-case basis.

* Gravel will be very important to trail development and improvement, and for other development activity in the area, and is sensitive to distance between source and use - i.e., the cost of transporting it rapidly exceeds its intrinsic value. Therefore, it is important to identify material (gravel) sites in the area that would be accessible from potential project sites. There is a gravel pit on Borough land in the vicinity of Mile 232 - an excellent location for distribution within the area and accessible from the railroad. Gravel from this pit is suggested for use in improving the proposed new trail from the railroad bridge to Mile 232.

* Gravel extraction sites can be eyesores, erosion and dust problems, and even safety hazards. It is important that they be carefully developed and reclaimed to useful condition following their closure.

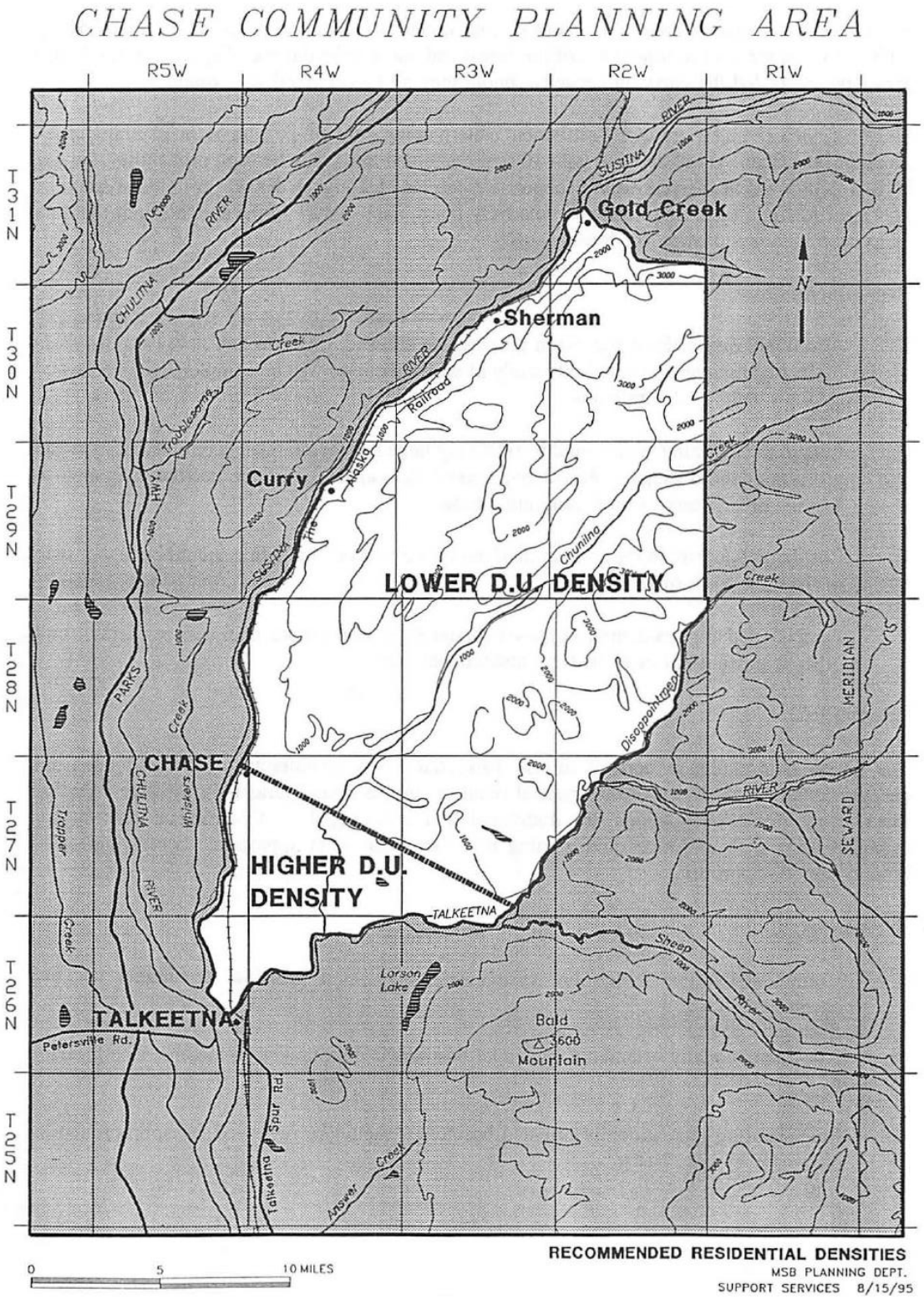


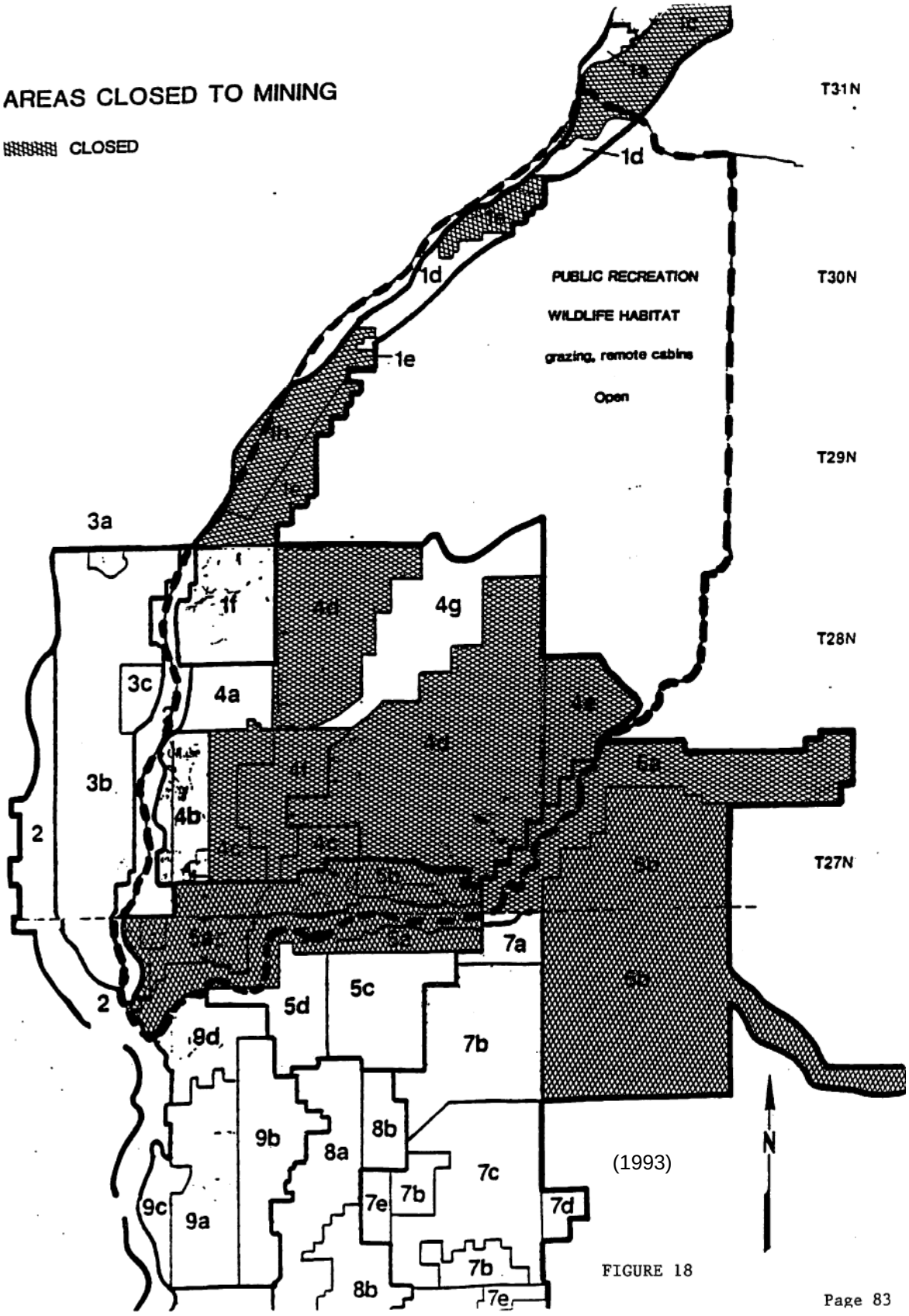
Figure 17 (1993)

Recommendations

* It is recommended that material (gravel) sites be identified at locations throughout the planning area that will minimize transportation costs and difficulties in delivery to project sites. Trails and airstrips are likely early projects which will need gravel.

* The Borough gravel pit at Mile 232 should be preserved for future use.

* Material sites should be developed so as to leave useable area when they are closed. Sites should be reclaimed to include replacement of topsoil and reseeding. Area left open for extraction should be minimized.



(1993)

FIGURE 18

Page 83

AGRICULTURAL USE

Approximately 1,000 acres are dedicated to agricultural use only, according to Borough Assessment records - with most of these acres located in the extreme southwestern corner of the planning area between the railroad and the Susitna River. Some 3,530 additional acres in 32 parcels were offered by the State in 1984 under the Chase III agricultural sale; but this sale was suspended due to litigation in 1985.

Historically the successes in agriculture in the state have been the smaller mixed family farms with vegetables and animals. These have proven able to survive market fluctuations, subsist on local market constituencies, and grow in many cases into an expanded market base. In many respects the isolated, low-key situation of the Chase Area lends itself to innovative and low-key startups of this scale.

Agriculture, Statewide, has suffered from an inability to marry the three elements necessary to its success - i.e., market, processing, and production; and from an inability to find an economic advantage over crops and meat products produced outside the State. Some local successes such as vegetable, dairy, and hay farms in (the Palmer area are overshadowed by problems experienced by major projects such as the Delta Barley Project and the Point MacKenzie Dairy Project - the fate of which is linked to the troubled Matanuska Maid Dairy.

Borough policy has been to encourage the development of agriculture by reservation of Borough-owned lands with high agricultural capability for agricultural use only; and the Borough has disposed of a significant number of agricultural parcels. However, the general lack of vitality in the agricultural industry has been reflected in problems in meeting farm development schedules and payment delinquencies in the Borough's agricultural program.

The current situation argues in favor of a go-slow approach in agricultural disposal programs, and signals a need to identify a niche for future agricultural projects before they are undertaken.

Innovative and lower impact forms of agriculture - such as organic farming would be more compatible with the goals and objectives of this plan. Such methods are recommended when new agricultural disposals are considered in the area.

Currently - other than a fox farm - there is no known commercial production from farms in the Chase area. Agricultural lands in the area are considered as "homesteads" from which no commercial production is expected or required. A chief barrier to commercial production is lack of access. Agricultural land owners would prefer road access, but an "agricultural trail" from the parcel on the west side of the track to Mile 232 would be more consistent with this Plan.

On the other hand, gardens are a very important part of the existing subsistence economy. A 1988 Department of Fish and Game Study summarized in the Background studies of this Plan, found that horticulture was a vital part of the local lifestyle. The average garden was 4,500 square feet on which "the average household grew 12.2 kinds of garden produce and harvested 579.6 pounds of these foods during the study year. Households at Chase have, through practice and experimentation, developed ways to grow and store these vegetable foods

under relatively severe local conditions. Most believed that gardening, along with hunting and fishing, was an essential component of the local economy. Combining wild resources with garden produce, Chase households, on average, produced 1,133.4 pounds of food in 1986."

The Agricultural Subcommittee of the Chase Citizens Planning Advisory Committee has recommended a modified agricultural homestead program which would require that organic farming practices only be used in any future agricultural disposals. The subcommittee felt that this form of agriculture would be compatible with the Overall Goal for this Plan and with the lifestyle it describes. It feels that this type of agriculture could be subsistence based or could generate a surplus - but in any event would be compatible with other use of the area and could be successfully adapted to the local environment. This would represent a fresh approach to agriculture in the Borough, and may be the needed niche mentioned above.

Recommendations

* Pending changes in Borough and state agricultural programs that will make agriculture more viable, it is recommended that no additional agricultural land disposals be offered. Lands currently classified for agriculture should be reevaluated with respect to the latest U.S. Soil Conservation Service soil survey. Soils with high agricultural potential, such as those indicated in the following figure, should be preserved in a use or uses which will not preclude conversion to agriculture in the future.

* Lands currently classified for agriculture should be reevaluated with respect to the latest U.S. Soil Conservation Service soil survey and adjusted as indicated. Borough and State lands highly suited to agricultural use according to USCS soil survey information, and not classified for forestry, should be classified for agriculture or another use compatible with agriculture.

* Soils with high agricultural capability should be preserved for possible future agricultural use by retention in uses and classifications compatible with agriculture - such as agriculture, forestry, wildlife habitat, or public recreation.

* Commercial grazing of domesticated animals is not recommended in the area.

FORESTRY

Forest management implies management for multiple uses which are mutually compatible, including wildlife habitat, public and remote recreation, and water resource management. Grazing is also compatible with forest management, but is not recommended on a commercial scale in the planning area. This is reflected in classification of State land in the area under the Susitna Area Plan. All State lands within the South Parks Highway Subregion that are not classified for settlement (and some of those that are) include forestry as at least a secondary use designation.

In remote areas, such as Chase, State policy regarding access to forest products and other resources is reflected in the following statements from the Susitna Area Plan:

"Year-round relatively self-sufficient remote residences. For this use, DNR will attempt to provide opportunities for a small number of people who wish to pursue a remote, more or less self-sufficient lifestyle. Generally, the State will not offer tracts large enough for families to subsist on, but rather offer smaller parcels adjacent to public land that can be used for the gathering of firewood and houselogs and for hunting and fishing."

"Personal Use of Nearby Resources. One of the considerations in deciding the location, size and design of land disposal projects will be the nearby supply for personal use of resources such as firewood, houselogs and fish and wildlife. Where it is anticipated that land recipients will want to use wood resources, some blocks of land nearby may be retained in public ownership to provide some firewood and/or houselogs."

"In general, in remote areas the Department will cluster disposal offerings. This will provide some nearby public land for gathering of firewood and houselogs and for hunting and fishing and will keep open options for other uses of these lands when access develops."

The block of Borough land in the area has been designated as a forest management unit and classified for forestry by the Borough.

It is the intent of this Plan to discourage large-scale commercial timber harvest and to pursue management of the forest through personal use. As indicated herein, were all of the parcels to occupy full-time, there may not be enough timber in the area to support the potential resident population represented by the number of parcels that have been disposed of in the area.

The management concept promoted herein is a combination of education and designation of woodlots in heavily used areas to be managed by State and Borough foresters with the assistance of a local citizen advisory board.

Recommendations

* The harvest of forest products and forest management within the planning area is subject to the Forest Resources and Practices Act, Susitna Forestry Guidelines, regulations of the State Department of Natural Resources, and - on Borough lands - applicable provisions of Matanuska-Susitna Borough Code.

* Timber to be removed for the purpose of development of a mining operation or agriculture use should be salvaged.

* Educational and technical information regarding use of forest products should be requested of the State Division of Forestry and of the Borough Forester. Additionally, woodlot management courses should be offered in the vicinity; information on Forest Practices Act regulations and other applicable State and Borough regulations should

be made available and explained; and guidelines and instructions should be obtained with woodcutting permits.

* Establish a local forestry advisory board to work with State and Borough foresters in managing the forest.

* As an interim measure and in areas of much dispersed settlement, rely primarily on education and permitting for cordwood and personal use house log harvest. Such education and guidelines might include instructions to leave the best trees as seed trees and to scarify the soil to encourage reforestation.

* In concentrated settlement areas or areas which are experiencing heavy use, personal use woodlots should be established. It will be one of the responsibilities of the local forestry advisory board to identify the need for, and recommend the establishment of such woodlots. Locations for such woodlots are suggested by cordwood and house log collection areas identified by a 1988 Alaska Department of Fish and Game, Subsistence Division, study of resource use patterns in the area. A personal use management plan should be developed for each area by the local forestry advisory board in consultation with Borough and State Foresters.

* The effectiveness of this program will be monitored and evaluated by the local forestry advisory board in consultation with Borough and State foresters.

* Buffers for timber harvest in the vicinity of private property shall be as provided in the Susitna Forestry Guidelines.

FISH AND WILDLIFE

Fish and game animals are staples of the local subsistence diet as documented in the 1988 Fish and Game study by Stanek, Foster, and Fall extensively included within the background information of this Plan. Furbearers are also trapped as a source of supplemental income. Generalized areas from which black bear, caribou, and moose are hunted; from which furbearers are collected; and water bodies from which salmon and fresh water fish are caught are indicated on maps in the Background studies.

The protection of the habitat - water and terrestrial - of fish and game important to local livelihood is essential. The perpetuation of a healthy forest, prevention of displacement of indigenous species by domesticated animals, and the preservation of surface water quality - particularly the waters of Clear (Chunilna) Creek - must be a part of this effort. Issues relevant to these concerns include:

* Increase in stream turbidity caused by erosion from careless deforestation, fording of salmon streams by ATVs and heavy mining equipment, and placer mining activities. Fording of salmon streams by heavy mining equipment and placer mining activities are regulated by ADF&G through the Title 16 Habitat Permit process and the DNR Miscellaneous Land Use Permit.

* Contamination of waters by toxic chemicals used in placer mining, pesticides and herbicides.

* Erosion and contamination from activities associated with development along streams and other water bodies. Many lots have been created immediately adjacent to Clear Creek and other streams and water bodies in the area. Setbacks from water bodies are regulated by Borough Ordinance.

* Introduction of large-scale grazing of domestic livestock on public lands. Domestic grazing animals may compete with wild grazing species such as caribou, and overgrazing by domestic animals may even lead to competition with moose for browse. Livestock grazing may also lead to predation by bear and resultant destruction of bear in defense of domestic herds. There is also some concern that domestic animals may introduce diseases dangerous to wild species.

* Loss of forest due to aging, parasite infestation, and tree cutting without reseeding.

Fish and game management is also required to protect and enhance populations. Salmon runs in Clear Creek could be endangered by degradation of water quality, destruction of spawning beds, and over-fishing. The current moose hunting season is out of synchronization with subsistence lifestyle since the current subsistence season is during later summer and would be more logical in late fall. The colder weather would help prevent spoilage of meat.

Recommendations

* Buffers of up to 200 feet of publicly owned land along streams in the area are recommended in the Susitna Area Plan. That Plan also recognizes the problem caused by heavy parcel staking along Clear Creek and other streams in the area; specifies that remaining public land in this corridor be retained in public ownership, and that any existing parcels that are relinquished within 1/2 mile of Clear Creek also be retained in public ownership. This Plan supports that recommendation and other water body protection measures recommended in the Susitna Area Plan, including a 100 foot development setback (increases Borough standard of 75 feet).

* Bridges should be constructed and used, as practicable, by all motorized traffic for crossing significant streams in the area. Department of Fish and Game guidelines for crossing of anadromous streams by mining equipment and other vehicles should be enforced. (Bridges should be constructed and used, as practicable, by all motorized traffic for crossing significant streams in the area.)

* Regulations minimizing turbidity and the introduction of toxins into surface waters should be strictly enforced.

* The use of pesticides and herbicides is discouraged in the entire planning area. Feasible alternatives to weed and pest control are strongly recommended - including

by the Alaska Railroad. Pesticide/herbicide use and application should be regulated by individual permit.

* It is recommended that there be no commercial grazing of domestic livestock in the planning area. This should not be construed to include animals kept for consumptive use on private property or by animals used as transport through the area.

* Proper forest management practices - consistent with other goals and policies of this Plan - should be employed to protect surface water quality. Only selective tree cutting should be allowed within stream and other water body buffers. Development setbacks should be retained in natural cover insofar as practicable and consistent with appropriate access to water bodies.

* There should be a recognized moose subsistence hunt after the first big snow in the area and when the moose come down from the mountains similar to that held in Tyonek and Skwentna, Unit 15B, the creation of a game management sub-unit within Game Management Unit 13 might be considered.

* The Department of Fish and Game is encouraged to increase its management and protective activity of the salmon resource in Clear Creek in particular, and within the area in general.

***** It is recommended that the Department of Fish and Game consider suspending the trapping of marten in the area for at least three years to allow the recovery of that species.

***** It is recommended that a citizens' task force or advisory board be formed to review current fishing, hunting, and guiding policies within the area; and to make appropriate recommendations for modifications, consistent with the goals of this Plan, to the agency or board having jurisdiction in the area.

OTHER NATURAL ENVIRONMENTAL ISSUES

The natural environment, its beauty, resources, and even the relative remoteness of the area, are treasured by the community above all; and its preservation is of first priority. The environment is the attraction and the source of livelihood. Despoiling it would be like fouling the nest. All use of the area must be secondary to environmental protection under the overall planning goal for the area. A healthy forest, clean water, clean air, abundant fish and wildlife, and natural vistas with minimal marks of Man are highly prized and to be jealously guarded under this Plan.

Edible plants and berries are another source of sustenance utilized by residents of the area. The 1986 Subsistence study conducted in the area by the Department of Fish and Game found that over 90 percent of households contacted in the study utilized edible plants of some kind. This utilization rate contributes to concerns for the use of herbicides and pesticides - including by the Railroad.

Recommendations

* All recommendations of the Susitna Area Plan which are protective of the natural environment are supported by this Plan unless otherwise noted.

* Publicly owned natural buffers around and along water bodies are encouraged.

* Minimal clearing of existing forests - consistent with sound forest management practices - is recommended.

* See also recommendations under Fish and Wildlife.

* The use of pesticides and herbicides is discouraged in the entire planning area. Feasible alternatives to weed and pest control are strongly recommended - including by the Alaska Railroad. Pesticide/herbicide use and application should be regulated by individual permit.

* A low population density, justified by resource carrying capacity as described herein, has its own value as a part of a remote lifestyle and should be maintained. Generally, and with deference to carrying capacity concerns analyzed herein, residential density should be even lower in the area north of a line from the Chase railroad station to Katie Lake than in the area south of that line.

TRANSPORTATION

The Chase planning area currently has no road link to the road system. Access into the area is obtained via the railroad corridor that bridges the Talkeetna River and continues the length of the planning area; via river boat traffic along the Susitna and Talkeetna Rivers during the summer; crossing these rivers on the ice via snowmachine or other trails in the winter; and year-round fly-in to lakes, unimproved airstrips, and clearings by small planes and helicopters.

ACCESS

Access is a major problem in the Chase planning area in that the only formally developed surface access is the railroad, and - except for the railroad, boat, or fly-in access - none of the many disposals in the area were provided with physical access, and few even have legally defined access.

There are two principal aspects of access: (1) Legal and (2) Physical. Legal access implies that there is a legally defined route to a parcel or location. Legal access may or may not be developed. Legal access is usually defined by easement or right-of-way. The former grants a right to use the access route, but that right does not convey land title - only an interest in title. A right-of-way is usually dedicated to and owned in fee simply by the public through one of its agents. Physical access means that a route has been prepared in sufficient

fashion to allow some form of movement along it Physical access may be extremely primitive or it could be constructed to expressway standards.

As noted, none of the disposals in the planning area were initially provided with physical access unless they were on the railroad or on a lake upon which planes could land. Not even Chase II Subdivision with 197 five-acre lots has physical access, although its plat does show dedicated rights-of-way for roads. Such physical access as exists has been developed by owners of parcels seeking to gain access to their land, by miners, recreationalists, and even by wildlife. Therefore, physical access is quite primitive, is built to no particular standard, and has no provision for maintenance. Furthermore, much of the existing trails may or may not be legal in that it may not be built within a legally defined easement or right-of-way.

There are some legally defined access routes, including the platted roads within Chase II Subdivision, Clear Creek Road (with a right-of-way varying from 100 to 300 feet), the platted road leading from the subdivision to a proposed river crossing at the gauging station, the "roads" within the agricultural homestead area west of the railroad, and numerous trail easements or rights-of-way shown on the status plats. The Susitna Area Plan describes a concept for providing access to, through, and within the Chase III Agricultural Homestead Area.

Defining legal access to all parcels within the planning area is a major issue within this plan; and, as we shall see, providing physical access at some standard within legally defined routes is a corollary concern.

Recommendations

* Identify and establish feasible and legal access to all parcels in the area. This should include access by rail, air, trail, road facilities, or boat.

* Research existing trails to determine if they have legal easements or rights-of-way; and if they do not and are in the trails plan, then easements/r.o.w.s should be acquired.

* Resolve the trail/private property conflict issue.

* Establish standards for trail development in accordance with the trails plan.

RAILROAD

The state-owned Alaska Railroad uses the single main line that follows the Susitna River valley along the western boundary of the planning area. This is the only rail line linking Anchorage and Fairbanks, and defines the "Railbelt."

The train is one of the primary overland routes used by residents and visitors in accessing the Chase area. The Railroad allows use of the walkway on the Talkeetna

railroad bridge by snowmachines, ATC's, and pedestrians to cross the river into the area, but not of its right-of-way from there on. However, use of the right-of-way and even the tracks themselves is a common but illegal and dangerous practice.

As noted in the "History" section of the background information for this Plan, there are several construction camps, stations, or flag stops along the route within the area. Some acquired a name and identity, but most have lost their original functional significance.

Chase, ARR M.P. 236.2: Flag stop named in 1922 Railroad Time Table.

ARR M.P. 238.4: Flag stop

ARR M.P. 239.5: Flag stop

ARR M.P. 241.7: Flag stop

ARR M.P. 241.9: Flag stop

Lane, ARR M.P. 242.0: Flag stop named in 1922 Railroad Time Table.

Curry, ARR M.P. 248.5: As a (construction) camp, it was called Dead Horse (circa 1916). As a railroad station, the name was changed to Curry in 1922.

Sherman, ARR M.P. 258.3: Railroad station named about 1916 at the opening of the line.

Gold Creek ARR M.P. 263.2: Flag stop previously called Susitna River Station (1921). Named Gold Creek in 1922.

Local service is by a self-propelled, rail diesel car (RDC) which provides scheduled passenger service between Anchorage and Hurricane during the summer and between Anchorage and Fairbanks in the winter, with stops as requested. Currently, the car runs about three times per week in the summer, but only once during the winter. More frequent scheduling - especially during the winter months - might decrease use of the right-of-way. Light freight is also delivered by arrangement.

Sidings exist at Mile 232 (actually 231.6), Chase (Mile 236.2) and Curry (Mile 248) where cars can be left to be loaded or unloaded. This is especially important at Mile 232 for the use by farmers and miners in the area. While the Plan currently discourages additional agricultural disposals in the area for at least five years, there are several agricultural parcels between the tracks and the Susitna River just north of Talkeetna. The State does not require development plans for these parcels, or commercial production, but some of the farmers would like to be able to bring in machinery, materials, and supplies on the railroad.

The Chase community has been urging the Borough to provide a safe means of transporting school children using the railroad. Various proposals have been made and investigated, but rigid Federal Railroad Commission regulations require specifications for rail cars serving this purpose which can only be met by a product of British Leyland Company of Great Britain. A used rail bus might be purchased for under $100,000. However, British railroad officials would not release a unit for sale within the United States without the permission of British Leyland, and British Leyland will not assume product liability in the United States because of the high insurance settlements in this country. The Alaska Railroad has already stated that it would not assume product liability either.

Even if used equipment is purchased, and the insurance problem is solved, considerable expense would still remain to ship the equipment to Alaska and to operate it. The ARR would operate, man, and maintain the rail bus, but would want it to be used for general purpose as well as school transportation; and fares would have to cover expenses, or the expenses would have to be subsidized by the Borough.

The rail-diesel car (RDC) that the railroad currently operates could also be used to transport children, but is very expensive - probably too expensive for this purpose. Much of the expense is due to union rules which require a full regular train crew; and maintenance costs are high. The railroad would also have to apply for approval of Talkeetna as a crew quartering station, and either a garage would be required for operations, or the RDC would have to be kept running constantly. Further complications include rules which limit crews from working more than 12 hours, so that schedules would have to be designed to fit.

Probably the largest single issue related to transportation in the Chase Plan, is the use of the railroad as an access route by other than rail users. As noted above, the railroad right-of-way is a de-facto ATC/snowmachine arterial tied to the system of trails serving the area. The facts that the railroad follows an easy grade, is kept plowed during the winter, and has a bridge over the Talkeetna River all make it an attractive route to Talkeetna and the road system beyond. But the hazards of use of the right-of-way and tracks by pedestrian and light vehicle traffic are obvious and have, unfortunately, been demonstrated by painful experience. The railroad has no choice but to declare such use trespass.

Funnels for traffic such as the numerous trestles offer increased hazard to Unauthorized traffic, and the bridge itself can be a deadly trap if a vehicle finds itself between the tracks when a train approaches. The Talkeetna River and Billion Slough bridges are provided with walkways that are wide enough to accommodate a snowmachine or ATC.

However, with local citizens and the Borough, the Alaska Railroad has been exploring methods of improving the safety of the existing situation. The subject of trails and the railroad will be treated under the subject, "Trails."

Recommendations

The Overall Goal Statement for the Plan states that "It is anticipated that the railroad will remain a primary transportation link for the entire planning area. A safe means of transporting children to school will be sought."

* The role of the railroad in the Chase area transportation system should include:

  ** Provide passenger service for residents, recreational users, and, tourists.

  ** Support of existing farms, and other agricultural uses that may become feasible in the future.

  ** Support mining in the area.

  ** Provide light freight drop-off for local residents, including consignments from businesses in Talkeetna.

  ** Consideration as means of transporting local children to school in Talkeetna and Susitna Valley High.

* The Alaska Railroad is urged to maximize frequency of service through the area - especially during winter months.

* A local committee should be established to coordinate issues of mutual concern with the railroad, including rates, schedules, and safety issues.

* Investigate special rates for agricultural purposes.

* Maintain the siding at Mile 232 for agricultural and other transshipment purposes.

* Continue working to identify a viable means of utilizing the railroad for the safe transportation of children to school. At this time, the most viable long-term means appears to be the purchase of a used rail bus. This involves the following steps:

  ** Seek funding for the rail bus.

  ** Ask the Borough or State to assume product liability.

  ** Work out operational and maintenance requirements with the Alaska Railroad, and request the Borough to subsidize these costs as required.

  ** An alternative would be to seek an exemption from Federal Railroad Administration regulations for a high-rail vehicle to ensure safety for passengers or school children.

TRAILS

Since principal access by trail is an important element of the Overall Goal of this Plan, physical surface access requirements will be satisfied primarily by trails; while legal access will be assured. Current access into and through the Chase area relies on a system of trails. This system provides access to the back-country and to many of the private parcels and cabins in the area. The trails interconnect, but all of them ultimately lead to the railroad line. The railroad right-of-way is, in fact, the "arterial" of the planning area trail system.

A trail is defined for purposes of the State's Local Service Roads and Trails Program as "... a footpath or way on land or water that is open to public use as a matter of right whether or not a thoroughfare, particularly for dog sleds and mechanized snow vehicles." A trail is generally little more than a cleared route from which stumps have been removed. Unless it crosses wetlands, it is usually not surfaced.

The adequacy of any transportation route is evaluated against the need(s) it serves. In the Chase area, trails are currently used for the following purposes, and this Plan does not anticipate any additional uses.

* Residential

* Recreational

* Mining

* Agriculture

Each trail type has different characteristics and use in winter and summer.

There is a need in the Chase area to establish maximum as well as minimum standards for trail development and use.

RESIDENTIAL AND RECREATIONAL TRAILS

Residential or recreational trails serve the purpose of providing for the passage of foot and light vehicle traffic. They provide access to residences, recreational cabins, for hunting and wood gathering, for recreational purposes, and for leaving the area, including trips to Talkeetna and the road system. Typical traffic would include foot, ski, ATC, snowmachine, and dog team, depending upon the season. Sleds and small trailers may be used to haul cordwood, propane tanks, groceries, building materials, and supplies. This type of use makes the least demands upon the trail and, therefore, almost any trail of reasonable grade could serve the se purposes.

ISSUES

Use of Railroad Right-of-Way

The principle issue for the residential/recreational trail system is use of the railroad right-of-way particularly in winter. As noted, trails intersect with the railroad line at several points. This is because the rail line is cleared, maintained summer and winter, has an easy grade, and leads to Talkeetna and the road system. Alternatives have been explored, but since the tracks are cleared and maintained, and any other would not be, it will be difficult to discourage use of the rail line.

For safety and liability reasons, the Alaska Railroad cannot allow such traffic within its right-of-way unless a safe route is established an adequate distance from the tracks. The railroad has been working with local people and the Borough for some time to develop a safe route, and recently funding has become available to undertake some construction. The current proposal is to define and improve a route as necessary from the bridge through the agricultural homesteads west of the tracks to a crossing at about Mile 230. A vehicular crossing is recommended to accommodate farm vehicles and equipment. Such a crossing will require the formation of a diagnostic team to evaluate the crossing and select the best site. It is anticipated that the best site will be about Mile 230.7. The trail would then be continued on the east side of the tracks within the right-of-way to Mile 232. This will bring an authorized trail to the gravel pit at 232 where the Clear Creek Road trail and other trails, including a mining trail, converge. An alternative preferred by the planning committee is to keep the trail within the Railroad right-of-way to the West of the tracks until just before Mile 232 where a crossing would be identified.

A trail service area has been established to assume liability for the trail and the crossing, and to provide a method of maintaining the trails.

Most of the need for a trail to town along the tracks would be satisfied by the extension of a safe trail along the railroad to MacKenzie Creek – about Mile 244.6. However, curves in the rail line, numerous stream crossings with trestles, and topographic constraints - e.g. narrow distance between the Susitna River and a bluff on the opposite side of the tracks create challenges to the extension of the trail.

The most dangerous part of the stretch from Mile 232 to MacKenzie Creek is between Miles 232 and 234, mostly because of trestles across small drainages dumping into the Susitna

River. This situation could be improved with 4 foot walkways beside the trestles. In summer, the rail embankment in this portion is dangerously steep for ATC's. There is an alternative trail from Mile 232 to Chase at Mile 236.2, known as the Nodwell Trail, which would be preferred by the Railroad, and might be suitable with some improvements and maintenance.

In addition or prior to the construction of the road bridge proposed in connection with the Chase II Subdivision, a small bridge capable of carrying one-way ATC/snowmachine traffic or a cable crossing. The gauging station site recommended by USKH should be considered. Such a crossing would provide more than one point of access into the area should one go out; and would improve access to the Chase II Subdivision areas.

Platted Roads (on paper only)
Platted roads exist in the area for the agricultural homestead area west of the railroad and just north of Talkeetna; and Clear Creek Road which connects the railroad siding at ARR M.P. 232 with the Chase II Subdivision area. 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.

Privacy/Security
Since much of the area is public land and designated in the Susitna Area Plan for public recreation, there is concern among property owners in the area for privacy and security - privacy for residents from intrusion by passers-by, and security for cabins and property left unattended.

There is concern that if the location of a trail is known, it will attract use and jeopardize privacy and security. However, it is important that a complete inventory of trails be mapped in order to facilitate the development of a trails plan for the area.

Other current situations contributing to this concern include trails which pass across private parcels rather than adjacent to, and - possibly - locating cabins too close to a main trail and not using separate access trails. Also, the lack of trail marking will cause persons not familiar with the area to wander and explore trails that may lead to cabins, when their destination is somewhere else.

CONSTRUCTION AND MAINTENANCE

With the establishment of the Chase Trail Service Area, a mechanism now exists for systematic construction and maintenance of trails in the area. Trails should be constructed to support anticipated use; and they should be maintained to facilitate and even encourage their use. The Alaska Railroad is willing and eager to construct a trail which will get people off of the tracks, but will not do so unless that trail is maintained.

Improper use of trails is destructive of the trail so used, harmful to the environment, and possibly dangerous.

MINING TRAILS

There are numerous placer gold mining claims along Clear Creek (Chunilna Creek) and its tributaries. At least two of these are patented claims - one of which is active. Surface access to these claims is vital to their economic viability.

Miners must occasionally move heavy equipment onto their claims - an operation which can be very destructive of trails and terrain if it does not occur on solid surfaces and/or at appropriate times of the year. The State Department of Natural Resources requires a miscellaneous land use permit and adequate snow cover for equipment that moves across general state lands.

There are three routes used by miners (shown in the following illustration):

1. **Gold Creek - Devil's Canyon Route:** This is considered to be a year-round route, but is very circuitous, proceeding up Gold Creek at the far north end of the planning area, transiting the high country above the upper reaches of the Susitna River before reentering the area via the Chunilna Creek drainage. Use of this route appears to present the fewest environmental problems and receives the fewest complaints from residents, but it is most indirect and therefore time consuming and expensive.

2. **Mile 232 Clear Creek Road to Clear Creek Route:** This route starts at the railroad siding at Mile 232 and follows Clear Creek Road until it turns east, at which point the trail continues northeasterly until it reaches the confluence of Galen and Clear Creeks, as a designated mining trail.

   This is considered to be a winter trail, to be used only after freeze-up in the fall and only with at least a foot of snow in winter.

3. **Curry - Bacon Creek Route (Deadhorse Trail):** This is a third trail which has more recently been used for access to mining areas. This trail leaves the siding at Curry and follows a southeasterly course across Lane Creek until it reaches the Chunilna system.

This trail is also a seasonal trail, but may be the most desirable (for miners) access route to mining areas. An application for a 60 foot right-of-way for this trail was submitted by the Department of Natural Resources in 1985 under ADL 221100.

Local residents have the following concerns with use of mining trails for hauling heavy equipment to mines:

* Damage to the trail and environmental damage from leaving the trail when muddy. Damage to trails should be repaired.

* Notification of the community (Community Council) is requested before moving heavy equipment along the trail, to avoid conflicts.

* Anadromous fish streams should be bridged.

* Do not want these trails turned into de facto roads.

* Prefer low-pressure vehicles for summer use.

* Users should stay on designated routes to avoid further disturbance of the terrain.

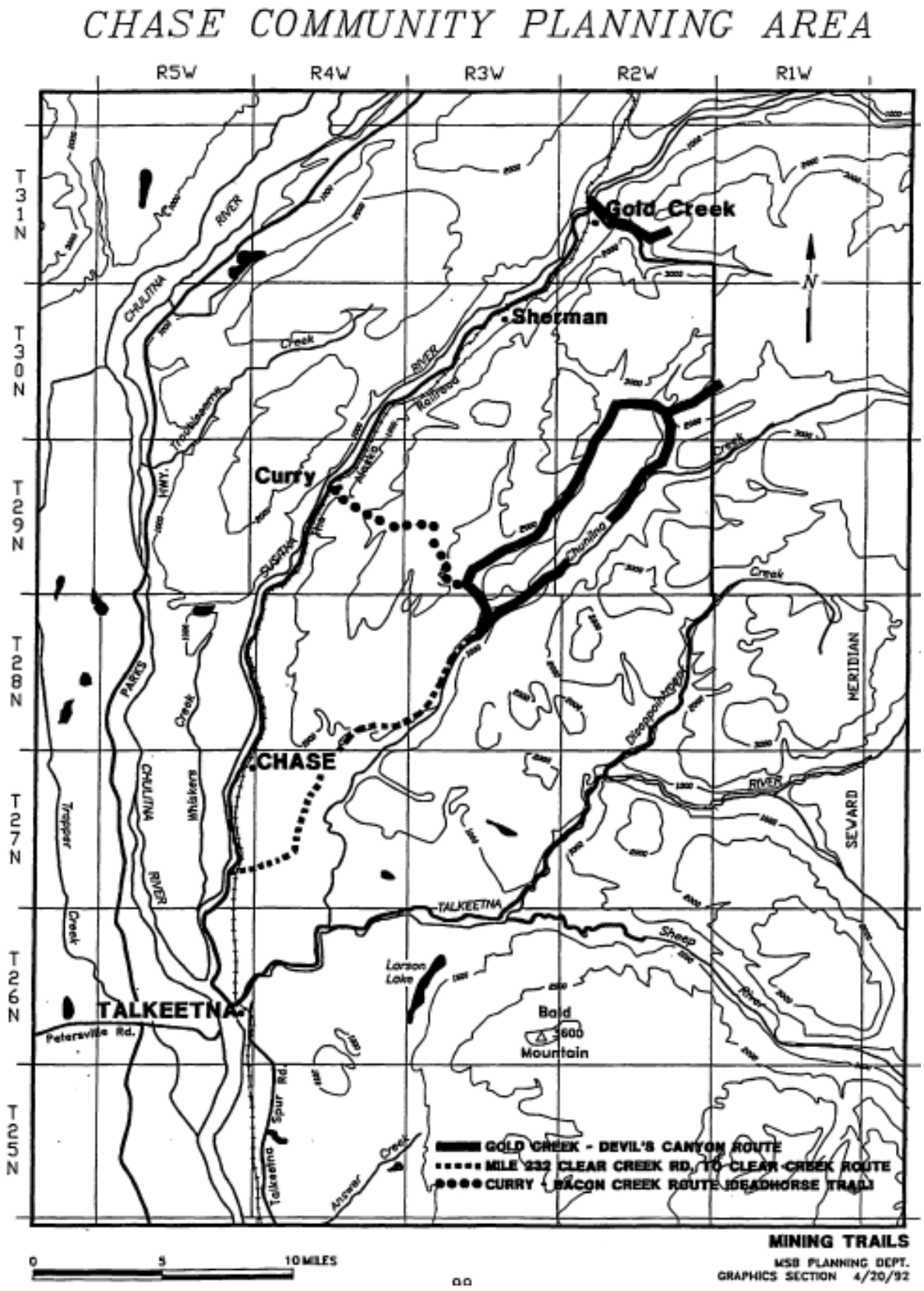


Figure 19 (1993)

AGRICULTURAL TRAILS

The only area currently in agricultural use is the area just north of the Talkeetna River and west of the railroad. The Plan does not recommend any further agricultural disposals pending needed changes in state and Borough agricultural policy.

Agricultural holdings in the area are considered by the State to be essentially subsistence farms so that access requirements are less stringent than would be required by commercial farms. Nonetheless, local farmers have some vehicles and would like to be able to move farm equipment around the area and between the area and the rail siding at Mile 232. This would suggest that a somewhat wider trail developed on a fairly firm base might be satisfactory.

The other requirement of farmers in this area is for a recognized crossing of the Alaska Railroad so as to access the siding at Mile 232.

Recommendations

It is recommended that a formal trails plan be developed incorporating the following policies and guidelines:

* Trails should be planned as a system.

* The capability of trails might vary as to type of use.

* Trails should be classified into at least the following categories:

Class I Trails: Mining – Designed to provide route of access to mining areas by heavy equipment.

I A: Year-round (No wetlands, trail passable all year.)

I B: Winter only (Wetland or other terrain constraints which would limit use to winter use only.)

Uses could include heavy equipment and all other types of trail users.

Class II Trails: Agricultural – Designed to provide access for agricultural machinery and related traffic. Uses would include farm vehicles and machinery, and uses associated with trails of lesser classes.

Class III Trails: Light mechanized/major – Serve as major routes of access into and through the area. Used by foot, ski, and ATC or snowmachine traffic.

Class IV Trails: Light mechanized/minor – Designed to serve lesser volumes of traffic including access to private property. Used by foot, ski, and ATC or snowmachines.

IV A: Year-round use.

IV B: Winter use only

Class V Trails: Foot trail – Designed for foot, snowshoe, or ski use only.

All trails of a lower number class may be used for the purposes served by trails of a higher number class.

***** Design considerations and standards

"Trails are traffic ways for many modes of transportation, including but not limited to pedestrians, sleds, snowmachines, all-terrain vehicles, etc. Trails may have surfaces of compacted soil, rocks, gravel, lumber, or asphalt treatment. Trails should be designed for the most demanding (usually largest) vehicle, pedestrian, or other traffic unit expected to use the trail on a repetitive basis. Trails for snowmachines and all-terrain vehicles should be designed consistent with the standards for roadways, except that the total desirable width of trail surface should be four times (4X) the width of the design vehicle, with a minimum width of two times (2X) the width of the design vehicle." (LSR&T Handbook, AK DOT/PF, Sept, 1984).

Trail Class	ROW/Easement	Clear Width	Clear Tread
I A	60 ft.	20 ft.	None Prepared
I B	60 ft.	20 ft.	Frozen & Minimum 2 ft. of snow
	(DNR permit required for mining equipment use)		
II	60 ft.	20ft.	12 ft. gravel #
III	60 ft.	16 ft.	8 ft.
IV A & B	60 ft.	8 ft.	4 ft.
V	60 ft.	8 ft.	4 ft.

Pit-run gravel should be used for any surfacing.

***** Develop a safe year-round trail between the Talkeetna railroad bridge and McKenzie Creek (approximately Mile 244.5) in proximity to the railroad. This could consist first of cooperating with the Railroad in constructing an alternative route within the railroad right-of-way to a crossing just before the switch near Mile 232 and then paralleling the tracks on the east side to Mile 232. The second phase would be improvement of the "Nodwell Trail" from Mile 232 to Chase at Mile 236.2. The final phase would be a trail designed in cooperation with the Railroad paralleling the railroad to McKenzie Creek.

* Define/develop a route leading to a bridge designed to accommodate only ATC, snowrnachine, and foot traffic. The site of such a bridge might be near the gauging station as indicated in the USKH study.

* Research existing rights-of-way and easements for possible incorporation into the trails system.

* Acquire easements/rights-of-way for desirable existing trails. Consider point-to-point survey as economical solution to survey needs.

* Ensure that trails are, or have been, constructed within an easement or right-of way.

* When possible, design local access trails in such a fashion as to discourage through traffic: e.g., dead ends, loops, and circuitous routes.

* Develop and implement a trail-marking program:

    ** Establish trail heads and clearly mark Class III trails which shall be intended for recreationalists to use. This may discourage recreational use of trails more commonly used for local access

    ** Mark trails and provide directions to destinations to prevent persons unfamiliar with the area from getting lost and wandering into inappropriate areas.

    ** Mark any trails that are designated for single or limited purpose(s).

    ** Mark trails on private property as private trails. Owners may also wish to post them “No Trespassing.”

    ** Post cautionary signs as appropriate – e.g., Slow, Bad Curve, Railroad Crossing Ahead, Intersection, etc.

* Route and reroute, where necessary, access trails to outer property boundaries to minimize trespass. Rely on private “blind” trails to access home sites, and mark them “Private.”

* Establish a transportation advisory committee to develop a formal trails plan.

* Create a trail service area within the planning area to extend Borough authority to construct and maintain trails. (This recommendation was implemented by establishment of the Chase Trail Service Area at the October 6, 1992 regular election.)

    ** Explore Local Service Roads and Trails funds for trails construction.

    ** Explore State “Winter Trails” funds for maintenance.

** Mill levy may be used as source of construction and/or maintenance funds within the service area.

* Mining trails

** Require a permit and reclamation bond from the State Department of Natural Resources to move mining equipment along mining trails.

** The movement of mining equipment along the Clear Creek and Curry-Bacon Creek trails should occur only with adequate snow cover and appropriate permits.

** Only designated mining trails should be used for passage of heavy equipment.

** Notification of the community (Community Council) is requested before moving heavy equipment along the trail, to avoid conflicts.

** Damage to the trail and environs should be restored.

** This plan encourages enforcement of Department of Fish and Game guidelines for crossing of anadromous streams by mining equipment and other vehicles.

** Mining trails should not become de facto roads.

** Low-pressure vehicles are preferred for summer use.

** Users should stay on designated routes.

PARKING

Some residents and many visitors desire to leave their car in Talkeetna - sometimes for long periods of time. Current arrangements are informal, not satisfactory. There is a need to identify, acquire, and develop a parking area for such use. This needs to be coordinated with Talkeetna planning efforts. There is also a need for boat storage - the two needs might be accommodated with one facility. Vehicular parking should be accommodated near the railroad.

Recommendation

* Identify, acquire, and develop a secure area for short and long term private automobile and off-road vehicle parking in Talkeetna. A location near the railroad bridge would be preferable. Space for this purpose could be combined with parking area(s) for other purposes. One-half acre would accommodate approximately 50 vehicles and would meet needs for the foreseeable future. If the area could be used for boat storage as well, a slightly larger area would be required.

AVIATION

Aircraft access the area using small, unimproved strips or one of several lakes. Not all of these are mapped. The community does not desire a proliferation of public airstrips - one near Katie Lake using the airstrip reservation recorded there should be sufficient.

It would be beneficial to have areas identified that could be used for helicopter landings for emergency evacuations. They should preferably be accessible by existing trails.

Recommendations

* Identify airstrips and airstrip reservations to include lakes that are used by aircraft. Also identify areas used for landings that do not have an identifiable landing strip. This information could be recorded on the same maps used for trails planning.

* Encourage the development of an unmaintained public airstrip on the reservation for this purpose near Katie Lake.

* Emergency helicopter landing areas should be identified and made known to those who would use them. Most of these areas should be accessible by the existing trail system.

* Allow the development and use of private landing strips on private land.

WATER TRANSPORTATION

The planning area is bounded on the west by the Susitna River and on the south by the Talkeetna River. The Talkeetna River is probably the most heavily used by boaters, and, as the major barrier between Chase and the town of Talkeetna, is crossed by boat by some seeking access into the area. The Susitna River also carries some boat traffic, here.
The Susitna Basin Recreation Rivers Management Plan recommends the mouth of Clear Creek as a Public Use Site. This area might be used to land boats.

Recommendation

* Accommodate the landing of boats at the mouth of Clear Creek within the public use area proposed in the Susitna Basin Recreation Rivers Management Plan.

PUBLIC FACILITIES AND SERVICES

This section addresses public facilities and services available to residents of the Chase planning area. Public facilities and services are categorized as follows:

* Education

* Health
  - Emergency medical services
  - Acute care

* Public Safety
  - Law enforcement
  - Fire protection

* Utilities and Communications
  - Water supply
  - Wastewater and sanitary waste disposal
  - Solid waste disposal
  - Power
  - Communications

* Recreational and Cultural
  - Outdoor recreation
  - Indoor recreation
  - Library services

* Local government

Public facilities serving the local population are non-existent within the area itself, and services are limited. The sparse population and the lack of road access limit the range and type of facilities and services that would be practicable and feasible. Chase area residents have sought out a relatively self-sufficient life-style, which also applies to their lack of dependence on traditional public facilities and services. They either do for themselves or put up with a considerably less convenient service than is available to the average urban resident.

While the types and manner of delivery of public services in relatively remote and less accessible areas such as Chase are limited, they are not entirely non-existent. Innovative and "alternative" methods are used to supply services, and a certain amount of self-help and resourcefulness is required to supplement these services. Areas such as Chase are, in fact, addressed to some extent in the Borough's Public Facilities Plan: and that document is used as a resource in this inventory. It will be one of the goals of this planning effort to supplement that Plan for the Chase community - both in terms of inventory and recommendations for improvements in service.

EDUCATION

There are no public or private school buildings within the planning area, unless homes where correspondence or other home-study programs are pursued are so considered. The nearest public elementary school is in Talkeetna, accessible only by overland means or by the

railroad. The nearest junior and senior high school is Su-Valley High School near the Parks Highway/Talkeetna Spur intersection.

Both State and Borough sponsored correspondence programs are available to Chase residents. Eight children use one or the other of these programs.
There are five school-age children within the planning area. It is reported that the number is small because of the lack of safe, daily access to a public school. Families have, in fact, moved from the area to be nearer school facilities. Conversely, there would probably be more school-age children in the area were a school reasonably and safely accessible.

The School District has placed a school for the area within its capital program; but it is unlikely to be built until access improves. Meanwhile, the Chase Community Council does not support the construction of a school in the area at this time.

The community wishes to pursue the establishment of a safe means of transporting children to school on a train. The Federal Railway Commission would consider allowing a rail bus made for rail use, but the only firm in the world that makes such a vehicle is British Leyland. That firm manufactures new vehicles about every third year. Some time ago, the British Railroad was contacted regarding used equipment, and, at that time two were available at an estimated cost of under $100,000 - not counting transportation costs. However, British Railroad officials would not release one for sale within the United States without the permission of British Leyland, and British Leyland will not assume product liability in this country because of our history of high insurance settlements. The Alaska Railroad would not accept that responsibility, but asked if the Borough would. The costs to the Borough remain to be determined.

The Alaska Railroad would operate, man, and maintain the rail bus, but would want it used for general as well as school transportation. The Borough could set the fare schedule, but would have to acquire the legal authority required. The Borough would also be responsible for purchasing the bus, shipping it here, and assuming liability. This option is discussed further under "Transportation."

The rail diesel car (RDC) currently operated by the ARR is another possibility, but is very expensive to operate. It's expensive because union rules require a full, regular train crew, and maintenance is high. The railroad would also have to apply for approval of Talkeetna as a crew-quartering station, and either build a garage for the RDC or keep it running constantly in winter. A further complication is that current rules limit a train crew to working a maximum of 12 hours, so that schedules would have to be designed to suit.

Other possibilities include developing a safer route along the rail line for snowmachines and ATCs, but the community would still have concerns for children operating machines by themselves. A boarding program in Talkeetna is another possibility; and correspondence programs are available through both the Borough and the State.

Recommendations

The following alternatives are recommended:

* Continue to pursue the acquisition of a rail bus from British Leyland, working out the liability and operating problems.

* Develop a boarding program in Talkeetna.

* Use one of the correspondence programs available. This option is always available, and can be used by some even if others choose another option.

* Develop a safer trail route to Talkeetna and escort younger children to school.

HEALTH

Emergency Medical Services

Emergency medical (ambulance) services are provided on an area wide (Borough wide basis) by the Borough. As described in the Borough Public Facilities Plan, emergency medical services include the following:

* Immediate response by first responders (persons trained to as least the Emergency Trauma Technician [ETT] level) who can respond from their home or place of work directly to the scene of an accident and render basic level care prior to the arrival of an ambulance.

* Response, evaluation, treatment, and transport by an ambulance.

* Special rescue and response teams, such as dive teams, hazardous material (HAZMAT) teams, special extrication teams.

* Transportation of pre-evaluated patients from one care facility to another.

* Community involvement in such areas as CPR training, first aid classes, water safety, etc.

The nearest conventional ambulance service is in Talkeetna. Military or State trooper helicopters will respond to emergencies within the area.

No special teams are established within the community. The nearest dive team is headquartered at Wasilla.

No acute care facilities exist within the Chase area, where patients can be evaluated. There is a family practice M.D. in Talkeetna and a health clinic staffed with a nurse practitioner at Sunshine Clinic at the intersection of the Talkeetna Spur and the Parks Highway.

It is important for residents of the area to be trained in, and be properly equipped to render emergency first aid. Instruction can be arranged through the office of the Emergency Medical Services Coordinator in the Public Safety Building near Wasilla.

The Borough Public Facilities Plan sets the following goals for the provision of emergency medical services to "remote" (roadless) communities:

* For the immediate care, treatment and transport of victims: Provide a "basic life support" response within 30 minutes - that is, provide treatment at the Emergency Medical Technician I and/or Emergency Trauma Technical Level; and provide "advanced life support" response within 60 minutes - that is, treatment at the EMT II, EMT III, and/or Paramedic level.

* Special rescue equipment for vehicle/aircraft accidents: Provide within 90 minutes.

* First responder capability for hazardous material situations: Provide within 60 minutes.

* Community services: With the Regional EMS Council, provide remote communities with training in CPR, first aid, or Emergency Trauma Technician training; and provide public health department information on emergency help, safety, and accident prevention.

Communications for emergency purposes are a vital element of an effective EMS system. Plans call for all first responders to have communication with central dispatch, but in Chase it is necessary to link all households into an effective system which can reach emergency medical service providers in a timely fashion. There are a very few telephones in cabins near the railroad but most cabins are served by CB radios. Radiotelephone service is available through Matanuska Telephone Association, but it is considered "expensive" by some residents.

Recommendations

1. Generally and at a minimum, the community should pursue the attainment of the emergency medical service goal level for remote communities outlined herein.

2. All residents of the area should receive basic first aid and CPR training. Classes in the area (probably Talkeetna) should be arranged on a periodic basis with Borough Emergency Medical Services.

3. A resident should be identified to receive first responder training and be supplied with a first responder kit. This person could render emergency aid until transportation is available.

4. The first responder should have a means of communicating with central EMS dispatch; and a CB net should be developed and adequately monitored to transmit emergency calls to the first responder. Consider involving a person or persons with a telephone in the net. At a minimum, an emergency telephone should be installed in an enclosure at the end of the telephone line - especially to serve recreationalists unfamiliar with the area. Ideally, emergency phones should be installed every three or four miles along the railroad through the area.

5. A sled and trailer capable of safely transporting injured or seriously ill persons out of the area to Talkeetna for further transport by ambulance should be acquired and stationed at a known location - probably at the residence of the first responder.

6. EMS, the Public Health Service, and local health practitioners should be solicited for health, safety, and first aid information that can be posted in conspicuous places or disseminated within the community through various media.

Acute Care

The nearest community hospital is Valley Hospital in Palmer. Valley Hospital has facilities for landing helicopters; or seriously injured persons might be transported to a regional hospital in Anchorage. The Sunshine Clinic at the intersection of the Talkeetna Spur and the Parks Highway and a family practice physician in Talkeetna provide the closest acute medical care beyond the emergency level.

Talkeetna will probably remain the closest base for primary care for the foreseeable future. Health education, careful personal care, and respect for climate and wilderness are important to the maintenance of good health and the prevention of injury in the area.

PUBLIC SAFETY

Law Enforcement

Law enforcement is the area is provided by the Alaska State Troopers out of Sunshine Clinic. Communications, limited numbers of troopers, and the lack of roads greatly increase response time. However, residents report few problems and are generally satisfied with the current level of service, but are concerned that public knowledge of trails to their cabins may jeopardize the security of their persons and property.

Recommendations

1. A public safety committee might be established in the area to develop programs for increasing the security of lives and property in the area. It could make recommendations to the local community council or councils, distribute educational material, and work as liaison with law enforcement officials. It should not become directly involved in law enforcement activities, however.
2. Establish a Neighborhood Watch type program in the area under which properties of absent residents are watched by other residents.
3. Develop and utilize an emergency communication system as recommended under Emergency Medical Services section of this Plan.
4. Continue current level of service.
5. Conspicuously mark some trails for public use to encourage their use rather than trails which access private property.

Fire Protection

The first line of defense in the Chase community is the individual, who must exercise fire safety and be prepared to fight home fires pretty much on his own. The State Division of Forestry will only attack wild fires offering only indirect protection for structures, therefore this service cannot be counted on to adequately protect private property.

Without roads and with such low density development dispersed over hundreds of square miles, a conventional fire protection service is not practicable. It will be important that safe construction practices be followed - particularly in wood-stove installation; that fire safety be

taught and practiced, including in the home and in the woods; and that residents know how to extinguish small fires.

Recommendations

1. Residents should receive basic training in fighting common types of fires, and in fire safety. Classes in basic wildfire fighting are conducted for a charge each year in the Wasilla area.

2. Fire safety information should be posted in conspicuous places visited by community members, and fire hazard status should be posted in the area. The State Division of Forestry should be consulted as to local fire status and postings be accomplished by local public safety committee.

3. Information and classes on proper installation and maintenance of woodstoves should be made available in the area. Such information might be available through the Local Fire Service Area or Agricultural Extension Service.

4. Residents should acquire and maintain appropriate fire extinguishers in their homes.

5. Residents should seek the services of a qualified fire safety inspector to inspect their homes for fire hazards.

6. Borough Emergency Services should be contacted for educational assistance.

7. A local public safety committee such as recommended above could assume responsibility for leading efforts promoting fire safety in the area.

8. A public fire safety education program should include community meetings to discuss protecting remote homes from wildfire. The "Protecting Your Home From Wildfire" pamphlets should be distributed to all residents.

UTILITIES AND COMMUNICATIONS

Water Supply

Most residents use surface waters for domestic purposes, although a few have shallow, hand-dug wells and some use springs; but all sources are sensitive to pollution. Applications for water rights may be made to the Department of Natural Resources, Division of Water. Upstream diversions would pose a threat to some water supplies.

Recommendations

1. Adequate in-stream flow must be maintained to ensure adequate down-stream supply.

2. Every effort must be made to protect ground and surface water quality - especially in those waters used as domestic water supply.

3. Water sources should be tested for biological and chemical contaminants.

4. When used, wells should be properly constructed to prevent ground water contamination.

5. The Public Health Service and Agricultural Extension Service should be contacted for information regarding safe drinking water.

Wastewater and Sanitary Waste Disposal

The principal means of disposing of sanitary wastes in the area is the privy, which is an acceptable method per the Alaska Department of Environmental Conservation (DEC). Care must be exercised to protect water supply sources from contamination from privies.

Recommendations

* Privies should be properly designed and installed - including adequate separation from ground and surface water.

* Soils should be investigated as to suitability for wastewater disposal or privy installation.

* Septic systems could be used, as could alternative technology methods such as waterless toilets. "Grey water," or wastewater resulting from dish washing, clothes washing, and bathing, should be properly disposed of through holding tanks and leach fields.

* All contamination sources, including privies, should observe minimum setback/separation standards from water supply and/or surface water - e.g.:

    ** Minimum of 100 feet between privy or other source of contamination and a water body or residential well.

    ** Bottom of septic tank or pit of privy must be at least 4 feet above water table.

Solid Waste Disposal

Domestic garbage and trash is disposed of by a combination of burying, composing, burning, and carrying out to the transfer box at Talkeetna. Trash along the railroad and that brought into the area by recreationalist - especially along lakes and streams - is reported to be a significant problem.

According to Alaska's Groundwater Quality Protection Strategy, liquid fuels are the main contaminant in the Bush - particularly from leaking storage facilities.

Recommendations

* The Borough Public Works Department and the State Department of Environmental Conservation should be contacted for assistance in the disposal of recreational and hazardous waste.

* Care should be taken when burning due to risk of forest fire. (See State Forestry)

* Liquid fuels such as fuel oil, gasoline, and kerosene should be properly stored and spills avoided. Commercial storage tanks are subject to regulations by DEC.

* Signs should be erected at public places requesting that trash be packed out.

Fuel Sources

Where power is used to run appliances and machinery, its source is commonly private gasoline/diesel-powered generators and/or wind generators. Propane, and kerosene are common fuels. Talkeetna is the closest source of supply for propane, kerosene, and gasoline; and a pickup and delivery service has been initiated involving a local merchant and the Alaska Railroad. Nearby sources of firewood are critical to meeting heating needs and fundamental to carrying capacity considerations.

Communications

A few cabins along the railroad have telephones, but most homes use citizen band radios. Radiotelephone service is available through MTA, but is reported to be expensive, considering local budgets.

Recommendation

An emergency communication network should be established within the area, and other recommendations listed under "Health" facilities and services herein should be considered.

RECREATION AND CULTURAL SERVICES

Recreation

The multitude of outdoor recreational opportunities available in the immediate area is one of the chief attractions to local residency. Cross-country skiing, snowmachining, hiking, fishing, camping, hunting, boating, berry picking, etc., are all available just outside the doors of most cabins. The preservation of these opportunities for residents and public alike must be a priority for the area.

Public Recreation is either a primary or secondary designation for the majority of State-owned land in the area. The figure on page 63 indicates lands within which public recreation is a primary use. Of the remaining State-owned blocks, only 1c, 4c, and 4d are not to be managed for public recreation as a secondary use. Borough lands in the area - sub-units If, 3b, and 4b -are designated "Borough Land Bank" which does not commit to any particular management, but public recreation is recognized as a resource value in each of these units.

The Susitna Area Plan provides various guidelines and recommendations for the management of lands designated for Public Recreation. The following are extracted from that Plan as they most probably apply to the Chase area.

In general, State lands in the Chase area would be used for what is called "dispersed recreation." The Susitna Area Plan explains such use as follows:

> The plan designates large areas to support dispersed recreation activities such as cross-country skiing, hiking, tent camping, snowmobiling, and dog mushing. These areas also offer protection for scenic vistas, geologic features, and unique ecosystems for scientific, educational, and aesthetic values.
>
> . . .These lands will be managed to support a variety of uses in addition to recreation, including mining, forestry, and protection and use of fish and wildlife.

Recommendations in the South Parks Highway and Talkeetna Mountains Subregions sections of the Susitna Area Plan include the following recommendations:

> Hiking, cross-country skiing, snowmobiling, etc., require large, undeveloped areas. The large blocks of land retained in public ownership for forestry and fish and wildlife also will be managed to accommodate these uses. (South Parks Highway Subregion)
>
> This subregion will be managed to protect its current status as one of the major game harvest areas in the State for moose, caribou, and sheep. Streams will be managed to protect their recreation and commercial fishery values. The area also will be managed to maintain a full range of summer and winter recreation activities, including skiing, mountain climbing, hiking, and snowmobiling.
>
> Adequate access for these recreation purposes should be maintained in public ownership. Because the Talkeetna Mountains are a highly scenic but still relatively gentle mountain range, the area is particularly suited for cross country hiking, skiing and snowmobiling. In most of the area the terrain and vegetation permit cross country travel without construction of improved trails. The State and Borough should seek funding to build and, if necessary, operate public use cabins in select areas of the subregion.

Guidelines for leasing state land for recreational facilities are provided under AS38.05.073. Public use or remote cabins are recommended in the Susitna Area Plan for establishment within Management Sub-unit 3c of the Talkeetna Mountains Subregion, which includes approximately 1/2 of the northern and easterly part of the planning area.

Management Sub-units 5b and 6a are included among the legislatively designated Susitna Basin Recreation Rivers and are managed under the guidelines of the Susitna Basin Recreation Rivers Management Plan. This Plan designates a corridor along the Talkeetna River from its confluence with the Susitna River to approximately the point where the stream draining Katie Lake enters the River as the Lower Talkeetna River Management Sub-unit, the portion within the planning area above the Katie Lake drainage as the Middle Talkeetna River Sub-unit. The uplands around the mouth of Clear

Creek and the water column and shorelands for the first 9.5 miles of Clear Creek are designated as the Clear (Chunilna) Creek Subunit.

The "Management Intent" statement in the Management Plan for the Lower Talkeetna River Subunit states:

> Because of its proximity to the town of Talkeetna, the river is easily accessed by a variety of summer and winter users. This Subunit features high quality fishing, hunting, and camping opportunities for power boaters and floaters. A boat launch, roads and trails along the south side of the river, and several subdivisions are located within the Subunit. In winter, the Subunit is heavily used for snowmachining, dog mushing, and cross-country skiing. The Subunit will be managed to provide and enhance these recreation opportunities, and fish and wildlife habitat while accommodating uses associated with private lands. Maintaining public use sites is a high priority. There are no non-motorized areas in this Subunit.

The Plan designates the mouth of the Talkeetna River and the railroad bridge as a Public Use Site, stating that the river mouth and railroad bridge are heavily used by Talkeetna residents and visitors to the area for fishing and recreation.

The "Management Intent" statement for the Middle Talkeetna River Subunit states:

> Because of the limited fishing opportunities and the limited number of clear water tributaries, this subunit receives moderate use. The area includes important moose winter habitat It is also used for camping and hunting. In winter, the subunit receives limited use by snowmachiners, dog mushers, and skiers. Only a few private parcels are within the subunit. The subunit will be managed to provide and enhance these recreation opportunities, and fish and wildlife habitat. Maintaining an essentially unmodified natural environment will be the focus of management Maintaining public use sites is a high priority. There are no non-motorized areas in this subunit.

The junction of Disappointment Creek with the Talkeetna River is designated a Public Use Site for camping and day use.

The "Management Intent" for the Clear Creek Subunit is as follows:

> Public use of this subunit is primarily during the king and silver salmon runs near the mouth of Clear Creek. Because most of the subunit includes only the Clear Creek water column and shorelands, the subunit also serves as a greenbelt adjacent to several parcels of private land that line the creek. The subunit features high quality fishing, hunting, and camping opportunities. Power boaters and floaters primarily use the Talkeetna River and the lower half-mile of Clear Creek. Upper Clear Creek is only marginally navigable by float boats, and has poor access for drop-offs. Winter use includes snowmachining, skiing, and dog mushing. The subunit contains winter moose and salmon spawning habitat. There are several mine claims

> on upper Clear Creek. The subunit will be managed to provide and enhance recreation opportunities and fish and wildlife habitat. With the exception of uses associated with mining, maintaining an essentially unmodified natural environment will be the focus of management. There are no non-motorized areas in this subunit.

According to the Plan, the owner of the Clear Creek Lodge is interested in a land exchange with the State. DNR or Fish and Game may consider an exchange or purchase of this land, but are concerned that the parcel it occupies may be subject to flooding and erosion.

The mouths of Clear and Fish Creeks are designated as Public Use Sites with the recommendation that trail access to Fish Creek be improved.

Management guidelines for public use sites specify that:

> Commercial camps that remain for more than four days in the summer are not allowed in Public Use Sites. Public facilities, public docks, boat ramps, and public airstrips may be allowed. Camping may be restricted to identified sites if a campground is constructed or if designated campsites are identified. Public Use Sites, because of their high value for public use, will receive higher levels of management attention than other less heavily used areas.

Recommendations

* Public cabins are recommended in lieu of remote cabins; and it is recommended that public use cabins be limited or tied carefully to area carrying capacity for cordwood. Perhaps cabins might be used by the public more during the summer months to reduce demand for firewood, since this study indicates that if all disposals in the area were to be used year-round, the limits of the forest to sustain cutting for firewood might be approached. It is a good idea to have strategically placed public use cabins that can be used as winter shelter cabins.

* Private recreational development should be reviewed and permitted under the Borough's zoning authority and comply with state guidelines as well as those of this Plan.

* A boat storage area is needed on the Talkeetna side. This might be combined with a parking area, which is also needed.

* Tasteful information signs should be posted at important locations, encouraging safe and courteous use of the area, alerting visitors to the fact that this is an inhabited area.

There are no public indoor recreational opportunities in the planning area. Facilities and activities in Talkeetna would be the closest.

LIBRARY SERVICE

The Borough Library Board has a plan (incorporated into the Borough Public Facilities Plan') to continue to develop a library system involving all of the libraries in the Borough, with ties into local school libraries and into the State and Western Library network. The nearest library for Chase residents is that in Talkeetna. The Talkeetna Library has a book collection of 5,000 volumes, a reference collection of 300 volumes, is staffed by two part-time employees, has a phone, and is open 36 hours per week.

The Library Board's guidelines in the Public Facilities Plan prescribe that "community libraries" such as that in Talkeetna, ".... would be located in small population areas of at least 400 persons and be developed along guidelines yet to be established of need and distance to core-area libraries. They would have smaller collections with only basic reference collections but would have access through computer cataloging to any material within the system. They would have at least one staff member, and regular library hours. Ideally, these libraries would be located near or with other community services, especially schools."

A computer has been purchased for the Talkeetna Library along with some peripherals which will get them started into the inter-library system. More will need to be done to complete the system.

Recommendations

* Support the continuing improvement of the Talkeetna Library.

* Utilize and encourage continued development of the inter-library loan program and the connection of libraries in the network by computer.

LOCAL GOVERNMENT

The Matanuska-Susitna Borough is the local unit of government for the Chase area. An elected assemblyman represents the district, including Chase, on a seven-member assembly. The Borough was incorporated in 1964 as a second class borough with area wide powers of education, taxation, and planning and zoning acquired upon incorporation, and additional powers available through referendum (several additional area wide powers have been acquired since incorporation).

The Borough has a municipal form of government with seven assembly persons elected from seven districts, serving with a mayor who is elected at-large. A mayor-manager form of government was chosen by the electorate, and the manager's administration is headquartered in the city of Palmer.

The Assembly has authorized and established guidelines for the creation of community councils which act to represent - in an advisory capacity - the interests of residents of council areas. The Chase Community Council is one such council and was established by action of the Assembly to represent a defined area. Its area is smaller than, but lies totally within the Chase planning area as defined for the purposes of this Plan.

Remoteness from the seat of government and limited services are given as problems with the Borough government.

Recommendations

* In accordance with procedures set forth in Planning Commission Resolution 93-27(AM), create a new Chase Citizens Advisory Committee to implement the comprehensive plan. The new committee is to consist of ten members chosen to fairly represent the views of all residents and property owners in the area. Any impasses concerning issues under deliberation will be resolved through the elevation process per Resolution 93-27(AM)

* Identify a site for and develop a suitable community center in the area for meetings and community activities.

* Encourage the regionalization of Borough government by pursuing a Borough branch office in the northern part of the Borough which would have staff capable of dealing with I issues which now require travel to Palmer - e.g., road service concerns, payment of taxes, permitting, etc., and communications linked to main Borough offices and the Borough's main frame computer for information.

APPENDIX

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF LAND

LAND & RESOURCES SECTION
3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 762-2680

March 12, 1992

Rodney Schulling, Chief
Planning Division
Department of Planning
Matanuska-Susitna Borough
350 E. Dahlia Avenue
Palmer, Alaska 99645

Dear Rodney,

Here are my estimates of carrying capacity for firewood in the Chase area. In summary, I estimate that the forest lands in the Chase area are capable of providing firewood to approximately 700-900 dwellings at a rate of 6 cords per dwelling per year. The assumptions upon which this estimate is based follow.

1. All state, borough, and private forest land is available for firewood harvest except for the Alaska Railroad land (S. Parks Highway subunit 1h). Private lands are included in the estimates, since landowners can harvest on their own lands or sell their timber harvest rights. Land within the ARR right-of-way is included in these figures, since it is not known how much of the right-of-way is forested, nor if it is available for harvesting. I estimate that the right-of-way would affect less than 2% of the forest land base.

2. The limiting factor for wood is fuelwood, not houselogs. Based on the figures on p.15 of the February, 1982 report *Carrying Capacity of Remote Lands for Settlement*, there would be enough houselogs in the area to build about 2,800 cabins requiring 50 spruce logs $\geq$9" diameter per cabin. Since the estimated fuelwood supply is only enough to support 700-900 cabins, only 1/4 to 1/3 of the supply of cabin logs would be needed. In addition, since cabin logs are only large spruce, and since they are a one-time demand rather than an annual need, the requirements for cabin logs are expected to have little impact on the fuelwood supply.

3. Each dwelling uses an average of 6 cords per year. For dwellings that are not used year-round, or that supplement wood with other heating or cooking fuels, this is a high figure. For large, year-round dwellings, this may be low.

4. Forest type 31 (Open, short, white spruce) is not included in the land base for firewood. The standing volume is too low (average = 97 cf/ac for Talkeetna and Willow subbasins in 1980 USFS inventory), and trees are too small for efficient harvest. This forest type typically occurs at higher elevations where regeneration is likely to be more difficult.

5. Forest type 42 (Closed, tall, black spruce) is not included in the land base for firewood harvest.

Type 42 has little birch or white spruce. Trees are small in diameter and inefficient to harvest.

6. Type 28 (medium-age, closed cottonwood) has no white birch and only 11 cf/ac of white spruce. This type was not included in the land base for firewood harvest.

7. The following forest types are included in the land base for fuelwood:

22 Mixed woods, closed forest, young
24 Mixed woods, closed forest, medium-age
26 Mixed woods, closed forest, old
32 Mixed woods, open forest, medium-age

25 White spruce, closed forest, tall

29 Cottonwood, closed forest, old
35 Cottonwood, open forest, medium-age

Type 22 is young forest. Although it may not be harvested at present, it matures into types 24 and 26, and will be harvested over the length of a rotation.

8. The proportion of forest types in the unmapped area is similar to that in the mapped area. Under this assumption, of the 9,020 of "green land" in the unmapped area[1], about 8,720 acres would be usable forest types (types 22, 24, 25, 26, 29, 32, and 35), and 300 acres would be unusable types. Since the unmapped areas appear to be low elevation relatively near the river, this is probably reasonable.

9. The carrying capacity is estimated from volume regulation rather than growth rates. Data on growth rates in this area is sketchy and has a high degree of uncertainty attached.

10. Rotation ages are the same as in the Susitna Forest Guidelines (p. 11). The lower estimate of carrying capacity is estimated from the long rotations (100 years for birch, 140 years for white spruce) and the higher estimate from the standard rotation (80 years for birch, 100 years for white spruce).

11. Only birch and white spruce are harvested in significant quantities for firewood.

12. 1 cord = 90 cubic feet.

13. This report does not address access to the forest lands. Distance to wood supply will vary depending on cabin location.

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[1]Note: A total of 10,450 acres of unmapped land are in the study area, but a portion of this land is in Subunit 1h, the ARR property.

Please call if you have any questions.

Marty Welbourn, Chief
Land and Resources Section

cc: Rick Thompson, SCRO
Jim Eleazer, DOF

Table 1: Summary of fuelwood supply in the Chase area. See Table 2 for a description of the calculations used to derive these numbers.

		-------Fuelwood supply (# dwellings supported)-------		
Type	Acreage	Birch	White spruce	Total
22	2,480	10-12	4-5	14-17
24	21,750	239-298	62-86	301-384
25	70	<1	1	1
26	13,710	176-218	58-81	234-299
29	80	<1	<1	<1
32	14,080	10-12	38-54	48-66
35	240	<1	1	1
Subtotal (mapped area)	52,410	435-540	164-228	599-768
Un-mapped area	8,720			100-128
TOTAL	61,130			699-896

The estimate of wood supply in the part of the study area that is outside the US Forest Service inventory was estimated from:

1) $\frac{\text{Ac usable types in inventory area (52,410)}}{\text{Ac total in inventory area (54,216)}}$ X Ac in unmapped area (9,018) = 8,718 ac

2) $\frac{\text{Usable ac in unmapped area (8,718)}}{\text{Usable ac in mapped area (52,410)}}$ X 599-768 dwellings supportable in mapped area = 100-128 dwellings supportable

Table 2: Acreage and volume by forest type in the Chase area, and estimated carrying capacity for birch fuelwood. Types 25, 29, and 35 do not contain enough birch to support a dwelling, and are not included in this table. This table is based on the timber inventory done by the US Forest Service, US Soil Conservation Service, and Alaska Department of Natural Resources in 1978-80. Part of the study area is outside the inventory; see Table 1 for the estimated wood supply in the area outside the inventory. For more information on the inventory methodology, see *USDA Soil Conservation Service, 1986, Timber and Vegetation Resources of the Susitna River Basin - Alaska Report, Anchorage, AK.* The standard rotation length for birch is 80 years; the long rotation is 100 years.

Type	Average volume per acre (cf/ac) all species	Average volume per acre (cf/ac) birch only	Acreage needed to produce 6 cords/year of birch	Acres of this type Chase area	# dwellings supportable in Chase area
22	373	213	203-253 ac	2,480 ac	10-12
24	924	593	73-91 ac	21,750 ac	239-298
26	1,074	690	63-78 ac	13,710 ac	176-218
32	283	37	1168-1459 ac	14,080 ac	10-12
TOTAL				52,020 ac	435-540

To calculate acreage needed to provide a sustained yield of 6 cords of birch per year

$$\frac{6 \text{ cd birch}}{\text{year}} \times \frac{1 \text{ acre}}{\text{\# cf birch}} \times \text{\# years per rotation} \times \frac{90 \text{ cf}}{\text{cord}}$$

For example, in type 22 on a standard rotation

$$\frac{6 \text{ cd birch}}{\text{year}} \times \frac{1 \text{ acre}}{213 \text{ cf birch}} \times 80 \text{ years per rotation} \times \frac{90 \text{ cf}}{\text{cord}} = 202.8 \text{ ac/6 cords of birch}$$

To calculate how many dwellings could be supported in the Chase area

$$\frac{\text{\# acres of forest type in Chase Area}}{\text{\# acres needed to grow 6 cords birch annually}}$$

For example, in type 22 on a standard rotation

$$\frac{2{,}480 \text{ acres}}{203 \text{ acres/6 cds-year}} = 12.2 \text{ dwellings}$$

Table 3: Acreage and volume by forest type in the Chase area, and estimated carrying capacity for white spruce fuelwood. Type 29 does not contain enough white spruce to support a dwelling, and is not included in this table. This table is based on the timber inventory done by the US Forest Service, US Soil Conservation Service, and Alaska Department of Natural Resources in 1978-80. Part of the study area is outside the inventory; see Table 1 for the estimated wood supply in the area outside the inventory. For more information on the inventory methodoloyg, see *USDA Soil Conservation Service, 1986, Timber and Vegetation Resources of the Susitna River Basin - Alaska Report, Anchorage, AK.* The standard rotation for white spruce is 100 years; the long rotation is 140 years.

Type	Average volume per acre (cf/ac) all species	Average volume per acre (cf/ac) wh. spruce only	Acreage needed to produce 6 cords/year of white spruce	Acres of this type Chase area	# dwellings supportable in Chase area
22	373	108	500-700 ac	2,480 ac	4-5
24	924	214	252-353 ac	21,750 ac	62-86
25	975	946	57-80 ac	70 ac	1
26	1,074	319	169-237 ac	13,710 ac	58-81
32	283	206	262-367 ac	14,080 ac	38-54
35	1,073	191	283-375 ac	240 ac	1
Subtotal				52,330 ac	164-228

By: Taunnie Boothby
Introduced: June 6, 2016
Public Hearing: June 20, 2016
Action: Approved

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 16-24

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION AMENDING THE COMPREHENSIVE PLANNING PROCESS AS REQUESTED BY THE CHASE COMMUNITY COUNCIL.

WHEREAS, the Assembly approved through Resolution Serial No. 15-039 on April 21, 2015 and the Planning Commission approved through Resolution Serial No. 15-23 on June 1, 2015 the start-up of the Chase Comprehensive Plan update; and

WHEREAS, update activities were postponed due to a change in planning staff; and

WHEREAS, the newly assigned planner and the Planning Chief met with the Community Council on March 17, 2016 to re-engage the planning process; and

WHEREAS, the Chase Community Council requested a simple and limited update in accordance with their letter received April 21, 2016; and

WHEREAS, the limited update would only include statistical data revisions, such as population, and updated referenced plans, such as state and borough plans, that completed a public process and pertains to the Chase Community; and

WHEREAS, the draft will be released for public comment for 90 days and the Chase Community Council will review the update at their council meeting to take action and complete their

recommendation, and then forward the recommendation to the Planning Commission and Assembly; and

WHEREAS, being able to vary from the current process as proposed by the community is imperative to the community. The Chase Community Council letter states their wish to cancel their Comprehensive Plan update should this request be denied; and

WHEREAS, staff supports the community planning process and recognizes the Chase Community Council request differs from the Matanuska-Susitna Borough's standard process, per Planning Commission Resolution Serial No. 09-14; and

WHEREAS, staff recognizes the importance of offering a process and plan that will work best for a community.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission does hereby approve the Chase Community Council's request.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this 20th day of June, 2016.

JOHN KLAPPERICH, Chair

ATTEST:

MARY BRODIGAN, Planning Clerk

(SEAL)

PASSED UNANIMOUSLY: Klapperich, Anderson, Healy, Vague, Kendig, Adams, and Rauchenstein

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