MATANUSKA - SUSITNA BOROUGH
Comprehensive Development Plan

PHASE II: RECOMMENDATIONS

MATANUSKA-SUSITNA BOROUGH

Comprehensive Development Plan

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MATANUSKA–SUSITNA BOROUGH

COMPREHENSIVE DEVELOPMENT PLAN
PHASE II: RECOMMENDATIONS

SPRING, 1970

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ABSTRACT

TITLE:	Matanuska-Susitna Borough Comprehensive Development Plan Phase II: Recommendations
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ABSTRACT:	This is the second, or recommendatory phase, of the three phase initial planning project for the Matanuska–Susitna Borough. The first phase was a survey and analysis of background material and the third phase of the program will develop planning implementation measures. The maps and text included in this report set forth recommendations for future development in the Borough, a region encompassing an area of 23,000 square miles. Recommendations include a proposed inter-regional highway system, resource access roads, locations for new communities as well as development of existing communities, policies for development of community facilities and services, policies for management of public lands and more detailed future land use planning for the developed and developing areas within the Borough. Finally, the report contains a projection of population growth within school service areas of the Borough.

FOREWARD

Planning is simply looking ahead by studying the many factors which influence future development in a region and taking steps to ensure that future growth and change will build a desirable human environment. Through comprehensive planning costly mistakes can be avoided and individuals as well as governments can make better use of their resources. However, the basic objective of planning is to foster an environment which minimizes human hardships and expands opportunities for individual happiness and self-fulfillment.

Planning should not be confused with zoning. Zoning is only one means of implementing planning by regulating the use of lands. Plans are also implemented by many other means. Decisions on road location and capital improvement programming are especially important in determining whether a plan is implemented.

The Borough's plan is a composite of guidelines for future growth which were carefully tailored to reflect local thinking through meetings with the Borough Planning Commission and review by residents of communities within the Borough. These recommendations are concerned with a wide range of matters affecting the future of the region such as pollution control and community organization as well as the pattern of land uses and main roads. Implementation and refinement of the plan's recommendations should be seen as a continuing process, built upon the basis established by this initial report.

MATANUSKA SUSITNA BOROUGH

Chairman:	Robert H. Vroman
Assembly:	Harold Newcomb, President
	Raymond Johnson, Vice-President
	John Dolenc
	William Hermann
	Mary E. Martin
	Evelyn Thompson, Borough Clerk
Planning and Zoning Commission:	Jack Maze, Chairman
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	Walter Buza
	Ed Pohl
	Robert Tucker
	Verlyn Smith, Secretary
School Board:	George Smith, President
	May Carter
	Ben Hermon
	V. Louise Kellogg
	William Miller
	Vondolee Page, Superintendent of Schools

Alaska STATE HOUSING AUTHORITY

ROBERT H. SCHENKER
EXECUTIVE DIRECTOR

May 15, 1970

Mr. Robert H. Vroman, Chairman
Borough Assembly
Borough Planning Commission
Matanuska–Susitna Borough
Palmer, Alaska 99645

Gentlemen:

We are pleased to submit herewith the Matanuska–Susitna Borough Comprehensive Plan, Phase II – Recommendations. This report has been based on the analysis of the many factors affecting future development in the Borough which was summarized in the Phase I document. Additional research has been conducted as necessary to update and expand this information to develop the recommendations.

This plan has been developed as a cooperative effort by the Planning Commission and Borough officials as well as citizens from the individual communities of the Borough. The text and maps contained in this report have been reviewed by members of each community and modified to reflect some of the local comments.

The Matanuska-Susitna Borough has a wealth of natural resources. With its proximity to Anchorage and its lakes, streams, rivers, mountains and untouched wilderness, the Borough is becoming an outstanding recreation area. However, without planning and development controls, the Borough's attractive qualities are highly vulnerable to destruction by the pressures of development.

By acting on the guidelines for growth contained in this report and by building upon these recommendations in the future, the Borough can work to assure that it will continue to be a good place for living, working and recreation.

We wish to express our sincere appreciation to all the public officials and private citizens whose wholehearted cooperation and assistance contributed greatly to this report.

Respectfully,

ALASKA STATE HOUSING AUTHORITY

Robert H. Schenker
Executive Director

Enclosures

TELEPHONE 272-1471 • BOX 179 • ANCHORAGE, ALASKA 99503

ACKNOWLEDGEMENTS

This plan has been developed as a cooperative effort by the officials and citizens of the Matanuska–Susitna Borough and the planning staff of the Alaska State Housing Authority. The text and maps have been reviewed by members of each community and modified to reflect some of the local comments. The whole-hearted cooperation of the Planning Commission and officials and private citizens of the Borough was invaluable to the preparation of this plan.

The time and information contributed to this report by the following organizations has been extremely helpful and is gratefully acknowledged:

Alaska Division of Planning and Research
Alaska Local Affairs Agency
Alaska Department of Fish and Game
Alaska Division of Aviation
Alaska Division of Lands
Alaska Department of Highways
Alaska Department of Health and Welfare
Tryck, Nyman & Hayes, Consulting Engineers
Alaska Power Administration
U. S. Soil Conservation Service
Alaska District Corps of Army Engineers
U. S. Farmers Home Administration
U. S. Bureau of Land Management

PORTION OF

MAP OF

Willow Creek Mining District

Cook Inlet Precinct, Alaska

Compiled from personal and miners' notes and Government surveys.

By D. H. Sleem, M. D., Seward, Alaska

1910

Change happens gradually, and, for this reason, it is often difficult to appreciate how rapidly and extensively a region or community can change. This map shows the few trails which existed in the Borough in 1910 before the railroad construction was started. Today this part of the Borough is developed by communities and roads and is very different from the largely untouched wilderness of 60 years ago. Planned or unplanned, changes will occur in the future; but, through comprehensive planning, they can be directed to improve rather than deteriorate the quality of the Borough as a place to live, work and play.

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ILLUSTRATIONS

INTRODUCTION

STRUCTURE OF THE BOROUGH PLANNING PROGRAM

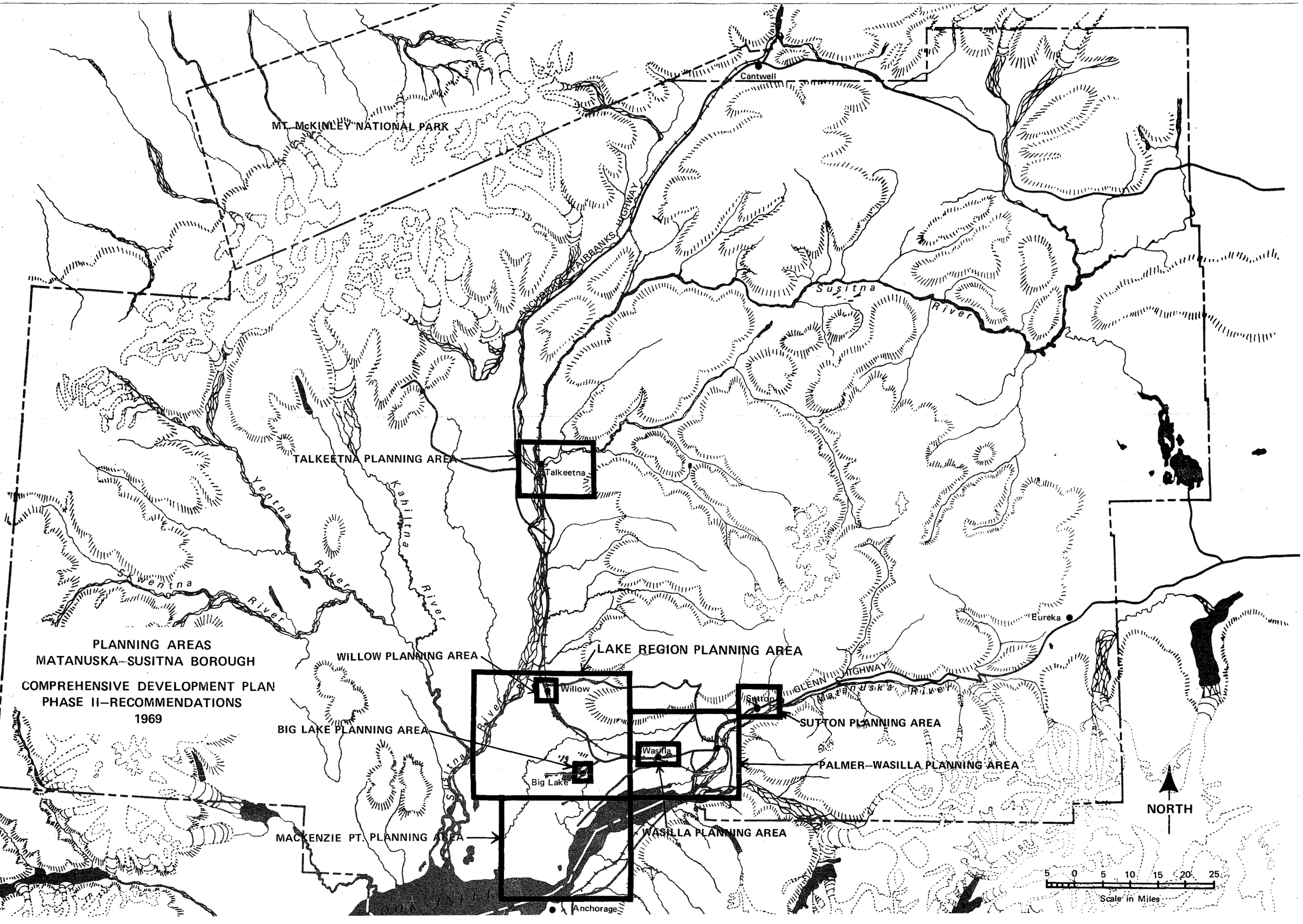
This report summarizes the work of the second phase in the Matanuska–Susitna Borough's three phased Initial Planning Program, organized as follows:

> Phase I – Survey and analysis – a compilation of information about the many factors affecting growth and development in the Borough.
> Phase II – Recommendations – a list and description of recommendations for future growth and development in the Borough, based upon the survey and analysis of Phase I.
> Phase III – Implementation – work to carry out the recommendations set forth in Phase II.

The findings and conclusions of the first two phases have been published in reports. The work of the third phase of the Borough's planning program will be seen in concrete improvements in the Borough's development, in provision of sanitary fill sites, school and recreational development and in land and resource management policies which follow a comprehensive plan.

The recommendations summarized in this report were developed as a composite effort of the Borough Planning Commission, the Borough administration and the citizens of the Borough's communities. In this project the Alaska State Housing Authority's Planning Department served as the Borough's planning staff, collecting needed information, developing recommendations for consideration by the Borough officials and citizens and compiling comments and recommendations into a unified comprehensive plan.

A plan can only be based upon knowledge available at a given time. Inevitably unforeseeable events affecting the region's growth will emerge. Periodically, the factors influencing the Borough's development should be reappraised, new population projections should be developed and the recommendations for future development which comprise the Borough's plan should be re-evaluated and revised. In other words, planning should be a continuing process. Work to implement the Borough's plan will go on indefinitely and the plan itself should be kept current.


MT. McKINLEY NATIONAL PARK
ANCHORAGE-FAIRBANKS HIGHWAY
Cantwell
Susitna River
TALKEETNA PLANNING AREA
Talkeetna
Yentna River
Kahiltna River
Susitna River
PLANNING AREAS
MATANUSKA-SUSITNA BOROUGH
COMPREHENSIVE DEVELOPMENT PLAN
PHASE II-RECOMMENDATIONS
1969
WILLOW PLANNING AREA
LAKE REGION PLANNING AREA
Willow
BIG LAKE PLANNING AREA
Big Lake
Wasilla
Palmer
Sutton
GLENN HIGHWAY
Matanuska River
SUTTON PLANNING AREA
PALMER-WASILLA PLANNING AREA
MACKENZIE PT. PLANNING AREA
WASILLA PLANNING AREA
Eureka
Anchorage
NORTH
5 0 5 10 15 20 25
Scale in Miles

STRUCTURE OF THIS REPORT

In planning for a large region such as the Matanuska–Susitna Borough with its 23,000 square miles, areas of concentration for detailed planning must be selected. Only a few aspects of the region's future development can be effectively mapped and described on a region-wide basis. The Borough's main highways, generalized settlement patterns, and major recreation areas as well as policies for providing schools and community facilities can be discussed on the basis of the total Borough. However, to describe the location of parks, schools, and commercial and industrial sites within communities, it is necessary to choose areas for concentrated attention and to develop maps at a large scale.

The detailed planning areas selected for the Matanuska–Susitna Borough Plan are shown on the map on page 3 . They were chosen by the Borough Planning Commission as areas where the existence of a community and/or potential for future development warranted concentrated attention and detailed planning.

This report is structured so that the initial chapters review aspects of the plan which can best be described on a Borough-wide basis, and, subsequent chapters cover each of the areas for detailed planning. Development of the Borough-wide planning elements and the details for regions and communities within the Borough was, of course, interwoven. The location of major highways throughout the Borough is a critical factor in the development of the Borough's communities and, conversely, Borough-wide highway planning must reflect the impact of highways on communities, and on the overall pattern of the Borough's development. Though the report separates Borough-wide elements and the details for communities the actual process of developing these recommendations combined the general and the specific.

Borough - wide Planning Elements

BOROUGH–WIDE PLANNING ELEMENTS

THE BOROUGH IN BRIEF†

The Matanuska–Susitna Borough encompasses approximately 23,000 square miles directly north of the Greater Anchorage Area Borough and the Knik Arm. With its proximity to Anchorage and its wealth of lakes, streams, rivers, mountains and untouched wilderness, the Borough is becoming a primary recreation area for the State's main growth center.

The Borough is, as yet, very sparsely populated and the vast majority of the land in the Borough is uninhabited. The road system is rudimentary and consists chiefly of major state highways. Of the approximately 7,500 people presently residing in the Borough, as least 70 percent are located in the Palmer–Wasilla region. The rest are scattered along the lines of access provided by the main highway. Small concentrations of population are found in half a dozen or more communities, the number depending upon the definition of "community".

The Borough is a regional government with area-wide powers that apply to the incorporated cities within its boundaries as well as to the area outside cities. At present, the City of Palmer is the only first class city in the Borough.

As a second class Borough, the Matanuska–Susitna Borough automatically assumed the area-wide powers of (1) education, (2) planning and zoning, and (3) assessment and collection of taxes when it was incorporated on January 1, 1964. Since that time, by affirmative vote of the electorate,

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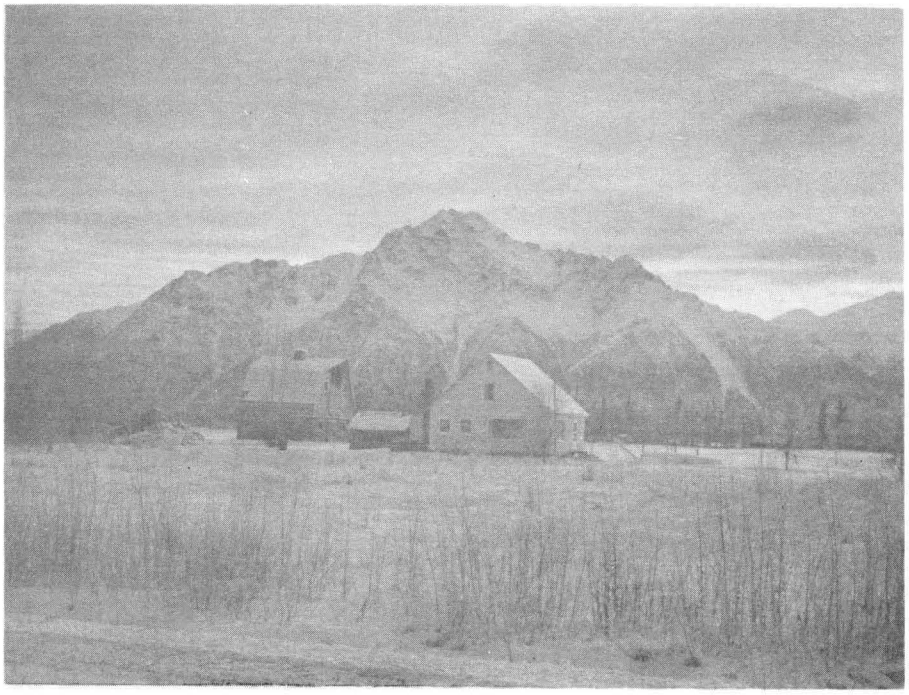
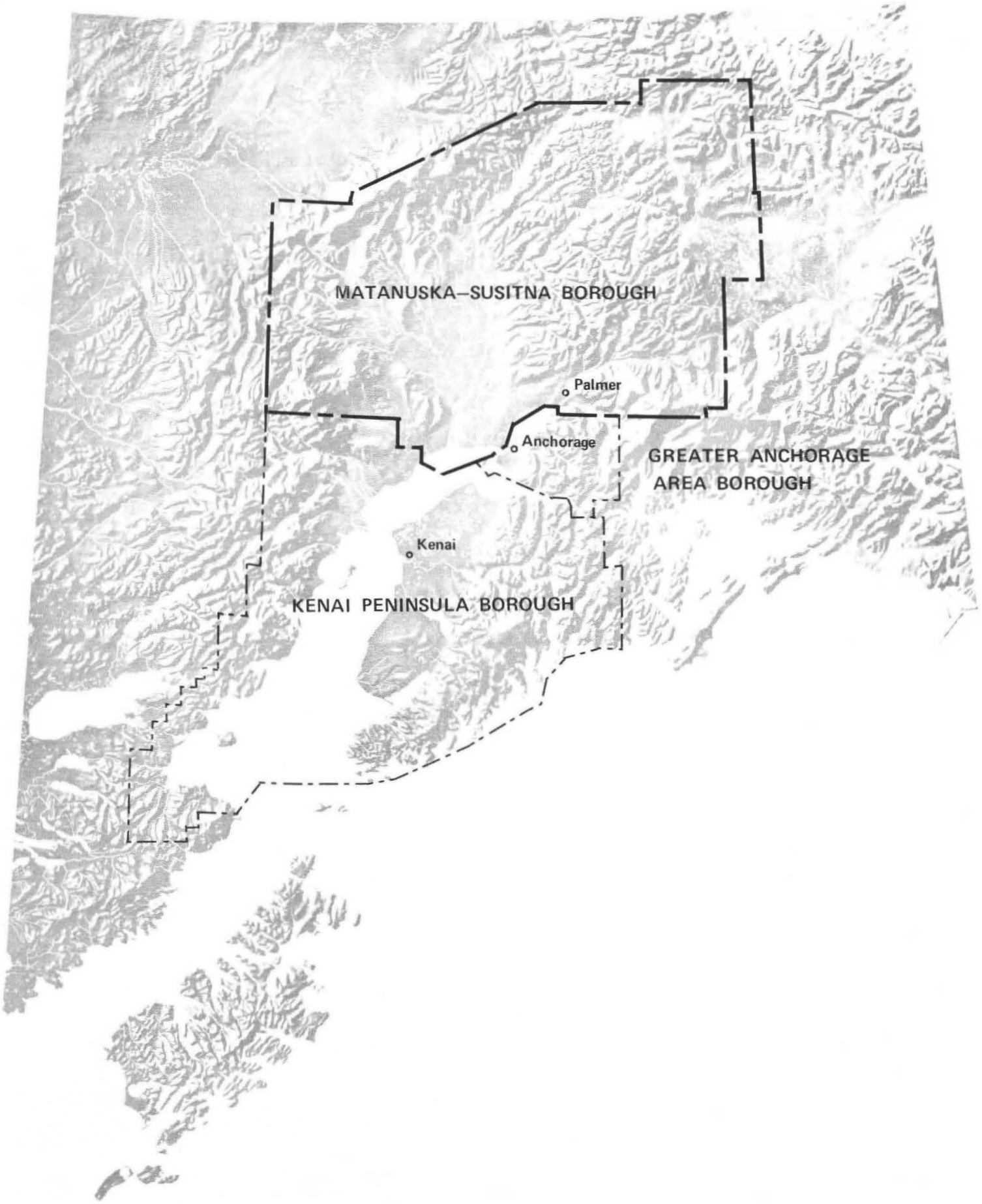
† *Detailed information about existing conditions in the Matanuska–Susitna Borough is included in a separate report, Matanuska-Susitna Borough Comprehensive Development Plan, Phase I: Survey and Analysis, 1968.*

the Borough has acquired powers enabling it to establish and administer (1) park and recreation facilities and (2) trash and garbage disposal areas. Additional powers can and should be added in response to local need and ability to pay for public services. These can be added on an area-wide basis through affirmative vote of the total electorate.

In cases where a service is needed in only part of the Borough, a service area can be established. After the service area is created by affirmative vote of the citizens in the area, the Borough Assembly may authorize the levying of taxes, charges or assessments within the affected area to finance the desired services. Four service areas have already been established in the Matanuska–Susitna Borough for the purpose of providing fire protection. These are the Wasilla Service Area, the Butte Service Area, the Greater Palmer Service Area and the Sutton Service Area.



Winter in the Valley


MATANUSKA–SUSITNA BOROUGH
Palmer
Anchorage
GREATER ANCHORAGE
AREA BOROUGH
Kenai
KENAI PENINSULA BOROUGH

Communities and Residential Development

1. **Develop a variety and choice of residential environments within the Borough, including areas of concentrated settlement with a full range of public utilities and services as well as rural residential areas where only minimal public utilities services are feasible.**

2. **Designate locations within the Borough where development of compact communities will be encouraged.**

Recommendations 1 and 2 are closely inter-related. Because of the Borough's vast area and low population density, it is clearly impossible to provide all but a minimal range of public services and utilities to most of the populated areas. People choosing to live in a rural part of the Borough should realize the consequences of their choice. Where population is widely scattered it is economically unfeasible to provide community water and sewer systems. To collect enough children at one place to fill even a small elementary school, many children from rural areas must travel long distances to school by bus. Local roads generally must be constructed at great individual expense in rural areas. It is not fair and equitable to use public funds to pay for roads that benefit only a few people. Similarly, a community must reach a certain size and density before the cost of adequate police and fire protection are justifiable. Public monies are limited and must be spent where they will benefit as many people as possible. Often the tax revenues gained from sparsely settled rural areas fall short of covering even the costs of providing schools.

For many residents of the Borough, the attractions of a rural environment with "plenty of elbow room", far outweigh the difficulties caused by lack of public utilities and services. This trend will undoubtedly continue in the future. In fact, the opportunity for rural living is one of the chief attractions of Alaska and, especially, of the Matanuska–Susitna Borough.

The decision to live in a rural area is a perfectly legitimate individual choice, and planning and zoning should allow ample opportunities for rural dwellings. However, the families making this choice should realize that schools must be located where they are as central to as many homes as possible, and most public services and utilities can never be provided to rural areas.

To allow for a choice in residential environment within the Borough and to provide maximum benefit from expenditure of public money, this plan designates specific locations for concentrated community development. The map on page 11 shows proposed locations. Eight of these communities are already in existence. The plan simply recommends that development be further concentrated in these locations and that new concentrated development be an extension of the existing center. As these communities grow in size and density a full range of community utilities and services should be provided.

In addition to the eight existing communities in the Borough, three locations for new communities are recommended in this plan as shown on the map on page 11 . These are (1) MacKenzie Point, (2) Sunshine and (3) the junction of the Anchorage—Fairbanks Highway and the Petersville Road. The MacKenzie Point new community has been thoroughly discussed in the chapter on this region, pages 63 through 75 of this report. The Sunshine area is central to the entire northern Susitna Valley and, for this reason, it is recommended that this location be developed as a community including region-serving facilities such as a high school and State police headquarters. In this capacity Sunshine would be similar to Palmer with its hospital, State police headquarters and high school which serve a much larger region than the Palmer locality.

Community development at the junction of the Anchorage—Fairbanks Highway and Petersville Road is probable for two reasons. First, this location will be a major highway intersection and, probably, an economically sound location for a limited amount of highway oriented

PLAN FOR AREAS OF CONCENTRATED SETTLEMENT
MATANUSKA–SUSITNA BOROUGH

Existing or Near Future

Proposed

Inter-Regional Highway Plan

MT. McKINLEY NATIONAL PARK

CANTWELL

ANCHORAGE FAIRBANKS HIGHWAY

Susitna River

TALKEETNA

REGIONAL CENTER

Lake Louise

Yentna River

Kahiltna River

SKWENTNA

Skwentna River

EUREKA

INDEPENDENCE

WILLOW

GLENN HIGHWAY

SUTTON

PALMER

REGIONAL CENTER

WASILLA

BIG LAKE

REGIONAL CENTER

NORTH

5 0 5 10 15 20 25

business. As the surrounding area grows, this intersection will be a logical location for a small local shopping center. Secondly, the junction is near a relatively solid block of land which is well suited for agriculture. Some of this agricultural land has been farmed under the homesteading regulations. With new access, there will probably be further agricultural development and, hence, additional population in this part of the Borough.

Utilities and Public Services

3. **Provide a full range of utilities and public services within the 11 recommended areas of concentrated settlement. Time the provision of community utilities and services to correspond with growth within the communities.**

Sewer and Water Systems. In the long run, each of the existing and recommended communities shown on the map on page 11 should be centers of public services and have community water and sewer systems. However, the timing of development of public utilities and services is critical. If water and sewer systems, for example, are installed too far ahead of population growth, public monies are wasted. On the other hand, the construction of sewer and water systems to serve anticipated growth area is, in some cases, "self insuring"; that is, the presence of adequate public utilities attracts home buyers and home owners alike to the areas served and, in this way, stimulates population growth in these locations.

Developing public sewer and water systems is an effective means of concentrating population within a community. As an example, the City of Kenai, Alaska, installed a public water and sewer system in the townsite shortly before the community felt the economic impact of the Cook Inlet oil discoveries. Because utilities were available in the townsite, the City was successful in concentrating much residential and commercial development in that area.

In deciding whether an existing development can support public water and sewer systems, the following standards are helpful as "rules of thumb". For public sewerage systems poor soil percolation greatly increases the health hazards caused through use of individual systems. Where such conditions exist the necessity to protect public health may override the guidelines set forth in the following charts.

PUBLIC SEWERAGE SYSTEMS
GENERAL CRITERIA FOR DETERMINING ECONOMIC JUSTIFICATION

Population Density	Equivalent Lot Size	Service Economic Justification
Over 5,000 persons per square mile	Less than ½ acre	Public sewerage is justified
2,500 - 5,000 persons per square mile	½ to 1 acre	Public sewerage is normally justified
1,000 - 2,500 persons per square mile	1 to 2 acres	Public sewerage is not normally justified
Less than 1,000 persons per square mile	Over 2 acres	Public sewerage is rarely justified

Source: U.S. Department of Health, Education and Welfare, Public Health Service. Environmental Health Planning Guide.

PUBLIC WATER SYSTEMS
GENERAL CRITERIA FOR DETERMINING ECONOMIC JUSTIFICATION

Population Density	Equivalent Lot Size	Service Economic Justification
Over 2,500 persons per square mile	Less than 1 acre	Public water supply is justified
1,000 - 2,500 persons per square mile	1 to 2 acres	Public water supply is normally justified
500 - 1,000 persons per square mile	2 to 4 acres	Public water supply is not normally justified
Less than 500 persons per square mile	Over 4 acres	Public water supply is rarely justified

Source: U.S. Department of Health, Education and Welfare, Public Health Service. Environmental Health Planning Guide.

This comprehensive plan has been coordinated with planning for sewer and water systems in the Borough which is being conducted by a private firm under a Farmers Home Administration grant. The report prepared by this firm provides additional information on the break-even lot size for sewer systems as follows:

> A major problem is posed for the present by the fact that unless density existing at the time when a sewage system is needed exceeds about one house per 1½ acres, it is easier to finance a septic tank system initially than to finance a community-type system. On the other hand, studies in Marin County, California,† have indicated that in that area, assuming a house is occupied 60 years, the economical break-even point between community sewer systems and septic tanks occurs where lots are about 3 acres in area. Experience with septic tanks in the San Francisco Bay area is relatively good compared with most other areas (less than 1/5 the failure rate of Anchorage). Assuming that the relationship between costs of community sewer systems and costs of septic tank systems is about the same in Willow or Sutton as in Marin County, the break-even lot size in Willow or Sutton should be at least 3 acres. In other words, it is reasonable to suspect, without conducting an extensive investigation, that over the long run it will be cheaper to provide a community sewer system initially than to provide septic tanks unless lot sizes are 3 acres or larger. For lot sizes of an acre or smaller, there appears to be no question but what a sewage collection and treatment system is much cheaper over the long run.
>
> While the presence of many undeveloped lots scattered throughout the developing areas complicates the problem, making financing of sewers very difficult, it does not make septic tanks any cheaper; rather it points out the desirability of identifying, where possible, any areas likely to achieve urban densities at any time in the future. A community system can be provided in such areas before many owners have made a large investment in septic tanks

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† *J.A. Cothral and D.P. Harris, "Septic Tank Systems", ASCE Journal, Vol. 95, No. SA4, August, 1969.*

> and leaching fields. In areas where no future dense development can be foreseen, large lots can be encouraged, making long-term use of septic tanks more feasible. †

In addition, this report points out the need for governmental guidance and control to assure properly functioning septic tank systems in areas which are too sparsely developed to be served by public sewer systems.

> Where it has been determined that development will remain sparse, and septic tanks are the best method of sewage treatment, sanitary hazards and future costs both can be greatly reduced if proper procedures are followed in the design and construction of these systems. In these areas, as well as in areas where septic tanks are presently installed and functioning, sanitary problems and future costs can be reduced still further if proper procedures are followed in the operation and maintenance of the systems. Much useful literature covering design, construction, operation and maintenance of septic tank systems is readily available; however, the public has clearly demonstrated a need for education, guidance and, in many cases, strict controls. The Borough is well constituted to provide these. †

Fire Protection. The provision of adequate fire protection is extremely difficult under current circumstances in most populated areas of the Borough. According to standards established by the Pacific Fire Rating Bureau, a branch of the American Insurance Association††, no home should be more than four miles from a fire station; however, most of the Borough's communities are so small and dispersed that is impossible to meet this standard. The populations near the Palmer, Butte, Sutton and Wasilla fire stations are exceptions. These communities have voted to provide themselves with fire protection through Borough fire service areas manned by volunteer fire departments.

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† *Tryck, Nyman and Hayes, Consulting Engineers, Matanuska–Susitna Borough, Comprehensive Water and Sewer Plan, 1970.*

†† *Formerly known as the National Board of Fire Underwriters.*

Other communities in the Borough are so small that a volunteer fire department probably would not be feasible at the present time. As a practical minimum, a community should have about 1,000 people in order to successfully man and pay for the equipment of a volunteer fire department. For communities under this size interim means of fire protection should be found. For example, in Talkeetna, the Borough is attempting to arrange for local fire protection through the COMSAT station, which will have to provide fire protection for its own facilities.

In the long run, each of the Borough's communities should have a fire department and one or more fire stations; however, growth is necessary before this can be economically feasible.

Any extension of fire protection to presently unprotected communities should be accomplished by enlargement or addition of a Borough fire service area. Studies have proven that one fire department, if feasible, is more efficient and less expensive than various small ones working individually. There are several strong advantages to having a single area-wide government such as the Borough handle all fire protection. Under Borough administration, the location of stations and fire service area boundaries can be planned to maximize the total area served; equipment can be allocated among various service areas so that each piece of equipment is well used; communications can be improved and interconnected and an arrangement can be developed to provide back-up fire service when one station is overtaxed.

Police Protection. The State Police station located in the Palmer City Hall building provides the people of the Borough, as well as the Mount McKinley area, with their only source of police protection. The single station, with its limited staff, cannot adequately police such an extensive region. Troopers can check the limits of the post area only once every four or five weeks.

Policing in the Borough should also include measures to prohibit hazardous boating, particularly on crowded recreation lakes such as Big Lake. For this purpose, the station's equipment should include a boat and trailer. In addition, the State Police equipment should include a snow traveler to reach scenes of snow machine accidents and to patrol areas without road access in the winter.

To improve police protection in the region, State Troopers should be stationed at Big Lake, Talkeetna and Kings Mountain as well as in Palmer, and the total staff should be enlarged to include at least 10 troopers. Furthermore, as the Northern Susitna Valley develops, a second State Police headquarters should be established in the Borough. The Sunshine area is recommended because of its centrality to development in this part of the region.

Police protection provided by State Troopers should set a minimal standard of protection. As the population centers of the Borough grow, communities wishing a higher degree of protection may vote to assume this function locally and to tax themselves for this extra service. This could probably be accomplished most economically by voting to add police protection as a Borough service area function. Existing fire service areas might be converted to public safety areas providing both police and fire protection.

Again, because most of the Borough's communities are very small and the population is widely dispersed, it will probably be many years before the State or the Borough is able to station troopers wherever they are needed. An interim measure might be to establish a system whereby private citizens are specifically deputized to issue citations. They could be compensated either through a nominal retainer or through reimbursement for actual time and expense. Unless the people of the Borough choose to give the Borough the police protection power on an area-wide basis, or unless service areas are established for police protection, such a deputy police system would have to be administered and funded through the State.

A version of this deputy police system has already been adopted by the Division of Lands for purposes of patroling campgrounds. Four persons in the Division of Lands have been designated as special officers of the Alaska Troopers and empowered to issue citations. In the future the maintenance and patroling function will be combined and one individual will be responsible for both functions for sites on a given route.

Public Safety Buildings. As population within the Borough grows to a point where police and fire protection can be provided to individual communities, consideration should be given to the development of public safety buildings combining police and fire stations. Combining these functions in one building enables several economies and is a convenience for the public. A single garage can house both police and fire protection vehicles and joint maintenance facilities can be employed. A single dispatching system can serve for both police and fire protection.

Community Centers. Community buildings which combine space for public meetings, entertainment and civic functions are particularly important in small semi-isolated rural communities. Often, in such communities there is no other place except the school for public functions. Already several of the communities in the Borough have constructed community centers, largely through local efforts. Wasilla has a community hall which dates from 1932. The Willow Civic Center and the Houston Homesteaders' Club were constructed in the late 1960's using local volunteer labor and a federal grant for materials. Each of these existing community centers is in need of additional facilities and rehabilitation and there are other communities in the Borough, such as Talkeetna, which have no public meeting place other than the school.

The Department of Housing and Urban Development has a program which provides grants for up to three quarters of the cost of neighborhood facility buildings housing community service activites. These monies may be used to either construct new buildings or to rehabilitate existing structures for this purpose. Buildings so financed can be used for a wide

range of activities including community meeting space, libraries, employment and job training services, family counseling, adult education, day care facilities, homemakers' services and clinics. In metropolitan areas HUD's "Neighborhood Facilities Program" is being used to help finance systems of neighborhood centers located throughout the area.

Under this HUD program the Borough might be able to rehabilitate existing community centers and develop new centers where they are needed. As an example, the elementary school building in Talkeetna which is no longer used for school purposes might be rehabilitated as a community center for Talkeetna. Although grants may be made only to local public bodies that have the authority under state or local law to undertake such a project, a non-profit organization may own and operate the neighborhood facility under the supervision of the grantee. Thus, to obtain federal grants to rehabilitate and construct buildings for a Borough-wide system of community centers, the Borough would have to acquire the power to develop community centers by vote of the electorate. The Borough could then apply for and administer a federal grant but allow the local communities to own and operate the community centers. As an alternate means of developing community centers, incorporated cities within the Borough could apply directly to HUD for a neighborhood facilities grant.

Schools It is costly and difficult to provide a high quality of educational service to a scattered population such as that in the Borough, and any school system must be, at best, a compromise between conflicting objectives. A choice must be made as to whether it is better to transport children long distances to large schools where a rich and diversified educational program can be offered, or to transport them a shorter distance to smaller, more numerous, and scattered schools. Parents often favor having smaller schools closer to their residences. Educators generally recommend fewer and larger schools in which a better quality of education can be provided. Generally, short bussing distances and small scattered schools are preferable in the elementary grades; whereas,for the

upper grades the reasons are stronger for transporting children longer distances to a large school where a diverse and high quality curriculum can be offered.

At the upper grade level national accreditation standards set minimums for numbers of courses and teachers which should be available in a single high school. Lack of accreditation may affect a child's ability to go from high school to college. Because the Borough's high schools are very small, the Borough must invest more per high school pupil to meet the requirements for accreditation than would be necessary in a community where high schools were larger. The Borough's largest high school, the Palmer high school, has a normal pupil capacity of 545 pupils but, as of October, 1969, there was an enrollment of only 349 pupils. According to national standards a minimum desirable size for a senior high school is 1,000 pupils.† The maximum recommended size is 2,600 pupils.†

The disadvantages of smallness are less on an elementary level where teaching is not specialized. Three of the Borough's elementary schools, the two schools at Palmer and the Wasilla elementary school, have large enough enrollments to meet recommmended standards for minimum size (250 pupils).† However, in outlying areas such as Talkeetna, Willow, Big Lake, Glacier View and Trappers Creek, schools are so small that one teacher must be responsible for students in several grades. This situation tends to reduce the quality of education which a teacher is able to provide, especially where he is responsible for a large number of students in a wide range of grade levels.

An additional circumstance which complicates the process of providing education in the Borough is the fact that population in the Borough, especially in the outlying areas, has historically been highly variable and

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† *Joseph DeChiara and Lee Koppleman, Planning Design Criteria, Van Nostrand-Reinholt Company, New York, January, 1959.*

unpredictable. The Big Lake school, for example, now is operating at less than half of its capacity because much of the population south of Big Lake has moved out of that region. In the future the Borough can expect additional temporary demands for schools during major construction projects, such as the paving of the Anchorage–Fairbanks Highway, or in connection with logging or other temporary employment in an area.

To provide the flexibility called for by the transient nature of much of the Borough's population, as well as to meet immediate pressing needs for additional classrooms, the Borough has acquired six portable classrooms. These can be relocated as needed to meet an unforeseen or temporary increase in school population. By using portables in this manner, the Borough should be able to locate its permanent schools where they will be most central to the population to be served during the life of the school.

In the fall of 1969 the Borough's school enrollment was much larger than had been anticipated by school or Borough officials. Instead of the expected enrollment of about 1,700, actual enrollment as of October, 1969 was 1,920. The table on page 28 , comparing normal pupil capacity of the various structures in the Borough's school plant with actual enrollment, indicates that the most pressing needs for school development in the Borough are as follows:

A. **Construction of a junior high school facility at Wasilla to alleviate overcrowding in the elementary school building.** Presently this building accommodates grades one through eight.

B. **Improvement and expansion of elementary school facilities at Talkeetna.** Talkeetna's existing elementary school classrooms are located in three portables adjacent to the high school. This arrangement overtaxes sanitary facilities in the high school building.

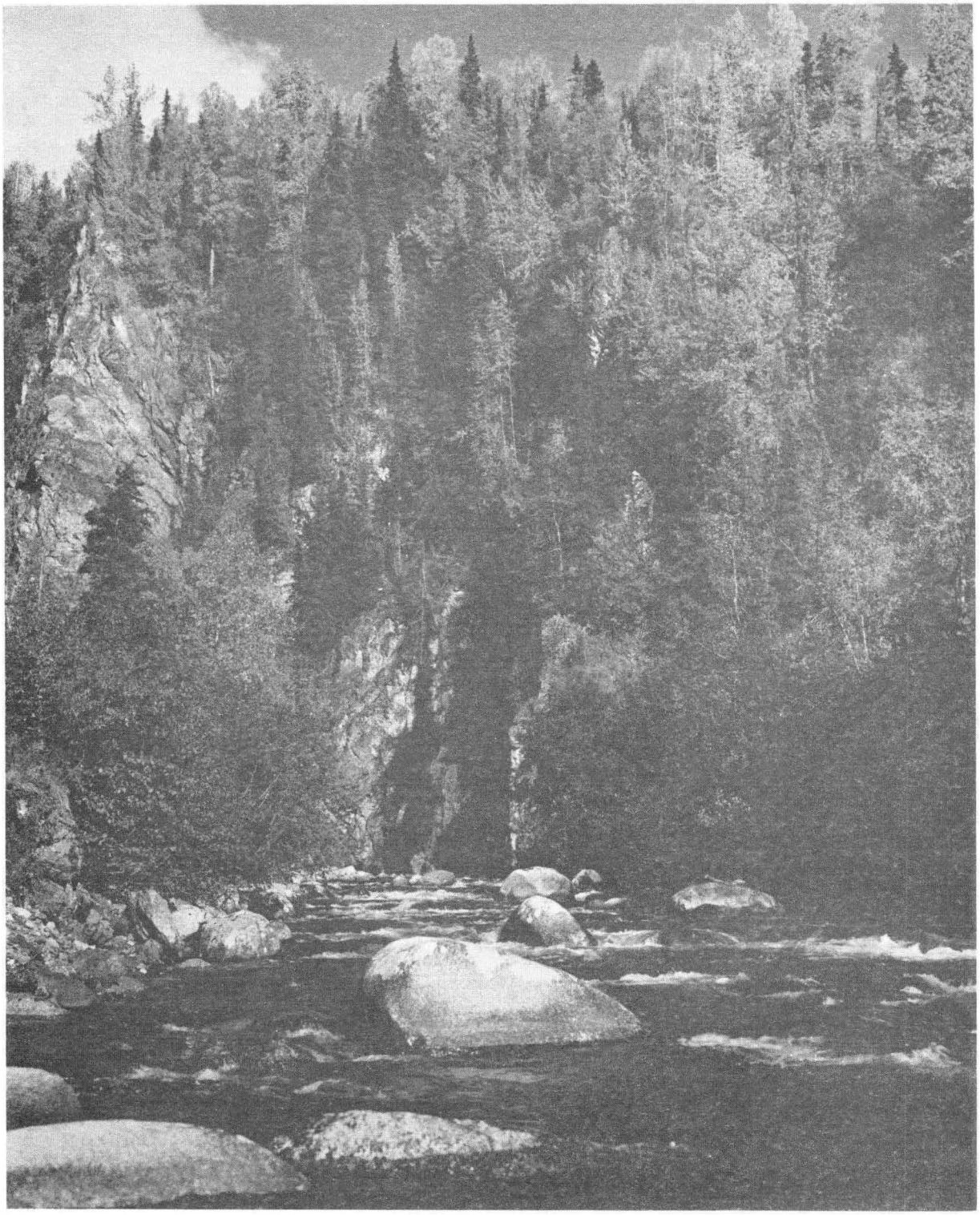

Photo: Bureau of Land Management

LITTLE SUSITNA RIVER

C. **Improvement and expansion of elementary school facilities in Palmer.** The central school building is nearing the end of its useful life, and should be replaced by a modern elementary school structure.

Recommendations for school development in specific communities in the Borough are contained in the chapters of this report referring to each community. As a consistent basis for school planning throughout the Borough the following policies are recommended:

A. **The Borough should work toward the development of school complexes combining middle and upper grade schools. These complexes should be located in a community where they can be central to a relatively large population.**

A middle-upper grade school complex has a number of advantages for an area of low population density such as the Borough. Classrooms for older and younger children can be sufficiently separated in different wings of the structure, yet gymnasiums, auditoriums, audio-visual rooms, shops and libraries can serve the total school enrollment. By combining middle (grades five through eight) and upper grade schools the enrollment basis for specialized facilities is increased.

It is recommended that these upper and middle grade complexes be located at Palmer, Wasilla and Sunshine within the next five to ten years. At Palmer and Wasilla these complexes can be established by structural development near the existing high schools. Sites for similar complexes will also eventually be required in the MacKenzie Point region and, in the long run, along the Glenn Highway, probably at Glacier View; however, the

demand for schools in these areas is relatively long range and unpredictable.

B. The Borough should seek to reserve or acquire sites for future schools well in advance of need.

To implement this policy, purchase of land will be necessary in some areas. Since land prices are rising rapidly in the Borough, substantial economies can be realized by early purchase of necessary sites. Even if the land should prove unnecessary for school use, it is doubtful that the Borough will lose on its investment. In some locations needed school sites are already in public ownership. It is recommended that the Borough acquire or reserve school sites as follows:

a. Wasilla:
   Expansion of the high school site to accommodate an upper, middle and lower grade school complex.
   Site for a second lower grade school south of the railroad.
b. Butte:
   Site for new lower grade school.
c. Palmer:
   Space for addition to middle grade school facilities to high school.
   Site for a second lower grade school.
d. Sunshine:
   Site for a lower grade school.
   Site for upper-middle grade school complex.
f. Trappers Creek:
   Site for a lower grade school.

g. MacKenzie Point
   Outside the area of the proposed new community, sites for upper and middle grade school complexes and for lower grade schools.

h. Glacier View:
   Site for long range development of a school complex central to population along this part of the Glenn Highway.

i. Sutton:
   Site for a long range development of a lower grade school.

The question of school site standards has been much debated. It is important to obtain adequate space for structures as well as for parking and outdoor recreation areas connected with the school now and in the future. However, it is also important that schools, especially lower grade schools, be as central and convenient as possible to the population served.

Sometimes these two objectives conflict. An excessively large school site in the center of a community increases the distance children must walk to school, and, serves to disperse the community. This adds to the length and, therefore, the cost of roads and utility lines. On the other hand, a site with adequate space for community recreation as well as for school use is a substantial asset. In many cases, it is desirable to reserve an open natural area near the school in addition to space for playgrounds and playfields. This land can serve the recreational needs of both the school and the community.†

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† *This recommendation is made in the Alaska Outdoor Recreation Plan, Division of Lands, 1970.*

The following standards are useful as general guidelines to school site selection. †

a. Elementary Schools
   Minimum school (250 pupils) – 7 to 8 acres
   Average school (800 pupils) – 12 to 14 acres
b. Junior High School
   Minimum school (800 pupils) – 18 to 20 acres
   Average school (1,200 pupils) – 24 to 26 acres
c. Senior High School
   Minimum School (1,000 pupils) – 32 to 34 acres
   Average school (1,800 pupils) – 40 to 42 acres

In addition to the space shown above, park land to be preserved in its natural state should be reserved near school sites wherever feasible. In general such areas are better located near middle and upper grade schools than near lower grade schools where it is particularly important that the school be convenient to the population served.

Standards for school site areas should be used as general guidelines. Actual site selection should consider the range of relevant factors affecting the particular area under consideration. In communities where the terrain is very rough or land is very scarce, open space can be conserved by use of a two story school structure. Where upper and middle grade schools can be combined in one consolidated area, land can be economized through joint use of recreation and access areas.

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† *Joseph De Chiara and Lee Koppelman, Planning Design Criteria, Van Hostrand Reinhold Company, 1969.*

EXISTING UTILIZATION OF SCHOOLS

MATANUSKA–SUSITNA BOROUGH

March, 1970

Location/Schools	Number of Portables	Grades	Normal Pupil Capacity	Pupil Enrollment (as of Oct. 24, 1969)	Amount Under or (over) Normal Capacity In Terms of Pupil Enrollment
Palmer:					
Palmer High		9–12	545	349	196
Swanson School		1–4	425	445	(20)
Central School		5–8	425	462	(37)
Wasilla:					
Wasilla High	1	7–12 remedial reading	300	224	76
Wasilla Elementary	1	1–6 remedial reading	230	190	40
Big Lake School		1–6	60	24	36
Willow School		1–8	80	70	10
Talkeetna:					
Talkeetna High		7–12	60	53	7
Talkeetna Elementary (Portables Used Entirely)	3	1–6	45	62	17
Glacier View School (Portables Used Entirely)	2	1–8	60	27	33
Trappers Creek School (Portable Used Entirely)	1	1–8	20	13	7

Source: Borough School Administration

Commercial Development

4. **Encourage highway oriented commercial development to cluster at designated commercial centers rather than to disperse along the highway.**

Implementation of this recommendation is vital to the preservation of the scenic qualities of the Borough. If businesses are strung out at random along main roads, scenery from the highways in the Borough will be ruined. In effect this would mean the destruction of one of the Borough's prime assets, its attractions for recreation drivers.

Requiring commercial development to cluster near major intersections at well spaced intervals along the highway also has the benefit of encouraging sound business investments. Many types of businesses benefit from the "joint magnetism" of centers of commercial development. In such locations businesses attract more trade than they would if they were separated. This is particularly true of small businesses. A recent report by the American Institute of Planners makes the following observation:

> "The small businessman, because he is small and cannot afford to make mistakes, must follow form in making decisions on location, merchandising, store group types and other matters. He must, in essence, have "all systems going" for him. The proper location and the right mixture of stores are probably the two most crucial issues to be faced before the business is opened."†

Since nearly all businesses in the Borough fall within the small business category it is particulary important that zoning discourage commercial scatteration and poor business location.

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† *AIP Project Committee on Planning for Small Businesses, Small Business, an America Institute of Planners background paper - number 1, April, 1967.*

Industrial Development

5. Encourage the location of industry in some section of the Borough by designating locations well suited for industrial development.

Throughout the nation some types of industry are tending to move their plants to rural areas where they can find convenient access to the regional transportation system. The purpose of such a move is to avoid the congestion of central cities and to obtain, economically, the large sites which are needed by modern single level plants. There are many potential industrial sites in the Borough which combine these desired characteristics. The main highway between Anchorage and Fairbanks is adjacent to the railroad throughout most of its length south of Sunshine, and there is much relatively level and easily developed land which has both rail and regional highway access.

By designating locations well suited for industry, the plan can serve as a guide for potential industrial developers. Industrial zoning applied to such areas serves to keep the land intact for industry by prohibiting residential development and other uses not compatible with industry. Conversely, planning and zoning for industrial areas serves to protect the environmental quality of the Borough by preventing the scatteration of industrial areas and separating industry from residential development.

Regional Highways

6. Develop the main State highway system through the Borough to link Alaska regions.

The Matanuska–Susitna Borough is situated to become a hub of major highways linking Alaska's regions. As is shown on the map on page 31 , existing and proposed roads leading to (1) southwestern Alaska through Tyonek, (2) northwest Alaska via a road through Rainy Pass and McGrath, (3) Fairbanks and interior Alaska, and (4) eastern and southeastern Alaska

REGIONAL TRANSPORTATION PLAN
MATANUSKA–SUSITNA BOROUGH

Inter-Regional Highways

Existing

Proposed

Airfields Capable of Accommodating Large Jets

Proposed

MT. McKINLEY NATIONAL PARK

CANTWELL

ANCHORAGE-FAIRBANKS HIGHWAY

ALASKA RAILROAD

Susitna River

PETERSVILLE

TALKEETNA

SUNSHINE

Yentna River

Kahiltna River

Susitna River

Lake Louise

GLENN HIGHWAY

EUREKA

INDEPENDENCE

WILLOW

HOUSTON

WASILLA

PALMER

SUTTON

Matanuska River

BIG LAKE

ANCHORAGE

NORTH

5 0 5 10 15 20 25

Scale in Miles

via the Glenn Highway will be joined in the Matanuska–Susitna Borough to connect with highways leading into Anchorage. This highway development will have two major impacts on the Borough. First, it will provide a spine of road access to previously inaccessible but developable lands in the eastern portion of the Borough. Secondly, location at a hub of inter-regional highways will make the Borough an attractive location for some types of industry serving the Alaskan market, particularly for industries which typically seek locations central to their market area, which rely on highway and rail transportation and which require large, relatively inexpensive sites.

7. **Limit access along the major highways. Design subdivisions adjoining highways to ensure compatibility with the limited access routes.**

Access on main highways should be limited to well-spaced intervals (preferably a mile or more) necessary to allow traffic to exit and enter from adjoining development. If access is limited, the highway is freed from the delays and hazards caused by vehicular turning movements, and traffic can move smoothly. With this precaution, major highways can efficiently fulfill their primary function which is to enable traffic to move swiftly and efficiently throughout the region.

Limiting access on major highways also serves to preserve the scenery along such routes. Normally, for limited access routes the Highway Department attempts to obtain a 300 foot-wide right-of-way, leaving a buffer strip on either side of the developed roadway. Wherever possible, this buffer strip should be left in its natural wooded state or, where clearing is necessary, gravelled slopes should be planted with grass or shrubs to make the roadside attractive. In the long run, such limited access highways serve to encourage tourism and result in economic benefits.

Past experience has shown that limited highway access tends to encourage a better quality of commercial, industrial and residential development

than would result if unlimited access were permitted and commercial and residential development were strung out along the main route. Commercial and industrial development along limited access highways must be planned in compact centers near major intersections or exits and entrances from the highway. Residential subdivisions adjoining the highway should be planned so that a buffer strip is left between the highway and the residential area and homes faced away from the highway onto an interior local access street.

Collector Streets and Resource Access Roads

8. In settled areas develop a convenient interconnected system of main roads.

Because development in the Borough is relatively new and financial resources have been limited, the road system in the region is very incomplete. Federal and State aid for new road construction has been concentrated upon major highways and on new collector roads in farming areas near Palmer and Wasilla. Other roads have been planned and developed largely by individual efforts. Often a road which is well located to provide access to an individual piece of property does not fit well into an overall system of major roads. Because no public body has been responsible for planning and developing an overall system of major roads the existing collector streets in the region are frequently dead-ended and the pattern of access is far from optimal. The lack of overall planning and development of an interconnected system of major roads has already caused much waste and inefficient use of lands.

To correct this situation it is recommended that through a general election the Borough be given the power of road development and that the State provide financial assistance to the Borough for acquisition of rights-of-way for a system of major roads. Theoretically, needed rights-of-way could be acquired by requiring dedication during the subdivision process; however, often an individual owning a needed link in a main road does not wish to

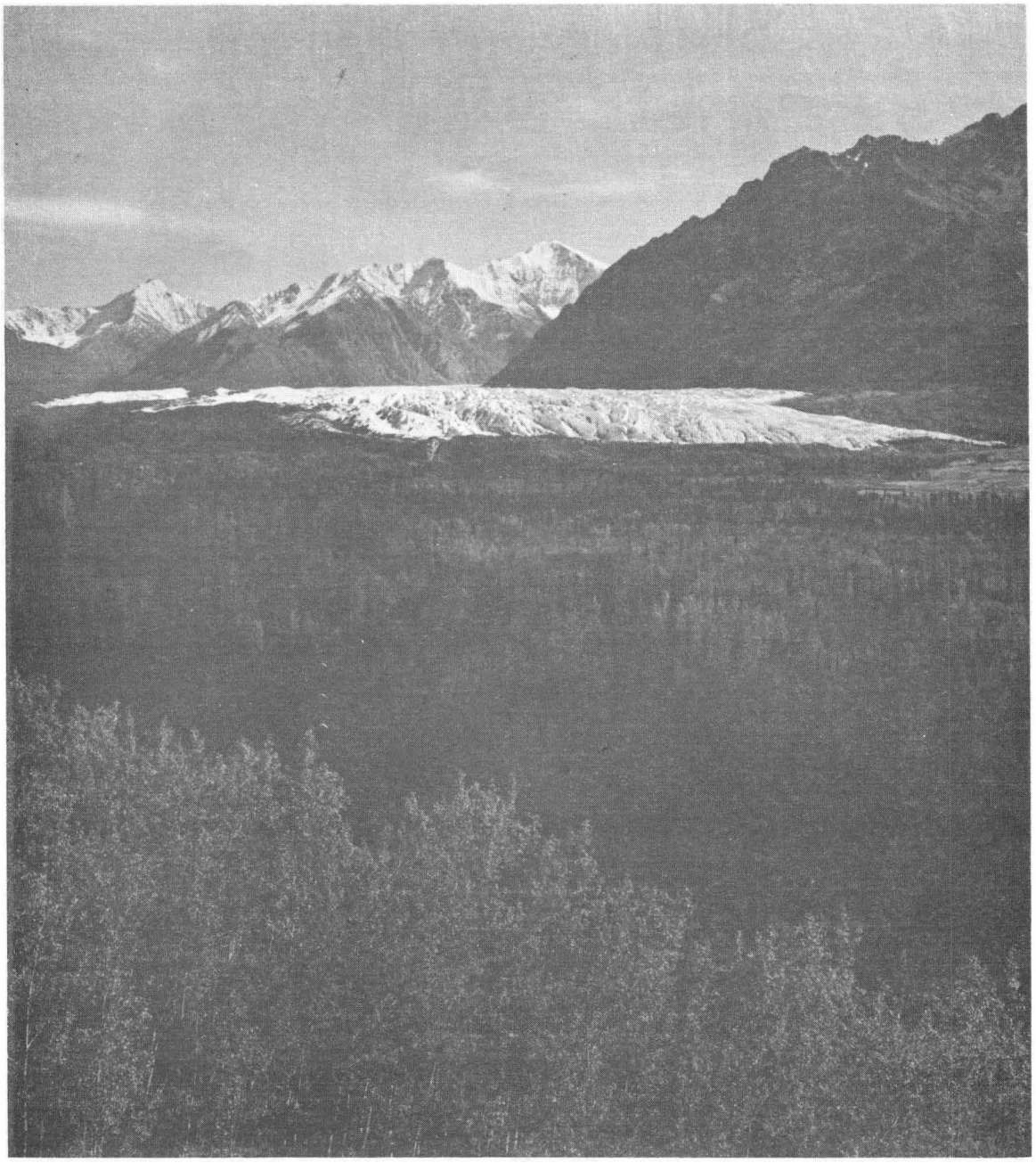

Photo: Bureau of Land Management

The Matanuska Glacier, visible from the Glenn Highway. Wherever possible highways and resource access roads should be situated to maximize the view. Driving for pleasure is a popular form of recreation

sell his property at the necessary time and other properties must suffer from lack of access because the Borough has no means of acquiring rights-of-way for the main road into an area. Because collector streets benefit both the adjoining property and the general public who use the route the cost of development should be shared by the Borough and by owners of property adjoining the main road. Some individuals may wish to use their own labor to develop the road. In such cases the Borough could allow the individual to pay for his share of road development through credits for road development work.

A similar system of right-of-way planning, acquisition and development would be appropriate in providing resource access roads to recreation areas and other natural resources in the Borough. Here again a public agency must assume the responsibility for overall planning if individual efforts for road development are to be fit together into a total system which is as convenient and efficient as possible for all concerned. In the light of the Borough's limited financial resources, State financial assistance will be essential in acquiring rights-of-way. Costs of development should be shared by the Borough and the benefiting owners in proportion to public and private benefit.

Public Recreation Areas†

9. Develop a diversified system of major recreation areas located to (1) encourage the preservation and enjoyment of the Borough's prime recreation assets and (2) to attract recreation traffic through the Borough without requiring "backtracking" on the same route.

When scheduled road construction through the Borough is completed, a traveler starting from Anchorage will have a choice of several scenic routes along which he can drive and return to Anchorage without much "backtracking" on the same road. Already available during the summer

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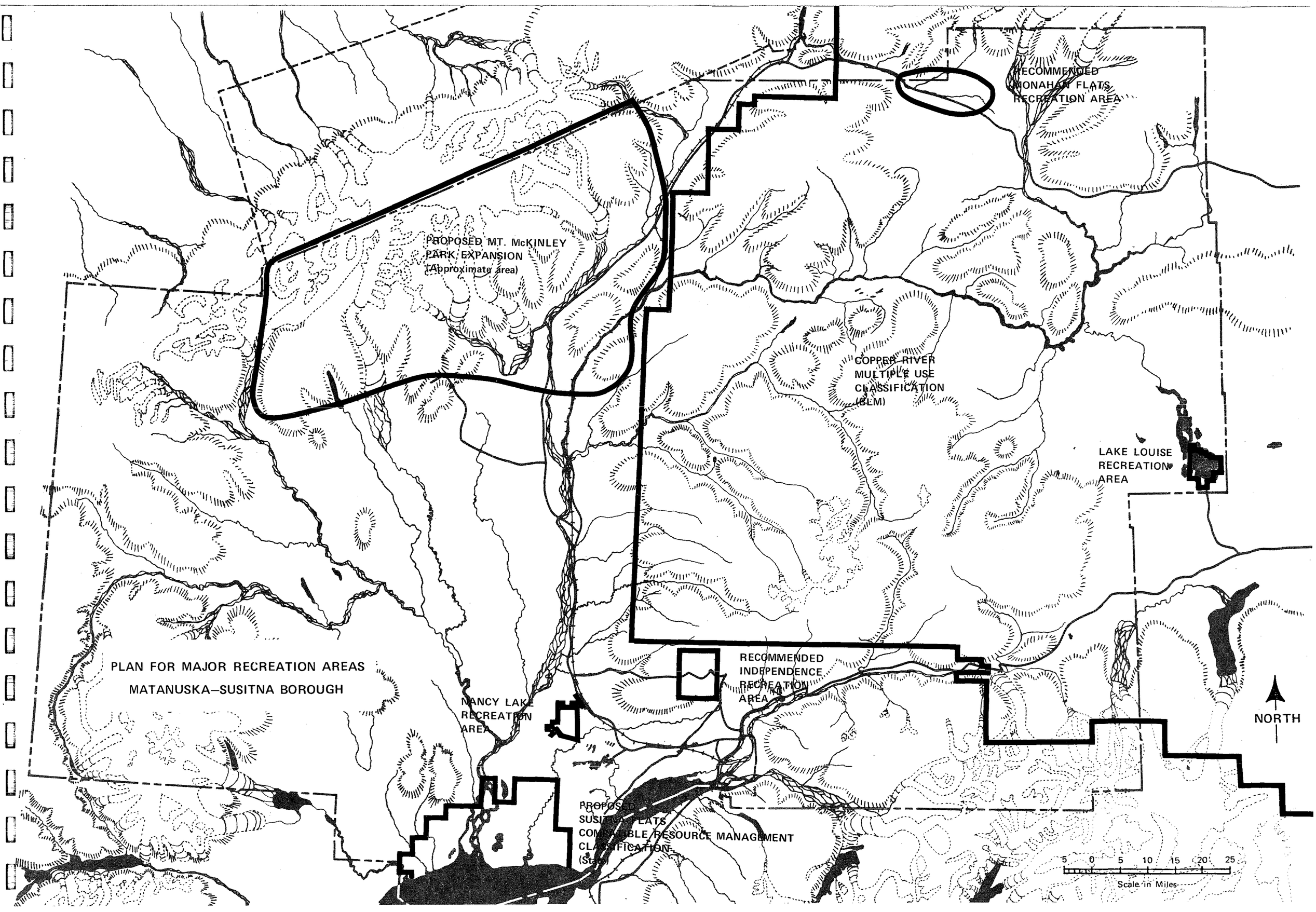
† *Playground and recreation areas within communities are discussed in the section on detailed planning areas.*


PROPOSED MT. McKINLEY PARK EXPANSION (Approximate area)
RECOMMENDED MONAHAN FLATS RECREATION AREA
COPPER RIVER MULTIPLE USE CLASSIFICATION (BLM)
LAKE LOUISE RECREATION AREA
PLAN FOR MAJOR RECREATION AREAS
MATANUSKA–SUSITNA BOROUGH
NANCY LAKE RECREATION AREA
RECOMMENDED INDEPENDENCE RECREATION AREA
PROPOSED SUSITNA FLATS COMPATIBLE RESOURCE MANAGEMENT CLASSIFICATION (State)
NORTH
5 0 5 10 15 20 25
Scale in Miles

months is the one-day circular route up the Fishhook Road, through Hatcher Pass across Bald Mountain Ridge to Willow and back to Anchorage via Wasilla and the Glenn Highway.

When the Anchorage–Fairbanks Highway is completed a longer trip requiring two or more days will be available by traveling the Anchorage–Fairbanks Highway to Mt. McKinley National Park, heading east on the Denali Highway and returning to Anchorage on the Richardson and Glenn Highways. Construction of a Knik Arm Crossing and a route heading north from the crossing to the Anchorage–Fairbanks Highway at Willow will add a third, relatively short, circular trip via this new route and the existing highways between Anchorage and Willow.

The proposed system of major regional recreation areas in the Borough is well located at intervals along these circular routes. These major recreation areas are described briefly as follows:

a. **The Nancy Lake Recreation Area.** This large State recreation are represents a venture into a completely new form of recreational development in the Borough. Located 66 road miles from Anchorage on the Anchorage–Fairbanks Highway, this project, when fully developed, will include 20 miles of new road and will provide access to a group of especially attractive recreation lakes. Public facilities will include swimming beaches, a winter sports area, snowmobile and cross-country ski trails, a golf course, boating facilities and foot, horse and canoe trails as well as camping and picnicking areas. Lodges, cabins, riding stables, a float plane drome, marinas and businesses selling groceries, refreshments and gasoline will be operated wholly or partially as concessions.†

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† *Alaska Department of Natural Resources, Division of Lands, Nancy Lake Plan, Program, Budget, 1967.*

The scale of the Nancy Lake recreation project in the regional recreation picture can be grasped when it is noted that 1,750 camping units are programmed for Nancy Lake as compared to a total of 170 units existing in State and federal campgrounds in the Borough.

In the State park system development program submitted to the Governor in December, 1969 the following six year program for development of the Nancy Lake Recreation Area was proposed:†

Work Program	**Estimated Cost**
Complete primary road system (Approximately 20 miles)	$2,000,000
Develop 500 camp units	1,000,000
Develop 500 picnic units	500,000
Complete service area	350,000
Develop utility system	250,000
Devlop winter sports area	250,000
Complete land acquisition	250,000
Total	$4,650,000

b. Hatcher Pass and Independence Mine Recreation Area. Hatcher Pass with its alpine climate and terrain is a uniquely beautiful part of the Borough which has an outstanding potential for both summer and winter recreation. In the winter the deep snows and steep slopes in the area offer excellent opportunities for downhill skiing

† *Alaska Department of Natural Resources, Division of Lands, Alaska State Park System, 1970-1976.*

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† *Alaska Department of Natural Resources, Division of Lands, Alaska State Park System, 1970-1976.*

Photo: Ted Bell

Bunkhouse and Galley of the Lucky Shot Mine at Hatcher Pass

Photo: Ted Bell

The Road to Willow Through Hatcher Pass

and there is a practically unlimited open area for cross-country skiing and snowmobiling. In the summer the open meadows of the alpine hillsides are covered with wild flowers and berries. During this season the area is especially attractive for hiking and picnicking and the Hatcher Pass Road is popular for pleasure driving. The abandoned mines in the area offer interesting testimony to Alaska's gold mining history. In the fall this region attracts hunters looking for gamebirds and sheep.

In *The Alaska State Park System 1970–1976* plan, the Hatcher Pass area is described as a proposed State Park, to be developed in combination with concession operations for a ski facility. The Division of Lands report proposes funding for Hatcher Pass planning and development from 1970 to 1976 as follows:†

Work Program	**Estimated Costs**
Planning	$50,000
Ski Area	500,000
Total	$550,000

It is recommended that the State and the Borough try to retain the public land west of the Pass as primarily open wilderness and that commercial and recreational development be confined to the area east of the Pass. Here much of the land is already in mining claims or private tenure. Any road development in this highly scenic region should be carefully designed to preserve the aesthetic qualities of the area. In such a region roads should be

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† *Alaska Department of Natural Resources, Division of Lands, Alaska State Park System, 1970-1976.*

curved to follow the natural contours of the terrain and to provide maximum scenic vistas. Design criteria should be quite different from that employed in areas where the primary purpose of a road is to carry high speed traffic efficiently. If properly planned and managed, the Hatcher Pass State Park could attract recreation traffic from out-of-state, particularly if such a park and concession resort were promoted as part of an airline traffic tour.

c. **Mount McKinley National Park Extension – Denali State Park.** The desirability of extending Mount McKinley National Park southward has long been recognized. By moving the boundaries farther south, the total mountainous and glaciated geologic formations surrounding Mount McKinley could be included in the park area. However, perhaps of most importance, the extended area would increase public accessibility to the Park and enable the development of a headquarters complex, lodges and overlooks along the foothills of the Talkeetna Mountains where there are outstanding scenic vistas of Mount McKinley.

The boundaries which are being discussed by both the State and the National Park Service would encompass part of the Anchorage–Fairbanks Highway and plans call for public development of overlooks, waysides and a park headquarters complex, as well as a lodge and ski area to be developed under concessions by private parties. All of these new facilities would be convenient to the Anchorage–Fairbanks Highway. The extension and additional development will increase the Park's ability to attract tourists from throughout the State and the nation. This traffic will pass through the Borough and many people will also visit communities in the Borough,

particularly Talkeetna. Thus the proposed Park extension promises major benefits to the Borough's economy.

The 1970 State Legislature is considering a bill which would set aside State owned lands, under consideration for inclusion in the National Park, as a State park. This would be an effective means of reserving this land for recreational use, and possibly result in an earlier development of recreational facilities. It is important that this be done as soon as possible since this area adjoining the Anchorage—Fairbanks Highway will be in demand for private ownership. However, it is recommended that in the long run the total Mount McKinely region be combined and developed as part of the National Park System.

d. **Lake Louise Recreation Area.** Lake Louise is the largest single lake in the Borough and it is very popular for water-oriented recreation activities. It is possible to take a twenty-five mile trip by canoe or riverboat through the waters of Lake Louise, Susitna Lake and Tyone Lake which are connected by waterways passable with a small boat. The State has recently selected property adjoining Lake Louise from the Bureau of Land Management, and a Division of Lands report states that "extensive development of visitor facilities here is of high priority." Proposed funding for planning and development at Lake Louise between 1970 and 1976 is as follows:†

Work Program	Estimated Cost
Planning	$30,000
Boat Launch and Campground	100,000
Total	$130,000

† *Alaska Department of Natural Resources, Division of Lands, Alaska State Park System, 1970-1976.*

Photo: Steve and Dolores McCutcheon

Glaciated Landscape to the South of Mt. McKinley

e. **Monahan Flats Recreation Area.** This region, adjacent to the Denali Highway and the Susitna River, is characterized by its high upland lakes and meadows and an abundance of caribou and other wildlife. Grayling are found in the many streams and lakes in the area. Monahan Flats is particularly attractive for hunters and as a recreation area for people traveling the Denali Highway who wish to fish, picnic, camp and enjoy the scenery and the opportunity to observe wildlife. It is recommended that this area be designated as a recreation area and that facilities be provided to accommodate recreation activity.

In summary, the five major parks and recreation areas proposed for the Matanuska–Susitna Borough will offer a range of contrasting recreational opportunity. The five areas are sufficiently dispersed so that they will serve to draw traffic through the various circular routes which will be available when the major highway system is completed in the Borough. Near the most populated part of the Borough, the Nancy Lake Recreation Area which is primarily oriented towards water recreation, will offer recreation opportunities which are contrasting and complementary to the alpine recreation opportunities found in the Independence–Hatcher Pass area. The caribou country of Monahan Flats and the unusually large expanses of open water at Lake Louise and Susitna Lake are, again, different from other recreation areas in the Borough. And, finally, the Mount McKinley National Park is a unique recreation area which will be increasingly attractive to travelers from throughout the State and the nation.

As the people of the Borough have recognized by voting to grant the Borough areawide park and recreation powers, recreation facilities are also needed at a local level. Such facilities should be developed as a Borough-wide system so that all the developed sections of the Borough may be served on a relatively equal and systematic basis. Specific recommendations for local recreation areas have been included in the

sections of this report on detailed planning areas. In addition, it is recommended that the Borough manage the recreation areas in connection with its schools as part of its system of local recreation facilities.

Public Lands – Management for Compatible Multiple Use.

Approximately three quarters of the area in the Borough is too mountainous, swampy or glaciated to be suitable for year-round human habitation. The habitable area is mostly in the low lands drained by the Matanuska–Susitna Rivers which fan out across the region from a swampy delta bordering on the Cook Inlet and Knik Arm. The great contrast and variety offered by the Borough's physical setting is actually a great asset, making the areas of human settlement much more desirable because of their backdrop of natural wilderness.

All of the land in the Borough, regardless of its physical characteristics is a valuable resource and should be carefully managed so that it will not be wasted. Often uninhabitable lands contain a wide range of important resources. An example is the Susitna Flats, a vast swampy region at the Susitna River delta. This area is important to the Borough as well as to other parts of the State as a gamebird and moose breeding and resting area. However, the region also has some timber and oil and gas potential and it is highly desirable for recreational uses such as hunting, fishing, snowmobiling and boating. There are patches of well drained land in this swampy area and the highway to Tyonek will pass through the area along a ridge of well-drained land. At intervals along this highway private development of highway service businesses should be encouraged.

To allow maximum resource development in such areas, it is essential that the land and its resources be carefully managed. It is seemingly paradoxical, but true, that man's use of land must be restricted and guided to allow people to obtain maximum benefit from land resources. As an example, in the Susitna Flats if too many duck shacks are located in any one area, gamebird habitats will be disturbed and the area will no longer

be attractive to hunters. The Bureau of Land Management has supported the same principle in describing the pattern of settlement of federal lands under the Homestead Act.

> Strategic scenic and unique geographic features having high public value are being constantly filed upon and lost to public use. For example, stream crossings and valleys along the highway, the inlets and outlets of remote lakes, strategic gravel bars and level ridge tops in remote mountainous sheep hunting areas are all typical favored settlement locations. Favored practices are filing claims for maximum highway or lake frontage (up to a mile in the case of a homestead).†

This need for more extensive land management for compatible resource use has long been recognized by the Federal Bureau of Land Management and the State Division of Lands. Together these agencies control approximately 95 percent of the land within the Borough boundaries.†† Both the Bureau of Land Management and the Division of Lands have attempted to set up administrative regulations for portions of the Borough which would prohibit unrestricted settlement and which would manage land to allow compatible multiple resource use. Under the recently approved "Copper River Classification" federal lands as shown on the map one page 37 will be mananged to permit multiple use of the land's resources. Uncontrolled homesteading would be halted and lands would be released for mineral, timber or other resource development as well as for recreation and private settlement only on the basis of careful planning and with development conditions designed to establish maximum compatibility between various land uses. The State Division of Lands, working with the Department of Fish and Game and the Borough, is proposing a similar type of compatible multiple resource management in the Susitna Flats.

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† *Bureau of Land Management, Proposed Copper River Classification.*

†† *27 percent of the land in the Borough is in State ownership and 98 percent is in federal ownership.*

This plan recommends that a policy of managing land and land resources for compatible multiple resource use be extended to most State and federal lands in the Borough. Such a practice would serve as a means of maximizing potential human benefits from the land and should be regarded as a system of good management rather than as a restrictive policy. In an area managed for compatible multiple resource use, some lands can be released for private development, but this should be done on the basis of overall planning and a consistent set of development standards that would apply equally to all applicants.

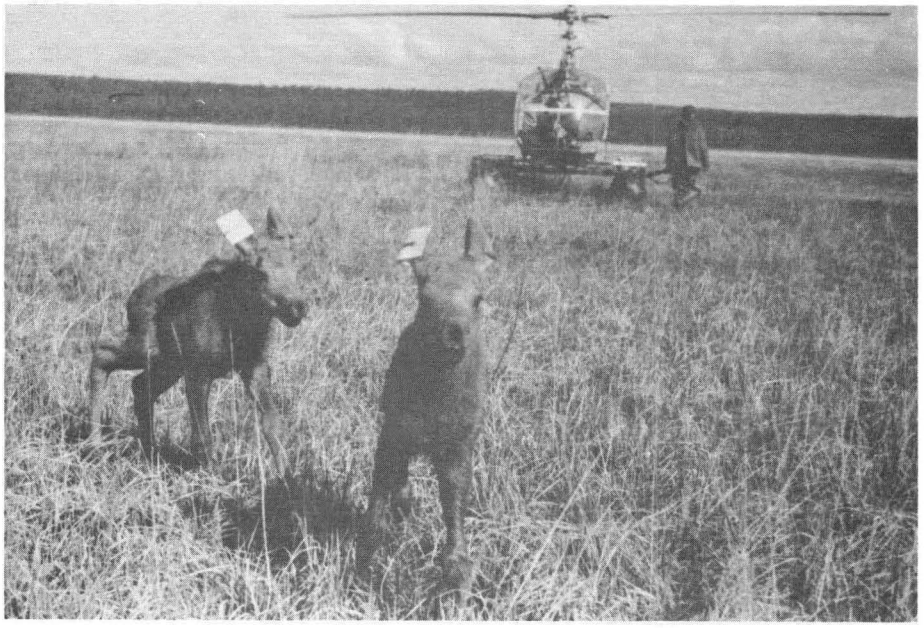

Photo: Jack C. Didrickson

Tagging Moose Calves on Palmer Hayflats

Palmer-Wasilla Region Plan

PALMER – WASILLA REGION PLAN

CURRENT AND FUTURE TRENDS

The Palmer – Wasilla region is the heart of the developed part of the Matanuska–Susitna Borough. Over 70 percent of the Borough's population lives in this area and most of the Borough's roads, homes and businesses are concentrated within the Palmer – Wasilla region as shown on the map on page 55 . Current developments, listed below, indicate that this region will continue to grow and be a center of population and economic activity of the Borough in the future.

1. **Palmer has been selected as the location for the Southcentral Alaska Pioneers Home.**

The Home will probably house about 60 elderly people and employ about 30 people locally. Residents of the Home and the employees and their families will, in turn, add a substantial amount of local trade and mean some growth in local business employment.

2. **Development of rail oriented industry manufacturing products which are marketed throughout Southcentral Alaska.**

As is discussed on page 30 , the area's excellent rail and highway access to Southcentral Alaska and the availability of large, relatively inexpensive tracts of land, make the Palmer – Wasilla region a probable location for some types of industry.

Palmer was recently chosen as a plant site for a company which will be producing pre-fabricated housing units to be marketed in both the Anchorage and Fairbanks population centers. This plant, in turn, will make other businesses feasible in Palmer. For example, a company selling aluminum materials decided to locate in Palmer, following the decision of the housing prefabrication company to build its plant in Palmer.

3. **Experimentation in the production and marketing of specialized northern climate vegetable products indicates that this form of agriculture has a potential in the Palmer area.**

A promising direction for agricultural development in the Matanuska Valley is the production of quality frozen vegetables which will command high enough prices on the national market to cover the greater costs of production in Alaska. It has been demonstrated that peas grown in the valley can be superior in size, flavor and overall qualtiy to peas produced in other parts of the country. Other types of hardy vegetables such as broccoli and carrots are also of unusually high quality when grown in the Matanuska Valley. With the increasing nation-wide prosperity and the consequent growth in demand for luxury products, this form of agriculture has a good potential.

Photo: The Frontiersman

4. Increased development of the Palmer – Wasilla region as a place for second homes for the Anchorage residents and as a suburban community for people who work in Anchorage.

With the completion of the highway improvement projects, located between Anchorage and Palmer and Anchorage and Wasilla, each of these communities will be about 46 miles from Anchorage.†

This reduction in driving time and distance between Anchorage and the Palmer – Wasilla region, in combination with the expanding Anchorage population and the greater ability of people to afford second homes, will accelerate residential development in the Palmer – Wasilla region.

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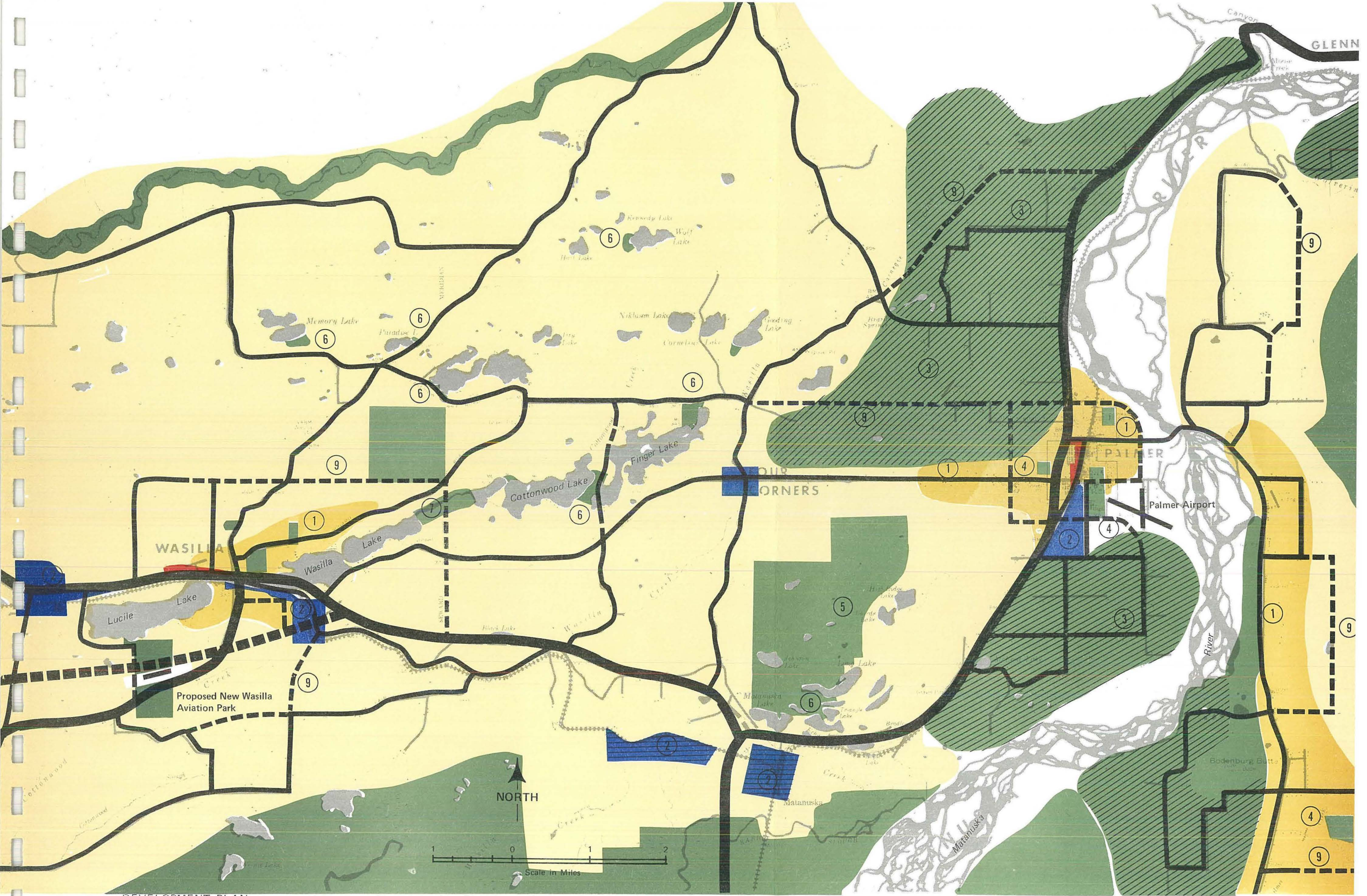
† *Information supplied by the Alaska Department of Highways.*

5. Increased tourism in the Palmer – Wasilla region.

Tourism in the valley is also closely tied to the rapid expansion of the Anchorage area population. The Matanuska–Susitna Valleys, especially the convenient Palmer – Wasilla region, are an important source of recreation for the population of Anchorage.



DEVELOPMENT PLAN
PALMER, WASILLA, MATANUSKA REGION
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Community residential (Central water and sewer systems)
- Recreation and Rural Residential (Includes lodges. Color indicates areas with high potential for development. Much of the uncolored area is also suitable for this type of development)
- Public and Semi-Public
- Agricultural
- Major Highways
  - Existing Roadway
  - Proposed Roadway
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Roadway
- (1) Numbers refer to recommendations as listed and described in the text.

RECOMMENDATIONS†

1. **Encourage the formation of compact centers of population where development is concentrated to an extent that service by community water and sewer systems will be feasible.**

The reasons for establishing centers of concentrated settlement are obvious. Without a concentrated development pattern, many of the utilities and public services which people expect in a community cannot be developed without costs which are higher than the public is willing to pay. It is desirable to have a choice of residential environments available within a region. There should be an opportunity to live in a rural area as well as in concentrated communities. However, it should be clearly understood by the population that water and sewer and many other public utilities and services can only be afforded in areas of concentrated settlement. The communities of Wasilla, Palmer and Butte already have concentrated settlement patterns and this plan simply recommends that these established centers of residential development be expanded and further developed to accommodate population growth and to provide a full range of community utilities and public services. Desirable directions for residential expansion around the existing communities are shown on the plan on page 55.

2. **Designate specific locations for future industrial and highway oriented commercial development.**

There are two main advantages to designating on the plan those locations which are most desirable for industrial and highway commercial development. First, mapping potential locations on the plan in effect "flags" those areas which have desirable characteristics for industrial development. The plan can be used to assist potential developers searching for industrial sites in the region. Secondly, designation of specific locations for industrial and highway oriented commercial development

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† *Where possible, the number of each recommendation corresponds to a number on the map on page 55 pointing out the location affected by the recommendation.*

encourages the grouping of such development and zoning in accordance with such a plan prevents a random scatteration along the highway. Scattered highway development would be particularly undesirable in the Matanuska–Susitna Borough where the region's rural, scenic quality and tourist and recreation trade are a vital part of the local economy.

3. Encourage the preservation and use of prime agricultural lands for farming.

An extensive study of agriculture in the Matanuska–Susitna Valley reports that by the year 2000 as much as 100,000 acres, or 156 sections, of agriculture land may be needed to provide the railbelt market with the types of agricultural products that can be grown successfully in Alaska.†

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† *U.S. Department of the Interior, Alaska Power Administration, Development of New Lands in the Matanuska-Susitna Borough, February, 1970.*

Photo: Ted Bell

The Agriculture Experiment Farm

To meet this need, the plan recommends that the best agricultural soils in the Palmer – Wasilla region, which are located north and south of Palmer and in the Butte area, be zoned for continued agricultural use. There are many other areas which are equally suited for residential development, but only a few areas in the Borough are well-suited for agriculture. Once agricultural lands are subdivided and used for roads and buildings, they are seldom reconverted to farming.

4. **Expand the system of lower, middle, and upper grade schools at the communities of Palmer and Wasilla and establish a lower grade school at Butte.**

The planning for the Wasilla school system is discussed in detail in the Wasilla plan on page 96 through 98 . The immediate need for additional elementary school development in Palmer could best be met by locating an elementary school at Butte. Presently a large proportion of the school children attending the Palmer elementary schools are bussed in from Butte. In addition it is recommended that middle grade school facilities be developed in combination with the Palmer High School.

A more long-range proposal is the development of a new elementary school at Palmer. This school should be located west of the business district and the railroad on a site that is central to the western part of Palmer residential community.

5. **Establish a wilderness park in the lands directly east of the Agriculture Experiment Farm.**

This land, shown on the map on page 55 , is a glacial morain and is extremely rough and hilly. For this reason most of the area would be difficult to develop with roads and structures. On the other hand, the terrain is scenic and interesting and the area is highly desirable as a location for bridal paths and trails for hikers, snowmobile riders and cross-country skiers.

The cost of establishing this wilderness park appears to be minimal. Much of the land is already in public ownership. The Borough has selected 1,850 acres in the area and the Agricultural Experiment Farm owns 1,480 acres which have been leased to a private party. The only development that would be necessary would be brushing of some trails. Trails should also be marked so that snowmobile traffic can be separated from the trails used by cross-country skiers.

6. Establish public access sites on lakes throughout the region.

The map on page 55 shows a number of lake sites which are recommended for public recreational use. Most of these sites are still publicly owned. In general they are recommended because they combine public ownership with desirable site characteristics such as good drainage and relative accessibility from existing roads. The sites shown on the map should be considered as preliminary suggestions. A much more detailed on-the-spot analysis should be conducted before actual sites on each lake are chosen.

7. Develop an interconnected waterway linking Finger, Cottonwood and Wasilla Lakes.

This recommendation is discussed more fully in the Wasilla plan on page 100 .

8. Establish a recreation area adjacent to the Matanuska River directly north of the Bodenberg Butte.

This location has unusually high potential for recreational development. Much of the land between the highway and the Matanuska River in this location is publicly owned. A diversified private recreational development is planned for the area of the Butte itself. Near the base of the Butte, Falk Lake offers outstanding potential for development as a public swimming and fishing area. The land farther north, adjacent to the river, could provide space for picnicking and, in the future, this area may fulfill a demand for launching facilities for hovercraft and other boats which

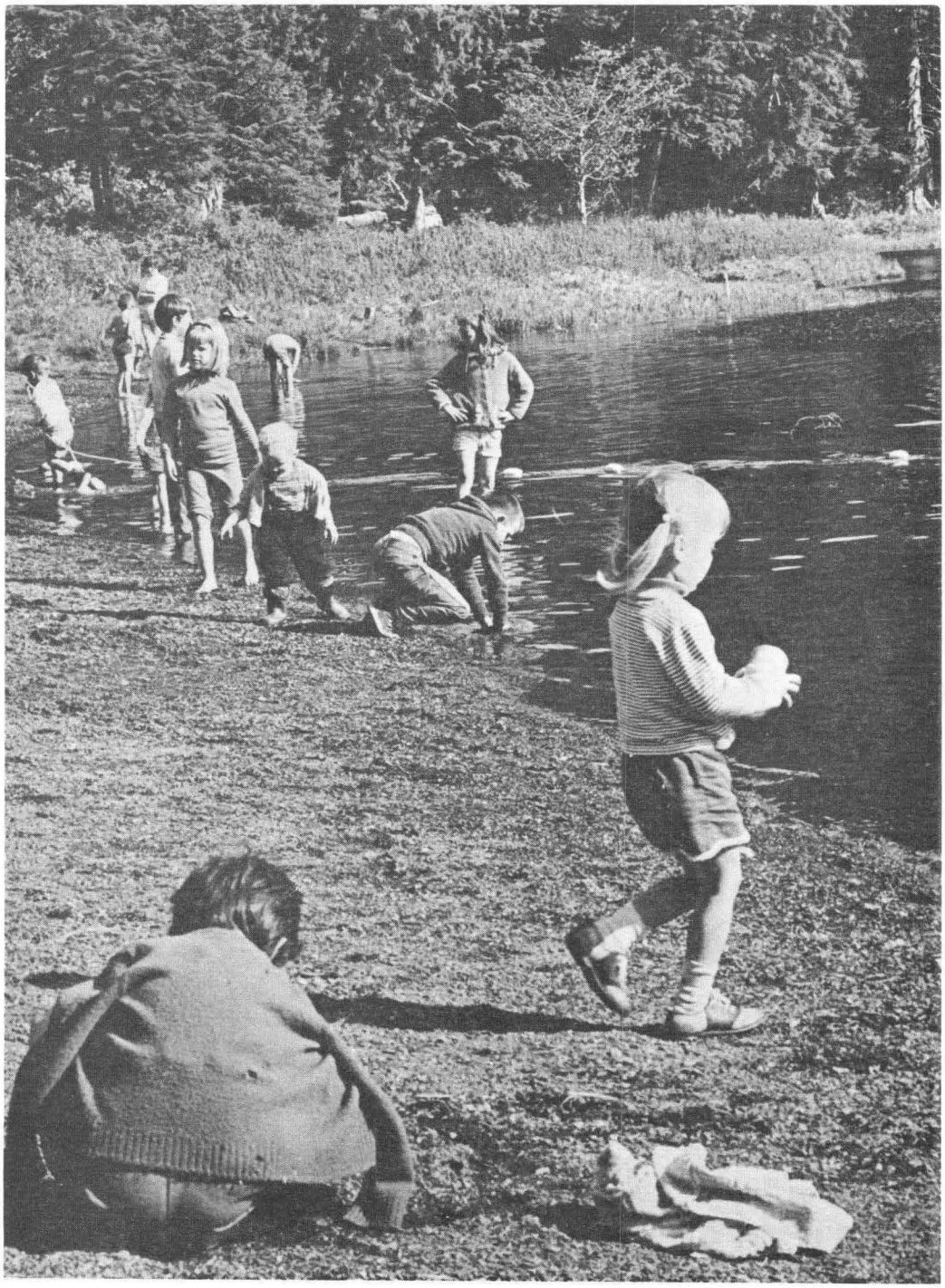

Photo: Steve & Dolores McCutcheon

Falk Lake

navigate the Matanuska River. The strip of land between the highway and the river is also desirable for public use simply because it provides a scenic vista from the highway.

These different recreation attractions could be developed as a single recreation complex. Trails could connect the entire public area and unified development would facilitate maintenance and management.

9. Road development to provide an interconnected system of collector streets serving the Palmer – Wasilla region.

The map on page 55 shows many locations where roads should be extended or developed to form an interconnected system of main roads, making travel throughout the region more efficient and convenient. A carefully planned collector street system is particularly important in semi-rural areas as a means of minimizing bussing distances to local schools. The road locations as shown on the map should be considered as indications of where a connnection is needed rather than as specific right-of-way recommendations. Careful study of physical characteristics of the land and of subdivision patterns should be conducted in the proposed road locations before any exact rights-of-way are selected.

Mackenzie Point Region Plan

MACKENZIE POINT REGION PLAN

CURRENT STATUS

The MacKenzie Point region, as shown on the map on page 67 is probably one of the few locations in the United States which combine the following attributes:

1. Proximity to the State's major growth center
2. Large tracts of unsubdivided land (50 or more sections) in public ownership.

Land in this region has remained undeveloped and unsubdivided, primarily because there has been no year-round road access to the area. The Knik Arm separates the region from Anchorage and only trails and winter roads connect the MacKenzie Point region with the state highways and settlement near Big Lake and Wasilla to the north.

In the past some individuals have recognized the potential of MacKenzie Poing and provided their own access by constructing private air strips. There are five small air strips near the Point and this part of the land is in private ownership.

Recently, there has been a major breakthrough in the development of the MacKenzie Point region. As a follow-up of the recent oil discoveries on the North Slope and the economic impact on Anchorage, a private firm has announced plans to construct a totally designed community on the Point, connected to Anchorage by an aerial tramway. This community is planned in a linear form with a central spine of commercial and office space. Residential units, both rental and privately owned, are planned as branches of this spine. The community will be entirely interconnected, with enclosed walkways, shopping malls and moving sidewalks.

An outstanding element of the plan is the fact that the community will have no automobiles. Under the current design, residents of the new community will park their vehicles in a garage located at the Anchorage terminus of the tramway. The city is planned so that the commercial-service spine and its residential branches can be extended northward in response to local economic and population growth. Moving sidewalks and other methods of mass transportation will carry people up and down the central spine, and a tramway spanning the Knik Arm at its narrowest point (8,000 feet) will provide a method of commuting between Anchorage and the new city. A single tramway car will carry 100 people and will make the trip in about eight minutes.

As a site for the new city, the firm has acquired a 55 year lease on 3,208 acres approximately in the area shown on the map on page 67 . It has been estimated by this firm that by 1971 the city will accommodate 5,000 people and that by 1975 there will be a total of 20,000 people living in the new community.

Though the totally designed community at MacKenzie Point will be the largest single development to date in Southcentral Alaska, it will occupy only a portion of the developable area in the MacKenzie region. The timing and extent of other development in the MacKenzie Point area is dependent upon the completion of the Knik Arm Crossing.

RECOMMENDATIONS†

As a first step in the development of the MacKenzie Point region, the totally designed community would set a pattern for good planning which should be followed in adjoining areas, making the MacKenzie Point region an outstandingly attractive environment. Recommendations for other elements in the future of the MacKenzie Point region are described as follows and illustrated on the map on page 67 .

1. Develop a vehicular crossing of the Knik Arm at Cairn Point.

Because water is deep at this point (160 to 180 feet), a crossing at this location may be technically more difficult and more costly than a crossing farther north where waters are shallower.†† However, a crossing in the recommended location offers substantially greater benefits than other possible locations. Over time, the convenience of a short and direct connection between Anchorage and MacKenzie Point should outweigh the added costs which may be involved in constructing a crossing at Cairn Point. The crossing would carry virtually all of the traffic moving between Anchorage and the MacKenzie Point area which will probably include (1) industrial-port development on the northwest shore of the Knik Arm, (2) a supersonic jet airport, and (3) a large residential community. In addition, if this location were selected for the crossing, the highway connecting the crossing with the Anchorage–Fairbanks Highway could be located so that it skirts rather than bisects residential neighborhoods.

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† *Where possible, the number of each recommendation corresponds to a number on the map on page* **67** *pointing out the location affected by the recommendation.*

†† *There should be no doubt that such a crossing is technologically feasible. Vehicular crossings have been built across wider spans and deeper waters. An example is the Chesapeake Bay bridge-tunnel.*

2. **Extend a regional highway northward from the crossing at MacKenzie Point to connect with the Anchorage–Fairbanks Highway at Willow. Locate this highway so that it passes through the undeveloped region west of the Nancy Lake State Recreation Area.**

The purpose of this highway would be twofold, (1) to establish a direct north-south connection between Anchorage and Fairbanks and (2) to provide access to a currently inaccessible sector of the Borough. The proposed location for the highway provides a relatively direct route between Anchorage and Willow, the point where the existing Anchorage–Fairbanks Highway turns to head directly northward. As far as possible this location avoids swampy and hilly areas. By following a course west of the Nancy Lake State Recreation Area the proposed route could double as a resource development road by providing access to areas with good recreational and agricultural potential. As is explained below, this concept is compatible with highway design which would restrict points of access to well spaced intervals so that through traffic could flow smoothly.

3. **Limit access along the main highway between the proposed Knik Arm Crossing and the Anchorage–Fairbanks Highway connection at Willow**

It is recommended that this highway be designed and developed as a limited access route with entrances and exits at least one mile apart. This precaution will enable the highway to serve as an efficient carrier of through traffic between the new airport and Anchorage and between Southcentral and interior Alaska.

Limited access does not preclude commercial and industrial development near the main highway. However, it does mean that commercial development must be clustered at intervals near points of access to the highway, and that entrances and exits to businesses must be from secondary roads leading into the highway. With proper design, businesses

DEVELOPMENT PLAN
MACKENZIE POINT REGION
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Community Residential (Central water and sewer systems)
- Community Residential (Total design community)
- Recreation and Rural Residential (Includes lodges. Color indicates areas with high potential for development. Much of the uncolored area is also suitable for this type of development)
- Public and Semi-Public
- Agricultural
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Mass Transit System
- (1) Numbers refer to recommendations as listed and described in the text.

Airport Industrial Park

Major Airport

General Aviation Landing Strip

School Complex

Local Shopping Center

Agriculture (Airport Buffer)

Float Plane Basin

Public Campgrounds

Scenic Vistas

Access Trail to Susitna Flats Resource Management Area

School Complex

Lake Lorraine Recreation Area

Total Designed Community

Commercial Office Spine

Port Industrial

Mass Transit System (Tramway)

NORTH

Scale in Miles

can be visible and conveniently reached from the highway without impeding the flow of through traffic.

4. Develop a major airport at the head of Goose Bay.

The division of Aviation and Federal Aviation Agency have considered the possibility that in 10 or 15 years a second major airport may be needed in the Anchorage region, and, to provide for this possibility the Division of Aviation has asked the State Division of Lands to hold 18 sections of State lands in the area referred to as Horseshoe Flats as a tentative airport reserve.

The runway for jumbo jets should be at least 11,000 feet in length and the total runway reserve should be 1½ miles by 3 miles or a total area of at least 4½ square miles.† This plan recommends that the airport be established at the northern end of the eighteen square miles that have been considered for airport purposes. This location has the following advantages:

a. The approach zones to the airfield could be located across Goose Bay and other swampy areas where development is unlikely.
b. An agricultural buffer could be provided in the southern portion of the 18 sections to separate the supersonic airport and residential development near MacKenzie Point

Land in the proposed location is relatively level, has a good gravel base, and there are no mountains or man-made obstructions in the proposed approach zones. It is important that the runway be located to avoid conflict with the Elmendorf and Anchorage airport flight patterns. If the main runway were oriented in an east-westerly direction there would be no such conflict.

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† *Division of Aviation*

5. **Provide for development of an airport industrial park adjacent to the new airport.**

The map on page 67 shows a recommended location for an airport industrial park to accommodate aircraft company offices, hangars, air service and repair facilities, and other types of industrial development which seek proximity to an international airport. In addition space should be made available for hotels, transient facilities and other service uses which normally develop in connection with a large airport.

6. **Provide for port oriented industrial development on the northwest shore of the Knik Arm adjacent to the proposed crossing.**

Space for industrial expansion in Anchorage's Ship Creek industrial area is limited and, in the long run, there will be a need for additional industrial land on deep water near Anchorage. The western shore of the Knik Arm has many of the same advantages for industry as the Anchorage side. Deep water suitable for navigation by ocean-going vessels is available, with relatively limited filling and construction of dock facilities across mud flats adjoining the shore. An added advantage to industrial development in this location lies in the natural separation between potential industrial and residential areas which is created by the pattern of swampy, marshy land. The proposed port industrial area is located down wind from the residential area.

As is shown on the map on page 67 a green belt of natural, undeveloped land should be left between the highway which connects with the Knik Arm Crossing and the site of the proposed totally designed community. With this precaution there will be adequate separation between the residential community and the port industrial area.

7. **Develop a public float plane base in the MacKenzie Point region.**

The map on page 67 recommends a location for a public float plane basin. Tie-down space at Anchorage's Hood Lake and Lake Spenard is already scarce, and, additional public tie-down space on float plane

landing lakes will soon be in demand. On MacKenzie Point it is recommended that a public float plane basin be developed by channeling between three adjoining lakes, similar to the channeling between Hood Lake and Lake Spenard. In this manner, a 5,000 foot long float plane waterway could be developed.

This float plane basin would be within eight to ten miles of the City of Anchorage and would be able to serve both the MacKenzie Point community as well as the Anchorage population. Land around the proposed site is currently all in public ownership.

8. **Provide for agricultural development on Horseshoe Flats directly south of the proposed airport.**

According to studies by the Soil Conservation Service this area contains approximately 20,000 acres of agricultural land, of which 16,600 acres are rated Class III. The average soil depth is 15-20 inches, substratum is gravel and the topography is level.†

After development of the crossing and a highway connection with the Anchorage–Fairbanks Highway, Horseshoe Flats will be within 12 miles of Anchorage. Proximity to market is a particular advantage for truck gardening, a type of agriculture with a relatively high potential for success in Alaska. Agricultural enterprises producing high quality frozen vegetables to be sold nation-wide as a luxury product may be attracted by the area's potential proximity to a major airport.

Because this area will probably be adjacent to a supersonic jet airfield, it will be unsuitable for residential uses. Land is presently in State and Borough ownership and is unsubdivided. For these reasons, Horseshoe Flats appears to be an ideal area for agricultural development and for zoning that would reserve the land for agricultural uses.

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† *U.S. Department of the Interior, Alaska Power Administration, Development of New Lands in the Matanuska-Susitna Borough, February, 1970.*

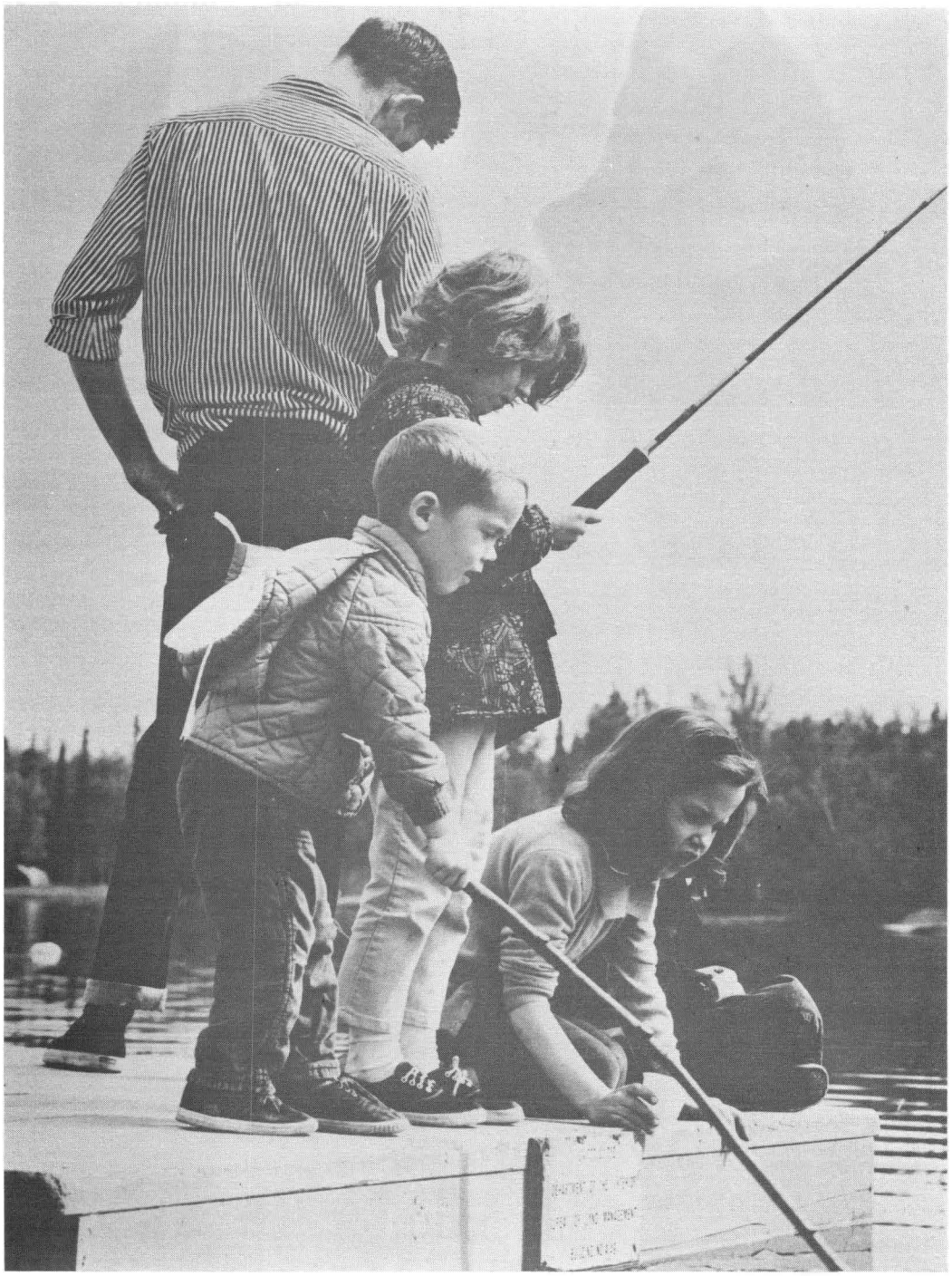

Photo: Snow Goose Ranch Studio

Lake Fishing Near Wasilla

9. **Establishment of a public recreation area at Lake Lorraine, adjacent to the totally designed community.**

Because the structures of the proposed totally designed community will be in a compact form, large areas of adjacent open space can be devoted to recreational uses. Lake Lorraine is a prime recreation area combining waters suitable for fishing, swimming and boating with a scenic wooded shoreline. It is recommended that the State Division of Lands and the firm which is planning to develop the new town come to a cooperative agreement for managing and developing the Lake Lorraine area as a recreation park serving the urban communities of MacKenzie Point and Anchorage.

10. **Preserve public access and recreation sites on Twin Island Lake and Lost Lake.**

In subdividing and disposing of property on these two lakes, the Division of Lands has wisely reserved the land connecting the lakes for public use. As the MacKenzie Point region becomes more intensely developed, these public recreation areas will be of great value to population throughout the region.

11. **Establish at least two reserves for school complexes in locations which are central to the future MacKenzie Point residential community outside the totally designed community.**

On a national basis an average sized senior high school typically serves a community with a population of about 24,000 persons.† The proposed totally designed community is estimated to have 20,000 persons by 1975, enough to support a separate high school. Under current planning, school facilities serving the new community will be incorporated in the total community complex.

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† *Joseph De Chiara and Lee Koppelman, Planning Design Criteria, Van Nostrand Reinhold Company, 1969.*

However, development outside the new community should justify the reservation of at least two sites for educational parks including middle and upper grade school complexes. It is recommended that these sites be at least 140 acres each to provide ample space for school structures as well as recreation facilities and open space for use by both the school and the total community. The concept of combining school development with community recreation facilities is proposed in the *Alaska Outdoor Recreation Plan.*

12. **Provide for the development of two local shopping centers conveniently located in relation to the residential development on MacKenzie Point outside the totally designed community.**

Actual development should be timed to coincide with population growth in the area sufficient to provide a market for supermarkets and other stores selling frequently needed goods and services. For larger purchases people typically travel farther. For the future MacKenzie Point population, the commercial core of the new community or the Anchorage central business district would probably serve as the regional shopping center.

The two locations shown on the map are recommended for eventual local shopping center development because they are relatively convenient to future residential areas and are situated to be near the intersection of major streets.

13. **Establish scenic vista reserves at intervals along the highway which parallels the Knik Arm.**

The high bluff overlooking the Knik Arm offers spectacular scenic vistas, and measures should be taken to preserve the view at intervals along the highway. This involves holding some lands between the highway and the Arm in public ownership, providing highway pulloff areas, and "day-lighting" where excessive vegetation blocks the view. The map on

page 67 shows publicly owned lands which are recommended as scenic vista points.

14. Zone for low density development in areas adjoining lakes and in the limited well-drained land west of the proposed port-industrial zone. To preserve the rural recreational qualities of lakeside property, land adjoining the lakes should be zoned to prevent overcrowding of structures, and polluting of the lakes. The low density zone west of the port-industrial area is recommended because developable land is broken and isolated by swampy areas and, for this reason, is better suited for rural recreational dwellings than for a denser type of development which would require utilities.

Wasilla Plan

WASILLA PLAN

HISTORIC DEVELOPMENT

Wasilla was the commercial and distribution center of the region during the early twentieth century when the Willow Creek District mines were at their height of activity. The history of Wasilla reflects much of the history of the region. The community originated in 1916 when the railroad was built through the Matanuska and Susitna Valleys to Fairbanks. Previous to that year, the community of Knik, located farther south on the west shore of the Knik Arm, was the main trade and service center in the region. As the railroad was established, it became evident that Wasilla, the point where the trail to the Willow Creek Mining District crossed the railroad, would be the logical point for distribution of mining supplies which would be brought into the region via the railroad from Seward. Knik was rapidly abandoned and some structures from Knik were moved into Wasilla.

As is characteristic of early Alaskan towns, many of the first dwellings at Wasilla were tents. However, because of the community's strategic location at a transporation crossroads, elements of stability were present. In 1917, a townsite was surveyed by the railroad and lots were sold. Stores, roadhouses, and homes were built, and the population grew as homesteaders as well as miners and merchants moved into the area. In terms of population size, Wasilla was probably at its height in the late 1920's.

After the Matanuska colony was established at Palmer in 1935, Wasilla lost its dominance as the trade and distribution center of the valley. Mining in the Willow Creek District dwindled as mining costs increased and gold prices remained stable. The Second World War, which drained much of the manpower from the area, brought with it the final closure of most of the mining activity. The cessation of mining meant that Wasilla

was no longer strategically situated in relation to a main source of employment.

Recently, however, new road construction in the Borough is re-establishing Wasilla's original locational advantage. Wasilla is on the Anchorage—Fairbanks highway which will be linked with Fairbanks by 1972. Sections of the existing roads between Anchorage and Wasilla are being rebuilt. When this work is completed, the road distance between Anchorage and Wasilla will be only 45.6 miles. The Knik highway heading south from Wasilla will probably eventually be linked with the road connecting with the Knik Arm Crossing (See map on page 67). In addition, Wasilla is on the main railroad line between Anchorage and Fairbanks and the Wasilla depot serves as a collection point for train passengers from throughout the valley.

CURRENT AND FUTURE TRENDS

Wasilla's name, stemming from a Knik Indian word meaning "breath of air", is well suited to the community's lovely rural setting among lakes and wooded hillsides. It is partially because of the area's natural attraction as a place of residence that Wasilla has survived as a community, despite losses in local employment.

People have chosen to live in Wasilla and commute to employment located elsewhere. The population in the Wasilla area is considerably larger than is normal in relation to the amount of jobs available locally. In 1969 the total population of the Wasilla elementary school service area was estimated at approximately 1,750. At the same time there were only about 150 jobs in the Wasilla area, hardly enough to support a population of that size. For employment many Wasilla residents must commute to Palmer, or work in other parts of the State. Typical is the man who works on a construction job outside the Borough during the summer season, while his family lives year-round on a homestead or homesite in the Wasilla area.

The approximately 150 local jobs are distributed among various kinds of employment as follows: government, 36%; trade and services, 24%; agriculture, 19%; construction, 14%; and other occupations, 7%. Governmental employment consists primarily of employment in the local schools and in the State operated. Youth Conservation Camp near Wasilla. Employment in trade and services is heavily dependent upon highway traffic and tourists. Agricultural employment is often a part-time occupation.

There are several foreseeable factors which will bring new development and population to Wasilla in the future. Though none of these is a major source of growth, in combination they will bring a steady and gradual population increase to Wasilla. Six strands in Wasilla's future are identified as follows:

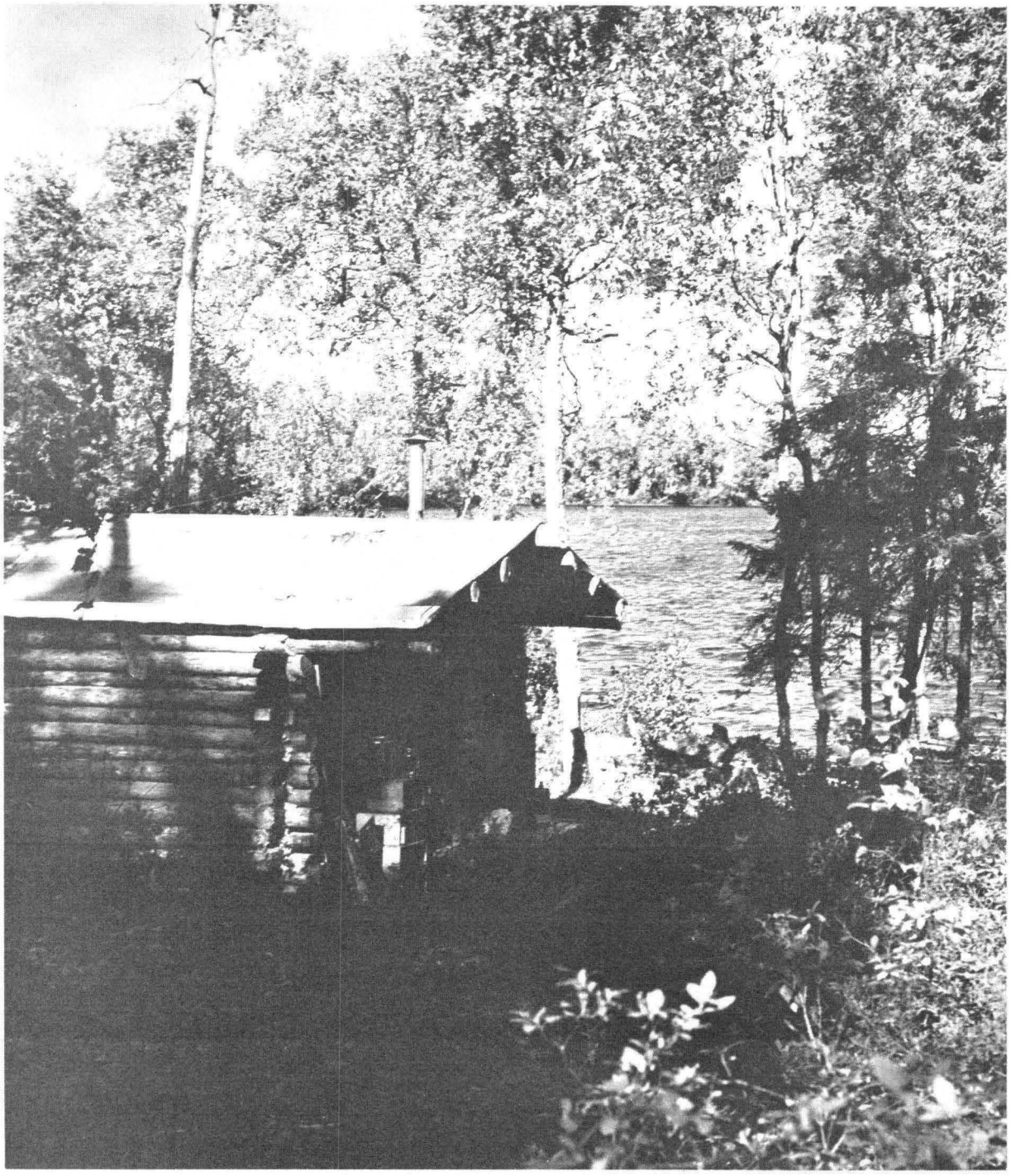

Photo: Steve & Dolores McCutcheon

Cabin on Wasilla Lake. The area's wealth of attractive settings for homes and summer cabins have contributed to the community's growth and stability.

1. Residential Growth

The many miles of lake frontage in the Wasilla area and the abundance of residential sites with scenic views are strong assets which attract people to live in Wasilla. In the future, Wasilla will continue to be partially a "bedroom community" for people who work elsewhere, a location for second homes and summer cabins and a residence for some older retired people.

This trend will strengthen with the completion in 1971 of the new road from Matanuska to Wasilla and the improvement of the highway from Anchorage to the Matanuska River crossing. These changes will put Wasilla within an hour's drive from Anchorage.

However, Wasilla's future as a residential community will depend heavily upon maintenance of the area's scenic rural quality in the face of increasing development. The development guidelines and controls of planning and zoning are particulary important to Wasilla.

2. Increased Highway Traffic and Growth of Highway Oriented Businesses.

The completion of the Anchorage—Fairbanks Highway will dramatically increase traffic passing through Wasilla. By 1987 the highway traffic along the road between Matanuska and Wasilla is estimated to increase nearly six and a half times. Currently daily annual average traffic on this road is 650 vehicles; by 1987 is estimated to have grown to 4,100 vehicles, a volume which is comparable to the present traffic along the Glenn Highway between Eagle River and Chugiak. †

This increased highway traffic volume will be a boon to existing roadside businesses in Wasilla and will lead to the establishment of additional businesses oriented towards the highway traveler such as gasoline service stations, motels, hotels, cafes.

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† *Alaska Department of Highways projection.*

Development on MacKenzie Point will also have an impact on Wasilla. If a new city is constructed at MacKenzie Point as is presently planned, and if, for sometime the only link between Anchorage and the new city is a tramway, vehicular traffic to the new city will probably travel through Wasilla down the Knik and Burma Roads. This development will contribute substantially to trade in highway service businesses at Wasilla.

3. Wood Processing

Wood processing offers a third potential for increased employment in the Wasilla area. Alaska Hardwoods, a medium sized sawmill at Wasilla, is equipped to produce 20,000 to 25,000 board feet of lumber a day, operating in two shifts. The mill has a dry kiln and planing mill and can produce finished lumber. At full operation 15 to 19 people should be employed.

This mill has had an erratic history of operation since it was established in 1964 and, as of October, 1969, it was not operating. Basic difficulties have been the instability of the source of logs and inadequate operating capital. If these difficulties are overcome and the mill is able to operate, other smaller wood-cutting operations would be feasible. For instance, with a source of lumber, a local company could produce furniture, molding and other small items for Alaskan use.

The addition of employment in a basic industry such as a sawmill which exports its product from the region, brings a chain of economic effects. New jobs at the mill would, in turn, mean an increase in the local population. A larger local population increases trade for local businesses and, in turn, these businesses may need to add new employees who would move to Wasilla with their families.

4. Establishment of Institutional Homes

The Wasilla area is an ideal setting for youth camps, homes for children and other types of residential institutions requiring a large amount of acreage in a rural area. Such institutions generally require a combination

of proximity to a central city such as Anchorage, plus a rural setting with ample land in large single ownerships. Two institutions of this type, the Alcantra Youth Camp and School and the Lutheran Youth Center, have already been established at Wasilla. In the future, it can be expected that additional institutions of this type will be developed in the Wasilla area, in response to a need generated by the increasing population of the entire State.

5. Growth as a Trade and Service Center

Wasilla's function as a commercial and service center for the surrounding rural population will continue to be an important aspect of the community's economy. Businesses at Wasilla such as the grocery store and gas station provide the kinds of goods and services which people typically purchase at frequent intervals without taking long trips.

Wasilla's businesses draw trade from a large rural area extending along Knik Road to the south, part way to Four Corners to the east, part way up the Wasilla–Fishhook Road to the north, and towards the Little Susitna River to the west. For major purchases most people living in the Wasilla area purchase by mail orders or travel to a larger community where a wider selection of goods are available. However, Wasilla's grocery store, post office, building supply store, and other local businesses are important conveniences for the surrounding population.

In the future, Wasilla may be expected to grow as a local shopping area. The surrounding rural population will increase and, in turn, the volume of business at Wasilla will grow.

Hunting and fishing parties, largely stemming from the population in Anchorage, will also have a continuing impact upon Wasilla's economy. Wasilla is, and will continue to be, a headquarters for sportsmen who hunt and fish in the lakes and wilderness area surrounding the community. Again, Wasilla's location at a crossroads of regional highways is the key to this activity. Sportsmen travel north up the Fishhook Road towards

Independence to hunt for moose and sheep or to fish in lakes, and they travel south down the Knik Road to fish and hunt moose and water fowl. Their trade will be a source of economic strength to Wasilla businesses, particularly to lodges, restaurants, bars and automotive service stations.

On the basis of these five sources of employment and economic activity affecting the Wasilla area, it is estimated that the population in the immediate Wasilla community, which is defined as the Townsite and the Kennedy Addition and the area surrounding Lucile Lake and Wasilla Lake, will increase by at least 8 percent per year between 1970 and 1985. This growth will give the community a population of approximately 1,400 by 1985, representing at least a tripling of the present population of 445 in the immediate Wasilla community. Total population in the Wasilla and Big Lake elementary school service area is forecast at about 3,000 by 1985. Basic to the community's growth potential and contributing to all

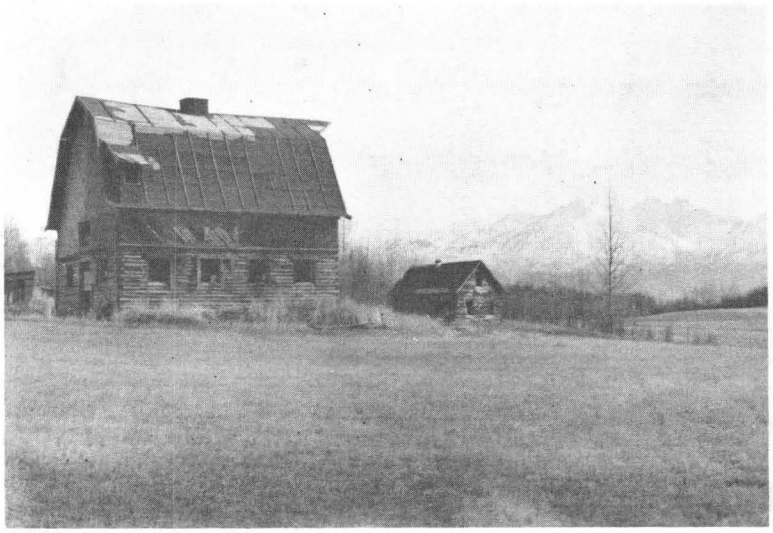

Photo: Ted Bell

Farm Buildings Dating from the Matanuska Colony of the 1930's .

five sources of economic activity, is Wasilla's strategic location at the intersection of the Anchorage–Fairbanks Highway, the railroad, and the highway between Knik and Independence.

Lack of Local Governmental Organization

Wasilla is unincorporated and there is no community governmental body that can speak for the citizens and give them the unity of voice necessary to be effective in accomplishing their own mutual interests. The people of Wasilla have been debating the pros and cons of incorporation as a second class city for a number of years.

A public hearing on the question of Wasilla's incorporation has been requested of the State, and it is likely that an election on the issue will be held during 1970.

It is important to the future of the community that a local governmental organization of some form be established and that this organization be designed to work with and to complement the powers and functions of the Borough, rather than to duplicate Borough powers. At a minimum a local Advisory Planning Commission should be established. Such a group could hear local needs and problems and advocate their solution before the Borough.

Obsolete Platting in the Townsite

The obsolete lot pattern in the Townsite could be a serious retardant to the Community's future development. The lots in this area were platted in 1917 by the Alaska Railroad, and, typically, they are 40 or 50 feet by 135 feet, a size which is totally inadequate for most types of modern commercial and residential construction.

On the basis of location alone, the area near the intersection of the Anchorage–Fairbanks Highway and the Knik–Fishhook Roads has prime

potential for development. However, unless a private or public body can accomplish a large-scale acquisition and recombination of property, the obsolete platting in the area will force development into other locations.

Need for Improved School Facilities

The community has long been concerned about the poor condition of the elementary school and the limited curriculum and opportunities for vocational training available at the high school. Recently steps have been taken to improve the local school situation. Expansion to add a shop, cafeteria, classrooms and new broiler room is planned with construction to start in spring of 1970. This first step will enable transfer of junior high school students from the crowded elementary school to the high school.

The elementary school building's normal pupil capacity is estimated by the school administration at 230. As of October, 1969, there was pupil enrollment of 279 at the elementary school. A portable classroom has been added to accommodate the overflow. The Wasilla elementary school is located on a two acre site, and outside space for parking and play area is inadequate.

Potential Problems of Sewage Contamination

The existing pattern of subdivision and development in the Townsite and Kennedy Addition and around Lucile Lake and Wasilla Lake indicates a high probability of contamination and pollution of lakes, wells and ground surface due to individual sewage disposal systems which are located too close to the lake.

Where lots are 40 and 50 feet wide there is not enough space for adequate separation between wells and individual sewage disposal systems. Adding to the likelihood of well contamination is the fact that ground water and, consequently, wells are typically quite shallow in the Wasilla area. Well depths of 25 to 30 feet are common. Below this level there is a layer of glacial till of low permeability.

The Public Health Service has not yet completed definitives tests to determine whether Lucile Lake and Wasilla Lake are contaminated. However, both lakes are relatively small and circulation and mixing are limited. For these reasons the lakes are highly vulnerable to contamination from individual sewage disposal systems located on properties adjoining the lake. A relatively small concentration of human waste could lead to serious contamination. It is highly important to the local and transient population of Wasilla that the Alaska Department of Health and Welfare conduct a water quality survey of Lucile Lake and Wasilla Lake in the near future, and that measures be taken to correct conditions causing health hazards.

RECOMMENDATIONS†

1. Design a New Commercial Development Fronting on the Wasilla Highway in a Shopping Center Format which will Minimize Conflict Between Shoppers' Vehicles and Through Traffic.

The types of commercial development which are likely to be attracted to Wasilla will be strongly oriented towards highway travelers. To prosper, such businesses must be easily seen from the main highway and there must be convenient access between the highway and the shopping area. On the other hand, without careful design of the exits and entrances between the shopping area and the main highway, commercial development along the highway can easily cause traffic congestion and ruin the highway as an efficient route for through traffic. Good site planning is also vital to the economic success of businesses located along the highway. Shoppers often avoid business areas where traffic is congested. Where structures are located too close to the highway and there are frequent exits and entrances, commercial development has a confused and unsightly appearance, which is harmful to businesses as well as to the entire community.

To obtain the desired combination of smooth traffic flow along the main highway and ease of access to adjoining commercial development, it is recommended that the following guidelines be followed by new commercial developers in the Wasilla area:

a. In the Townsite where lots are small, groups of adjoining lots along the highway should be acquired and combined to create parcels large enough for commercial development.
b. Structures should be set back from the highway a minimum of 100 feet.

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† *Where possible, the number of each recommendation corresponds to a number on the map on page* **93** *pointing out the location affected by the recommendation.*

c. Common parking lots serving several businesses should be provided between the highway and the commercial buildings.

d. If possible, commercial enterprises should be grouped in a single shopping center structure or in separate buildings sharing party walls. This arrangement has the advantage of allowing for development of common walkways, possibly under an enclosed mall.

e. Entrances and exits to the commercial area from the main highway should be at least 500 feet apart. A separation of 1,000 feet is a more desirable minimum. Curbs and guard rails should be provided along the highway to prevent entrance and exit at undesignated points.

f. The highway should be developed with an extra turning lane adjacent to the commercial area.

2. Provision of Sites for Light Industrial Development on the Old Wasilla Highway.

A basic concept of the Wasilla plan is the use of the old Wasilla highway, south of the railroad, to provide road access to light industrial and heavy commercial development. This area is well suited for such development because (1) accessibility to the railroad enables extension of rail spurs to industrial property and (2) most of the land in the area is in large parcels, well suited as industrial sites. Already there are several industrial uses in this part of Wasilla, including a lumber mill, an automotive repair business and a concrete products company. A bluff south of the proposed industrial area provides a natural separation from future residential development. Use of the Old Wasilla Highway as an industrial access road will provide the industrial property will ready access to the main highway without channeling industrial traffic through residential and commercial areas.

DEVELOPMENT PLAN
WASILLA
MATANUSKA–SUSITNA BOROUGH

NORTH

1000 0 1000 2000
Scale in Feet

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Transportation
- Community Residential (Community water and sewer system)
- Recreation and Rural Residential (Includes lodges. Color indicates area with high potential for development. Much of the uncolored area is also suitable for this type of development).
- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Local Streets
  - Existing Roadway
  - Proposed Road Development
- Railroad
- (1) Numbers refer to recommendations listed and described in text.

Part of Interconnected Waterway

Alternate Site for School Complex

Proposed School Complex (4)

Proposed Local Governmental Building (6)

Fire Station and Museum (7)

(7) Park Strip Along Railroad (1)

Proposed Public Access to Wasilla Lake (8) (2)

Future Second Elementary School (5)

Proposed New Wasilla Aviation Park (3) (3)

Limited Access Highway (Long Range Proposal) (9)

WASILLA LAKE

LUCILE LAKE

LAKE LUCILE SOUTH SHORE

(10)

3. Relocation of the Wasilla Airport. Development of an Aviation Park Combining Facilities for Land Use and Sea Planes South of Lucile Lake.

The location of the existing Wasilla airport has serious drawbacks. To approach or leave the runway aircraft must fly directly over the Wasilla High School. The strip is only 2,185 feet in length, and land for lengthening the strip and for providing clear zones is needed. However, expansion of the Wasilla airport at its present location would be in the path of residential and commercial growth of the Wasilla community. Property acquisition to extend the existing air strip and provide needed clear zones (at least 1,000 feet at either end of the runway) would distort the logical growth pattern of the Wasilla community and would only perpetuate the undesirable pattern of flight over the school and residential areas. Finally, extension of the existing runway would probably be very expensive, because highway frontage commercial property would be needed.

In light of the disadvantages of the location of the existing Wasilla airport, this plan recommends that a new general utility airport be developed south of Lucile Lake on a half section owned by the Borough. Here there is a large, level expanse of land, which is well suited to development of a 3,500 to 5,000 foot runway with adequate clear zones. For avaition safety the runway should be aligned with the prevailing winds in the area which are from the northeast. Since there are no strong crosswinds, there is no need for a second runway with an opposite alignment. Approach zones to the new runway, if located as shown on the map on page 93 would be over rural areas which are unlikely to be subject to intense development in the foreseeable future.

There is an opportunity for the development of a total aviation park in the proposed location for the new Wasilla airport. Air taxi services, aviation repair operations and, possibly, lodges and transient service facilities could be located to serve both the land airport and the seaplane

landing strip on Lucile Lake. This lake is 7,000 feet long and has ample space for a seaplane operation. However, publicly owned land fronting on Lucile Lake is quite limited.

In the future more public aircraft tie down space on the Lake will be needed for hunters and fishermen and other recreation traffic. To provide for this demand it is recommended that the State or Borough acquire additional property on Lucile Lake adjacent to the Borough-owned property as shown on the map on page

4. Develop a Unified School Complex for Wasilla.

This recommendation proposes a grouping of Wasilla's school facilities in a single site with ample space for outdoor recreation and parking as well as for the school structures. In a small community, such as Wasilla, better overall school facilities can generally be provided through grouping of buildings for different age groups to allow for joint use of some school facilities. For example, an auditorium can be designed to serve both middle and upper gardes and specialized facilities such as a vocational education shop and audio-visual equipment can be shared by a larger number of people.

It is also important in a small community that school facilities be designed to double for general public uses. Play fields, gymnasiums and auditoriums should be available to all of the community after school hours, and classrooms should be available in the evening for adult education and other uses.

Wasilla's school plant deficiencies in both the elementary and senior high schools have been the subject of much concern. The elementary school consists of a wooden building dating from the early years of the community and a concrete addition constructed approximately six years ago. This composite building is located on a two acre site in the original Wasilla Townsite, approximately 200 feet from the main highway between

Anchorage and Fairbanks. In the future, this area will have potential for commercial and office development and, as a school site, it will be less and less satisfactory as Wasilla grows.

The Wasilla High School is located near the northeast corner of the Townsite. The site is approximately 13 acres in total area, although about a third of the site is unusable or expensive to utilize because of sloping terrain and boggy conditions. The building was constructed seven years ago, and is in good condition, but it should be expanded to add a shop, cafeteria, additional classrooms and other facilities to provide the children with a more complete high school educational program. A new boiler room is also necessary.

Short range plans for improving school facilities call for the demolition of the out-dated wooden section of the elementary school and transferring children in the middle grades to the high school building where portables will be used to meet the temporary shortage in space. The newer wing of the elementary school will then be used for grades one through three and the area cleared by the demolition of the old wing will be used to expand the small playground.

The long range plan for school development at Wasilla is the formation of a single unified school complex. When this is accomplished, the newer portion of the elementary school building can be converted to other uses, for example a governmental office building. With this change, all of the Wasilla schools, including a lower grade school, a middle grade school and a high school will be located together on a single large site. In designing the school complex, the lower grade school should be sited so it is somewhat separate from the middle grade and high school. Ideally, the lower grade school should be easily reached from the area of concentrated population without requiring children to cross a heavily traveled road or a parking area.

The site for the school complex must be large enough to accommodate buildings, outdoor recreation space and parking in one area and to allow some room for expansion. Review of the site area standards set forth on page 27 of this report indicates that a total of at least 60 acres would be required for the lower, middle, and upper grade schools at Wasilla, if they were located on separate sites. However, in a school complex, where some joint use of land and structures is possible, the overall land requirements are lower. It is recommended that the Borough look for an area of 40 acres in selecting a site for a school complex at Wasilla. Assuming joint use of the playfield, parking area, auditorium and gymnasium, this amount of acreage will be sufficient for the school complex in the foreseeable future.

Two sites in the Wasilla area appear to be suitable for the future school complex. These are (1) the existing high school site and adjacent vacant land and (2) a tract of land off of Bogard Road owned by the Catholic Church. If land is acquired adjoining the high school site, as shown on the map on page 93 , there will be sufficient acreage for the school complex. The Catholic Church site is approximately 30 acres and there is adjoining vacant property that could be acquired to make a large enough site. The site near the high school is recommended for first priority consideration because the existing high school building at this location has a remaining useful life of at least 25 years and should be part of the school complex. Also, this site would be somewhat more central and convenient to the total population of the community than the Catholic Church site.

5. **Reserve a Site South of the Railroad for Future Development of a Second Lower Grade School in Wasilla.**

With an existing population of 1,750 in the Wasilla elementary school service area, and a forecast rapid population growth, it is probable that there will be a need for a second lower grade school in the community between 1980 and 1985. Aside from reasons of population growth and increased enrollment, a second lower grade school should be provided in the southern part of Wasilla so that small children will not have to cross

the railroad and the main highway on their way to school. When the Anchorage–Fairbanks Highway is completed, additional traffic will make the highway increasingly hazardous for crossing by small children.

Existing population in the immediate Wasilla area is about evenly divided between the north and the south sides of the railroad. There is good land for residential development on both sides of the railroad, and it is probable that population will increase in both sections of Wasilla.

The map on page 93 shows a proposed site for a second lower grade school south of the railroad in Wasilla. It is recommended that land for a second lower grade school be acquired as soon as possible before desirable locations are developed for other uses.

6. Convert the Newer Section of the Existing Wasilla Elementary School into a Local Government Center.

With the completion of the school complex discussed on page 97 , the newer wing of the existing elementary school structure should be converted to other purposes.

This plan recommends that consideration be given to the reuse of the building as a government center providing space for local governmental administrative offices, space for the Wasilla library, and, possibly, branch office space for State agencies.

Part of the existing elementary school building could also be used for community meetings, vocational and adult education and other community services. With this development the historic Wasilla Community Hall could be used primarily as a museum. Possibly, the Department of Housing and Urban Development's Neighborhood Facilities Program could be used to remodel a portion of the existing school structure for community purposes. This program is discussed on pages 19 through 20 of this report.

7. Develop a Park Strip Between the Railroad and the Highway in the Area Adjacent to the Wasilla Townsite.

With the completion of the State highway through Wasilla, the strip of land between the railroad and the highway will be too narrow to serve as a site for structures. If this property were planted with trees and shrubs and landscaped, it could be a strong visual asset. A park strip in this location, opposite the main commercial section of the community, would be visible to anyone driving through Wasilla.

It is recommended that the community and the Borough investigate various methods of obtaining funds for development of a park strip in this part of Wasilla. Possibly, federal highway beautification funds could be obtained.

8. Develop Wasilla Lake, Little Cottonwood Lake, Cottonwood Lake and Finger Lake as an Interconnected Waterway.

Citizens of Wasilla have long been advocating this plan. From a study of the formation of the four lakes it appears that a seven mile long interconnected waterway could be created fairly simply. Such a "trail" for boaters would make the lakes even more attractive as a recreation area. By attracting recreation trade from Anchorage and other areas, this development would benefit the economy of Wasilla and the Borough as well as making Wasilla a more attractive area in which to live.

Various methods of creating the waterway which have been proposed include damming Cottonwood Creek as it flows from Wasilla Lake to raise the level of Wasilla Lake and widening and deepening the creeks and natural channels between Wasilla Lake, Little Cottonwood Lake and Cottonwood Lake to allow for safe and convenient boating.

Between Cottonwood Lake and Finger Lake a connection for boats would be more difficult. The simplest connection would be a trail for canoe portage over land. A connection for larger boats could be created by

construction of a channel from Finger Lake west to a point near Cottonwood Lake. Because of the difference in elevation between the two lakes, a mechanical means of transferrring boats into Cottonwood Lake would have to be provided at this point. The local proposal suggests either a sling lift for boats up to 30 feet in length, or a ramp with a mechnical device for transporting boats.

The feasibility of the interconnected waterway as a public recreation area depends upon reservation or acquisition of land for public recreational use at key points along the waterway. Boat launching and camping and picnicking facilities should be provided on Wasilla, Cottonwood and Finger Lakes and the area of the channel must be public land. The map on page 93 shows a recommended system of public recreation sites for the Wasilla interconnected waterway.

Photo: Snow Goose Ranch Studio

A State Campground in the Borough.

9. **Provide for Long-range Development of a Limited Access Highway South of the Wasilla Community.**

As the population in southcentral Alaska increases, traffic on the Anchorage–Fairbanks Highway will grow in volume. Eventually a limited access highway, allowing for high speed traffic will be necessary. The location of a limited access highway should be selected so that it will not divide the community unnecessarily.

The location shown on the map on page 93 is recommended because it borders rather than bisects the area for concentrated community development. Also, this location has the advantage of providing direct access to the proposed new Wasilla airport. It should be restated that this limited access bypass route is a relatively long-range proposal; however, planning and land development in the near future should be designed to allow for future highway development.

10. **Develop an Interconnected System of Major Streets in the Wasilla Area.**

The map on page 93 shows how major roads in the Wasilla area could be extended or developed to provide for safe and efficient traffic circulation. A convenient interconnected system of major streets is particularly important in an area such as Wasilla where many children must be bussed to school.

11. **Adopt Pollution Control Measures.**

As has been discussed on pages 88 through 89 , the land and waters of the Wasilla area are particularly vulnerable to pollution and contamination. To protect the community from the health hazards of contamination, it is recommended that:

a. Community water supply and sewage disposal systems be installed in the area of concentrated settlement.

Wintertime in the Lake Region

b. Health regulations preventing pollution of lands and waters by private sewage disposal systems be adopted and enforced in the Wasilla area.

12. Provide for Adequate Fire and Police Protection.

Wasilla has a functioning volunteer fire department, and the fire station is well located on a site which is central and accessible to the entire community.

Police protection for Wasilla is provided through State troopers. This protection is minimal and vandalism in the area is the major problem. It is recommended that police protection available to the Wasilla community be increased, either by added protection through the State trooper program or by hiring a local municipal policeman.

Big Lake Plan

BIG LAKE PLAN

RECENT DEVELOPMENT

Big Lake is a magnet for weekend recreation traffic from Anchorage. The Lake's 3,025 acres of water surface provide an opportunity for long trips by boat through a variety of coves and inlets. There are 25 islands of various sizes in Big Lake, one of which, the incorporated 3rd class City of Long Island, has approximately 30 summer homes and a lodge. Much of Big Lake's shore is well drained and wooded and makes attractive cabin sites.

Land and Water Measurements
Big Lake
1969

Area of Water Surface	3,025 acres (4.7 sq. miles)
Number of Islands	25
Length of Lake Shore	21.6 miles
Number of Lots (1969):	
Fronting on Lake	598
Located on Islands	114

However, Big Lake's main advantage over other recreation areas is accessibility to Anchorage. At present, the drive from Anchorage to Big Lake requires slightly over two hours. The Eagle River–Peters Creek and Matanuska–Wasila highway improvement projects which are under construction will improve driving conditions and reduce the distance to Big Lake from Anchorage to approximately 60 miles.

The construction of cabins, marinas, and lodges as well as some permanent homes around Big Lake is a relatively recent occurrence. It was only in the

mid-1950's that the State highway was extended from Big Lake Junction to Big Lake. The road was not paved until 1961. Year-round population in the Big Lake area in the late 1950's was estimated at 35 by a long-time resident. By 1960, the first year that the census recorded a population at Big Lake, the year-round population had grown to 74.

There are now approximately 400 structures around the perimeter of Big Lake and on its islands† and the permanent population living near the eastern end of Big Lake is estimated at approximately 90 people. There is an estimated permanent population of approximately 220 people in the Big Lake region.††

Most of Big Lake's 22 miles of shore line are dotted with cabins; however, Big Lake is by no means entirely built up. There were approximately 712 parcels of land fronting on Big Lake or located on its islands, yet, as of July, 1968, there were only 384 structures on the existing parcels. Many of the vacant parcels are large and may be further subdivided.

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† *A survey conducted by the Alaska Department of Health and Welfare in July, 1968 counted 384 structures around the Big Lake perimeter and on its islands.*

In analyzing the future growth and change of the population and development of the Big Lake area, it is convenient to discuss the year-round population and the summer time population separately. At present much of Big Lake's year-round population lives near the eastern end of Big Lake. The Big Lake school had an enrollment of 24 pupils as of October, 1969, and the total permanent population in the immediate Big Lake area is estimated at 90 people. The summer time population consists of people who live in cabins intermittently during the summer months and people who come to the campgrounds, lodges, and marinas for recreation. On peak summer weekends, the transient recreation population in the Big Lake area is probably as high as 1,500.

The growth of the year-round community at Big Lake will probably be strongly influenced by highway development in the area. The extension of the State highway south of Big Lake to Tyonek will change this route from a dead end access road to a main highway and the extension of Hollywood Road to connect with the State highway near the Big Lake School will make this intersection a natural center for local shopping serving population in the Big Lake, Hollywood and Vine and lower Knik Road areas and for businesses serving highway traffic. With a school and sources of employment in the area, the permanent residential population will increase. It is estimated that the year-round population near the eastern end of Big Lake will grow from a present 90 to approximately 500 people by 1985.

Growth of the summer population will be in response to different causes than those affecting the year-round population. The people of Anchorage are the primary users of the recreation opportunities available at Big Lake, and the growth of recreation traffic to Big Lake will reflect the growth of Anchorage. The population of Anchorage has been projected to reach

221,000 by 1985, growing at a rate of 4 percent annually from the present population of 113,000. †

However, it is probable that summer recreation population in Big Lake will increase more rapidly than 4 percent per year. Boating is becoming increasingly popular and, with rising incomes, increases in available leisure time, and easier financing on boat loans, a greater segment of Anchorage's population will be able to participate in this sport in the future. Highway improvements will also increase recreation traffic to Big Lake.

In the more distant future, the construction of the Knik Arm Crossing with connecting roads will cut driving distances by one-half.

Without some governmental control and direction of development, the growth of the summer population at Big Lake will stop only when Big Lake becomes so crowded that it is no longer attractive as a recreation area. It is the purpose of planning to set forth means of controlling development so that this destructive and wasteful situation will not occur.

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† *Projection by the Greater Anchorage Borough Planning Department - September, 1969.*

DEVELOPMENT PROBLEMS

The community problems and concerns which are frequently mentioned by residents of the Big Lake area stem from the rapid increase in weekend recreation population and from the very limited local governmental powers applicable to the Big Lake area. These problems and concerns may be summarized as follows:

Contamination and Pollution of the Lake.

In July, 1968, the Alaska Department of Health and Welfare surveyed all of the structures fronting on Big Lake and located on its islands. Water samples from the Lake were tested to determine the extent of contamination from human wastes.

The results of this survey are cause for public concern. Samples drawn from the mouth of Meadow Creek (inflow to Big Lake), from the mouth of Fish Creek (outflow from Big Lake) and from the southwest shore of the lake all contained a level of organisms from human wastes that is interpreted by public health sanitarians as serious contamination.

The causes of this contamination were revealed by a survey, also conducted by the Alaska Department of Health and Welfare, of structures located around the perimeter of Big Lake and on its islands. As this department reported "A total of 125 privies were obviously too close to the shore of the Lake. Eleven locations had no means of sewage disposal. Three locations specifically introduced sewage directly into the lake." †

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† *Resume of findings as a result of Comprehensive Sanitation Survey at Big Lake. Alaska Department of Health and Welfare, 1968.*

The dangers to the health of people living on the perimeter of the lake were also pointed out by the survey. Where there is a high degree of contamination of waters by human waste, there is a high probability of disease-causing organisms. In the face of this situation, the resume of the survey reported, "some people claim to bring drinking water from another source; however, apparently over 300 locations draw water from the Lake for drinking purposes."†

Aside from the overriding problem of danger to human health, the contamination of the waters of Big Lake cause the additional danger of eutrophication, the gradual process which, over time, transforms lakes into swamps. Contaminated waters contain many of the nutrients necessary to the formation of algae and other plant growth. Where such conditions are present, lakes slowly fill with organic material; the shores become marshy and gradually, the lake becomes a swamp.

Unless strong and effective corrective measures are adopted, it is inevitable that the contamination of Big Lake will increase. At present only approximately half of the parcels fronting on Big Lake are occupied by structures. The pace of construction at Big Lake has been increasing over the years, yet there has been no change in the circumstances which allow sewage to contaminate the lake.

Overcrowded Activity on the Lake Surface.

At Big Lake, it is becoming evident that the lake surface can, at times, be as crowded and hazardous for vehicles as a highway. It has been estimated by local residents that on summer weekends, there are as many as 800 boats at Big Lake. When most of these boats are in operation, traffic becomes so heavy in sections of the lake that boating is dangerous and ceases to be recreational. Crowding is particularly evident at the east end of the lake where two campgrounds and several marinas are located.

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† *Resume of findings as a result of Comprehensive Sanitation Survey at Big Lake. Alaska Department of Health and Welfare, 1968.*

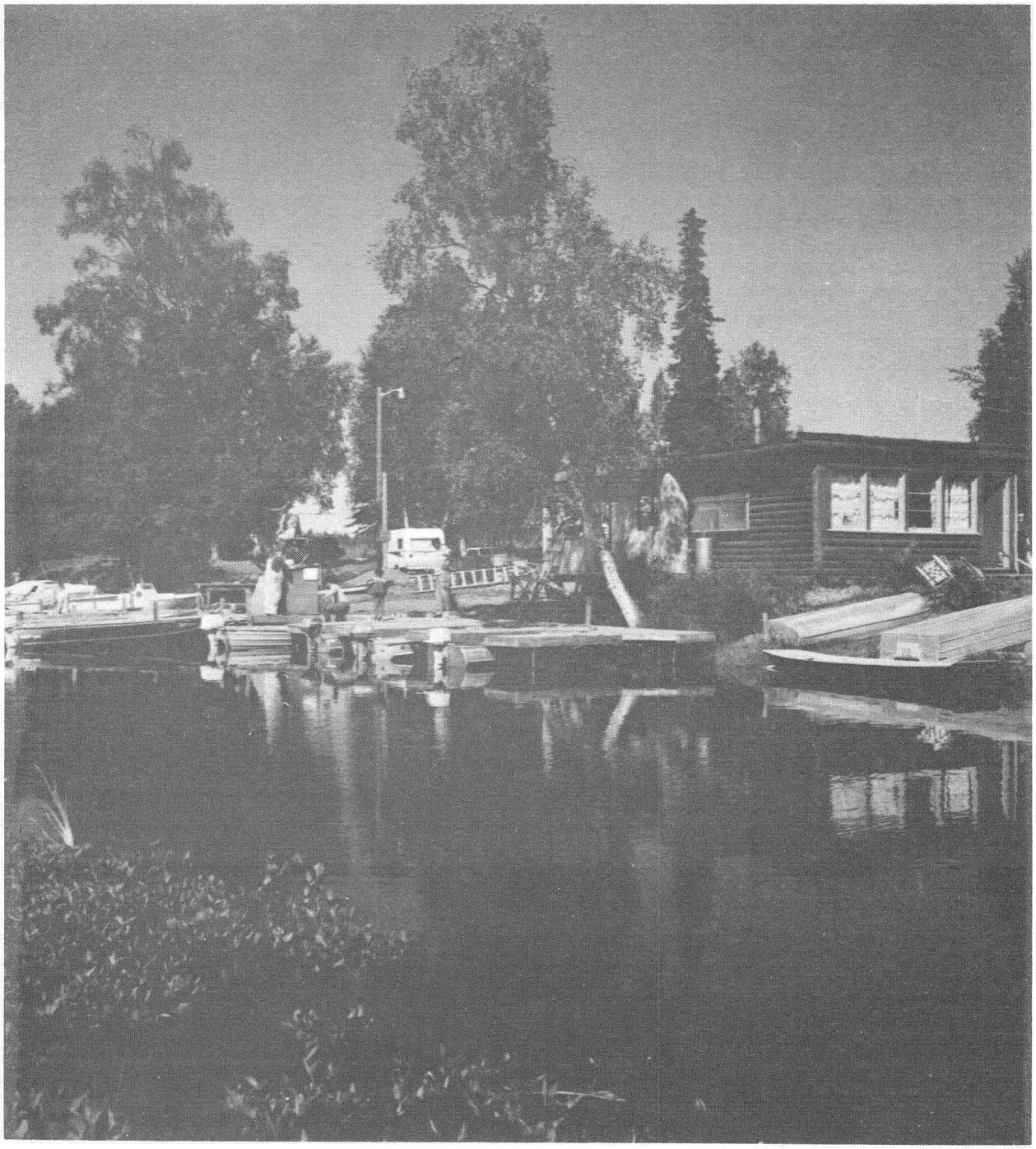

Photo: Bureau of Land Management

Summertime Activity at Big Lake

To assess the extent of overcrowding at Big Lake, a standard of measurement is useful. The California Public Outdoor Recreation Plan Committee has developed the following standard for determining the amount of water space which should be available to a boat storage and launching facility:

> "One access unit is defined as a facility capable of launching one boat at a time and serving 125 trailered boats or storage facilities, berthing, mooring and the like for 100 non-trailered boats. In either case, adequate access, parking and service facilities should be provided and about 160 surface acres of water suitable for boating should be immediately available. It is anticiapted that 75 boats will operate from one access unit on a peak day and 50 boats on an optimum day."

In terms of operating boats per unit of water area, this report recommends that there be three acres of water for each boat or a square mile of water for every 200 boats. A maximum density permissible for safety is 300 boats per square mile. If at peak conditions, two thirds of the estimated 800 boats at Big Lake were in operation and there were a fairly even distribution of boats on the water, there would be approximately 130 boats per square mile of water. In comparison to the California standard of 200 boats per square mile of water, these figures indicate that Big Lake's waters are not yet overcrowded.

However, the problem lies in the fact there is seldom an even distribution of boats on Big Lake's waters. Marinas, campgrounds, and many cabins are concentrated at the eastern end of the lake, where, during summer weekends, waters are often crowded and the density of boats per water surface probably frequently exceeds the 200 boats per square mile recommended in the California standard.

An obvious solution to overcrowding of the waters at Big Lake, at least for the near future, is a better distribution of campgrounds, marinas and access facilities throughout the entire area, so that boats will not tend to concentrate in any one section of the lake. This is discussed in the section of this report on recommendations.

It will probably also be necessary for reasons of safety to set limits on speed of boats and to define sections of the lake for various incompatible activities. Such regulations would only be effective under a system of policing for water safety.

Lack of Provision for Disposal of Garbage and Trash.

This seemingly small problem is a major one in the Big Lake area. There is no public dump or private garbage collection business operating in this area.

Cabin owners are often reluctant to bury garbage on their property, partially because of the danger of attracting bears. Instead, they often dump their trash in trash cans at the business establishments at Big Lake or along the highway. Some trash is dumped into the lake and some is left along the roadside.

Before the October, 1969 election, the Borough was powerless to remedy this situation. However, at the October election, by a three to one vote, the voters gave the Borough the power to establish and maintain trash disposal sites throughout the Borough. Because the problem of waste disposal is particularly acute at Big Lake, the Borough plans to make this community one of its priority areas providing sand sanitary dump sites.

Lack of Other Community Facilities and Public Services.

At Big Lake, most people must rely on their own resources for many of the functions that are provided as public services in larger, older communities. There is no source of public fire protection and no public sewer and water system. Though there have been numerous incidents of vandalism at Big Lake, police protection is inadequate. The nearest State police station is at Palmer, nearly 25 miles away.

The lack of public facilities and services at Big Lake is the direct result of the very limited local governmental powers applicable and available to the area and, in turn, this lack reflects the reluctance of the people in the area to vest a local government with power. Unless the voters of the area approve additional Borough powers or incorporate as a city, it is futile to expect much change, except for the worst. By law, the Borough is limited to providing schools, planning and zoning, tax assessment and collection, and provision of recreation and public trash disposal sites. Without additional powers the Borough cannot control contamination and pollution of public waters, provide fire protection at Big Lake, or provide other public facilities or services that may be needed at Big Lake.

RECOMMENDATIONS†

This plan includes guidelines for the development of main highways in the Big Lake area and for the development of a year-round settlement at the eastern end of Big Lake. Means of preserving the recreation value of the lake by preventing overcrowding and contamination are proposed. A better distribution of public recreation sites and private marinas and lodges around Big Lake, as well as on the lakes throughout the region, is seen as a solution to overcrowding in some sections of the waters of Big Lake. The physical elements of the Big Lake plan are shown on the map on page 117 which covers the eastern end of Big Lake. The plan is described in more detail as follows:

1. Highway to Tyonek – Changes in the Big Lake Section.

The Department of Highways has made preliminary investigations of a route for a highway extending southwest from the Anchorage–Fairbanks Highway, to cross the Susitna River to connect with a highway from Tyonek which is already under construction by an oil company. This route would probably eventually link with the ferry from Homer to Illiamna and connect with a road to Naknek and, possibly, Dillingham. It would, in short, be a major inter-regional highway.

Preliminary consideration indicates that this road to Tyonek will go through the Big Lake area on a route that approximately follows the State highway into Big Lake and along its south shore. Extension of this road to Tyonek would put it in a completely different class. At present, the State road is used primarily by recreation traffic in the summer. Extension of the highway to Tyonek would multiply traffic on the Big Lake segment several times. Of even greater importance to local businesses, the flow of traffic would be year-round rather than seasonal.

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† *Where possible, the number of each recommendation corresponds to a number on the map on page 117 pointing out the location affected by the recommendation.*

Since the main highway should be as direct and free of turns as possible the intersection where the State highway divides to head towards the north and south shores of Big Lake should be reconstructed so that the route which will carry less traffic, the road which leads towards the north shore of Big Lake, will enter the main route at right angles.

2. Extension of the Big Lake Airstrip and Reservation of Clear Zones. The Big Lake airport located near Fish Creek is authorized by the Federal Aviation Agency for public use, and the 2,800 foot gravel runway is maintained by the State. Planes as large as a DC-3 can land on the Big Lake airstrip. However, the strip is short by accepted standards.

The Federal Aviation Agency has recommended acquisition of land for clear zones. The FAA recommended runway length for the Big Lake Airfield is 3,400 feet.† A plan by the Division of Aviation also recommends runway extension.

The direction of the runway extension is a subject of local concern. The Division of Aviation plans show extension to the west rather than to the east where a hill would have to be leveled. However, extension to the west would have to be leveled. However, extension to the west would involve acquisition of valuable privately owned waterfront properties and would require relocation of the State highway which passes within 200 feet of the existing airfield.

This plan recommends that the extension be to the east. Here land is already in State ownership. The costs of earth moving by leveling the hill would probably be offset by savings in costs of relocating the highway and acquiring property that would be involved in a westerly extension. Also, extension to the east would create less conflict between the airport and the recreational and residential development adjoining Big Lake.

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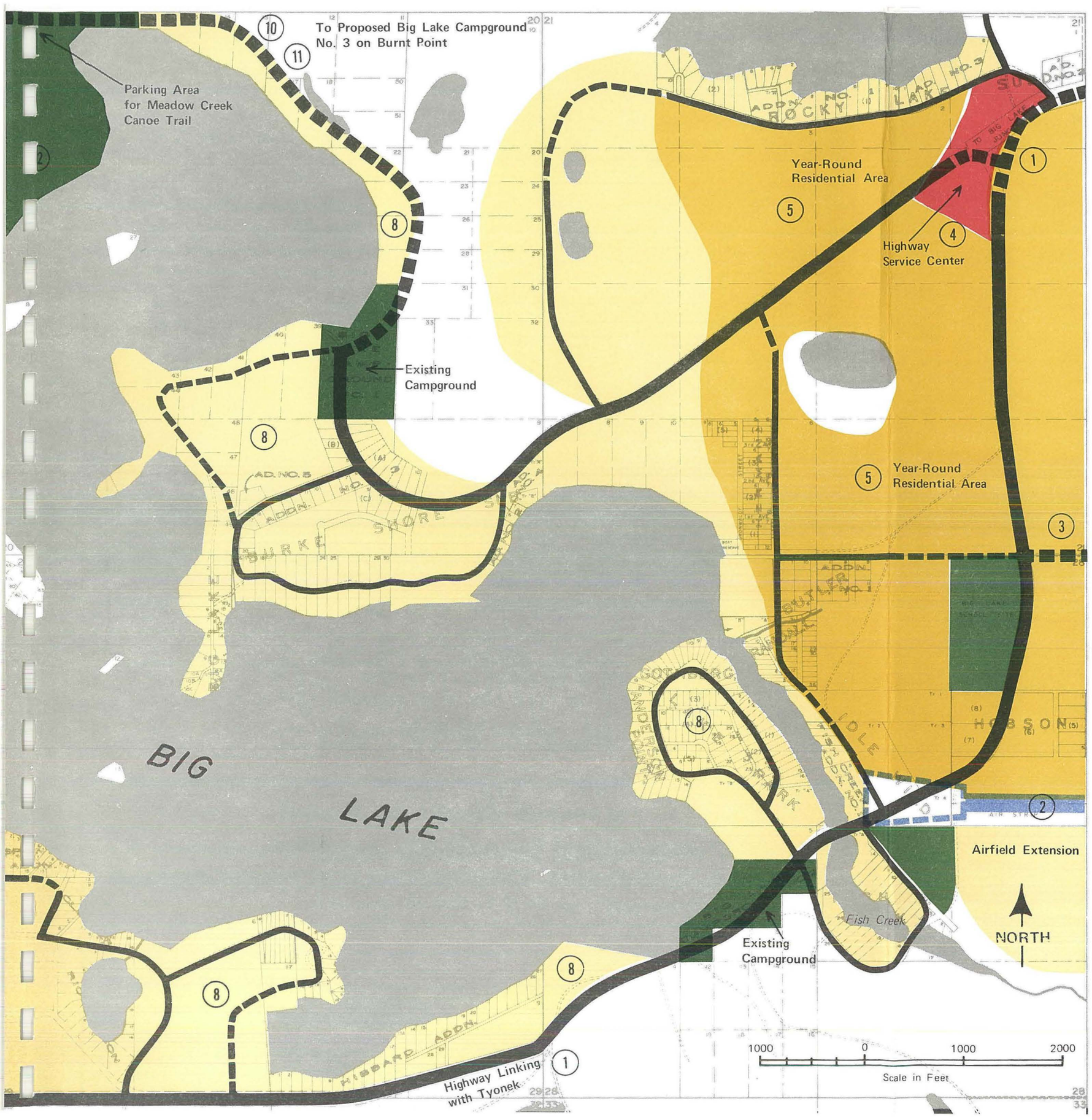
† *Federal Aviation Administration, 1968 National Airport Plan, FY 1969-1973, pp. 43.*



DEVELOPMENT PLAN
BIG LAKE
(Eastern Section of the Lake)
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Transportation
- Community Residential (Community water and sewer system)
- Recreation and Rural Residential (Includes lodges. Color indicates area with high potential for development. Much of the uncolored area is also suitable for this type of development).
- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Local Streets
  - Existing Roadway
  - Proposed Road Development
- Railroad
- (1) Numbers refer to recommendations listed and described in text.

3. **Extension of Hollywood Road to connect with the Big Lake State Highway.**

There are several strong advantages to providing a road link between development in the vicinity of Knik, Hollywood and Vine Roads and development in the Big Lake area. First, this connection would substantially reduce the bussing distance necessary in Knik, Hollywood and Vine area to the Wasilla school, and would enable better use of the Big Lake school which is presently used at less than 50 percent of its capacity.

Secondly, the connection would effectively enlarge the trade and service areas of any commercial development at Big Lake. Community facilities and local shopping located at the eastern end of Big Lake could serve population on Hollywood and Vine Roads and in the Lower Knik Road area as well as in the Big Lake area. With a larger trade area a larger and more diversified local shopping facility would be possible.

4. **Development of a single shopping center at Big Lake near the existing intersection of State highways.**

It is recommended that, except for marinas and water oriented businesses, commercial development in the Big Lake area be centralized in a shopping center form of development. This type of development is particularly important where recreation is a mainstay of the economy. Scattered commercial development strung out along the highway is often unattractive and tends to destroy the rural recreation flavor of a community such as Big Lake.

The shopping center location shown on the map on page 117 is recommended because it is central to the area that will probably be the permanent settlement of Big Lake and because it is at a major intersection and therefore economically attractive as a shopping center site.

5. **Development of a year-round residential community near the eastern end of Big Lake.**

On the map on page 117 the orange colored area marks the land which is reasonably level and well suited for subdivision for year-round dwellings. It is recommended that this land be subdivided in lots which are small enough to be economically served by public water and sewer. A good standard is that the frontage should not exceed 100 feet. If development of year-round residences is concentrated in this area, Big Lake can become, in appearance and function, a true community.

A difficult problem which must be faced in the early stages of the development of a community such as Big Lake is the fact that development must reach a certain size and density before community water and sewer systems are economically feasible. In the interim, dwellings should be sufficiently separated to avoid well pollution; however, lots should be sized for eventual service by community utilities. A workable solution for this problem is the approval of subdivisions, with the written condition that, for public health reasons, alternate lots must remain vacant until community water and sewer systems are installed.

6. **Adoption of a Borough Health Ordinance.**

The results of the Alaska Department of Health and Welfare's survey of the waters of Big Lake, discussed on page 109 , are strong evidence that the public must act soon to control the method of sewage disposal on property adjoining the lake. In the Public Health Service survey it was found that 125 privies were obviously too close to the lake's shore. The situation should be considered urgent. In the absence of effective State controls, the Borough should be voted the health power and should adopt a health ordinance which would control conditions leading to pollution.

The following observations from a recent report covering sewer and water service in the Big Lake area reaffirms this need for public health controls:

> Increasing density of development around the lake will increase the chances of ground water contamination from even the best designed and constructed sewage disposal facilities. It is especially important that all privies be phased out as early as possible, as well as all cesspools and septic tank exfiltration wells located less than 50 feet from the lakeshore.
>
> Controls should be established to provide for inspection of existing facilities and removal and replacement of unsafe installations with properly designed and installed systems. Provisions should be made for adequate inspection of new facilities. It is especially important that controls be comprehensive, that inspection be performed by competent personnel, and that enforcement be firm.†

7. Provision of public dump sites.

Sites for dumping trash and garbage are one of the most immediate and pressing needs of the Big Lake community. There are a number of publicly owned sites in the Big Lake area that should be investigated in detail as possible sanitary fill sites. It is important in selecting a sanitary fill site to avoid streams or ground-water drainage which might carry contamination into lakes and waterways.

To comply with State health regulations, all public dump sites must be operated as sanitary fills. In other words, that the Borough must compact and cover the dump with dirt at periodic intervals. In this way, odors, unsightliness and possible health hazards are reduced. Often a sanitary land fill can be used to reclaim a low swampy area which is unuseable for other purposes.

8. Zoning to regulate the density of development fronting on the lake.

Already in some sections of Big Lake land has been subdivided into lots with frontages which are too narrow to be appropriate in a recreation

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† *Tryck, Nyman & Hayes, Consulting Engineers, Matanuska-Susitna Borough, Comprehensive Water and Sewer Plan, 1970.*

area. In the long run such subdivision is economically unsound. The recreation value of Big Lake stems in part from its rural character. If cabins and houses are overcrowded around the lake, values of Big Lake will be destroyed for all.

It is recommended that zoning of lake front property be designed to preserve recreational values. This could be done either through establishment of minimum lot widths and areas or through zoning for cluster subdivisions in which areas of open recreational space are combined with cabins or houses arranged in clusters.

9. **Zoning of lake front property to allow development of additional marinas and lodges on large lots.**

In development of lakeside recreation areas the combination of marinas and lodges and private recreational cabin development is desirable, provided the commercial development is on a large enough site to allow both sufficient space for the operation and separation from adjoining property. For cabin development, adjacency to a marina often makes an area more attractive and valuable.

It is also in the interest of the commercial developer that the site be relatively large. As stated in the report by the Planning Advisory Services:

> Many marina operators believe there should be 250 slips and a land area of 25 acres for financial success. With fewer slips berthing fees will be so minimal that the cost of construction and maintenance cannot be justified. Twenty-five acres is considered to be the minimum area that will accommodate the multiple operations of a marina of this size and to insure adequate vehicular parking.†

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† *American Society of Planning Officials, Information Report No. 147, Recreation Boating Facilities, June, 1961, Chicago, Illinois.*

10. Provision of road access to the northern and western ends of Big Lake.

Much of the problem of overcrowding on the waters of Big Lake occurs at the eastern end near the marinas and compgrounds. If access is provided to the other portions of the lake, overcrowding can be relieved. The location of the recommended access road is shown on the map on page 117 .

11. Development of a third campground on Burnt Point.

Development of this campground will also serve the purpose of distributing recreational traffic on Big Lake and thus relieving overcrowding at the east end. The land shown on the map on page 137 is presently in State ownership. It is well drained and appears to be quite suitable for campground development. Development on this campground should be combined with extension of a road along the northern shore of the lake.

12. Development of Meadow Creek Canoe Trail.

Meadow Creek is particularly well suited to canoeing, except during periods of extreme low water. Currents are moderate and existing roads in the area cross Meadow Creek at several points, thus providing access and enabling a canoer to choose a long or a short trip. It is recommended that an access area be provided off of the road leading from Big Lake to Big Beaver Lake and that at the inflow of Meadow Creek to Big Lake, a parking area be constructed. This land is publicly owned. Much of it is marshy and some gravel fill would be required to build a parking lot. The parking area could be connnected with the proposed access road along the northern shore of Big Lake.

13. Extension of the local road system.

The map on page 117 shows how existing roads could be extended and connected to create an inter-related system of collector streets and resource access roads. Roads shown on the map are only the basic system

of main roads. As the area is further developed, local roads must be provided around the areas served by main roads.

14. Fire Protection Service.

The lack of public fire protection service is a concern to many people in the Big Lake area. But, before public fire protection can be feasible, the community must be large enough to carry the costs of fire protection and to man a volunteer fire department. A population of at least 1,000 is a practical minimum.

Big Lake's present population is below this minimum. However, with the connection of Hollywood Road to Big Lake a fire service area encompassing the Hollywood and Vine Road population as well as Big Lake should be considered. Within the next 15 years this combined population may be large enough so that a volunteer fire department could be established. In the near term, consideration should also be given to operating a fire boat on Big Lake during the summer.

15. Water and Sewer Systems.

Development around Big Lake is presently so dispersed and strung out that conventional interconnected public water and sewer systems are probably not economically feasible. The Borough has engaged an engineering firm to investigate methods of sewer and water service in the area. Alternate means of obtaining pure water and disposing of sewage safely are discussed in this report.†

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† *Tryck, Nyman & Hayes, Consulting Engineers, Matanuska-Susitna Borough, Comprehensive Water and Sewer Plan, 1970.*

Willow Plan

WILLOW PLAN

HISTORIC DEVELOPMENT

The community of Willow is located near the intersection of the Anchorage—Fairbanks Highway and the Hatcher Pass Road which heads in an easterly direction over the Bald Mountain Ridge towards Hatcher Pass. This small community originated as a railroad depot. As the region was homesteaded, the community grew and a post office was established at Willow. During World War II, Willow was selected as the site for a military airbase. The 5,000 foot by 300 foot gravel runway constructed as a wartime effort is now owned and maintained by the Division of Aviation. It is one of the region's safest and most usable airfields, and is one of the community's main assets. Following World War II and, again after the Korean War, the special homesteading privileges extended to veterans encouraged homesteaders to move to the vicinity of Willow.

In 1960 the State highway was extended to Willow. During the past decade people have started to build cabins and extend roads to the many lakes west of Willow, and this activity, in turn, has meant some increased trade in local businesses.

Willow now has an elementary school which serves approximately 60 pupils who are bussed to the school from points along the Anchorage—Fairbanks Highway extending from the Little Susitna River at the south to the Kashwitna River at the north. Willow's community activities are centered around the Willow Civic Center, a large log building (40x60 feet), which was constructed mainly from local volunteer labor. The Willow Winter Carnival, started in 1961 as the major project of the community, is a highly successful winter weekend of recreation and sports events. Through the Carnival, which attracts many people from

Anchorage, funds have been raised for a community library. The Willow community also has secured a subdivision of a 40-acre "Willow Townsite", planned to become the residential and commercial nucleus of the community.

CURRENT AND FUTURE TRENDS

At present there are approximately 200 people living in Willow and its vicinity. This population is not very visible to the highway traveler. There is some concentration near Willow Lake; however, most of the 200 residents of the area are widely scattered along the existing roads, from Nancy Lake north, past Willow Creek, and, to the west, along the Hatcher Pass Road.

The permanent residents of the area have a variety of means of livelihood. Many are construction workers who spend part of the year with their families in Willow and the rest of the year working at a construction site in another part of the State. Highway service businesses and the railroad also provide some local employment.

The summer population, especially the weekend population, in the Willow area probably surpasses the year-round population. Summertime residents and highway travelers are an important source of trade for local businesses.

The future economy of the Willow area will probably be similar to the community's present "reason for being". However, the scale of activity and the amount of local employment and population are likely to increase.

Factors which may be expected to accelerate the growth of the Willow community over the next 20 years are summarized as follows:

1. The attractions of the natural recreation assets of the region, including the dozen or more lakes to the west of Willow and the scenic drive across Bald Mountain Ridge and Hatcher Pass to the east of Willow.

2. Road improvements which will increase Willow's accessibility to major population centers of the State.

3. The fact that Willow will probably be the point of the intersection of a highway leading from the Knik Arm Crossing to connect with the Anchorage–Fairbanks Highway.

4. The increasing recreational travel which is being generated from Anchorage, the State's major growth center.

5. The Nancy Lake recreation area which is being developed south of Willow. This major State-wide recreation park is being designed to attract recreation traffic from throughout southcentral Alaska, as well as travelers from out of State. The 20,000 acre site is planned for development over a 15 year period. The total estimated development cost if $14,000,000.†

These various influences for growth and change in the Willow area will serve to expand the community's function as the local shopping and service center for surrounding recreational and rural population. The junction of the highway from Knik Arm Crossing with the Anchorage–Fairbanks Highway will be an attractive location for highway-oriented businesses. In turn, more trade and business activity will mean more local employment, and consequently more local year-round population. It is projected that the population in the Willow area will increase from approximately 200 at present, to approximately 500 by 1985.

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† *Alaska Division of Lands, Nancy Lake Plan, Program, Budget, Sam L. Huddleston & Associates, March, 1967.*

DEVELOPMENT PROBLEMS

The community problems besetting people in the Willow area are similar to those which are found in other small communities throughout Alaska and, in fact, throughout the nation. Because the population of the area is small and present development is widely scattered, it is virtually impossible for the community to support most of the public utilities and services which people desire. For instance, because development is widely scattered, interconnected public utilities would be extremely costly on a per capita basis. Willow's present population of 200 is too small to support a policeman and Willow must depend for police protection on the trooper at Big Lake, 20 miles away. The community has no means of raising funds for road development.

A second related type of community problem lies in the very limited local governmental powers applying to the area. Willow is unincorporated and must depend upon the Borough for local governmental services. However, the Borough's powers are presently limited to (1) schools, (2) tax assessment and collection, (3) planning and zoning, (4) recreation, and (5) establishment and maintenance of sanitary fill sites. The Borough has no power to develop roads or provide health services.

There are several active local civic organizations at Willow. The Willow Civic Organization manages the Willow Winter Carnival and the community building; and, the Willow Townsite Trustees were organized to manage the sale and development of property in the Willow Townsite. However, there is no governmental organization which can officially represent the Willow area before the Borough and the State and, for this reason, many local citizens, rightly or wrongly, feel that their voice is limited regarding governmental decisions affecting their community.

The pressures of recreation development in the Willow area are currently intensifying the need for planning and public action to provide roads,

sanitary fill sites and other public facilities. Public planning and action are particularly necessary for road development. To make best use of land and to minimize the amount of road which is necessary to serve many different properties some overall public control of the location of roads is essential. The Borough can affect road location to a limited extent through their planning powers which include subdivision control. However, full power to acquire and develop roads, together with State or Federal funds, is necessary if a well planned system of recreational access roads is to be developed.

RECOMMENDATIONS†

1. **Location of the intersection of the highway leading north from the Knik Arm Crossing with the Anchorage–Fairbanks Highway at a point immediately south of Willow Creek.**

This location is recommended for two reasons. First, if the junction is at Willow, the new highway can follow a fairly direct route leading north from the Knik Arm Crossing towards the Anchorage–Fairbanks Highway. Willow is the point of tangency where the highway from Fairbanks starts to curve out of its north-south orientation into a west-east orientation towards Palmer. Thus with an intersection at Willow, the highway could follow a direct northerly route from Knik Arm Crossing to Fairbanks.

Secondly, an intersection at the proposed location would enable a direct connection between the highway from the crossing and the Hatcher Pass Road. The circular drive northward from Anchorage to Hatcher Pass Road and south down Fishhook Road to Palmer and Anchorage would be a particularly attractive drive and tourist route. If a State recreation area is created in the Hatcher Pass region, as is recommended by this plan, traffic across the Hatcher Pass Road between Willow and Independence will increase.

The Hatcher Pass Road should be improved so that the drive is less hazardous. However, a foremost consideration in the development of this road should be preservation of the scenic quality of the drive.

2. **Development of a highway oriented commercial center at the intersection of inter-regional highways at Willow.**

The intersection of the highway leading from the crossing and the Anchorage–Fairbanks Highway will be an excellent location for highway

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† *Where possible, the number of each recommendation corresponds to a number on the map on page* ***133*** *pointing out the location affected by the recommendation.*

businesses, including automotive service facilities, a lodge and other businesses serving recreational traffic in the area. It is recommended that this development be planned as a total unified business center, and that zoning discourage additional highway-oriented development in other locations in the community. Without these provisions commercial and industrial development will tend to scatter along the highway and Willow's scenic qualities will be marred.

3. **Development and expansion of the Townsite to become the main residential community of Willow.**

The Willow Townsite has been designed so that local roads and residential development may be expanded into the adjoining property. A suggested system of local roads for property adjoining the Townsite is shown on the map on page 133 .

It is recommended that the Townsite and adjacent properties be developed as the permanent central community of Willow, and that development be planned so that service by a community water and sewer system will be economically feasible in the future. To accomplish this goal it is highly important that, through zoning and other means, year-round residential development be encouraged to concentrate in the Townsite and adjoining properties.

4. **Location of local shopping facilities and recreation oriented businesses near the Townsite.**

Willow has a small existing shopping area located on the main highway at the top of the hill immediately south of the Townsite. In the Townsite the lots fronting on the highway have been sold for commercial development. These existing commercial areas will be best utilized for small local shopping and recreation oriented businesses, such as the Tastee Freeze which has located in the Townsite. The properties are not large enough or deep enough for a large scale commercial development.

Access Road to
Recreation Corridor
Along Willow Creek

12

12

State Campground

Highway Pull Off
and Fishing Area

To Hatcher Pass

5

1

Campground
Expansion

State Campground

2

Highway Oriented
Commercial Center

Proposed Aircraft
Parking Apron

Road to Knik Arm Crossing

5

Lodge or
Motel

5

Community Center
and Winter Carnival
Grounds

Public Float Plane
Tie Down Area

Willow
School

WILLOW LAKE

Library

Proposed
Post Office

7 Resource Access
Road to Lake Area

5

4

Local Shopping
and Recreation
Oriented Business

Expansion of
Willow Townsite

Proposed Sanitary
Fill Site

9

Industrial Area
Subject to Height
Limitation for Aviation

10

NORTH

STEVENS LAKE

1000 500 0 1000 2000

Scale in Feet

DEVELOPMENT PLAN
WILLOW
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Transportation
- Community Residential (Community water and sewer system)
- Recreation and Rural Residential (Includes lodges. Color indicates area with high potential for development. Much of the uncolored area is also suitable for this type of development)
- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Local Streets
  - Existing Roadway
  - Proposed Road Development
- Railroad

(1) Numbers refer to recommendations listed and described in the text.

5. **Airport Development. Reservation of aviation clear zones for the Willow airport and for the float plane landing area on Willow Lake.**

Willow's airstrip is in good condition and the Federal Aviation Agency in its five year plan, has reommended no additional airport development.

However, it is important to future use of both the land and water strips that property in the clear zones be retained in its presently undeveloped state. Land in approach zones is currently in public ownership.

In the long run a parking apron should also be developed in connection with the airstrip and an access road provided approximately as shown on the map on page 133 . Finally, it would be to the community's advantage to maintain a public float plane tiedown area on Willow Lake.

The land in aviation holding at Willow is in excess of actual needs for that purpose. For a general utility airport such as Willow's the landing strip need not exceed 3,500 feet by 250 feet. However, to establish necessary clear zones it is desirable to hold 1,000 feet at either end of the runway in public ownership. On either side of the runway structures should be at least 225 feet from the center of the runway.†

Given these criteria, the airport serve at Willow could be reduced considerably, as is shown on the map on page 133 . It is recommended that surplus land at Willow be made available for Borough selection and eventual disposition for private development.

6. **Expansion of the State campground at Willow Creek.**

The Willow Creek campground is a popular recreation area and often on summer weekends it is overcrowded. The Borough Planning Commission has recommended that the Deception Creek Subdivision adjacent to the

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† *Federal Aviation Agency, Small Airports.*

campground be acquired by the State, that the subdivision be vacated and that the campground be enlarged in this area. With this enlargement, additional facilities can be provided and overcrowding can be relieved.

7. Development of a resource access road leading from the Willow Townsite to the lakes west of Willow.

The need for this access road has long been recognized and, in 1962, the State Legislature passed a resolution approving the Log Lake Road. Although no appropriation followed the resolution, part of the route has been developed by private efforts and as an access road for power line construction.

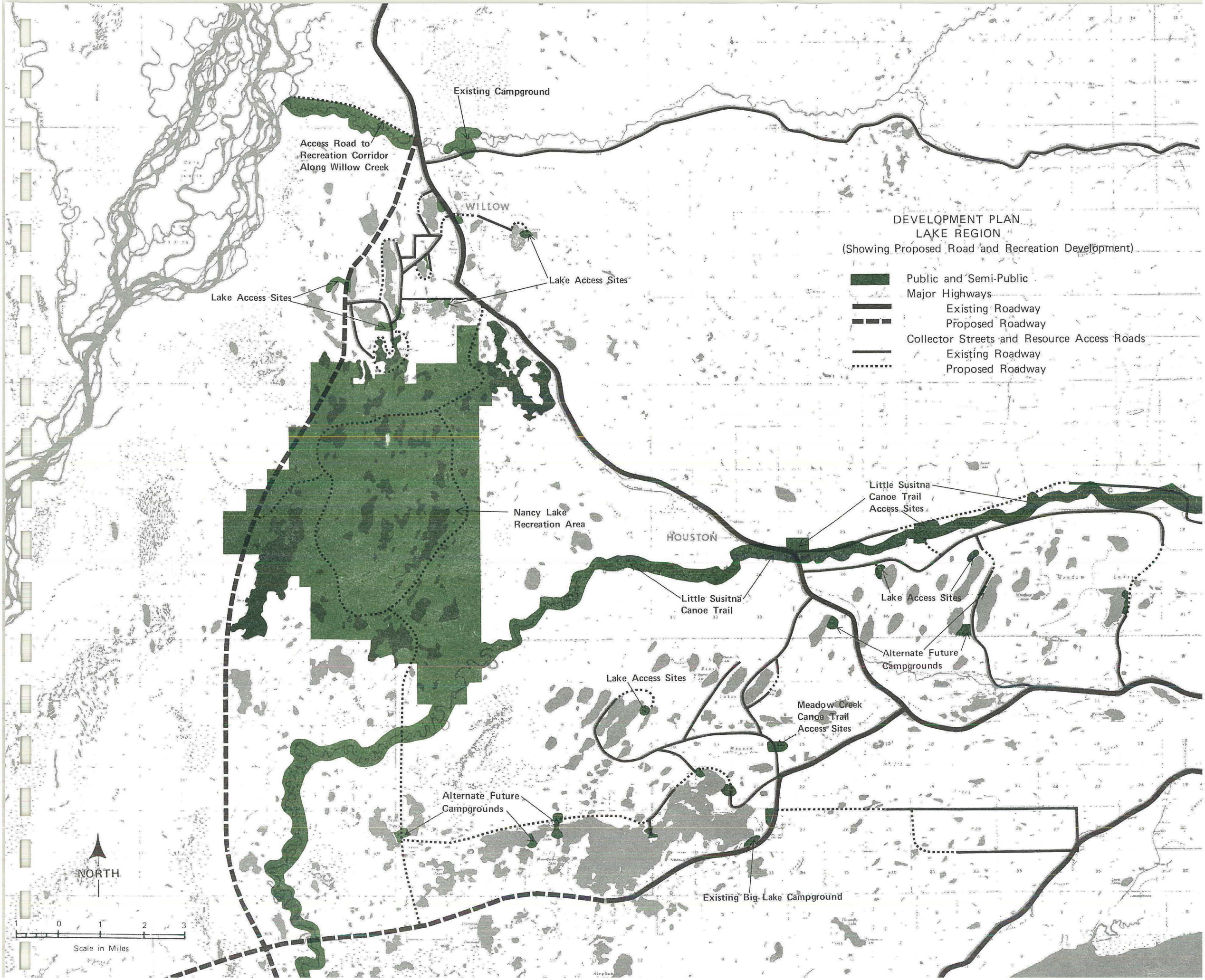
The connection between this road and the Anchorage—Fairbanks Highway should be relocated. The present intersection is dangerous because it is at a point where the main highway curves and slopes. Instead, it is recommended that this access road be connected with the main highway through the northernmost right-of-way in the existing Willow Townsite. This connection is shown on the map on page 133. Here the connection would be relatively safe because the highway is level and straight and a four-way intersection could be formed with the road to Stevens Lake.

After the highway from the Knik Arm Crossing is built the main access to the area of lakes west of Willow will be from this highway as shown on the map on page 133 .

In addition, a second more direct access road from the Anchorage—Fairbanks Highway should be provided approximately along the section line as shown on the map on page 133 . With these long run road developments, traffic on the road through the Townsite will be reduced.

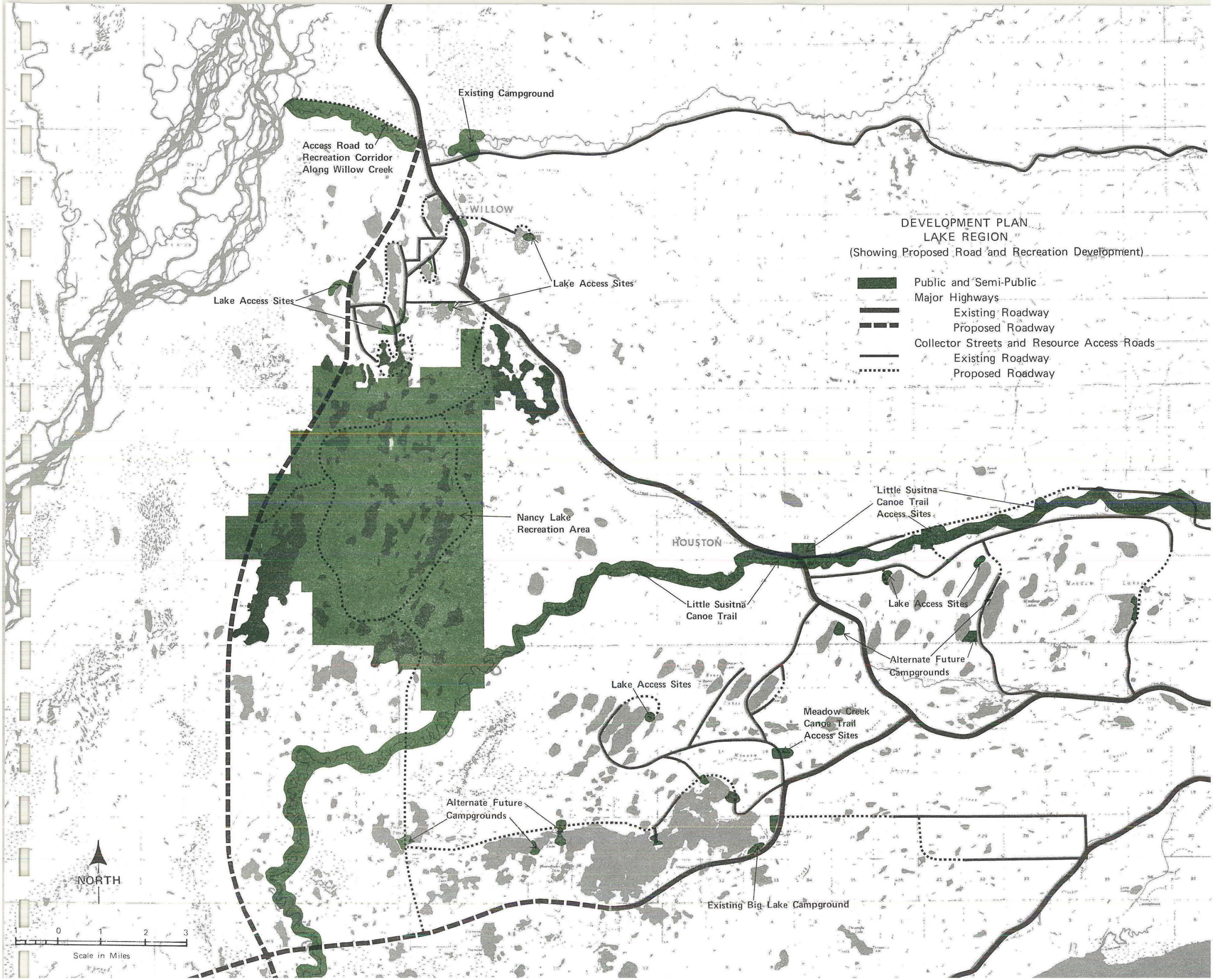
8. Recreational development on Stevens Lake.

The land surrounding Stevens Lake, located near Willow to the east of the railroad, is in State ownership. It is recommended that public lake access



DEVELOPMENT PLAN
LAKE REGION
(Showing Proposed Road and Recreation Development)

- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Roadway
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Roadway


Existing Campground
Access Road to Recreation Corridor Along Willow Creek
WILLOW
Lake Access Sites
Lake Access Sites
Nancy Lake Recreation Area
HOUSTON
Little Susitna Canoe Trail Access Sites
Little Susitna Canoe Trail
Lake Access Sites
Alternate Future Campgrounds
Lake Access Sites
Meadow Creek Canoe Trail Access Sites
Alternate Future Campgrounds
Existing Big Lake Campground
NORTH
1 0 1 2 3
Scale in Miles
DEVELOPMENT PLAN
LAKE REGION
(Showing Proposed Road and Recreation Development)
Public and Semi-Public
Major Highways
Existing Roadway
Proposed Roadway
Collector Streets and Resource Access Roads
Existing Roadway
Proposed Roadway

sites be reserved on this lake and that other land be subdivided for private recreation development. This would be an appropriate location for the State to use a modern "cluster subdivision" in which lots for cabins are clustered and clusters are interspersed with a system of public open spaces and lake access areas.

In developing roads leading to and within this subdivision the State could use the same system that was used at Cheri Lake. Here the proceeds from land disposition were used by the State to pay for road construction serving the subdivision.

9. Provision of a dump site at Willow.

In Willow, as in other communities with heavy recreation pressures, a public dump site is essential. The recommended location shown on the map on page 133 is on State land; has an existing access road, and because land is predominantly swamp, adjacent development is unlikely.

10. Reservation of an area for industrial development.

There is little foreseeable demand for industrial property in Willow. However, there may be future need near the railroad for space for storage of materials and possibly for some form of rail-oriented industrial development. To allow for such possibilities, it is desirable to designate the most appropriate location in the community for industrial development. The area shown on the map on page 133 is recommended for industrial development because it is accessible to the railroad and highway and the land is relatively level and well drained. In addition, industrial development in this area would be sufficiently isolated from residential development.

11. Establishment of wilderness and historic trails leading into the Bald Mountain Ridge Area.

Willow was historically a point of access from which miners traveled to the mineralized mountains to the east. The trails and old mining roads leading into the area, such as the trail to Bench Lake are of historic and recreational value.

Photo: Snow Goose Ranch Studio

Fishing in Willow Creek

In August, 1969, the State Legislature passed an act providing for a system of wilderness trails and campsites and giving the responsibility of designating and developing these trails to the Department of Natural Resources in consultation with the Department of Fish and Game and Public Works. The act provides for marking of such trails and construction and maintenance of campsites throughout the wilderness trail system. It is recommended that, under this act, historic trails east of the Willow area be included in the State system of wilderness trails.

12. Reservation of public access along Willow Creek.

Alaska's constitution states that "free access to the navigable or public waters of the State, as defined by the Legislature, shall not be denied any citizen of the United States, or resident of the State, except that the Legislature may, by general law, regulate and limit such access for other beneficial uses for public purposes."†

Willow Creek is a popular fishing stream and fishermen often walk up Willow Creek away from the road. To preserve the recreational value of Willow Creek in the future, it is recommended that the State and Borough reserve land access wherever public property adjoins Willow Creek.

To the west of the highway all of the land along Willow Creek, except for one parcel adjoining the road, is in public ownership. If provided with road access, this land would make a very attractive recreation corridor leading along Willow Creek westward towards the Susitna River.

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† *Constitution of the State of Alaska, Article VIII, Section 14.*

Talkeetna Plan

TALKEETNA PLAN

HISTORIC DEVELOPMENT

Talkeetna in 1969 was on the brink of the first major economic development which the community had experienced in forty years. The Communications Satelite Corporation, generally known as COMSAT, is establishing a satellite earth station at Talkeetna to relay "live" national television programs to Alaska. Completion of construction is scheduled for July, 1970, and a July 4 dedication is planned.

Permanent employment of 18 people at the station represents a total population increase of 50 to 60 people when families are counted. Since there are only about 130 people in the Talkeetna area now, the new population added by the COMSAT station will mean a 40 to 50 percent increase in the total population. In turn, this new population may mean a small increase in employment in businesses and services. This development will bring waves of change to Talkeetna which will disrupt the community's sleepy existence as a remote and partially abandoned mining town.

Talkeetna was established in the early twentieth century at the confluence of the Susitna, Talkeetna and Chulitna Rivers as a miners' trade and service center. The community provided a terminal for river boats which traveled from the Cook Inlet up the Susitna River to bring supplies to miners operating in the foothills of the Alaska Range and the Talkeetna Mountains. Reportedly, the site was originally a Tanaina Indian Village. Talkeetna's function as a distribution center was strengthened when in 1915 it became a station on the railroad between Anchorage and Fairbanks, and a post office was established in 1916. The community was surveyed and a townsite was established in 1918.

Photo: Steve and Dolores McCutcheon

The Talkeetna Townsite, set at the confluence of the Talkeetna, Susitna and Chulitna Rivers. Mt. McKinley and Mt. Foraker are in the background.

However, mining gradually became unprofitable due to war time wage and cost controls. At the beginning of World War II many of the mines were shut down. Because of the price-cost situation which has made gold mining unprofitable, most of the mines remained closed after the War.

After the Second World War and again after the Korean War the homestead regulations favoring veterans brought some new homesteading population to the Talkeetna area. The extension of the State highway connecting Talkeetna with the main highway system in 1964 has encouraged additional tourism in the community. However, despite these changes, Talkeetna has remained a very small community for the past 40 years.

Population, 1920-1969
Talkeetna, Alaska

Year	Population
1920	70
1929	89
1939	136
1950	106
1960	76
1968	130

Sources: 1929–1960 data, U.S. Census; 1968 figure supplied by the community.

Today tourism and recreation, particularly hunting and fishing groups and mountain climbing expeditions, provide a mainstay of Talkeetna's economy. There are three privately owned flight and guide service businesses in Talkeetna. Talkeetna is the take-off point for climbing expeditions to Mt. McKinley, and in the summer, there is an influx of tourists who come to Talkeetna to view Mt. McKinley. The town has a

lively reputation as a party town. Even in the winter some Anchorage residents spend the weekend in Talkeetna. The opportunity to travel by train is an added incentive to visit the community. There are four lodges in Talkeetna and an estimated 10 of the 12 commercial establishments in town depend heavily upon the business of transients, mountain climbing parties and tourists.

Governmental employment is also an important factor in the town's economy. The Federal Aviation Agency, the school and the railroad account for a majority of the employment and income which presently keeps Talkeetna alive as a community.

Talkeetna's existing population is difficult to estimate exactly because some of the residents live there for only part of the year. An approximate figure for population during the winter of 1968-1969, just prior to construction on the COMSAT station, is 130 people in the immediate area, with about 60 living in the Townsite.

The COMSAT Station

During 1969 and 1970 an influx of workers involved in construction of the COMSAT station and of the road leading to the station will bring a temporary increase in sales and income for local businesses. Following completion of the station in the summerof 1970, the permanent employment of the COMSAT station will have a lasting impact upon the community, changing local development patterns and requiring expansion of community facilities.

The addition of 18 permanent employees and their families will give the area a total permanent year-round population of about 180. This growth will, in turn, strengthen local businesses and may mean some additional trade and service employment. However, because there is considerable unemployment and underemployment in the Talkeetna area, it is doubtful that the additional local business sales generated by the new population will bring much additional work force and population into the community. Instead, it is more likely that local people, who are currently unemployed, or underemployed, will fill any additional jobs.

The addition of the COMSAT station may enable the expansion of existing businesses and make feasible some business ventures which were previously submarginal because of the small size of the community. For instance, a branch bank may be a successful venture after the COMSAT families move in.

Mt. McKinley National Park Expansion

The National Park Service is currently completing a plan to extend the boundaries of Mt. McKinley National Park to the south and build a park

headquarters facility with a lodge along the Anchorage–Fairbanks Highway, probably near the Curry Hills. One of the sites under consideration is at the junction of the Anchorage–Fairbanks Highway and the Chulitna River. From this site there is a dramatic view of Mt. McKinley with Ruth Glacier in the foreground. The site would also be well located in connection with a possible tramway up Ruth Glacier towards Mt. McKinley.

The State has proposed a lodge site in the vicinity of Chulitna Pass one mile east of the new Anchorage–Fairbanks Highway and five and a half miles west of the Chulitna railroad station at an elevation of 1,700 feet on a shelf overlooking the Chulitna River. This site is adjacent to an excellent ski area.

Access to a good winter sports area is an important factor in locating the lodge. The lodge will probably be operated as a concession and it is unlikely that a first class facility will be economically feasible unless it is operable on a year-round basis.

The 1970 State Legislature is considering a bill which would set aside State owned lands, under consideration for inclusion in the National Park, as a State park. This would be an effective means of reserving this land for recreation use.

However, it is recommended that, in the long run, the total Mount McKinley region be combined and developed as part of the National Park System.

Talkeetna could play an important role as a service center for tourism to Mount McKinley National Park, particularly if a direct road connection is provided between Talkeetna and the new park headquarters.

When the Anchorage–Fairbanks Highway was first under consideration a route extending from Talkeetna north along the eastern side of the railroad was studied and surveyed. The proposed route crossed the railroad near Lane and extended west towards the valley of the Chulitna River where it merged with the route of the Anchorage–Fairbanks Highway which is presently under construction.

If developed, this extension of the Talkeetna Highway would put Talkeetna within 18 miles of the Park and a possible location for a lodge and recreational development. The proposed route would also shorten the drive from Anchorage to the Park. In combination with the Anchorage–Fairbanks Highway, the new route would provide a highly scenic circular drive between the park headquarters and Talkeetna.

Accessibility to Talkeetna would, in turn, enhance the attractiveness of visting the park. During one trip a tourist could see two sides of Alaska, the historic mining town and the park's spectacular natural scenery and wildlife.

FLOODING AND EROSION

The Talkeetna Townsite has long been threatened by erosion and flooding. River erosion has already washed away several blocks of the early Townsite. The village is on a cutting side in the major channels of both the Susitna and the Talkeetna Rivers. In 1951, in an emergency effort to arrest this erosion and protect the Alaska Railroad bridge, the Corps of Army Engineers constructed a brush and timber fasine for 1,000 feet along the south bank of the Talkeetna River. However, the river has already cut a small channel through this barrier and the Townsite again is threatened by erosion. If the historic Townsite of Talkeetna is to be preserved, some means of arresting erosion must be found.

Flooding and high water table also are a problem in Talkeetna. In July and August the water table is very high and basements in the area are flooded annually. Since 1938 Talkeetna has had three major floods which have swamped the town. The Talkeetna flooding generally results from the collection of ice jams in the river system. During the winter months the water level is low in the three rivers which join at Talkeetna. Water in shallow areas freezes to the river bed. In late spring the water level rises from melting snow in the mountains and carries ice and debris downstream. Ice frozen to the riverbed, known as "anchor ice", impedes the debris and the floating ice. Feeder streams become blocked, and back up, overflowing their banks.

Because flooding in Talkeetna is shallow it is more in the category of a nuisance than a serious menace to life. Many of the buildings in the Townsite are built with high enough foundations so that they are out of the range of the shallow floods. However, well pollution during flooding can be dangerous. To avoid pollution during floods it is important that wells be completely sealed.

Photo: Snow Goose Ranch Studio

Talkeetna's Main Street

RECOMMENDATIONS†

1. **Extend a highway from Talkeetna north to connect with the new Mount McKinley National Park headquarters and the Anchorage–Fairbanks Highway.**

The basis for this recommendation is described on page 149 . The proposed route would be a resource development road performing a strategic function in the development of tourism in southcentral Alaska. If this road was constructed, a tourist could see two sides of Alaska: the historic mining community and the Park's spectacular scenery and wildlife in a single trip. Talkeetna could provide private tourist accommodations and services sufficiently separated from Mount McKinley National Park so that the natural wilderness qualities of the Park would not be damaged.

2. **Preserve the original Talkeetna Townsite as an historic district.**

Essentially, this recommendation means keeping the old Townsite as it is and requiring that new development in the Townsite be built in a way which complements and harmonizes with the historic flavor of the old community. Zoning should be established to provide some architectural control over new construction and to prevent the destruction of buildings from the early mining community.

In addition, there are several specific development projects which would enhance the Talkeetna Townsite as an historic community. For example, the "Bucket of Blood" building or some other historic structure could be remodeled as a museum of early mining history. Talkeetna would be a more interesting place to visit if signs were erected on the older structures describing their history.

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† *Where possible the number of each recommendation corresponds to a number on the map on page* ***155*** *pointing out the location affected by the recommendation.*

3. Encourage tourist-oriented businesses and services to locate in the Townsite.

Talkeetna will be more attractive and convenient for tourists in the future if businesses serving tourists and other visitors are concentrated within the Townsite. Tourists like to be able to walk from place to place within a community, and early mining towns were essentially "walking" towns where all buildings could be easily reached on foot. For this reason it is recommended that any new tourist related development such as a restaurant, bar, gift shop or lodge be located within the old Townsite.

The airstrip for small planes located in the middle of the Townsite is a convenience and a major point of interest for tourists. As a one-time territorial airport and an early "bush" flight strip, it fits in well with the historic character of the area.

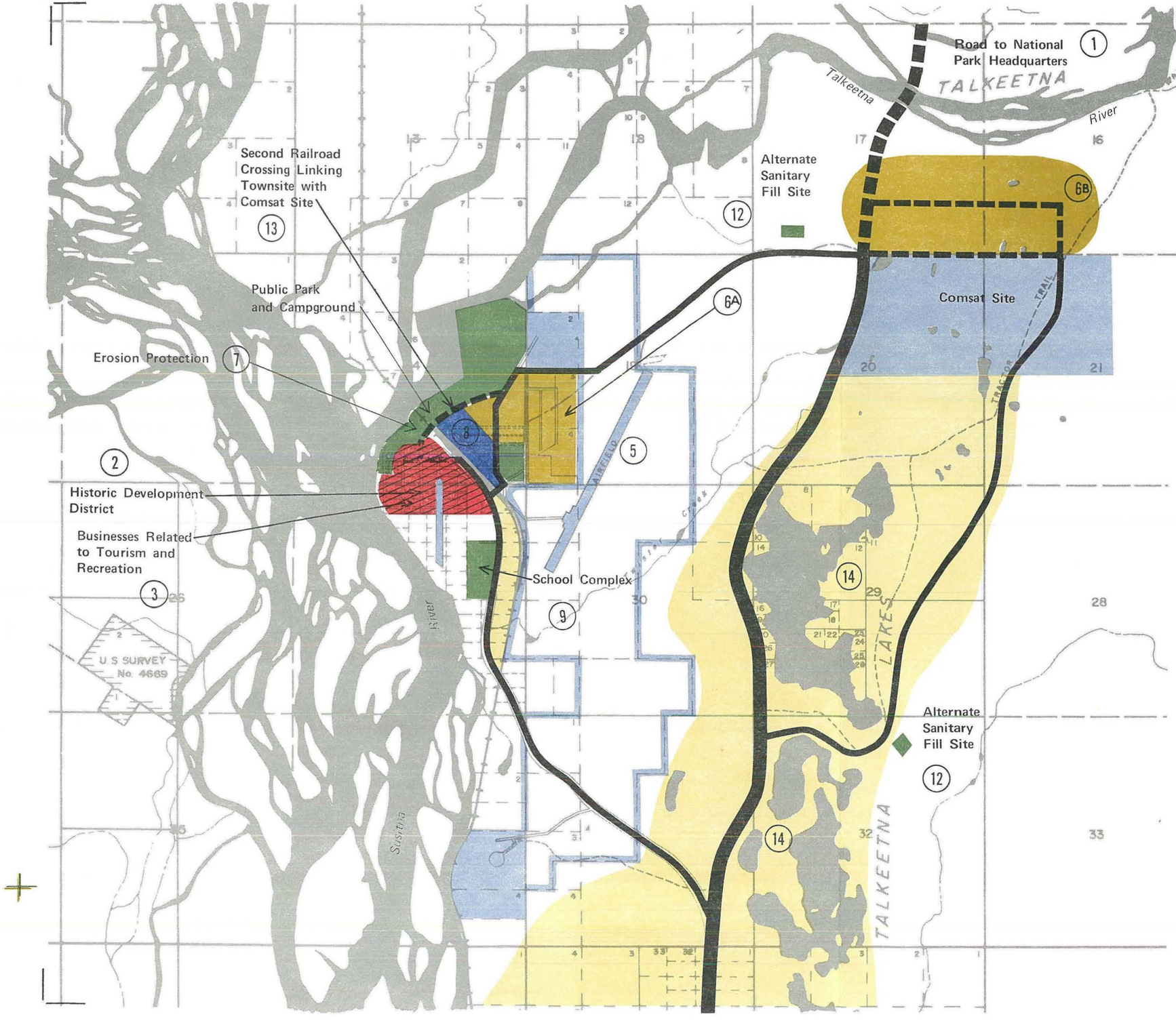
4. Develop a riverboat tour originating at the Talkeetna Townsite.

If developed in connection with tours to the Mt. McKinley National Park, a riverboat or airboat tour down the Susitna River from Talkeetna might be a successful venture. The river trip would be reminiscent of Talkeetna's origin as a depot for riverboats supplying miners in the region. Stops at points of historic interest could be arranged. Another possibility would be a tour up the Chulitna to the Park headquarters.

Boating in the shallow rivers near Talkeetna can be dangerous as well as cold and windy. An airboat with adequate cover for passengers would probably be best suited for such a tour.

5. Development of the Talkeetna airport as a trunk airport accommodating transport type jet aircraft.

If Talkeetna is linked by road to the new Mount McKinley Park headquarters, the combination of the park and the historic town would be attractive as a stopover for an airline company providing packaged tourist trips.



DEVELOPMENT PLAN
TALKEETNA
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Transportation
- Community Residential (Community water and sewer system)
- Recreation and Rural Residential (Includes lodges. Color indicates area with high potential for development. Much of the uncolored area is also suitable for this type of development).
- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Local Streets
  - Existing Roadway
  - Proposed Road Development
- Railroad
- (1) Numbers refer to recommendations listed and described in the text.

1000 0 1000 2000 3000 4000
Scale in Feet

With a convenient air connection to Anchorage, possibly by prop-jets such as are presently used in the Anchorage–Kenai–Homer route, Talkeetna and Mount McKinley National Park could be as popular as destinations in an airline arranged tourist-trip as are Barrow, Kotzebue or Sitka.

There are good reasons for locating the major airport serving the National Park at Talkeetna rather than at the park headquarters. If the airport is at Talkeetna, it can become a transportation hub for the region and kinds of development which are normally located near a trunk airport can be established without affecting the wilderness attributes of the park. Talkeetna has three private air charter services which are popular with people wishing to fly close to Mount McKinely and to reach remote hunting and fishing areas. These charter services make Talkeetna more attractive as a potential destination for airline tours originating in Anchorage and Fairbanks and, conversely, added tourism in Talkeetna would strengthen existing air charter and guide services.

There is an existing Federal Aviation Station in Talkeetna. However, the FAA has plans to "remote" this station by the summer of 1970. Key personnel are to be transferred and mechanical devices will be relied on for necessary communications. With the increasing activity in the area caused by the COMSAT installation and the potential Park expansion, it is questionable whether this change is timely.

To enable the development of airline sponsored tourism, the Talkeetna airport would have to be improved so it could accommodate jet aircraft. The existing State airfield at Talkeetna is a 5,000 foot long gravel strip, part of which is unuseable because of frost heaves and roughness. For jet aircraft a 6,000 to 7,000 foot paved runway would be necessary.

6. Locate new residential development in areas outside the flood zone where community water and sewer systems can be provided.

This recommendation should not be misinterpreted as involving relocation of existing homes in the Townsite. However, the community should be

clearly warned that if much additional residential development occurs in the Townsite the whole area will be liable to well contamination and other health hazards. As reported in a sewer and water plan recently completed by an engineering firm.†

> The original townsite of Talkeetna , like Wasilla, is laid out in a gridiron pattern, with narrow rectilinear lots. If the townsite had fully developed, or even retained the density of development it once had, well contamination might have become a serious problem years ago. The shallow depth of the wells, the high water table, the gravel content of the soil, and the annual flooding are all possible causes of future contamination of the individual water supplies.
>
> While it would certainly be of benefit to the community of Talkeetna to have a water and sewer system, the fact remains that the small population, the dispersion of development, and the additional cost involved in locating such a system below the ground water table, together, make such a system impractical at this time.

Federal funding for public water and sewer systems is not available to areas which are subject to flooding. If much additional development were to occur in the Townsite, the area would become crowded beyond the point where individual sewer and water systems could function safely. Therefore, to prevent health hazards and protect existing homes, it is essential that new residential development be directed to other areas.

Two recommended locations for new residential development are shown on the map on page 155 . One area is already partially subdivided (6A on the map), and the second, near the COMSAT station is Borough-owned property (6B on the map). Here the terrain slopes downward to the southwest. The land is well out of range of flooding and erosion, is convenient to the COMSAT station and provides a scenic view of the Susitna Valley.

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† *Tryck, Nyman & Hayes, Consulting Engineers, Matanuska-Susitna Borough, Comprehensive Water and Sewer Plan, 1970.*

7. **Extend and repair the erosion protection along the Townsite riverfront.**

The emergency erosion protection which was constructed in 1951 by the Corps of Engineers to protect the railroad has broken and land is eroding on the western side of the Townsite. It is recommended that this structure be replaced or repaired. A relatively simple stream diversion such as the existing structure or the log stream diversion structures, which have been used by the Alaska Highway Department, would probably be adequate. Such a structure would serve to divert the water which is threatening the Townsite back into the river's main channel.

8. **Encourage the location of industrial and heavy commercial activities east of the Railroad across from the Townsite.**

The construction of the COMSAT site, and the housing and other development which will follow, may necessitate space for storing and staging of construction materials near the railroad. In addition there may be a more long-range need for land for industrial structures and activities, such as a warehouse or contractor's yard.

The area which appears to offer the most advantages for this type of development is east of the railroad near the station as shown on the map on page 155 . This area is convenient to the railroad, road and COMSAT station, yet it is sufficiently separated from homes and other types of development which are not compatible with outside storage and light industrial uses.

9. **Expand the school facilities serving Talkeetna to accommodate population increase caused by the COMSAT site.**

The population added to Talkeetna by the COMSAT station will probably cause an immediate increase in local school enrollment by as much as 30 pupils. As of October, 1969 there were 53 high school pupils and 62 elementary school pupils enrolled at Talkeetna. The three portable units and the high school at Talkeetna are operating near capacity and expansion of the local school plant is essential to accommodate the

increased pupil load caused by the Station. The three existing portables are overtaxing the school's sanitary facilities. Another problem is the fact that individual teachers must now teach as many as three grade levels in one room.

To correct these problems the Borough is planning the construction of a multi-purpose facility near the high school. This structure will include three classrooms and a large open room that can be used flexibly for a variety of purposes. Sanitary facilities will be incorporated in the structure.

In addition the Borough plans to construct a high school serving the section of highway between Willow and Talkeetn and up the Petersville road to be located on a site at Sunshine, central to the school service district. With a large service area, this high school will have a large enough pupil enrollment to justify the investment in physical plant and program development which are necessary for college preparation accreditation. The site for the new Sunshine central high school should be large enough to include community recreation and natural open space. For these purposes the Alaska Division of Lands has recommended 140 acres as a desirable standard for high school and recreational use. After development of a central high school, the Talkeetna high school could be remodeled for use for elementary school purposes.

10. Convert the "Little Red Schoolhouse" to a Community Building.
This structure is no longer used for school purposes and is standing vacant. Unlike some of the other communities in the Borough, Talkeetna has no community building which can be used for a wide range of civic functions. The old school building is centrally located in the Townsite and is still in relatively sound condition.

It is recommended that this structure be made available to the community and that it be developed as a multi-purpose community center for use as a public meeting hall, voting location, library, recreation center, and other

purposes. The structure has historic interest and should be preserved and maintained as a part of the early community. Possibly the Department of Housing and Urban Development's "Neighborhood Facilities Program", described on pages 19 and 20 of this report, would provide a source of funds for the remodeling that might be necessary to convert the schoolhouse to a community center.

11. Provide police and fire protection to meet the needs of the expanding community.

The population of 180, which is projected for the Talkeetna area immediately after the COMSAT station is completed, will still be too small to effectively sustain a volunteer fire department. An alternate method of providing fire protection to the area, may be through an arrangement between the Borough and COMSAT. For example, the Borough could assign surplus fire fighting equipment to the station under a contract agreement.

A full time State policeman should be stationed at Talkeetna to serve this section of the Borough. The State police station at Palmer is far too distant to provide an adequate source of police protection.

12. Provide a sanitary land fill near the community.

The map on page 155 shows three possible locations for community dump sites, to be operated as sanitary land fills. These areas are recommended because they are relatively convenient to the community while being separated from development. To reduce odor and unsightliness and prevent health hazards trash must be periodically covered and compacted.

This procedure is required by State health codes. To avoid pollution of lakes and streams it is important that sanitary land fills be located away from water sources.

13. Develop a system of main roads linking the COMSAT station and areas of new residential development with the existing community.

The map on page 155 shows a recommended system of major roads in the Talkeetna area. Some of these roads have already been developed in connection with the COMSAT station.

In the long run, a second railroad crossing and road connecting the Townsite directly to the COMSAT site will probably be needed. The approximate location of this proposed new crossing is shown. At present, the road connection between the COMSAT station and the Townsite is indirect and inconvenient.

14. Limit density of development near the Talkeetna Lakes.

Without some means of density control, lakes can readily become overcrowded, and lose their attraction as recreation sites. For this reason it is recommended that zoning be applied to the Talkeetna area to assure that development near the lakes will be maintained at a low enough density to preserve the attractiveness and recreational value of the lake area.

Sutton Plan

THE SUTTON PLAN

CURRENT STATUS

The community of Sutton, located 13 miles northeast of Palmer on the Glenn Highway, suffered a severe economic blow when the Evan Jones Coal Company closed its coal mining operations during 1967 and 1968. The shutdown was caused by the conversion of the Anchorage military bases from coal to gas fired power and heating systems, a change which reduced the local market for coal by over 80 percent. Closure of the mines eliminated the 117 jobs which had been the primary reason for the existence of the communities of Sutton and Eska. After the closure, Eska, a townsite occupied principally by single mines two miles north of Sutton, was almost totally abandoned.

However, the population at Sutton has not declined nearly as extensively as might have been expected. In 1960, there were 162 people at Sutton. On the basis of a recent count of occupied dwelling units, it is estimated that there are approximately 150 people in the Sutton area, a region defined by the boundaries of the Sutton Fire Service District.

The stability is partially due to the fact that Sutton is within commuting distance of the larger community of Palmer where there are other sources of employment. Also, the nearby State Adult Conservation Camp employes 23 persons and there is a limited amount of employment (probably no more than 10 jobs) in the nine highway-oriented businesses located in the Sutton area on the Glenn Highway.

It is appropriate to ask why development planning is needed for a small community such as Sutton which has recently lost its primary source of employment. In spite of the closure of the coal mines, there is potential for growth and change in the Sutton area. By anticipating such change and providing for it in advance, planning can be of benefit.

It is probable that, in the future, the economy of Sutton and the upper Matanuska Valley will be influenced by the following factors:

1. Increase of recreation activity in the Upper Matanuska Valley.
The considerable recreational potential of the Sutton area and the upper Matanuska Valley has received little recognition in comparison to the recreation areas to the west of Palmer. The scenery from the Glenn Highway as it follows the Matanuska River through the Talkeetna Mountains is spectacular. Historic trails and mining areas, lakes and streams and mountainous wilderness inhabited by sheep, goats, moose and caribou can be reached by side roads and trails leading from the Glenn Highway.

Proximity to Anchorage is as important a part of the Sutton area's recreation potential as are the lakes and scenic and historic qualities of the area. As is described on pages 171 through 177, listing recommendations of Sutton's plan, Seventeenmile Lake could well be developed as a public swimming and boating site similar to Mirror Lake. This development would serve to attract recreation traffic from Anchorage into the area east of Palmer, thus serving to better distribute recreation activity in the Borough and avoid overcrowding in any one area.

The historic Wishbone Hill coal mining area just north of Sutton is attractive and interesting for many people. This recreation asset could be

enhanced by signs marking historic points of interest and by provision of an area for parking of camper-trailers. Development of a trail to Eska Creek Falls is also discussed as part of the recommendations section of this plan for Sutton.

2. **Development of mineral resources in the Talkeetna and Chugach Mountains.**

On the basis of relatively limited exploration, it has been estimated that the Chugach and Talkeetna Mountains have substantial potential for mineral resource development. Along the southern boundary of the Talkeetna Mountains, adjacent to the Matanuska River, sedimentary deposits contain non-metallic minerals such as coal and limestone. In the periphery of the Talkeetna Mountains random occurrences of iron, copper, tungsten, molybdenum and mercury have been found and placer gold and platinum has been mined in both Chugach and Talkeetna Mountains.

Sutton's location at the head of the railroad's right-of-way together with the fact that some housing, shopping and community facilities already exist in the area make the community a logical location for population growth, should mineral development occur in this part of the Matanuska Valley.

Historically, mining has been the main incentive for development in the Matanuska Valley, particularly in the Sutton area. In the first part of this century, news of the Nelchina gold discoveries, 25 miles north of Eureka, attracted miners from the Cook Inlet through the Matanuska Valley. The most famous of the early mining trails through the Valley was the historic Chickaloon Trail, which passed through the Sutton area eastwards to Chickaloon and Nelchina. Mining at Nelchina operated until the early 1950's, although the height of operations was between 1900 and 1916.

Coal mining has been an even stronger force in the development of the upper Matanuska Valley, particularly affecting the communities of Eska, Sutton and Chickaloon. The Matanuska coal field occupies much of the

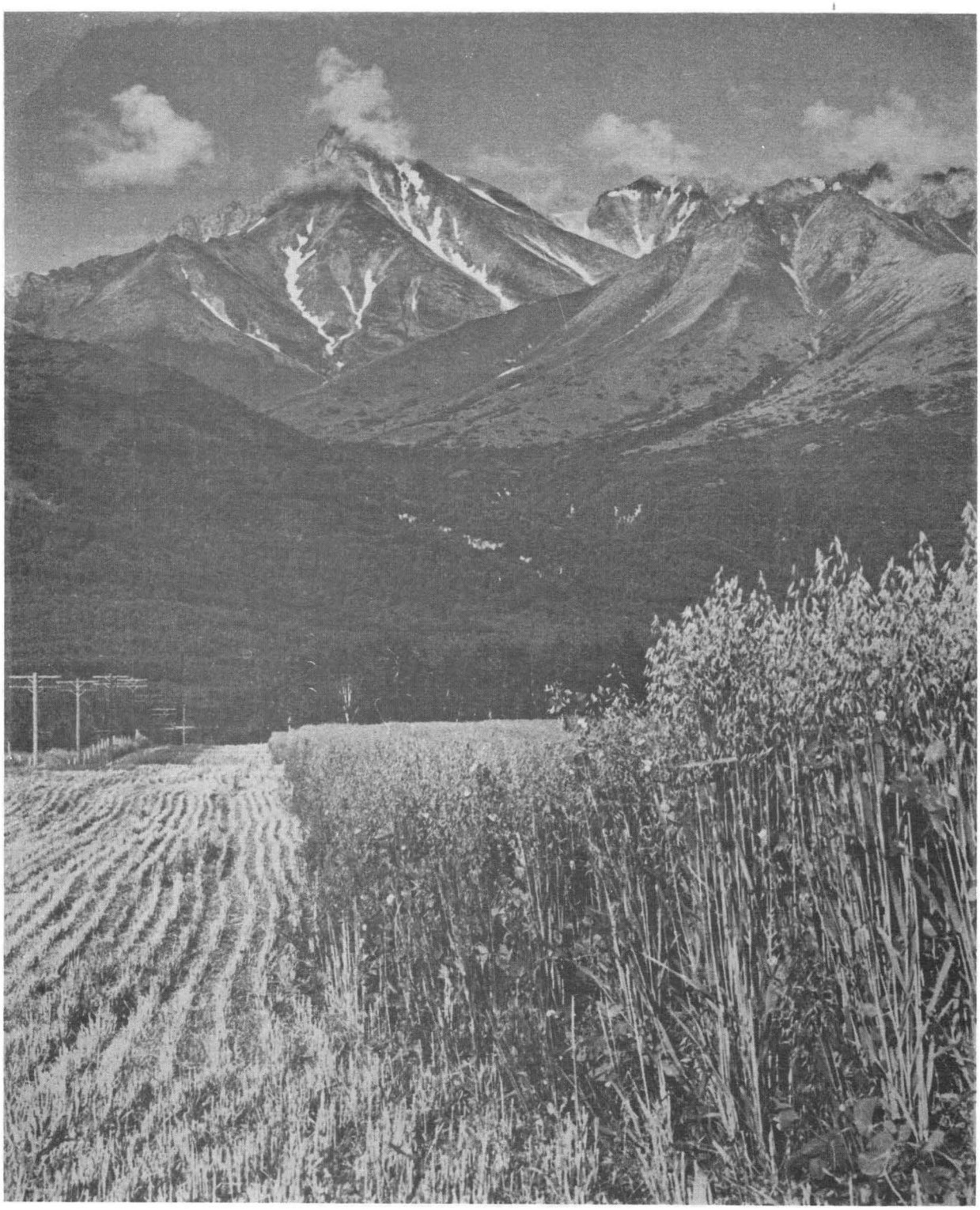

Photo: Alaska Travel Division

Farm Land with a Backdrop of Mountains, a scene characteristic of the Matanuska Valley.

Matanuska Valley and extends in a belt from a point near the head of the valley westward to the Susitna River Valley. At the eastern end of this belt, anthracite, or better quality coal, is found. Some veins near Chickaloon contain "blacksmith" coal, suitable for coking. Coal in the Wishbone Hill District near Sutton is bituminous, and is generally unsuitable for coking.

During World War I to obtain access to this coal, the federal government financed construction of a railroad leading from Anchorage up the Valley to Sutton and Chickaloon. A forced-draft coal-mining operation was begun about 1916.

At Sutton a rail spur was constructed northward to the mines in the Wishbone Hill district. There have been at least nine coal mines and prospects in the Wishbone Hill district including the Premier Mine, the Baxter Mine, the Buffalo Mine, and New Black Diamond (Rawson) Mine, the Wishbone Hill Mine, the Matanuska Center Mine, the Evan Jones Mine, the Eska Mine and the Knob Creek Mine. The most recent and largest of these mines was operated by the Evan Jones Coal Company, which was the biggest coal producer in southcentral Alaska until 1967, when the recent shutdown was started.

There is good reason to expect a major mineral development in the upper Matanuska Valley during the next 15 to 20 years. This potential is based on the combination of rich deposits of commercially valuable mineral resources with proximity and accessibility to a rapidly growing urban area.

It has been estimated, for example, that the limestone deposits in the Kings River area northeast of Sutton are more than adequate in quality and quantity to supply a cement plant marketing to southcentral Alaska. A 1968 study by the State indicated that an annual market of 500,000 barrels of cement would be sufficient to ammortize the cost of a medium size cement plant in Alaska. At that time, the railbelt market was estimated at 675,000 barrels.

The actual economies affecting the commercial potential of the Kings River area limestone deposits are complex and largely unavailable to the public. However, following the North Slope discoveries, the Alaskan economy is changing and developing at an extremely rapid rate. This growth, in turn, may affect the economics which dictate the choice between importing cement aggregates or mining limestone at Kings River to supply a local cement plant.

The technology affecting the marketability and economic potential of the Matanuska Valley coal deposits is also changing rapidly. Nationally there is a renewed interest in the use of coal for energy.† Research has proven that coal can be used to produce a wide range of products ranging from medicine to plastics. In the future, technological change may make feasible the use of the Matanuska Valley deposits for such purposes.

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† *Alaska Construction and Oil Report, August, 1968.*

RECOMMENDATIONS†

Because factors affecting growth and development in the Sutton area are highly unpredictable, the plan for Sutton includes two types of recommendations. Items one through four should be accomplished whether or not major mineral development and population growth occurs in the Matanuska Valley. Items five through ten should be accomplished in the event of a major source of economic growth in the upper Matanuska Valley. These recommendations are keyed to the map on page 173 and are described as follows:

1. Development of a Public Swimming and Boating Area at Seventeenmile Lake.

Seventeenmile Lake is an excellent fishing and boating lake with a lovely wooded shore. It is recommended as a site for a public swimming and boating area with facilities similar to those of Mirror Lake. It should be noted that, in the recent overall recreation plan for the State, swimming was listed as one of the most desired forms of recreation in Alaska.

Development of a strong recreation attraction at Sutton, such as a public swimming area, will have Borough-wide benefits. Overcrowding of recreation activities in other parts of the Borough will be alleviated and recreation traffic will be more evenly distributed throughout the Borough. The map on page 173 shows two alternate proposed sites for public recreation development. The site to the east is presently State owned. Half a mile or more of road development would be necessary to provide access to this site. The site to the west is privately owned; however, less investment in access road development would be necessary. The privately owned site also has the advantage of a larger amount of shoreline.

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† *Where possible the number of each recommendation corresponds to a number on the map on page 173 pointing out the location affected by the recommendation.*

2. Development of a Trail to Eska Creek Falls and Provision of Camper Parking Space on the Eska Townsite.

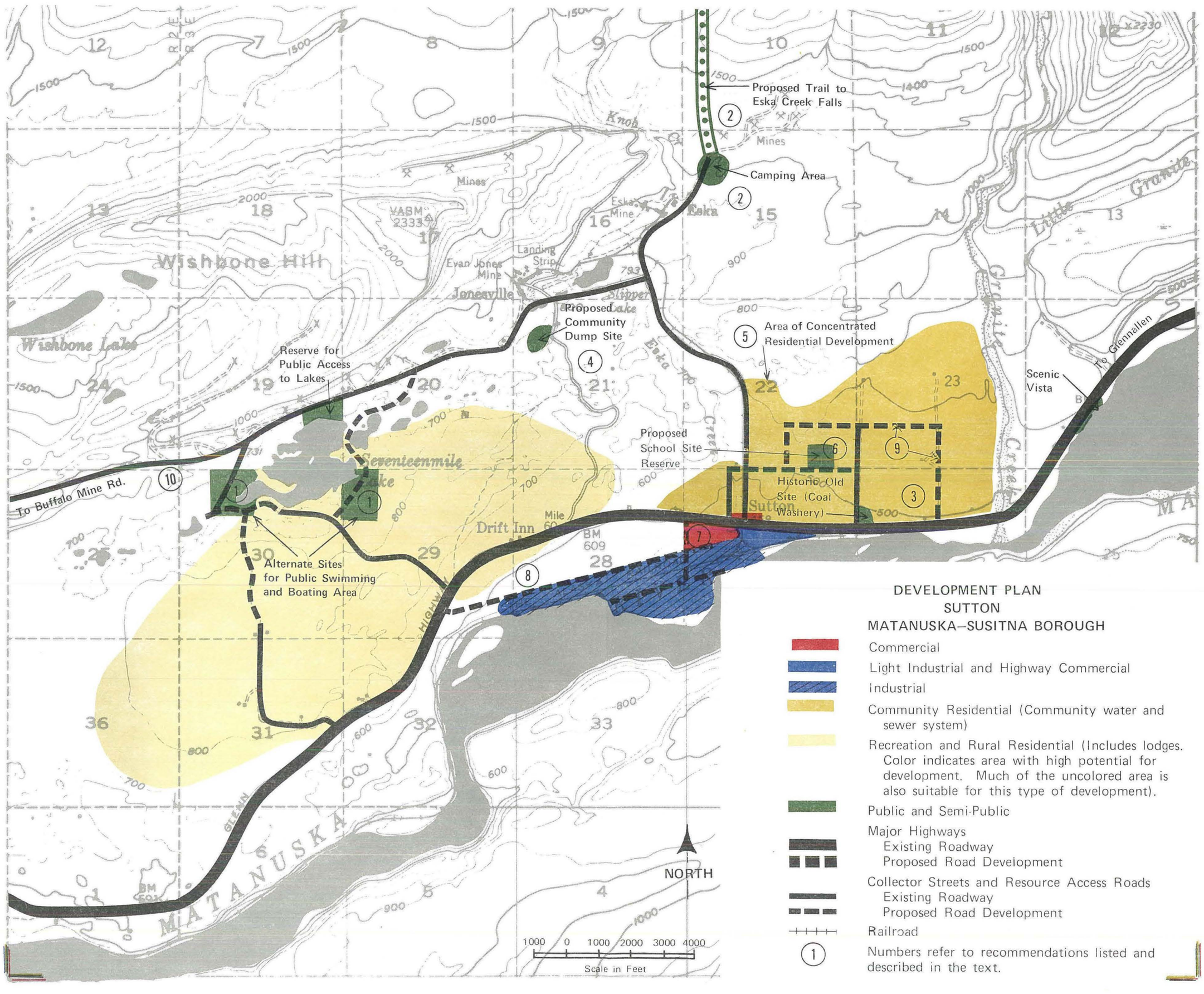
North of Eska, in the foothills of the mountains, there is a 100 foot high waterfall on Eska Creek. The trail into this site is partially above the timber line and scenery in the area is especially beautiful. The walk to the falls from the end of the road requires approximately two and a half hours.

This plan recommends that the trail to Eska Creek Falls be marked, that necessary public facilities be provided and that a sign be placed on the Glenn Highway at the entrance to the Jonesville Road to indicate the location of the recreation trail.

It is also recommended that this trail and the camper parking site at Eska be included in the system of wilderness trails and campsites which was provided for by an amendment to the Alaska Statutes (Section 1.AS 41.20) enacted on May 19, 1969. The area for camper parking at Eska should be established as part of the trail development to provide a site for parking campers and other vehicles at the entrance to the trail.

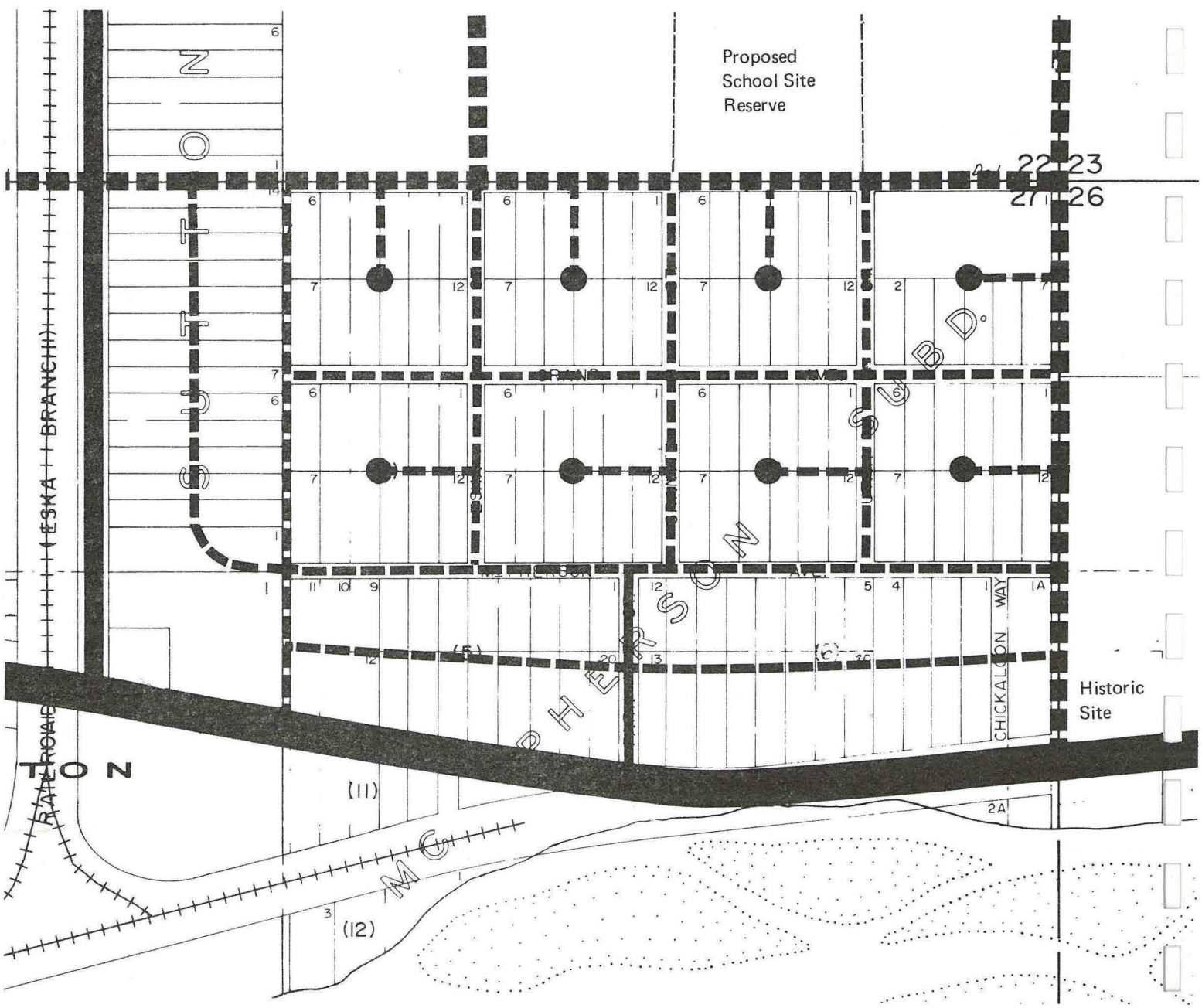
3. Marking of the Historic Coal Washery on the Glenn Highway.

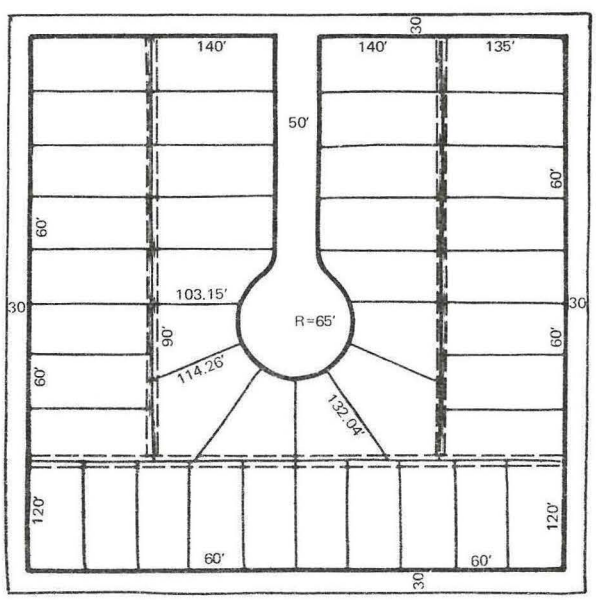
On the Glenn Highway about two-thirds of a mile east of the Jonesville Road, is a large arched concrete structure, the remains of the first coal washery in Alaska. It is recommended that this site be designated as a public historic site and that a marker be placed on the site describing the washery and some of the history of the coal mining industry in the Sutton area. The site is presently in private ownership. If the owner were in agreement the recommended marking and development could be accomplished under an amendment to the Alaska Statutes (Section 1. AS 38) approved on April 11, 1966 which reads in part:



DEVELOPMENT PLAN
SUTTON
MATANUSKA–SUSITNA BOROUGH

- Commercial
- Light Industrial and Highway Commercial
- Industrial
- Community Residential (Community water and sewer system)
- Recreation and Rural Residential (Includes lodges. Color indicates area with high potential for development. Much of the uncolored area is also suitable for this type of development).
- Public and Semi-Public
- Major Highways
  - Existing Roadway
  - Proposed Road Development
- Collector Streets and Resource Access Roads
  - Existing Roadway
  - Proposed Road Development
- Railroad
- (1) Numbers refer to recommendations listed and described in the text.





SKETCH SHOWING POSSIBLE RESUBDIVISION OF LAND AT SUTTON

Sample Block Within
Proposed Resubdivided Area

CHAPTER 25. HISTORICAL SITES AND MONUMENTS

Sec. 38.25.010. DESIGNATION OF SITES AND MONUMENTS

The governor may designate any natural formation, site, building, marker, graveyard and the land which appertains to it as an official historical site or monument of the state. . .if it is privately owned, it may be so designated with the written consent of the owner or owners.

Sec. 38.25.020. FINANCIAL SUPPORT AND CONTROL. . .

Privately owned historical sites and monuments are eligible to receive state support for the maintenance of the site or monument if it is kept accessible to the general public and application for partial support is made in conformity with regulations promulgated by the commissioner of natural resources.

4. Establishment of a Sanitary Land Fill in the Sutton Area.

The need for a public dump site will increase in Sutton with the growth of recreation traffic. Unless a public dump site is provided and maintained near Sutton, random littering and disposal of trash in locations which are visible from main roads will mar the natural beauty of the area. It is recommended that the Borough establish a sanitary land fill on publicly owned land, approximately in the location shown on the map on page 173 . The exact site should be chosen on the basis of topography and accessibility. However, the hilly terrain in this general area offers a number of low impressions which would be well suited for development as a sanitary land fill hidden from public view.

5. Location of Concentrated Residential Development in a Single Contiguous Area.

If a major source of employment is developed in the upper Matanuska Valley, as is discussed in the section on future change in this chapter, year-round residential development should be concentrated so that service by community water and sewer systems will be feasible. The area shown

in orange on the map on page 173 is recommended as Sutton's future year-round residential community. Land in this area has the advantages for residential development of good drainage and relatively level terrain. Another advantage of this area as Sutton's future residential "core" lies in the fact that it can be developed as an extension of the existing Sutton community.

To be part of the residential area served by community water and sewer systems, the McPherson Subdivision should be re-subdivided to create smaller lots. The diagram on page 174 suggests a method of re-subdividing property in the McPherson Subdivision so that community water and sewer service would be economically feasible. However, as long as Sutton remains a rural area without community water and sewer systems, structures should be sufficiently separated† to provide adequate spacing for septic tank seepage fields.

6. Reservation of a Site for a Future Lower Grade School.

To be prepared for the possibility of industrial development and population growth in the Sutton area, it is recommended that the Borough acquire a site of 10 acres as a reserve for a future lower grade school. The proposed site, shown on the map on page 173 , has the advantages of relatively level terrain and centrality and accessibility to Sutton's future area of concentrated residential development.

7. Expand the Sutton Commercial Area on Land Adjoining Existing Commercial Development.

If Sutton's population increases substantially, additional commercial space will be needed. The logical future commercial center for Sutton would be located as an extension of the existing commercial development near the intersection of the Jonesville Road and Glenn Highway. There are several large pieces of property in this area which would provide good commercial sites. If businesses in the community are concentrated in a single group

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† *The Alaska Public Health Service recommends 100 feet as the minimum separation between a well and a septic tank. This should be larger in areas with poor soil percolation.*

near the main intersection, shopping will be more convenient for residents of the area and individual businesses will benefit from the added trade that is attracted through location in a commercial center.

8. Provide an Industrial Access Road to Proposed Industrial Sites Adjoining the Alaska Railroad Right-of-Way.

At Sutton a relatively level bench of land south of the Glenn Highway offers excellent sites for large scale industrial development. The railroad right-of-way runs through this land, providing an opportunity for rail spur service to industrial sites. In the event of industrial development it is recommended that an access road to the industrial area be extended from the Glenn Highway, approximately as shown on the map on page 173 . This road should parallel the railroad, but should be sufficiently separated from the railroad (at least 500 feet) to allow space for industrial plant sites.

9. Develop a System of Collector Streets in the Sutton Area.

A system of collector streets serving future residential development at Sutton has been shown on the map on page 173 . These main streets should be located centrally in relation to residential areas and should be planned to allow for efficient movement of traffic from local roads to the main highway. Though actual development of major streets should be timed to coincide with residential growth, it is recommended that the Borough require dedication of necessary rights-of-way as land is subdivided.

An important element of this proposed system is the connection of residential development west of the railroad with development to the east of the railroad and the Jonesville Road. In the event of residential growth, this crossing would be essential to allow children living west of the railroad to reach the elementary school.

10. Improve and Extend Seventeenmile Road to Connect with Buffalo Mine Road.

This plan also proposes that Seventeenmile Road be designated as a resource access road and that it be improved and extended to link with Buffalo Mine Road. This connection would create an attractive route for tourists by making it possible to drive through the historic Wishbone Hill Mining district without backtracking. Improvement of this road would also provide better access to Seventeenmile Lake.

Caught in the Matanuska Valley

APPENDIX

POPULATION ESTIMATE

In the absence of a census or a count of occupied dwelling units, population in the Borough, as of the fall of 1969, was estimated on the basis of school enrollment statistics. This was done through use of ratios between school enrollment and population in 1966, a year when there was a complete count of occupied dwelling units in the Borough.

It was found that in different sections of the Borough the proportion of total population to school enrollment varied considerably in a way that reflected the degree of remoteness or ruralness of the area. In the smaller, more isolated communities such as Talkeetna and Glacier View there were apparently many more individuals living alone and families without school aged children than in the more densely settled areas such as Palmer.

The 1966 figures yielded the following ratios between total population and school enrollment in different sections of the Borough.

Areas of concentrated settlement (Palmer and Butte) 3.1 to 1 .
Intermediate communities (Wasilla) 4.2 to 1.
Remote communities (Talkeetna and Willow) 5.0 to 1.

To estimate current population, 1969 school enrollment data for the different sections of the Borough were multiplied by the appropriate factor from the ratios. This process indicated a distribution of people within the Borough as is shown by the table on page 183 . The total population of the Borough as of the fall of 1969 was estimated at 7,300.

A similar process could be followed by the Borough to formulate intermediate estimates of population in later years. However, it would be valuable to check population data from the 1970 census against corresponding school enrollment figures, and to verify or revise the ratios from the more accurate population count.

POPULATION FORECAST

At best a population forecast is an approximation of the magnitude of future change. No degree of care can produce a truly reliable forecast because people and the communities they form are only partially predictable. This is particularly true of a region in its early stages of settlement and development such as the Matanuska–Susitna Borough. In older, larger communities with more diversified economies, unpredictable factors tend to balance and counteract each other and basic trends predominate to serve as the foundations for predictions.

In the Matanuska–Susitna Borough, however, the factors determining employment and population are relatively few and changes, which would be minor in a larger community, easily invalidate any apparent trends. Recently, for example, the closure of the coal mines at Sutton caused a loss of approximately 100 jobs which represented seven percent of the total employment in the Borough. Development of a single medium sized industry in the Borough would have a similar impact on the growth side of the scale.

Forecasting growth in the Borough is further complicated by the fact that the Borough is influenced by changes in Anchorage. Some residents of the Borough travel to Anchorage for employment and many service businesses in the Borough depend on trade from recreation traffic originating in Anchorage. This linkage was made clear in 1969 when Anchorage experienced a boom in construction and other economic activity following the North Slope oil and gas leases. Though the employment increase was centered in Anchorage, its effects extended to the Borough in the form of growth in residential population. Between the fall of 1968 and the fall of 1969, school enrollment in the Borough increased by 13 percent.

The influence of Anchorage's economy on the population dynamics of the Borough is reason for optimism in forecasting the Borough's future population. The Greater Anchorage Area Borough Planning Department has estimated that the Anchorage area population will grow at a rate of 4 percent annually through 1985. Until there is a Knik Arm Crossing, the Matanuska–Susitna Borough will remain at the periphery of Anchorage's sphere of influence and the effects of the Anchorage's economic prosperity will be diminished. It is projected that, through 1985, population in the Matanuska–Susitna Borough will grow at a rate of approximately 3.5 percent annually, as follows:

1970	7,400
1975	8,700
1980	10,300
1985	12,200

This projected 3.5 percent annual growth rate exceeds the most commonly accepted growth rates forecast for the State and for the southcentral region of the State.† It also exceeds reasonable expectations for national population growth. During the past decade, for example, population of the United States increased at the annual rate of 1.3 percent. The annual increase in Alaska's population over this same period was 2.4 percent.

The development of a new community at MacKenzie Point could completed invalidate these forecasts. The company planning to construct a totally designed community in this part of the Borough estimates that by 1971 the community will be accommodating 5,000 persons, whereas by 1975 the community's population will have grown to 20,000. Development of MacKenzie Point will be even more extensive if a Knik

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† *George Rogers, Alaska Regional Population and Employment, SEG Report No. 15, December, 1967.*

Arm Crossing is constructed. Again, the new community and the crossing are the kind of unforeseeable emergents which cannot be forecast.

The distribution of future population within the region is more important as a basis for planning than Borough-wide forecasts. Schools, community facilities and many forms of commercial development cannot be planned on the basis of total regional population but, instead, must be related to estimated growth in sections of the Borough. The forecasts shown on the table on page 183 relate to elementary school service areas. These forecasts were based upon an analysis of the various factors which will give rise to growth and change in seperate communities within the Borough as have been discussed in the preceding chapters.

POPULATION ESTIMATE AND FORECAST*
MATANUSKA–SUSITNA BOROUGH
1970 – 1985

Area	Estimated 1970 Population	Forecast 1985 Population
Palmer Elementary School Service Area	4,200	5,800
Wasilla and Big Lake Elementary School Service Areas	1,900	3,000
Willow Elementary School Service Area	340	1,200
Talkeetna and Trappers Creek Elementary School Service Area	630	1,500
Glacier View Elementary School Service Area	130	300
Subtotal	7,200	11,800
Rural population outside elementary school service areas	100	200
Total Borough Population	7,300	12,000

**This forecast does not include population that might be added to the Borough in the Point MacKenzie area in the event that a tramway or other Knik Arm crossing and a new community near the crossing are constructed.*

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