SUBJECT: AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY AMENDING MSB 15.24.030 AND ADOPTING THE FISHHOOK COMPREHENSIVE PLAN.

AGENDA OF: March 7, 2017

ASSEMBLY ACTION: Ol 17-022-publie hearing held-Adopted w/o objection @ 3/21/17 RM

MANAGER RECOMMENDATION: Introduce and set for public hearing.

JOHN MOOSEY, BOROUGH MANAGER: Sengal

Route To:	Department/Individual	Initials	Remarks	
X	Originator - S. Jansen	4 2.22.17		
Х	Planning and Land Use Director	5P		
X	Borough Attorney	MS		
X	Borough Clerk	Spm	2/17/17	(8)

ATTACHMENT(S): Fiscal Note: YES NO Ordinance Serial No. 17-022 (1 pp)

Public Outreach Summary (2 pp)

Planning Commission Resolution 16-17 (3 pp)

Fishhook Comprehensive Plan (58 pp)

#### SUMMARY STATEMENT:

#### Background

The Fishhook community is unique in the Matanuska-Susitna Borough. Although other regions have access to recreational lands, only Fishhook can count the Matanuska Moose Range, managed by the State of Alaska Department of Natural Recourses (DNR), the Hatcher Pass Management Units, also managed by DNR, and the Government Peak Recreational Area, managed by the Borough within its confines. Residents benefit from the variety of recreational opportunities in their neighborhoods and consequently many people enjoy an outdoor lifestyle. Ask almost any resident and they will tell you that they love the variety of recreational opportunities available on our backyard public lands.

The fact that residents in Fishhook live and play in the same place

is significant because they are highly impacted by decisions made about public recreational land. They have a significant stake in how public lands are managed in the area. The community understands Fishhook is growing and new development is inevitable. That is the reason they chose to develop their own comprehensive plan, to have a voice in the future of their community. This plan helps them to find that voice.

#### Process

In January 2012, the Fishhook Community Council requested assistance from the Borough to develop a Community Comprehensive Plan. In the fall of 2012, notices were sent to property owners through the Fishhook Community Council area soliciting members for a Planning Team. The Planning Commission appointed 33 area residents to the Fishhook Team. Over the last year the Planning Team has heard from a variety of subject member experts, however the most important voice in the planning process belongs to the residents and property owners.

The Fishhook Community Comprehensive Planning team requested a survey be distributed to property owners within the Fishhook Community Council boundaries to ensure community involvement in the planning process. A total of 1,507 surveys were mailed, and 402 responses were received, for a 27% return rate. A community workshop reviewing the results of the survey was held in August, 2014.

Over the period of the next 11 months, planning team members discussed, formulated and reviewed draft language, made adjustments, and used the survey as a guide to draft a plan with ten chapters. A draft of the plan was presented at the October 2015 Community Council annual meeting. The draft plan was discussed and debated at community council meetings in February, August and October, 2016, including a page by page review in August. The final vote to approve the plan passed 106 to 73 at the 2016 Annual meeting on October 27, 2016.

On February 6, 2017, the Planning Commission conducted a public hearing and passed Resolution 17-02 recommending approval of the plan to the Borough Assembly.

**RECOMMENDATION OF ADMINISTRATION:** Staff respectfully recommends the assembly amend MSB 15.24.030 adopting the Fishhook Comprehensive Plan.

IM No. 17-037 Ordinance Serial No. 17-022

# Matanuska-Susitna Borough Public Outreach Summary

## Fishhook Comprehensive Plan

Sara Jansen, Project Manager, sjansen@matsugov.us

This summarizes all the public outreach conducted for this project made by the Borough and its planning partners on the above project. This information provides a snapshot of the Borough's work to ensure that stakeholders had an abundant opportunity to learn about the project. On the reverse of this page is a thumbnail description of the required steps either by Borough Code, the granting body, or Borough policy and procedure. The Stakeholders of this project are the people who own property within the planning area boundaries. The first community wide mailing in 2012 went to 1504 households; by 2016 the number of households was over 1,600.

	Total MSB Exposure as of 10-27-16
5	Community Wide Mailings to 1500+ Property Owners
96	Newspaper Advertisements
34+	Website Articles
30	Planning Team Public Meetings

Activity	Mailings to Community Council Area	Newspaper Advertisements	Website	Meetings
Solicit Planning Team	1	2	1	
Planning Commission Selects Team		2	1	1
Planning Team Meetings		90	30	30
Survey and Letter Sent 2014	1		1	
Draft Presentation to Community Council – October 2015	1	2	1	1
Community Mailing for May CC meeting	1			
Community Mailing for October CC meeting and vote	1			
Additional Outreach Efforts				

Flyers throughout the community - Spring 2015

Survey presentation and updates at 9+ Fishhook Community Council Meetings — all advertised in the newspaper



#### **Public Outreach Required**

#### Matanuska-Susitna Borough Requirements for Comprehensive Plans

MS 15.24.017 Requires public hearings be advertised in newspaper 15 calendar days prior to meeting with time and place and scope of the subject matter to be heard

Planning Commission Resolution 09-14

- Planning team solicited by a mailed general notice and advertisement
- Planning team meetings advertised in local paper and on Borough web-site
- Workshops scheduled
- Second general notice mailed and advertised when a draft document is complete
- Public meeting held to solicit comments
- Public Hearings held by Planning Commission

IM17-037 0R17-022

By: Sara Jansen

Introduced: December 19, 2016 Public Hearing: January 16, 2017

Action: Danuary 10, 2017

Action: Approved

## MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RESOLUTION NO. 17-02

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING ADOPTION OF THE FISHHOOK COMPREHENSIVE PLAN.

WHEREAS, in January, 2012, the Fishhook Community Council requested assistance from the Matanuska-Susitna Borough to develop a comprehensive plan; and

WHEREAS, the Matanuska-Susitna Borough Assembly authorized the planning staff to engage in the comprehensive planning process in June, 2012; and

WHEREAS, Borough planning staff, in accordance with Planning Commission Resolution 09-14(AM), sent a mailing to all property owners based on the assessment records of the Borough which notified owners of the planning action and requested applications from people interested in serving on the Planning Team for the area; and

WHEREAS, thirty-three people applied to be on the planning team, and thirty-three people were appointed to the planning team in January, 2013; and

WHEREAS, the planning team began meeting in February, 2013; and

WHEREAS, the planning team heard from a number of guest speakers on a variety of topics from transportation to Hatcher Pass plans, to the theoretical build-out of the Fishhook area; and

WHEREAS, the planning team developed a survey which was sent to all property owners and put on the Borough's website in January, 2014; and

WHEREAS, a community workshop reviewing the results of the survey with the community was held in August, 2014; and

WHEREAS, over the period of the next 11 months, planning team members discussed, drafted and reviewed draft language, made adjustments, and used the survey as a guide to draft a plan with ten chapters; and

WHEREAS, the planning team developed in compliance with Alaska State Statute Sec.29.40.030. Comprehensive Plan, goals and strategies in seven broad categories including Land Use, Public Facilities, Transportation, Trails and Recreational Sites, Water Resources, Emergency Preparedness and Natural Community Assets; and

WHEREAS, the community was kept up to date at quarterly community council meetings, postings on the Borough website, and flyers in the community; and

WHEREAS, the draft plan was presented for review at the 2015
Annual Meeting of the Fishhook Community Council; and

Page 2 of 3 JM17-037 UR17-032 WHEREAS, the public comment period ran from October 23, 2015 to January 8, 2016 and resulted in comments that led to modification of the plan by the planning team; and

WHEREAS, the draft plan was discussed and debated at community council meetings in February, August and October, 2016, including a page by page review in August; and

WHEREAS, the final vote to approve the plan was taken on October 27, 2016, and passed by a vote of 106 to 73 of community council members to recommend approval of the draft plan and request it be forwarded to the Planning Commission and the Borough Assembly.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby recommend assembly adoption of the Fishhook Comprehensive Plan.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this  $6^{\rm th}$  day of February, 2017.

COLLEEN VAGUE, Acting-Chair

ATTEST

MARY BRODIGAN, Planning Clerk

(SEAL)

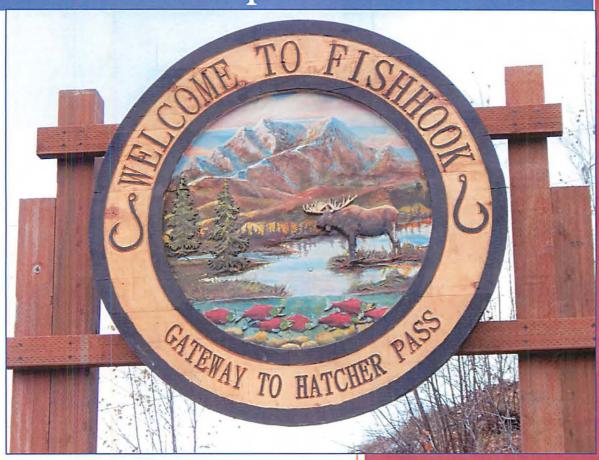
YES: Vague, anderson, Glashan, and Rauchonstrin

NO:

Planning Commission Resolution 17-02 Adopted: February 6, 2017 Page 3 of 3

6R17-037

# Fishhook Comprehensive Plan



Assembly Draft March 2017

IM17-037

## Acknowledgements

## MATANUSKA – SUSITNA BOROUGH ASSEMBLY

Vern Halter, Mayor

Jim Sykes, Assembly District 1

Mathew Beck, Assembly District 2

George McKee, Assembly District 3

Steve Colligan, Assembly District 4

Dan Mayfield, District 5

Barbara J. Doty, Assembly District 6

Randall Kowalke, Assembly District 7

#### PLANNING COMMISSION

John Klapperich, Chair, District 3

Mary Anderson, District 1

Thomas Healy, District 2

Colleen Vague, District 4

William Kendig, District 5

Tomas Adams, District 6

Vern Rauchenstein, District 7



#### DEPARTMENT OF PLANNING AND LAND USE

Eileen Probasco, Planning Director

Sara Jansen, Acting Chief of Planning, Project Manager

#### FISHHOOK PLANNING TEAM (ACTIVE)

**Bryan Cherry** 

LaQuita Chmielowski

Jake Frank

Neil Hermon

Joe Irvine

Liz Jackson

Kimberly Levesque

Gene McCreesh

Anna Phelps

Steven Reed

Deborah Reidell

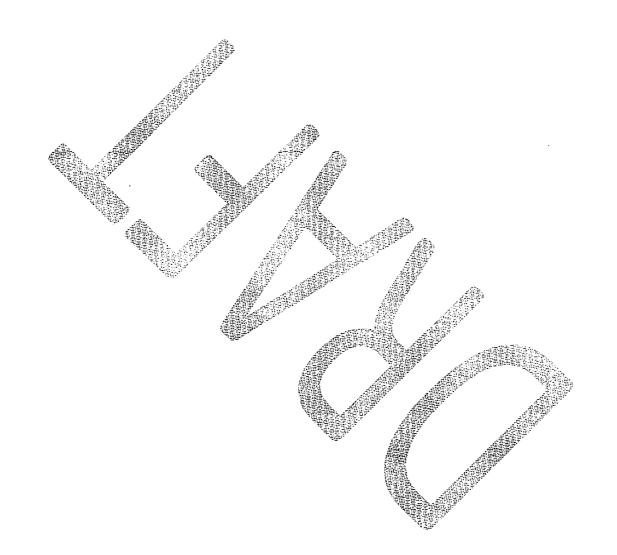
Kathryn Reiman

Kim Sollien

George Strother

Charles West

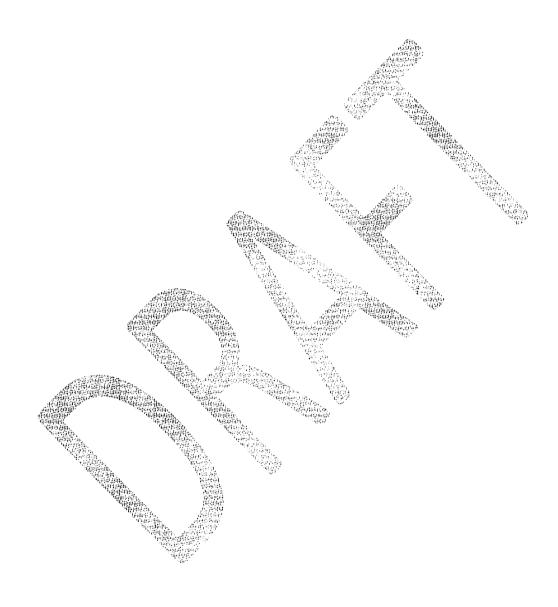
And several stalwart community members who attended many team meetings



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#### PURPOSE OF PLANNING

Plans exist to provide residents, property owners and other members of the community the ability to make effective decisions about the needs and goals for their community. A comprehensive plan is a compilation of policy statements, goals, strategies, and maps for guiding the physical, social, and economic development, both private and public, of a community. It is necessary for the immediate preservation of the public's peace, health, and safety.

The comprehensive plan provides the community with a method of analyzing past development and influencing the future outlook of their community. Information about a community, its economy, land use, public facilities, and transportation facilities are collected and analyzed. Projections of community growth and future needs are made. Through citizen participation, community goals and objectives are identified. Recommendations for land use, public facilities, and transportation facilities are developed based on these goals and objectives.

Alaska Statutes Title 29.40.030 requires a second-class borough adopt a comprehensive plan by ordinance. The Matanuska-Susitna Borough was incorporated as a second-class borough in 1964. In 1970, the Borough wrote the first Borough-Wide Comprehensive Plan, when the population was just 6,509 people. The estimated population of the Borough in 2015 is just under 100,000 people.

Planning should be an ongoing process. A comprehensive plan is based on information available at a particular time. In the future, new developments may occur and the needs of the community may change. The comprehensive plan should therefore be reviewed periodically, and updated as necessary.

#### BOROUGH PLANNING PROCESS

The Planning Commission established a process for developing community based comprehensive plans and shall be included in the plans. Under the process, local planning activities may be initiated by request of a community or area. A request for local planning assistance is forwarded to the Planning Commission for consideration. Upon Planning Commission approval of the request, planning staff advertises for members of a local advisory planning "team."

The Borough requires that an individual be a resident, property owner, business owner, or agency with an interest within the planning area boundaries in order to participate in the planning process. All applications for membership on the planning team are reviewed and appointments made by the Planning Commission.

In 2012, the Fishhook Community Council requested staff assistance to create a separate comprehensive plan for their community. In January, 2013, a planning team of 33 interested community members were appointed by the Planning Commission. In the almost three years it took to develop the plan the number of regular contributors was approximately ten. Throughout that time, a core group of individuals met regularly to gather information, listen to topical speakers, develop a survey, and craft the chapters, goals and strategies contained within the plan for the Fishhook community.

TM17-037 OR17-000 Team members were resolute about their desire to represent as much of the community as possible in their discussions. Numerous outreach efforts were made including flyers at restaurants and stores, three post cards mailed to property owners over the course of the plan, updates at quarterly community council meetings, signs in the community and personal contact.

The Borough requires that comprehensive plans include specific elements including: a brief history of the area; an inventory of existing conditions, issues and concerns; and goals and strategies for land use, transportation, public facilities and hazard mitigation, natural community assets (green infrastructure), and watershed/water quality protection. The Fishhook plan contains all those elements and a chapter on trails and recreation in light of their prominence in the community.

The largest outreach effort was a survey mailed in the early months of 2014 to help ensure community involvement in the process. A total of 1,507 surveys were mailed, and 402 responses were received, for a 27% return rate, a strong statistical return. By comparison, the last Borough representative was elected by 17% of the registered voters in Fishhook (2015 MSB election results). The survey was often cited as a strong resource as the plan developed. Throughout the document, survey results are highlighted by this symbol.

#### Fishhook Comprehensive Planning Process to Date

Date	Activity		
January 2012	Fishhook Community Council requests assistance to develop Community Comprehensi Plan		
June 2012	Assembly authorizes planning process through Resolution 12-062		
July 2012	Planning Commission authorizes planning process through Resolution 12-17		
Fall 2012	Notices and mailings sent asking for planning team members		
January 2013	Planning team of 33 members appointed by Planning Commission		
February 2013	Monthly planning team meetings begin		
March 2013	Organizational meeting - vision statement discussion		
April 2013	<ul> <li>Guest Speaker - Shannon Bingham: Build-out analysis of the Fishhook area</li> <li>Vision statement discussion</li> </ul>		
May 2013	<ul> <li>Guest Speakers on Roads and Trails: Brad Sworts, MSB Pre-Design Manager on Borough and State road projects in the area; Bruce Paulsen, MSB Land Management Specialist on recreational trails in the area</li> <li>Vision statement approved</li> <li>Historical Information reviewed</li> <li>Transportation Committee formed</li> </ul>		
June 2013	Guest Speaker: Ron Swanson - State and Borough Hatcher Pass plans		
July 2013	Meeting cancelled - space conflict		
August 2013	<ul> <li>Guest Speaker: Kim Sollien, Great Land Trust - Community Assets</li> <li>Transportation Committee report</li> </ul>		
September 2013	Guest speakers on coal development: Lorali Simon, Usibelli Coal Mine; Michelle Johnsor Alaska Earth Sciences		
October 2013	Goal discussion		
November 2013	Work on survey development		
December 2013	General discussions, survey development		
January 2014	<ul> <li>Review draft survey questions - prepare for distribution</li> <li>Review Trail Committee notes</li> </ul>		
February 2014	No meeting - survey underway		
March 2014	Review of raw data from survey		
April 2014	<ul> <li>Speakers - Lauren Driscoll: MSB Multi-Family Housing Code; Mark Whisenhunt: MSE Land Use Permits</li> <li>Survey discussion</li> </ul>		
May 2014	Meeting Cancelled		
June 2014	Survey report distributed		
July 2014	<ul> <li>Work on Survey Report for August Community Council Meeting</li> <li>Transportation Section Discussion</li> </ul>		
September 2014	<ul> <li>Finalize Transportation Section</li> <li>Begin Identification of Trails and Recreation Section</li> </ul>		
October 2014	Meeting Cancelled		
November 2014	Trails and Recreation Section review and discussion		
December 2014	<ul> <li>Trails and Recreation Section final draft review</li> <li>Natural Community Assets Presentation – Greatland Trust</li> </ul>		
January 2015	Natural Community Asset Review		
Feb. 10, 2015	Discussion on Land Use Goals		

Feb. 24, 2015	Finalize Natural Community Assets Chapter
	Land Use Chapter Review
March 10, 2015	Review Land Use Chapter
	Review Public Facilities Chapter
March 24, 2015	Review Land Use Chapter
	Review Public Facilities Chapter
	Emergency Preparedness
April 14, 2015	Water Quality
	Review Previous Changes
	Review Transportation format
May 7, 2015	Update at Community Council Meeting
May 12, 2015	Full Draft Document Review by Team
June 9, 2015	Full Document Review by Team
August 13, 2015	Update at Community Council Meeting
September 24, 201X	Full Draft Document Review by Team
October 23, 2015	Public Comment Period Opens
October 29, 2015	Present to Community at community council meeting
January 8, 2016	Public Comment Period Closes
January 21, 2016	Planning Team Comment Review
	Document modification
February 4, 2016	Community Council Meeting
August 18, 2016	Community Council Meeting
October 27, 2016	Community Council Meeting

### COMMUNITY VISION STATEMENT

The Fishhook Community Comprehensive Plan provides guidance for growth in the Fishhook area while protecting the area's natural beauty and re-affirming individual and property rights. The goal of this document is to preserve and enhance the Fishhook area's scenic, recreational, rural, residential, agricultural, and cultural identity while allowing for expanded economic opportunities.

## INTRODUCTION

The Fishhook community lives an outdoor lifestyle. Ask almost any resident and they will tell you that they love the variety of recreational opportunities available on our backyard public lands. Hunting, fishing, biking, four wheeling, dog walking, ice skating, skiing, snow machining...Fishhook has it all.

Fishhook is unique in the Matanuska-Susitna Borough. Although other regions have access to recreational lands, only Fishhook can count the Matanuska Moose Range, managed by the State of Alaska Department of Natural Recourses (DNR), the Hatcher Pass Management Units, also managed by DNR, and the Government Peak Recreational Area, managed by the Borough within its confines. Residents benefit from the variety of recreational opportunities in their neighborhoods.

The proximity of such important state lands impacts no other community as it impacts the Fishhook area. The gambit of recreational opportunities attracts other Valley residents, Anchorage Bowl Area residents along with tourists. Those impacts have the potential to change the area in ways which may not be compatible to the rest of the community council area.

The fact that residents in Fishhook live and play in the same place is significant because they are highly impacted by decisions made about public recreational land. They have a significant stake in how public lands are managed in the area. As visitors from around the Borough, Anchorage, and seasonal tourists visit the area to take advantage of the recreational opportunities, the residents are impacted, sometimes unfavorably. This plan will help them to find a voice in the development discussion.

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The community understands Fishhook is growing and new development is inevitable. That is the reason they chose to develop their own comprehensive plan, to have a voice in the future of their community. It's necessary to plan for future generations today. Water quality, recreational facilities, transportation links and public facilities are important attributes of the community which need to be planned for so they are protected and constructed later at the lowest possible costs.

As more people want to visit Fishhook, or own a home and live in the area, impacts on the natural setting tend to increase. Poor planning can have an increasingly detrimental effect on the environment in general and reduce enjoyment of each individual's home. A plan can provide guidelines to reduce the potential impacts of new (and past) development.

The changes in the community over the last ten to fifteen years will continue to change the face of the area. This comprehensive plan used the results of the 2014 Fishhook Community Survey to help identify what is important to the community so that those things will be supported in the future. Another purpose of the plan is to help the community respond to these changes in a way that accommodates growth while holding onto characteristics that make Fishhook a good place to live and visit.

## **HISTORY AND DEMOGRAPHICS**

Human history in the Fishhook area began with the Dena'ina Athatbascans arriving in South Central and Interior Alaska (Alaska Geographic, 1996). The Dena'ina tended to live near large rivers for access to salmon and for use in transportation, such as the Susitna and Copper Rivers (Bielawski, 1962). Additionally, Dena'ina were nomadic, so they did not settle in the area of Fishhook, but would pass through while hunting and fishing and in order to trade with the Ahtna Athatbascan from the Copper River area. There is no archeological evidence of long-term settlement in this area by indigenous people (Alaska Geographic, 1996).

The geological background of Fishhook has been critical to the development of the area. The geologic formations of the Castle Mountain Fault line and the Talkeetna Mountains created gold, coal and other minerals. Earthquakes and glaciers molded the current landscape by leaving behind mountains, hills, and moraines of gravel. There are large amounts of bedrock at varying levels that affects the flow of water, growth of vegetation, and availability of useable land.

Named for Fishhook Creek, the local name Fishhook was first reported to the United States Geological Survey staff in 1910, and recorded in 1911 (Orth, 1971). The Fishhook Creek basin became known for its gold quartz claims in 1906. Robert Hatcher staked the first lode claim at the headwaters of Willow Creek in the Talkeetna Mountains, in an area that would later be known as Hatcher Pass. A few years later the Gold Bullion Mine was founded on Craigie Creek by the Bartholf brothers.

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Gold fever set off a stampede that created the Willow Creek Mining District. The Carle Wagon Road was initially built and financed by miners working the Hatcher Pass mining district. Initially constructed in 1909, it was named for Jim Carle, the manager of Independence Mine, who contributed \$2,500, the majority of the funds needed to build the road. Called the Carle Wagon Road, it covered the territory from Knik to Independence Mine with branches leading to other mining interests in the district. In 1912, after numerous complaints from miners, the road was upgraded by the Alaska Road Commission (Koutsky-Cohen, 1982). After the establishment of Wasilla in 1917, the name was changed to Wasilla Fishhook Road. The Fishhook Roadhouse was built in 1916 and the Little Susitna Roadhouse was built in 1940 (later known as the Motherlode Lodge until it burned in 2015). Hatcher Pass became a ski area for the miners and other locals.

Independence Mine was one of the larger mining operations, at times running three shifts. The mine's heydays date to the 1930s and pre-war 1940s when the mine was operated by the Alaska-Pacific Consolidated Mining Company. At its height, the mine employed 204 men in 1941, just prior to World War II. The mining district and the development of the roads and beginning of infrastructure led to federal homesteading and limited commercial farming to supply gold camp and surrounding areas. (Short, 18)

Inaccessible by vehicular traffic in winter, the mine was isolated from the rest of the world. Other than the mill and associated mining buildings, the mine supported a small town that comprised a school, dining hall, theatre, dormitories for single men, housing for married couples with families, and a manager's



house. During long winter months, the hardier residents sometimes skied downhill to Palmer but on the return they had to negotiate the 5 mile uphill trek to get back (Dow, 1990s). World War II put an end to the large scale underground mining and its infrastructure. Following the war the mine struggled to stay open but had to close in 1951 with only caretakers remaining. Equipment and machinery was sold in 1958 when the mine closed for the last time.

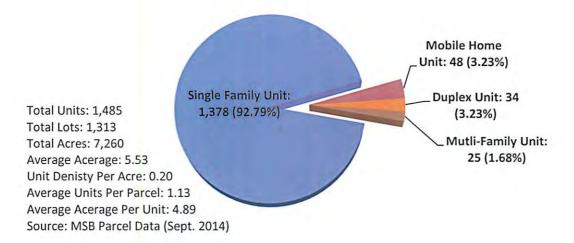
By the 1960's much of the land belonged to homesteaders. There were a few dairy farms in the area. Hatcher Pass became a popular skiing area for locals, with two rope tows and a T-Bar. The lifts were closed and removed in 1972.

When the Trans-Alaska Pipeline construction began, people started moving to the Matanuska Valley as a bedroom community in the 1970's and 80's. Several new subdivisions were built on the previously homesteaded land. An economic crash in the mid 1980's adversely impacted real estate development throughout the entire Borough. By the early 2000's the market had recovered, and the Fishhook population has been on the increase since that time.

#### HOUSING

Borough assessment data for 2014 show a total of 1,313 residential parcels. The average parcel size in the area is 5.53 acres; with the largest parcel at 319.64 acres and the smallest parcel at .47 acres. Of those, 95% of the parcels are owned by Alaskans. Almost 93% of the residential parcels are single family residences.

Fishhook C.C. Area
RESIDENTIAL Unit Distribution



(Source: MSB Assessment Data)

## Comparision of MSB & Fishhook Area Residential Parcels

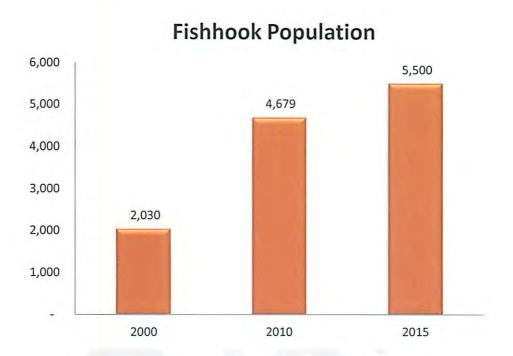
Fishhook C.C.: 1,313 Parcels (3.40%)

MSB: 37,352 Parcels (96.60%)

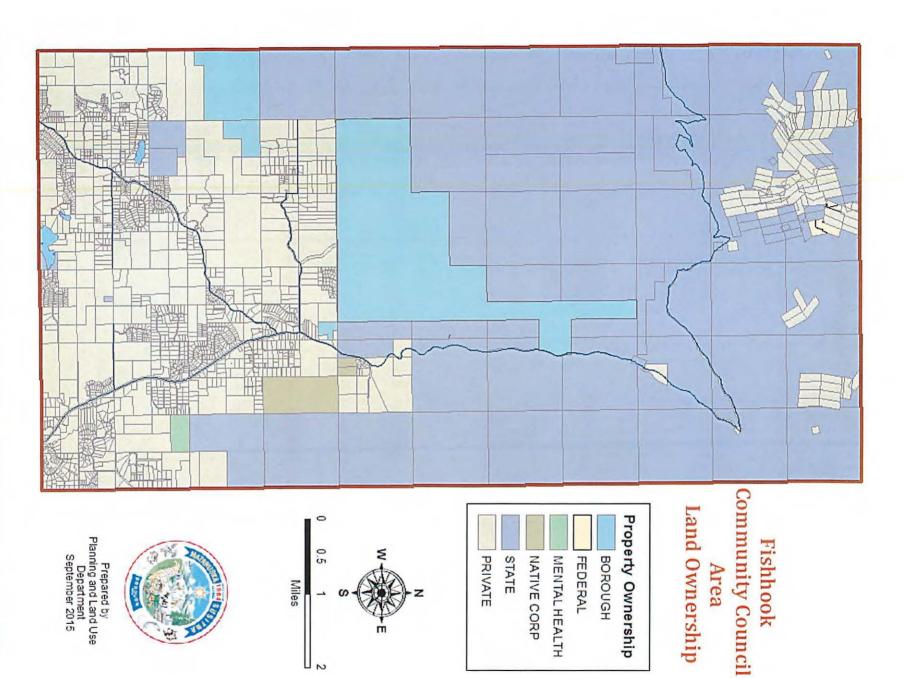
#### **POPULATION**

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The Borough is growing rapidly and it has impacted almost every area of daily life. Traffic grows by the month and new schools are built at a rate of almost one a year. Since the year 2000, population in the Borough has risen almost 40%, to an estimated 100,178 people in 2015 (State of Alaska). The growth rate in Fishhook follows the same trajectory.



(Source: State of Alaska, Dept. of Labor, Research and Analysis Division)



Miles





## LAND USE

No plan can control the future, but it can help the community head in a direction that residents desire, for themselves and their children. The overarching goal of this plan is to provide guidance for growth in the Fishhook area, while protecting the area's natural beauty and re-affirming individual and property rights. The goal of this document is to preserve and enhance the Fishhook area's scenic, recreational, rural, residential, agricultural, and cultural identity while allowing for expanded economic opportunities.

The community understands Fishhook is growing and new development is inevitable. In this chapter on land use, we have set forth guidelines that, if adhered to, will support economic growth that does not negatively impact our quality of life, water resources, healthy fish and wildlife populations, our rural character and access to our public lands.

Current land use in the 56,050 acre Fishhook Community Council area is a combination of residential, home based businesses, and a few commercial businesses on privately held land. There is a sizeable amount of vacant land, particularly in the area between the two Fishhook roads.

The private land is largely residential with some small home based businesses throughout the area. Retail businesses are primarily located near the junction of Wasilla and Palmer Fishhook Roads. There is some heavy commercial activity throughout the area including a few gravel pits.

The significant amount of publically held land contributes greatly to the community's rural and recreational character, with almost 75% of the area's acreage held by the public sector including Borough, State and Native ownership. This land is primarily in the Hatcher Pass Management Area which is divided into a network of management units, parks, special use areas, public use areas, and recreation sites. (See Appendix One)

#### LAND USE STATEMENTS

The Matanuska-Susitna Borough 2005 Update of the Comprehensive Plan states it is necessary to recognize that some land use issues are better addressed at the local community level due to the unique characteristics embodied within the Borough's communities. Four such specific attributes are present in the Fishhook Community.

 Fishhook has three regionally significant recreation areas in the community. Hatcher Pass, the Government Peak Recreational



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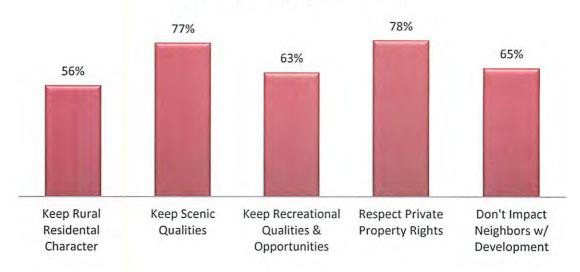
Area, and the western portion of the Matanuska Moose Range. All of these areas support a wide range of recreational and subsistence activities and are heavily used by residents and visitors.

- Any large scale development in Hatcher Pass, Government Peak Recreational Area, or the Moose Range will have significant impact on the community.
- There is no year-round through transportation link over Hatcher Pass. The Hatcher Pass Road is open from Palmer to Willow approximately 3 to 4 months a year; the rest of the time the Fishhook community is at "the end of the road".
- Though this area contains a substantial amount of surface water in the wetlands, lakes and streams, the aquifer is discreetly scattered and the groundwater supply is not uniform. Because of this, both water quantity and quality is not consistent throughout the community. In some locations residential development would be difficult without a centralized water system.
- The Fishhook Community Council area contains vital components of the Matanuska Valley watershed including the headwaters of the Little Susitna River, Archangel Creek, Fishhook Creek, Government Creek, Willow Creek, and numerous other unnamed streams and tributaries of the Little Susitna and Wasilla Creek. The council area also contains an important groundwater recharge area at the base of the Talkeetna Mountains. The groundwater is the source of our drinking water supply for Fishhook and residents on the Palmer side of the Core Area. It is important to protect the watershed for fish, wildlife and community members.



When asked how the community viewed future development and land use, 77% of survey respondents replied that keeping the area's scenic qualities are important, and 78% said that private property rights should be respected.

## **How to Manage Growth**



IM17-037

The task for the comprehensive plan is to balance the desire to keep the area scenic and rural and to respect the right of property owners to use their land as they wish. This is attainable if property owners are mindful that their neighbors do not wish to be impacted by the properties around them.

Using these elements to guide discussion, the following Land Use goals were compiled.

## LAND USE GOALS

## Goal 1: Respect existing private property rights while minimizing impacts to neighboring property owners.

Residents want to maintain the character of the area, and recognize that without some guidance, these qualities could be lost. Residents endorse private property rights and want to uphold them; however they are concerned about what happens when those rights impact neighbors in an unfavorable manner.

#### Strategies to Achieve this Goal

- Encourage a fair and reasonable balance between private property rights and community interests
- Encourage home based businesses that have little impact on neighbors
- Work with the Borough to ensure land use regulations are consistent with this comprehensive plan by allowing the Community Council to comment on behalf of the community based upon the contents of the Comprehensive Plan
- Encourage Fishhook residents to be active in the planning process to ensure their interests and rights are adequately protected

#### Goal 2: Maintain the rural character of Fishhook.

While difficult to define rural character exactly, residents suggest it includes a strong connection to nature, scenic views, low population density, farmlands and livestock, safe places close to home for kids to play, and the freedom to live your own lifestyle.

#### Strategies to Achieve this Goal

Support development along roads and waterways that maintains a natural vegetative buffer to protect the scenic quality of our community, supports wildlife movement, and is unobtrusive

Im 17-03

- Support the communities' existing agricultural activities, encourage new agricultural development, and acknowledge agricultural land plays an important part in the rural lifestyle
- Encourage residential, agricultural, and commercial areas to develop and/or maintain visual buffers
- Encourage retail development to locate in the area where the two Fishhook Roads meet, near current development
- Guide Fishhook's growth while protecting important environmental resources and community character
- Discourage industrial development based on survey responses
- Encourage new residential development to design open space within housing subdivisions to provide recreation opportunities (trails, and to maintain wildlife habitat)
- Protect open spaces throughout the community that serve as development buffers, provide connection between existing public lands to be used as recreational and wildlife corridors (see Natural Community Assets)

#### Goal 3: Maintain the area's scenic, recreational, and residential qualities.

Safeguarding the aesthetically pleasing environment can be supported by promoting development that is sensitive and complementary to natural settings.



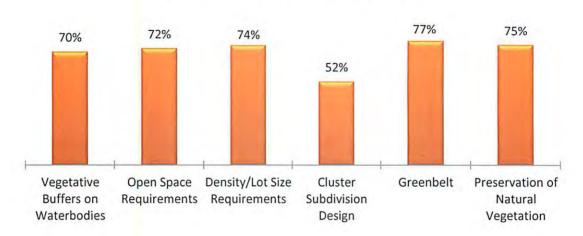
A comprehensive plan is not a zoning document; however, the planning team wanted to understand the preferences of the Fishhook Community on the important topic of managing growth as Borough population continues to climb. An overwhelming majority -- 90% -- of property owners indicated they believed that growth should be managed.

#### Strategies to Achieve this Goal

- Encourage the use of outdoor lighting that complies with International Dark Initiative standards.
- Encourage residential, agricultural, and commercial areas to develop and/or maintain visual buffers
- Maintain a natural vegetative buffer along roadways to protect scenic qualities and to allow for wildlife movement
- Reserve enough high-quality public land to meet future community needs for public uses, such as schools, public safety buildings, recreational trails, and parks
- Discourage development that would impact access to public lands, fish and wildlife habitat and/or threaten groundwater and drinking water supplies

The methods presented for managing growth reveal the following preferences of property owners.

## Ways to Manage Growth



#### Goal 4: Protect and preserve cultural resources wherever possible.

Cultural resources are those buildings, structures, sites or associations left behind by a group of people and are generally over 50 years old. Cultural resources consist of three types of properties: historic, traditional cultural, and archaeological. A large part of Fishhook's special identity and civic pride is derived from its proximity to Hatcher Pass and the history of that area.

#### Strategies to Achieve this Goal

 Work with the State of Alaska Department of Natural Resources and the Alaska State Parks to keep Independence Mine as a historical site and visitor destination, and implement the Hatcher Pass Management Plan

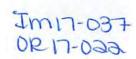
# Goal 5: Work with the community to identify methods of fostering growth in a compatible manner with the area's rural and recreational lifestyle.

As stated previously, there is already commercial development operating successfully in the Fishhook area.



However, in the survey residents viewed certain commercial activities unfavorably including medical waste incinerator (78% disapproval), strip malls (69%), large scale retail (67%), mining operations (63%), logging operations (57%), commercial gravel pits (56%), and race track for motorized uses (49%).

The Borough currently has some regulations in place for the following uses:



- MSB Chapter 17.28 Interim Materials District (gravel)
- MSB Chapter 17.30 Conditional Use Permit (CUP) for earth materials extraction
- MSB Chapter 17.62 CUP for Coal Bed Methane Exploration and Development
- MSB Chapter 17.63 Race Track Regulations
- MSB Chapter 17.64 CUP for Waste Incinerators
- MSB Chapter 28.60 Timber Harvest

However, these regulations do not prohibit these uses. Only a Special Land Use District can prohibit uses outright. The reader of the plan is advised to check the Borough code for the most up-to-date information.

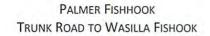
#### **Strategies to Achieve this Goal**

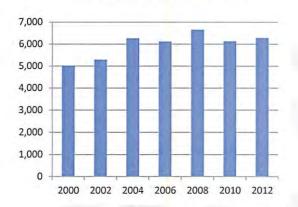
Work with the Borough to ensure land use regulations are consistent with this comprehensive plan by allowing the Community Council to comment on behalf of the community based upon the contents of the Comprehensive Plan

## **TRANSPORTATION**

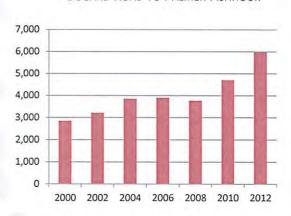
Transportation into the Fishhook area is via two primary roads, Wasilla-Fishhook and Palmer-Fishhook, with limited connectivity of residential areas. The State of Alaska maintains the two Fishhook Roads, and the Matanuska-Susitna Borough (MSB), through road service areas, maintains all other roads within the planning area.

Traffic counts from the State of Alaska show development in the area has impacted Wasilla Fishhook substantially, sending the traffic count from 3,770 cars in 2008 up to 5,985 in 2012, an increase of 38% in just four years. The portion of Wasilla-Fishhook from Seldon to Palmer-Fishhook does not meet the standards of a minor collector road due to sharp curves, lack of shoulders, and inadequate sight distances at intersections.





WASILLA FISHHOOK
BOGARD ROAD TO PALMER FISHHOOK

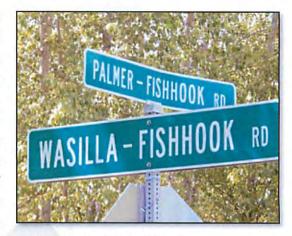


A reoccurring comment in the community survey was the lack of designated bike trails in the Fishhook area. People continue to bike in the area, not only in neighborhoods and subdivisions but also on these primary roads, creating unsafe conditions for bikers and drivers. Trails are addressed in another chapter of the plan, but the lack of bike trails is noted here to encourage future road projects to include designated bike trails in design and construction.

#### ROAD CLASSIFICATIONS

Road classifications help provide a road network that is efficient, safe and allows for growth. The most basic classification system includes arterials, collectors and local roads. Each type of road serves its own purpose which is often associated with land use. Arterials are meant to move traffic with a high degree of mobility - or speed - with a limited number of access points or intersections. Local roads are exactly what they sound like; local roads within a neighborhood with many houses and driveways accessing the road way. In the middle are the collector roads. Their purpose is to take the traffic from all the local roads and funnel it onto the arterials.

Im 17-037 DR 17-022 The Palmer and Wasilla Fishhook Roads are classified as arterials, but have a relatively high degree of driveways and roads intersecting them, which diminishes their functionality. Because there are so few collectors in the area, most of the traffic is pushed onto the arterials. Additionally, there is only one road which connects Wasilla Fishhook to Palmer Fishhook within the planning area. This causes problems when there are accidents or road construction, as residents have to go many miles out of their way to get home. It is also advisable to provide alternate emergency access for residents. A connection



between Palmer-Fishhook Road and Wasilla-Fishhook Road would help all of these factors.

Minor collectors in the planning area include: Welch Road, Edgerton Park Road, New Hope Street, Independence Street, Pamela Drive, Raleigh Hill Street, and Tex-Al Drive.

#### **EXISTING PLANS AND PROJECTS**

The 2007 Borough Long Range Transportation Plan (LRTP) is being reviewed and rewritten at the same time as this comprehensive plan is being written. There are numerous projects in the 2007 plan the community endorses as recommendations.

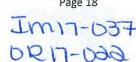
A sub-committee of the Planning Team met three times to consider these and other factors about the transportation routes in the Fishhook Community Council and made recommendations to the full Planning Team. The group agreed upon a series of goals and recommendations.

## TRANSPORTATION GOALS

### Goal 1: Develop a road grid network.

#### Strategies to Achieve this Goal

- Provide safety improvements to Wasilla-Fishhook Road from Seldon Road to Palmer Fishhook Road. This project is number ten on the current Borough Capital Improvement Program Community Transportation Program list. After being paved in the 1970's, the driving speed on this road has increased, and many vehicles go off this road every year, with serious injuries to passengers and vehicles.
- Goal 2: Develop a secondary road system to prevent additional access directly onto state roads which function as arterials and to ensure that local collector roads intersect with state roads at reasonable intervals.



#### Strategies to Achieve this Goal

- Extend Tex-Al Drive east to Palmer Fishhook Road for emergency access and to begin to build the secondary road system.
- Extend Engstrom Road north to Wasilla-Fishhook Road through Tex-Al Drive, and connect to Covington Street and Independence. This will give alternate accesses to several roads, a shorter drive to Trunk Road and then into Anchorage, and provide access to the potential school sites and larger undeveloped parcels.
- Extend New Hope Street west to connect to Independence Avenue.

Goal 3: Site future schools at least ¼ mile away from the major roads, in order to avoid the creation of school speed zones, and to allow children to walk to school.

#### Strategies to Achieve this Goal

Work with Borough on School Site Selection process.

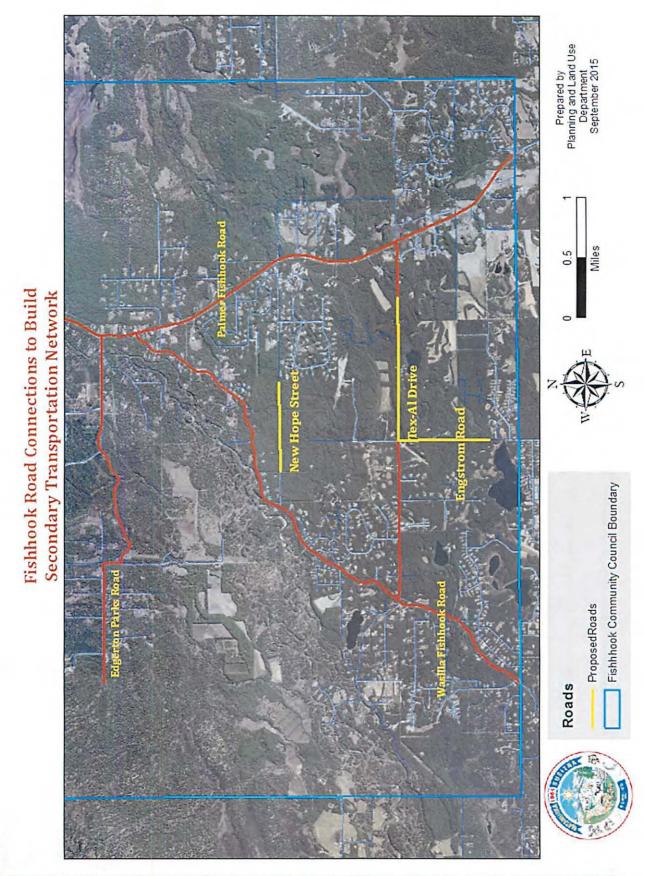
Goal 4: Encourage MSB platting, road regulations, and standards for public safety as a priority.

#### Strategies to Achieve this Goal

Require connecting roads to provide through access to adjoining lands and adjacent subdivisions,
 all with the goal of limiting direct lot access onto the major roads.

#### OTHER TRANSPORTATION PROJECTS

The Planning Team does not expect highways, railways, public airports, or public transit with regular stops along the roads to be developed within the Community Council area in the near future.



Fishhook Comprehensive Plan Community Council Draft 10-27-16 Transportation

## **TRAILS & RECREATIONAL SITES**

The Fishhook Community Council area is a highly diverse residential community with a strong emphasis on recreation. The area has significant legal and informal trail systems, open space and scenic attractions. For residents, the area offers a quiet rural atmosphere, clean air and water, easy accessibility to public lands, lakes and rivers. One of the common goals agreed upon throughout the comprehensive planning process was the strong desire to maintain these qualities. A healthy and enhanced trail system helps support this goal.

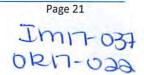


This sentiment is shown throughout the survey through numerous comments similar to "rural character is everything" to the responses below when asked how Fishhook's future should be planned.



The vision for the Fishhook Community is to maintain access to public open space and to develop a formal and informal trails system that offers a balance of recreational opportunities desired by diverse user groups.

Formal trails are protected by easements or otherwise dedicated to public use and assure continued use and a high quality experience. They are usually constructed or improved, signed, mapped, maintained and managed by an identified entity for public use. Additionally, they are usually advertised to the public and may have support facilities like trailheads, parking, shelters, and toilets. (Excerpted from the State of Alaska, Department of Natural Resources, Division of Parks and Outdoor Recreation Alaska Recreational Trails Plan, October 2000).



Informal trails exist without any type of formal recognition or maintenance. They are created by residents and visitors to the area through repeated and historical use, on both public and private land. Most of the informal trails in the area exist along roadways, and in the western portion of the Matanuska Valley Moose Range.

This chapter addresses the following assets within the community council boundary area:

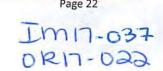
- current public recreation sites
- · trails and public access
- potential recreational areas

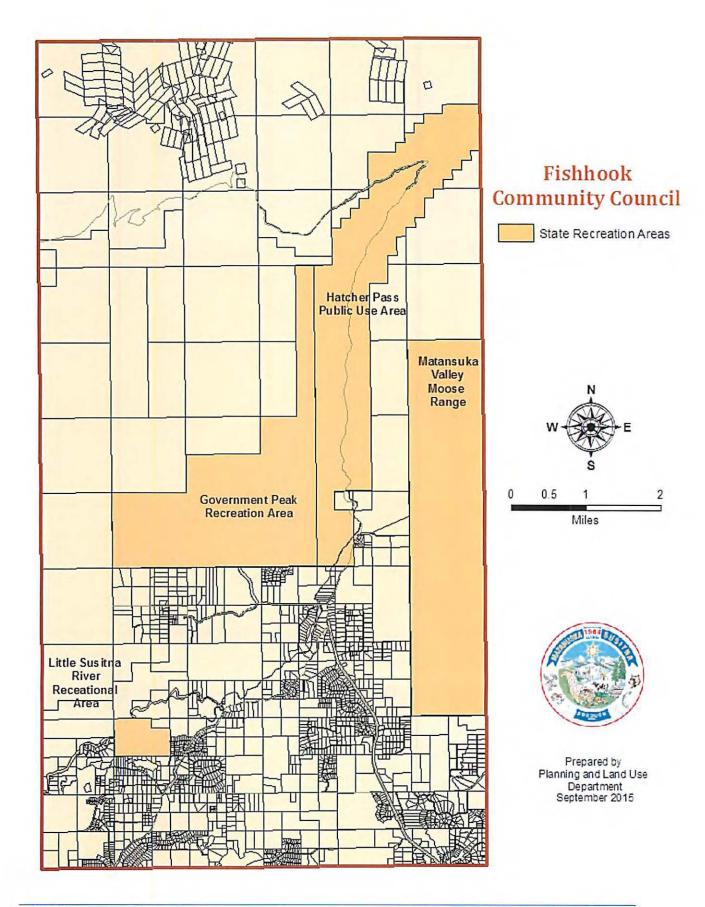
#### TRAILS AND RECREATION STATEMENTS

- We acknowledge that there are conflicts between user groups that need to be addressed.
   The increased use of the area has resulted in increased conflicts.
- We recognize the multitude of user groups in the area and the need for appropriate trails for all groups.
- Our public lands and trails are shared community resources. Not all residents and visitors are respectful of the public resource in our council area, as the degradation of salmon habitat and wetlands, poaching of moose and damage to trails demonstrate. As a community, we encourage recreation that does not negatively impact the habitat, water quality, and fish and wildlife habitat.
- Lack of funding limits trail development and maintenance. Use enforcement, signage and user education about trial etiquette could help to resolve user group conflicts. We need to educate users about multi-use trails with appropriate trail signage.
- We need to address and respect personal property rights and laws as we work to preserve and enhance our recreational attractions.

#### RECREATIONAL ASSETS

It is important to recognize that residents in the Fishhook Community Council Area will be directly impacted by activities throughout Hatcher Pass, as the primary access to these sites is through their community. Contained within the planning area are three important recreational assets used heavily by community residents and visitors. These public open spaces account for 75% of the acreage in the community council area.





#### Hatcher Pass

Hatcher Pass offers access to extraordinary mountaineering terrain, beautiful mountain scenery, an historic gold mine, gold panning, berry picking, hiking, biking and horseback riding in the summer. It also offers mountain skiing, snowboarding, sledding, snow-shoeing and snowmobiling in the winter. Although many people refer to Hatcher Pass as a state park, it is actually a management area comprised of ten units, each created legislatively, and each with its own regulations. Together they comprise the Hatcher Pass Management Area (HPMA).



The management area primarily consists of mountainous terrain in the Talkeetna Mountain Range that climbs from the 1,000 foot valley floor to summits higher than 6,000 feet. It can be accessed on paved roads and is only an hour and 20 minutes away from Anchorage, and 20 minutes from either Palmer or Wasilla. The Palmer-Fishhook Road leads to the east side of Hatcher Pass passing right through the community council area. The state manages all the lands with the exception of the Government Peak Unit which is managed by the Matanuska-Susitna Borough.

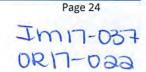


The management of state lands in HPMA is complex. They are classified as general state lands, with a public recreational focus. Three state agencies are involved in managing the east side of the HPMA area which is in the community council boundary. The lands are jointly managed by the Department of Natural Resources (DNR), the Alaska Division of Parks and DNR's Division of Mining, Land, and Water. The primary management orientation is towards recreation and compatible uses with recreation, including mining. There are two state parks in the Hatcher Pass, Independence Mine Historical Park and the Summit Lake State Recreation Site (picture left).

It is not the intention of this document to reiterate the State and Borough's plans. For further information about the Borough's plan go to <a href="http://www.matsugov.us/project/hatcherpass">http://dnr.alaska.gov/mlw/planning/mgtplans/hatcher/#top</a> for the state's plan. See Appendix One for Hatcher Pass management organization.

#### **EXISTING HATCHER PASS TRAILS**

There are several trails in Hatcher Pass; these are just a sampling.



### APRIL BOWL TRAIL - IN COMMUNITY COUNCIL (CC) AREA

This trail begins with switchbacks, through a small valley with a cirque lake and several ponds. It soon turns into a ridge trail and is extremely narrow and rough, ending at Hatch Peak. The 2.2 mile round trip trail gains approximately 800 feet from its starting point at Mile 19 on Hatcher Pass Road.

#### GOLD CORD LAKE TRAIL - STARTS IN CC

The 1.7 mile round trip Gold Cord Lake Trail is an excellent choice for families with children or groups with different fitness levels. The final section gains moderate elevation to the lake with an elevation gain of about 800 feet. This foot trail is accessible from the Independence Mine Parking Lot.

#### GOLD MINT TRAIL - STARTS IN CC AREA

Following the west bank of the Little Susitna River to its source in the Mint Glacier Valley, the 16 mile round trip Gold Mint Trail is relatively easy, but steepens in a glacier-rimmed valley towards the end as it gains 1,000 feet. The beginning of the trail is handicap accessible. The trail is suitable for foot, bike and ski travel, beginning at mile 14 on the Palmer-Fishhook Road.

#### REED LAKES TRAIL -IN CC AREA

This trail follows Reed Creek and passes turquoise lakes, waterfalls and the abandoned Snowbird Mine ending at Upper Reed Lake. The first 1.5 miles are easy and follow an old road to an abandoned cabin. The rest of the trail is challenging and includes a car-sized boulder field marked by cairns. Accessible at Archangel Road, the 9 mile round trip trail can be traveled by foot and bike and has an elevation gain of 1,600 feet.



#### MILE 16 SLEDDING TRAIL - IN CC AREA

This two mile trail which starts at Mile 16 on the Palmer Fishhook Road offers sledding options in the winter, mountain biking opportunities year round, and hiking in the summer.

The State of Alaska is developing trail maps for these facilities. Additional information about these trails can be found at: <a href="http://dnr.alaska.gov/parks/aspunits/matsu/hatcherpassema.htm">http://dnr.alaska.gov/parks/aspunits/matsu/hatcherpassema.htm</a>.

GOVERNMENT PEAK RECREATIONAL AREA

Im17-037 0R17-00a The Government Peak Unit of Hatcher Pass is managed by the Borough, under the name Government Peak Recreation Area at Hatcher Pass, a non-motorized area year round. This management unit is further divided into a northern area, set aside for alpine development; the mountain area, used for recreational uses; and the southern area which is being actively developed as a multi-use recreational site.

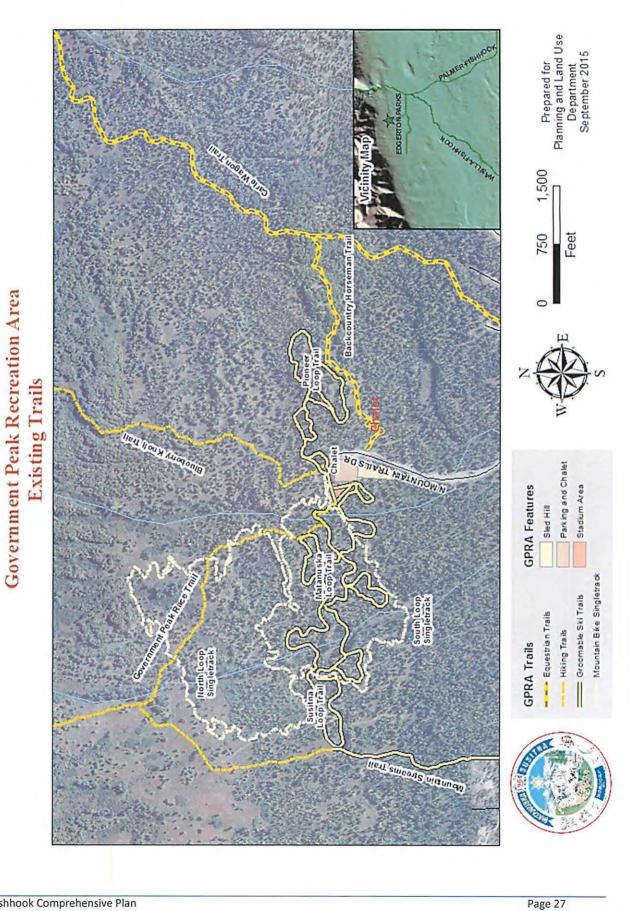
The southern unit consists of 1,890 acres of moderately rising mountain slopes with numerous benches and Alpine meadows. The area is developing as a multi-purpose, non-motorized area through joint collaborations between the Borough and non-profit organizations. Development across the southern unit has been substantial since 2013. User groups have constructed equestrian, Nordic ski and mountain bike single track trails. Hiking trails have also been expanded.



The Government Peak Chalet was constructed in 2013, and opened in 2014 by the Borough. The 4,000 square foot facility functions as a warming shelter, meeting place, and transit stop. The facility is managed by the MatSu Trails and Park Foundation, which has an office in the building. The one mile paved access road and large parking area provide access to the newly constructed Nordic ski trails which are heavily used by area schools practicing and holding meets at the site. Biking and equestrian

trails are also under development in the area. The Borough's 2012 Hatcher Pass – Government Peak Unit Asset Management and Development Plan does allow some residential and limited commercial development in the area.

Any future alpine development will be in the northern unit. The Borough's 2012 Asset Management Plan provides a blue print for potential development that would be both financially feasible and environmentally sensitive. Commercial and residential development is permitted as long as the revenue derived from the development is used to develop, operate and maintain the recreational facility in the area. Any deviation from that scenario requires a plan amendment to the state's Hatcher Pass Management Plan.



### MATANUSKA VALLEY MOOSE RANGE

The State of Alaska created the Matanuska Valley Moose Range in 1984 to maintain, improve and enhance moose populations and habitat and other wildlife resources of the area, and to perpetuate public multiple use of the area, including fishing, grazing, forest management, hunting, trapping, mineral and coal entry and development, and other forms of public use. In 1986, a management plan was enacted which still governs activities in the 132,500 acre range. Management of the area is a shared obligation of the Department of Natural Resources (DNR) and the Department of Fish and Game (ADF&G). DNR is responsible for the mining, forestry, grazing, subsurface resources and engineering geology. ADF&G is responsible for the management of fish and game resources on the state land and water described in the plan.

The Moose Range is divided into three sub-units and the most western portion of the western subunit intersects the Fishhook Community Council boundary. The area is an important recreational asset to the community, with several multi-use trails used year round. The area is also vital to the aquifer recharge area for the region.

### TRAIL AND RECREATIONAL GOALS

Community members recognized the area's unique recreational potential and focused on two specific goals.

Goal 1: Identify, preserve, and develop a regional trail system for public use that provides a balance of appropriate access for all recreational groups.

### Strategies to Achieve this Goal

- Within one year, conduct an inventory of existing trails (including formal and informal trails, RS2477 trails and area off road vehicle activity or hot spots) for the purpose of developing, identifying, and preserving interconnected trails and recreational lands in the community council area
- Encourage the State to vigorously defend RS477 trails.
- Develop additional pedestrian and bike trails and linkages between parks, open spaces, water bodies, and neighborhoods. Acquire additional public greenbelts to enhance these links through collaboration with foundations, non-profits, and government sources
- Ensure any future schools are connected to trails, parks, and neighborhoods

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- Advocate for the design and construction of recognized bike lanes and off road vehicle (ORV) access along the Palmer and Wasilla Fishhook Roads by maintaining a working relationship with the State of Alaska Department of Transportation and Public Facilities (ADOT&PF), and state and local elected officials to ensure awareness of the need for these infrastructure upgrades
- Work cooperatively with the State to develop and maintain a multi-use trail system within the Matanuska Valley Moose Range and revise a management plan to benefit all user groups as well as fish and wildlife
- Support a recreation area designation for the Moose Range which limits other uses such as mining, gravel extraction, large scale timber harvest, and mineral development. These items should be restricted to preserve the community resource. The area is important for water quantity and quality as an aquifer recharge area, migratory bird habitat, hunting, year-round recreation, and salmon production and activities
- Increase informational signage of all trails and recreational sites in the community council area, especially in the Moose Range, with consistent design and content
- Encourage ongoing development of recreational activities in the Government Peak Recreational Area
- Encourage exterior trail lighting to be located and shielded to direct the light towards the ground, in order to minimize light spillage upward into the night sky and onto adjacent areas
- Support State Parks's role in managing state land in the Hatcher Pass area by advocating for a representative from the Community Council to be a member of the State Parks Advisory Board and by supporting funding for enforcement of the Hatcher Pass Management Unit.

### Goal 2: Identify and preserve existing lake and river public access and seek new access points for water based recreation in the Fishhook area.

 Within one year, conduct an inventory of existing lake and river public access points, for the purpose of developing, identifying and preserving public access along the Little Su River, Wasilla Creek corridor, and to lakes within the community council area

# **WATER RESOURCES**

A watershed is a geographic area where all rainwater, snowmelt, and any other type of precipitation drain into lakes, rivers, or other bodies of water and into the ground water. The boundaries of these areas are defined by the movement of water throughout a region. Watersheds provide a number of essential services to communities. They are necessary for water supply and filtration, flow regulation, and erosion and sedimentation control. Properly functioning watersheds can reduce the need for constructing and operating expensive infrastructure systems to provide these services. Healthy watersheds also provide the benefits of water quality, flood damage prevention, habitat protection, biodiversity, agriculture, fishing and forestry industries, aesthetic enjoyment, and recreation. Increasing populations, land conversion, and other economic activities are posing greater challenges to protecting watershed resources and maintaining a healthy environment for local communities. The population of the Borough relies on surface and ground water for drinking water, magnifying the importance of watershed protection.

The activities taking place in proximity to a watershed greatly affect its condition and quality. Some common activities that negatively impact watersheds include development activities (building new homes, paving roads, etc.), excessive application of fertilizers and pesticides, removal of natural vegetation, overworked farm and forest land, wastewater discharges, failing septic and sewer systems, transportation, and industrial discharges. The activities listed above can result in habitat loss and degradation, water quantity and flow modification, chemical pollution, excessive amounts of nutrients and sediments present in the watershed, introduction of pathogens and invasive species, and altered temperatures.

The preservation, restoration, maintenance of a watershed requires communities to establish a balance among needs for water supply, water flood control, navigation, quality, hydropower generation, fisheries, biodiversity, habitat conservation, and Watersheds recreation. containing higher proportions of forest lands, wetlands, vegetation, other permeable surfaces provide greater capacity for filtering pollutants, moderating water flow, and erosion and sedimentation control. Maintaining greater proportions of forest land,



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wetlands, and other vegetated areas provide wildlife habitat and increased biodiversity. Increased vegetation can also assist in climate stabilization by providing more shade.

The Fishhook Community Council boundary includes a portion of the following watersheds:

- Archangel Creek
- Headwaters Willow Creek
- Fishhook Creek Little Susitna River
- Wasilla Creek

- Government Creek Little Susitna River
- Cottonwood Creek
   (Hydrologic Unit Code Level 12)

Assessments of these watersheds were not available during the drafting of this plan. Watersheds cross multiple community council boundaries. As an up-gradient community in the Borough, other areas of the Borough are affected and impacted by activities and development in Fishhook.

Watersheds that occur in the Fishhook area flow into the Buffalo Mine/Soapstone, Farm Loop, Gateway, North Lakes, South Lakes, Core Area, Meadow Lakes, Tanaina, Willow, and Knik-Fairview community councils areas. The Wasilla Creek Watershed flows all the way to the Cook Inlet through six communities and the Borough's core area. These nearby communities and the Borough are encouraged to adopt and implement the goals presented in this chapter to help protect the water resources of the Fishhook area, as well as their own.

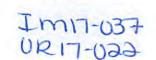
### WATER QUANTITY

Though this area contains a substantial amount of surface water in the wetlands, lakes and streams, the aquifer is discreetly scattered and the groundwater supply is not uniform. Because of this, both water quantity and quality is not consistent throughout the community. The area cannot sustain high density development because of water quantity, and the fact that in some areas there is no water at all.

Lot size throughout the Borough is primarily tied to water resources. The State of Alaska, Department of Environmental Conservation requires specific distances between on-site septic and wells. The minimum lot size is 40,000 square feet. If the lot is serviced by a community water system, or a community sewer system, the lot size may drop to 20,000 square feet. Currently only lots within cities in the Borough are provided with both water and sewer service; lot sizes in those instances are determined by the city.

### STORM WATER

The Borough will be required by the Alaska Department of Environmental Conservation to have a Municipal Separate Storm Sewer System (MS4) permit when the Borough reaches a population of approximately 100,000 with increased density levels. The permit will require the Borough, including the cities, to expand and improve its storm water management practices. As communities urbanize, a greater volume of water runoff carrying pollutants are discharged into the rivers, lakes and streams. A storm water plan, required by the permit, will help the Borough do a better job of protecting its water resources.



## WATER RESOURCE GOALS

Goal 1: Encourage the Borough, State, and the U.S. Geological Survey to map the aquifers that provide or contribute to existing and potential future drinking water supplies.

### Strategies to Achieve this Goal

- Identify and characterize major aquifers and aquifer systems
- Determine the connectivity between shallow aquifers and surface water bodies
- Assess current water quality conditions
- Utilize local existing well log data to map aquifers

### Goal 2: Develop, adopt, and implement watershed management plans for the watersheds within the community.

Effective management of watersheds will require the community's involvement to address this complex issue. Communities typically include a cursory inventory of water bodies and wetlands with a comprehensive plan. To be effective, watershed issues must receive more serious attention as a part of land use planning. The current resources should be analyzed with respect to the expected pressure for development in coming years. Based on this information, planners can work with the public to establish goals, objectives, and policies for the plan, and then suggest alternative, more suitable locations for expected growth or qualitative changes in the types of growth allowed. Less direct, comprehensive plans also may identify areas where development and redevelopment can be encouraged.

### Strategies to Achieve this Goal

 Support the Borough to work with the United States Geological Survey (USGS), State of Alaska, and others to draft watershed management plans which address the Fishhook watersheds.

The watershed management plans should include the identification of problems and sources of watershed pollution, critical areas within the watersheds, improvement and protection goals, necessary best management practices to implement, and a plan to monitor effectiveness. It is

Page 32 IMIT-037 DRIT-022 critical for communities to collaborate on watershed management particularly when watersheds span multiple jurisdictions.

# Goal 3: Raise public awareness of the impacts of development on watersheds to protect water quality.

### Strategies to Achieve this Goal

- Collaborate with surrounding communities that share watersheds to implement watershed management plans across community council boundaries
- Inform landowners of the negative effects of impervious surfaces, encourage open space, and promote compact development to provide better watershed protection
  - Identify incompatible land uses and activities for identified critical drinking water supply recharge areas
  - Identify appropriate densities of residential development for critical drinking water supply recharge areas
  - Recommend requiring conditional use permits for development likely to cause negative effects within particularly sensitive areas
  - Recommend creating an overlay district to establish additional specialized land use guidelines for areas of critical drinking water supply recharge
- Establish use areas that correspond with watershed boundaries
- Encourage appropriate lot sizes in sensitive areas to minimize negative effects of runoff
- Encourage the State or Borough to establish performance-based requirements for runoff management and other issues
  - Encourage vegetated filter strips or buffers between a pollutant source and wetlands or surface water bodies to provide runoff treatment and prevent soil erosion
  - Inform residents and developers of code requirements and state laws on erosion control during and following construction
  - Encourage secondary containment for legal non-conforming structure such as heating fuel storage within the 75' set backs
- Encourage local officials to direct the location of infrastructure (public facilities and roads)
   in areas that are suited for significant growth and development and away from sensitive watershed areas
- Encourage conservation easements on public or private land where limited development would have a positive effect on community resources such as natural community assets and significant drinking water recharge areas

Goal 4: Protect future residents and current water sources.

IM 17-037 0R17-022 Current subdivision regulations do not require proof of potable water on site. In some instances, residents have drilled numerous wells and still could not find an adequate water supply for a residence.

### Strategies to Achieve this Goal

 Gather ground water data from area subdivisions and other resources to map water availability.

# Goal 5: Involve the public by encouraging voluntary action on private lands.

Public education and voluntary action are the key components in maintaining important natural resources

### Strategies to Achieve this Goal

- Encourage public participation in the planning process to create increased awareness of water sources.
- Use press releases, brochures, newsletters, meetings and workshops, , and collaborative efforts with the media to increase public interest and improve public understanding of natural resource protection and habitat conservation to help create awareness among private landowners.
- Increase public education regarding non-regulatory strategies based on voluntary actions such as land or easement donation and wise management practices on privately owned land.
- Develop management strategies that create more awareness in the community and thereby increase public ownership of the solutions.
- Encourage partnerships with state, and federal agencies, non-governmental organizations, private businesses, policy makers, and a variety of other stakeholders to collaborate on and advance wetland protection initiatives.



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## **EMERGENCY PREPAREDNESS**

Borough residents may periodically be confronted by natural and human caused hazards. Potential natural hazards include floods, earthquakes, avalanches, wildfire, snow, windstorms and extreme cold. Human caused hazards include hazardous material and waste spills, railroad derailments, and air and water contamination. It is vital for the Borough and its residents to be adequately prepared to respond to these hazards in order to reduce the loss of life and property. (MSB Comprehensive Plan Update, 2005)

The Borough has recently finalized the Matanuska-Susitna Borough Hazard Mitigation Plan (HMP), to meet requirements of the Federal Hazard Mitigation Act of 2000. The plan is intended as a guide for reducing losses, both human and economic, due to natural disasters. The document follows the required processes of identification of hazards, mapping the potentially impacted areas, tallying risks and vulnerabilities, and presenting mitigation strategies. The primary goals of the plan are:

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

To attain these goals, the MSB HMP includes measures to:

- Save lives and reduce injuries
- Prevent or reduce property damage
- Reduce economic losses
- Minimize social dislocation and stress
- Maintain critical facilities in functional order
- Protect infrastructure from damage
- Protect legal liability of government and public officials

The potential disasters in the Fishhook Area identified by team members include:

- Wildfire
- Flooding
- Earthquakes

- Avalanche
- Erosion
- Communication Blackouts

For a map of fault lines in the area visit: <a href="http://maps.dggs.alaska.gov/qff/#-16341296:8910436:7">http://maps.dggs.alaska.gov/qff/#-16341296:8910436:7</a>.

# **EMERGENCY PREPARDEDNESS GOAL**

### Goal 1: Engage the community in planning for emergencies

### Strategies to Achieve this Goal

- Work with MSB emergency services to prepare for natural disasters
- Work with MSB emergency services to identify appropriate natural hazard mitigation measures and a cost/benefit analysis of each measure
- Incorporate natural hazard information into the community's long term planning efforts.
- Develop and disseminate information about natural hazard areas to inform property owners of at-risk areas
- As new public facilities are constructed, work with the Borough or State to ensure they can be used as emergency relief centers
- Identify existing communication networks
- Support Borough led community exercises which train citizens for emergency response
- Encourage the MSB and State to develop plans for emergency replacement of bridges over Wasilla Creek the Little Su River at Edgerton Park Road and Palmer Fishhook Road and other critical area bridges



## **PUBLIC FACILITIES**

Public facilities include parks, libraries, schools, community centers, fire stations, water and sewer systems, landfills, and recreational structures. For the purpose of this plan, they also include utilities. These facilities and utilities are necessary to support community development and growth by the provision of clean water, emergency response, education, and other vital community services. Public facilities are therefore a necessary ingredient in enhancing quality of life within the Borough. A community's public facility infrastructures engender a sense of community by providing physical features that may promote additional development activity and thus enhance community quality. In other words, public facilities serve as the basic infrastructure required to build communities. (MSB Comprehensive Plan – 2005 Update).

### **CURRENT FACILITIES**

There are two public facilities belonging to the Borough within the community council area:, a fire station and a recreational facility. Fire Station 3-5, part of the Greater Palmer Fires Service Area is located at 8200 E Turner Road (between the two Fishhook Roads). Property owners pay an additional mill rate to receive fire protection. Volunteers are responsible for staffing the station and serving as firefighters.

The other facility is the Government Peak Chalet, constructed in 2013, at 10690 North Mountain Trails Drive. The Chalet is a strong addition to the Borough's recreational program. It is currently managed by



the Mat-Su Borough Trails and Parks Foundation through a partnership that provides some revenue to the foundation and frees the Borough from some responsibility. It is in the center of a wide variety of non-motorized trails including world class cross-country ski trails which are used by local high schools, junior programs, and the public throughout the winter. Bikers and hikers also use the trails throughout the winter. Summer months offer hiking, biking and equestrian trail options. The Chalet also offers the first real space for community meetings in the area and is often used by the Community Council and the

Borough for that purpose. The Chalet is available for the public to rent and offers a stellar view of the Chugach Mountains. (See Trails and Recreation and Natural Community Assets chapters for further information)

The Borough and State provide many of the public facilities. However, they are often located outside the community council boundary. There are no public schools located within the area, but children have several educational options available to them including a wide variety of public, private and charter schools, and home schooling.



Libraries are located in the cities of Palmer and Wasilla. The Borough's central landfill at 1201 North 49th State Street is the nearest facility for solid waste, although two private companies offer collection service throughout the community. Valley Community for Recycling Solutions offers recycling options near the landfill five days a week. Pick-up options for recycling are also available. Finally, the Borough offers services through the Animal Care and Regulation Division through the operation of a shelter, community outreach programs, and an enforcement staff to ensure the welfare of domesticated animals.

There are U.S. Post Offices in both nearby cities, and a contract postal unit run by a private supplier on the Palmer-Wasilla Highway. The Alaska State Troopers provide police protection from the Palmer/Mat-Su West Detachment. The troopers currently respond to an exceedingly large call area extending up both the Glenn and Parks Highways. Due to long travel distance Trooper response time is often unsatisfactory; this is not expected to change in the near future.

Health care is available in Palmer and Wasilla through acute-care facilities, doctors, dentists and ophthalmologists as well as alternative care providers. The Mat-Su Regional Medical Center, a full service hospital, is located at the juncture of the Parks and Glenn Highway. The newly opened Benteh Nuutah Valley Native Primary Care Center in the City of Wasilla operated by the Southcentral Foundation to provide Alaska Native facilities within the Borough.

Utilities available to residents include electricity from Matanuska Electric Association; telephone and internet services through Matanuska Telephone Association, AT&T, Verizon, and GCI; and natural gas in some locations provided through Enstar Natural Gas Company. Although natural gas is not currently available throughout the entire community council boundary, Enstar continues to expand its service area in the region. The vast majority of homes have on-site wells and septic system. The septic systems are serviced by numerous local septage hauling firms. Sewage is trucked to Anchorage where it is receives primary treatment. The Borough does not currently have its own treatment plant.

### FUTURE FACILITY NEEDS

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In 2011, the Mat-Su Borough contracted to have a Density and Building Study (DBOS) completed to estimate ultimate land absorption using current Alaskan land use practices. The study respected the current semi-rural nature of the Borough and assumed that this density will be somewhat consistent into the future. The model predicts population and housing quantities at an undetermined date of "build-out" (when all land is absorbed) and creates a process for locating future public facilities. The density model begins with raw land and deducts acreage from ultimate development based on constrained lands, soils not conducive to development, probable non-residential areas, and water surfaces and mountainous areas.

Once these deductions were made, and historical ultimate density patterns were observed in the Borough, long range density forecasts were developed based on current land densities, probable town/community centers proximate to major intersections and other factors. During the planning process, Western Demographics provided a specialized look at the Fishhook area to help assess the need for public facilities in the area. (See appendix two).

# **PUBLIC FACILITY GOALS**

# Goal 1: Encourage the Borough to work with the community to identify and reserve parcels for future public facilities.

The Borough's Comprehensive Plan (2005 Update) recommends the identification and acquisition of the necessary land for future public facilities. As of the date the Fishhook Plan was drafted, extensive development of Borough facilities is not required. However, the plan recommends reserving key Borough parcels now for the facilities that will likely be needed in the future. This opportunity has been lost in communities in the Core Area where development has occurred rapidly, and public land is no longer available. By reserving parcels well ahead of development pressures, Fishhook will ensure schools and other public facilities are centrally located, hopefully in the community core area, between the Palmer and Wasilla Fishhooks, near their intersection.

### Strategies to Achieve this Goal

- Work with Borough staff to identify parcels of MSB land for future community schools and public facilities
- To the greatest extent possible, co-locate new and expanded community facilities in relatively concentrated areas
- Locate new schools near existing recreational facilities to maximize use of the lands for play and outdoor classrooms

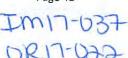
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- Reserve land for recreational parking and trails. To the extent feasible and practical, co-locate selected site for public facilities to reduce construction, operating and maintenance costs
- Authorize the Community Council to make these recommendations on the community's behalf when asked to comment on public facilities
- Encourage continued local volunteer support to develop and main local recreation facilities
- Encourage local community groups' participation in the construction, operation, and maintenance of existing and future parks and playgrounds
- Inform each new District 6 Assembly Member of the community's desire

### Goal 2: Improve and expand the fire, ambulance and emergency services.

### Strategies to Achieve this Goal

- Reserve land for emergency services
- Encourage continued local volunteer support for firefighting and emergency response. In lieu of volunteers, advocate for full time staff at emergency sites



# **NATURAL COMMUNITY ASSETS**

Natural community assets carry a value in the community. They help to provide a framework of natural, physical features that support recreation and tourism, fish and wildlife habitat, important watershed aquifers, protect against flooding, and other attributes the community values. Recognition of these key features in the Fishhook area can help assure ample hunting and fishing stocks, clean drinking water for drinking, and preservation of the recreational components that are important to community residents.

### NATURAL COMMUNITY ASSET NETWORK DESIGN GOAL

Goal 1: To identify and potentially conserve the natural community asset network alongside the development of "gray infrastructure" (e.g., roads, utilities, public facilities, residential subdivisions and businesses) that will benefit the public and will contribute to sustaining the high quality of life Fishhook residents have come to enjoy.

### Strategies to Achieve this Goal

- Establish a system of natural open space, parklands, greenways, corridors, and habitats by identifying natural community asset maps
- Protect and conserve the natural resources that support the well-being of residents and the region's tourism and local economy
- Promote the continued viability of local agriculture and access to healthy wild foods
- Protect community water supplies for residents and fish and wildlife
- Encourage future development in a way that protects the natural function of the land while respecting the needs and desires of the landowners and other stakeholders by working with local conservation groups and willing landowners

### NATURAL COMMUNITY ASSET MAPS

Natural community asset maps show an interconnected network of land and water resources that support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for our communities, people, and wildlife. The community asset network maps are organized by hubs and links. The following terms explain this entire process.

IM17-037 0R17-022 Natural Community Assets are lands that provide food, water, wildlife and fish habitat, agriculture, floodplains, subsistence resources that provide economic, social and cultural/historical benefit to residents.

A **Hub** is an area (land or aquatic) that anchors a community asset network and provides space for native plants and animal communities, as well as an origin or destination for wildlife, people, and ecological processes moving through the system. Hubs range in size.

A **Link** is a corridor or greenbelt connecting the Hubs to each other. This allows for interconnected recreational and wildlife corridors and development buffers along waterbodies.

### NATURAL COMMUNITY ASSET DEFINITIONS

Agricultural Land: land under cultivation for agricultural or horticultural use.

<u>Clean Water:</u> ground or surface water of sufficient quality to serve as drinking water for human populations and/or provide healthy habitat for fish and/or aquatic species.

<u>Cultural and Historic Resources:</u> any tangible or observable evidence of past human activity, found in direct association with a geographic location (can include farms, buildings, trails, archeological sites, etc.).

Floodplains: area that will be inundated with water during a flood event (source FEMA maps).

<u>Open Space</u>: any land or area that the preservation of which in its present use would conserve scenic, cultural or natural resources; protect water bodies or water quality; enhance neighboring parks, forests, wildlife preserves, nature reservations, or sanctuaries; or increase recreation opportunities (definition from MSB Land Use Code, Title 27).

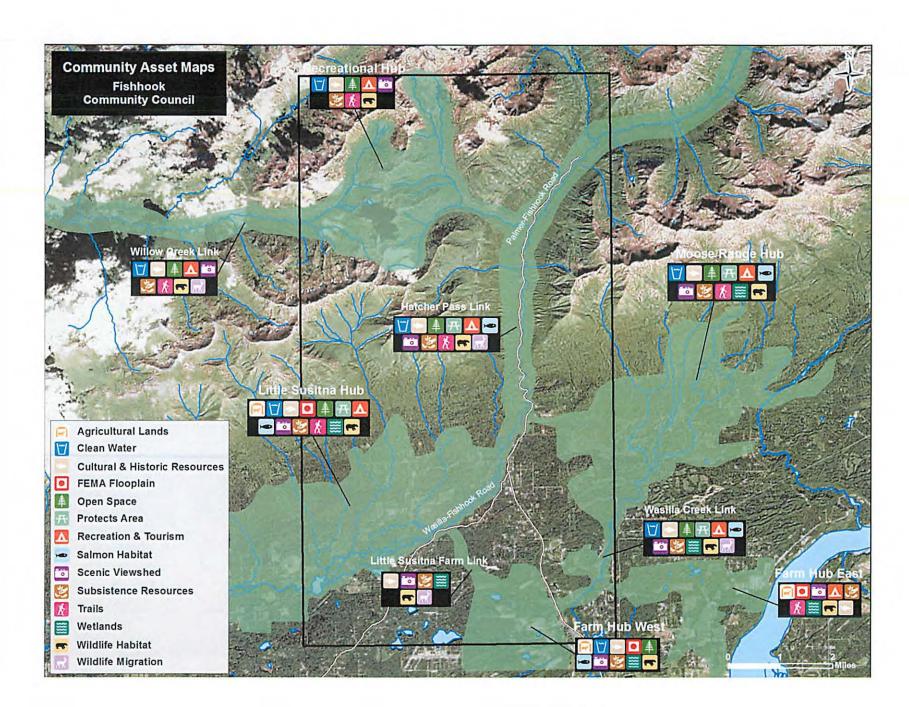
<u>Protected Areas:</u> areas of land (state, borough, federal or private with a conservation easement) which have management guidelines setting aside the land for the protection and conservation of fish and wildlife habitat, agriculture, and recreation.

<u>Recreation & Tourism:</u> areas of land that provide high quality recreational access, support tourism activities and provide local economic benefit.

<u>Salmon Habitat:</u> rivers, lakes, streams and wetlands that are important for spawning, juvenile rearing, overwintering or migration habitat of anadromous fish (salmon and Lampray).

<u>Scenic Viewshed:</u> areas that protect or provide scenic views along roadways, from waterbodies and bordering parklands.

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Subsistence Resources: lands and waters that provide opportunities to harvest wild fish, game, and vegetation.

<u>Trails:</u> a path or track made across a wild region, over rough country or the like, by the passage of people; motorized, non-motorized and water routes included. Trails identified on the community asset maps have been recorded and have a public easement.

Wetlands: low-lying areas of land that are saturated with moisture (marshes, swamps, and bogs are examples) that provide for fish and wildlife habitat, flood control, water retention during storm events, and water filtration.

Wildlife Habitat: the natural environment in which undomesticated animals live, including those hunted for food, sport, or profit. Moose, bear, wolves, coyote, fox, beaver, otter and other fur bearers, migratory and resident birds, and aquatic species are all supported by wildlife habitat.

Contained within the Fishhook community council are four hubs and four links.

### FARM HUB

Benefits to the Community: protect local food resources, local jobs, and wildlife habitat

#### Notable Features:

- Adjacent to Wasilla Creek Link and Little Susitna Farm Link
- Wasilla Creek and an unnamed tributary provide spawning and juvenile rearing grounds for chinook, coho, chum, and sockeye
- Active agricultural lands
- Mapped FEMA floodplains along Wasilla Creek
- Wetlands and subsistence resources
- Moose wintering habitat
- Scenic views
- Cultural and historical resources

### LITTLE SUSITNA HUB

Benefits to the community: protect wildlife and salmon habitat, agricultural lands, existing parks and open spaces, recreational and subsistence resource opportunities, and water quality and quantity

### Notable Features:

- Adjacent to Hatcher Pass Link and Little Susitna Farm Link
- Little Susitna River is a migration corridor for all five species of salmon, while Government Creek and many unnamed tributaries are spawning and juvenile rearing habitat for coho and chinook salmon

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- Headwaters of Government Creek and many unnamed tributaries provide water resources that support aquatic species
- Active agricultural lands
- Little Susitna River Recreation Area
- Mapped FEMA floodplains along the Little Susitna River
- Many public trails
- Wetlands and subsistence resources
- Moose calving, rutting, and wintering habitat
- Scenic views
- Cultural and historical resources

### MOOSE RANGE HUB

Benefits to the community: a state protected area that contains significant fish and wildlife habitat, open spaces for recreational and subsistence resource harvest opportunities, and significant water resources for people and fish and wildlife.

### Notable Features:

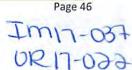
- Adjacent to Hatcher Pass link and Wasilla Creek Link
- Wasilla Creek and an unnamed tributary provide spawning and juvenile rearing grounds for chinook, coho, chum, and sockeye salmon
- Headwaters of the Chickaloon River, Eska Creek, Granite Creek, Kings River, Moose Creek, and Wasilla Creek provide water resources that support aquatic species
- Matanuska Valley Moose State Range Area
- Supports approximately 134 species of birds, 14 species of fish, and 28 species of mammals (source: DNR)
- Moose rutting and wintering habitats
- Four mapped public fishing/waterbody access points: Coyote Lake, Seventeen Mile Lake, Slipper Lake, Wishbone Lake; there are likely numerous unmapped access points
- Significant wetland complex
- Numerous public trails
- Opportunities to collect subsistence resources
- Scenic views
- Cultural and historical resources

### RECREATIONAL HUB

Benefits to the Community: regionally recognized recreation area

### Notable Features:

- Adjacent to Willow Creek Link and Hatcher Pass Link
- Headwaters to Willow Creek, Fishhook Creek, and Hatcher Creek provide water resources that support aquatic species



- Independence Mine State Historical Park and Summit Lake State Recreation Site support recreation and tourism
- Recreational trails
- Subsistence resources
- Moose calving habitat
- Scenic views
- Cultural and historical resources

### HATCHER PASS LINK

Benefits to the Community: a state protected area that provides connection from Little Susitna Hub. Moose Range Hub, and Recreational Hub, contains fish and wildlife habitat, recreational and subsistence resource opportunities, supports watershed aquifer

#### Notable Features:

- Little Susitna River is a migration corridor for all five species of salmon
- Hatcher Pass Public Use Area
- Headwaters of the Little Susitna River provide water resources that support aquatic species
- Recreational trails, protected areas, recreation and tourism
- Subsistence resources
- Moose wintering habitat
- Scenic views
- Cultural and historical resources
- Wildlife migration corridors

### LITTLE SUSITNA FARM LINK

Benefits to the Community: provides connection from Little Susitna Hub to Farm Hub, protect wildlife habitat and wetlands

#### Notable Features:

- Wetlands
- subsistence resources
- Moose wintering habitat
- Scenic views
- Wildlife migration corridors
- Cultural and historical resources

#### WASILLA CREEK LINK

Benefits to the Community: provides connection from Farm Hub and Moose Range Hub, protects existing parks and open spaces, water quality, and fish and wildlife habitat

#### Notable Features:

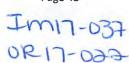
- Wasilla Creek provides spawning and juvenile rearing habitat for chinook, coho, chum, and sockeye salmon
- Headwaters of Wasilla Creek provide water resources that support aquatic species
- Matanuska Valley Moose Range
- Wetlands
- Subsistence resources
- Moose wintering habitat
- Scenic views
- Cultural and historical resources
- Wildlife migration corridors

### WILLOW CREEK LINK

Benefits to the Community: provides connection to Recreational Hub, protects water quality, wildlife habitat and recreation

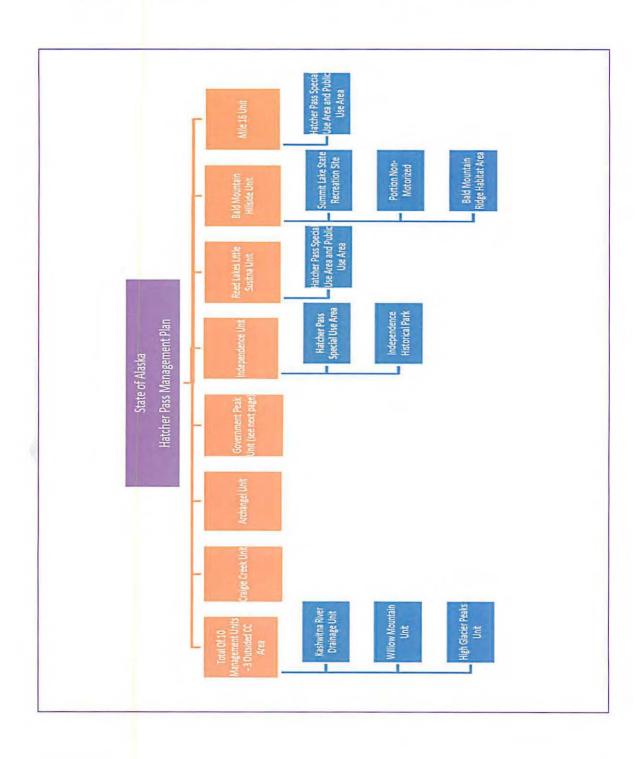
### Notable Features:

- Headwaters of Willow Creek provide water resources that support aquatic species
- Subsistence resources
- Recreational trails
- Moose calving habitat
- Scenic views
- Wildlife migration corridors
- Cultural and historical resources
- Subsistence resources

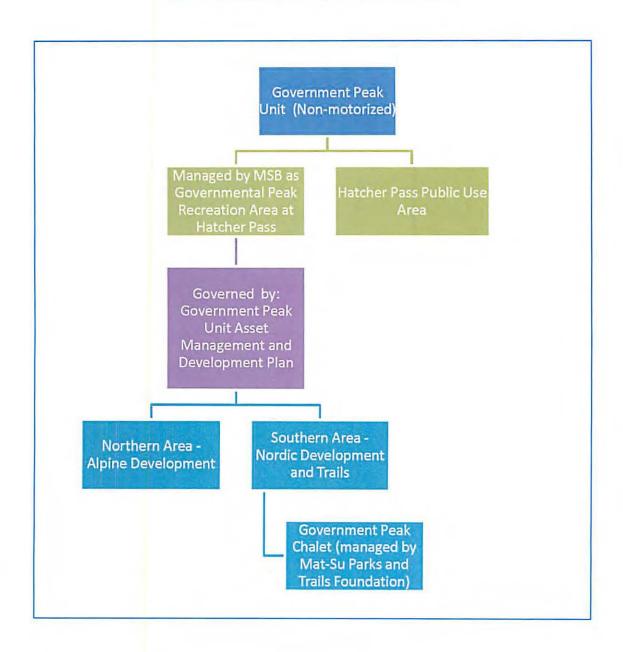


# Appendix One

### Hatcher Pass Management Units, Attributes, and Features



### Government Peak Management Unit



# Appendix Two

### **Community Asset Map Data Sources**

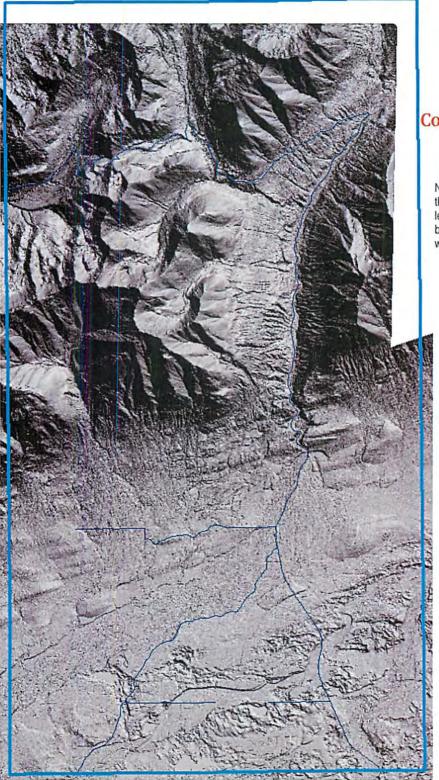
To develop the Natural Community Asset Map on page 43, a number of Geographic Information System (GIS) Data sources were used.

Source	Data Layer
Matanuska-Susitna Borough (MSB)	<ol> <li>Parcels</li> <li>MSB Boundary</li> <li>Railroad</li> <li>Roads</li> <li>Streams and Waterbodies</li> <li>Trails</li> </ol>
National Resource Conservation Service (NRCS)	1. Soils
Alaska Department of Fish & Game	Anadromous Waters Catalog     Moose Habitat
United States Geological Survey	1. Agricultural Lands
Alaska Department of Agriculture	1. Agricultural Lands
Alaska Department of Natural Resources	1. Trails 2. Protected Lands 3. Mining 4. Oil & Gas
Cook Inlet Wetlands	1. Wetlands
National Wetlands Index (NWI)	1. NWI MSB Wetland Quads
FEMA	1. Floodplains
Audubon	1. IBAs



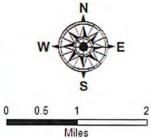
Data layers are overlapped to identifying the Asset Network within a specific geographic region.

# Appendix Three



### Fishhook Community Council Area Bare Earth

Note: Imagery is not available for the entire community council area; leaving the north and eastern boundaries only partially covered with imagery.





Prepared by Planning and Land Use Department September 2015