Chapter 1
Introduction

Background and Overview of the Purpose of the Plan

The Fish Creek Management Plan guides the use of 43,300 acres of land managed by the Matanuska-Susitna Borough and by the Alaska Department of Natural Resources (DNR). The plan was originally adopted in 1984 by both the State and Borough (MSB Action Memorandum 84-244; DNR August 1984). Under the original plan, primary uses in the area were agriculture, fish and wildlife, watershed, and recreation. In addition significant areas were designated for forestry uses in conjunction with agriculture and for residential land sales on Borough land. An amendment to the plan concerning forestry uses was adopted March 1987 but expired in January 1995.

This updated plan was prepared in 2007-2009, based on the conclusion that much had changed since the original plan was adopted more than 20 years ago. Particular objectives of this update include a reconsideration of access options, revisions to reflect current market conditions for agriculture and forestry, and current Borough and State policies and methods for land sales. The management plan further addresses the growing concerns regarding sprawl and the need for protection and set asides of land to meet future needs for agriculture, local food sources, recreation and forest products.

An overriding motivation for this updated plan is the fact that the Fish Creek area lies just west of the communities of the southern Matanuska-Susitna Borough, which is the fastest growing part of Alaska, and one of the fastest growing areas in the country. The Fish Creek plan addresses the last large block of undeveloped land with good physical suitability for development in the southern Borough.

This management plan reflects the intention of earlier regional plans identifying the Fish Creek area for possible development, while reserving large blocks on adjoining lands for recreation and habitat protection. These include Nancy Lakes, Little Susitna River, Susitna Flats Refuge.

Possible development in this area includes timber harvest, agriculture and settlement. These activities are restricted to certain management units, explained in the following sections and chapters of this plan and subject to the guidelines established in this plan. Timber harvests will be managed, sustainable and not large scale clear cuts. Agricultural development will differ from the previous Fish Creek Management Plan, focused on small agricultural parcels and reserving the option for agricultural development in other areas. Protective measures include buffers on streams and trails which presents an extensive, integrated system of lands set aside to protect watershed, fish and wildlife and recreation values. Finally the timing of development is linked to several projects that are addressing access improvements (see *Access to Project Area* section, page 1-5).

Description of the Planning Area

The land covered by this plan is located entirely within the Matanuska-Susitna Borough. The area is bordered on the north by the Nancy Lake State Recreation Area, on the south by the Susitna Flats State Game Refuge, on the east by the Little Susitna State Recreation River and on the west by the Flathorn Lake area. It encompasses two management units identified in the Willow Sub-basin Plan – the Fish Creek and Moraine Ridge units. The Fish Creek project area takes in approximately 43,302 acres. Approximately 40 percent of the study area is State-owned and 60 percent is owned by the Matanuska-Susitna Borough, 14,859 acres and 25,358 acres, respectively (See Map 1.2, page 1-5).

How the Plan is Organized

The plan has four chapters. The first chapter includes a summary and purpose of the plan, description of the planning area, how and why the plan was developed, what the plan covers, and a summary of plan actions.

Chapter 2 includes goals of the plan and guidelines that apply throughout the planning area. Guidelines are listed by resource and land use category. Guidelines are specific directives that apply to land- and water-management decisions as resource uses and development occur.

Chapter 3 presents specific land use policy for the plan's seven management units. For each unit, the chapter includes a summary describing location, land ownership pattern, acreage, physical features, access, resources and

uses. This is followed by a statement of the management intent and management guidelines.

Chapter 4 discusses specific actions necessary to implement the plan and provides important background information.

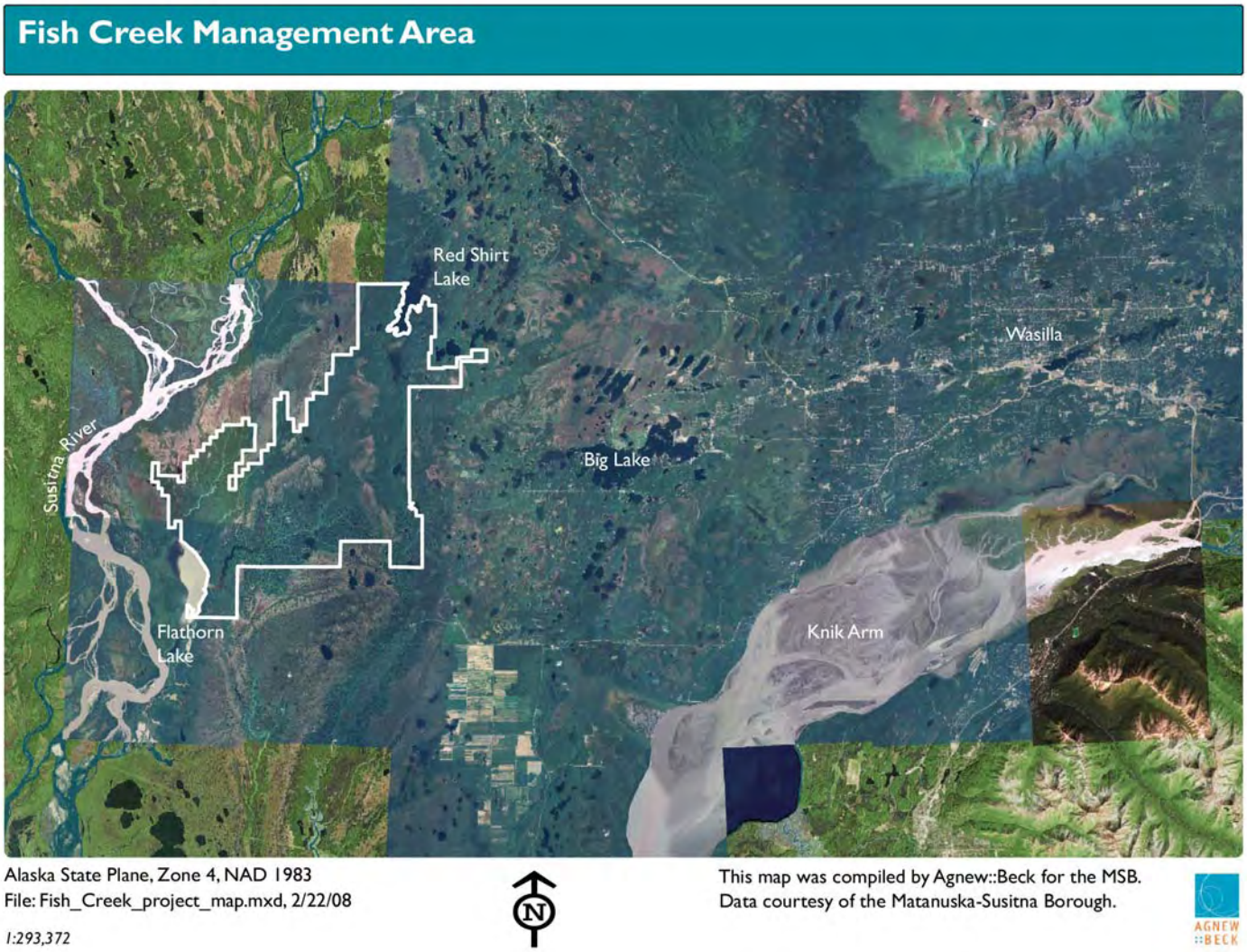
Appendices included are Glossary, Appendix A.

What This Plan Will Do

During the course of the planning process a variety of ideas were explored on how best to use and protect the State- or Borough-owned land in the area. This plan takes those ideas and translates them into management objectives, guidelines and implementation actions. The plan will ensure that development of the Fish Creek area occurs in a responsible manner, reflecting interests of both present and future users.

The management plan is a joint effort of the Matanuska-Susitna Borough and the Alaska Department of Natural Resources. It becomes official policy for the management of State lands when approved by the director of the Division of Land and Water Management and concurred with by the Commissioner of the Department of Natural Resources, and for Borough lands, when approved by the Matanuska-Susitna Borough Assembly.

Map 1.1. Project Location



Once the DNR Commissioner and the Borough Assembly adopt the plan, it directs how DNR will manage state land and how the Borough will manage Borough-owned land. This plan is a land management document for State and Borough land; it has no direct effect on private lands. In addition, once land is sold from State or Borough ownership, activities on that land are no longer subject to the plan. The plan also ensures that development, use, and conservation of the area are consistent with the land's capabilities.

Relationship of Fish Creek Management Plan to Other Plans

The Borough reviewed this plan and found it to be conceptually consistent with the general intent and policies of the Matanuska-Susitna Borough Coastal Management Plan. However, specific consistency determinations can only be made as part of the agency review process based in turn on specific project proposals. The Fish Creek Management Plan update also builds from the general policies of the Willow Sub-Basin Plan. The Willow Sub-basin Plan – like the earlier Fish Creek Management Plan – is significantly out of date, and is currently being updated.

How the Plan was Developed

The Fish Creek Plan is the product of over three years of work by State and federal agencies, local governments, interest groups and the public. An initial public scoping meeting was held on May 9, 2007. The May meeting was designed to review information on the area's physical characteristics, natural habitat, current uses and access routes and obtain public comment on the direction for the plan. A second public meeting was held on March 29th, 2008. The meeting provided an introduction and overview of the draft plan. Meeting attendees provided feedback on specific elements of the draft plan. An additional public open houses was held on April 28, 2009.

The plan was presented to the Parks, Recreation and Trails Advisory Board and the Real Property Asset Management Board for introduction for review for early drafts as well as for the final draft review.

The Real Property Asset Management Board recommended adoption by the assembly by Resolution No. 08-03 on May 14, 2008. The Parks Recreation and Trails Advisory Board recommended adoption by the assembly by Resolution No. 08-06 on May 19, 2008.

The Matanuska-Susitna Borough Planning Commission held five meetings concerning the plan and recommended adoption by the assembly with Resolution No. 09-03 on January 5, 2009. The Matanuska-Susitna Borough Assembly adopted the Fish Creek Management Plan on September 15, 2009.

Concurrent with this approval process will be the State approval process.

In addition to the public meetings, numerous work group sessions were held with the project planning team. The Planning Team was composed of individuals from the Borough, DNR, and the Alaska Department of Fish & Game (ADF&G).

Who Developed the Plan

The plan was developed by Agnew::Beck and Jade North working under contract with the Borough. The consulting team worked closely with State and Borough land and resource management staff throughout the planning process.

Summary of Plan Actions

Management Guidelines (see Chapter 2)

According to the Alaska Constitution, State lands are intended to be managed for multiple uses. The same applies to Borough lands. When potentially conflicting uses are designated in a management unit, the plan uses guidelines to allow various uses to occur while minimizing conflicts.

Management Intent and Land Use Designations (see Chapter 3)

The plan presents management intent statements that define the overall resource management objectives for each of the plan's seven management units and provide resource and use information for land managers. The plan also establishes land use designations summarizing the uses and resources for which each unit will be managed.

Classifications

All State and Borough lands in the area will be classified consistent with the land use designations in this plan. Classifications made by the plan will be noted to State status plats and other land use records. A table that shows how designations convert to classifications is located in Chapter 4.

Note that the plan contains primary and secondary designations. Consistent with State regulation, classifications on the State status plats will reflect only the primary designation. The secondary designations are still important and a way to convey the management intent and, along with primary designation, are included on Borough maps. State and Borough personnel will use the primary and secondary designations, along with the management intent and guidelines when making decisions about uses of the land.

Summary of Plan Implementation and Modification

Economic and social conditions in Alaska and the planning area are certain to change and the plan must be flexible enough to change with them. The plan will be reviewed periodically to monitor progress in implementing the plan and to identify issues that may require amendment or modification.

Specific modifications may be made whenever conditions warrant them, though a request for such changes must follow certain procedures. The plan may be amended after approval by the Commissioner of DNR following public review and consultation with appropriate agencies. Special exceptions and minor changes must also follow certain procedures.

See Chapter 4 for a more detailed description of the types of plan changes allowed under regulation including amendments, special exceptions, and minor changes.

Project Area Features & Use

Land Ownership and Land Use in the Surrounding Area

The Fish Creek area is largely surrounded by State-managed, legislatively-protected recreation and refuge areas. To the north lies the Nancy Lakes State Recreation Area; directly to the east lies the Little Susitna State Recreation River area and to the south the Susitna Flats State Game Refuge. The lands to the west are included in the Susitna Corridor Management Unit of the Willow Sub-Basin Plan. (See Map 1.2, Ownership below.)

The total acreage for the Fish Creek Management area is 43,302 acres. Of this 25,358 acres are owned by the Borough and 14,860 by the State. The remainder is either private, 2,475 acres, or Native-owned, 475 acres.

As a result of State and federal land disposals, most of the land around the larger lakes is in private ownership. Cabins have been built on some of these parcels at Flathorn, Redshirt, Cow, Delyndia and Hock Lakes.

Access to the Project Area

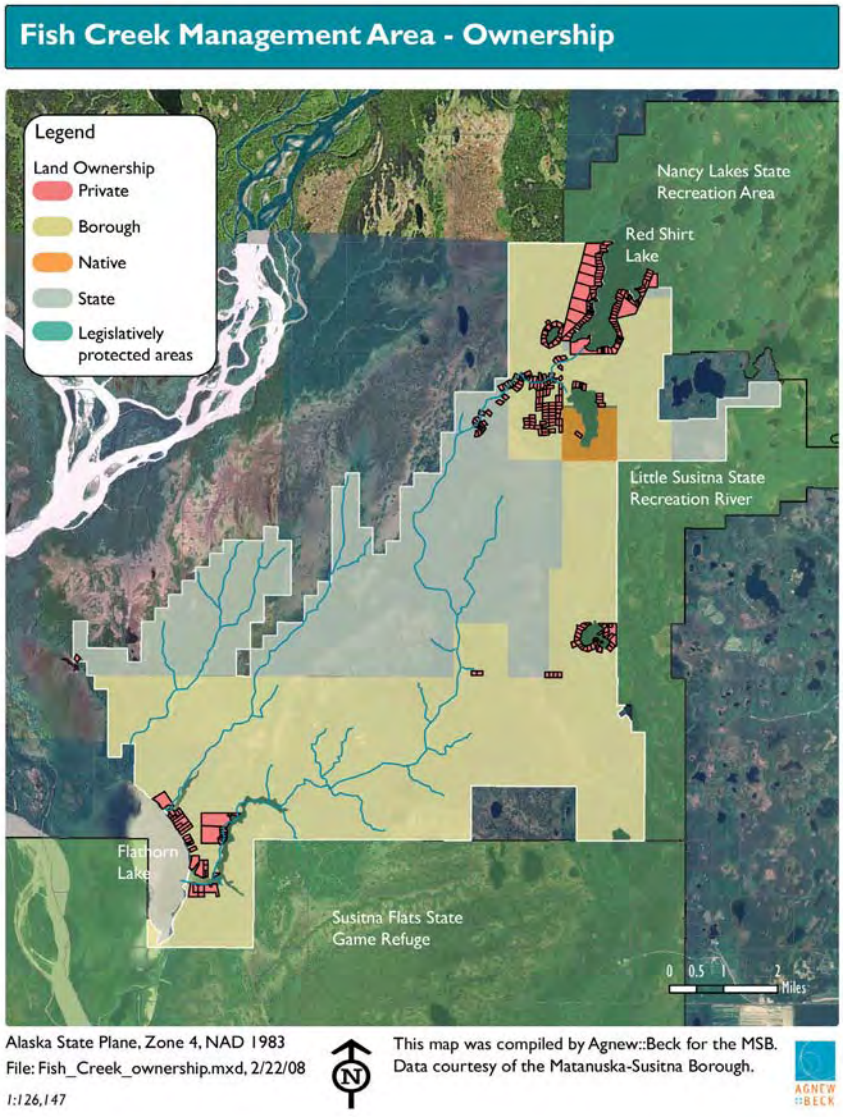
Streams and wetlands limit surface access to and within the Fish Creek area. The Little Susitna River forms a substantial barrier for any overland access coming into the area from the road system to the east. An old tractor trail leading to a homestead at Flathorn Lake is the only known attempt at developing a road within the project area. This route is now impassible due to vegetation growth.

The only other known route cleared for transportation purposes is the historic Iditarod Trail. This route initially served as the mail route from Anchorage to points west and runs diagonally through the unit from the Little Susitna River to Susitna Station. This historic alignment, while reserved as formal trail route, is not currently used by the Iditarod sled dog race, and is not visible on the ground through much of the plan area.

Seismic and survey lines crisscross the unit, including a cleared township line (between Townships 16 and 17 North). These arrow-straight, narrow, partially cleared routes often cross over wetlands, but in winter do provide snowmobile routes. Numerous formal and informal trails, primarily used in the winter, cut through the management area as well. These trails are largely undocumented and are discussed in more depth in individual management unit chapters.

Three informal private airstrips have been built in the unit to provide access to parcels along Flathorn and Redshirt lakes.

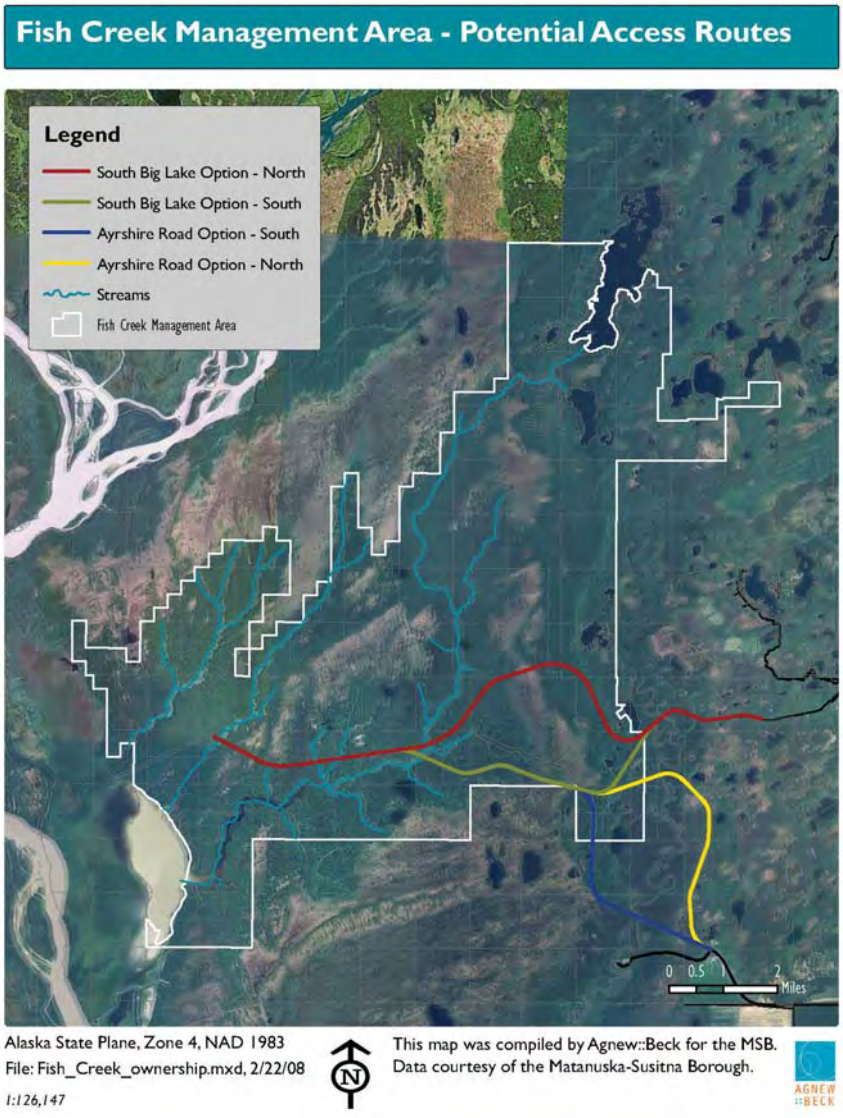
Map 1.2. Project Area and Ownership



A winter haul road has been constructed and used by Enstar Alaska, Inc. for work on its natural gas pipeline. This haul road runs south of the Fish Creek unit in the Susitna Flats State Game Refuge. Construction and use of this haul route requires authorization from both the Alaska Departments of Natural Resources and Fish and Game.

In addition to these routes, the Alaska Department of Transportation and Public Facilities (ADOT&PF) has reserved an easement for the Chuitna Right-of-Way (ADL 57588), identified on the potential access map (Map 1.3). This was reserved over 30 years ago, as part of a very broad, statewide, long range transportation plan.

Map 1.3. Potential Access



The Borough's Long Range Transportation Plan includes a rail corridor along the western side of the Fish Creek area. The route would connect Point MacKenzie with more northerly destinations. A specific location has not been platted.

West Mat-Su Access Project

The Borough, working with ADOT&PF, has begun a project to provide transportation access to the Fish Creek Management Area - the West Mat-Su Access Project. This project is exploring options to cross the Little Susitna River from the Big Lake area to provide access into the Fish Creek Management area. The project is currently in the environmental analysis phase, under the requirements of the National Environmental Policy Act (NEPA) which involves identifying a range of design alternatives to be considered. Several potential access routes have been identified and are illustrated in Map 1.3.

Access across the Little Susitna River is needed before the designations of this plan can be implemented. This plan set asides an area within the 4,700-acre Moraine Ridge Management Unit for residential land sales, and associated community uses such as schools, commercial areas, and parks. Land sales cannot occur until roads are built to the area, and this, in turn, requires a bridge across the Little Susitna River. Similarly, the plan allocates the 6,900-acre Lower Fish Creek Management Unit primarily for agricultural sales. Agricultural sales likewise require developed access and a bridge. Road access is needed for timber harvest, although timber sales could occur with a temporary bridge over the Little Susitna and seasonal roads. Finally, as access is developed for these purposes, it will allow the Borough and the State to discuss management of the Upper Fish Creek and Homestead Creek Units. The plan designates these units "Resource Management" for the State and "General Purpose" for the Borough with the expectation that by the time access is

developed to them, there will be more information to decide whether agriculture or residential land sales are appropriate.

Physical Environment

The landscape of the Fish Creek area is typical of much of the Susitna valley, with forested uplands split by stream channels and muskegs of varying size. This type of terrain is best explored in winter, when the ground is frozen and much of the vegetation lies under a blanket of snow. In the summer, moving about the area on foot is difficult at best: distinctive landmarks are few, and walking tends be slow and wet.

Topography

The large majority of the planning area is nearly flat. Exceptions include the small channels cutting 15-20 feet into the ground along area creeks and the Moraine ridge which rises over 150 feet above the surrounding landscape.

Hydrology

The Fish Creek management area contains an array of streams, lakes, and wetlands. Fish Creek, Homestead Creek and an unnamed tributary, Unnamed Creek, to Flat Horn Lake are the three main drainages within the Fish Creek management area. They flow diagonally from northeast to southwest into Flathorn Lake. These three major streams are fed by the wetlands and numerous tributaries throughout the project area. There are seven notable lakes that are at least partially in the project area; Flathorn Lake, Redshirt Lake, Cow Lake, Delyndia Lake, Butterfly Lake, Yohn Lake and Hock Lake. The lakes vary in size from approximately six square miles for Flathorn and Redshirt Lake, to one-half square mile for Hock Lake. The Fish Creek management area contains approximately 10-12,000 acres of wetlands. These wetlands occur in large areas in a branching pattern along the lateral drainages of Fish Creek.

Soils

The US Department of Agriculture (USDA) has classified soils nationwide to evaluate agricultural potential. These classifications are based on soil characteristics including depth, composition and drainage. The soil classes range from Class I (the best) to Class VIII. The Fish Creek unit contains approximately 16,000 acres identified as Class III soils. Class III soils have more severe limitations restricting plant choices and/or requiring special conservation practices. There are no Class I soils in Alaska. Soil depth reaches 30 inches in this area. A soils map can be seen in the figure on the following page (see Map 1.4, Fish Creek Soils) which classifies the area according to the system used by the USDA National Cooperative Soil Survey.

Large blocks of undeveloped Benka (blue and olive shadings on soils map) and Whitsol soils (darker green areas on soils map) occur in the Fish Creek Area. Small areas of Nancy soils occur interspersed between soils on short, steep slopes and in poorly drained areas. According to the 1998 Matanuska-Susitna Soil Survey, conducted by the USDA, each of these soils has favorable characteristics for agricultural development, including good drainage, thick silty surface layers, and coarse-textured substrata.

Vegetation

Vegetation in the area includes bands of willow, alder, spruce, birch, aspen and cottonwood, separated by bands of wetlands. At slightly higher elevations in the north, alders are more common. Wetland sites are primarily muskeg (peat bog) which provides a home for plants that thrive in the wet, acid soil, including different willow species, sedges and the occasional Venus fly trap.

Forest*

Stands of spruce, birch, and cottonwood cover more than 20,000 acres of Fish Creek, over half the project area. Of this total, approximately 18,000 acres are judged to have commercial forestry potential. The Borough portion of the plan area contains 14,772 acres of forested land, with 11,903 acres having commercial volumes of hardwood and spruce. Approximately 6,000 acres of State land have potential for commercial forestry.

*Information in the subsection has been taken from the Matanuska-Susitna Boroughs Forest Inventory Report 2006 and MSB Operable Forest Land Analysis Report 2007.

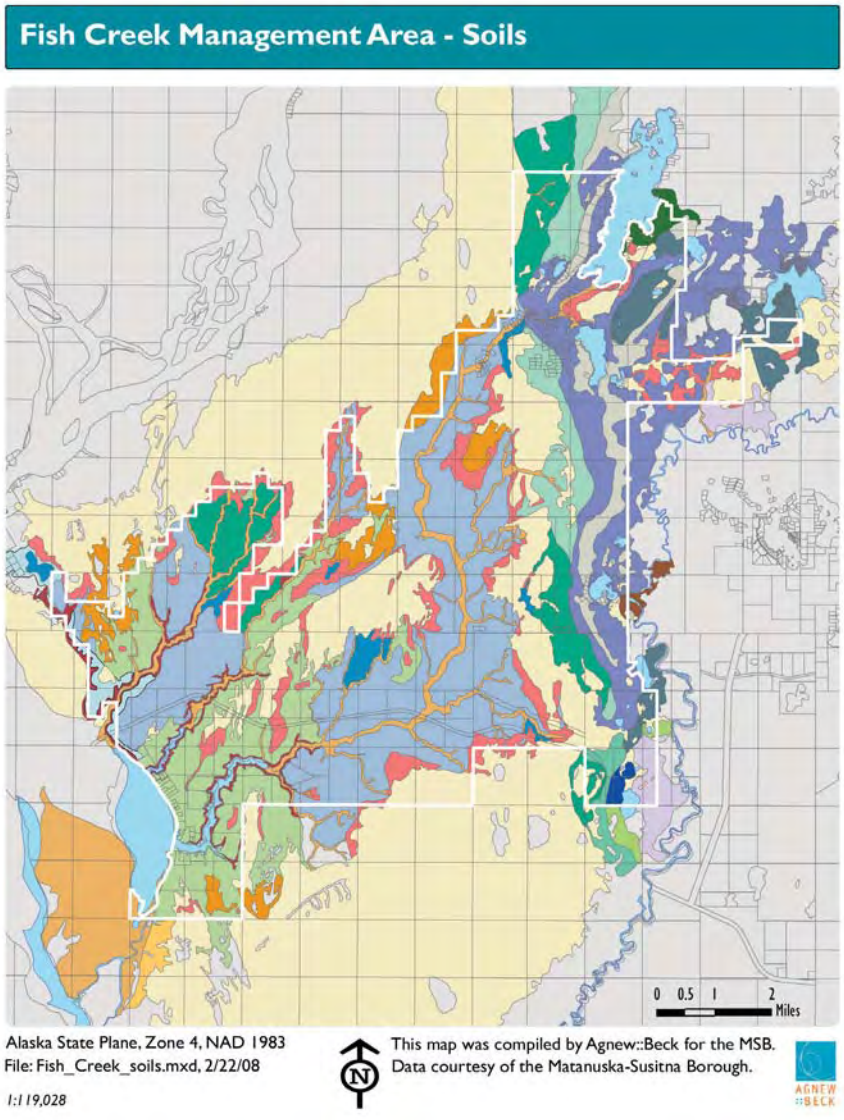
The forest is composed primarily of birch and white spruce intermixed with lesser volumes of cottonwood, aspen and black spruce. The average commercial forest acre contains approximately 190 trees greater than 6 inches in diameter (dbh).

Borough lands have been typed into stratum (numbered 1 to 6). Stratums 1, 3 and 5 are the most prevalent. Stratum 1 stands are relatively younger-growth forest with high hardwood (birch) composition. These even-aged stands have relatively high timber volume/acre (1,727 cubic feet/acre). In contrast with much of the Borough, where aging birch trees are prone to heart rot, these stands have little damage. Only 18 percent are live trees with disease, the lowest incidence of disease surveyed in the Borough. Strata 1 (Pole Timber closed strata) has the most with 332 trees per acre; strata 5 (Mixed forest saw timber closed) has 186 trees per acre.

On Borough land, there are an estimated 196,413 net ccf (100 cubic feet) of operable timber, 120,599 net ccf of birch, 51,447 net ccf of white spruce, 17,214 net ccf of cottonwood, 6,180 net ccf of aspen, and 973 net ccf of black spruce.

Also present are several large contiguous stands of closed hardwood (Sawtimber, Stratum 3). The acreage is composed of river bottom cottonwood and has the least volume of white spruce timber volume/acre (181 CUFT/acre). The cottonwood component is approximately 929 CUFT/acre. These are predominantly hardwood timber; old-growth stands with 29 percent of the area are estimated to be diseased live trees, including cull trees.

Map 1.4. Management Area Soils



The predominant stratum that occupies the Borough owned sections of the Fish Creek area (75% of the Borough forest acreage) is Stratum 5, Closed Mixed Forest Sawtimber. These stands are most commonly large-sized and contiguous; this stratum is found on better drained growing sites and has the highest volume/acre of 1,775 CUFT/acre with white spruce component of 529 CUFT/acre. These stands are also predominantly old-growth stands, with 32% diseased live trees, including cull trees.

These last two comprise mostly stagnated or declining, high risk trees representing all age classes. Stands have moderate, but significant incidence of disease and for management purposes can be considered old-growth.

The majority of the timber is uneven-aged and mature or over-mature. Much of this is birch or white spruce. In the older stands there is a high incidence of disease, which reduces the commercial volumes. Compared to other areas of the Borough, timber in the Fish Creek area exists in relatively large contiguous stands.

Fish and Wildlife

The area is home to a wide variety of fish and wildlife and also provides migratory corridors for a number of species. Overall, the fish and wildlife resources of the area are similar to most forested areas in the Matanuska-Susitna Borough.

Small mammals that may be found in the area include fox, beaver, wolverine, land otter, mink, short tailed weasel and least weasel, marten, snowshoe hare, red and flying squirrels, porcupine, muskrat, marmot, pica, lynx (listed as a species of concern under the Endangered Species Act), and coyote.

Fish species include five species of pacific salmon and eight other important freshwater game fish. These include king, coho, sockeye, chum, and pink salmon, lake and rainbow trout, Dolly Varden, Arctic grayling, northern pike, whitefish, and burbot. Non-game fish species include blackfish, long-nose sucker, slimy sculpin, and Arctic lampreys (DNR 1980 data, Petersville Road Corridor Management Plan, pg. 28). Flathorn Lake, Redshirt Lake, Hock Lake, Cow Lake, Butterfly Lake, Delyndia Lake and Yohn Lake as well as the three major stream systems (Fish Creek, Homestead Creek and unnamed Flat Horn Lake tributary) in the area all support anadromous fish species such as pacific salmon. The full extent of fish use in these systems is unknown.

Brown and black bear are found throughout the area. Moose are abundant throughout the planning area and wolves are present in good numbers. These species use a wide range of habitats throughout the planning area.

The area attracts a range of migratory bird life, including swans, loons, raptors, golden eagles, bald eagles (mostly in summer) and sand hill cranes. Like large areas of Southentral Alaska, this area includes land that may be used by three species of concern under the Endangered Species Act – the northern goshawk, olive-sided flycatcher, and the American peregrine falcon. Non-migratory birds are also present, including ravens, magpies, downy woodpeckers, chickadees, spruce grouse, brown creeper, gyrfalcon, pine grosbeak, redpoll, willow and rock ptarmigans, and several species of owls. Waterfowl are numerous in the Susitna Game Refuge to the south, and occur in lesser numbers in this area. Species include migratory trumpeter swans, harlequin ducks, Canada geese and tule greater white-fronted geese, loons, grebes, long-tailed ducks, and scoters.

Historical Uses and Heritage Resources

A cooperative effort led by the Bureau of Land Management (BLM) to conduct a resource inventory along the Iditarod National Historic Trail identified two sites in the Fish Creek Management Area, the Little Susitna Roadhouse 1 and the Relief Cabin. These sites were evaluated and given significance levels of 3, making them sites likely not eligible for the National Register and therefore recommended minimum management. Effort should be made to protect these sites in accordance with established federal or State regulations. Additionally, a cooperative effort led by the Borough and Knik Tribal Council is underway to identify numerous archaeological sites along Fish Creek.