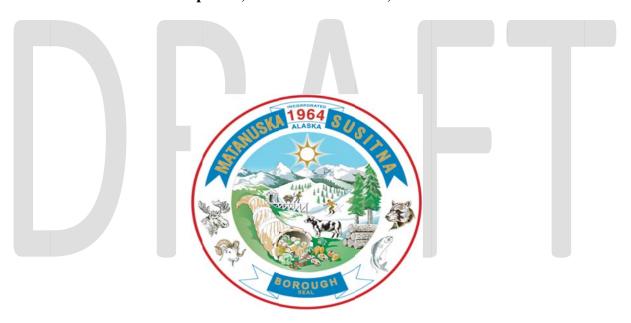
MATANUSKA-SUSITNA BOROUGH FIVE-YEAR TIMBER HARVEST SCHEDULE

FISH CREEK AND POINT MACKENZIE NATURAL RESOURCE MANAGEMENT UNITS

April 19, 2017 – December 31, 2021



Prepared by

Community Development Department

Land and Resource Management Division

Adopted _______, 2017

BACKGROUND: In 1990 the Matanuska-Susitna Borough (Borough) received approximately 365,000 acres of land as part of the Municipal Land Entitlement Act and various associated land exchanges. Management of these lands was critical; therefore, the Borough adopted a Forest Management Plan in August 1990. The adopted Plan was found to be inadequate for use in managing broad-based resource areas with varying purposes. Public concerns emerged with regard to need for better public notice; need to establish "Best Management Practices" (BMP) for timber harvests on Borough land, the manner in how some timber harvests were being conducted in existing Borough management units, and lack of field verified forest inventory on Borough land. In response to these concerns, the Borough Assembly placed a moratorium on commercial timber harvests on Borough land in 2005.

In 2006 the Borough received a Timber Inventory¹ identifying eleven Forest Management Units. In 2009, the Borough received an updated Timber Inventory² identifying twenty-two Natural Resource Management Units (NRMU's), although only sixteen units were inventoried. The Assembly subsequently adopted a new Asset Management Plan in 2010 which replaced the 1990 Forest Management Plan and included removal of the timber sale moratorium.

Pursuant to the Plan and Title 23 of Borough code (MSB23.20.100), developing a Five Year Timber Harvest Schedule (Schedule) was the first step required prior to the Borough offering commercial timber sales. The Assembly adopted the first Schedule in 2011. Borough code required the Schedule be updated every two years. There were not any commercial timber sales in 2011 or 2012 due to vacancies and staffing levels in the Land and Resource Management Division (LMD). As such, the Schedule adopted in 2011 was already outdated by 2013. Additionally, the actual volume of commercial timber to calculate the annual allowable cut (AAC) had been reduced due to an exemption of the Chijuk Creek NRMU as a result of litigation and a settlement agreement. An updated Schedule was adopted by the Assembly in June of 2013, offering 960 acres of timber resources for commercial timber harvest.

Restrictions within the NRMU Plan and Borough code only allowed for 50% of all Borough land to be effectively managed utilizing timber harvest methods. Basically, this means forest management and health activities (short of some fuel reduction efforts) have been virtually non-existent on those acreages. The Assembly recently approved changes to Title 23 and the Land & Resource Management Policy and Procedures Manual which govern the Plan to address several issues that previously had an adverse impact on the ability to effectively manage Borough forest land. The changes improved the ability to:

- Promote healthy and productive forest land;
- Promote healthy and productive watersheds for water quality and fish habitat;
- Enhance multiple-use opportunities including personal use firewood and public recreation;
- Increase acres of forests under intensive management;
- Increase acres converted to regeneration cycle;
- Increase acres for fish and wildlife habitat and forage improvement;
- Increase annual growth rate, increase wood volume;
- Increase public access and opportunities to use public land;
- Provide timber resources for economic development of the commercial timber industry;
- Provide access to agricultural land currently having no access; and
- Increase economic development opportunities for local businesses.

¹Matanuska-Susitna Borough: Forest Inventory Report-Sanders Forestry Consulting December 2006

²Operable Forest Land Analysis Report Phase II, Sanders Forestry Consulting and Alaska Map Company, June 2009

MANAGEMENT INTENT OF THE BOROUGH TIMBER SALE PROGRAM: The short and long-term management of the borough-owned forest resources shall be based on the principles of multiple-use and sustained yield to promote a healthy forest, provide forest products, create economic opportunities, and enhance multiple-use opportunities.

PURPOSE OF THE SCHEDULE: The Schedule is meant to inform the public, timber industry, state government, and other agencies of proposed Borough timber sales. The Schedule provides a basis for public comment and identification of issues. **It is not developed as a decision for any particular timber sale**. Timber harvest contracts will contain additional terms and conditions of the sale. It is important to note that upon adoption of this Schedule, with or without amendments; the LMD will perform the requirements necessary to create, finalize, and notice an Implementation Schedule on the Borough website prior to implementing future timber sales not previously offered.

2017-2021 SCHEDULE: Borough code requires the Schedule be updated every three years (code change to 3 years in 2016). This is the third update to the Schedule since 2011. This Schedule proposes a fifty-year rotation and AAC necessary to address Borough forests, which are predominantly overmature, having high defect or experiencing pockets of beetle kill mortality. Borough timber harvests are managed on a ten-year cycle. This Schedule concludes the first decadal period (2020) as outlined in the NRMU plan. It is important to note that the NRMU plan recognizes and allows harvests in excess of the AAC during one or more years provided the AAC is not exceeded for the ten-year period.

This Schedule reflects the management intent of the Borough timber sale program by providing a sustained yield to promote a healthy forest, provide forest products, enhance multiple-use opportunities, recognizes the needs and interests of timber resource requests, creates economic development opportunities, and provides public access for public recreation. This Schedule meets the legislative requirements of MSB Code 23.20.070, 23.20.090 and 23.20.100, and acts as a basis for allocating Borough resources in considering, designing and conducting timber sales. Yearly proposed harvest units and schedules are at the end of this section. The Borough creates the Schedule for commercial timber sales based on management intent of land use located within a NRMU.

TIMBER BASE: Timber resource estimates are based on the Matanuska-Susitna Borough Timber Inventory Report Phase II, Sanders Forestry Consulting, June 2009 (Inventory). The AAC standing timber volume on Commercial Forest Land is based on the original 2006 data. Significant growth changes to the timber base have occurred since then and a modest growth increase rate (.05 annually) in the Commercial Forest Land timber base has been adjusted³ accordingly. The Inventory is an average of the Borough Commercial Forest Land within the NRMU's inventoried at the time. However, additional timber cruises specific to each harvest unit may be used to adjust the volume of timber resources prior to small timber sale contracts being offered. Large scale timber sales will require an independent third party scaling company hired by the timber purchaser to account for all timber removed for purchase, processing and/or export.

TIMBER SPECIES, VOLUME, TREES PER ACRE, AND SIZE CATEGORY: Of the 16 NRMU's commercial forest land acres, approximately 80% is mixed forest sawtimber (spruce > 9",

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³Operable Forest Land Analysis Report Phase II, Sanders Forestry Consulting and Alaska Map Company, June 2009 adjusted for annual growth since 2006 inventory and per Chijuk Creek exemption from the Annual Allowable Cut, MSB 23.20.40(E)

birch >11"); approximately 10% is hardwood sawtimber (Cottonwood >11"); and approximately 10% is pole timber (spruce 5-9", birch 5-11"). The 2006 timber inventory indicates an average net volume of 1,718 cubic feet of wood per acre or 194 trees per acre. In general, the sawtimber size category (both mixed and hardwood) will be proposed for most harvests, except where noted.

SUSTAINED YIELD: All commercial and non-commercial borough-owned forest land will be managed on a sustained yield basis to provide forest timber products based on the rotation period for the dominant timber type. The dominant timber type in the proposed units is birch.

AUTHORIZATION FOR THE SALE, LEASE OR PERMIT OF FOREST PRODUCTS: Forest product sales from the approved Implementation Schedule may be offered by competitive bid or competitive RFP. Forest product sales in excess of 500 cords of wood per transaction shall be approved by the assembly prior to contract execution. Forest product sales less than 500 cords of wood may be approved by the manager. Firewood sales, timber sales, salvage sales, and non-timber product sales, leases, or permits for less than five years in duration and for less than 100 cords of wood and salvage sales or less than \$25,000 for non-timber product sales may, after public notice (MSB Code 23.05.025) be offered over the counter by the manager without competitive bid.

All Borough timber harvest sales must comply with the Alaska Forest Resources Practices Act and MSB Code. Timber harvest contracts have permit requirements to limit or avoid impacting public health, safety, and welfare concerns. Timber harvesting requires an approved detailed plan of operations. All timber sales that are 40 acres or greater in size require a Timber Harvest/Timber Transportation Permit, MSB Code 28.60.

PROPOSED UNIT DESCRIPTIONS: The Borough is proposing commercial timber harvests within the **Fish Creek and the Point MacKenzie NRMU's** for inclusion in the 2017-2021 Schedule.

PROPOSED HARVEST UNIT LOCATIONS: Attached are written descriptions and maps for each of the proposed harvest units. Each description and map indicates the Township, Section, and Range, nearest road name and approximate road milepost. Community Council Areas will be noted where applicable. All units will be located within areas identified in the NRMU plan as Commercial Forest Land; and are identified by cross hatching on unit maps.

Items required for the Contents of the Five-Year Timber Harvest Schedule per Borough Code, MSB 23.20.100(C) (1-14), are found in the attached unit descriptions, included below. Some of the information that is included is; acreage of the harvest area; timber species, volume; development patterns and surrounding land use; water bodies and buffers; and estimated minimum price based on current market value.

ACRES: The Timber Report² indicates that there are 61,951 acres of commercial forest land within the **15** NRMU units that are currently inventoried and available for commercial timber harvest. The volume of standing timber within the commercial forest land acres is 3,823,275 net cunits of timber.

There are approximately 40,000 acres within NRMU's that are not calculated as part of the Inventory; including over 15,000 acres within the Chijuk Creek Unit alone. The LMD is addressing the items above as well as the Annual Allowable Cut (AAC) on Borough commercial forest land.

EXISTING LAND USE PLANS: Included below are plans that may apply to most if not all proposed units. See individual proposed harvest units for additional applicable local land use plans.

- MSB Borough Wide Comprehensive Plan (2005 update)
- Mat-Su Borough Natural Resource Management Unit Plan (2010)
- Mat-Su Borough, Recreational Trails Plan (2007)
- Mat-Su Borough, Parks Recreation and Open Space Plan (2001)
- Fish Creek Management Plan (2009)

Borough staff will consult adopted Alaska Department of Natural Resources Area Plans as part of our review of regional management goals and guidelines. State Area Plans do not apply to Borough land,

- Susitna Matanuska Area Plan (SMAP) August 2011
- Southeast Susitna Area Plan (2009)
- Fish Creek Management Plan (2010)

PUBLIC HEALTH, SAFETY, and WELFARE CONCERNS: Timber harvest requirements for avoiding or impacting public health, safety, and welfare concerns will be provided in the harvest Implementation Schedule and addressed in individual timber sale contracts. Timber harvest contracts exceeding 40 acres in size require a Borough approved plan of operations that must address noise, lighting, truck traffic, and road maintenance; and may require a Timber Harvest/Transportation Permit, Borough Code MSB 28.60.

WATER BODIES AND BUFFERS: Borough Code MSB 23.20.070 and the NRMU provide guidelines for buffers required for the protection of various resources such as; roads, private property, scenic highways, trails and water bodies during timber harvests. Riparian buffers are required by the Alaska Forest Resources and Practices Act and Regulations for Region II. Additional agency requirements will be will be investigated and implemented as necessary. See individual proposed harvest units for specific buffer information. All-season access and harvest (OA) is allowed in some timber sale areas. However, additional access restrictions such as winter access required (OWA) are required for many of the units, or portions thereof. The Schedule and vicinity maps reflect the access requirements for each harvest area.

SOILS AND TERRAIN: The United States Department of Agriculture, Natural Resource Conservation Service, Soil Survey, Matanuska-Susitna Valley and Yentna Area were used to provide soil descriptions for each NRMU. See individual proposed harvest units for specific soil information.

COST REVENUE ANALYSIS: The Borough's current fees are; \$25 per cord for personal use firewood and \$1.75 per lineal foot saw-timber and/or house-logs. The FMV for Borough commercial value timber varies significantly between NRMU's due to type, size and access to the resource; and other mitigating factors. Personal use harvest areas will require additional administration by staff (office and field), additional site preparation (access, parking), and additional contracting for site remediation (mechanical scarification) after harvest. These additional requirements will create additional costs to the Borough because personal use sales may not cover costs that are normally born by the purchaser in commercial sales. Both commercial and personal use timber harvests on forest land require seven years of follow up for compliance with the Alaska Forest Resources Practices Act for regeneration. Recent state timber sale offerings in the Zero Lake and Willard-Kash areas generated very little revenue as a result of access and road building cost issues.

PERIODIC IMPLEMENTATION SCHEDULE: The Borough will do more detailed fieldwork to assess site conditions and design the proposed timber harvest areas. For those areas covered under an approved Schedule the Borough will prepare a Periodic Timber Harvest Implementation Schedule (Implementation Schedule). Each proposed timber harvest area will be evaluated prior to preparing the Implementation Schedule. This field work will allow a thorough review of the conditions on the ground and provide site-specific information for each sale offering describing the location, estimated timber volume, harvest methods, reforestation plan, access and other potential uses of the sale area. Some of this field work has already been completed for some areas identified in the Schedule. The periodic implementation schedule will ensure that local resident timber needs for personal use are made available for personal use firewood before and during any other timber harvest activities.

ANNUAL ALLOWABLE CUT: The AAC (volume) for 2017 at the 50 year rotation length is 83,114 cunits of wood. The rotation is based on the dominant timber type and condition of the forest health. Both units contain over mature birch and spruce. Defect and disease (beetle kill) are present in both birch and spruce, respectively. Due to the age and declining value of the predominant timber type on commercial forest land; a fifty-year rotation could help reverse some of the degenerating forest conditions and provide for more early succession of wildlife habitat and forage. The NRMU Plan allows for flexibility in management of the Units. Management will be in compliance with guidelines and intent of the NRMU and Borough code. The goal is to provide for a diverse forest by utilizing multiple tools and resource management techniques to bring that area back into a diverse and productive forest. Some portions of the over mature stands will be allowed to cycle naturally, regenerating naturally, and to provide for wildlife habitat for animals that require more open areas, tree cavity nesting, and other benefits of a climax stand.

The proposed Schedule represents 8,050 acres of Commercial Forest Land, amounting to a little more than 307,094 cunits of wood. Harvest volumes in an individual management unit may be above or below the AAC to allow for efficient management, and responsiveness to market fluctuations. The proposed Schedule exceeds the ten-year AAC estimated volume. However, these areas have not had a commercial timber harvest since the 2006 inventory. Although the proposed Schedule may exceed the AAC; actual timber harvests have not. This Schedule is designed to bring these two NRMU's into a new rotation period, reduce forest fuels and improve forest health. It is important to note that the FYTHS must be updated every three years.

This Schedule is consistent with Borough intent to maximize the AAC to the extent possible using Best Management Practices (BMP) to:

- Increase acres of forests under intensive management
- Increase acres converted to regeneration cycle
- Increase acres for wildlife habitat and forage improvement
- Increase annual growth rate, increase wood volume
- Promote healthy and productive forest land

MARKET TRENDS: It is important to note that commercial salvage sale opportunities became for commercial use became abundant in the Point MacKenzie, Big Lake, Wasilla, Knik, Houston, Talkeetna and Butte area beginning in 2012 and lasting into 2016; as a result of clearing for the PMRE project, the port project, conversions of land use for material extraction included support for road realignments, fuel reduction projects, new school and library sites, airports and other public facilities construction. In conjunction with State timber sales and conversion projects, the timber market was inundated with a glut

on the market. Since that time, timber sales (both State and Borough) were reduced and are just now experiencing market recovery. Although there were fourteen Borough timber sales offered in 2014 and 2015; only one commercial timber harvest (77 acres) sale was purchased.

The Borough and State Division of Forestry have received interest from several entities over the last few years related to large scale commercial timber harvests within the Borough and State. At least three entities have performed field inspections, port inspections and lease options. Those companies interested identified several current obstacles to setting up timber operations in the Borough. The most significant challenge is the need for stability and some degree of certainty of sufficient volumes of commercial timber harvests to warrant the necessary monetary investment for leases, infrastructure, equipment, and operational costs. Other challenges include the need for timber sale contracts with longer contract terms and better payment options for large scale timber harvests.

The Schedule as presented creates opportunities to:

- 1. Provide improved forest health in an over mature forest;
- 2. Provide better management of watershed resources, fish and wildlife habitat and forest land improvement;
- 3. Provide supply of timber resources for local needs, including personal use firewood;
- 4. Provide for the commercial harvest, processing and export of timber products;
- 5. Provide jobs;
- 6. Generate revenue for food, fuel, equipment, etc. businesses;
- 7. Generate revenue for Port MacKenzie through wharfage and dockage fees;
- 8. Generate revenue for Land Management Division from property leasing and timber sales;
- 9. Generate tax revenue from lessee(s) and processing facilities;
- 10. Provide access to more than 200,00 acres of public land between the Little Susitna and Big Susitna Rivers;
- 11. Provide potential Big Susitna River crossing, potentially opening up public access to millions of acres of public and private land;
- 12. Provide access to tens of thousands of acres of Borough forest land, agricultural land and development land; and
- 13. Provide potential financial resources for the construction of agricultural and/or forest roads into the Fish Creek timber sale units.

The Borough plans to offer a variety of timber products providing for commercial and personal use opportunities simultaneously during this Schedule. This schedule will be subject to public review and comment.

PROPOSED FIVE YEAR TIMBER HARVEST SCHEDULE TABLES

HARVEST SCHEDULE YEARS 2017-2021 (ESTIMATES ONLY)

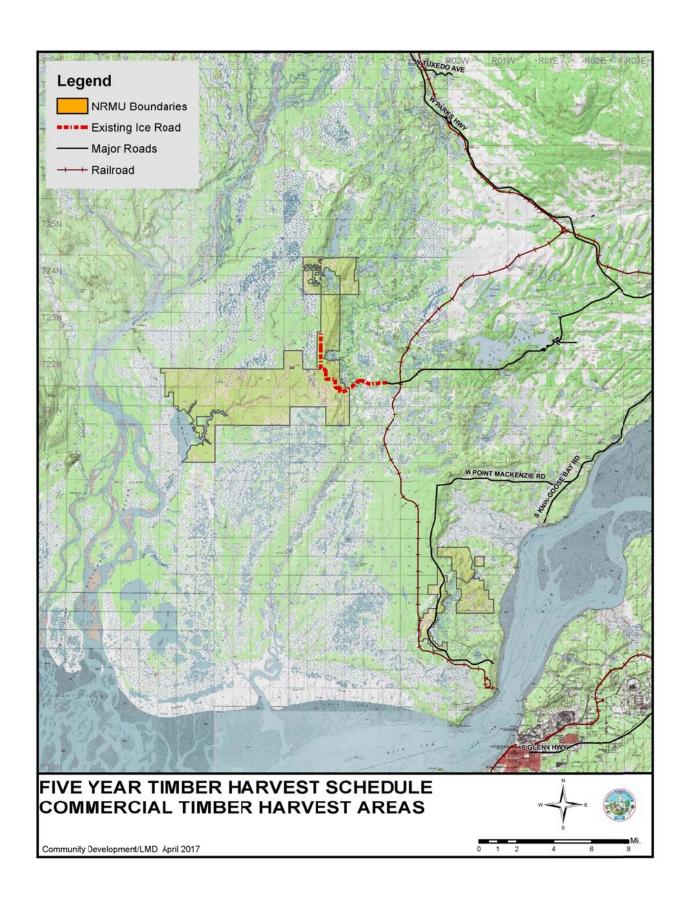
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HARVEST UNIT	SALE NUMBER	ACRES	CUNITS	MBF	TONS	ACCESS
FISH CREEK UNIT 1,5,6	MSB007067	7061	269,365	67,341	488,752	OWA
	MORAINE RIDGE					
2017	UNIT 1	1,434	41,867	10,467	67,233	OWA
	LOWER FISH CREEK					
2017-2019	UNIT 5	3,315	109,242	27,311	172,761	OWA
	HOMESTEAD CREEK					
2019-2020	UNIT 6	2312	83,999	21,000	146,204	OWA
	HOMESTEAD CREEK					
2021	UNIT 6	2312	88,199	22,050	160,033	OWA
POINT MACKENZIE						_
ALSOP 2021 *	MSB006569A	**785	N/A	N/A	N/A	OA/OWA
MULE CREEK 2021	MSB006798B	989	37,729	9,432	62,968	OA/OWA

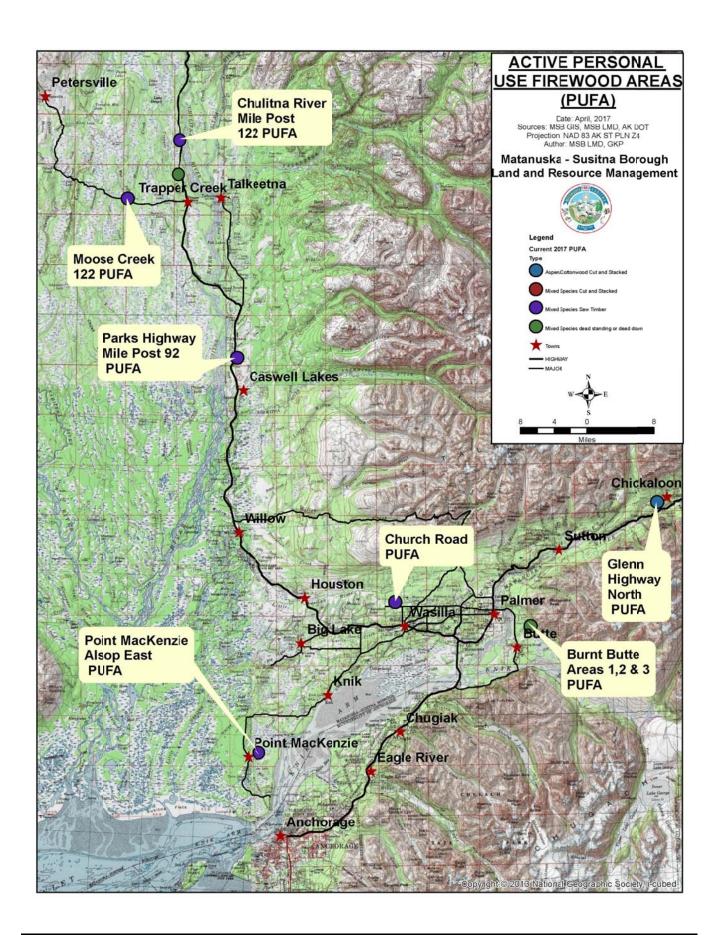
^{*2021} Timber volume estimates will be recalculated when the next FYTHS is created

^{**}acres not calculated because of land use conversion to IMD

ACTIVE PERSONAL USE FIREWOOD AREAS		PERMIT REQUIRED	TIMBER TYPE	
CHASE REMOTE (MSB003092)	225	DEAD DOWN/STANDING	ALL	
BURNT BUTTE UNITS 1, 2, 3 (MSB006803)	100	DEAD DOWN/STANDING	ALL	
CHULITNA RIVER (MSB006807)	35	SEE PUFA PERMIT	MIXED SAWTIMBER	
CHURCH ROAD (MSB007182)	19	SEE PUFA PERMIT	MIXED SAWTIMBER	
GLENN HIGHWAY NORTH (MSB006802)	N/A	CUT/LIMBED/STACKED	MIXED TIMBER	
MOOSE CREEK (MSB006806)	10	SEE PUFA PERMIT	MIXED SAWTIMBER	
PARKS HIGHWAY MP 92 (MSB006582)	24	SEE PUFA PERMIT	MIXED SAWTIMBER	
PT MACKENZIE/ALSOP NORTH MSB006578	37	SEE PUFA PERMIT	MIXED SAWTIMBER	
IN-ACTIVE PERSONAL USE FIREWOOD	ACRES	PERMIT REQUIRED	TIMBER TYPE	
AREAS				
SUSITNA PARKWAY (MSB007080)	NA	CUT/LIMBED/STACKED	MIXED TIMBER	
SUSITNA RIVER CORRIDOR (MSB006580)	10	SEE PUFA PERMIT	MIXED SAWTIMBER	
FISH CREEK VICINITY (MSB003092)	25	SEE PUFA PERMIT	MIXED SAWTIMBER	

Items required for the Schedule contents per Borough Code, MSB 23.20.100(C) (1-14), are found in the attached unit descriptions, included below. Some of the information that is included is; acreage of the harvest area; timber species, volume; development patterns and surrounding land use; water bodies and buffers; and estimated minimum price based on current market value and inventory volumes.





FIVE-YEAR TIMBER HARVEST SCHEDULE UNIT DESCRIPTION Fish Creek NRMU

LOCATION: The Fish Creek NRMU is located entirely within the Fish Creek Management Plan (FCMP) which is a joint effort of the Borough and Alaska State Department of Natural Resources (DNR). The FCMP directs how DNR will manage state land and how the Borough will manage Borough land within the FCMP. The Borough lands proposed for commercial timber harvest in this Schedule are located within the Seward Meridian, Alaska:

Moraine Ridge (Sub-Unit 1) T16N, R05W, Sections 4 & 16 and T17N, R05W, Sections 16, 21, 28, 29, 32, & 33;

Lower Fish Creek (Sub-Unit 5) T16N, R05W, Sections 6 & 7 and T16N, R06W, Sections 2, &10-15, and 29 & 30; and

Homestead Creek (Sub Unit 6) T16N, R06W, Sections 5-8, and T16N, R07W, Sections 1 & 12.

ACRES, VOLUME AND SPECIES: The Fish Creek NRMU contains 18,053 total acres, of that, 9,025 acres are considered to be operable forest land acres. However, 2,000 acres of the operable amount are within FCMP sub-units that do not allow commercial timber operations pursuant to the FCMP at this time. The Schedule proposes one timber sale (+/- 7,061 acres) within three harvest units, harvested over 5 years.

The proposed timber harvest would be for all dead or live birch, spruce, aspen and cottonwood timber greater than 7" dbh (See Table pg.7 volumes). Timber resources are comprised of (84%) of mixed forest sawtimber (spruce > 9", birch >11"), 11% hardwood sawtimber (Cottonwood > 11"), and 5% pole timber (spruce 5-9", birch 5-11") diameter @ breast height (dbh).

INFRASTRUCTURE: The Fish Creek NRMU is southwest of Big Lake and west of the Little Susitna River. There are several potential transportation routes to access and/or remove the timber resources for processing and/or export, including the Parks Highway, Point MacKenzie Road, Burma Road Susitna Parkway, Purinton Parkway and the Point MacKenzie Rail Extension rail-bed. However, all routes currently require the use of a temporary winter ice road and temporary ice bridges for direct ingress and egress to the Fish Creek NRMU. Construction and maintenance of temporary bridges and winter ice roads are the responsibility of the purchaser.

It is important to note that in 2013/2014, the Borough and State facilitated the construction of a "winter ice road" (with temporary ice bridges) 6.7 miles across Borough land to State land on the other side of the Little Susitna River to access timber resources on Borough and State land in the Fish Creek area. The winter ice road begins at the west end of Susitna Parkway and currently ends at State land in Township 17N05W Section 20. An all season road feasibility study to upgrade the ice road (with all season bridges) to a single lane, low impact, resource recovery road was completed in 2014. It is also important to note that a potential crossing of the Big Susitna River is only three miles west of one of the commercial timber harvest units.

SURROUNDING LAND USE: The majority of the adjacent land is owned by the State of Alaska. The Unit has a variety of dispersed recreational uses, mainly in the winter when access to the area is easier. The Iditarod Historic, Iditarod Pipeline Link, Flathorn Lake and Fish Creek Trails traverse the

unit. In addition portions of the FCMP are traversed by rights-of-way reserved by the State/DNR. The Point MacKenzie Rail Extension (PMRE) is still under construction and is located in close proximity to the Fish Creek NRMU. The State is currently preparing for a 2017 timber sale in the FCMP on State land.

EXISTING LAND USE PLANS: The harvest unit boundaries are within the following land use plans:

- Mat-Su Borough Natural Resource Management Unit Plan (2010)
- Alaska Department of Natural Resources, Southeast Susitna Area Plan (2009), the State land adjoining the unit has been designated as forestry. This plan does not apply to Borough land.
- The Fish Creek Management Plan (2010)

OPERABLE WINTER ONLY: All three of these sub-units have a primary or secondary Borough classification of Forestry and are within the Fish Creek NRMU. It is important to note that the timber harvests allowed within the FCMP are restricted to winter access at this time. Winter timber operations may be opened, closed, limited and/or suspended by the Borough at any time determined necessary by the Borough to protect and/or preserve Borough property, resources, soils, water quality, fish, wildlife, fish & wildlife habitat, wetlands and waterbodies. Typical winter operations require a certain depth of frozen ground/ice and sufficient snow depth to protect wetland vegetation.

COMMUNITY COUNCILS: The proposed Fish Creek harvest units are not within any Community Council areas. However, ingress and egress to the harvest units could be within the boundaries of the Big Lake and/or Point MacKenzie Community Councils.

PUBLIC HEALTH, SAFETY, and WELFARE: Timber harvests have contract requirements to limit or avoid impacting public health, safety and welfare concerns. Timber harvesting requires an approved detailed plan of operations that addresses noise, lighting, truck traffic, scarification and road maintenance. A Timber Harvest/Transport Permit may be required for timber harvests greater than 40 acres in size. The Mat-Su Borough Natural Resource Management Unit Plan (2010) outlines buffer distances required to protect water bodies, wetlands, trails and wildlife habitat during and after timber harvest. Appropriate buffers will be imposed. The sites will be thoroughly evaluated prior to preparing an Implementation Schedule.

SOILS and TERRAIN: The United States 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 Fish Creek NRMU contains 16,000 acres identified as Class III⁴ and Class IV soils. *The majority of these soils were previously identified by USDA as Class III & III soils.* Soil depth reaches 30 inches in this area. Large blocks of undeveloped Benka and Whitsol soils occur in the Fish Creek NRMU. 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. Borough code 23.05.010(A)(7) states: "Real property in which the Borough has an interest shall be managed to maximize to the extent feasible or practical the food production capability of class II and class III soils.

COST REVENUE ANALYSIS: Approximately 269,365 cunits of wood are available on 7,061 acres of land in the Fish Creek NRMU through this offering. The Borough proposes one offering encompassing three harvest units scheduled over 5 years.

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⁴ Soil Survey Area: Matanuska-Susitna Valley Area, Alaska Survey Area Data: Version 13, Sep 27, 2015

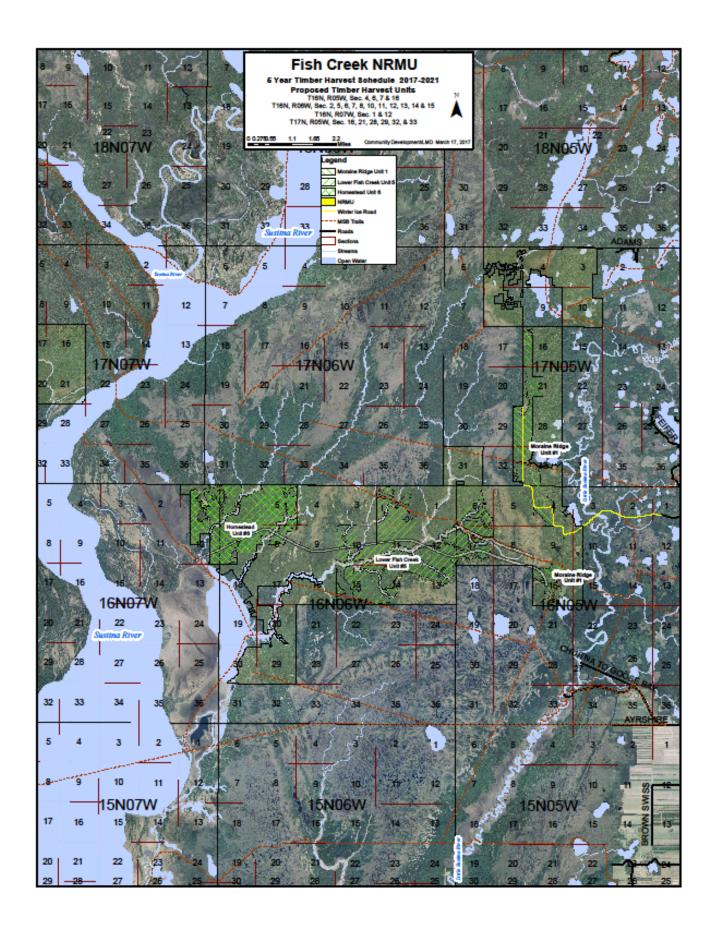
The commercial value of Borough timber varies greatly dependent on location, access, road building costs, type, size, strata and seasonal access restrictions. Some of the recent State and Borough timber harvest offerings located with much easier access did not receive any bids. The Borough had offered minimum bids as low as \$5.00 per cunit for birch and \$50 per MBF for Spruce sawtimber. However, the Borough did not receive any bids on ten Over-the-Counter timber sales at those prices. Recent State timber sales were offered for virtually the cost of building logging roads into the areas offered. Actual minimum bids will be addressed prior to competitive offering.

Borough code requires timber be sold by volume (cubic feet, cunit, green tons, board feet or a combination) not acreage. The Borough may use a competitive Request for Proposal (RFP) or competitive sealed bid sale process to solicit offers. The RFP process requires certain measureable criterion that provides sufficient information to make an informed decision to select a proposal in the best interest of the Borough. All timber sale contracts in this Schedule must be approved by the Assembly prior to execution.

ESTIMATED MINIMUM BIDS:

Spruce saw logs (greater than 9" dbh) to be sold by MBF (minimum bid \$35 MBF). All Birch, Cottonwood, and Aspen greater than 7" will be sold by the green ton (4.00 green ton); and all spruce 7"-9" dbh will be sold by the green ton (3.00 green ton).

PERSONAL USE FIREWOOD AREAS (PUFA's): PUFA's will be available either in or adjacent to the Fish Creek Management Units before and during any timber harvest (MSB 23.20.110).



FIVE-YEAR TIMBER HARVEST SCHEDULE UNIT DESCRIPTION Point MacKenzie NRMU

LOCATION: The Point MacKenzie NRMU is located east of and along West Point MacKenzie Road beginning just north of Alsop Road and ending at the Port MacKenzie Port District near the southern terminus of Point MacKenzie Road; and is broken into three subunits. There are several potential transportation routes to access and/or remove the timber resources for processing and/or export, including Point MacKenzie Road, Knik Goose Bay Road, and the Point MacKenzie Rail Extension (PMRE). Primary access to the Alsop Road sub-unit harvest area would be from Alsop Road and/or Rex Bell Road. Primary access to the Mule Creek sub-unit harvest area would be from Alsop Road. Both sub-units are classified Resource Management with a primary designation of Forestry; and available for forest management, including commercial timber harvest.

ACRES, VOLUME AND SPECIES: The Point MacKenzie NRMU contains 3,174 acres of commercial forest land. The proposed sub-units included in this Schedule contain 1,774 acres comprised of 63% of mixed forest sawtimber (spruce > 9", birch >11"), 15% hardwood sawtimber, and 22% poletimber (spruce 5-9", birch 5-11"). The timber inventory of the Point MacKenzie NRMU indicates a net volume of 1,704 cubic feet of wood per acre. The proposed timber harvest would be for all dead or live birch, spruce, aspen, and cottonwood timber greater than 7" dbh. The Borough commercial forest lands proposed for commercial timber harvest in this Schedule are located within the Seward Meridian, Alaska:

Alsop Road (Sub-unit) T15N, R04W, Sections 21, 22, 26, 27, 28 & 34; Mule Creek (Sub-unit) T14N, Range 04W, Sections 2 &4, and T15N, R04W, Sections 34 &35.

INFRASTRUCTURE: The Point MacKenzie Road runs north/south through the NRMU and then east/west through the southern part of the NRMU. Alsop Road runs east/west through the northern part of the unit.

SURROUNDING LAND USE: There are numerous trails and un-dedicated pioneer type roads intersecting Point MacKenzie Road. These are used for winter and summer recreation and hunting, or for access to private property. Most of these trails, except for the Figure 8 Loop Trail, are not dedicated and are not in the *Recreational Trails Plan*. The Figure 8 Loop Trail is identified in the *Recreational Trails Plan*, but is not dedicated. Numerous parcels of private property exist around the East Lake, Lost Lake, Twin Island Lakes and other various lakes in the vicinity. Other private land, mostly undeveloped, also exists along Alsop Road. There are some dispersed residential and recreational cabins on the adjacent state land. The area is currently used for a variety of dispersed recreational uses.

The Alsop/Point MacKenzie Road intersection has seen large scale development. The Alsop Pit materials extraction site occupies 40 acres west of the intersection and has provided nearly one million tons of gravel for road and port projects. The Goose Creek Correctional Facility is built on the northeast corner of the intersection, while the water/wastewater facility is built on the southeast corner of the intersection. A commercial sawmill operates on a parcel just north of the proposed sale area at the intersection of Alsop and Rex Bell Road. Except for the developed sites, dispersed recreation occurs in this area. The Point MacKenzie Rail Extension (PMRE) is being constructed in the surrounding area.

EXISTING LAND USE PLANS: The Unit boundaries are within the following land use plans:

- Mat-Su Borough Natural Resource Management Unit Plan (2010)
- Mat-Su Borough, Recreation Trails Plan (2008)
- Alaska Department of Natural Resources, *Southeast Susitna Area Plan* (2009) with designated uses for Forestry, Public Recreation and Water Resources. This plan does not apply to Borough land
- Point MacKenzie Comprehensive Plan, (2011)

Land use restrictions exist for private land development for several circumstances such as; structures, roads and subdivisions. Zoning also exists for gravel extraction for barter or sale that is greater than 2,000 cubic yards per year. The Alsop Pit operates under Borough Code 17.30, Administrative Materials Extraction Permit. The Land Management Division is currently seeking a contractor to operate the new Alsop East gravel pit.

OPERABLE ALL SEASON (OA) AND WINTER ONLY (OWA): The Management intent of the Point MacKenzie NRMU for both the Alsop Road and Mule Creek Sub Unit's clearly identifies land designated Resource Management is available for forest management and timber harvest. Timber harvest is only authorized outside of the wildlife corridor and watershed areas. Seasonal operations restrictions occur in both subunits. There are areas within both sub-units that have winter harvest restrictions (see attached map). Winter timber operations may be opened, closed, limited and/or suspended by the Borough at any time determined necessary by the Borough to protect and/or preserve Borough property, resources, soils, water quality, fish, wildlife, fish & wildlife habitat, wetlands and waterbodies.

PUBLIC HEALTH, SAFETY, and WELFARE: Timber harvests have contract requirements to limit or avoid impacting public health, safety, and welfare concerns. Timber harvesting requires an approved detailed plan of operations that addresses noise, lighting, truck traffic, scarification and road maintenance. A Timber Transport Permit may be required for timber harvests greater than 40 acres in size. The Mat-Su Borough Natural Resource Management Unit Plan (2010) outlines buffer distances required to protect water bodies, wetlands, trails and wildlife habitat during and after timber harvest. Appropriate buffers will be imposed. The sites will be thoroughly evaluated prior to preparing an Implementation Schedule.

COMMUNITY COUNCILS: The proposed Point MacKenzie harvest units are within the Point MacKenzie Community Council area.

SOILS and TERRAIN: The United States 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 Point Mackenzie NRMU has areas identified as having Class III and Class IV soils dispersed throughout each subunit. The United States Department of Agriculture lists the soils as Estelle silt loam, sloping and Yohn silt loam, rolling. Both soils have 0-60 inches of silts, loams, and sandy loams before encountering cobble and gravelly soils. General management considerations; both soils are well suited for forestry and agriculture. Some soil related factors are wind erosion, water erosion, frost action, low fertility, depth to gravel and cobbles, cutbank instability, excess surface fines, and excessive permeability. Agricultural activity takes place throughout the unit.

COST REVENUE ANALYSIS: Approximately 51,231 cunits of wood are available on 1,774 acres of land in the Point MacKenzie NRMU through this offering. The Borough proposes one offering encompassing two harvest units scheduled over one or more years.

The commercial value of Borough timber varies greatly dependent on location, access, road building costs, type, size, strata and seasonal access restrictions. The Borough just completed a salvage sale of standing timber (all species greater than 6" dbh) in the same area of the Point MacKenzie NRMU. The 58-xxacre parcel salvage sale was offered with a minimum bid of \$14,790 (about \$15 per cunit). The highest bid received was \$16,000 (about \$16 per cunit).

Borough code requires timber be sold by volume (cubic feet, cunit, green tons, board feet or a combination) not acreage. The Borough may use a competitive Request for Proposal (RFP) or competitive sealed bid sale process to solicit offers. The RFP process requires certain measureable criterion that provides sufficient information to make an informed decision to select a proposal in the best interest of the Borough. All timber sale contracts in this Schedule must be approved by the Assembly prior to execution.

ESTIMATED MINIMUM BIDS:

Spruce saw logs (greater than 9" dbh) to be sold by MBF (minimum bid \$50 MBF). All Birch, Cottonwood, and Aspen greater than 7" will be sold by the green ton (4.00 green ton). All spruce 7"-9" dbh will be sold by the green ton (4.00 green ton)

PERSONAL USE FIREWOOD AREAS (PUFA's): PUFA's will be available either in or adjacent to the Point MacKenzie Management sub-units before and during any timber harvest (MSB 23.20.110).

