Kenai Peninsula Borough

144 North Binkley Street
Soldotna, AK 99669

Meeting Agenda

Planning Commission

Monday, January 24, 2022 **7:30 PM** **Betty J. Glick Assembly Chambers**

Zoom Meeting ID: 907 714 2200

The hearing procedure for the Planning Commission public hearings are as follows:

1) Staff will present a report on the item.

2) The Chair will ask for petitioner's presentation given by Petitioner(s) / Applicant (s) or their representative – 10 minutes

3) Public testimony on the issue. – 5 minutes per person

4) After testimony is completed, the Planning Commission may follow with questions. A person may only testify once on an issue unless questioned by the Planning Commission.

5) Staff may respond to any testimony given and the Commission may ask staff questions.

6) Rebuttal by the Petitioner(s) / Applicant(s) to rebut evidence or provide clarification but should not present new testimony or evidence.

7) The Chair closes the hearing and no further public comment will be heard.

8) The Chair entertains a motion and the Commission deliberates and makes a decision.

All those wishing to testify must wait for recognition by the Chair. Each person that testifies must write his or her name and mailing address on the sign-in sheet located by the microphone provided for public comment. They must begin by stating their name and address for the record at the microphone. All questions will be directed to the Chair. Testimony must be kept to the subject at hand and shall not deal with personalities. Decorum must be maintained at all times and all testifiers shall be treated with respect.

A. CALL TO ORDER

B. ROLL CALL

C. APPROVAL OF CONSENT AND REGULAR AGENDA

All items marked with an asterisk (*) are consent agenda items. Consent agenda items are considered routine and non-controversial by the Planning Commission and will be approved by one motion. There will be no separate discussion of consent agenda items unless a Planning Commissioner so requests in which case the item will be removed from the consent agenda and considered in its normal sequence on the regular agenda.

If you wish to comment on a consent agenda item or a regular agenda item other than a public hearing, please advise the recording secretary before the meeting begins, and she will inform the Chairman of your wish to comment.

1. Time Extension Request

2. Planning Commission Resolutions

3. Plats Granted Administrative Approval

a. KPB-3878 ASLS No. 2019-34 Tract A ASLS 96-42; KPB File 2021-019

Attachments: ASLS No 2019-34 Tract A ASLS 96-42 KPB 2021-019

b. **KPB-3906** Fireweed Meadows 2021 Replat

Attachments: Fireweed Meadows 2021 Replat KPB 2021-095

c. **KPB-3905** Fourth of July Creek Subdivision Seward Marine Industrial Center Coastal Lots Replat; KPB File 2021-039

Attachments: Fourth of July Creek Subdivision Seward Marine Industrial Center Coastal Lots

d. KPB-3883 James Waddell Homestead 2021 Replat; KPB File 2021-136

Attachments: James Waddell Homestead 2021 Replat KPB 2021-136

4. Plats Granted Final Approval (KPB 20.10.040)

a. **KPB-3904** Black Gold Estates 2021 Replat Wildwood Drive Right of Way Vacation
KPB File 2021-111V

Attachments: Black Gold Estates 2021 Replat Wildwood Drive Right of Way Vacation KPB 20

5. Plat Amendment Request

6. Commissioner Excused Absences

7. Minutes

KPB-3887 January 10, 2021 Plat Committee Meeting Minutes

Attachments: Plat Minutes 011022_Draft

KPB-3888 January 10, 2021 Planning Commission Meeting Minutes

Attachments: PC Minutes_011022_Draft

D. OLD BUSINESS

E. NEW BUSINESS

1. KPB-3889 Cabin Hopper Subdivision; KPB File 2021-160

Attachments:
1. MAP Vicinity
2. MAP Aerial Map 2021
3. Plat Prelim KPB 2021-160 Reduced
4. Staff Report Cabin Hoppers Sub KPB 2021-160
5. MAP Aerial Map World Zoomed Out
6. MAP Contour
7. MAP Wetlands & Rivers
8. Plat Parent HM 2007-126
9. Plat Parent waiver resolution 93-07
10. Plat Parent HM 84-115

2. KPB-3890 ROW Vacation - Portion of Wanda Ave. & Associated Utility Easements
KPB File 2021-168V

Attachments:
1. MAP Vicinity
2. MAP Aerial Map
3. Plat Prelim KPB 2021-168V Reduced
4. Staff Report Hansens Salmon Run Sub Wanda Ave ROWV KPB 2021-1658V
5. MAP Aerial Map 2
6. MAP Contours
7. MAP Wetlands
8. Plat Parent KN 77-166
9. Plat Parent KN 76-173
10. Plat Parent KN 76-55

3. KPB-3891 Hansen's Salmon Run Subdivision; KPB File 2021-168

Attachments:
1. MAP Vicinity
2. MAP Aerial Map
3. Plat Prelim KPB 2021-168 Reduced
4. Staff Report Hansens Salmon Run Sub KPB 2021-168
5. MAP Contour
6. MAP Wetlands
7. Plat Parent KN 77-166
8. Plat Parent KN 76-173
9. Plat Parent KN 76-55

4. KPB-3892 Building Setback Permit - KPB File 2021-169
Tract G2 Fishermen Roads Subdivision Edelman Addition

Attachments:
1. MAP Vicinity
2. MAP Aerial Map
3. Plat Prelim As-Built KPB 2021-169 Reduced
4. Staff Report Fisherman Roads Sub Edelman Addn Tract G-2 BSE 2021-169
5. Bldg Setback Encroachement Permit RESOLUTION Tract G2 Fishermen Roa
6. MAP Aerial 2021
7. MAP Google Street View
8. MAP Utility
9. Plat Parent KN 96-59
10. Plat Parent KN 84-73

5. KPB-3893 Street Naming/Renaming - SN Resolution 2022-01
Benjamin Ave.
Midnight Sun Dr.

Attachments:
1-A. SN2022-01B_StaffReport_Benjamin Ave.
2-A. Basemap_AR59
3-A.Plats
4-A.SN_2005-06
5-A.Vicinity & Aerial Map 2021-01B
1-B.SN2022-01A_StaffReport_Midnight Sun
2-B.Basemap_NK16
3-B.Vicinity & Aerial Map 2021-01A
4-B.Petition_2022-01A

6. KPB-3894 Marijuana Cultivation Facility License - Rock Solid Buds

Attachments:
1. Staff Report 21463_2021-12-08
2. AMCO Application 21463_2021-12-8_R
3. KPB Acknowlegement Form 21463_2021-11-29
4. Aerial Map 21463_2021-12-15
5. Land Use Map 21463_2021-12-15
E6 Desk_Public Comment

F. PLAT COMMITTEE REPORT

G. OTHER

H. PUBLIC COMMENT/PRESENTATION

(Items other than those appearing on the agenda or scheduled for public hearing. Limited to five minutes per speaker unless previous arrangements are made)

KPB-3895 Community Wildfire Protection Plan - Update

Attachments:
1. MEMO to Planning Commission 012422
2. Kenai CWPP_Draft
3. Appx A-C Kenai CWPP
4. Appx D - Community Assessments
5. Appx D-E Kenai CWPP

I. DIRECTOR'S COMMENTS

J. COMMISSIONER COMMENTS

K. ADJOURNMENT

MISCELLANEOUS INFORMATIONAL ITEMS
NO ACTION REQUIRED

NEXT REGULARLY SCHEDULED PLANNING COMMISSION MEETING

The next regularly scheduled Planning Commission meeting will be held Monday, February 14, 2022 in the Betty J. Glick Assembly Chambers of the Kenai Peninsula Borough George A. Navarre Administration Building, 144 North Binkley Street, Soldotna, Alaska at 7:30 p.m.

CONTACT INFORMATION
KENAI PENINSULA BOROUGH PLANNING DEPARTMENT

Phone: 907-714-2215
Phone: toll free within the Borough 1-800-478-4441, extension 2215
Fax: 907-714-2378
e-mail address: planning@kpb.us
website: http://www.kpb.us/planning-dept/planning-home

A party of record may file an appeal of a decision of the Planning Commission in accordance with the requirements of the Kenai Peninsula Borough Code of Ordinances. An appeal must be filed with the Borough Clerk within 15 days of the notice of decision, using the proper forms, and be accompanied by the filing and records preparation fees. Vacations of right-of-ways, public areas, or public easements outside city limits cannot be made without the consent of the borough assembly.

Vacations within city limits cannot be made without the consent of the city council. The assembly or city council shall have 30 calendar days from the date of approval in which to veto the planning commission decision. If no veto is received within the specified period, it shall be considered that consent was given.

A denial of a vacation is a final act for which the Kenai Peninsula Borough shall give no further consideration. Upon denial, no reapplication or petition concerning the same vacation may be filed within one calendar year of the date of the final denial action except in the case where new evidence or circumstances exist that were not available or present when the original petition was filed.

Planning Department
144 N. Binkley Street, Soldotna, Alaska 99669 • (907) 714-2200 • (907) 714-2378 Fax

Charlie Pierce
Borough Mayor

ADMINISTRATIVE APPROVAL

Subdivision: ASLS No 2019-34 Tract A ASLS 96-42
KPB File 2021-019
Seward Recording District

The Kenai Peninsula Borough Planning Commission conditionally approved the preliminary subdivision plat on March 15, 2021. Approval for the plat is valid for two years from the date of approval.

The final plat complied with conditions of preliminary approval and KPB Title 20 (Subdivisions); therefore, per KPB 20.60.220, administrative approval has been granted by the undersigned on Thursday, December 30, 2021.

Scott Huff
Platting Manager

State of Alaska
Kenai Peninsula Borough

Signed and sworn (or affirmed) in my presence this 30 day of December 2021 by Scott Huff.

Notary Public for the State of Alaska

State of Alaska
NOTARY PUBLIC
Madeleine Quainton
My Commission Expires May 12, 2023

My commission expires: 5/12/23

The survey firm has been advised of additional requirements, if any, to be complied with prior to recording. After the original mylar has been signed by the KPB official, it must be filed with the appropriate district recorder within ten business days by the surveyor or the Planning Department.

Planning Department
144 N. Binkley Street, Soldotna, Alaska 99669 • (907) 714-2200 • (907) 714-2378 Fax

Charlie Pierce
Borough Mayor

ADMINISTRATIVE APPROVAL

Subdivision: Fireweed Meadows 2021 Replat
KPB File 2021-095
Homer Recording District

The Kenai Peninsula Borough Planning Commission conditionally approved the preliminary subdivision plat on August 9, 2021. Approval for the plat is valid for two years from the date of approval.

The final plat complied with conditions of preliminary approval and KPB Title 20 (Subdivisions); therefore, per KPB 20.60.220, administrative approval has been granted by the undersigned on Tuesday, January 18, 2022.

Scott Huff
Platting Manager

State of Alaska
Kenai Peninsula Borough

Signed and sworn (or affirmed) in my presence this 18 day of January 2022 by Scott Huff.

Notary Public for the State of Alaska

State of Alaska
NOTARY PUBLIC
Madeleine Quainton
My Commission Expires May 12, 2023

My commission expires: 5/12/23

The survey firm has been advised of additional requirements, if any, to be complied with prior to recording. After the original mylar has been signed by the KPB official, it must be filed with the appropriate district recorder within ten business days by the surveyor or the Planning Department.

Planning Department
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Charlie Pierce
Borough Mayor

ADMINISTRATIVE APPROVAL

Subdivision: Fourth of July Creek Subdivision Seward Marine Industrial Center Coastal Lots Replat

KPB File 2021-039
Seward Recording District

The Kenai Peninsula Borough Planning Commission conditionally approved the preliminary subdivision plat on April 26, 2021. Approval for the plat is valid for two years from the date of approval.

The final plat complied with conditions of preliminary approval and KPB Title 20 (Subdivisions); therefore, per KPB 20.60.220, administrative approval has been granted by the undersigned on Tuesday, January 18, 2022.

Scott Huff
Platting Manager

State of Alaska
Kenai Peninsula Borough

Signed and sworn (or affirmed) in my presence this 18 day of January 2022 by Scott Huff.

Notary Public for the State of Alaska

State of Alaska
NOTARY PUBLIC
Madeleine Quainton
My Commission Expires May 12, 2023

My commission expires: 5/12/23

The survey firm has been advised of additional requirements, if any, to be complied with prior to recording. After the original mylar has been signed by the KPB official, it must be filed with the appropriate district recorder within ten business days by the surveyor or the Planning Department.

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Charlie Pierce
Borough Mayor

ADMINISTRATIVE APPROVAL

Subdivision: James Waddell Homestead 2021 Replat
KPB File 2021-136
Homer Recording District

The Kenai Peninsula Borough Planning Commission conditionally approved the preliminary subdivision plat on October 11, 2021. Approval for the plat is valid for two years from the date of approval.

The final plat complied with conditions of preliminary approval and KPB Title 20 (Subdivisions); therefore, per KPB 20.60.220, administrative approval has been granted by the undersigned on Friday, January 07, 2022.

Scott Huff
Platting Manager

State of Alaska
Kenai Peninsula Borough

Signed and sworn (or affirmed) in my presence this 7 day of January 2022 by Scott Huff.

Notary Public for the State of Alaska

My commission expires: 5/12/23

State of Alaska
NOTARY PUBLIC
Madeleine Quainton
My Commission Expires May 12, 2023

The survey firm has been advised of additional requirements, if any, to be complied with prior to recording. After the original mylar has been signed by the KPB official, it must be filed with the appropriate district recorder within ten business days by the surveyor or the Planning Department.

Planning Department
144 N. Binkley Street, Soldotna, Alaska 99669 • (907) 714-2200 • (907) 714-2378 Fax

Charlie Pierce
Borough Mayor

FINAL APPROVAL OF PLAT SUBMITTED UNDER 20.10.080

Subdivision: Black Gold Estates 2021 Replat Wildwood Drive Right of Way Vacation
KPB File 2021-111V
Kenai Recording District

The Kenai Peninsula Borough Planning Department has reviewed the above referenced subdivision plat in accordance with 20.10.080 Borough Code of Ordinances. The final plat meets the conditions of the preliminary approval and complies with KPB Title 20; therefore, final approval has been granted by the undersigned on Thursday, January 20, 2022.

Scott Huff
Platting Manager

State of Alaska
Kenai Peninsula Borough

Signed and sworn (or affirmed) in my presence this 20 day of January 2022 by Scott Huff.

Notary Public for the State of Alaska

My commission expires: 5/12/23

State of Alaska
NOTARY PUBLIC
Madeleine Quainton
My Commission Expires May 12, 2023

The survey firm has been advised of additional requirements, if any, to be complied with prior to recording. After the original mylar has been signed by the KPB official, it must be filed with the appropriate district recorder within ten business days by the surveyor or the Planning Department.

Kenai Peninsula Borough
Plat Committee

Betty J. Glick Assembly Chambers, Kenai Peninsula Borough George A. Navarre Administration Building

January 10, 2022
5:30 PM p.m.
UNAPPROVED MINUTES

A. CALL TO ORDER

Commissioner Brantley called the meeting to order at 5:30 p.m.

B. ROLL CALL

Plat Committee Members/Alternates
Jeremy Brantley, District 5 - Sterling
Syverine Abrahamson-Bentz, District 9 – South Peninsula
Pamela Gillham, District 1 – Kalifornsky
Robert Ruffner, District 7 – Central
Franco Venuti, City of Homer

Staff Present
Scott Huff, Platting Manager
Julie Hindman, Platting Specialist
Ann Shirnberg, Planning Administrative Assistant

C. APPROVAL OF AGENDA, EXCUSED ABSENCES, AND MINUTES

*4. Grouped Plats

Staff report by Scott Huff.

Staff has grouped the following plats located under ***AGENDA ITEM E.*** They are grouped as:

Simple or non-controversial. The type of plats grouped are lot splits, creating a small number of lots, replats, no exceptions required and no public comments were received. – 4 Plats

3. Moose Range Meadows Pennys Place; KPB File 2021-167
   McLane Consulting Group / Salamatof Native Association Inc.
   Location: Johnson Drive, Carty Lane & Mann Road
   Funny River Area

7. Voznesenka Lot 11 Replat; KPB File 2021-166
   Ability Surveys / Martishev
   Location: Voznesenka Loop & Chorus Drive
   Fox River Area / Kachemak Bay APC

8. Hiridge Subdivision Amended Thompson Addition; KPB File 2021-163
   Segesser Surveys / Thompson
   Location: Moser Street & Dylan Avenue
   Ridgeway Area

9. Homewood Subdivision Grote Replat; KPB File 2021-162
   Segesser Surveys / Grote
   Location: Joshua Tree Avenue
   Sterling Area

Staff recommends the committee determine whether any members of the public, surveyors or committee members wish to speak to any of the plats in this **group (A)** and remove the specific plats from the group,

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voting on the remainder of plats in the group in a single action to grant preliminary approval to the plats subject to staff recommendations and the conditions noted in the individual staff reports.

END OF STAFF REPORT

Chair Brantley asked if anyone from the public wished to speak to any of the items under the consent agenda. Hearing no one wishing to comment discussion was opened among the commission

MOTION: Commissioner Bentz moved, seconded by Commissioner Venuti to approve the agenda and grouped plates based on staff recommendations and compliance to borough code.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

AGENDA ITEM E. NEW BUSINESS – GROUPED PLATS

ITEM 3 – MOOSE RANGE MEADOWS PENNY'S PLACE

KPB File No.	2021-167
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Salamatof Native Association Inc. of Kenai, Alaska
Surveyor:	James Hall / McLane Consulting Inc.
General Location:	Carty Lane and Johnsons Drive, Funny River

Parent Parcel No.:	135-253-37
Legal Description:	Tract A-1 Moose Range Meadows, South Blocks 4 and Portions of 2 Amended, Plat KN 85-40
Assessing Use:	Industrial Mining
Zoning:	Unrestricted
Water / Wastewater	On-Site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 6.13 acre parcel into five lots ranging in size from 1.1 to 1.3 acres.

Location and Legal Access (existing and proposed): The subdivision is located on Carty Lane and Johnsons Drive. Both right of ways are 60 foot wide dedications that are maintained by the Kenai Peninsula Borough. Carty Lane is located at the end of Mann Road, a 60 foot wide borough maintained right of way. Mann Road is off state maintained Funny River Road near mile 4.

Proposed Lots 1-3 will have access via Carty Lane. Lot 4 will be a corner lot with access from Carty Lane and Johnsons Drive. Lot 5 will have access from Johnsons Drive.

Mann Road ends at the intersection with Carty Lane. Per 20.30.030, a continuation of Mann Road would be required. Salamatof Native Association owns several large acreage parcels surrounding this subdivision. Steep slopes are present through portions of the large acreage parcels south of the existing Mann Road and south of the projected continuation. An unsubdivided remainder lot that is approximately 9 acres exists south of the subdivision. There is currently no dedicated access to the parcel and access is through other parcels owned by Salamatof Native Association. ***Staff recommends*** *that the Plat Committee concur that an exception to KPB 20.30.030 extension of right of way is not be required by this plat based on the following.*

- *Large acreage tracts owned by the same owner surround the area and can provide right of way dedications when further subdivided.*
- *Steep terrain is present south of the subdivision and road dedications will need to occur in locations that are feasible and meet the future needs of the area.*

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- *No lots are denied access.*

If the plat committee does not concur with staff's recommendation, staff would advise that a 15 foot dedication be required on the south boundary of proposed Lot 1 as Mann Road is slightly offset. A 15 foot dedication will provide legal access, will allow for the extension of Mann Road to align, and future subdivisions to the south can grant the remaining 45 feet.

Due to the terrain and large acreage unsubdivided and remainder parcels in the area, the block does not close and is not compliant. A dedication along the eastern boundary will create a block length that is less than minimal lengths. A dedication along the south will not improve the block until additional subdivisions occur to the east. ***Staff recommends*** *the plat committee concur that an exception to KPB 20.30.170 Block Length is not required, as any right of way dedication will not improve the block length requirements.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	No comment

Site Investigation: The plat contains contour information. The area within the subdivision and in the immediate vicinity is relatively flat. Steep slopes occur to the south. KPB GIS data does not have Kenai Watershed Forum wetland information for the area as it is within the boundary of the Kenai National Wildlife Refuge. Per the National Wetlands Inventory, there are no low wet areas present within the proposed subdivision or near the subdivision on neighboring lots. Some wetlands are present north of Mann Road and west of Carty Lane that should not affect the proposed subdivision. ***Staff recommends*** *if any low wet areas or drainage ways are found during the field survey that they be depicted on the final plat and the standard plat note regarding the Corps. of Engineers be placed on the plat.*

The subdivision is partially within floodplain Zone C. Zone C is a minimal risk designation that is not regulated. The parent plat contained a note regarding the floor of structures and flood lines. ***Staff recommends*** *the plat note not be carried over from the parent plat.*

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments
Alaska Fish and Game	No objections

Staff Analysis Moose Range Meadows, South Blocks 1 and 2, Plat KN 84-93, originally created what was known as Tract A. That plat also dedicated Carty Lane. Tract A was a 9.7 acre parcel that extended to the north and was adjacent to the Kenai River. Moose Range Meadows, South Blocks 4 and Portions of 2, Plat KN 84-277, created the current parent lot, Tract A-1 and dedicated the continuation of Johnsons Drive. Plat KN 85-40 amended the plat to correct the title block and the lot configuration did not change.

The proposed lot configurations comply with KPB Code. The depth to width ratio for Lots 1-3 is 2.9:1.

KPB GIS data shows the property within the boundary of the Kenai National Wildlife Refuge. This is common and is considered a private inholding and the laws and regulations within the Kenai National Wildlife Refuge do not apply to the property.

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A soils report will be required and an engineer will sign the final plat.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

The property is not within an advisory planning commission.

The parcel is currently being shown as tax exempt. Per the KPB Assessing Department this parcel will be subject to tax recapture. The tax recapture amount will be required to be paid prior to the issuance of the required tax certificate. ***Staff recommend*** *that the owner and surveyor work with the Assessing Department with any questions regarding tax recapture.*

The Kenai Peninsula Borough Assessing Department has the usage on this parcel listed as Industrial Mining. Per KPB GIS data, there are no material sites present on the property and per imagery, it appears to be undisturbed.

Utility Easements The parent plats did not grant utility easements within this subject property nor was a plat note included to grant along the right of ways. Per plat note 3, utility easements will be granted in compliance with borough code adjoining all dedicated right of ways.

Plat note 5.1 refers to a recorded easement. This easement did not appear on the certificate to plat. Staff pulled the easement and determined that the legal description given did not apply to this property. ***Staff recommends*** *plat note 5.1 be removed unless research proves the property is subject to the easement then work with the title company to add to the Certificate to Plat.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	No comment
ENSTAR	No comments or recommendations
ACS	
GCI	Approved as shown

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: None Existing Street Names are Correct: Yes List of Correct Street Names: MANN RD CARTY LN JOHNSONS DR Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: No addresses affected by this subdivision.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments

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Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

D. A vicinity map, drawn to scale showing location of proposed subdivision, north arrow if different from plat orientation, township and range, section lines, roads, political boundaries, and prominent natural and manmade features, such as shorelines or streams;
***Staff recommendation:** Provide a label for the Kenai National Wildlife Refuge*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

KPB 20.40 – Wastewater Disposal

***Staff recommendation**: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.
Platting Staff Comments: A soils analysis report will be required and an engineer will be required to sign the plat.
***Staff recommendation**: comply with 20.40.*

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.180. Plat notes.

A. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

B. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.
Staff recommendation:
It appears that plat note 5.1 does not apply to this subdivision. It was not on the Certificate to Plat and staff pulled up the document to find it in another TRS.
Staff recommends rewording plat note 3, "The front 10 feet adjoining dedicated right of ways and increasing to 20 feet within 5 feet of the side lot lines is a utility easement hereby granted."

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RECOMMENDATION:

STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Passed by Consent Agenda

AGENDA ITEM E. NEW BUSINESS – GROUPED PLATS

ITEM 7 – VOZNESENKA LOT 11 REPLAT

KPB File No.	2021-166
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Trofim Martishev and Edvokia Martishev (deceased) of Homer, Alaska
Surveyor:	Gary Nelson / Ability Surveys
General Location:	Voznesenka Loop and Chorus Drive, Fox River

Parent Parcel No.:	185-211-14
Legal Description:	Lot 11 Voznesenka Subdivision, Plat HM 85-31
Assessing Use:	Residential
Zoning:	Unrestricted
Water / Wastewater	Community / On-Site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 3.07 acre parcel into two lots. The lots will be 1.319 acres and 1.754 acres.

Location and Legal Access (existing and proposed): The proposed subdivision is located in the Voznesenka community near milepost 22 of East End Road in the Fox River census region. The subject parcel is located on the corner of Voznesenka Loop, a 60 foot wide borough maintained right of way, and Chorus Drive, a 60 foot wide unmaintained right of way.

Proposed Lot 11A will remain a corner lot with access available from both right of ways. There are improvements in place on Lot 11A and current access is from Chorus Drive. Proposed Lot 11B will have access via Chorus Drive.

The parcel is located within an open block. The 28 acre parcel to the northeast is owned by the State of Alaska and affected by very steep terrain. It is unlikely that the tract to the east will be subdivided in the future. This subdivision is on a corner so providing a dedication to improve the block requirements will be

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difficult. Chorus Drive continues to the southeast with a 30 foot wide dedication. Steep terrain is throughout the parent subdivision and right of ways were placed over existing right of ways or within locations that were the most practical. Improvements appear to be in place on other lots making it difficult to receive continuing dedications. Steep slopes are present in the area the road would intersect the existing right of way. ***Staff recommends*** *that the plat committee concur that exceptions to block length and proposed street layout requirements are not required, and no dedications are requested due to existing terrain, existing improvements, and inability to improve the block or provide adequate continuation of the right of way in the future.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	No comment

Site Investigation: The plat shows the areas with low wet areas and the appropriate plat note is in place. The plat also depicts the steep slopes by shading the areas with more than 20 percent slopes. Steep slopes appear to be near the right of way dedications but the right of ways were dedicated and constructed to follow the terrain for the most practical locations. Additional slope easements or rights of way were not requested by the Roads Department.

Older KPB GIS imagery makes it appear that a driveway or ditch exists on Lot 11B and may cross into Lot 11A. Reviewing imagery from 2021, it appears that the area is now grown over. It may at one time had been used as an access or for possible utility needs. Unless determined to be something more significant during the field survey, staff feels this does not need to be addressed.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments
Alaska State Fish and Game	No objections

Staff Analysis U.S. Survey 3354 created Lot 1, a 160 acre parcel. There were no road dedications or easements granted by US Survey 3354 although the plat did indicate a tractor trail, which would later be the southern portion of East End Road. Voznesenka, Plat HM 85-31, subdivided Lot 1 into various lots, tracts, and dedicated the right of ways within the community. Plat HM 85-31 established the 20 foot building setbacks along the right of way dedications, 10 foot utility easements along all lot lines, and a 40 foot utility easement adjoining the northeast boundary.

A soils report will be required and an engineer will sign the final plat.

Due to an eight week delay with the title companies, the Certificate to Plat has not yet been delivered. In the interest of time, ***Staff recommends*** *that the plat committee concur that the plat can be reviewed at this time and Staff can review the certificate to plat when it is delivered. Staff will bring the plat back to the plat committee if there are any items in the report that need to be addressed.*

If a beneficial interest holder affects the property, then staff will send notice of the proposed plat to the beneficial interest holder on. The beneficial interest holder will be given 30 days from the date of the mailing of the notification to respond. They are given the opportunity to notify staff if their beneficial interest prohibits

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or restricts subdivision or requires their signature on the final plat. If no response is received within 30 days, staff will assume they have no requirements regarding the subdivision and it may be finalized.

If the property is not affected by a beneficial interest holder, then notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states beneficial interest holders affect the property.

Kachemak Bay Advisory Planning Commission minutes were not available when the staff report was prepared (KPB 21.02.020). These will be provided with the desk packet if available.

Utility Easements The parent plat, Voznesenka HM 85-31, granted 10 foot utility easements along all lot lines. These easements are depicted and labeled correctly on the plat. An additional 40 foot utility easement exists along the northeastern boundary and an overhead powerline is located within the easement. This easement is also depicted and labeled correctly.

If the Certificate to Plat identifies any additional easements of record then, ***Staff recommends*** *that the easements of record be depicted and noted on the plat.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	No comment
ENSTAR	No comments or recommendations
ACS	
GCI	Approved as shown

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 46670 CHORUS DR Existing Street Names are Correct: Yes List of Correct Street Names: CHORUS DR VOZNESENKA LOOP Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: 46670 CHORUS DR will remain with lot 11A
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.
Advisory Planning Commission	Comments not received prior to the staff report being prepared.

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The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

Staff recommendation:

- *The description of the plat may be shortened as "former Lot 1 U.S. Survey 3354 & the SW1/4 of protracted" can be replaced with "the SW ¼ of Section 25, …"*
- *The certificate to plat was not available when the staff report was prepared. Ownership will need to match the certificate to plat and/or be updated to depict the correct status of Edvokia Martishev if the title has not been updated.*
- *Verify and update the owner's address. KPB Assessing records indicate a PO Box is being used.*

G. The status of adjacent lands within 100 feet of the proposed subdivision boundary or the land status across from any dedicated rights-of-way that adjoin the propose subdivision boundary, including names of subdivisions, lot lines, block numbers, lot numbers, rights-of-way; or an indication that the adjacent land is not subdivided;

Staff recommendation:

- *Provide a width label for the 30 foot wide portion of Chorus Drive.*
- *It is recommended to include either the subdivision name or the recording number for any surrounding lots that are not within the same parent subdivision of the subject parcel.*
- *Lot 7A, located east of Chorus Drive, has been subdivided into two new lots. Update the lot depiction and labels per HM 2017-38.*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.240. Building setbacks.

A. A minimum 20-foot building setback shall be required for dedicated rights-of-way in subdivisions located outside incorporated cities.

A. The setback shall be graphically depicted and labeled on the lots; if such depiction will interfere with the legibility of the plat, a typical lot showing the depiction and label may be provided on the plat, clearly indicating that the typical setback applies to all lots created by the plat.

B. The setback shall be noted on the plat in the following format:
Building setback- A setback of 20 feet is required from all dedicated street right-of-ways unless a lesser standard is approved by resolution of the appropriate planning commission.

C. When a subdivision is affected by a Local Option Zoning District (LOZD), an approved by the assembly, all building setbacks shall be graphically depicted and labeled on the lots. A local option zoning setback shall be noted on the plat in the following format:
Building setback – This subdivision is located within (name of LOZD) Local Option Zoning District as contained in KPB Chapters 21.44 and 21.46 and adopted by KPB Ordinance (number), recorded under (serial no. and recording district). Information regarding the zoning restrictions and copies of the ordinance are available from the KPB Planning

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Department.

Staff recommendation: *Correct the depiction of the 20 foot building setback at the intersection of Voznesenka Loop and Chorus Dr.*

KPB 20.40 – Wastewater Disposal

Staff recommendation*: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: A soils analysis report will be required and an engineer will need to sign the plat. ***Staff recommendation****: comply with 20.40.*

KPB 20.60 – Final Plat

Staff recommendation*: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.030. Certificate of borough finance department required.

Platting Staff Comments: All taxes levied on the property within the subdivision shall be paid prior to recordation of the final plat. If approval is sought between January 1 and the tax due date, there shall be on deposit with the borough finance department an amount sufficient to pay the entire estimated real property tax for the current year. Prior to filing of the final plat, a certificate to this effect shall be provided by the borough finance director or his designee upon request by the planning director. Estimated tax payments shall be applied to the actual bill as of July 1 or such earlier date as the taxes due have been determined.

Taxes owed may include special assessments for utility or road assessment districts established by KPB ordinance.

Staff recommendation: *comply with 20.60.030.*

20.60.070. Plat specifications. The final subdivision plat shall be clearly and legibly drawn to a scale of 1 inch equal to 10, 20, 30, 40, 50, 60, 150 feet or a multiple of 100 feet. The drawing shall be plotted on good quality polyester film at least 3 mm in thickness. All lines, letters, figures, certifications, acknowledgements and signatures shall be clear, legible, and in black ink. The minimum text size should be 10 point (0.1") font or the equivalent. Where necessary, 8 point (0.08") capitalized font or the equivalent can be used to label features. The plat shall be so made, and shall be in such condition when filed, that legible prints and negatives can be made therefrom. Colors, grayscale or shading is not acceptable as it does not show when the drawing is reproduced. Sheets shall be one of these sizes: 11" x 17"; 18" x 24"; and 24" or 30" x 36". When more than one sheet is required, an index map shall be provided on the first sheet showing the entire subdivision and indicating the portion contained on each sheet. Each sheet shall show the total number (e.g. sheet 1 of 3). When more than one sheet is submitted, all sheets shall be the same size. Indelible ink or sealant shall be used to insure permanency.

Staff recommendation*: Within the title block, correct the drawing scale to 1" = 50'. Comply with 20.60.070.*

20.60.090 Improvements-Other public systems. A final plat of a subdivision outside city limits served by a public or existing ADEC approved water or wastewater disposal system shall not be approved prior to provision of documentation from the owner of the system that service to the system is installed and available to each lot in the subdivision, and that connection to all lots will not exceed the capacity of the system.

Staff recommendation: *Per plat note 5, the lots will be served by a public water system. Documentation will be required that states both lots are connected and being served by the public water system or that the system is adequate to allow both lots to connect.*

20.60.130. Boundary of subdivision. The boundary of the subdivision shall be designated by a wider border and shall not interfere with the legibility of figures or other data. The boundary of the subdivided area shall clearly show what survey markers, or other evidence, was found or established on the ground to determine the boundary of the subdivision. Bearing and distance ties to all survey markers used to locate the subdivision boundary shall be shown.

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Staff recommendation: *The interior lot line appears to be the same thickness as the boundary. Adjust the thickness so that the boundary is wider.*

20.60.180. Plat notes.

C. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

D. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

Staff recommendation:

- *Correct plat note 4 as it contains some additional spacing between "Federal" and "Permits".*
- *Correct the spelling of project in plat note 5.*
- *Plat note 2 is not required unless encroachments are detected during the field survey. If so, those encroachments should be disclosed with the submittal of the final.*
- *It is suggested to divide plat note 1 into two plat notes. The first portion discusses the setback with no mention of easements as they were previously granted. For that reason, a separate note regarding no permanent structures may read better.*

20.60.190. Certificates, statements, and signatures required.

Staff recommendation*: This will need to be reviewed with the submittal of the certificate to plat. If the title is still in both names, adjust the certificate to plat to the singular and add to the signature line the following.*

_____
Trofim Martishev, as owner and as
Surviving spouse of Edvokia Martishev

Verify the address that should be listed for the owner. The notary will need to be revised to comply with the signature requirements. Comply with 20.60.190.

RECOMMENDATION:

STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**
- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**
- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Passed by Consent Agenda

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AGENDA ITEM E. NEW BUSINESS – GROUPED PLATS

ITEM 8 - HIRIDGE SUBDIVISION AMENDED THOMPSON ADDITION

KPB File No.	2021-163
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Curtis D. and Laura W. Thompson of Tucson, Arizona
Surveyor:	John Segesser / Segesser Surveys
General Location:	Moser Street and Dylan Avenue, Ridgway

Parent Parcel No.:	057-57-023
Legal Description:	Lot 14 Block 1 Hiridge Subdivision Amended, Plat KN 76-132
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On Site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 2.1-acre parcel into two lots each 1.049 acre in size.

Location and Legal Access (existing and proposed): The proposed subdivision is located in the Sports Lake area on the corner of Dylan Avenue and Moser Street. The Kenai Peninsula Borough maintains both right of ways. Dylan Avenue is dedicated 60 feet wide and Moser Street is dedicated 66 feet wide. Per KPB data, Moser Street dedication coincides with 33 foot wide and 50 foot wide section line easements. Moser Street is located off Sports Lake Road; a 100 foot wide borough maintained right of way located near mile 2.5 of State maintained Kenai Spur Highway.

Both proposed lots will have access via Dylan Avenue and Lot 14B will have additional access from Moser Street.

The subdivision is not within an open block as defined by Sports Lake Road, Moser Street, and Dylan Avenue. Due to the lot configuration design and road design the ability to obtain a closed and compliant block will be difficult. The distance along Moser Street and Dylan Avenue are compliant. ***Staff recommends*** *the plat committee concur that an exception or dedications are not required, as any dedications will not improve the block length requirements due to the existing lot configuration and right of way configuration.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	No comment

Site Investigation: The subdivision does not appear to contain any low wet areas and the property is relatively flat. No improvements are located on the parcel.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments

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Staff Analysis Hiridge Subdivision Amended, Plat KN 76-132, created the parent lot. The plat subdivided 80 acres into 24 lots and dedicated right of ways including a portion of Moser Street and Dylan Avenue.

A soils report will be required and an engineer will sign the final plat.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

The property is not within an advisory planning commission.

Utility Easements The parent plat was recorded in 1976. Utility easements were not granted adjoining all right of ways and no easements were granted within the subject parcel. Per plat note 5, a 10 foot utility easement that increase to 20 feet within 5 feet of the side lot lines, will be granted by this plat. ***Staff recommends*** *the utility easements being granted be depicted and labeled and add to the plat note that the easements are "granted by this plat."*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	No comment
ENSTAR	No comments or recommendations
ACS	
GCI	Approved as shown.

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 44015 DYLAN AVE Existing Street Names are Correct: Yes List of Correct Street Names: DYLAN AVE MOSER ST SCHMELZY LOOP Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: 44015 DYLAN AVE will remain with lot 14B
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

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STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

***Staff recommendation:** The range needs updated to 10W.*

J. Block and lot numbering per KPB 20.60.140, approximate dimensions and total numbers of proposed lots;

***Staff recommendation:** Provide a block label within the subdivision boundary.*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.240. Building setbacks.

A. A minimum 20-foot building setback shall be required for dedicated rights-of-way in subdivisions located outside incorporated cities.

D. The setback shall be graphically depicted and labeled on the lots; if such depiction will interfere with the legibility of the plat, a typical lot showing the depiction and label may be provided on the plat, clearly indicating that the typical setback applies to all lots created by the plat.

E. The setback shall be noted on the plat in the following format:

Building setback- A setback of 20 feet is required from all dedicated street right-of-ways unless a lesser standard is approved by resolution of the appropriate planning commission.

F. When a subdivision is affected by a Local Option Zoning District (LOZD), an approved by the assembly, all building setbacks shall be graphically depicted and labeled on the lots. A local option zoning setback shall be noted on the plat in the following format:

Building setback – This subdivision is located within (name of LOZD) Local Option Zoning District as contained in KPB Chapters 21.44 and 21.46 and adopted by KPB Ordinance (number), recorded under (serial no. and recording district). Information regarding the zoning restrictions and copies of the ordinance are available from the KPB Planning Department.

***Staff recommendation:** Depict and label the setback.*

KPB 20.40 – Wastewater Disposal

***Staff recommendation**: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: A soils analysis report is required and an engineer will need to sign the plat.

***Staff recommendation**: comply with 20.40.*

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

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20.60.110. Dimensional data required.

A. The bearing and length of every lot line, block line, and boundary line shall be shown. Dimensions of lots shall be given as net dimensions to the boundaries of adjoining streets and shall be shown in feet. No ditto marks shall be used. Information shall be shown for all curves, including radius, central angle, arc length, chord length and chord bearing. The initial point of survey shall be shown and labeled. All non-radial lines shall be labeled. If monumented lines were not surveyed during this platting action, show the computed data per the record plat information.

B. The natural meanders of ordinary high water (or mean high water line as applicable) is for area computations only, the true corners being on the extension of the sidelines and the intersection with the natural meanders.

C. Any discrepancy between the survey and the record description, and the source of all information used in making the survey shall be indicated. When an inconsistency is found including a gap or overlap, excess or deficiency, erroneously located boundary lines or monuments, or when any doubt as to the location on the ground of the true boundary or property rights exists, the nature of the inconsistency shall be clearly shown on the drawing.
***Staff recommendation**: Provide a distance and bearing label for the new boundary line. The legend states record information is located in parenthesis but there currently is no information presented in parenthesis. Comply with 20.60.110.*

20.60.180. Plat notes.

E. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

F. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.
Staff recommendation:

- *Revise plat note 3 to include the correct code reference, 20.60.170.*
- *Include in plat note 4 that the book is "Misc".*

20.60.190. Certificates, statements, and signatures required.

***Staff recommendation**: Revise the certificate of ownership and dedication to be plural owners. Documents were submitted for power of attorney. If the power of attorney will be signing on behalf of Laura W. Thompson the signature line should be revised.*

_____
Laura W. Thompson by
Curtis D Thompson as her
Power of Attorney

The notary's acknowledgements should be for Curtis D. Thompson and Curtis D. Thompson as power of attorney for Laura W. Thompson.
Comply with 20.60.190.

20.60.200. Survey and monumentation.

***Staff recommendation**: Provide a tie to a second GLO/BLM survey marker. Comply with 20.60.200*

RECOMMENDATION:

STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS,**

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AND

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Passed by Consent Agenda

AGENDA ITEM E. NEW BUSINESS – GROUPED PLATS

ITEM 9 - HOMEWOOD SUBDIVISION GROTE REPLAT

KPB File No.	2021-162
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Timothy R. and Sandra J. Grote of Sterling, Alaska
Surveyor:	John Segesser / Segesser Surveys
General Location:	Joshua Tree Avenue, Sterling

Parent Parcel No.:	063-550-76, 063-550-77
Legal Description:	Lots 2A1 and 2A2, Block 1, Homewood Subdivision Howarth Addition, Plat KN 2009-62
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	Application does not state (onsite)

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will combine two lots by removing the shared lot line to create one lot that will be 2.27 acres.

Location and Legal Access (existing and proposed): The replat is located on Joshua Tree Avenue, a 60 foot wide borough maintained right of way. Joshua Tree Avenue connects with the west side of Robinson Loop Road which is a state maintained right of way that intersects the Sterling Highway near mile 87.5.

The subdivision is within an open block defined by Robinson Loop Road, Joshua Tree Ave and Birkenweg Street. To the north and west of the block is a large 100 acre parcel with a prior existing use material site permit that has been in use since 1986. The block length along Joshua Tree Avenue is compliant. The large acreage lot to the north can be further subdivided and will be required to provide dedications that improve the block. The portion of the lot north of the proposed subdivision has improvements that will need to be considered when dedicating right of ways. ***Staff recommends*** *the plat committee concur that a right of way dedication is not required, as any dedication within this subdivision will not improve the block requirements and development to the north would affect the location of right of ways.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments

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SOA DOT comments	No comments.

Site Investigation: The property within the subdivision does not appear to contain any low wet areas. The area is relatively flat with no steep slopes present.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments

Staff Analysis The property within this subdivision was originally a 160 acre homestead that was subdivided by Homewood Subdivision, Plat KN 77-81. Homewood Subdivision Simons Addition No. 2, Plat KN 2006-131, adjusted a shared lot line between two parcels. Those parcels were then part of Homewood Subdivision Howarth Addition, Plat KN 2009-62, and created the current lot configurations. This plat will combine Lots 2A1 and 2A2 into one parcel.

Per KPB 20.60.200(A), a field survey is not required as only a lot line is being removed. Per plat note 1, this is a paper plat only and no field survey is being performed.

A soils report is not required, as this platting action will be combining lots to create more usable area. The parent subdivision did submit a soils report for approval. ***Staff recommends*** *the current plat note be revised to reflect a previous soils analysis report was performed.*

Notice of the proposed plat was mailed to the beneficial interest holder on December 13, 2021. The beneficial interest holder will be given 30 days from the date of the mailing of the notification to respond. They are given the opportunity to notify staff if their beneficial interest prohibits or restricts subdivision or requires their signature on the final plat. If no response is received within 30 days, staff will assume they have no requirements regarding the subdivision and it may be finalized.

The property is not within an advisory planning commission.

Utility Easements A five foot clearing easement was granted along Joshua Tree Avenue per Plat KN 77-81, Homewood Subdivision.

Homewood Subdivision Simons Addition No. 2, Plat KN 2006-131, replatted the property, and granted the front 10 feet along the right of way and 20 feet within 5 feet of the side lot lines as a utility easement. A powerline was depicted showing the location to be 2.5 feet south of the north property line. No notes or labels indicate an easement was granted for the existing powerline.

Homewood Subdivision Howarth Addition, Plat KN 2009-62, reconfigured the property and carried over the five foot clearing easement. The plat also granted 10 foot utility easements along the dedicated right of way and 20 feet within 5 feet of side lot lines. Additionally a 20 foot utility easement was granted adjoining the northern boundary. A plat note stated, “Centerline of existing powerline is also the centerline of a 20’ wide easement.”

The preliminary plat correctly depicts and labels the 5 foot clearing easement with reference to Plat KN 77-81. A plat note indicates the 10 foot utility easement and 20 feet within 5 feet within the side lot lines as previously stated on parent plats. The parent plats had granted 20 foot utility easements within 5 feet of the side lot lines. Those easements still exist and shall be depicted at the location of the former lot lines. ***Staff***

UNAPPROVED

recommends *the utility easements of record be depicted, including the 20 x 5 (20 x 10) portions along former lot lines and the plat note be revised to read, "Front 10 feet adjacent to dedicated right of ways, increasing to 20 feet within 5 feet of the side lot lines, is a utility easement. No permanent…"*

The 20 foot utility easement along the northern boundary is shown and the plat note is carried over regarding the existing powerline. As there is no depiction of a powerline and the easement does not have a note reference, it is unclear that the two items are related. A parent plat stated the powerline was 2.5 feet into the property and later it was stated on a plat that the line was centered within a 20 foot utility easement that would result in a 12.5 foot wide utility easement along the northern boundary. The powerline easement would be fully contained within the 20 foot utility easement that was granted. ***Staff recommends*** *the easement depiction include "as granted per KN 2009-62".* ***Staff recommends*** *the power line be depicted and labeled as shown on plat KN. 2006-131.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	No comment.
ENSTAR	No comments or recommendations
ACS	
GCI	Approved as shown.

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 38420 JOSHUA TREE AVE Existing Street Names are Correct: Yes List of Correct Street Names: BIRKENWEG ST JOSHUA TREE AVE Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: 38420 JOSHUA TREE AVE will remain with LOT 2B
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

Staff recommends removing overstrikes from the survey marker symbols depicted on the plat.

UNAPPROVED

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

G. The status of adjacent lands within 100 feet of the proposed subdivision boundary or the land status across from any dedicated rights-of-way that adjoin the propose subdivision boundary, including names of subdivisions, lot lines, block numbers, lot numbers, rights-of-way; or an indication that the adjacent land is not subdivided;

Staff recommendation:

- Lot 3A1, located east of the subdivision, needs a "Block 1" label added.
- South of the subdivision, Lots 2A and 2B, the recording number should be updated to "98-90"
- Lot 3 Block 2, located southeast of the subdivision, has been replatted. Provide the correct depiction and provide a label for Lot 3A Block 2, KN 2014-62. The label for Lot 3B is not required but if the lot is depicted also provide a label.

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.240. Building setbacks.

A. A minimum 20-foot building setback shall be required for dedicated rights-of-way in subdivisions located outside incorporated cities.

G. The setback shall be graphically depicted and labeled on the lots; if such depiction will interfere with the legibility of the plat, a typical lot showing the depiction and label may be provided on the plat, clearly indicating that the typical setback applies to all lots created by the plat.

H. The setback shall be noted on the plat in the following format:

Building setback- A setback of 20 feet is required from all dedicated street right-of-ways unless a lesser standard is approved by resolution of the appropriate planning commission.

I. When a subdivision is affected by a Local Option Zoning District (LOZD), an approved by the assembly, all building setbacks shall be graphically depicted and labeled on the lots. A local option zoning setback shall be noted on the plat in the following format:

Building setback – This subdivision is located within (name of LOZD) Local Option Zoning District as contained in KPB Chapters 21.44 and 21.46 and adopted by KPB Ordinance (number), recorded under (serial no. and recording district). Information regarding the zoning restrictions and copies of the ordinance are available from the KPB Planning Department.

***Staff recommendation:** Depict and label the building setback.*

KPB 20.40 – Wastewater Disposal

***Staff recommendation**: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: This subdivision is combining two lots, which will provide additional areas for wastewater removal. A soils analysis report is not required. A soils analysis report was prepared for the parent plat.

***Staff recommendation**: Remove plat note 4 and provide the following plat note, "WASTEWATER DISPOSAL: The parent subdivision for lots resulting from this platting action was approved by the Kenai Peninsula Borough on September 8, 2008. Wastewater treatment and disposal systems must meet the regulatory requirements of the Alaska Department of Environmental Conservation." Comply with 20.40.*

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

UNAPPROVED

20.60.110. Dimensional data required.

A. The bearing and length of every lot line, block line, and boundary line shall be shown. Dimensions of lots shall be given as net dimensions to the boundaries of adjoining streets and shall be shown in feet. No ditto marks shall be used. Information shall be shown for all curves, including radius, central angle, arc length, chord length and chord bearing. The initial point of survey shall be shown and labeled. All non-radial lines shall be labeled. If monumented lines were not surveyed during this platting action, show the computed data per the record plat information.

B. The natural meanders of ordinary high water (or mean high water line as applicable) is for area computations only, the true corners being on the extension of the sidelines and the intersection with the natural meanders.

C. Any discrepancy between the survey and the record description, and the source of all information used in making the survey shall be indicated. When an inconsistency is found including a gap or overlap, excess or deficiency, erroneously located boundary lines or monuments, or when any doubt as to the location on the ground of the true boundary or property rights exists, the nature of the inconsistency shall be clearly shown on the drawing.

***Staff recommendation**: A field survey was not performed and all data is from record. Correct the bearing on the north boundary to match the record plat. If information shown is computed, it should be noted as such. Comply with 20.60.110.*

20.60.180. Plat notes.

G. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

H. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

***Staff recommendation:** Place the following notes on the plat.*

- *The borough will not enforce private covenants, easements, or deed restrictions per KPB 20.60.170.*

Remove plat note 6 and reword note 10 to comply with 20.40.

20.60.190. Certificates, statements, and signatures required.

***Staff recommendation**: Add Sandra Grote's middle initial to her signature line. Correct the Notary's Acknowledgement so it is an acknowledgement instead of a combination of an acknowledgement and a jurat. Comply with 20.60.190.*

20.60.200. Survey and monumentation.

***Staff recommendation**: The subdivision is combining lots and per 20.60.200(A), a field survey is not required. Not required but requested, provide a bearing and distance from the NE1/16 marker to subdivision boundary. Comply with 20.60.200*

RECOMMENDATION:

STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

UNAPPROVED

- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Passed by Consent Agenda

Chair Brantley asked Ms. Shirnberg to read the rules for public testimony.

AGENDA ITEM E. NEW BUSINESS

ITEM 1 - BARABARA HEIGHTS SUBDIVISION GRIFFITH ADDITION

KPB File No.	2021-156
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Christina and Russell Griffith of Kenai, Alaska
Surveyor:	Jason Young, Mark Aimonetti / Edgy Survey and Design, LLC
General Location:	Marrs Lane, Seldovia Village

Parent Parcel No.:	191-340-11
Legal Description:	Lot 6 Block 14 Barabara Heights Subdivision Plat SL 79-6
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

Staff report given by Scott Huff.

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 3.23 acre lot into two lots that will be 1.61 and 1.62 acres. The plat is also proposing to finalize a utility easement vacation.

Location and Legal Access (existing and proposed): The subdivision is located seven miles northeast of the City of Seldovia in the area considered Seldovia Village. The proposed lots will front on Marrs Lane, a 100 foot wide dedicated right of way that is maintained by the Borough. Marrs Lane intersects Mine Loop Road to the east and west. Mine Loop Road is a 100 foot wide dedicated borough maintained right of way. Mine Loop Road connects at two points to Jakolof Bay Road. Jakolof Bay Road is a 100 foot wide right of way that is maintained by the State of Alaska.

The subdivision is within a closed block. The block is unusual in shape as it is a circle made up of two roads with two intersections. The length from intersection to intersection exceed allowable limits. The parent plat, completed in 1979, created this irregular block. Any new dedications from this subdivision will not improve the block length. The lot to the south, Lot 4 Block 14, is a prior existing use gravel pit for the Seldovia Native Association. To improve the block with this subdivision would require a future dedication along or through the prior existing use material site. ***Staff recommends*** *the plat committee concur that an exception or dedications are not required, as the block cannot be improved by this plat.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	

Site Investigation: Kenai Peninsula Borough GIS Data does not have data for wetlands or contour

UNAPPROVED

information in this area.

The steep slopes have been depicted on the preliminary plat. Steep slopes affect Lot 6A along Marrs Lane and affect both lots at the southern points.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments

Staff Analysis The proposed subdivision will be dividing Lot 6 Block 14 of Barabara Heights Subdivision, Plat SL 79-6, into two lots. The lot was created with the recording of Barabara Heights Subdivision plat which subdivided 1,100 acres of land owned by the Seldovia Native Association. In 2009, Lot 6 Block 14 was sold as part of the Kenai Peninsula Borough Tax Foreclosure Sale.

Per Kenai Peninsula Borough Assessing information, a dwelling is located on the property. Per Kenai Peninsula Borough GIS imagery the structure will be on proposed Lot 6A.

A prior existing use permit for a material site is located to the south on Lot 4 Block 14 which is owned by the Seldovia Native Association. Lot 5 and Lot 3, which are on each side of Lot 4, are also owned by Seldovia Village Tribe. The existence of the material site should not affect the subject parcel.

A soils report will be required and an engineer will sign the final plat.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

The property is not within an advisory planning commission.

Utility Easements Barabara Heights Subdivision, SL 79-6, granted 20 foot wide utility easements adjoining dedicated right of ways. The easement adjoining the right of way will remain in place and is depicted and noted on the plat.

The parent plat also granted 15 foot wide utility easements adjoining each side of all other lot lines resulting in a total width of 30 feet. A petition to vacate the 15 foot utility easements has been received and is scheduled to be heard by the Kenai Peninsula Borough Planning Commission at the January 10, 2022 meeting. If the vacation is approved it is proposed to be finalized by this subdivision plat.

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	
ENSTAR	
ACS	
GCI	

UNAPPROVED

KPB department / agency review:

Addressing	
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

Staff recommendation:

- Update the owners' address to "47580 Sunflower Street".
- Update the acreage as per KPB records and the acreage listed on the lots it should be 3.239.
- Verify the scale used.
- If finalizing the utility easement vacation by the plat, add to the description "and finalizing utility easement vacations".

D. A vicinity map, drawn to scale showing location of proposed subdivision, north arrow if different from plat orientation, township and range, section lines, roads, political boundaries, and prominent natural and manmade features, such as shorelines or streams;

Staff recommendation:

- Provide a depiction and label for the Seldovia City Limits within Section 32.
- Correct the spelling of the creek name to "Wadsworth".

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

KPB 20.40 – Wastewater Disposal

***Staff recommendation**: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: A soils analysis report will be required and an engineer will need to sign the plat.

***Staff recommendation**: comply with 20.40.*

UNAPPROVED

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.110. Dimensional data required.

A. The bearing and length of every lot line, block line, and boundary line shall be shown. Dimensions of lots shall be given as net dimensions to the boundaries of adjoining streets and shall be shown in feet. No ditto marks shall be used. Information shall be shown for all curves, including radius, central angle, arc length, chord length and chord bearing. The initial point of survey shall be shown and labeled. All non-radial lines shall be labeled. If monumented lines were not surveyed during this platting action, show the computed data per the record plat information.

B. The natural meanders of ordinary high water (or mean high water line as applicable) is for area computations only, the true corners being on the extension of the sidelines and the intersection with the natural meanders.

C. Any discrepancy between the survey and the record description, and the source of all information used in making the survey shall be indicated. When an inconsistency is found including a gap or overlap, excess or deficiency, erroneously located boundary lines or monuments, or when any doubt as to the location on the ground of the true boundary or property rights exists, the nature of the inconsistency shall be clearly shown on the drawing.

***Staff recommendation**: In the legend (R2) is listed as KPB GIS data. This reference designation is used on the ties to the subdivision from GLO monuments. The tie bearing and distance must be measured in the field, computed, or taken from other survey records. GIS Data does not qualify as an allowable record for bearings and distances. Comply with 20.60.110.*

20.60.180. Plat notes.

I. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

J. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

***Staff recommendation:** Place the following notes on the plat.*

- *The borough will not enforce private covenants, easements, or deed restrictions per KPB 20.60.170.*

The book and page referenced in plat note 4 needs corrected to Book 22 and Page 982.

KPB 20.70 – Vacation Requirements

***Staff recommendation.** If finalizing the utility easement by plat, it must be recorded within one year of the vacation approval.*

EXCEPTIONS REQUESTED:

A. KPB 20.30.190 – Lots-Dimensions (3:1 depth to width ratio Lot 6A)

Surveyor's Discussion: With the parent parcel being pie shaped and the steep slopes the surveyor was limited on new parcel design to accommodate useful areas for development. The length to width ratio is near borough code requirements being off by just a few feet. The development trend in the area is recreational property, with no development on adjacent parcels at this time therefore the size ratio of the parcel being re-platted have no immediate effect on neighboring parcels.

Staff Discussion: The parent lot was created as a triangle lot. The proposed subdivision will create almost two equal sized lots that are also triangle shaped. Lot 6B complies with the depth to width ratio but Lot 6A is 3.3:1.

UNAPPROVED

Findings:

1. KPB Code allows a 3:1 depth to width ratio for lots.
2. Lot 6A has a depth to width ratio of 3.3:1.
3. The parent lot was a compliant triangle shaped lot.
4. The new lots follow the same design of the parent lot but smaller.
5. Lot 6B has a depth to width ratio of 2.9:1.
6. Steep slopes exist along the southern portion of the lots.
7. Both lots will contain areas that can be developed with residential improvements.
8. A wastewater soils analysis will be required to show the soils types and what type of wastewater system can be installed.

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 4, 7, 8 appear to support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 4, 7, 8 appear to support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 4, 7, 8 appear to support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

RECOMMENDATION:

SUBJECT TO EXCEPTION(S) GRANTED, STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

UNAPPROVED

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Chair Brantley opened the meeting for public comment. Hearing no one wishing to comment, public comment was closed and discussion was opened among the committee

MOTION: Commissioner Ruffner moved, seconded by Commissioner Venuti to grant preliminary approval to Barabara Heights Subdivision Griffith Addition based on staff recommendations and compliance with borough code.

AMENDMENT MOTION: Commissioner Ruffner moved, seconded by Commissioner Venuti to grant exception request to KPB 20.30.190 – Lot Dimensions, 3:1 depth to width ratio for Lot 6A, citing findings 4, 7, & 8 in support of standards one, two and three.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
AMEMDMENT MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
MOTION PASSED AS AMENDED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

ITEM 2 - MADSON SUBDIVISION TRACT A AND TRACT B

KPB File No.	2021-164
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Alaska Mental Health Trust Authority of Anchorage, Alaska
Surveyor:	Taylor Moore / Kuna Engineering
General Location:	Mile 27.5 of the Seward Highway, Moose Pass

Parent Parcel No.:	125-323-02
Legal Description:	Government Lot 2 in Section 1, Township 4 North, Range 1 West, S.M.
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On Site

Staff report given by Scott Huff.

Specific Request / Scope of Subdivision: The proposed plat will dedicate a portion of the Seward Highway that bisects Government Lot 2, a 30 acre, L shaped parcel. The dedication of right of way will result in a tract on the east and west side of the highway that will be 3.2 and 22.4 acres respectively.

Location and Legal Access (existing and proposed): This plat will dedicate a 300 wide portion of the Seward Highway. After the dedication, each of the tracts will front on the Seward Highway. Alaska DOT must permit any direct access to the highway.

The Alaska Rail Road Corporation borders the east side of proposed Tract B. No direct access is allowed to the Alaska Rail Road right of way. Tract A has additional access from State of Alaska right of way tracts designated as Lots 36 and 35. These lots were designated on the supplemental plat for US Survey 2528 as right of way. Alaska DNR owns both lots. A 50 foot section line affects the north boundary.

UNAPPROVED

Alaska Mental Health Trust Authority owns the 80 acre parcel located to the west of the subdivision. Chugach National Forest is located further to the west. The only legal access to the 80 acre parcel is via the section line easement on the north boundary. Per KPB 20.30.030, continuation or appropriate projections of right of ways, and KPB 20.30.170 Block Length, right of way dedications are required to be extended west from the State of Alaska right of way tracts, Lot 35 and Lot 36. This would provide adequate access to the 80 acre parcel to the west. ***Staff recommends*** *this plat provide the following right of way dedications.*

- *A minimum 30 foot wide right of way dedication of right of way extending westerly from Lot 35.*
- *A 60 foot wide right of way dedication of right of way extending westerly from Lot 36.*
- *A minimum 30 foot wide dedication along the southern boundary.*

Alaska DNR owns the 80 acre parcel located to the southwest and the 31 acre parcel located to the south. Both parcels have been selected by, and have management authority granted to, Kenai Peninsula Borough. A section line easement to the south and the Seward Highway provide legal access to these parcels.

The block is not compliant. This subdivision is located in an area with minimal right of way dedications off the highway. Due to slopes, waterbodies, the railroad, and national parks, dedications are lacking. The right of way tracts provide additional access along with section line easements. Due to the shape of proposed Tract A, the large acreage tract to the west, and the close proximity to the Alaska Railroad to the south, the ability to obtain a compliant and closed block it not available. Continuations of the right of way lots, a dedication along the section line easement, and a southern right of way dedication will improve block lengths but will not provide a closed block due to the large acreage tract to the west.

Staff recommends *add a plat note or drawing label within the right of way that includes the right of way information for the Seward Highway project as shown in the DOT comment.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	The ROW dedication for Seward Highway is as shown on Seward Highway MP 25.5-36 Trail River to Sterling Why, Rehabilitation Project No. 0311(031) / Z546590000 (Plat 2019-2 SWD) and appears to be shown correctly.

Site Investigation: The area within this subdivision contains steep areas. An additional map was provided by the surveyor to show the contours for the area. ***Staff recommends*** *any steep bluffs be depicted on the final by showing the top or toe of bluffs.*

Per KPB GIS data, the subdivision falls into the Floodplain Zone C. That is a minimal risk zone that is not regulated.

Per KPB GIS data, wetlands are present along the eastern portion of proposed Tract B and near the center of proposed Tract. An additional map was provided by the surveyor to show the wetland areas. ***Staff recommends*** *any wetlands be depicted on the final plat and a plat note be added, "Any person developing the property is responsible for obtaining all required local, state, and federal permits, including a U.S. Army Corps of Engineers wetland determination if applicable."*

The parent parcel is not developed or improved at this time.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments

UNAPPROVED

	C. State Parks Reviewer: Russell, Pam Comments: No Comments
AK Dept. of Fish and Game	No objections to the proposed platting actions.

Staff Analysis The parent parcel is a Government Lot. There are no building setbacks affecting the property.

A soils report and the signature from a licensed engineer are required for Tract B. Tract B is proposed to be 3.2 acres in size. An exception for soils analysis has been requested.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

Moose Pass Advisory Planning Commission minutes were not available when the staff report was prepared (KPB 21.02.020). These will be provided with the desk packet if available.

Moose Pass residents have submitted comments. Tsali Janek, a member of the Moose Pass APC, has requested to postpone any action on the plat. In the request, it states they are unclear how this relates to the Grant Lake Hydro Project. The request was to allow the Moose Pass APC time to hear the item at their January 6, 2022 meeting. Their request for postponement is being forwarded to you to determine if a motion for postponement should be made. Any comments delivered to Staff from the January 6, 2022 APC meeting will be provided to the KPB Planning Commission.

Bruce Jaffa submitted a comment and objects to the Platting Commission scheduling a hearing before the local APC can have reasonable time to respond and comment. He rejects the current change suggested in platting to Moose Pass area property.

Utility Easements ADL 219510, a 100 foot wide utility easement, crosses through proposed Tract A. This easement is correctly depicted and labeled on the plat.

As this property has not been through the platting process with the borough, platted utility easements do not affect the parcel. This plat will be required to grant 10 foot utility easements adjoining all dedicated rights of way. In addition to the easements required by code, Chugach Electric has requested additional easements within the subdivision. ***Staff recommends*** *all utility easements be depicted and labeled with appropriate plat notes added. If the scale prevents adequate depiction, a detail drawing may be provided to show the typical easements being granted and reference to the plat note.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

ENSTAR	No comment or recommendations
ACS	
GCI	Approved as shown
SEWARD ELECTRIC	
CHUGACH ELECTRIC	Chugach has no objection to the subject subdivision, with the following comments: 1. Add 10’ Telecommunications & Electric Easement along the north boundary of Tract B. 2. Add 10’ Telecommunications & Electric Easement along the south boundary of the 50’ Section Line Easement on Tract A. 3. Add 20’ Telecommunications & Electric Easements on Tract A along its common boundaries with BLM Lot 9 and USS 2528, Lots 36, 10, and 11, as shown on the plat redline. (sketch provided)
TELALASKA	

UNAPPROVED

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: None Existing Street Names are Correct: No List of Correct Street Names: Existing Street Name Corrections Needed: SEWARD HWY All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: No addresses affected, Seward Hwy should be labeled.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.
Advisory Planning Commission	Minutes or memo not received prior to staff report being prepared.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

The legend does not need to contain a depiction for the new lot lines or the proposed parcel boundary.
The line labeled river edge is very similar to the lot lines. A different line style should be used to depict the water boundary or the same line style for the adjacent parcels can be used. If a different line style were shown, it would be recommended to change the description to ordinary high water as some may be confused by the fact it is Upper Trail Lake and not a river edge.
Remove the +/- symbols from the acreage values.

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

Staff recommendation:

- *Add the KPB number in or near the title block*

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- *Revise the name of the subdivision by removing Tract A & Tract B so that the subdivision name is only Madson Subdivision. If you wish for Tract A and Tract B to be shown in the title block it would be suggested to have the name of the subdivision larger include "Creating Tract A and Tract B" with smaller font size.*
- *Revise the description of the subdivision to match the certificate to plat "A subdivision of Government Lot 2 in Section 1, Township 4 North, Range 1 West, Seward Meridian."*
- *Remove "more or less" from the acreage on the final plat as the acreage will be known after the field survey is completed.*
- *Provide the owners name and address within the title block.*

C. The location, width, and name of existing or platted streets and public ways, railroad rights-of-way, and other important features such as section lines or political subdivisions or municipal corporation boundaries abutting the subdivision;
Staff recommendation: *Provide a label for the Seward Highway and a width label for the northern portion or a "width varies" label.*

D. A vicinity map, drawn to scale showing location of proposed subdivision, north arrow if different from plat orientation, township and range, section lines, roads, political boundaries, and prominent natural and manmade features, such as shorelines or streams;
Staff recommendation:
- Remove the "Unsurveyed" labels.
- Provide leaders for the lake labels.
- Provide a label and boundary for the Chugach National Forest.
- Remove the overstrike on the Seward Highway label.

The following are suggestions and not required.
- Provide the protracted section lines in the areas labeled as 'unsubdivided'.
- Provide a label for Grant Lake.

F. The location, width and name of existing and platted streets and public ways, railroad rights-of-way, easements, and travel ways existing and proposed, within the subdivision;
Staff recommendation: *Include a width label and street name label for all right of way dedications including the Seward Highway. The cross hatching can be removed as cross hatching is typically used to depict right of way vacations.*

G. The status of adjacent lands within 100 feet of the proposed subdivision boundary or the land status across from any dedicated rights-of-way that adjoin the propose subdivision boundary, including names of subdivisions, lot lines, block numbers, lot numbers, rights-of-way; or an indication that the adjacent land is not subdivided;
Staff recommendation:
- *Provide a label for Government Lot 8 to the north of the subdivision.*
- *BLM may be removed from adjacent lot labels and changed to Government.*
- *One label for Government Lot 3 along Upper Trail Lake is all that is required.*
- *The Kenai Peninsula Borough does not designate the Alaska Railroad as a Tract in this area. Revise the label for the rail road right of way to read 'Alaska Rail Road'*
- *Remove the patent numbers from the lots.*

H. Approximate locations of low wet areas, areas subject to inundation, areas subject to flooding or storm water overflow, and the line of ordinary high water. This information may be provided on an additional sheet if showing these areas causes the preliminary plat to appear cluttered and/or difficult to read;
Staff recommendation: *The low wet areas are not depicted on the plat. An additional map was provided that showed the low wet areas. Depiction and label the low wet areas on the final plat.*

L. Contours at suitable intervals when any roads are to be dedicated unless the planning director or commission finds evidence that road grades will not exceed 6 percent on arterial streets, and 1 0 percent on other streets;
Staff recommendation: *The slope information was not presented on the plat. Additional maps were submitted to show the contours for the area. The right of way being dedicated for the Seward*

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Highway is 300 feet wide and is sufficient for any drainage or additional area needed for roadway slopes.

M. Approximate locations of slopes over 20 percent in grade and if contours are shown, the areas of the contours that exceed 20 percent grade shall be clearly labeled as such;
Staff recommendation: *The slope information was not presented on the plat. Additional maps were submitted to show the contours for the area. Depict and label the top and toe of steep slopes on the final plat.*

N. Apparent encroachments, with a statement indicating how the encroachments will be resolved prior to final plat approval;
Staff recommendation: *The Seward Highway currently crosses this parcel of land. The plat will dedicate the right of way and create two parcels so that the property is not encumbered by roadway.*

KPB 20.30 – Subdivision Design Requirements

Staff recommendation*: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.030. Proposed street layout-Requirements.

A. The streets provided on the plat must provide fee simple right-of-way dedications to the appropriate governmental entity. These dedications must provide for the continuation or appropriate projection of all streets in surrounding areas and provide reasonable means of ingress for surrounding acreage tracts. Adequate and safe access for emergency and service vehicle traffic shall be considered in street layout.

B. Subdivision of land classified as agricultural conveyed subject to AS 38.05.321(a)(2)(B) may provide public access easements in lieu of fee simple dedications if necessary to comply with the minimum lot size restriction of the statute. The public access easements must meet all applicable right-of-way design criteria of Title 20 and are subject to the building setback requirements set forth in KPB 20.30.240.

C. Preliminary plats fronting state maintained roads will be submitted by the planning department to the State of Alaska Department of Transportation and Public Facilities (DOT) for its review and comments.
Staff recommendation: *Lots within US Survey 2528 are designated as right of way lots. A continuation of those lots shall dedicated as well as atop the section line easement located along the northern boundary of the subdivision. Alaska Mental Health Trust owns the land to the 80 acre parcel to the west. Currently the only access to the 80 acre parcel is the 50 foot section line easement on the north boundary. An 80 acre parcel is located to the southwest with the only access being section line easements to the south.*

20.30.240. Building setbacks.

A. A minimum 20-foot building setback shall be required for dedicated rights-of-way in subdivisions located outside incorporated cities.

J. The setback shall be graphically depicted and labeled on the lots; if such depiction will interfere with the legibility of the plat, a typical lot showing the depiction and label may be provided on the plat, clearly indicating that the typical setback applies to all lots created by the plat.

K. The setback shall be noted on the plat in the following format:
Building setback- A setback of 20 feet is required from all dedicated street right-of-ways unless a lesser standard is approved by resolution of the appropriate planning commission.

L. When a subdivision is affected by a Local Option Zoning District (LOZD), an approved by the assembly, all building setbacks shall be graphically depicted and labeled on the lots. A local option zoning setback shall be noted on the plat in the following format:
Building setback – This subdivision is located within (name of LOZD) Local Option Zoning District as contained in KPB Chapters 21.44 and 21.46 and adopted by KPB Ordinance (number), recorded under (serial no. and recording district). Information regarding the zoning restrictions and copies of the ordinance are available from the KPB Planning

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Department.

Staff recommendation: *Provide a depiction and label for the 20 foot building setback adjoining all right of way dedications.*

KPB 20.40 – Wastewater Disposal

Staff recommendation*: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: Tract B is less than 200,000 sq. ft. and will require a soils analysis report. An exception for wastewater review has been requested for Tract B. A soils exception is not required for Tract A as it is larger than 200,000 sq. ft.

Staff recommendation*: Add the appropriate plat notes and Comply with 20.40.*

KPB 20.60 – Final Plat

Staff recommendation*: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.040. Dedication of public use lands. Any land shown on a plat as a street, public park or other public area must be dedicated on the final plat to a tax exempt governmental entity. If the governmental entity is not the Kenai Peninsula Borough, the governmental entity shall be required to execute an acceptance of the dedication on the plat.

Staff recommendation: *An acceptance is in place and will require the signature of the State of Alaska DOT. Include the name of the right of way, Seward Highway, within the plat note. Provide an additional certificate of acceptance for additional right of way dedications that will be under KPB jurisdiction.*

20.60.130. Boundary of subdivision. The boundary of the subdivision shall be designated by a wider border and shall not interfere with the legibility of figures or other data. The boundary of the subdivided area shall clearly show what survey markers, or other evidence, was found or established on the ground to determine the boundary of the subdivision. Bearing and distance ties to all survey markers used to locate the subdivision boundary shall be shown.

Staff recommendation: *Locate the necessary survey markers to establish the subdivision boundary following the procedures as outlined in the BLM Manual of Survey Instructions. Revise the depiction of the boundary. The boundary must include all lands within the subdivision including the right of way and must be more wider than the other lot boundary line depictions.*

20.60.180. Plat notes.

K. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

L. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

Staff recommendation: *Place the following notes on the plat.*

- *No access to state maintained rights-of-way permitted unless approved by the State of Alaska Department of Transportation.*
- *Roads must meet the design and construction standards established by the borough in order to be considered for certification and inclusion in the road maintenance program (KPB 14.06).*
- *The front 10 feet adjoining dedicated right of ways is being granted by this plat as utility easements.*
- *No permanent structure shall be constructed or placed within a utility easement, which would interfere with the ability of a utility to use the easement.*

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- *A building setback of 20 feet is required from all dedicated street right of ways unless a lesser standard is approved by resolution of the appropriate planning commission.*
- *WASTEWATER DISPOSAL: (Tract A) - Lots which are at least 200,000 square feet in size may not be suitable for onsite wastewater treatment and disposal. Any wastewater treatment or disposal system must meet the regulatory requirements of the Alaska Department of Environmental Conservation.*
- *Include a plat note for any exceptions granted and the meeting date they were approved*
- *If the exception is granted for wastewater review add, "WASTEWATER DISPOSAL: Wastewater treatment and disposal systems must meet the regulatory requirements of the Alaska Department of Environmental Conservation.*
- *If the exception for wastewater review is denied add, "WASTEWATER DISPOSAL: Soil conditions, water table levels, and soil slopes in this subdivision have been found suitable for conventional onsite wastewater treatment and disposal systems serving single-family or duplex residences. An Engineer's Subdivision and Soils Report is available from the Kenai Peninsula Borough. Any other type of onsite wastewater treatment and disposal system must be designed by a qualified engineer, registered to practice in Alaska, and the design must be approved by the Alaska Department of Environmental Conservation.*

_____
(Signature of) Engineer

_____
License #

_____
Date

20.60.190. Certificates, statements, and signatures required.

***Staff recommendation**: Revise the certificate of ownership to remove unneeded pronouns and reflect that the owner is an entity. "I, hereby certify that Alaska Mental Health Trust Authority is the owner of the real property shown and described hereon and that on behalf of the Alaska Mental Health Trust Authority, I hereby adopt this plan of subdivision and by my free consent dedicate all rights-of-way and public areas to public use and grant all easements to the use shown." Comply with 20.60.190.*

EXCEPTIONS REQUESTED:

KPB 20.40.040 - required an soils analysis report

Surveyor's Discussion: We are requesting an exception to code 20.40.040 requiring a soils analysis on proposed Tract B, containing less than 200,000 square feet. We request a waiver to this requirement due to the unique circumstance of the subject parcel being divided by the existing Seward Highway ROW. As previously stated, the intention of this platting action is to dedicate existing ROW resulting in the creation of two new parcels with boundaries identical to their current/existing configuration except for the area to be dedicated as ROW. The new parcels will have new legal descriptions and will be separate, but the usable area and configuration will be virtually unaffected. Separately, Tract B contains over four times the area (outside wetlands) required for development. The proposed subdivision will not alter the existing area suitable for development and there is an abundance of area suitable for development.

Staff Discussion: Proposed Tract A will be 22 acres and will not require a soils analysis report. An exception for proposed Tract B has been requested, as it will be 3 acres. Per KPB 20.40.040, lots that will utilize conventional onsite soil absorption systems and are less than 200,000 square feet must submit a soils analysis and report for review. The square footage of Tract B is approximately 139,329 square feet. There is a portion of wetlands in the eastern portion of the lot that appear to be about 51,360 square feet. The tract will be between the Seward Highway right of way and the Alaska Railroad right of way.

Unless exceptions are requested and granted, staff has recommended additional right of way dedications to comply with code. These dedications will create 3 parcels from proposed Tract A. If right of ways are provided on the south and north boundary of Tract A as well as the extension from ROW Lot 36, the lots will exceed

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the 200,000 square feet requirement and not require a soils analysis.

If denied, a soils analysis report will be required for Tract B and any other lots less than 200,000 sq. ft.

Findings:

1. Tract B will be approximately 139,329 square feet.
2. Tract B has approximately 87,969 sq. ft. available for wastewater installation, as approximately 51,360 sq. ft. appears to be wetlands.
3. The minimum lot size for onsite well and wastewater is 40,000 sq. ft.
4. If Tract B is further subdivided a soils analysis will be required.
5. All wastewater systems must be approved by the State of Alaska DEC.
6. Tract B will be between the Seward Highway and the Alaska Railroad.
7. The plat intent is to dedicate the right of way and not to change existing boundaries in any other manner.
8. The parcel will be a triangle shape piece that will limit development along the narrow southern border.
9. A 20 foot building setback will be put in place along the Seward Highway.
10. A 10 foot utility easement will be put in place along the Seward Highway.
11. Sewer vent pipes are allowable within the setback.
12. Steep slopes appear to be present within the southern point of the property.

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 1-5 appear to support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 1-5 appear to support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 1-5 appear to support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

RECOMMENDATION:

SUBJECT TO EXCEPTION(S) GRANTED, STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

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- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

STAFF REPORT ADDENDUM

EXCEPTIONS REQUESTED:

KPB 20.30.030 – Proposed street layout – requirements.

- **For the extension of A 60 foot wide right of way dedication of right of way extending westerly from Lot 36.**

Surveyor's Discussion: Dedication of this ROW would divide Tract A into two separate parcels with a significant reduction in value to the northern portion due to its narrow width and steep slopes. We propose dedication of a public use or access easement in lieu of typical ROW.

Staff Discussion: Tract A is an L shaped parcel. Tract A has legal public access from
- The Seward Highway on the southeast boundary.
- Right of way Lot 36 located in the middle of the parcel.
- Right of way Lot 35 located in the northeast corner.

Tract A is affected by steep terrain. The extension of right of way from Lot 36 is not affected by steep terrain.

Alaska Mental Health Trust owns the land to the west. The Chugach National Forest is located to the west of the Alaska Mental Health Trust lands.

If denied, a 60 foot right of way dedication extending westerly from ROW Lot 36 will be required.

Findings:
1. The intent of this plat is to dedicate over an existing highway.
2. The lot located to the west is 80 acres.
3. Section line easements along the north are the only access to 80 acre parcel to the west.
4. The lands contain steep terrain in various areas.
5. Low wet areas may be present to the west of Lot 36 where the dedication would be required.
6. The boundary for Chugach National Forest is approximately 1,320 feet west of the subdivision boundary.
7. A public access easement would provide adequate access.
8. Future subdivisions can dedicate roads that meet the design needs of the subdivision.
9. Tract A has legal public access from, the Seward Highway on the southeast boundary, right of way Lot 36 located in the middle of the parcel, and right of way Lot 35 located in the northeast corner.

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the

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application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 1, 4, 7-9 support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 1, 4, 7-9 support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 1, 4, 7-9 support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

RECOMMENDATION:

SUBJECT TO EXCEPTION(S) GRANTED, STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**
- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**
- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

END OF STAFF REPORT ADDENDUM

Chair Brantley opened the meeting for public comment.

Taylor Moore, Kuna Engineering; 4300 B Street, #605, Anchorage, AK 99503: Mr. Moore was the surveyor and this project and made himself available for questions.

Tracy Maxwell; 3218 30th Ave. W., Seattle, WA 98199: Ms. Maxwell is a neighboring land owner, who owns land across the road from this subdivision. She wanted to know what the development plans were for these lots. Was there plan to subdivide them further and sale them. Mr. Huff replied that the only information they have is what is contained on the plat. If the landowners wish to further subdivide the proposed lot they would have to come back again to the commission and she would receive notice of any further subdivisions.

Richard Jackson; 12021 Forelands Circle, Anchorage, AK 99515: Mr. Jackson is a neighboring landowner. He wanted the record to show that he too had questions regarding the development of these proposed lots, particularly Tract A.

Hearing no one else wishing to comment, public comment was closed and discussion was opened among the committee

MAIN MOTION: Commissioner Bentz moved, seconded by Commissioner Venuti to grant preliminary approval to Madson Subdivision Tract A & Tract B based on staff recommendations and compliance with borough code.

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AMENDMENT A MOTION: Commissioner Bentz moved, seconded by Commissioner Venuti to grant exception request to KPB 20.40.040 – Required soils analysis report, citing finding 1-5 in support of standards one, two and three.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
AMEMDMENT A MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

AMENDMENT B MOTION: Commissioner Bentz moved, seconded by Commission Venuti to grant exception request to KPB 20.30.030 – Proposed street layout requirements for the extension of a 60' ROW dedication of the ROW extending westerly from Lot 36, subject to the dedication of a public use or access easement, citing findings 1, 4, 7-9 in support of standards one two and three.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
AMEMDMENT B MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

Commissioner Ruffner noted that the Moose Pass APC had requested more time to review this plat. He then noted that he understands that there can be time issues that can come into play. He wanted it on the record that their concerns were heard and that while he shares some of them he will be supporting this motion. Mr. Huff then stated that the Moose Pass APC had the opportunity to review this plat and they did approve it at their last meeting and the minutes from that meeting are in their laydown packet.

Seeing and hearing no objection or further discussion, the motion was carried by the following vote:
MAIN MOTION PASSED AS AMENDED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

ITEM 4 - PLAYLE ESTATES

KPB File No.	2021-159
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Michael Shilling of Kenai, Alaska and Thomas Playle of Nikiski, Alaska
Surveyor:	Jason Schollenberg / Peninsula Surveying, LLC
General Location:	Jacque Street, Wik Lake, Nikiski

Parent Parcel No.:	013-216-02, 013-216-28, 013-216-29, 013-216-30,
Legal Description:	Lots 2, 3 and 4 Block 1, Thompson Homestead Happy Hollow Acres Addition (KN 84-274) and Government Lots 5 and 6, T7N, R11W, Section 8
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

Staff report given by Scott Huff.

Mr. Huff noted that they had received a request from the surveyor, Jason Schollenberg to postpone action on the plat. The owner is attempting to get the rest of the property in their name so that he can combine the lots to the north as well. He noted that the email from the surveyor as in the desk packet.

END OF STAFF REPORT

Chair Brantley opened the meeting for public comment.

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Denise Cox; 50920 Grayson Circle, Kenai, AK 99611: Ms. Cox is a neighboring land owner. She was a bit confused as to the location of the private access easement and wanted to make sure that it doesn't affect her parcel. She also had questions regarding the zoning of the parcel and wanted to know what it is zoned as. She expressed concerns on how this parcel could be developed. Mr. Huff replied that the private access is contained within the properties of the landowner for the plat. Mr. Huff also noted that to comply with code that a right-of-way dedication is required to the north as there are several government lots that have only lake access. The owners have asked for a postponement to allow him to work on combining all the lots in this area into one big tract and then bring the plat back to the commission. Mr. Huff then noted that this property has no zoning.

Hearing no one else wishing to comment, public comment was closed and discussion was opened among the committee

MOTION: Commissioner Venuti moved, seconded by Commissioner Bentz to postpone action on this plat until brought back by staff.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

ITEM 5 - Fourth of July Creek Subdivision
Seward Marine Industrial Center
Fire Department Replat

KPB File No.	2021-080
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	City of Seward, Seward, Alaska
Surveyor:	Stacy M. Wessel / Enterprise Engineering, Inc.
General Location:	Delphin Street, Nash Road and Jellison Avenue, City of Seward

Parent Parcel No.:	145-340-20, 145-340-28, 145-340-41
Legal Description:	Block 2 and Block 5, Fourth of July Creek Subdivision, Seward Marine Industrial Center, Plat SW 97-27 and; Tract A3, Fourth of July Creek Subdivision, Seward Marine Industrial Center, Polar Seafood Replat, Amended, Plat SW 2007-2.
Assessing Use:	Residential and Commercial
Zoning:	Industrial Zoning District
Water / Wastewater	City

Staff report given by Scott Huff.

Specific Request / Scope of Subdivision: The Kenai Peninsula Borough Plat Committee heard and approved the preliminary plat at the June 28, 2021 meeting. The proposed plat will reconfigure lot lines between two lots and a private road tract. A portion of the private road tract will be removed and will be added to one of the proposed parcels. The private road tract is approximately 9.7 acres and the new lots will be 2.7 and 4.0 acres. Exceptions were granted by the Plat Committee to KPB 20.30.030 - proposed street layout-requirements, KPB 20.30.170 – Blocks- Length requirements, and KPB 20.30.190 – Lots-Dimensions (Tract A3).

This plat is being brought back to the plat committee as the survey has requested an exception to KPB 20.60.200 Survey and Monumentation for the portion of the private road tract that is not being changed.

EXCEPTIONS REQUESTED:

KPB 20.60.200 – Survey and Monumentation (Portions of Tract A4)

UNAPPROVED

Surveyor's Discussion: AK Lands, Land Surveying is requesting an exception to KPB code 20.60.200 for the Fourth of July Creek Subdivision Seward Marine Industrial Center Fire Department Replat, KPB File: 2021-080.

The Fire Department Replat involves subdividing Block 2 and Block 5, Fourth of July Creek Subdivision Seward Marine Industrial Center, plat 97-27 and a portion of Tract A3, Fourth of July Creek Subdivision Seward Marine Industrial Center Polar Seafoods Replat Amended, plat 2007-2 creating two new parcels. Block 2 will be expanded from 2 acres to 4 acres, absorbing .5 acres +/- out of 10.2 acres of Tract A3 between Block 2 and Block 5 and a portion of Block 5. The remainder of Block 5 is the second new lot.

AK Lands is requesting that all survey markers along the portions of Tract A4, not affected by the change in boundary, need not be located (or re-established if missing), and remain survey markers of record depicted on the final plat. The survey markers along Tract A4, bordering various parcels/blocks are not critical for the current subdivision. There are several primary survey markers surrounding the Seward Marine Industrial Center from US Survey 4827 and Alaska Tidelands Survey No. 1222. Within the industrial area, there have been numerous subdivisions from the 1990s to currently setting several primary and secondary survey markers.

I have attached the final draft Fire Department Replat showing where the survey markers of record will be depicted on the final plat. Granting this exception to KPB Code will provide the City of Seward with two new lots that facilitates a new Fire Department Training Facility and economic opportunity for the second lot.

Staff Discussion: The creation of a tract for access purposes was created with Fourth of July Creek Subdivision Seward Marine Industrial Center, SW 97-27. The tract has been modified through the years to provide additional access, dedicate portions, or remove access that is no longer needed. This platting action will be removing a portion of the private access tract and adjusting the boundary between Block 2 and Block 5.

KPB code requires survey markers on all lot corners and along line segments at each bearing change. These survey markers are to be located during the platting process and if missing or disturbed, be re-established with new survey markers. The surveyor is proposing to show record survey marker information along portions of Tract A4.

The granting of the exception will not change the original approval date of the preliminary plat. The approval date will remain June 28, 2021 and is valid for two years with time extensions permitted as outlined in KPB 20.25.110.

If approved the majority of the survey markers on Tract A4 boundary will be per record information. Survey markers will still be found or set on the lines that are being changed as well as Lot 3A Block 4.

If denied, all monuments along Tract A4 will be required to be found or re-established and shown on the final plat.

Findings:

1. Tract A4 is a private tract.
2. Portions of Tract A4 have been developed with a service road which provides physical access for the lessees, City officials, and other authorized personnel.
3. The service access easement serves as legal access to many industrial parcels around the area.
4. The City of Seward is the owner of all lands within the subdivision, including Tract A4.
5. The Seward Planning and Zoning Commission reviewed and recommended approval of the preliminary plat on March 2, 2021.
6. The purpose of the plat is to reconfigure two lots in the northeast corner.
7. The Kenai Peninsula Borough Plat Committee approved the subdivision plat on June 28, 2021.
8. Exceptions were granted for street layout requirements, block length, and lot dimensions for Tract A4.
9. The survey markers for Tract A 4 were originally set 24 years ago in 1997.

UNAPPROVED

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 1-8 appear to support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 1-8 appear to support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 1-8 appear to support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

RECOMMENDATION:

SUBJECT TO EXCEPTION(S) GRANTED, STAFF RECOMMENDS:

- **GRANT THE EXCPETION REQUESTED TO THE ALL READY APPROVED PRELIMINARY PLAT, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Chair Brantley opened the meeting for public comment.

Stacy M. Wessel, Enterprise Engineering, Inc.; 2525 Gambell Street, #201, Anchorage, AK 99503: Ms. Wessel was one of the surveyors on this project and made herself available for questions.

Hearing no one else wishing to comment, public comment was closed and discussion was opened among the committee

UNAPPROVED

MOTION: Commissioner Ruffner moved, seconded by Commissioner Venuti to grant exception request to KPB 20.60.200 – Survey & Monumentation for portions of Tract A4, citing findings 1-8 in support of standards one, two and three.

Seeing and hearing no objection or discussion, the motion was carried by the following vote:
MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

ITEM 10 - THE STORDAHLE SUBDIVISION

KPB File No.	2021-161
Plat Committee Meeting:	January 10, 2022
Applicant / Owner:	Shane Holt of Anchorage, AK
Surveyor:	John Segesser / Segesser Surveys, Inc.
General Location:	Sterling Highway and Three Johns Street, Sterling

Parent Parcel No.:	065-322-05
Legal Description:	SE1/4 NE1/4 Section 13 Township 5 North, Range 8 West, lying north of the of the right of way line of the Sterling Highway
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

Staff report given by Scott Huff

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 25 acre parcel into one lot and one tract. The lot will be .918 acres and the tract will be 22 acres. A 33 foot wide dedication for Three Johns Street is proposed.

Location and Legal Access (existing and proposed): The subdivision is located at milepost 76 of the Sterling Highway on the corner of the Sterling Highway and Three Johns Street. Three Johns Street is a 33 foot wide section line easement.

The preliminary plat will dedicate a 33 foot wide right of way that will coincide with the section line easement. Right of way dedications for the right of way have been provided extending from the northeast corner of the subdivision. Three Johns Road is constructed over the southeast corner of the parcel. The Kenai National Wildlife Refuge borders to the east. Construction of a roadway within the refuge boundary is not possible. ***Staff recommends*** *a full 60 foot wide dedication be granted along the eastern boundary unless documentation can be provided that demonstrates a roadway can be constructed within the Kenai National Wildlife Refuge.* ***Staff recommends*** *that the right of way dedication encompass the existing roadway in the southeast corner.*

The subdivision is within a closed block defined by the Sterling Highway, Three Johns Street, Akeve Avenue, and Adkins Road. Three Johns Street and Adkins Road are approximately 2,250 feet and Akeve Avenue and Sterling Highway are approximately 5,260 feet. Per KPB 20.30.170, blocks shall not be less than 330 or more than 1,320 feet.

Dedications along the west and the north boundary will place the subdivision within a closed block with compliant block lengths of 808 feet and 1,316 feet.

A access easement is reserved on the 26 acre parcel to the west that allows legal access to the parcels located to the northwest of this subdivision.

A lease for a communications tower exists in the northeast corner of the parcel. Steep terrain is located along the north boundary. Akeve Avenue is located 1,320 feet to the north and provides an east-west right of way connection.

UNAPPROVED

Parcels to the north and west are large enough to be further subdivided and will be required to provide a matching right of way dedication in the future. ***Staff recommends*** *to comply with code requirements for block length by dedicating a minimum 30 foot wide half width right of way dedication along the west boundary.* ***Staff recommends*** *that the Plat Committee concur that a dedication on the north boundary is not required at this time due to the lease area for a communications tower, steep terrain on the north boundary, and Akeve Avenue providing an east-west right of way connection. The owner is put on notice that any further subdivision of Tract A may require right of way dedications to comply with KPB subdivision standards.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: The RSA has no comment at this time.
SOA DOT comments	The ROW for Sterling Highway is as shown on Sterling Highway MP 58-79 (IM-OA3-3(14)/54990) sheet 20 of 62 (Plat 2014-34 KRD), and appears to be shown correctly.

Site Investigation: There does not appear to be any low wet areas present on the property. The land is relatively flat.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments

Staff Analysis The subject parcel is a portion of an aliquot lot that lies north of the Sterling Highway. This subdivision will create Lot 1 which will encompass the communication tower lease area. A soils report will be required for Lot 1 and an engineer will sign the final plat.

The parcel is vacant and not affected by any residential structures.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

The property is not within an advisory planning commission.

Utility Easements Per plat note seven, utility easements will be granted along all dedicated right of ways as required by KPB code. ***Staff recommends*** *all utility easements be depicted on the plat and that plat note seven include "granted by this plat".*

An additional easement with no defined location was granted Homer Electric Association by recorded document and is noted within plat note 6.

This plat was originally proposed to be reviewed under the Abbreviated Plat process. Homer Electric Association reviewed it at that time and requested a 30 foot by 660 foot utility easement on the north

UNAPPROVED

boundary from the northwest corner of Lot 1 to the existing powerline. This easement depiction has been depicted on the preliminary plat. ***Staff recommends*** *provide the easement as requested by HEA and include in the description "granted by this plat".*

HEA also commented that the existing overhead powerline should be covered under the existing easement granted by recorded document and noted in plat note 6. ***Staff recommends*** *the powerline depiction reference the plat note with the easement information or a new easement be granted centered over the existing powerline.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	HEA requests that the plat provide a 30 foot wide by approx. 660 foot long utility easement along the north property line of Tract A connecting to the proposed Lot 1 of the subdivision as shown on the attached site plan. The attached site plan also makes reference to the blanket ROW easement granted to HEA which should cover the existing overhead (OH) power lines. It would be beneficial to represent the OH Power lines and note the existing blanket easement.
ENSTAR	No comments or recommendations.
ACS	No objections.
GCI	Approved as shown.

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 28210 STERLING HWY 37709 THREE JOHNS ST Existing Street Names are Correct: Yes List of Correct Street Names: STERLING HWY THREE JOHNS ST ZENITH ST Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: 28210 STERLING HWY will remain with Tract A. 37709 THREE JOHNS ST will remain with Lot 1.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concerns from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

UNAPPROVED

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

***Staff recommendation:** Include in the description that it is "SE1/4 NE1/4 north of the Sterling Highway" Verify the total acreage.*

G. The status of adjacent lands within 100 feet of the proposed subdivision boundary or the land status across from any dedicated rights-of-way that adjoin the propose subdivision boundary, including names of subdivisions, lot lines, block numbers, lot numbers, rights-of-way; or an indication that the adjacent land is not subdivided;

***Staff recommendation:** Revise the lot to the from Tract 2A to Tract 3 of KN 94-65. The lot to the northwest is currently labeled as unsubdivided. Update the label to Parcel 1 Plat Waiver Resolution 98-15.*

L. Contours at suitable intervals when any roads are to be dedicated unless the planning director or commission finds evidence that road grades will not exceed 6 percent on arterial streets, and 1 0 percent on other streets;

***Staff recommendation:** Staff has provided a contour map in the packet.*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.030. Proposed street layout-Requirements.

A. The streets provided on the plat must provide fee simple right-of-way dedications to the appropriate governmental entity. These dedications must provide for the continuation or appropriate projection of all streets in surrounding areas and provide reasonable means of ingress for surrounding acreage tracts. Adequate and safe access for emergency and service vehicle traffic shall be considered in street layout.

B. Subdivision of land classified as agricultural conveyed subject to AS 38.05.321(a)(2)(B) may provide public access easements in lieu of fee simple dedications if necessary to comply with the minimum lot size restriction of the statute. The public access easements must meet all applicable right-of-way design criteria of Title 20 and are subject to the building setback requirements set forth in KPB 20.30.240.

C. Preliminary plats fronting state maintained roads will be submitted by the planning department to the State of Alaska Department of Transportation and Public Facilities (DOT) for its review and comments.

***Staff recommendation:** Verify the location of Three Johns Street as it appears to cross across the corner of proposed Tract A. Verify that the right of way dedication to encompass the constructed right of way. Provide a 30 foot wide right of way dedication on the west boundary.*

20.30.120. Streets-Width requirements.

M. The minimum right-of-way width of streets shall be 60 feet.

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1. Half streets shall generally not be allowed except to provide the logical extension of a right-of-way where the remaining half street can reasonably be expected to be dedicated in the future.
2. When a design change required as a condition of preliminary approval results in a half right-of-way that was not shown on the original preliminary plat, adjoiners to the new half right-of-way will be sent a copy of the plat committee minutes and a sketch showing the new half right-of-way and per KPB 2.40.080 can request a review of the plat committee decision by the full Planning Commission.

B. Additional right-of-way or easement width may be required to provide for the construction of side slopes or to otherwise accommodate right-of-way construction standards set forth in KPB Title 14.

Staff recommendation: *Provide a 60 foot wide dedication for Three Johns Street unless documentation is provided that show that a roadway can be constructed within the Kenai National Wildlife Refuge.*

20.30.170. Blocks-Length requirements. Blocks shall not be less than 330 feet or more than 1,320 feet in length. Along arterial streets and state maintained roads, block lengths shall not be less than 800 feet. Block lengths shall be measured from centerline intersections.

Staff recommendation: *Block lengths exceed allowable lengths. Dedications on the west boundary is required.* ***Staff recommends*** *that the Plat Committee concur that a dedication on the north boundary is not required at this time due to the lease area for a communications tower, steep terrain on the north boundary, and Akeve Avenue providing an east-west right of way connection. The owner is put on notice that any further subdivision of Tract A may require right of way dedications to comply with KPB subdivision standards.*

20.30.240. Building setbacks.

A. A minimum 20-foot building setback shall be required for dedicated rights-of-way in subdivisions located outside incorporated cities.

N. The setback shall be graphically depicted and labeled on the lots; if such depiction will interfere with the legibility of the plat, a typical lot showing the depiction and label may be provided on the plat, clearly indicating that the typical setback applies to all lots created by the plat.

O. The setback shall be noted on the plat in the following format:

Building setback- A setback of 20 feet is required from all dedicated street right-of-ways unless a lesser standard is approved by resolution of the appropriate planning commission.

P. When a subdivision is affected by a Local Option Zoning District (LOZD), an approved by the assembly, all building setbacks shall be graphically depicted and labeled on the lots. A local option zoning setback shall be noted on the plat in the following format:

Building setback – This subdivision is located within (name of LOZD) Local Option Zoning District as contained in KPB Chapters 21.44 and 21.46 and adopted by KPB Ordinance (number), recorded under (serial no. and recording district). Information regarding the zoning restrictions and copies of the ordinance are available from the KPB Planning Department.

Staff recommendation: *Depict and label the building setbacks adjoining all dedicated right of ways.*

KPB 20.40 – Wastewater Disposal

Staff recommendation*: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: Lot 1 will require a soils analysis report and signature from an engineer. Tract A does not require a soils analysis report. Provide a wastewater disposal note for Tract A that complies with 20.50.030.

Staff recommendation*: comply with 20.40.*

UNAPPROVED

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.040. Dedication of public use lands. Any land shown on a plat as a street, public park or other public area must be dedicated on the final plat to a tax exempt governmental entity. If the governmental entity is not the Kenai Peninsula Borough, the governmental entity shall be required to execute an acceptance of the dedication on the plat.

***Staff recommendation:** Provide a Certificate of Acceptance for Three Johns Street and any other dedications to be signed by the Kenai Peninsula Borough.*

20.60.180. Plat notes.

M. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

N. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

***Staff recommendation:** Place the following notes on the plat.*

Add a note for any exceptions granted.

If a wastewater review is not performed for Tract A, designate the current note on the plat for Lot 1 and add for Tract A "WASTEWATER DISPOSAL: Lots which are at least 200,000 square feet in size may not be suitable for onsite wastewater treatment and disposal. Any wastewater treatment or disposal system must meet the regulatory requirements of the Alaska Department of Environmental Conservation."

RECOMMENDATION:

STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**
- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**
- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT

Mr. Huff then noted that comments had been received from Kachemak Bay APC. The APC reviewed the plat at their January 6, 2022 meeting and opposed the plat. They stated there was inadequate information regarding access to the parcel, water sources & waste water.

Chair Brantley opened the meeting for public comment. Hearing one wishing to comment, public comment was closed and discussion was opened among the committee

UNAPPROVED

MOTION: Commissioner Gillham moved, seconded by Commissioner Bentz to grant preliminary approval to The Stordahle Subdivision based on staff recommendations and compliance with borough code.

Commissioner Venuti stated that if the APC is asking for additional time to review the plat he believed the request should be granted. Mr. Huff replied while the APC opposed the plat he did not see any real reason to not approve it. The APC stated they had concerns regarding access and the plat shows that all the lots front a right-of-way so there are not access issues. The APC also had concerns regarding water issues and all the lots being created are large enough to have onsite wells and waste water systems. He also noted before the final plat can be approved there will be a soils report that will be reviewed by staff to ensure that it complies with code. This plat meets all the required platting standards required by the borough.

Commissioner Ruffner asked if there were any staff in attendance at this meeting to address the APC concerns. Mr. Huff replied that Marcus Mueller was in attendance but there were no platting staff at the meeting. He then noted that staff are working with the APCs to help them better understand what it is they are being asked to review on plats. What staff are looking for from the APC are any issues in the area that staff may not be aware of. Things like drainage issues or trails being used by the public.

Commissioner Bentz asked if the APC had access to all the information in the meeting packet, such as the wetland and contour maps. Mr. Huff replied that the APC are given the preliminary plat to review, the packet information is not always available in time for meetings. The APC can always check online to see if the packet information is available.

Seeing and hearing no objection or further discussion, the motion was carried by the following vote:
MOTION PASSED BY UNANIMOUS VOTE

Yes	5	No	0
Yes	Bentz, Brantley, Gillham, Ruffner, Venuti		

D. PUBLIC COMMENT - None

E. ADJOURNMENT

Commissioner Gillham moved to adjourn the meeting 6:23 P.M.

Ann E. Shirnberg
Administrative Assistant

UNAPPROVED

Kenai Peninsula Borough
Planning Commission

Betty J. Glick Assembly Chambers, Kenai Peninsula Borough George A. Navarre Administration Building

January 10, 2022
7:30 P.M.
UNAPPROVED MINUTES

CALL TO ORDER
Chair Martin called the meeting to order at 7:30 p.m.

ROLL CALL
Commissioners Present
Syverine Bentz, District 9 – South Peninsula
Jeremy Brantley, District 5 – Sterling/Funny River
Diane Fikes, City of Kenai
Pamela Gillham, District 1 - Kalifornsky
Blair Martin, District 2 - Kenai
Franco Venuti, City of Homer

With 6 members of a 8-member seated commission in attendance, a quorum was present.

Staff Present
Melanie Aeschliman, Planning Director
Sean Kelley, Borough Attorney
Walker Steinhage, Deputy Borough Attorney
Scott Huff, Platting Manager
Marcus Mueller, Land Management Manager
Julie Hindman, Platting Specialist
Samantha Lopez, KRC Manager
Eric Ogren, Code Compliance
Avery Harrison, LMD Administrative Assistant
Ann Shirnberg, Planning Administrative Assistant

AGENDA ITEM C. CONSENT & REGULAR AGENDAS

***3. Plats Granted Administrative Approval**

a. ASLS 2020-08 Fitz Creek Heights Subdivision; KPB File 2021-011
b. ASLS No. 2019-34 Tract A ASLS 96-42; KPB File 2021-019
c. Barnett's South Slope Subdivision Quiet Creek Park 2021 Replat; KPB File 2021-057
d. Birchwood Subdivision Sherman Addition No. 2; KPB File 2021-090
e. Bunnell's Subdivision Haige 2021 Replat; KPB File 2021-134
f. Eventyr Subdivision Number 3; KPB File 2020-079
g. Falls Creek Estates Unit 5; KPB File 2021-110
h. Fowler's Bench; KPB File 2021-067
i. Green Forest Subdivision Carew Addition; KPB File 2021-106
j. Hylen 2021 Addition; KPB File 2021-024
k. Jack Foster Subdivision 2018 Addition Phase 2; KPB File 2018-012R1P2
l. Mansfield Subdivision Wolter 2021 Replat; KPB File 2021-121
m. McFarland Subdivision 2021 Replat; KPB File 2021-130
n. S&S Subdivision; KPB File 2021-112
o. Skyline Drive Subdivision No. 7A; KPB File 2021-083
p. Townsite of Kenai Kenaitze Courthouse Replat; KPB File 2021-118
q. USS 4901 C Street ROW Vacation 2021 Replat; KPB File 2021-085

UNAPPROVED

***4. Plats Granted Final Approval (20.10.040)**
a. Dahler Subdivision Revis Replat; KPB File 2021-155

***6. Commissioner Excused Absences**
a. Virginia Morgan, District 6 – East Peninsula
b. Robert Ruffner, District 7 – Central
c. City of Soldotna, Vacant
d. City of Seward, Vacant
e. City of Seldovia, Vacant
f. District 3 – Nikiski, Vacant
g. District 8 – Homer

***7. Minutes**
a. December 13, 2021 Planning Commission Meeting Minutes

Chair Martin asked if anyone wised to speak to any of the items on the consent agenda. Hearing no one wishing to comment he brought it back to the commission for a motion.

MOTION: Commissioner Gillham moved, seconded by Commissioner Bentz to approve the consent and regular agendas

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				
Absent	Morgan, Ruffner				

Chair Martin asked Ms. Shirnberg to read the procedures for public testimony.

AGENDA ITEM D. OLD BUSINESS

1. Remand Hearing: CLUP Modification Application
Applicant: Cook Inlet Region, Inc.
Tax Parcel ID 065-081-18
Sterling Area

Staff report given by Sean Kelley

The purpose of this scheduling discussion is for the Planning Commission to set a date to consider this matter consistent with the Court's remand decision. The Commission should not discuss the merits of the application during the scheduling discussion.

On December 2, 2021, Administrative Law Judge Rebecca Kruse entered an *Order for Remand* in the matter of *Rosenberg v. Cook Inlet Region, Inc.* (CIRI) regarding a conditional land use permit (CLUP) modification application filed by CIRI. The order highlights that the KPB Planning Commission decision on appeal states "[c]compliance with the mandatory conditions in KPB 21.29.050, as detailed in the following findings, necessarily means that the application meets the standards contained in the KPB 21.29.040."

The Order for Remand, at page 2-3, provides that:

> "On remand, in light of the superior court's holding in *Bilben*, the Planning Commission should review CIRI's CLUP modification application to determine whether it meets the standards of KPB 21.29.040, not merely whether it includes the mandatory conditions in KPB 21.29.050 – similar to how the Commission reviewed CIRI's CLUP application in 2017.

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> It does not appear that the Commission's understanding of its discretion under KPB 21.29.040 impacted the development of the factual record. Thus, Commission should be able to review CIRI's CLUP modification on remand without opening the record for new evidence. If the Commission determines that it is has insufficient facts to proceed, however, the Borough Code does not prohibit opening the record.
>
> One issue where the record is lacking relates to a procedural argument raised by CIRI in its opening statement. As CIRI points out, only a party of record may appeal a Planning Commission decision. One of the requirements to be a party of record is to own land within the "notification radii." It is thus unclear from the record whether Mr. Rosenberg had the right to appeal the Planning Commission's decision. A list of the landowners within the half mile radius who were mailed notice would clear up any question about who is a potential party of record."

Mr. Kelley then referred to page R18 in the appeal record, which shows a list of individuals and/or entities that had received notification regarding this application, and he noted that Mr. Rosenberg's name is on that list.

The Planning Commission should determine when to set a remand hearing and the procedure that will be followed on remand, including whether or not the Commission finds it necessary to open the record for new evidence.

END OF STAFF REPORT

Commissioner Brantley asked Mr. Kelley if the commission chose to reopen the record would regular public hearing noticing be required. Public noticing requirements would affect the date of the hearing. He then asked if the record is not opened could this be scheduled for the next meeting. Mr. Kelley replied that he believed regardless of whether or not the matter would be opened up for new evidence or public testimony the meeting should be publicly noticed. He then noted that this could also heard at a special meeting outside of the regular meeting schedule, and both remanded hearings could be done at the same meeting. He would suggest if the matter is reopened that the date be pushed out to March as it is possible that six new commission members may be coming on to the commission in February. This would allow the new commissioners time to get up to speed on this matter.

Commissioner Brantley stated that he does not believe the record or public testimony needs to be reopened.

Commissioner Fikes stated she feels the same as Commissioner Brantley and that the record does not need to be reopen. She also would support a special meeting for these items.

Chair Martin asked Ms. Shirnberg what would be the earliest date the hearings could be schedule to meeting noticing requirements. Ms. Shirnberg replied any time during the week of January 24, 2022. If they wanted to wait until the new commissioners come on board then we would be talking about a meeting sometime in March.

Chair Martin then asked the commission what would be the pros & cons of having new commissioners jump into this matter midstream vs. hearing this matter the week of January 24th.

Commissioner Fikes asked for Mr. Kelley's opinion on Chair Martin's question. Mr. Kelley replied this was a decision for the commission to debate. It is a question of whether or not the commission wishes to wait for new commissioners to be seated but also recognizing that the applicants have a desire to see the matter move forward. If the hearing were to be reopened, the new commission members would have the opportunity review the appeal record. Then the new commissioners could provide testimony as to whether or not they feel comfortable with the information in order to make a decision on the matter. The hearing date could then be set for February or March. If the commission feels those who are currently seated have the background needed to make the decision, you could set a hearing date before February.

MOTION: Commissioner Venuti moved, seconded by Commissioner Brantley to set the remand hearing for Cook Inlet Region CLUP modification application for Tuesday, January 25, 2022.

Commissioner Venuti stated he felt the commission currently seated has the information needed to make a decision on this matter. He believed it could be daunting for new commissioners to come in midstream

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and have to make a decision.

Commissioner Bentz asked Ms. Shirnberg if she knew of any excused absences of commissioners for the week of January 24th. Ms. Shirnberg replied that the only absence that she was currently aware of for that week was Commissioner Ruffner.

Commissioner Fikes stated she is fine with a special meeting being set for these matters for January 25, 2022.

Commissioner Gillham stated she would be available the January 25, 2022 if she could attend via Zoom. She believes that the commission should move forward on this matter as quickly as possible.

Chair Martin stated he is available January 25th if he could attend via Zoom.

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				
Absent	Morgan, Ruffner				

Mr. Kelley reminded the commission they needed to decide on a time and whether or not to open the record.

Chair Martin stated that those issues could be addressed after they discuss the second issue.

2. Remand Hearing: CLUP Application
Applicant: Beachcomber, LLC
Tax Parcel ID 169-010-67
Anchor Point Area

Staff report given by Sean Kelley.

The purpose of this scheduling discussion is for the Planning Commission to set a date to consider this matter consistent with the Superior Court's decision. The Commission should not discuss the merits during the scheduling discussion.

On September 2, 2021, Kenai Superior Court Judge Jason M. Gist issued a *Memorandum Decision and Order* in the matter of *Hans Bilben, et al.* v. *Kenai Peninsula Borough, Planning Commission, and Beachcomber LLC, et al.*, Appeal Case No. 3KN-20-00034CI (the "decision"). The Court's decision is attached. Two excerpts from the remand decision, at page 15 of 17 and page 17 of 17, are provided to highlight the direction and guidance from the Court:

> "Having reviewed the record in this case, this court agrees that the findings of fact in Resolution 2018-23 are supported by substantial evidence. However, the court finds that the findings of fact related to the Buffer Zone in Section 17 of the Resolution are legally insufficient under KPB 21.29.050(A)(2). Under that Code section, "[t]he vegetation and fence shall be of sufficient height and density to provide visual and noise screening of the proposed use as deemed appropriate by the planning commission ... " The findings of fact in Section 17 of the Resolution detail what conditions are imposed on the CLUP, and those findings repeatedly indicate that some of the proposed conditions will "increase visual and noise screening."" (*See*, decision at page 15.)
>
> "The Commission did not specifically find whether the conditions imposed on the CLUP were *deemed appropriate* to satisfy the standards set forth in KPB 21.29.040. By all accounts from the record, it appears that the Commission operated under the incorrect assumption that KPB 21.29.040 was "necessarily satisfied" so long as the CLUP contained conditions in KPB 21.29.050. It is unclear from the record whether the Commission deemed the conditions appropriate to satisfy those standards. For these reasons, the case is REMANDED back to the Commission for further review and/or clarification. If the Commission does in fact deem the conditions set forth in Resolution 2018-23 appropriate to satisfy the standards set forth in KPB 21.29.040, then it shall

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grant the CLUP. If, however, the Commission finds that no conditions in KPB 21.29.050 could adequately minimize visual and noise impacts to the standards set forth in KPB 21.29.040, then it may deny the CLUP." (Emphasis original). (*See*, decision page 17.)

The Planning Commission should determine when to set a remand hearing and the procedure that will be followed on remand, including whether or not the Commission finds it necessary to open the record for new evidence.

Mr. Kelley then noted that in the meeting packet was a comment from Mr. Bilben requesting that record and public comment be reopened.

END OF STAFF REPORT

Commissioner Fikes stated that she would like to see this meeting be in person and via Zoom and that both items be addressed at the meeting. She suggested a meeting start time of 7:30 pm. She also does not believe that the record or public testimony needs to be open on this matter.

MOTION: Commissioner Gillham moved, seconded by Commissioner Venuti to set the remand hearing for Beachcomber, LLC CLUP application for Tuesday, January 25, 2022 at 7:30 PM, for the commission to hear both remanded hearing at this meeting and to not open the record or open public comment on either matter.

Commission Brantley requested to be recused from participating in this matter as he has a conflict of interested. He noted that he had not voted on any matters related to the Beachcomber CLUP application. Chair Martin excused Commissioner Brantley from participating in this matter

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				

AGENDA ITEM E. NEW BUSINESS

ITEM 1 - UTILITY EASEMENT ALTERATION
BARABARA HEIGHTS SUBDIVISION (KN 79-6) LOT 6 BLOCK 14

KPB File No.	2021-156V
Planning Commission Meeting:	January 10, 2021
Applicant / Owner:	Christina and Russell Griffith of Kenai, Alaska
Surveyor:	Jason Young, Mark Aimonetti / Edge Survey & Design, LLC
General Location:	Marrs Lane, Seldovia Village

Staff report given by Scott Huff.

Specific Request / Purpose as stated in the petition: The petitioner would like to vacate the utility easements as depicted on the preliminary plat to allow for more useable space for the landowner of the parcel. Easements being vacated are along steep terrain and will not be needed for utilities. Easements granted per parent plat in a general manner covering all interior lot lines. The easements are not practical on these parcels.

Notification: Notice of vacation mailings were sent by regular mail to 22 owners of property within 600 feet. Notice of the proposed vacation was emailed to eight agencies and interested parties.

The public notice was posted on the Planning Department's bulletin board at the KPB Administration Building.

Staff Analysis: Barabara Heights Subdivision (Plat SL 79-6) is located within the Seldovia Village and not within the City of Seldovia. Barabara Heights Subdivision was completed in 1979 and subdivided over 1,000 acres of Seldovia Native Association lands.

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Barabara Heights Subdivision granted utility easements with the following plat note. “Easements for public utilities are herein provided 15 feet on each side of every lot line, for a total width of 30 feet along common interior lot lines, excepting along dedicated streets where easement width shall be 20 feet, adjacent to the street right-of-way.”

The proposed utility easement alteration is for Lot 6 Block 14 of Barabara Heights Subdivision. This is a triangle shaped lot. The proposal will be to remove the 15 foot utility easement along the side lot lines only. The 20 foot utility easement will remain in place adjoining Marrs Lane.

The lot is within Block 14. Nine lots are within Block 14 and it is defined by Marrs Lane, Mine Loop Road. Per KPB records all original utility easements within that block are still in existence. 15 foot utility easements will remain in place on adjoining lots 5 and 7.

A prior existing use permit for a material site affects Lot 4 Block 14, located south of the proposed utility easement vacations.

A preliminary plat has been submitted, Barabara Heights Subdivision Griffith Addition KPB File 2021-156. The plat will subdivide the existing lot and will finalize the utility easement alteration. The preliminary plat is scheduled for the January 10, 2022 Plat Committee meeting.

Utility provider review:

HEA	No objections
ENSTAR	No objections
ACS	No objections
GCI	Approved as shown

Findings:

1. The utility easement proposed to be vacated is not in use by a utility company.
2. ACS, ENSTAR, GCI, and HEA provided written non-objection to the proposed vacation.
3. No surrounding properties will be denied utilities.
4. The Road Service Area had no comment.
5. Barabara Heights Subdivision, Plat SL 79-6, granted 15 foot utility easements along each interior lot line.
6. Barabara Heights Subdivision, Plat SL 79-6, granted 20 foot utility easements along all dedicated right of ways.
7. The 20 foot wide utility easement adjoining the dedicated right of way will remain.
8. The 15 foot utility easements within Lot 5 and Lot 7, and adjoining the side lot lines will remain.
9. Portions of the utility easements are affected by slopes over 20 percent grade.
10.

RECOMMENDATION:

Based on consideration of the merits as outlined by Staff comments and Staff findings, Staff recommends APPROVAL of the utility easement alteration as petitioned, subject to:

1. Grant utility easements requested by utility providers.
2. Finalizing the approval of the easement alteration by either;
    a. The recording of a subdivision plat within 12 months or,
    b. The recording of a utility easement alteration resolution within 90 days of the adoption of the resolution by the Planning Commission, with the following requirements:
        i. An exhibit drawing showing, and dimensioning, the utility easement alteration area, prepared, signed and sealed by a licensed land surveyor. The exhibit drawing will be attached to, and recorded with, the resolution.
        ii. The applicants will provide the recording fee for the resolution and its attachment to the Planning Department.

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iii. The Planning Department is responsible for filing the Planning Commission resolution.

20.65.070 Alteration of platted utility easements

E. A planning commission decision under this section is final. A notice of decision shall be sent to the petitioner. No reapplication or petition concerning the same alteration to platted utility easement may be filed within one calendar year of the date of the final denial action except in the case where new evidence or circumstances exist that were not available or present when the original petition was filed. If the reasons for denial are resolved, the petitioner may submit a new petition for alteration of platted utility easement with documentation that the issues have been resolved, accompanied by a new fee.

F. An appeal of the planning commission decision under this section must be filed in the superior court in accordance with the Alaska Rules of Appellate Procedure.

The 2019 Kenai Peninsula Borough Comprehensive Plan adopted November, 2019 by Ordinance No. 2019-25. The relevant objectives are listed.

Goal 3. Preserve and improve quality of life on the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.

- *Focus Area: Energy and Utilities*
  - *Objective A - Encourage coordination or residential, commercial, and industrial development with extension of utilities and other infrastructure.*
    - *Strategy 1. Near – Term: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.*
    - *Strategy 2. Near – Term: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.*
    - *Strategy 3. Near – Term: Identify potential utility routes on Borough lands.*
- *Housing*
  - *Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.*
    - *Strategy 1. Near – Term: Collaborate with the AK Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to the undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.*

END OF STAFF REPORT

Chair Martin opened the meeting for public comment.

Jonathan Kennedy, POB 236, Seldovia, AK 996603: Mr. Kennedy is a neighboring landowner and wanted to make sure that the vacation of this utility easement would not affect him. Mr. Huff replied that the utility easement being vacated was within the parcel owner's boundaries and would not affect him.

Chair Martin hearing no one else wishing to comment, closed public comment and discussion was opened among the commission.

MOTION: Commissioner Gillham moved, seconded by Commissioner Brantley to approve the vacation a petitioned based on the means of evaluating public necessity established by KPB 20.65, subject to staff recommendation and compliance with borough code.

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

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Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				

ITEM 2 - UTILITY EASEMENT ALTERATION
KACHEMAK VISTA SUBDIVISION (HM 83-93) LOTS 2 AND 3

KPB File No.	2021-023V
Planning Commission Meeting:	January 10, 2021
Applicant / Owner:	Josepho Adele Family Trust of Solana Beach, California
Surveyor:	Gary Nelson / Ability Surveys
General Location:	Skyline Drive and Taylor Avenue / Kachemak APC

Staff report given by Scott Huff.

Specific Request / Purpose as stated in the petition: I am asking for this alteration because I am uniting my two adjacent lots into one residential parcel and do not need the utility easement. Thank you for your attention to this matter.

Notification: Notice of vacation mailings were sent by regular mail to 11 owners of property within 600 feet. Notice of the proposed vacation was emailed to eight agencies and interested parties.

The public notice was posted on the Planning Department's bulletin board at the KPB Administration Building.

This is within the Kachemak Bay Advisory Planning Commission boundary. Minutes were not available when the staff report was prepared. The minutes will be provided in the desk packet if available.

Staff Analysis: Kachemak Vista Subdivision, Plat HM 83-93, subdivided an aliquot parcel into five lots and one tract. The plat created Lots 2 and 3 and granted a 20 foot by 100 feet utility easement centered on the common lot line. 10 foot utility easements were also granted adjoining the dedicated right of way named Taylor Avenue.

The Kenai Peninsula Borough Plat Committee heard and approved the preliminary plat Kachemak Vista Subdivision 2021 on April 12, 2021. The plat will combine Lots 2 and 3 from Kachemak Vista Subdivision into one lot. If approved the utility easement will be finalized by the plat Kachemak Vista Subdivision 2021. The 10 foot utility easement adjoinng Taylor Avenue will remain in place.

Utility provider review:

HEA	No objection
ENSTAR	No objection
ACS	No objection
GCI	No objection

Findings:

11. The petition does state that the utility easement proposed to be vacated is not in use by a utility company.
12. ACS, ENSTAR, GCI, and HEA provided written non-objection to the proposed vacation of the utility easement.
13. Kachemak Vista Subdivision, Plat HM 83-93, granted a 10' wide utility easement adjoining the north boundaries of lots 1, 2, 3, 4 and 5.
14. Kachemak Vista Subdivision, Plat HM 83-93, granted a 20' by 100' wide utility easement centered on the common boundary of Lot 2 and Lot 3.
15. Kachemak Vista Subdivision No. 2, Plat HM 97-48, combined Lots 4 and 5 of Kachemak Vista Subdivision and vacated a similar utility easement.
16. The easement provides the utility company to place a utility line that will serve Lots 2 and 3, which are being combined into one lot.

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17. No surrounding properties will be denied utilities.

RECOMMENDATION:

Based on consideration of the merits as outlined by Staff comments and Staff findings, Staff recommends APPROVAL of the utility easement alteration as petitioned, subject to:

3. Grant utility easements requested by the utility providers.
4. Finalizing the approval of the easement alteration by either;
   a. The recording of a subdivision plat within 12 months or,
   b. The recording of a utility easement alteration resolution within 90 days of the adoption of the resolution by the Planning Commission, with the following requirements:
      i. An exhibit drawing showing, and dimensioning, the utility easement alteration area, prepared, signed and sealed by a licensed land surveyor. The exhibit drawing will be attached to, and recorded with, the resolution.
      ii. The applicants will provide the recording fee for the resolution and its attachment to the Planning Department.
      iii. The Planning Department is responsible for filing the Planning Commission resolution.

20.65.070 Alteration of platted utility easements

E. A planning commission decision under this section is final. A notice of decision shall be sent to the petitioner. No reapplication or petition concerning the same alteration to platted utility easement may be filed within one calendar year of the date of the final denial action except in the case where new evidence or circumstances exist that were not available or present when the original petition was filed. If the reasons for denial are resolved, the petitioner may submit a new petition for alteration of platted utility easement with documentation that the issues have been resolved, accompanied by a new fee.

F. An appeal of the planning commission decision under this section must be filed in the superior court in accordance with the Alaska Rules of Appellate Procedure.

The 2019 Kenai Peninsula Borough Comprehensive Plan adopted November, 2019 by Ordinance No. 2019-25. The relevant objectives are listed.

Goal 3. Preserve and improve quality of life on the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.

- *Focus Area: Energy and Utilities*
  - *Objective A - Encourage coordination or residential, commercial, and industrial development with extension of utilities and other infrastructure.*
    - *Strategy 1. Near – Term: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.*
    - *Strategy 2. Near – Term: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.*
    - *Strategy 3. Near – Term: Identify potential utility routes on Borough lands.*
- *Housing*
  - *Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.*
    - *Strategy 1. Near – Term: Collaborate with the AK Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to the undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.*

END OF STAFF REPORT

Chair Martin opened the meeting for public comment. Hearing no one wishing to comment, closed public

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comment and discussion was opened among the commission.

MOTION: Commissioner Venuti moved, seconded by Commissioner Gillham to approve the vacation a petitioned based on the means of evaluating public necessity established by KPB 20.65, subject to staff recommendation and compliance with borough code.

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				

ITEM 3 - RIGHT OF WAY VACATION
426 FOOT PORTION OF ARNESON AVENUE
INCLUDING ASSOCIATED UTILITY EASEMENTS

KPB File No.	2021-160V
Planning Commission Meeting:	January 10, 2022
Applicant / Owner:	Freddie's Roadhouse Inc., Freddie Pollard Jr, and Sheila K. Best all of Kenai, Alaska
Surveyor:	Jason Schollenberg / Peninsula Surveying, LLC
General Location:	Marquis Street, Arneson Avenue, and Matson Street, Ninilchik
Legal Description:	S1/2 NE1/4 SE1/4 Excluding portion within ROWs, (Parcel 1 of Plat Waiver) per Resolution 93-7 (HM 93-15) and Tracts 3 and 4, Anna's Acres, Plat HM 2007-126, Homer Recording District, Section 9, Township 2 South, Range 12 West

Staff report given by Scott Huff.

Specific Request / Purpose as stated in the petition: We would like to vacate a portion of Arneson Avenue, beginning at Matson Street and extending 424' to the west. There is also a 10' utility easement along each side of the ROW that we would like vacated.

Arneson Avenue is located in a fairly remote area, near the end of Oil Well Road. It currently has not been constructed and it is not being used. There is an existing shop that is built in the section of ROW that we would like to vacate. This vacation would solve the problem of this encroachment. We are offering better access through a new dedication, labeled as Freddie Lane on the preliminary plat. Freddie Lane would follow an existing driveway back to Arneson Avenue.

Notification: Public notice appeared in the December 30, 2021 issue of the Homer News as a separate ad. The public hearing notice was published in the January 6, 2022 issue of the Homer News as part of the Commission's tentative agenda.

The public notice was posted on the Planning Commission bulletin board at the Kenai Peninsula Borough George A. Navarre Administration building. Additional notices were mailed to the following with the request to be posted for public viewing.

Library of Ninilchik
Post Office of Ninilchik

Fourteen certified mailings were sent to owners of property within 600 feet of the proposed vacation. Four receipts had been returned when the staff report was prepared.

Eighteen public hearing notices were emailed to agencies and interested parties as shown below:

State of AK Dept. of Fish & Game
State of AK DNR
State of AK DOT
State of AK DNR Forestry
Kenai Peninsula Borough Land Management
Kenai Peninsula Borough Office
Emergency Services of Ninilchik
ENSTAR Natural Gas

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Ninilchik Traditional Council
General Communications Inc. (GCI)
Alaska Communication Systems (ACS)
Homer Electric Association (HEA

Legal Access (existing and proposed): The right of way proposed to be vacated is located in the Ninilchik area within the Caribou Hills recreational area. The property is located near Mile 16 of Oil Well Road, a 100 foot wide right of way maintained by the borough. Access to Arneson Avenue is from Anderson Avenue to Matson Street, both of which are 66 foot wide dedicated right of ways. Anderson Avenue and Matson Street are improved roads but are not maintained by KPB.

A driveway from Matson Street that extends through the 18 acre parcel provides physical access to Tracts 1-4 of Anna's Acres, Plat HM 2007-126. Tracts 1-4 contain multiple cabin improvements.

A structure is located within Arneson Avenue. A new 60 foot wide right of way dedication is proposed over the existing driveway that is being used for physical access.

The proposed vacation will affect two blocks. Both blocks will be closed. The northern block, defined by Arneson Avenue, Marquis Street, Anderson Avenue, Matson Street, and proposed Freddie Lane, will be compliant with block lengths. The southern block, defined by Arneson Avenue, Marquis Street, Boley Avenue, seismic line right of way, Matson Street, and proposed Freddie Lane, will have one section of the block longer than allowable lengths by 100 feet. The right of way for both blocks are affected by steep terrain. The right of way vacation and new right of way dedication will not hinder, or improve, the block length issue.

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: No comments
SOA DOT comments	

Site Investigation: The right of way to be vacated does not contain any steep slopes or low wet areas. The new proposed dedication is over an existing drive and does not contain any steep slopes or low wet areas.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: IS totally or partially within HPD Comments: C. State Parks Reviewer: Russell, Pam Comments: No Comments

Staff Analysis: The proposed vacation is within the Caribou Hills area. Right of Way Map, Plat HM 84-115, referred to as the Ninilchik ROW Map, subdivided thirteen sections. The plat dedicated 66 foot wide right of ways centered on seismograph lines as well as 66 foot right of ways on all 1/16 and 1/4 aliquot lines and section lines. Arneson Avenue was created by plat HM 84-115.

Right of Way Map HM 84-115 is a paper plat with no field survey. Terrain was not considered with the right of way dedications and many right of ways are affected by steep terrain or low wet areas. Local trails, although often crossing private lands, are used for physical access. Subsequent subdivisions have divided lands and provided right of ways dedications in practical areas or where trails were already being used for access.

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The existing 18 acre parcel on the north of Arneson Avenue was created by a plat waiver per PC Resolution 93-7. Tracts A, B, C, and D were created by Winer Wonderland, Plat HM 2000-64. Tracts 1, 2, 3, and 4, located to the south of Arneson Avenue were created with the recording of Anna's Acres, HM 2007-126.

A dedicated right of way centered on the unnamed seismograph line exists to the south.

Freddie's Roadhouse Inc. is the owner of the parcels north of Arneson Avenue. Freddie Pollard Jr. and Sheila K. Best, owners or Freddie's Roadhouse, own the four lots south of Arneson Avenue.

When right of way is vacated it attaches to the lot or land bordering the area in equal proportions. The proposed sketch shows the vacated area not being attached in equal proportions. The final plat will require owner acknowledgement that states they understand and agree to allow the vacated right of way to be attached to the neighboring parcels as depicted. This will allow the improvements to be within the parcel boundary and not create an encroachment.

The proposed vacation is not within an advisory planning commission boundary.

20.65.050 – Action on vacation application

D. The planning commission shall consider the merits of each vacation request and in all cases the planning commission shall deem the area being vacated to be of value to the public. It shall be incumbent upon the applicant to show that the area proposed for vacation is no longer practical for the uses or purposes authorized, or that other provisions have been made which are more beneficial to the public. In evaluating the merits of the proposed vacation, the planning commission shall consider whether:

1. The right-of-way or public easement to be vacated is being used;
   Staff comments: The area to be vacated is not currently being used due to structures within the right of way.

2. A road is impossible or impractical to construct, and alternative access has been provided;
   Staff comments: The terrain allows for a road to be constructed but the existing structures do not allow a roadway to be constructed. An alternative access is being provided over an existing travel way.

3. The surrounding area is fully developed and all planned or needed rights-of-way and utilities are constructed;
   Staff comments: This is located in a recreational area. Multiple right of way dedications were granted in 1984 which provide legal access.

4. The vacation of a public right-of-way provides access to a lake, river, or other area with public interest or value, and if so, whether equal or superior access is provided;
   Staff comments: The right of way does not provide access to a public interest area or provide a connection between existing trails.

5 The proposed vacation would limit opportunities for interconnectivity with adjacent parcels, whether developed or undeveloped;
   Staff comments: The proposed vacation would limit interconnectivity but a new right of way dedication will provide an equal or superior access with interconnectivity to adjacent parcels to the south. Proposed Tract 3A will 30 feet of frontage on Arneson Avenue. This will be addressed during the platting process.

6. Other public access, other than general road use, exist or are feasible for the right-of-way;
   Staff comments: The use of the existing right of way is limited due to the structures that have been constructed, but pedestrian access is feasible. The proposed dedicated right of way will provide superior access for pedestrian or all-terrain vehicle use.

7. All existing and future utility requirements are met. Rights-of-way which are utilized by a utility, or which logically would be required by a utility, shall not be vacated, unless it can be demonstrated

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that equal or superior access is or will be available. Where an easement would satisfactorily serve the utility interests, and no other public need for the right-of-way exists, the commission may approve the vacation and require that a utility easement be granted in place of the right-of-way.
Staff comments: New utility easements will be granted along the new dedicated right of way. Staff requests that any issues or concerns by the utility companies be addressed and possible utility easements may need to be granted.

8. Any other factors that are relevant to the vacation application or the area proposed to be vacated.
Staff comments: existing structures limit the use of the existing right of way. The proposed right of way dedication will provide superior public access.

A KPB Planning Commission decision denying a vacation application is final. A KPB Planning Commission decision to approve the vacation application is subject to consent or veto by the KPB Assembly, or City Council if located within City boundaries. The KPB Assembly, or City Council must hear the vacation within thirty days of the Planning Commission decision.

The Assembly will hear the vacation at their scheduled February 1, 2022 meeting.

If approved, a plat will finalize the proposed right of way vacations. The Plat Committee is scheduled to the review plat on January 24, 2022.

KPB department / agency review:

Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Addressing	Reviewer: Haws, Derek Affected Addresses: 17637 MATSON ST Existing Street Names are Correct: Yes List of Correct Street Names: MATSON ST ARNESON AVE MARQUI ST Existing Street Name Corrections Needed: All New Street Names are Approved: Yes List of Approved Street Names: FREDDIE LN List of Street Names Denied: Comments: 17637 MATSON ST on TRACT B will be changed to a FREDDIE LN address.
Assessing	Reviewer:Bruns, Matthew Comments: No concerns from Assessing Dept.

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Utility provider review:

HEA	
ENSTAR	No objections.
ACS	
GCI	

RECOMMENDATION:

Based on consideration of the merits as per KPB 20.65.050(D) as outlined by Staff comments, Staff recommends APPROVAL as petitioned, subject to:

5. Consent by KPB Assembly.
6. Compliance with the requirements for preliminary plats per Chapter 20 of the KPB Code.
7. Grant utility easements requested by the utility providers.
8. Submittal of a final plat within a timeframe such that the plat can be recorded within one year of vacation consent (KPB 20.70.130).

KPB 20.65.050 – Action on vacation application

H. A planning commission decision to approve a vacation is not effective without the consent of the city council, if the vacated area to be vacated is within a city, or by the assembly in all other cases. The council or assembly shall have 30 days from the date of the planning commission approval to either consent to or veto the vacation. Notice of veto of the vacation shall be immediately given to the planning commission. Failure to act on the vacation within 30 days shall be considered to be consent to the vacation. This provision does not apply to alterations of utility easements under KPB 20.65.070 which do not require the consent of the assembly or city council unless city code specifically provides otherwise.

I. Upon approval of the vacation request by the planning commission and no veto by the city council or assembly, where applicable, the applicant shall have a surveyor prepare and submit a plat including the entire area approved for vacation in conformance with KPB 20.10.080. Only the area approved for vacation by the assembly or council may be included on the plat. The final plat must be recorded within one year of the vacation consent.

J. A planning commission decision denying a vacation application is final. No reapplication or petition concerning the same vacation may be filed within one calendar year of the date of the final denial action except in the case where new evidence or circumstances exist that were not available or present when the original petition was filed.

K. An appeal of the planning commission, city council or assembly vacation action under this chapter must be filed in the superior court in accordance with the Alaska Rules of Appellate Procedure.

The 2019 Kenai Peninsula Borough Comprehensive Plan adopted November 2019 by Ordinance No. 2019-25. The relevant objectives are listed.

Goal 3. Preserve and improve quality of life on the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.

- *Focus Area: Energy and Utilities*
  - *Objective A - Encourage coordination or residential, commercial, and industrial development with extension of utilities and other infrastructure.*
    - *Strategy 1. Near – Term: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.*
    - *Strategy 2. Near – Term: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.*
    - *Strategy 3. Near – Term: Identify potential utility routes on Borough lands.*

UNAPPROVED

- *Housing*
    - *Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.*
        - *Strategy 1. Near – Term: Collaborate with the AK Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to the undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.*

Goal 4. Improve access to, from and connectivity within the Kenai Peninsula Borough

- *Focus Area: Transportation*
    - *Objective B. Ensure new roads are developed in alignment with existing and planned growth and development.*
        - *Strategy 2. Near – Term: Establish subdivision codes that dictate road construction standards to accommodate future interconnectivity and/or public safety.*
        - *Strategy 3. Near – Term: Identify areas of anticipated growth to determine future access needs.*

END OF STAFF REPORT

Chair Martin opened the meeting for public comment. Hearing no one wishing to comment, closed public comment and discussion was opened among the commission.

MOTION: Commissioner Venuti moved, seconded by Commissioner Gillham to approve the vacation a petitioned based on the means of evaluating public necessity established by KPB 20.65, subject to staff recommendation and compliance with borough code.

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				

ITEM 4 – ORDINANCE 2022-01
AUTHORIZING A COMMUNICATION TOWER AGREEMENT WITH
VERTICAL BRIDGE S3 ASSETS, LLC

Staff report given by Marcus Mueller.

Vertical Bridge S3 Assets, LLC owns and operates a 120' wireless communications tower at Nikiski Fire Station 1. The tower was constructed in 2000 and authorized under a land use permit for the purpose of providing wireless communication services. The land use permit is in good standing and Vertical Bridge S3 Assets, LLC has requested to enter into a lease.

A Communications Site Lease Agreement has been negotiated using standard practices for the parcel acquired by the Nikiski Fire Service Area. The benefits of the lease would go to the service area. The service area board will provide its recommendations to the assembly prior to public hearing on this ordinance.

END OF STAFF REPORT

Chair Martin opened the meeting for public comment. Hearing no one wishing to comment, closed public comment and discussion was opened among the commission.

MOTION: Commissioner Gillham moved, seconded by Commissioner Bentz to forward to the Assembly a recommendation to adopt Ordinance 2022-01, authorizing a communications site lease agreement with Vertical Bridge S3 Assets, LLC at Nikiski Fire Station 1.

Hearing no objection or further discussion, the motion was carried by the following vote:

MOTION PASSED BY UNANIMOUS VOTE:

UNAPPROVED

Yes	6	Absent	2	Vacant	6
Yes	Bentz, Brantley, Fikes, Gillham, Martin, Venuti				

AGENDA ITEM F. **PLAT COMMITTEE REPORT –** Commissioner Brantley informed the commission that the Plat Committee reviewed and approved 10 plats.

AGENDA ITEM G. **OTHER**

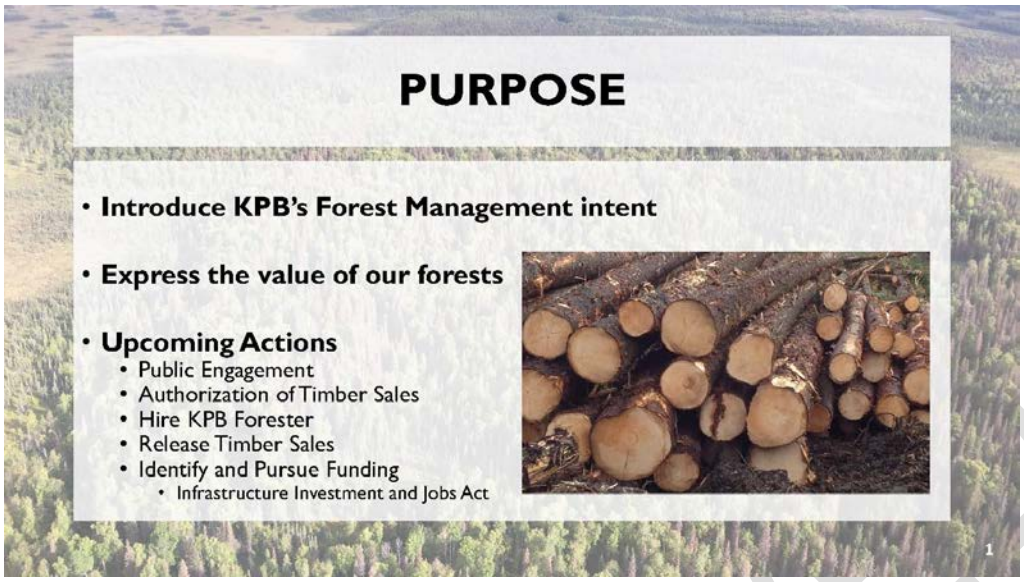
Ms. Shirnberg informed the commission that there would be no Plat Committee needed for the January 24, 2022 meeting.

AGENDA ITEM H. **PUBLIC COMMENT/PRESENTATION**

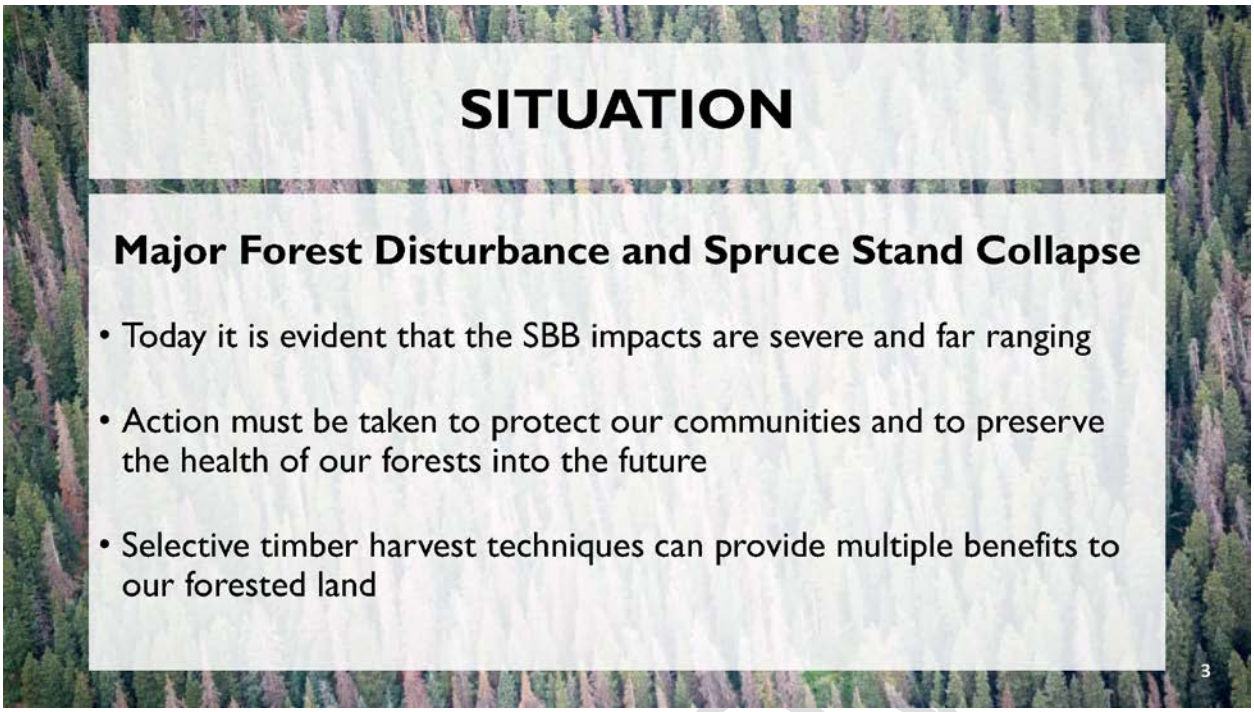
1. Update on Sterling Hwy Project MP 45-60: Jonathan Tymick, from the State of Alaska DOT gave a brief update on this project.

2. Mass Timber Sale Project, Dakota Truitt, Land Management:



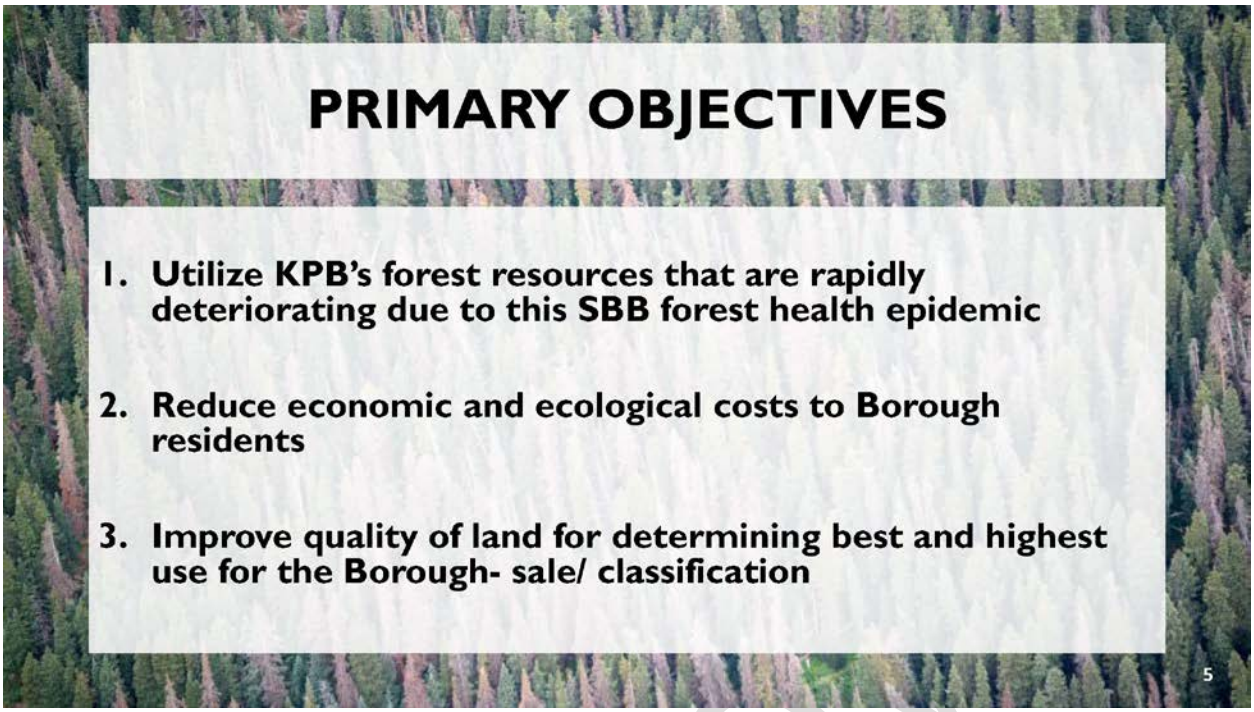

PURPOSE
• Introduce KPB's Forest Management intent
• Express the value of our forests
• Upcoming Actions
• Public Engagement
• Authorization of Timber Sales
• Hire KPB Forester
• Release Timber Sales
• Identify and Pursue Funding
• Infrastructure Investment and Jobs Act
1

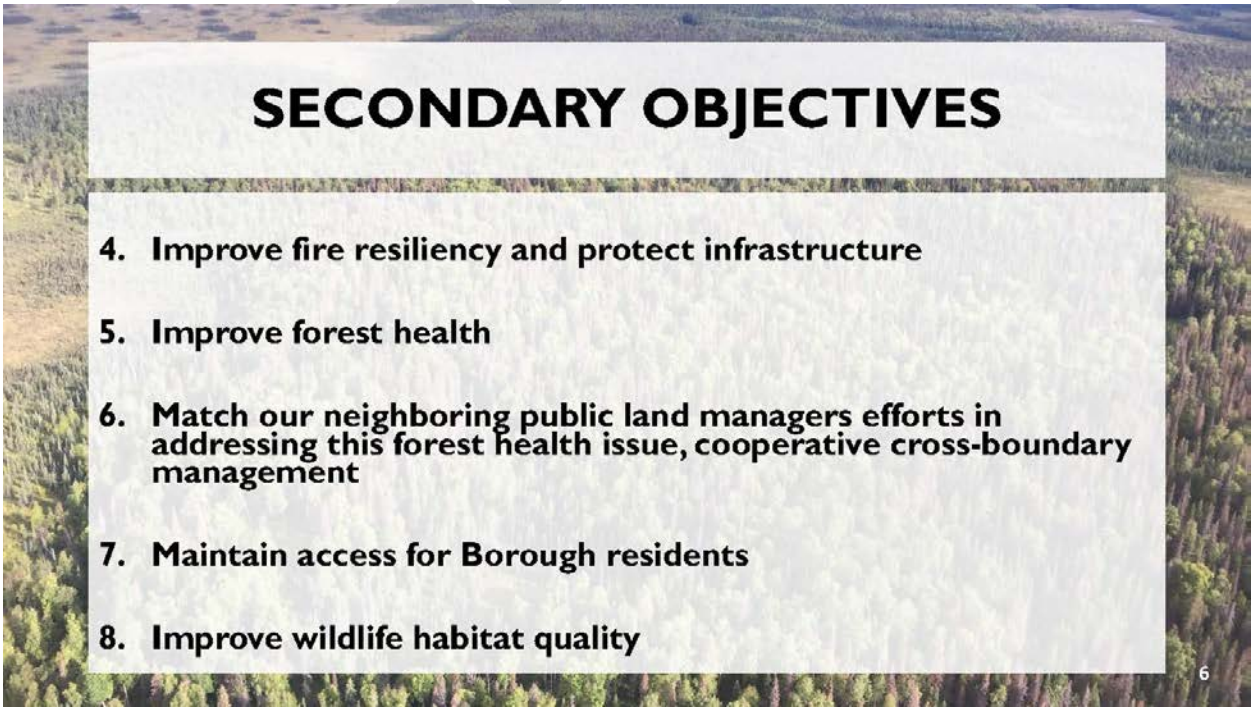

Spruce Bark Beetle (SBB)
Infested Spruce beetle tree
Red boring dust
Pitch tubes
Spruce Beetle Life Cycle
2-year life cycle
Eggs
Mature Adults
April - June
Larvae
Overwinter
Overwinter
Immature Adults
August - April
Pupae
July-August
Adult Spruce Bark Beetle
Dead Spruce trees
2


SITUATION
Major Forest Disturbance and Spruce Stand Collapse
• Today it is evident that the SBB impacts are severe and far ranging
• Action must be taken to protect our communities and to preserve the health of our forests into the future
• Selective timber harvest techniques can provide multiple benefits to our forested land
3

PRO

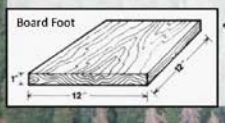

MASS TIMBER SALE PROJECT
• Short Term Goals
• Authorization for Timber Sales
• Initiate Active Forest Management
• Utilize local labor
• Long-Term Goals
• Forest Management plan
• Cross-boundary Forest Health & Fire Adaptation
• Mandatory Reforestation
• Legacy Forestry infrastructure
• Sustainable market
4


PRIMARY OBJECTIVES
1. Utilize KPB's forest resources that are rapidly deteriorating due to this SBB forest health epidemic
2. Reduce economic and ecological costs to Borough residents
3. Improve quality of land for determining best and highest use for the Borough- sale/ classification
5

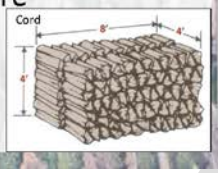

SECONDARY OBJECTIVES
4. Improve fire resiliency and protect infrastructure
5. Improve forest health
6. Match our neighboring public land managers efforts in addressing this forest health issue, cooperative cross-boundary management
7. Maintain access for Borough residents
8. Improve wildlife habitat quality
6

KPB Owned/Managed Land

- More than 150,000 acres affected by SBB on the Kenai Peninsula
- **~21,000 acres** of Forested Land between Cooper Landing, Kenai, Soldotna
- Mixed forest stands of birch, aspen, spruce
- The spruce volumes currently average:
  - 500- 1000 merchantable BF per acre
  - 0.5- 1 merchantable cords per acre
  - 6- 20 cords of fuelwood per acre



Limited Forest Inventory data available





7

TIMBER VOLUME & VALUE

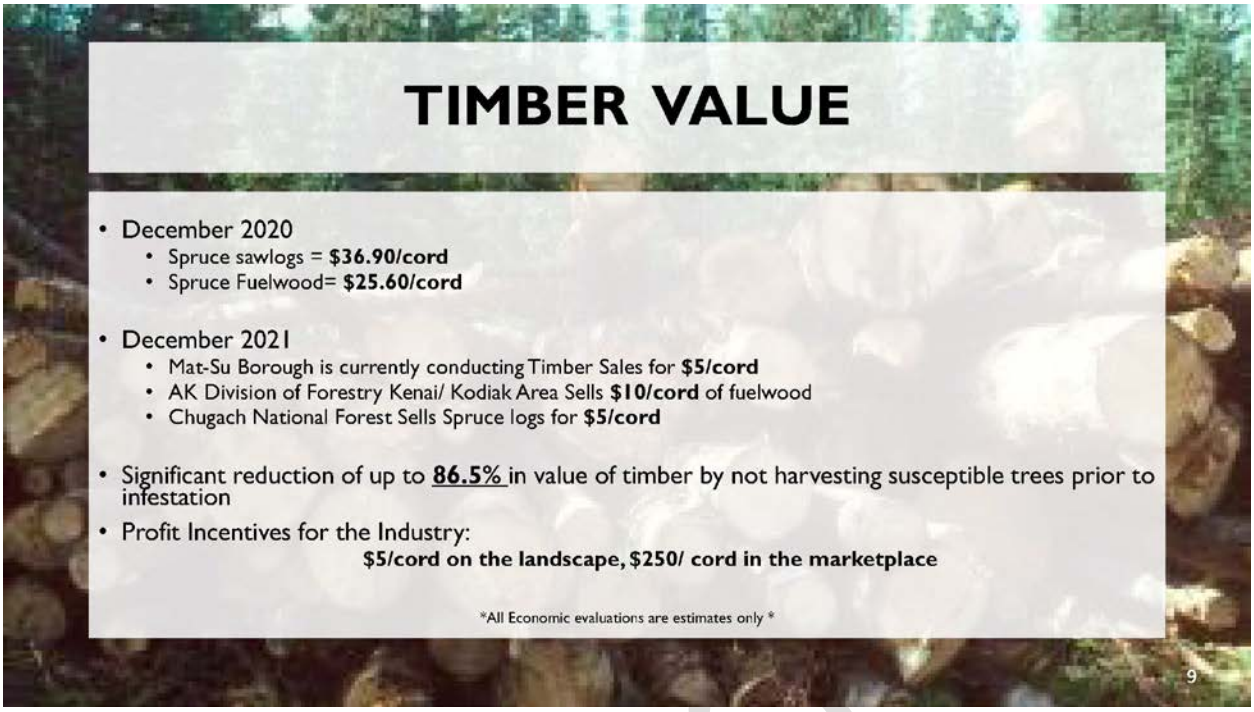
21,000 acres (ID'd on KPB lands) x Avg 500 to 1000 BF per acre=
~10.5 MMBF (10,752 cords) to 21 MMBF (21,504 cords)
TOTAL merchantable volume

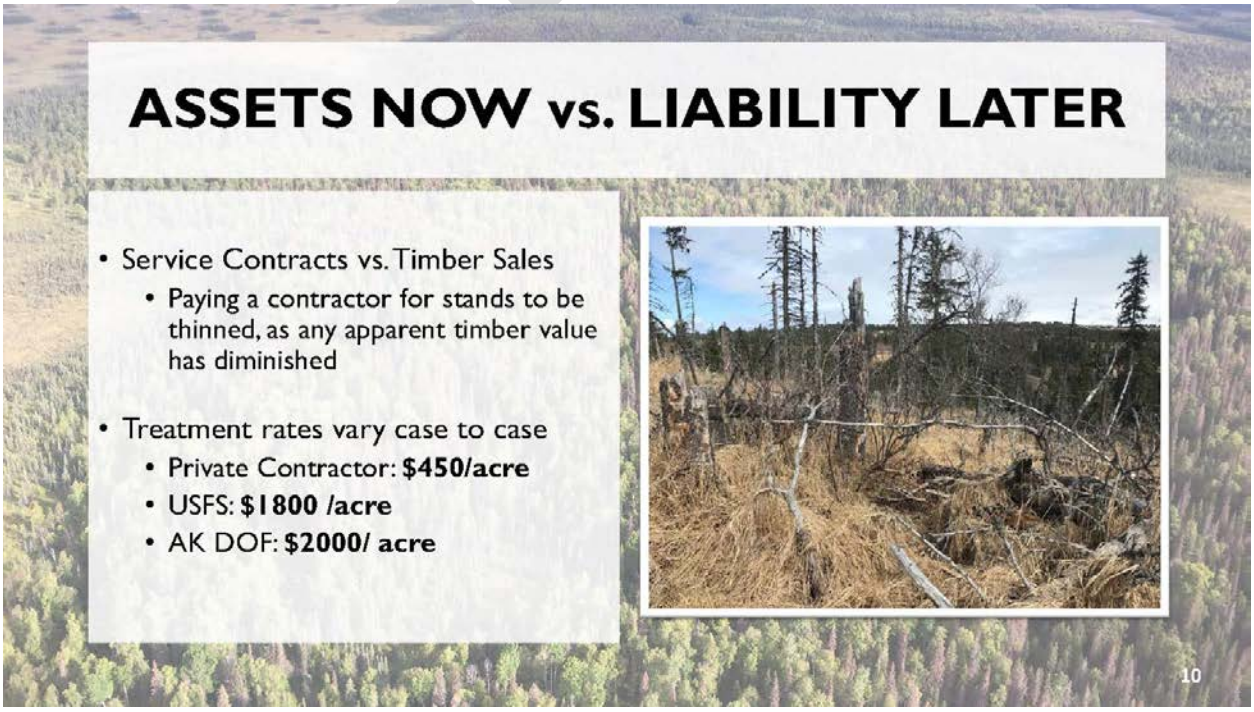
Avg value of white spruce sawlogs= $36.90/cord x Avg cord/Acre=
~$400,000 to $800,000 merchantable timber

~$400,000 to $800,000 of Spruce Timber value for the Landowner being lost to SBB

All Economic evaluations are estimates only

8


TIMBER VALUE
• December 2020
• Spruce sawlogs = $36.90/cord
• Spruce Fuelwood= $25.60/cord
• December 2021
• Mat-Su Borough is currently conducting Timber Sales for $5/cord
• AK Division of Forestry Kenai/ Kodiak Area Sells $10/cord of fuelwood
• Chugach National Forest Sells Spruce logs for $5/cord
• Significant reduction of up to 86.5% in value of timber by not harvesting susceptible trees prior to infestation
• Profit Incentives for the Industry:
$5/cord on the landscape, $250/ cord in the marketplace
*All Economic evaluations are estimates only *
9


ASSETS NOW vs. LIABILITY LATER
• Service Contracts vs. Timber Sales
• Paying a contractor for stands to be thinned, as any apparent timber value has diminished
• Treatment rates vary case to case
• Private Contractor: $450/acre
• USFS: $1800 /acre
• AK DOF: $2000/ acre
10

RISK

FIRE

- Loss of life
- Infrastructure loss
  - Roads, Utilities, Buildings
- Loss of forest resources/ products
- Loss of forest industry jobs



11

COST OF WILDLAND FIRE

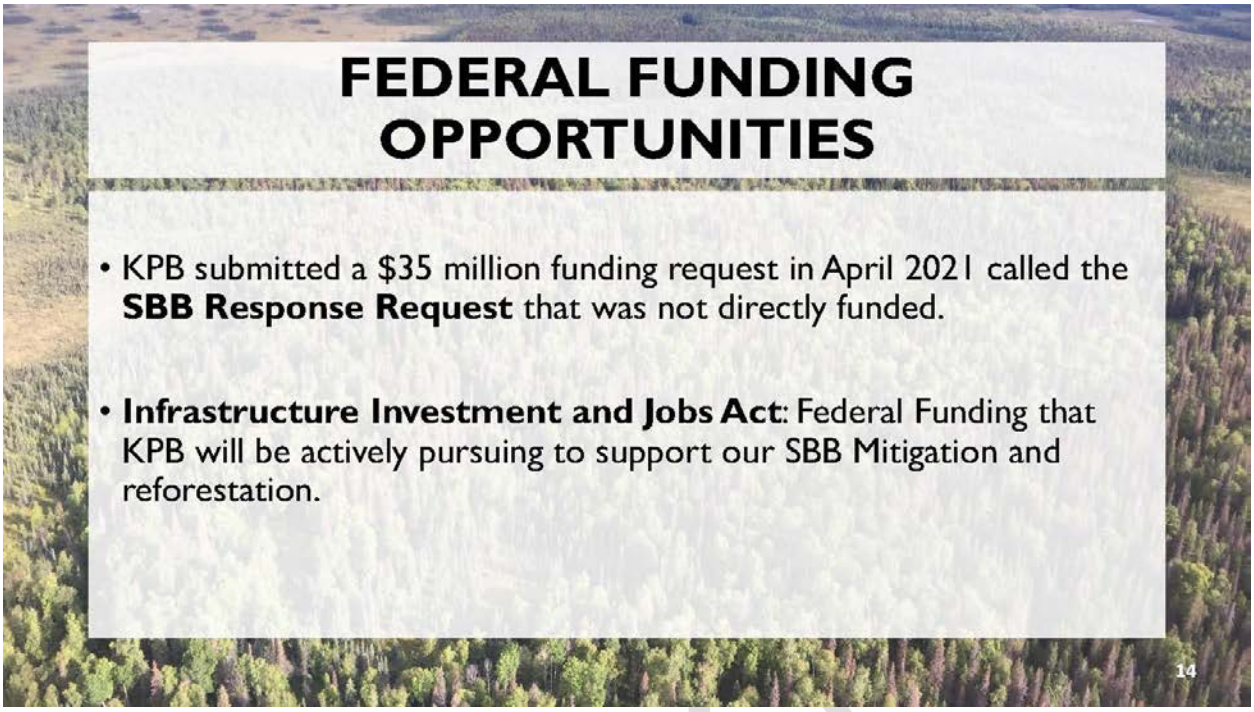
- 2019 Swan Lake Fire Cost ~$46 million
  - ~167,000 acres burned in high severity fire
  - ~1.7 million tons of wood total
- 2014 Funny River Fire Cost ~$6.1 million
  - ~200,000 acres burned in high severity fire
  - ~2 million tons of wood total



Cost of timber sales < Cost of service contracts < Cost of fire response and potential infrastructure loss

OR Collapsed Forest for next Generation

12


FEDERAL FUNDING OPPORTUNITIES
• KPB submitted a $35 million funding request in April 2021 called the **SBB Response Request** that was not directly funded.
• **Infrastructure Investment and Jobs Act**: Federal Funding that KPB will be actively pursuing to support our SBB Mitigation and reforestation.
14


CROSS-BOUNDARY COLLABORATIVE FOREST MANAGEMENT
• Planning & Action towards Forest Management
• Community Wildfire Protection Plans
• ALAH 5-Year Plan
• Sterling Strategic Fuelbreak
• Kenai Strategic Fuelbreak
• Nikiski Strategic Fuelbreak
• Soldotna Strategic Fuelbreak
• Homer Strategic Fuelbreak
• Partners & Potential Partners
• Kenai National Wildlife refuge
• AK Division of Forestry
• AK Department of Fish & Game
• US Forest Service
• Chugach National Forest
• Chugachmiut
• NRCS
• Soil & Water Conservation Districts
• Native Corporations
• Private landowners
• Industry Contractors
16
NRCS
Chugachmiut
Division of Forestry
SOIL&WATER

LEGISLATIVE PROCESS

- Ordinance 2000-050

KENAI PENINSULA BOROUGH
ORDINANCE 2000-50

AN ORDINANCE AUTHORIZING EMERGENCY HARVEST OF SPRUCE BARK BEETLE KILLED TIMBER IDENTIFIED AS REPRESENTING A FOREST FIRE HAZARD AND AMENDING KPB 17.50.060 TO PROVIDE FOR OVER-THE-COUNTER DISPOSAL OF FOREST RESOURCES WHEN NO QUALIFYING PROPOSALS ARE RECEIVED IN RESPONSE TO REQUESTS FOR PROPOSALS FOR BIDS



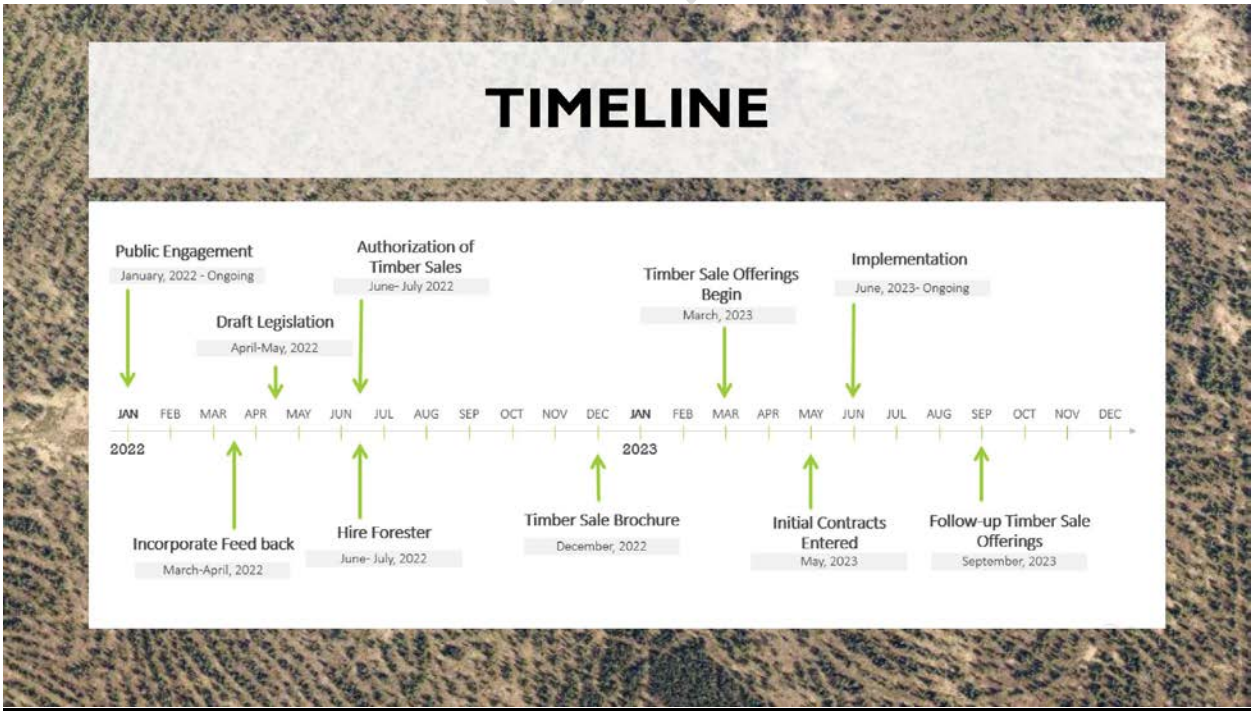
- New Ordinance Authorizing Forest Management is needed
  - Any land classification
  - Broad prescription types for multiple management objectives
  - Affected areas identified - parcels/ units
  - Authorize Timber Sales
- Public Process
  - APC Meetings → Planning Commission Public Hearings → Assembly Public Hearings
- Public Engagement informs Policy

17

PUBLIC ENGAGEMENT

- Planning Commission Presentation on January 10th kicks off our public engagement
- Press Release this week:
  - Open House Public Meetings: General Presentations about SBB Mitigation & Forest Management on February 8th, and 23rd 2022
  - Timber Industry Meeting on March 2nd, 2022
  - All Lands All Hands Meeting on March 16th, 2022
  - Cooper Landing, Kalifornsky, Moose Pass, Funny River APC Presentations in February- March 2022


SCHEDULE of ACTIONS
• Public Engagement Campaign → Spring 2022
• Develop Legislation based on public input → Spring 2022
• Authorization of Timber Sales → Summer 2022
• Hire KPB Forester → Summer 2022
• Implementation of Authorization of Timber Sales →Winter 2022
• Identify and Pursue Funding → Ongoing
18


TIMELINE
Public Engagement
January, 2022 - Ongoing
Draft Legislation
April-May, 2022
Authorization of Timber Sales
June- July 2022
Timber Sale Offerings Begin
March, 2023
Implementation
June, 2023- Ongoing
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
2022
2023
Incorporate Feed back
March-April, 2022
Hire Forester
June- July, 2022
Timber Sale Brochure
December, 2022
Initial Contracts Entered
May, 2023
Follow-up Timber Sale Offerings
September, 2023



AGENDA ITEM I. **DIRECTOR'S COMMENTS**

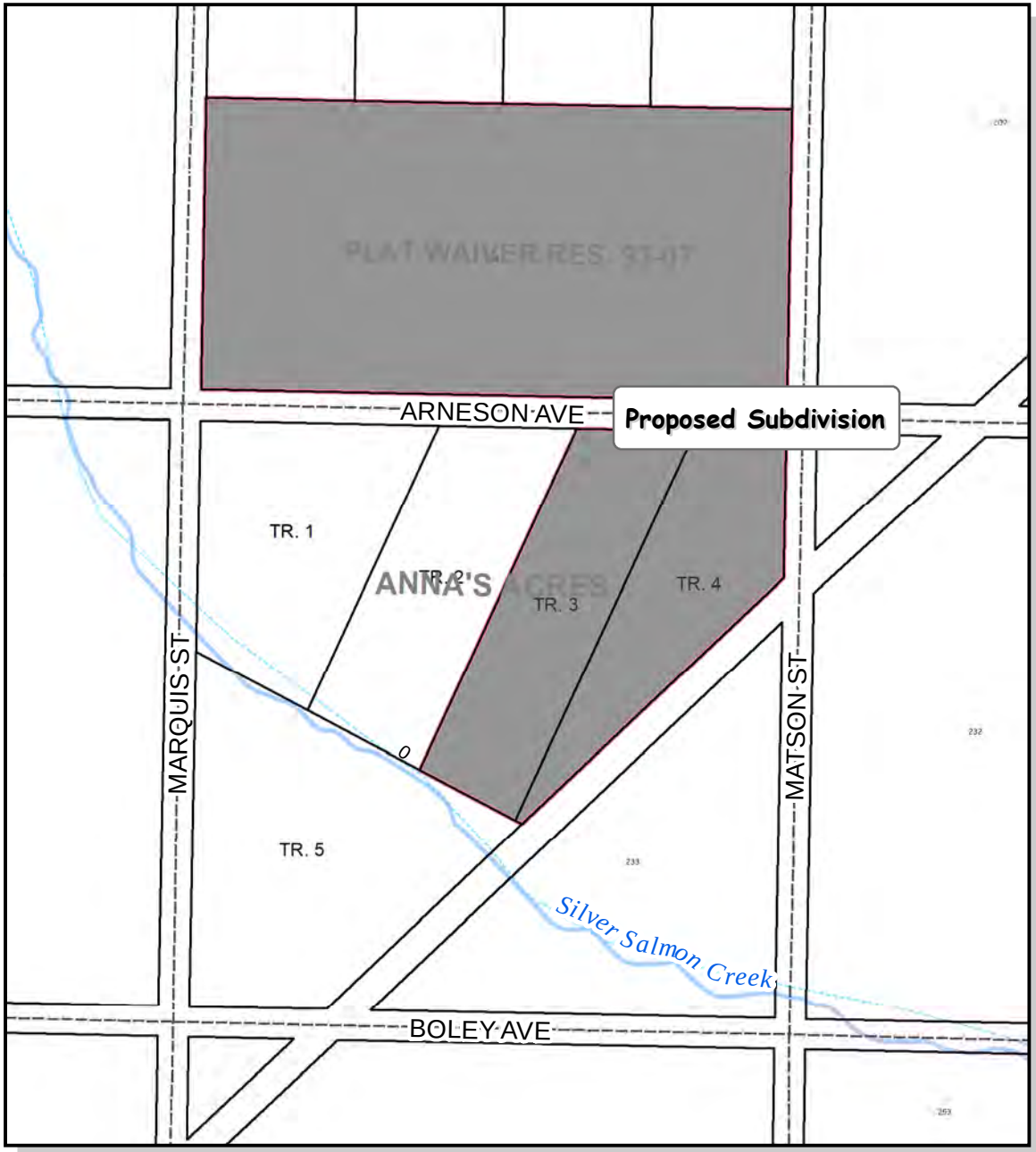
Director Aeschliman introduced new deputy attorney Walker Steinhage to the commission and informed him that Mr. Steinhage will be the attorney working with the Planning Department and Planning Commission.

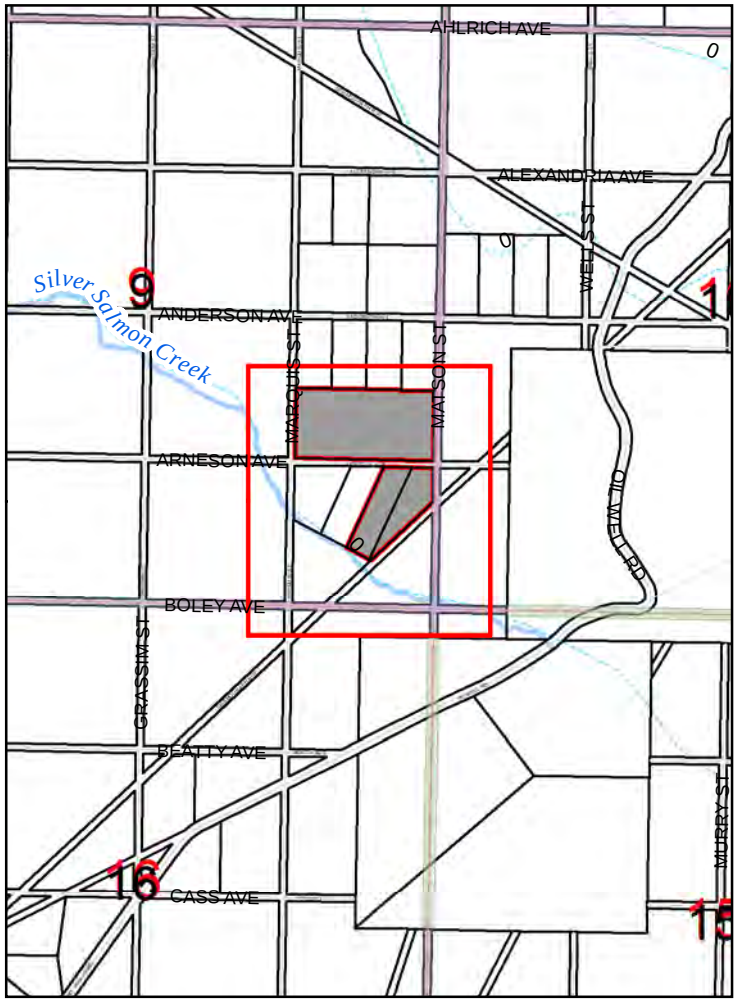
AGENDA ITEM J. **COMMISSIONER COMMENTS -** None

AGENDA ITEM M. **ADJOURNMENT –** Commissioner Venuti moved to adjourn the meeting 8:55 p.m.

Ann E. Shirnberg
Administrative Assistant

UNAPPROVED





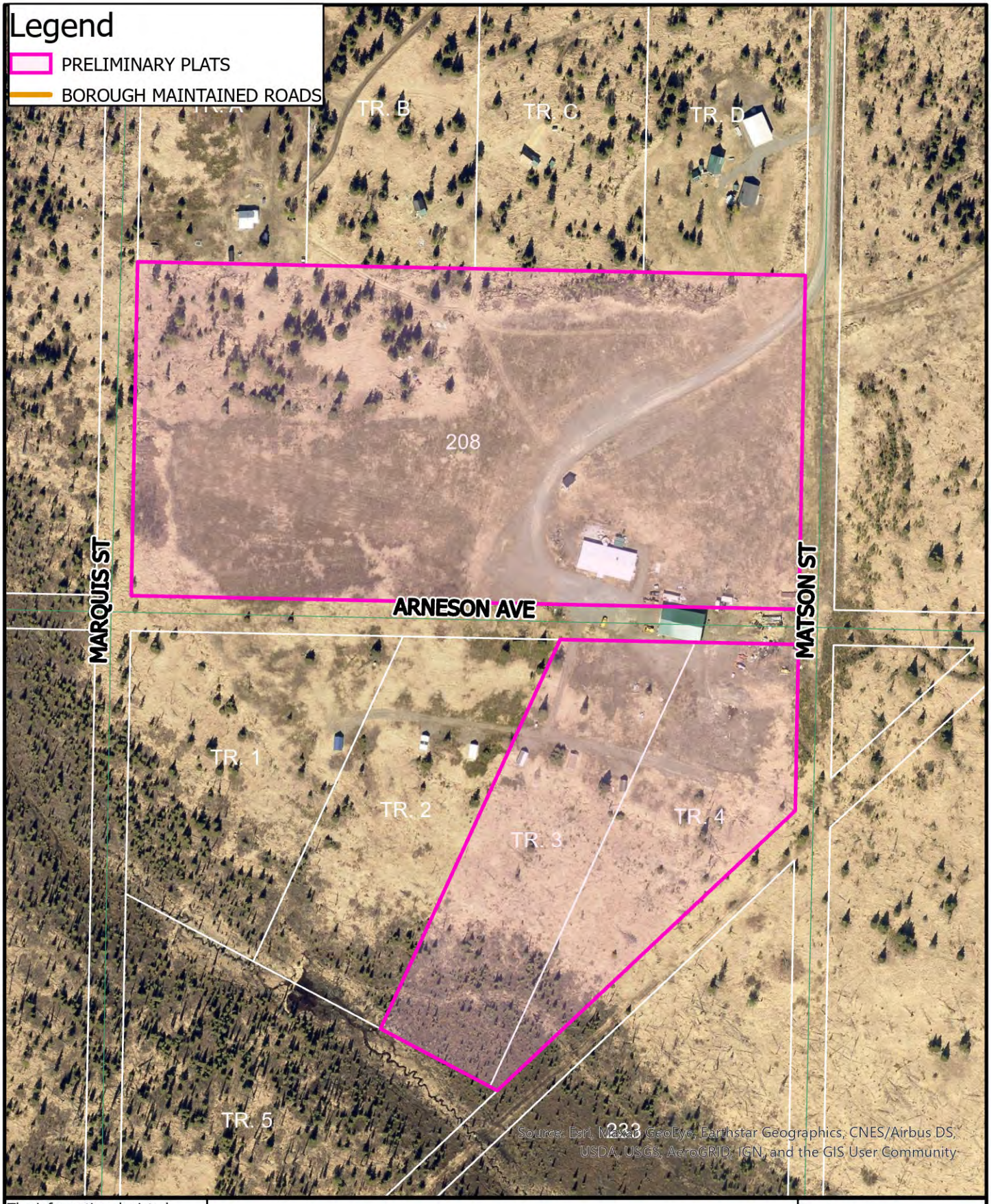
The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

0 250 500 1,000 '

0 750 1,500 3,000 Feet

KPB 2021-160
S09 T02S R12W
Ninilchik

PClements, KPB 2021-160 Date: 12/7/2021



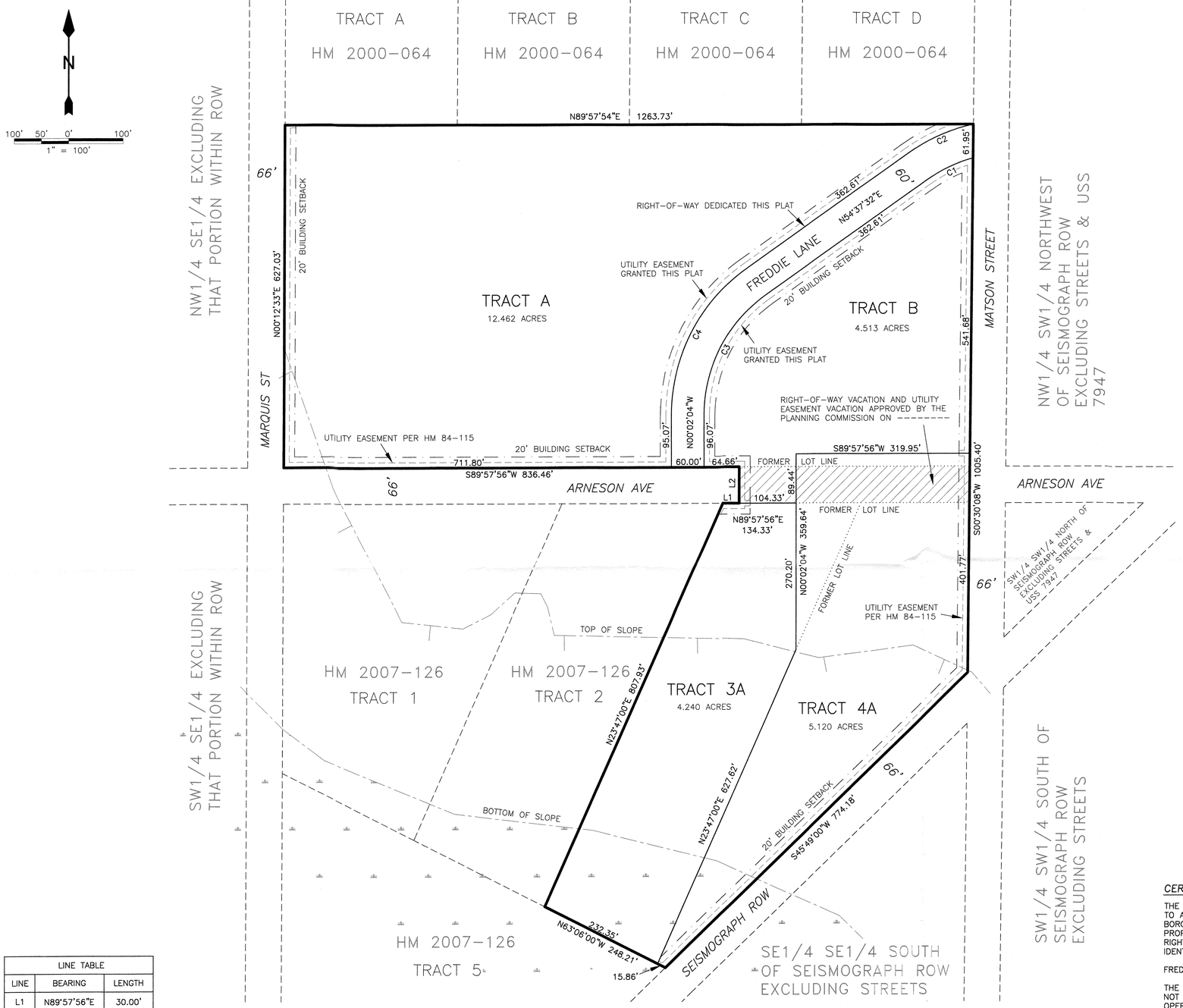
The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

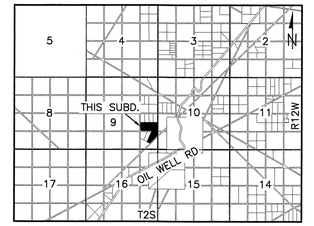
AERIAL IMAGERY 2016
CONTOUR DATA

Miles
0 0.03 0.07 0.13

N
W E
S

Date:
Scott Huff,
Platting Manager,
KPB





LINE TABLE		
LINE	BEARING	LENGTH
L1	N89°57'56"E	30.00'
L2	N00°02'04"W	66.00'

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD	CHORD BEARING
C1	93.89	270.00	19°55'24"	47.42	93.41	S64°35'15"W
C2	131.78	330.00	22°52'51"	66.78	130.91	S66°03'58"W
C3	257.58	270.00	54°39'36"	139.54	247.92	S27°17'44"W
C4	314.82	330.00	54°39'36"	170.54	303.02	S27°17'44"W

NOTES

1. A BUILDING SETBACK OF 20' IS REQUIRED FROM ALL STREET RIGHTS-OF-WAY UNLESS A LESSER STANDARD IS APPROVED BY RESOLUTION OF THE APPROPRIATE PLANNING COMMISSION. THE FRONT 10' OF THE BUILDING SETBACK AND THE ENTIRE SETBACK WITHIN 5' OF THE SIDE LOT LINES IS ALSO A UTILITY EASEMENT.
2. NO PERMANENT STRUCTURE SHALL BE CONSTRUCTED OR PLACED WITHIN A UTILITY EASEMENT WHICH WOULD INTERFERE WITH THE ABILITY OF A UTILITY TO USE THE EASEMENT.
3. THE KPB PLAT COMMITTEE GRANTED EXCEPTIONS TO 20.30.100 CUL-DE-SACS, 20.30.190 LOT DIMENSIONS, AND 20.40 WASTEWATER SYSTEM REVIEW AT THE MEETING ON ----------
4. ANY PERSON DEVELOPING THE PROPERTY IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LOCAL, STATE, AND FEDERAL PERMITS, INCLUDING A U.S. ARMY CORPS OF ENGINEERS WETLAND DETERMINATION IF APPLICABLE.
5. ROADS MUST MEET THE DESIGN AND CONSTRUCTION STANDARDS ESTABLISHED BY THE BOROUGH IN ORDER TO BE CONSIDERED FOR CERTIFICATION AND INCLUSION IN THE ROAD MAINTENANCE PROGRAM (KPB 14.06).

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE REAL PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION AND BY OUR FREE CONSENT DEDICATE ALL RIGHTS-OF-WAY AND GRANT ALL EASEMENTS TO THE USE SHOWN.

FREDDIE POLLARD JR
PO BOX 1360, KENAI, AK 99611

SHEILA K BEST
PO BOX 1360, KENAI, AK 99611

NOTARY ACKNOWLEDGMENT

FOR: FREDDIE POLLARD JR AND SHEILA K BEST

ACKNOWLEDGED BEFORE ME THIS _____ DAY OF_____, 2022

NOTARY PUBLIC FOR ALASKA
MY COMMISSION EXPIRES: _____

LEGEND

WETLANDS PER THE KENAI WATERSHED FORUM COOK INLET WETLANDS MAPPING

WASTEWATER DISPOSAL

WASTEWATER TREATMENT AND DISPOSAL SYSTEMS MUST MEET THE REGULATORY REQUIREMENTS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

PLAT APPROVAL

THIS PLAT WAS APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AT THE MEETING OF _____

KENAI PENINSULA BOROUGH

BY:_____

AUTHORIZED OFFICIAL

CERTIFICATE OF ACCEPTANCE

THE UNDERSIGNED OFFICIAL IDENTIFIED BY NAME AND TITLE IS AUTHORIZED TO ACCEPT AND HEREBY ACCEPT ON BEHALF OF THE KENAI PENINSULA BOROUGH FOR PUBLIC USES AND FOR PUBLIC PURPOSES THE REAL PROPERTY TO BE DEDICATED BY THIS PLAT INCLUDING EASEMENTS, RIGHTS-OF-WAY, ALLEYS, AND OTHER PUBLIC AREAS SHOWN ON THIS PLAT IDENTIFIED AS FOLLOWS:

FREDDIE LANE RIGHT-OF-WAY

THE ACCEPTANCE OF LANDS FOR PUBLIC USE OR PUBLIC PURPOSE DOES NOT OBLIGATE THE PUBLIC OR ANY GOVERNING BODY TO CONSTRUCT, OPERATE, OR MAINTAIN IMPROVEMENTS.

BY:_____ DATE:_____

KPB 2021-160

STATE OF ALASKA 49TH
Jason L. Schollenberg No.14488
REGISTERED PROFESSIONAL LAND SURVEYOR

KPB FILE NUMBER:

PENINSULA SURVEYING, LLC
10535 KATRINA BOULEVARD, NINILCHIK, AK 99639
(907)306-7065

PLAT OF

CABIN HOPPERS SUBDIVISION

A SUBDIVISION OF
S1/2 NE1/4 SE1/4 EXCLUDING PORTION WITHIN ROW, PW 93-7 AND TRACTS 3 AND 4 ANNA'S ACRES, HM 2007-126

LOCATED WITHIN
SE 1/4 SEC. 9, T.2S., R.12W., S.M.
HOMER RECORDING DISTRICT, KENAI PENINSULA BOROUGH
CONTAINING 27.514 ACRES

OWNERS: FREDDIE POLLARD JR AND SHEILA K BEST
PO BOX 1360, KENAI, AK 99611

SCALE: 1" = 100'	DATE: NOVEMBER 24, 2021
DRAWN: JLS	SHEET: 1 OF 1

AGENDA ITEM E. NEW BUSINESS

ITEM 1 - CABIN HOPPERS SUBDIVISION

KPB File No.	2021-160
Plat Committee Meeting:	January 24, 2022
Applicant / Owner:	Freddie's Roadhouse, Inc., Freddie Pollard Jr., and Sheila K. Best all of Kenai, Alaska
Surveyor:	Jason Schollenberg / Peninsula Surveying, LLC
General Location:	Marquis Street, Arneson Avenue, and Matson Street, Ninilchik

Parent Parcel No.:	185-498-10, 185-498-18, and 185-498-19
Legal Description:	Parcel 1 Plat Waiver Resolution 93-07 (S1/2 NE1/4 SE1/4 Excluding portion within ROWs), HM 93-15 and Tracts 3 and 4, Anna's Acres, Plat HM 2007-126, Section 9, Township 2 South, Range 12 West, Homer Recording District
Assessing Use:	General Commercial and Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On Site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will finalize a vacation of a portion of Arneson Avenue right of way as well as dedicate Freddie Lane Right of way. The plat will involve three parcels that range in size from 4.2 acres to 12.5 acres.

Location and Legal Access (existing and proposed): The proposed subdivision is within the Caribou Hill recreation area near Ninilchik. The property is located near Mile 16 of Oil Well Road, a 100 foot wide right of way maintained by the borough. Anderson Avenue and Matson Street provide legal access from Oil Well Road to the subdivision. Both are dedicated 66 foot wide right of ways that are improved but not maintained by KPB.

A driveway from Matson Street extends through the 18 acre parent parcel and provides physical access to Tracts 1-4 of Anna's Acres, Plat HM 2007-126. Tracts 1-4 contain multiple improvements. This plat will dedicate Freddie Lane, a 60 foot wide right of way, centered on the existing drive.

A structure is located within the portion of Arneson Avenue that is being proposed to be vacated.

The proposed plat will affect two blocks. Both blocks will be closed. Arneson Avenue, Marquis Street, Anderson Avenue, Matson Street, and proposed Freddie Lane will define the northern block. That block will be compliant with block lengths. The southern block, defined by Arneson Avenue, Marquis Street, Boley Avenue, seismic line right of way, Matson Street, and proposed Freddie Lane, will have one section of the block longer than allowable lengths by 100 feet. The right of way for both blocks are affected by steep terrain. The right of way vacation and new right of way dedication will not hinder, or improve, the block length issue. ***Staff recommends*** *the plat committee concur that an exception is not required nor additional right of way dedications required as this platting action will not generally change the existing block lengths*

An exception has been requested for 20.30.100 – Cul-de-sacs. The request states "Arneson Avenue has not been constructed. The right of way being dedicated with this plat (shown as Freddie Lane) is currently a constructed road. Arneson Avenue extends only 65' to the east of Freddie Lane, in order to provide legal access to Tract 3A. This plat would create a natural T-type turnaround where Freddie Lane intersects Arneson Avenue." Per KPB Code 20.30.100(B), T-type turnarounds may be allowed on a case by case basis. ***Staff recommends*** *the planning commission concur the exception to KPB 20.30.100 is not required, as the t-type turnaround will meet code requirements and provides an adequate turn around area.*

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: The RSA has no comment at this time.
SOA DOT comments	No comment

Site Investigation: The southern portion of proposed Tract 3A and Trat 4A are affected by a riverine ecosystems as depicted per the Kenai Watershed Forum wetlands mapping. The area has been depicted on the preliminary plat.

Steep slopes affect the southwest corner of proposed Tract A, the western portion of Arneson Avenue, the south portions of proposed Tract 3A, and the south portion of Tract 4A. The top and bottom of the steep areas are depicted and labeled on the drawing.

The southwest portion of proposed Tract 3A is subject to the Anadromous Waters Habitat Protection District as Silver Salmon Creek is located just south of the subdivision. ***Staff recommends*** *the Anadromous Waters Habitat Protection District be depicted and labeled on the drawing and the plat note per KPB 20.30.290 be added to the plat.*

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: IS totally or partially within HPD Comments: KPB\maldridge C. State Parks Reviewer: Russell, Pam Comments: No Comments
SOA Fish and Game	Alaska Dept of Fish and Game has no objections to the proposed platting actions, Public access to public lands and waters will not be affected.

Staff Analysis The preliminary subdivision is within the Caribou Hills area. Right of Way Map, Plat HM 84-115, referred to as the Ninilchik ROW Map, subdivided thirteen sections. The plat dedicated 66 foot wide right of ways centered on seismograph lines as well as well as 66 foot right of ways on all 1/16 and 1/4 aliquot line and section lines. The Right of Way Map, HM 84-115, is a paper plat with no field survey. Terrain was not considered with the right of way dedications and steep terrain or low wet areas affect many right of ways. Local trails, although often crossing private lands, are used for physical access. Subsequent subdivisions have divided lands and provided right of way dedications in practical areas or where trails were already being used for access.

A plat waiver, PC Resolution 93-7, created the parent parcel located to the north of Arneson Avenue. Parent parcels Tract 3 and 4, south of Arneson Avenue, were created with the recording of Anna's Acres, HM 2007-126.

The portion of Arneson Avenue abutting the parcels within the subdivision is not constructed. There is currently a structure located within the dedicated right of way. The preliminary plat proposes to vacate the right of way and the associated utility easements as well as reconfigure the lots. The structure will be within proposed Tract 4A. The large parcel to the north will be subdivided into two parcels by the dedication of a right of way over the top of the existing driveway. Per KPB GIS imagery, Tracts 1-4 use the driveway for physical road. Neighboring Tract 1 and Tract 2 are owned by the subdividers.

The Planning Commission at their January 10, 2022 meeting heard the right of way vacation of a portion of Arneson Avenue and associated utility easements. The vacation was unanimously approved. The Kenai Peninsula Borough Assembly will be hearing the vacation at their February 1, 2022 meeting. They will have the opportunity to consent or veto the Planning Commission decision.

When a right of way is vacated, the vacated lands attach to the lot or land bordering from which the dedication came from, in most cases, in equal proportions. The preliminary plat shows the vacated area not being attached in equal proportions. The final plat will require owner acknowledgment that states they understand and agree to allow the vacated right of way to be attached to the neighboring parcels as depicted. ***Staff recommends*** *the certificate of ownership and dedication include the statement, "… all easements to the use shown and accept the vacated lands being apportioned as shown."*

KPB GIS imagery depicts multiple items on the lots within the subdivision. Staff is unable to determine how many are permanent structures. ***Staff recommends*** *when the field survey is performed, any encroachments be disclosed so they may be addressed and if encroachment exist* ***staff requests*** *a note be placed on the final plat to indicate that acceptance of the plat by the Borough does not indicate acceptance of any encroachments.*

The change in the right of way dedication and the creation of new building setbacks may result in structures within the 20 foot building setback limits. ***Staff recommends*** *any structures found to be within the new building setbacks during the field survey, they should be depicted and labeled on the plat. A plat note stating the structures pre-date the setback shall be added.*

Due to a delay with the title companies, the Certificate to Plat has not yet been delivered. In the interest of time, ***Staff recommends*** *that the planning commission concur that the plat can be reviewed at this time and Staff can review the certificate to plat when it is delivered. Staff will bring the plat back to the plat committee if there are any items in the report that need to be addressed.*

If a beneficial interest holder affects the property, then staff will send notice of the proposed plat to the beneficial interest holder. The beneficial interest holder will be given 30 days from the date of the mailing of the notification to respond. They are given the opportunity to notify staff if their beneficial interest prohibits or restricts subdivision or requires their signature on the final plat. If no response is received within 30 days, staff will assume they have no requirements regarding the subdivision and it may be finalized.

If the property is not affected by a beneficial interest holder, then notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states beneficial interest holders affect the property.

Tract A and Tract 4A exceed 200,000 square feet and a soils analysis report is not required. Tract B is 196,586 sq. ft. and Tract 3A is 184,694 sq. ft. A soils report was not prepared for the parent parcel Tract 3. KPB code requires a soils report for Tract B and Tract 3A, and an engineer will sign the final plat. An exception to a wastewater review has been requested. Appropriate notes will be required on the final plat.

The property is not within an advisory planning commission.

Utility Easements Right of Way Map, Plat HM 84-115, granted 10 foot utility easements adjoining all rights of way. Anna's Acres, Plat HM 2007-126, stated that in addition to the 10 feet adjacent to the rights of way, the full 20 foot setback was for utility easement purposes within 5 feet of all side lot lines.

The right of way vacation petition included the vacation of associated utility easements. Per plat note 1, there will be 10 foot utility easements, increasing to 20 feet within 5 feet of the side lot lines, on the new dedication and along the end of the right of way. The plat correctly depicts the utility easements and does note those being granted by this plat and those from parent plats.

If the Certificate to Plat identifies any additional easements of record then, ***Staff recommends*** *that the easements of record be depicted and noted on the plat.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	
ENSTAR	No comment or recommendations
ACS	
GCI	Approved as shown.

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 17637 MATSON ST Existing Street Names are Correct: Yes List of Correct Street Names: MATSON ST ARNESON AVE MARQUIS ST Existing Street Name Corrections Needed: All New Street Names are Approved: Yes List of Approved Street Names: FREDDIE LN List of Street Names Denied: Comments: 17637 MATSON ST on TRACT B will be changed to a FREDDIE LN address.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: No concern from Assessing Dept.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

Staff recommendation:

- *Revise the title block to show the parent parcel as follows, 'Parcel 1, Plat Waiver resolution 93-7 (HM 93-15) and Tracts 3 and 4, Anna's Acres, Plat HM 2007-126."*
- *Include in the title block that this plat is finalizing a right of way vacation.*
- *Add Freddie's Roadhouse, Inc. as one of the owners. (Pending Certificate to Plat)*

G. The status of adjacent lands within 100 feet of the proposed subdivision boundary or the land status across from any dedicated rights-of-way that adjoin the propose subdivision boundary, including names of subdivisions, lot lines, block numbers, lot numbers, rights-of-way; or an indication that the adjacent land is not subdivided;

***Staff discussion:** The surrounding parcels have been identified with lot numbers per HM 84-115. The aliquot lot descriptions can remain as is, or can be replaced with the lot numbers per HM 84-115. This is at the surveyor's discretion.*

H. Approximate locations of low wet areas, areas subject to inundation, areas subject to flooding or storm water overflow, and the line of ordinary high water. This information may be provided on an additional sheet if showing these areas causes the preliminary plat to appear cluttered and/or difficult to read;

***Staff recommendation:** Provide a label for the low wet areas that are depicted on the plat.*

N. Apparent encroachments, with a statement indicating how the encroachments will be resolved prior to final plat approval;

***Staff recommendation:** Structure is within the dedicated right of way. The plat will correct the encroachment. Other encroachments may be present and plat notes shall be added if additional encroachments are determined during the field survey.*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.150. Streets-Intersection requirements.

A. Street intersections shall be as nearly at right angles as possible, and no intersection shall be at an angle of less than 60 degrees. Where acute street intersections are designed, a minimum 50-foot radius corner at the right-of-way line of the acute angle shall be provided.

B. Offset intersections are not allowed. The distance between intersection centerline shall be no less than 150 feet.

C. Intersections of access streets with arterial streets or state maintained roads shall be limited to those intersections required for safe access consistent with KPB Title 14.

D. Intersections of access streets with arterial streets or state maintained roads must be designed to the American Association of State Highway and Transportation Officials (AASHTO) standards.
Staff recommendation: *Provide a 50 foot radius on the southerly right of way boundary at intersection of Freddie Lane and Matson Street.*

20.30.190. Lots-Dimensions.

A. The size and shape of lots shall provide usable sites appropriate for the locality in which the subdivision is located and in conformance with the requirements of any zoning ordinance effective for the area in which the proposed subdivision is located. Generally, lots shall be square or rectangular. Lots shall be at least 60 feet wide on the building setback line. The minimum depth shall be no less than 100 feet, and the average depth shall be no greater than three times the average width.

B. The access portion of a flag lot shall not be less than 20 feet wide. A flag lot with the access portion less than 60 feet wide may be subject to a plat note indicating possible limitations on further subdivision based on access issues, development trends in the area, or topography. If the access portion is less than 60 feet wide, it may not exceed 150 feet in length. The access portion may not be used for permanent structures or wastewater disposal area, must meet the design standards of KPB 20.30.030(A) and 20.30.090 for access, and, if at least 60 feet wide, will be subject to the building setback restrictions of KPB 20.30.240.
Staff Discussion: *The proposed design will result in Tract 3A having 30 foot wide frontage to a dedicated right of way. Extending Arneson Avenue to increase the frontage distance will result in a portion of a parking lot being included within the right of way. The current design is an attempt to incorporate the existing improvements to be within the lot boundaries. Per the submittal, only 1.1 acres of Tract 3A is developable.*
Staff recommendation: *Concur that a 30 foot wide frontage is acceptable for Tract 3A and provide a plat note that states, "Tract 3A may have possible limitations on further subdivision based on access issues, development trends in the area, or topography."*

20.30.290. Anadromous Waters Habitat Protection District. If any portion of a subdivision or replat is located within an anadromous waters habitat protection district, the plat shall contain the following note:

> ANADROMOUS WATERS HABITAT PROTECTION DISTRICT NOTE:
> Portions of this subdivision are within the Kenai Peninsula Borough Anadromous Waters Habitat Protection District. See KPB Chapter 21.18, as may be amended, for restrictions that affect development in this subdivision. Width of the habitat protection district shall be in accordance with KPB 21.18.040.

Platting Staff Comments: Silver Salmon Creek habitat protection district affects the southern portion of proposed Tract 3A.
Staff recommendation*: Depict and label the habitat protection district and add the required plat note and comply with 20.30.290*.

KPB 20.40 – Wastewater Disposal

Staff recommendation*: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below*.

20.40.010 Wastewater disposal.

Platting Staff Comments: Exception for wastewater review has been requested
Staff recommendation*: comply with 20.40.*

KPB 20.60 – Final Plat

Staff recommendation*: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.180. Plat notes.

A. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

B. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

Staff recommendation: *Place the following notes on the plat.*

- *Add the anadromous note as stated in the staff report.*
- *Any other items that may be found on the Certificate to Plat.*
- *Additional notes may be required once the field survey is completed and the status of structures is determined.*
- *Multiple wastewater review notes will be required. Each note should state which tracts the note applies.*

20.60.190. Certificates, statements, and signatures required.

Staff recommendation*:*

- *Add the certificate of ownership on behalf of the Freddie's Roadhouse and the notary acknowledgment for the corporation signatory.*
- *The vacated right of way is not being added back to the lands per the standard procedure. Address in the certificate of ownership or add an additional statement with additional signatures required.*
- *Comply with 20.60.190.*

EXCEPTIONS REQUESTED:

A. KPB 20.30.190 – Lots-Dimensions (3:1 depth to width for Tract 3A)

Surveyor's Discussion: The shape and width to depth ratio of Tract 3A is not changing significantly from its previous layout, which was approved as Tract 3, HM 2007-126. The majority of the lot is located on a steep slope that leads down to a swampy area. This portion of the property is unlikely to ever see any development. The usable area of the lot is approximately 1.1 acres. The depth to width ratio of the usable area is approximately 1.4:1.

Staff Discussion: The lot design is being adjusted to allow the structure located within the Arneson Avenue right of way to be within Tract 4A. This is requiring a narrowing of Tract 3A along the northern boundary.

Findings:

1. The intent of the plat is to correct an encroachment issue.
2. The northern lot boundary is being reduced by 119 feet.
3. The parent parcel, Tract 3, was granted an exception for 3:1 by the Planning Commission on May 14, 2007.
4. The depth to width ratio for the lot is 3.7:1.
5. Per the submittal, only 1.1 acres is usable.
6. The depth to width ratio for the useable acreage is 1.4:1.
7. The tract is subject to steep slopes, wetlands, and habitat protection area.
8. Per KPB GIS Imagery, improvements (three cabins) appear to be within the lot.
9. A driveway appears to access the property from Arneson Avenue within the proposed frontage area.

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 1, 3, 5-7, 9 appear to support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 1, 3, 5-7, 9 appear to support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 1, 3, 5-7, 9 appear to support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

EXCEPTIONS REQUESTED:

B. KPB 20.40 – Wastewater Disposal (Wastewater Review)

Surveyor's Discussion: This plat is located in a remote area near the end of Oil Well Road. A soils analysis was not prepared for the parent subdivision. Tract B (4.5 acres) and Tract 3A (4.2 acres) are both near the minimum required size of 5 acres. Tract B has a functioning septic system. Both parcels have more than 20,000 square feet of contiguous area for septic installation.

Staff Discussion: The exception requested will apply to Tract B and Tract 3A. Tract A and Tract 4A are larger than 200,000 square feet. Tract 3A is decreasing in size from 4.609 acres to 4.240 acres (184,694 square feet). Tract B will be a new lot created by the right of way dedication splitting the parent parcel. Tract B is proposed to be 4.513 acres (196,586 square feet). The southern half of Tract 3A contains steep slopes, wetlands, and an anadromous waters habitat protection district.

The Caribou Hills is considered a recreational area. Many of the lots in the area do not use conventional wastewater disposal systems. All septic system installation must be approved by State of Alaska DEC.

Findings:

1. Proposed Tract B is 196,586 square feet.
2. Proposed Tract 3A is 184,694 square feet.
3. Wastewater review was not required for parent Tract 3 as it was greater than 200,000 sq. ft.
4. Per the submittal, the useable area for Tract 3A is about 1.1 acres (47,916 square feet).
5. Tract B has a functioning septic system.
6. Proposed Tract B and Tract 3A have more than 20,000 sq. ft. of continuous area available for wastewater disposal installation.
7. The intent of the subdivision is to correct an encroachment and dedicate atop a constructed roadway.
8. The design of Tract 3A is similar to parent design with a change in the lot line to accommodate a structure.

Staff reviewed the exception request and recommends granting approval.

Staff recommends the Committee select the findings they determine are applicable, make additional findings if needed, tie the findings to the following standards, and vote on the exception in a separate motion.

Unless prohibited under this title, the commission (committee) may authorize exceptions to any of the requirements set forth in this title. Application for an exception shall present the commission (committee) with substantial evidence, justifying the requested waiver or exception stating fully the grounds for the application and the facts relied upon. All exceptions must be requested and granted at the time of preliminary plat approval. Exceptions may not be requested with a final plat submittal.

The commission (committee) shall make findings of fact meeting the following standards before granting any exception:

1. That special circumstances or conditions affecting the property have been shown by application;
   Findings 5-8 appear to support this standard.

2. That the exception is necessary for the preservation and enjoyment of a substantial property right and is the most practical manner of complying with the intent of this title;
   Findings 5-8 appear to support this standard.

3. That the granting of the exception will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
   Findings 5-8 appear to support this standard.

Staff recommendation: place notes on the final plat indicating any exceptions granted by the Plat Committee with the meeting date.

RECOMMENDATION:

SUBJECT TO EXCEPTION(S) GRANTED, STAFF RECOMMENDS:

- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**

- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**

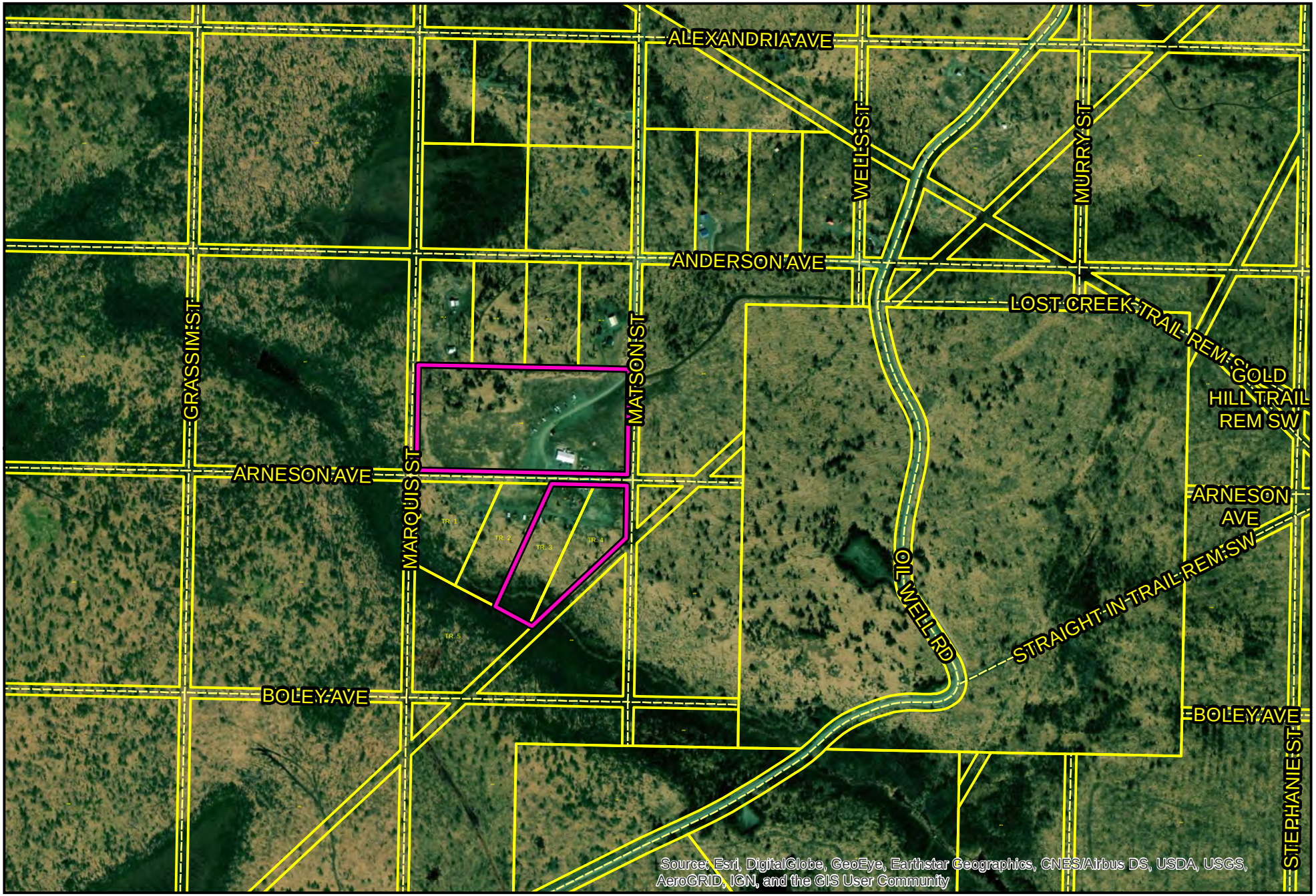
- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

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Aerial View

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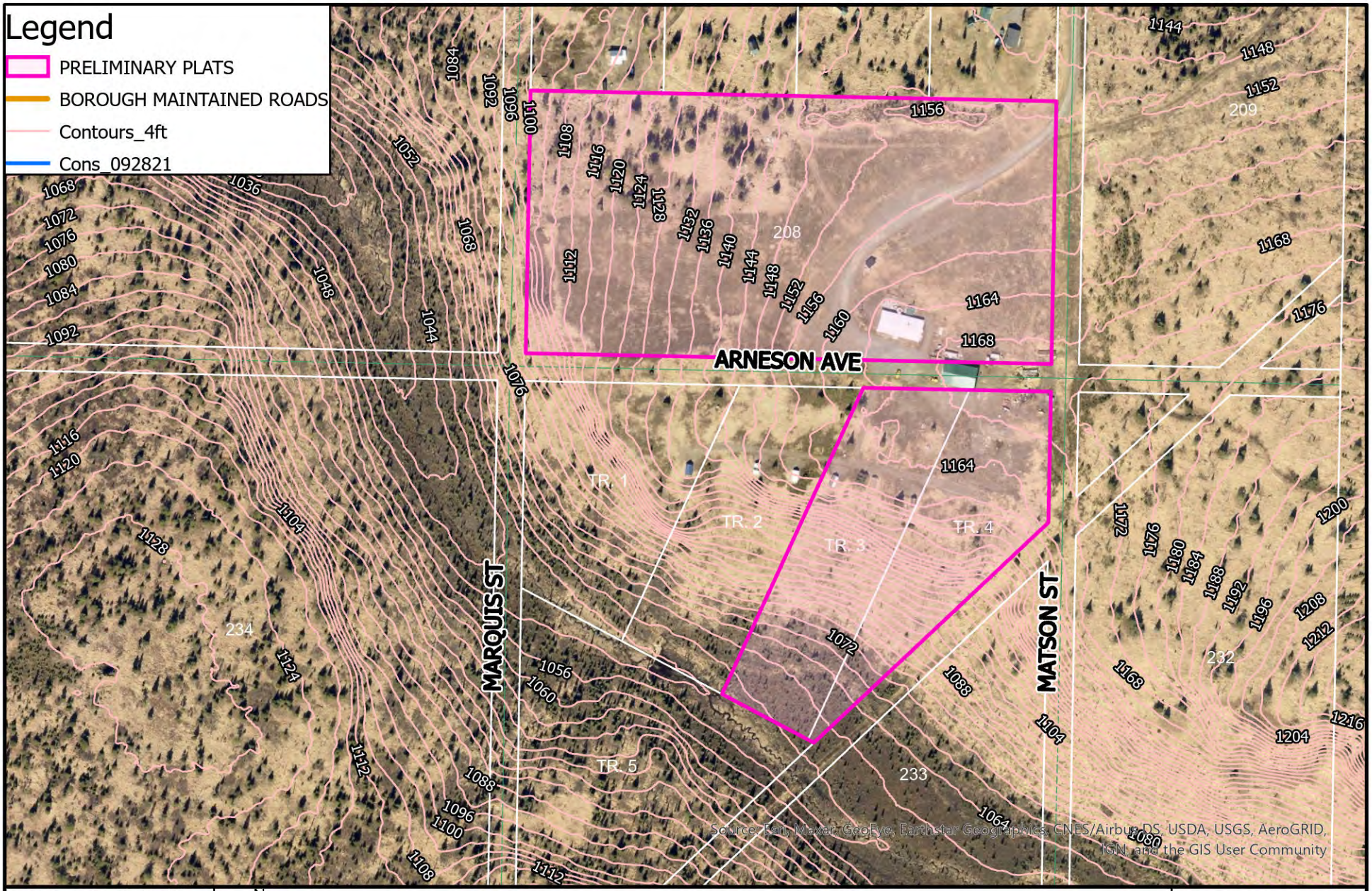
PRELIMINARY PLAT

PClements, KPB 2021-160
Imagery World



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

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AERIAL IMAGERY 2021

CONTOUR DATA

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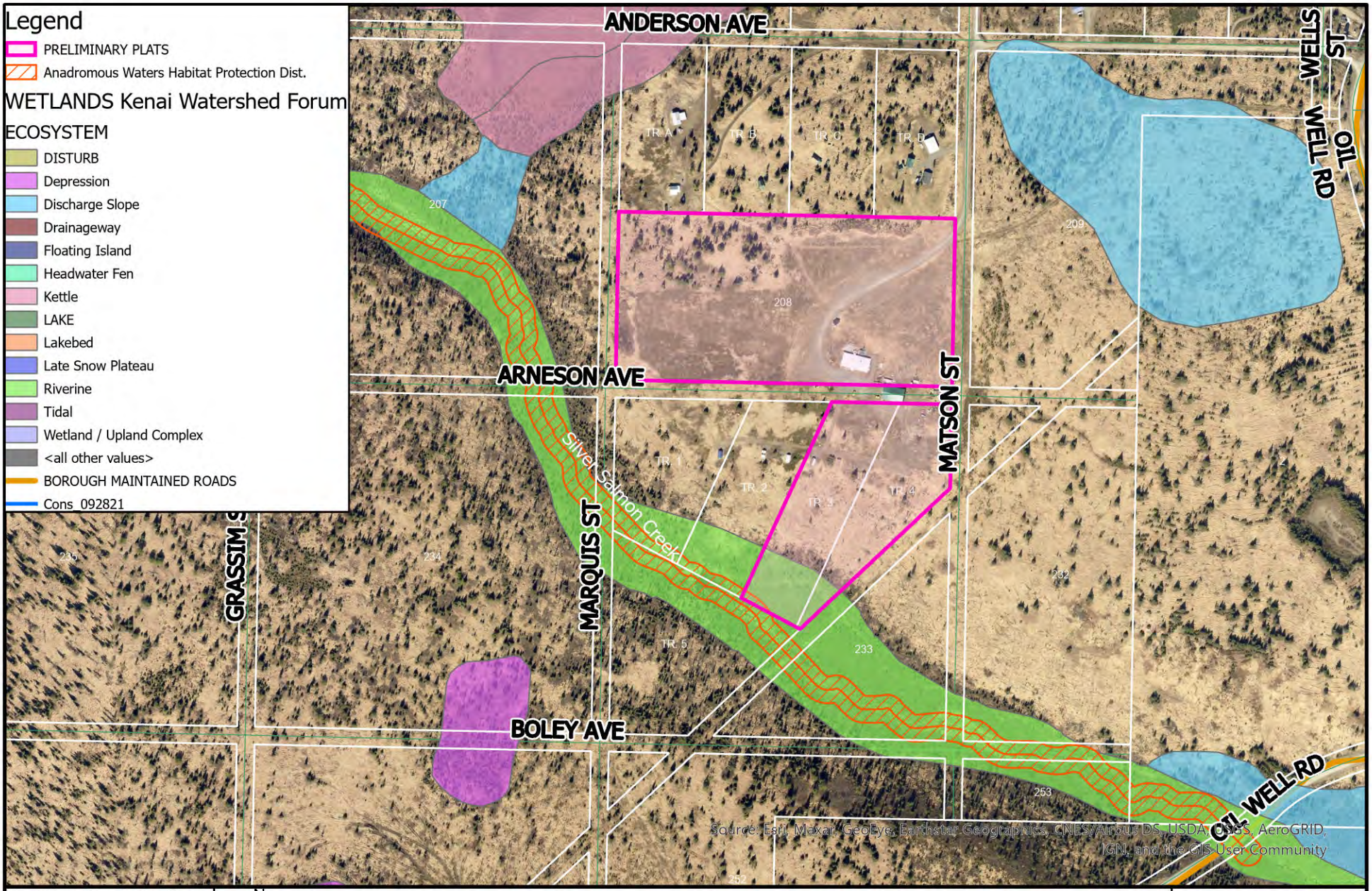
Scott Huff
Platting Manager



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AERIAL IMAGERY 2021

CONTOUR MAP

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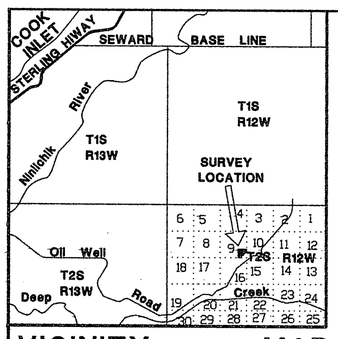
Scott Huff
Platting Manager



VICINITY 1" = 4 miles MAP

ANNA'S ACRES

A subdivision of Tract 233 NNAI ROW Map (HRD 84-115), portion northwest of Seismograph Trail ROW.
Located in the SE1/4 SE1/4 Section 9, T2S R12W, SM.
Homer Recording District Kenai Peninsula Borough File 2007-113

Prepared for
Anna E. Daniels
8043 Andreason Pl.
Custer, WA 98240

Prepared by
Johnson Surveying
Box 27
Clam Gulch, Ak 99568

STATE OF ALASKA 49TH
GERARD L. JOHNSON 7328 - S
REGISTERED PROFESSIONAL LAND SURVEYOR
12/13/07

SCALE 1" = 100' **AREA = 25.805 acres** **10 February, 2007**

2007-126 20
RECORDED-FILED
Homer REC. DIST.
DATE 12/19 2007
TIME 11:13 AM
Requested by:
Johnson Surveying
Box 27
Clam Gulch, Ak 99568

LEGEND

⊕ - 3½" alcap monument, 4928-S, 1998, found.
◓ - 2½" alcap on 5/8"x 8' rebar, set.
⊢ - 1/2"x 4' rebar with 1" plastic cap, set.

NOTES
1. A building setback of 20' from all street ROWs is required unless a lesser standard is approved by a resolution of the appropriate planning commission. Front 10' of building setback is also a utility easement as is the entire setback within 5' of side lot lines.
2. No permanent structure shall be constructed or placed within an easement which would interfere with the ability of a utility to use the easement.
3. An exception to KPB 20.20.180, 3 to 1 length/width ratio, for Tract 3 was granted by the KPB Planning Commission at the meeting of 14 May, 2007.

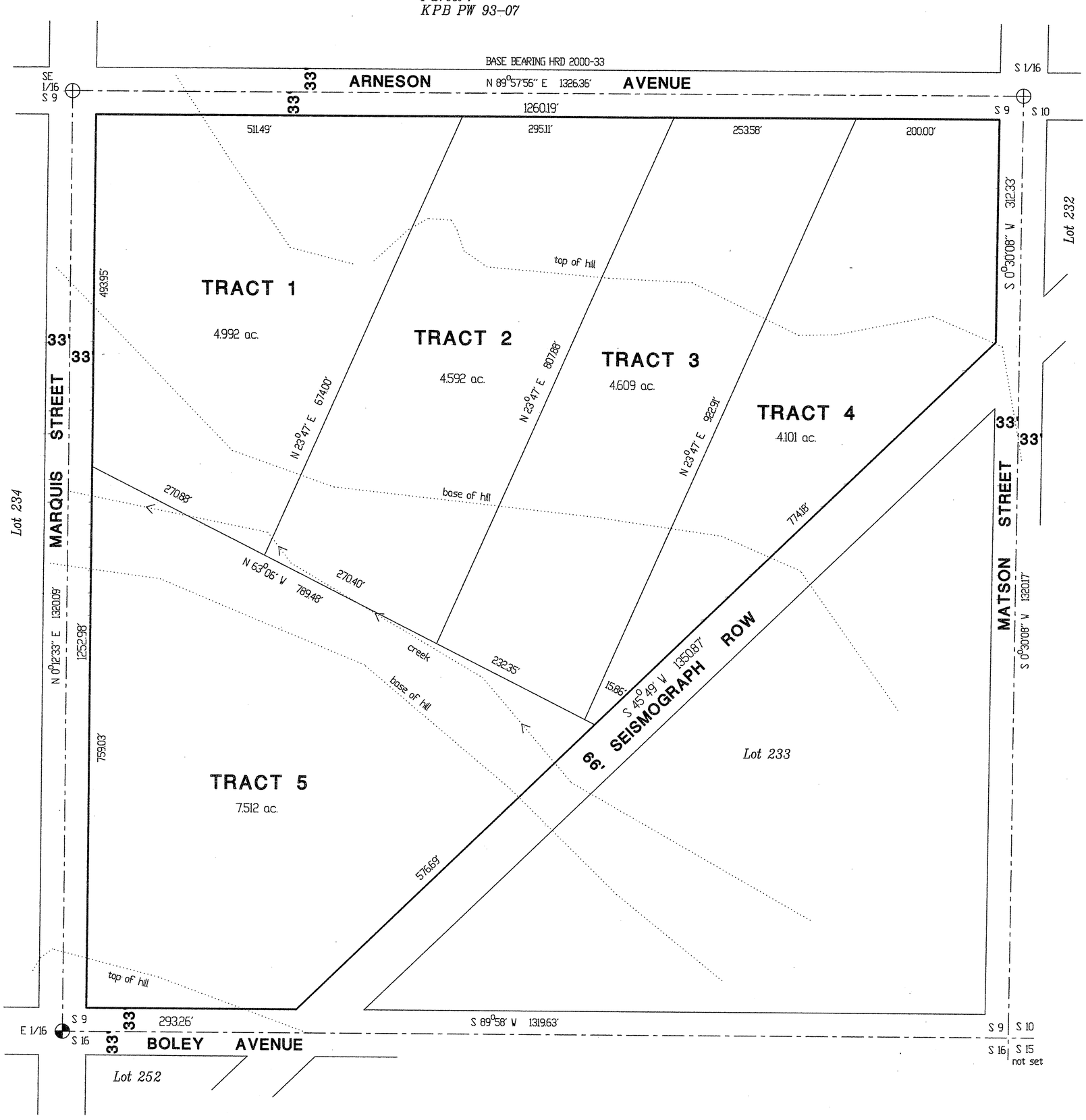
PLAT APPROVAL
This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of 14 May, 2007.

KENAI PENINSULA BOROUGH

BY: Max J Best 12-18-07
Authorized Official Date

WASTEWATER DISPOSAL
These lots are at least 200,000 square feet or nominal 5 acres in size and conditions may not be suitable for onsite wastewater treatment and disposal. Any wastewater treatment or disposal system must meet the regulatory requirements of the Alaska Dept. of Environmental Conservation.

Parcel 1
KPB PW 93-07



OWNERSHIP CERTIFICATE
I hereby certify that I am the owner of the real property shown and described hereon; and that I hereby adopt this plan of subdivision, and by my free consent grant all easements to the use shown.

Anna Daniels
Anna E. Daniels
8043 Andreason Pl. Custer, WA 98240

NOTARY'S ACKNOWLEDGEMENT
For: Anna E. Daniels
Subscribed and sworn to before me this 21
day of December, 2007.
Heather Vaughn
Notary Public for Washington.
My commission expires 09/17/2011

HEATHER M VAUGHN NOTARY PUBLIC STATE OF WASHINGTON COMM. EXP. SEPTEMBER 17, 2011

93-15W

KENAI PENINSULA BOROUGH
PLANNING COMMISSION

PLAT WAIVER RESOLUTION 93-07

HOMER RECORDING DISTRICT

GRANTING A PLATTING WAIVER FOR CERTAIN LANDS WITHIN SECTION 9, TOWNSHIP 2 SOUTH, RANGE 12 WEST, SEWARD MERIDIAN, ALASKA.

WHEREAS, DOUGLAS M. AND GIGI JEANETTE ZOUBEK HAVE PETITIONED FOR A WAIVER OF PLATTING REQUIREMENTS FOR THE FOLLOWING DESCRIBED PARCEL:

THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER, SECTION 9, TOWNSHIP 2 SOUTH, RANGE 12 WEST, SEWARD MERIDIAN, ALASKA; CNTG 36.1 ± ACRES.

WHEREAS, 29.04.090 OF ALASKA STATUTES PROVIDES THAT THE PLATTING AUTHORITY SHALL WAIVE THE PREPARATION, SUBMISSION FOR APPROVAL, AND RECORDING OF A PLAT UPON SATISFACTORY EVIDENCE THAT CERTAIN CONDITIONS EXIST.

WHEREAS, IT HAS BEEN DETERMINED THAT ALL REQUIREMENTS HAVE BEEN MET.

NOW THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH:

SECTION 1. THAT A WAIVER OF PLATTING REQUIREMENTS IS HEREBY GRANTED FOR THE ABOVE DESCRIBED PARCEL.

SECTION 2. THAT THE PLAT WAIVER IS BEING GRANTED FOR THE PURPOSE OF CREATING TWO PARCELS DESCRIBED AS FOLLOWS:

PARCEL 1: THE SOUTH ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 9, TOWNSHIP 2 SOUTH, RANGE 12 WEST, SEWARD MERIDIAN, ALASKA; EXCEPTING THEREFROM 33 FOOT RIGHT-OF-WAY ALONG THE SOUTH, EAST AND WEST BOUNDARIES; CNTG 18.05 AC±.

PARCEL 2: THE NORTH ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 9, TOWNSHIP 2 SOUTH, RANGE 12 WEST, SEWARD MERIDIAN, ALASKA; EXCEPTING THEREFROM 33 FOOT RIGHT-OF-WAY ALONG THE NORTH, EAST AND WEST BOUNDARIES; CNTG 18.05 AC±.

SECTION 3. THAT THIS RESOLUTION IS VOID IF NOT RECORDED IN THE APPROPRIATE RECORDING DISTRICT WITHIN TEN DAYS OF ADOPTION.

SECTION 4. THAT THIS RESOLUTION BECOMES EFFECTIVE UPON BEING PROPERLY RECORDED.

ADOPTED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH ON THIS 8th DAY OF March, 1993.

JOHN HAMMELMAN, CHAIRPERSON
KPB PLANNING COMMISSION

NOTARY ACKNOWLEDGEMENT:

SUBSCRIBED AND SWORN BEFORE ME THIS 8th DAY OF March, 1993.

Notary Public
St. of ALASKA
NANCY D. JUNGMANN

NOTARY PUBLIC FOR STATE OF ALASKA
MY COMMISSION EXPIRES: 10-13-93

93-0708

HOMER REC DISTRICT
20 cc
REQUESTED BY D.M Zoubek

'93 MAR 18 PM 2 13

SEE SHEET 2

T 2 S

R 13 W / R 12 W

5280 (REC) — 5047.24 (REC) — 5099.05 (REC)

AHLRICH AVE. — ALEXANDRIA AVE. — ANDERSON AVE. — ARNESON AVE. — BOLEY AVE. — BEATTY AVE. — CASS AVE. — CHRISTOFFERSEN AVE. — CLARKSON AVE. — COOPER AVE. — CULHANE AVE. — CURTIS — DEITZ — DEMIDOFF AVE. — ENCELEWSKI AVE. — ROBERTA AVE. — GERNER AVE.

CTR 1/4

SEE NOTE 6

NOT PART OF THIS PLAT
U.S.S 7947 LOT 2

U.S.S. 7947 LOT 1
NOT PART OF THIS PLAT

ASLS 73-67 — ASLS 72-41 A & B — ASLS 74-6 — ASLS 73-67 — ASLS 73-68 — ASLS 74-6 A & B

DEEP CREEK

PLAT APPROVAL

THIS RIGHT OF WAY MAP WAS APPROVED BY THE KENAI PENINSULA PLANNING COMMISSION AT THE MEETING OF NOVEMBER 5, 1984.

KENAI PENINSULA BOROUGH

BY: Steve Thompson
AUTHORIZED OFFICIAL

ROBERT N. WOODHEAD
1427 MATTERHORN
ANCHORAGE AK. 99508
TRACT 147 ONLY

LUBOV D. OSKOLKOFF
PO BOX 1129
HOMER AK. 99603
TRACT 44 ONLY

GREGORY OSKOLKOFF
PO BOX 1129
HOMER AK. 99603
TR 150 ONLY

SIMEON OSKOLKOFF
PO BOX 1129
HOMER AK. 99603
TR. 88 ONLY

SUBSCRIBED AND SWORN TO BEFORE ME THIS 14 DAY OF NOVEMBER 1984
ROBERT N. WOODHEAD & LUBOV D. OSKOLKOFF, SIMEON OSKOLKOFF
GREGORY OSKOLKOFF DID APPEAR BEFORE ME.

James A. Wilson
NOTARY PUBLIC FOR ALASKA

MARCH 25 1985
MY COMMISSION EXPIRES

STATE OF ALASKA
NOTARY PUBLIC
JAMES A. WILSON

21 — 22

TYPICAL SECTION BREAK DOWN

W1/16 — 1/4 COR — E1/16 — N1/16 — 1/4 — S1/16

NW 1/4 NW 1/4 40 ± AC. | NE 1/4 NW 1/4 40 ± AC. | NW 1/4 NE 1/4 40 ± AC. | NE 1/4 NE 1/4 40 ± AC.
SW 1/4 NW 1/4 40 ± AC. | SE 1/4 NW 1/4 40 ± AC. | SW 1/4 NE 1/4 40 ± AC. | SE 1/4 NE 1/4 40 ± AC.
NW 1/4 SW 1/4 40 ± AC. | NE 1/4 SW 1/4 40 ± AC. | NW 1/4 SE 1/4 40 ± AC. | NE 1/4 SE 1/4 40 ± AC.
SW 1/4 SW 1/4 40 ± AC. | SE 1/4 SW 1/4 40 ± AC. | SW 1/4 SE 1/4 40 ± AC. | SE 1/4 SE 1/4 40 ± AC.

NOTE

1) LOCATION OF USS 7948 LOTS 1 AND 2 WERE DETERMINED FROM RECORD DATA ONLY. NO FIELD SURVEY WAS MADE.
2) THIS PLAT REPRESENTS THE VARIOUS OWNERSHIP CLAIMS AS SHOWN ON THE BLM MASTER TITLE PLAT FOR T1S R12W SM AND T2S R12W SM DATE: FEBRUARY 21, 1984.
3) LOCATION OF USS 7947 LOTS 1 & 2 WERE DETERMINED FROM RECORD DATA ONLY. NO FIELD SURVEY WAS MADE.
4) A 66' RIGHT OF WAY IS CENTERED ON THE CLEARING OF EACH SEISMOGRAPH LINE SHOWN HEREON.
5) A 100' RIGHT OF WAY IS CENTERED ON THE OIL WELL ROAD IN ITS PRESENT LOCATION.
6) THIS PLAT DEDICATES A 66' ROW CENTERED ON ALL 1/16th & 1/4 ALIQUOT LINES AND SECTION LINES EXCEPT THOSE PORTIONS OF THE 1/16 & 1/4 LINES THAT CROSS LANDS WHICH ARE MARKED "NOT PART OF THIS PLAT".
7) EACH TRACT IS AN ALIQUOT PART OF A SECTION EXCEPTING THE 33' ROW's DEDICATED HEREON.
8) A 10' UTILITY EASEMENT IS RESERVED ADJACENT TO ALL RIGHTS OF WAY.
9) THIS PLAT DEDICATES RIGHTS OF WAYS ONLY AND IS NOT A SUBDIVISION PLAT.
10) NO SURVEY WAS COMPLETED ON THIS PLAT.

LEGEND

(1) SECTION NUMBERS
SEISMOGRAPH LINE
OIL WELL ROAD
SECTION CORNER (PROTRACTED POSITION)
161 TRACT NUMBER
APPROX. LOCATION OF ASLS'S OR LANDS LEASED FROM ADL, NOT PART OF THIS PLAT

84-115
RECORDED - FILED 12 7
HOMER REC DIST.
DATE 12-7-1984
TIME 954 A.M.
S Wilson for KPB
Soldotna, Ak

CERTIFICATE OF OWNERSHIP

I HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON. WE HEREBY DEDICATE ALL RIGHTS OF WAY AND PUBLIC AREAS TO PUBLIC USE AND GRANT ALL EASEMENTS TO THE USE SHOWN.

NINILCHIK NATIVE ASSOCIATION, INC.
121 W. FIREWEED LANE
W.D. GRAHAM, IT'S PRESIDENT

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 11 DAY OF Nov 1984.
W.D. GRAHAM DID APPEAR BEFORE ME.

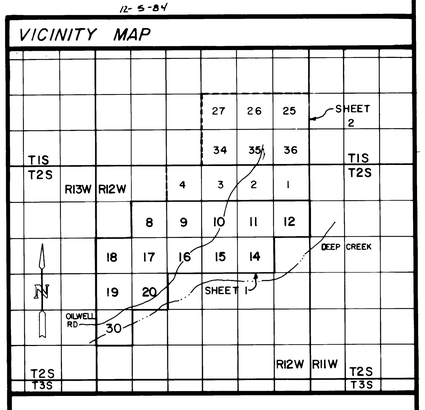
Laura F. Wilson
NOTARY PUBLIC FOR ALASKA

March 25, 1985
MY COMMISSION EXPIRES

STATE OF ALASKA — NOTARY PUBLIC — 49TH — Laura F. Wilson — Jurat 4725

12-5-84

VICINITY MAP



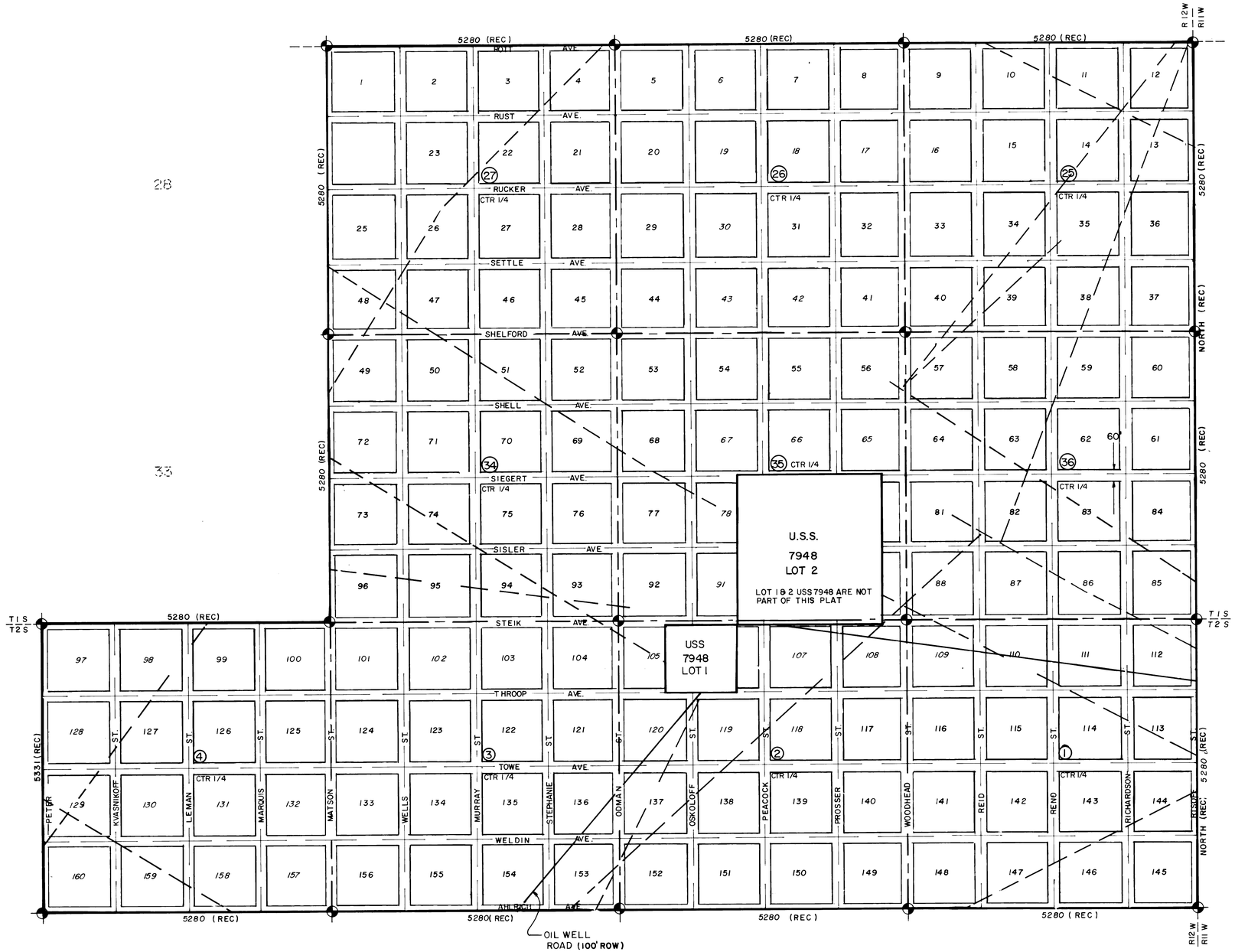
RIGHT OF WAY MAP
OF LAND CONTAINED
WITHIN
SEC. 1-4, 8-12, 14-18, 19, 20, 30 T2S, R12W. SM.
SEC. 34-36, 25-27, , T1S, R12 W. S.M.

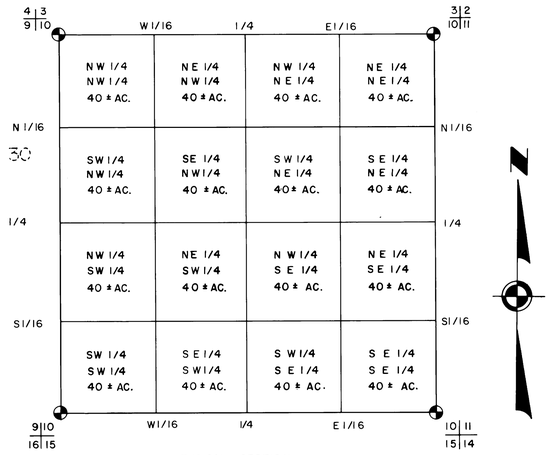
TED FORSI & ASSOCIATES, INC.
ENGINEERING···PLANNING···SURVEYING
810 E. NINTH AVE. ANCH. AK. 99507 274-9517

GRID: N.A.	SCALE: 1"=1000'	DATE: OCTOBER 84	BOOK: PAGE:
DRAWN: G.S.O.	FILE NO.	W.O.NO. 8413	SHEET 1 of 2

HM 84-115

NINILCHIK R.O.W. MAP

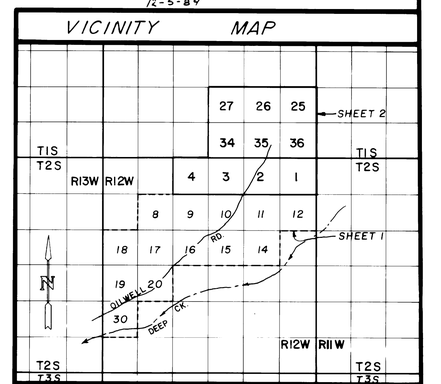




TYPICAL SECTION
BREAK DOWN

12-5-84

VICINITY MAP



RIGHT OF WAY MAP
OF LAND CONTAINED
WITHIN
SEC. 34 – 36, 25-27, T1S, R12W. S.M.
SEC. 1-4, 8-12, 14-18, 19, 20, 30 T2S, R12W. S.M.

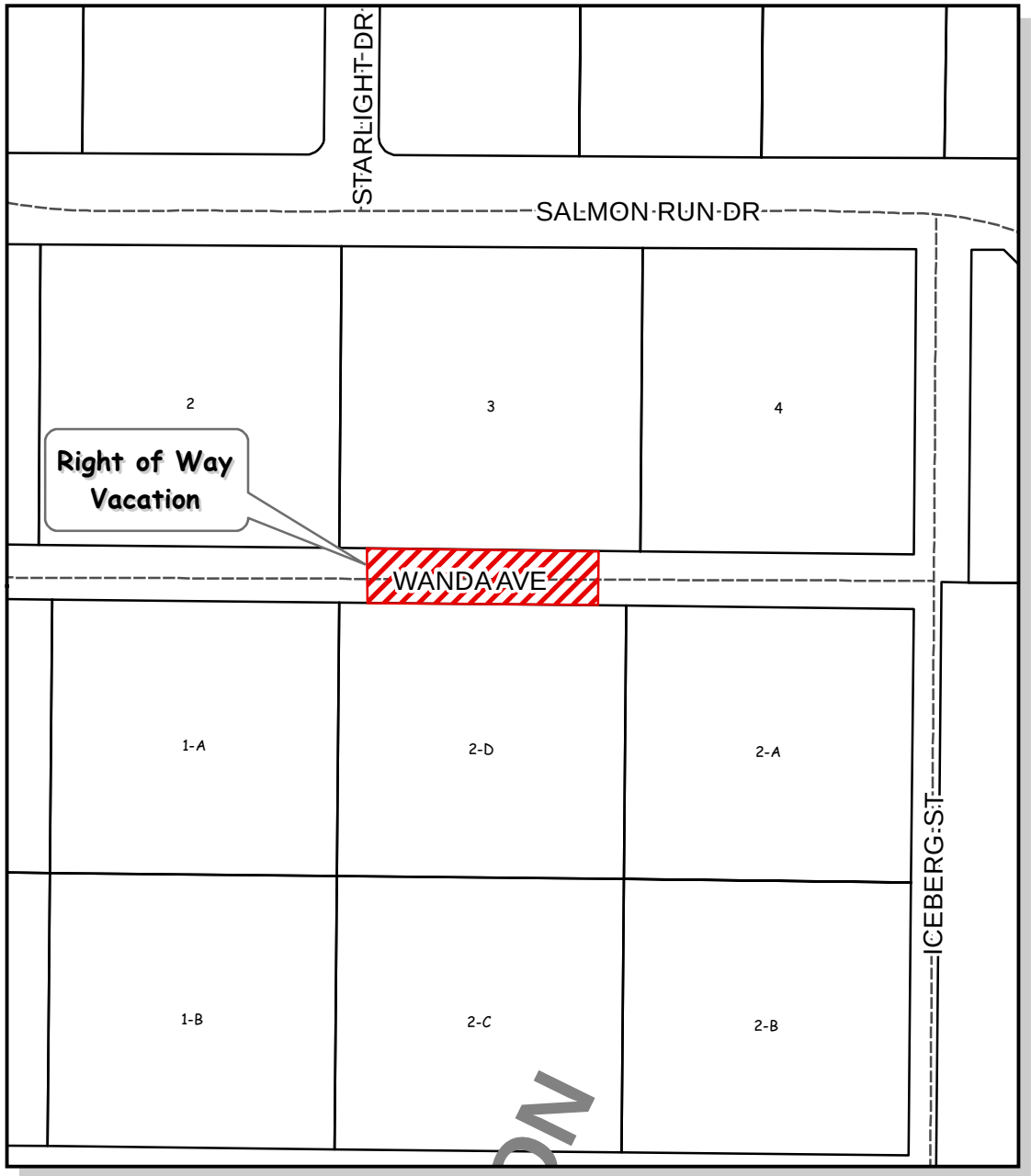
TED FORSI & ASSOCIATES, INC.
ENGINEERING···PLANNING···SURVEYING
810 E. NINTH AVE. ANCH. AK 99501 274-9517

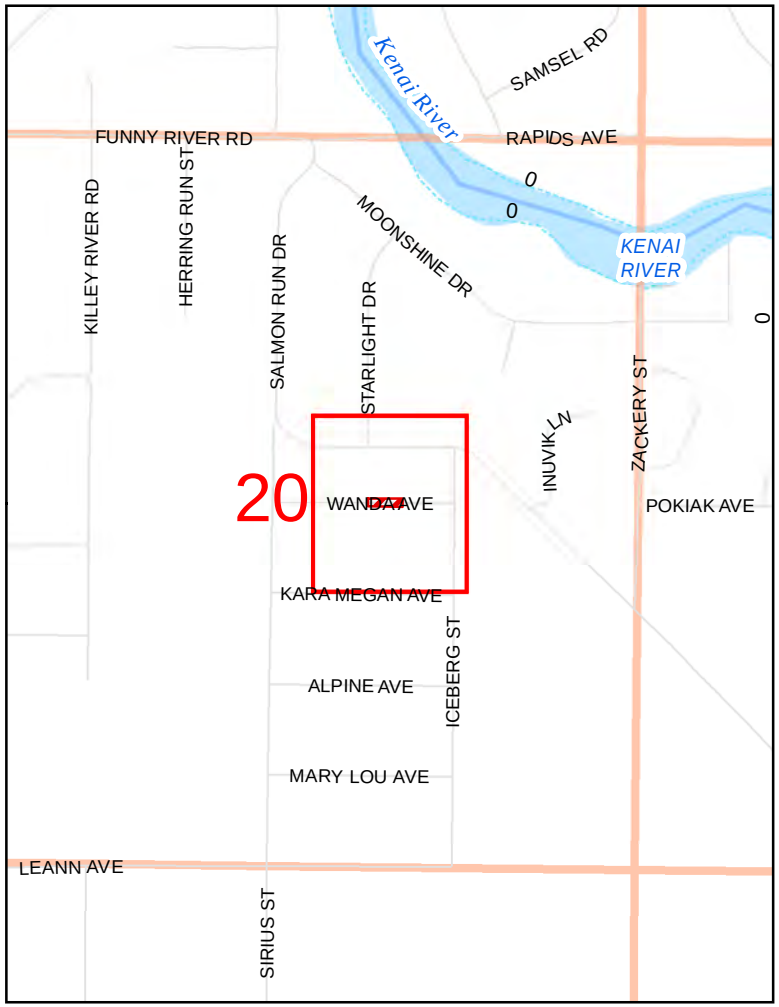
GRID: N.A.	SCALE: 1"=1000'	DATE: OCT 84	BOOK: PAGE:
DRAWN: G.S.O.	FILE NO.	W.O. NO. 8413	SHEET 2 of 2

84-115
RECEIVED 12-7-84
HOMER
12-7-84
9:54 A
S. Wilson for
KPB
Soldotna, Ak

HM 84-115

NINILCHIK R.O.W. MAP





0 1,000 2,000 4,000 Feet

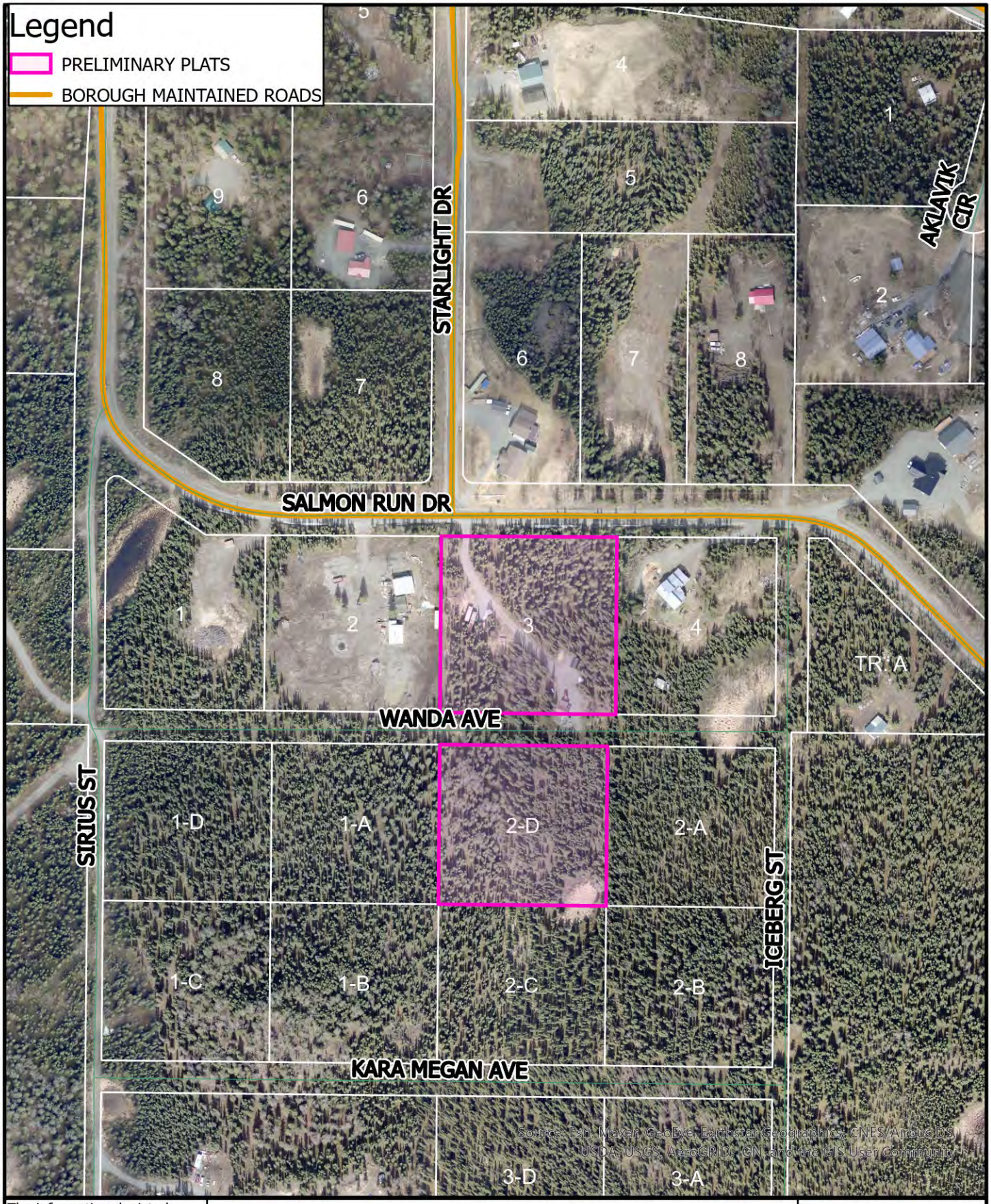
The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

0 125 250 500 '

N

KPB 2021-168V
S20 T05N R08W
Funny River

PClements, KPB 2021-168V Date: 12/29/2021



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

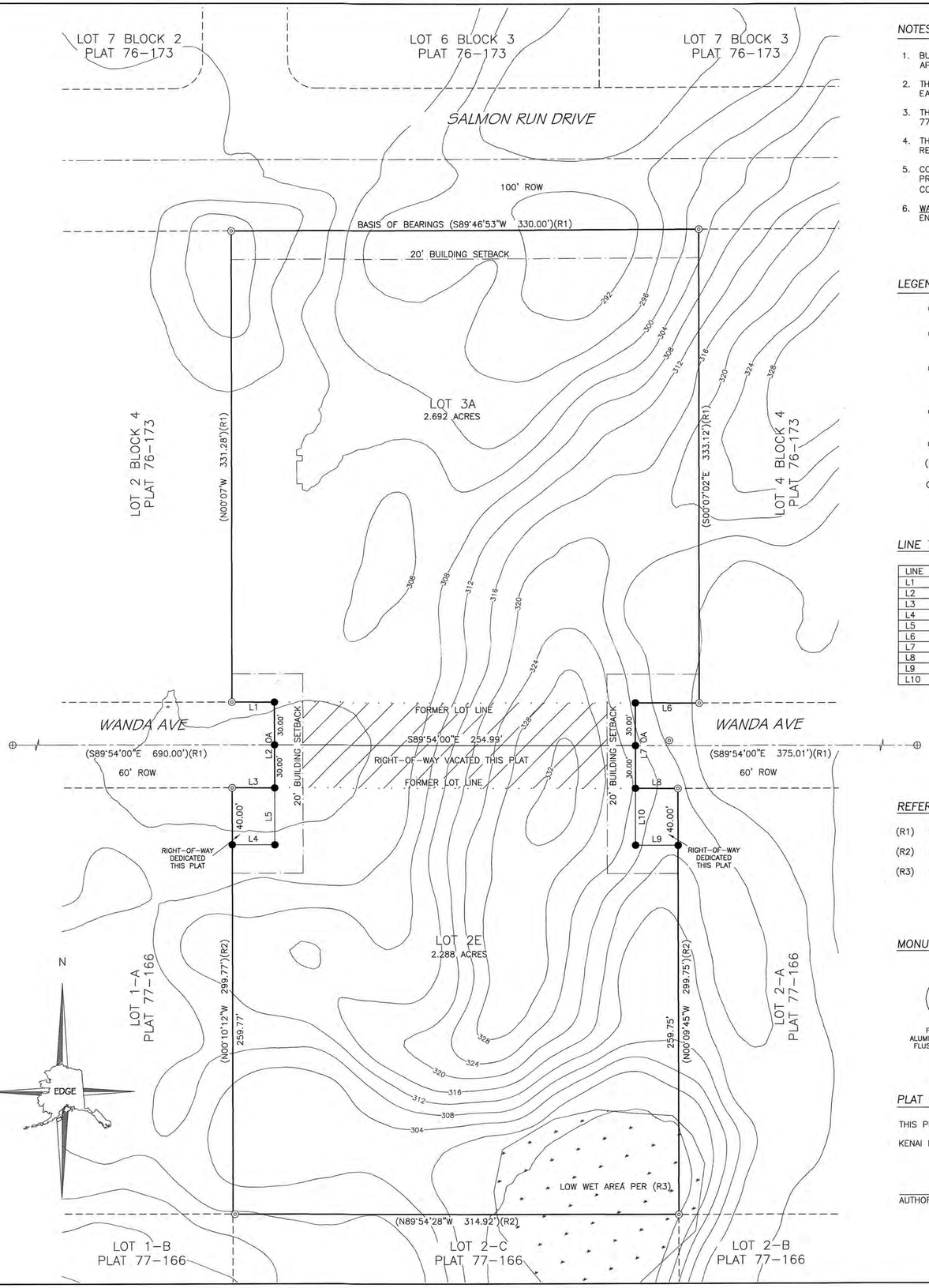
AERIAL IMAGERY 2021

Miles

0 0.03 0.07 0.13

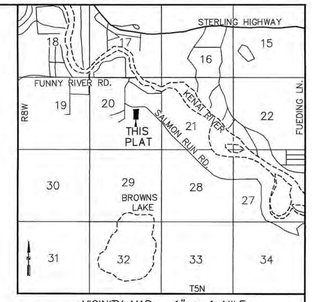
N W E S

Date:
Scott Huff,
Platting Manager,
KPB



NOTES

1. BUILDING SETBACK – A SETBACK OF 20 FEET IS REQUIRED FROM ALL STREET RIGHTS-OF-WAY UNLESS A LESSER STANDARD IS APPROVED BY RESOLUTION OF THE APPROPRIATE PLANNING COMMISSION.
2. THE FRONT 15 FEET ADJACENT TO THE RIGHTS-OF-WAY IS A UTILITY EASEMENT. NO PERMANENT STRUCTURE SHALL BE CONSTRUCTED OR PLACED WITHIN A UTILITY EASEMENT WHICH WOULD INTERFERE WITH THE ABILITY OF A UTILITY TO USE THE EASEMENT.
3. THE KENAI PENINSULA BOROUGH PLANNING COMMISSION APPROVED THE VACATION OF A PORTION OF WANDA AVENUE GRANTED BY PLAT KN 76-173 AND PLAT KN 77-166, AT THE MEETING OF JANUARY 24, 2022.
4. THIS SUBDIVISION IS SUBJECT TO A GENERAL ELECTRICAL EASEMENT GRANTED TO HOMER ELECTRIC ASSOCIATION ON JUNE 4, 1963 IN BOOK 10 PAGE 160, KENAI RECORDING DISTRICT.
5. COVENANTS, CONDITIONS AND RESTRICTIONS, INCLUDING THE TERMS AND PROVISIONS THEREOF, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN TO THE EXTENT SUCH COVENANT, CONDITION OR RESTRICTION VIOLATES 42 USC 3604 (C), AS CONTAINED IN AN INSTRUMENT: RECORDED: DECEMBER 31, 1975 VOLUME/PAGE: 91/600.
6. WASTEWATER DISPOSAL: ANY WASTEWATER TREATMENT AND DISPOSAL SYSTEM MUST MEET THE REGULATORY REQUIREMENTS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.



VICINITY MAP 1" = 1 MILE

LEGEND

⊕	FOUND PRIMARY MONUMENT AS REFERENCED	———	SUBDIVISION BOUNDARY
○	FOUND SECONDARY MONUMENT 5/8" REBAR	———	INTERIOR LOT LINE
◎	FOUND SECONDARY MONUMENT 5/8" REBAR WITH PLASTIC CAP STAMPED	- - - - -	ADJACENT PROPERTY LINE
●	SET SECONDARY MONUMENT 5/8" X 30" REBAR WITH 2" ALUMINUM CAP STAMPED EDGE SURVEY LS-13022 2021	—·—·—	CENTERLINE RIGHT OF WAY
OA	OVER ALL	—·—·—	20 FOOT BUILDING SETBACK
(R#)	RECORD DATA, SEE REFERENCE	- - - - -	EASEMENT
(#)	MONUMENT REFERENCE	.....	FORMER LOT LINE
		—·—·—	SLOPES OVER 20%
		▨	RIGHT OF WAY BEING VACATED

LINE TABLE

LINE	BEARING	DISTANCE
L1	S89°54'00"E	29.97'
L2	S00°10'12"E	60.00'
L3	S89°54'00"E	30.00'
L4	S89°54'00"E	30.00'
L5	S00°10'12"E	40.00'
L6	S89°54'00"E	45.03'
L7	N00°09'48"W	60.00'
L8	N89°54'00"W	30.00'
L9	N89°54'00"W	30.00'
L10	S00°09'48"E	40.00'

REFERENCES

(R1) BROWNS LAKE SUBDIVISION, PLAT NO. 77-166, KENAI RECORDING DISTRICT

(R2) KING RAPIDS SUBDIVISION, PLAT NO. 76-173, KENAI RECORDING DISTRICT

(R3) KENAI WATERSHED FORUM WETLAND ASSESSMENT

MONUMENT REFERENCES

① C 1/4 S20 3932-S 1976 — FOUND 2-1/2" ALUMINUM MONUMENT FLUSH WITH GRADE

② CE 1/16 S20 3932-S 1976 — FOUND 2-1/2" ALUMINUM MONUMENT FLUSH WITH GRADE

PLAT APPROVAL

THIS PLAT WAS APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AT THE MEETING OF DECEMBER 13, 2021.

KENAI PENINSULA BOROUGH

AUTHORIZED OFFICIAL

KPB 2021-168V

CERTIFICATE OF SURVEYOR

I, MARK AIMONETTI 13022-S, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THIS SURVEY ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF ALASKA 49TH PRELIMINARY Mark A. Aimonetti No. 13022 – S REGISTERED PROFESSIONAL LAND SURVEYOR

CERTIFICATE OF OWNERSHIP AND DEDICATION

I HEREBY CERTIFY THAT I AM THE OWNERS OF THE REAL PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I HEREBY ADOPT THIS PLAN OF SUBDIVISION AND BY MY FREE CONSENT DEDICATE ALL RIGHTS-OF-WAYS AND PUBLIC AREAS TO PUBLIC USE AND GRANT ALL EASEMENTS TO THE USE SHOWN.

KIM HANSEN
32351 SALMON RUN DRIVE
SOLDOTNA, ALASKA 99669

NOTARY ACKNOWLEDGEMENT

FOR: KIM HANSEN
ACKNOWLEDGED BEFORE ME

THIS _____ DAY OF _____,2022

NOTARY PUBLIC SIGNATURE

NOTARY STAMP AREA

RECORDER'S STAMP AREA 2.25" x 2.25"

KPB FILE No. 2022-000

HANSEN'S SALMON RUN SUBDIVISION

A SUBDIVISION OF
LOTS 3 BLOCK 4
KING RAPIDS SUBDIVISION
PLAT 76-173
KENAI RECORDING DISTRICT
AND
LOT 2-D
BROWN'S LAKE SUBDIVISION
PLAT 77-166
KENAI RECORDING DISTRICT

OWNERS:
KIM HANSEN
32351 SALMON RUN DRIVE
SOLDOTNA, ALASKA 99669

LOCATED WITHIN E 1/2 SECTION 20,
T.5N., R.8W. S.M.
STATE OF ALASKA
KENAI PENINSULA BOROUGH
KENAI RECORDING DISTRICT

CONTAINING 3.194 ACRES

EDGE SURVEY AND DESIGN, LLC
12501 OLD SEWARD, D ANCHORAGE, AK 99515
Phone (907) 344-5990 Fax (907) 344-7794
AECL# 1392

DRAWN BY: JY	DATE: 12/20/2021	PROJECT: 21-574
CHECKED BY: MA	SCALE: 1" = 50'	SHEET: 1 OF 1

AGENDA ITEM E. NEW BUSINESS

ITEM 2 - RIGHT OF WAY VACATION
PORTION OF WANDA AVENUE AND ASSOCIATED UTILITY EASEMENTS

KPB File No.	2021-168V
Planning Commission Meeting:	January 24, 2022
Applicant / Owner:	Kim M. Hansen of Soldotna, Alaska
Surveyor:	Jason Young, Mark Aimonetti / Edge Survey & Design, LLC
General Location:	Funny River area, Salmon Run Drive Sirius Street, Iceberg Street, Wanda Avenue
Legal Description:	Lot 3, Block 4, King Rapids Subdivision, Plat No. 76-173 and Lot 2-D, Brown's Lake Subdivision, Plat No 77-166, Kenai Recording District, Third Judicial District, State of Alaska.

STAFF REPORT

Specific Request / Purpose as stated in the petition: The right of way is undeveloped. The right of way is steep terrain over 20% incline. House and development near the proposed vacated right of way.

Notification: Public notice appeared in the January 13, 2022 issue of the Peninsula Clarion as a separate ad. The public hearing notice was published in the issue of the January 20, 2022 Peninsula Clarion as part of the Commission's tentative agenda.

The public notice was posted on the Planning Commission bulletin board at the Kenai Peninsula Borough George A. Navarre Administration building. Additional notices were mailed to the following with the request to be posted for public viewing.

Library of Soldotna Post Office of Soldotna

Eighteen certified mailings were sent to owners of property within 300 feet of the proposed vacation. Nine receipts had been returned when the staff report was prepared.

Public hearing notices were sent by regular mail to twelve owners within 600 feet of the proposed vacation.

Sixteen public hearing notices were emailed to agencies and interested parties as shown below;

State of Alaska Dept. of Fish and Game
State of Alaska DNR
State of Alaska DOT
State of Alaska DNR Forestry
Funny River Advisory Planning Commission
Central Emergency Services
Alaska Communication Systems (ACS)
ENSTAR Natural Gas
General Communications Inc. (GCI)
Homer Electric Association (HEA)

Legal Access (existing and proposed): Wanda Avenue is accessed from the end of Funny River Road to Salmon Run Drive to either Sirius Street or Iceberg Street. Salmon Run Drive is a 100 foot wide right of way maintained by KPB. Sirius Street and Iceberg Street are north-south right of ways that are located on the south side of Salmon Run Drive. Sirius Street and Iceberg Street are dedicated as 60 foot wide north of Wanda Avenue and 30 feet wide south of Wanda Avenue. Sirius Street appears to be partially cleared but neither it nor Iceberg Street are maintained by KPB.

Wanda Avenue is an east-west 60 foot wide right of way located between Sirius Street and Iceberg Street. Wanda Avenue is not improved or maintained by KPB.

The plat submitted to finalize the vacation indicates the intent is continue having two lots and to add the vacated portion of the right of way equally to each adjoining lot. The lots located to the east and west will have legal access from Wanda Avenue. If the vacation is approved, Wanda Avenue will no longer be a through right of way.

Turnaround areas are prosed at both ends of Wanda Avenue by dedicating a 30 foot by 40 foot right of way on the south side of the right of way. Existing improvements are located on the north side of Wanda Avenue. The proposed turnaround dedications will provide an offset hammerhead type turnaround.

The vacation will change the design of the block. Salmon Run Drive, Iceberg Street, Kara Megan Avenue, and Sirius Street will define the new block. It will be closed and all block lengths are compliant to KPB Code.

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: The RSA has no comment at this time.
SOA DOT comments	No comments.

Site Investigation: The plat provided for review of the vacation depicts the contour information. Slopes greater than 20 percent are located within both lots and within the existing dedicated right of way.

The low wet areas are depicted and labeled within the southeast corner of Lot 2-D, proposed Lot 2E. There do not appear to be any low wet areas within the proposed right of way vacation area. Low wet areas are present within Wanda Avenue to the east.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments

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Staff Analysis: Wanda Avenue was granted by two plats. Brown's Lake Subdivision, Plat KN 76-55, granted the southern 30 feet of the entire length of Wanda Avenue. King Rapids Subdivision, Plat KN 76-173, granted the northern 30 feet of the entire length of Wanda Avenue. Plat KN 77-166 further subdivided the lots created by Brown's Lake Subdivision, Plat KN 76-55. That plat created the current configuration of parent Lot 2-D.and the lots within that block.

The vacation will be eliminate a connection between Iceberg Street and Sirius Street. Kara Megan Avenue is located to the south and provides a connection between Iceberg Street and Sirius Street. The block defined by Salmon Run Drive, Iceberg Street, Kara Megan Avenue and Sirius Street will be a closed block that complies with the block length requirements.

Access will not be denied to any adjoining parcels as all parcels will front on a dedicated right of way. Lot 3A will have legal access to Salmon Drive on the north boundary and Wanda Avenue in the southeast and southwest corner. Lot 2E is not developed and will have legal access to Wanda Avenue at the northeast and northwest corner.

The proposed turnarounds will allow possible future dedications if Lot 2E is further subdivided. Lot 3A can be further subdivided and the proposed design will provide for multiple access points.

Per the submittal, and reviewing the KPB GIS imagery, a building is within the right of way or very close to the right of way. The same owner owns the lots north and south of the proposed vacation.

The right of way vacation application includes the associated utility easements. The parent plats established 20 foot building setbacks adjoining the dedicated right of ways but there are no notes regarding utility easements being granted adjoining the right of ways. The plat that will finalize the subdivision will be required to grant a minimum 10 foot utility easement adjoining all dedicated right of ways. There is an easement granted by document to Homer Electric Association but no definite location disclosed. A plat note for the easement of record will be required with the easement information.

20.65.050 – Action on vacation application

D. The planning commission shall consider the merits of each vacation request and in all cases the planning commission shall deem the area being vacated to be of value to the public. It shall be incumbent upon the applicant to show that the area proposed for vacation is no longer practical for the uses or purposes authorized, or that other provisions have been made which are more beneficial to the public. In evaluating the merits of the proposed vacation, the planning commission shall consider whether:

1. The right-of-way or public easement to be vacated is being used;
   Staff comments: The right of way is not constructed and does not appear to be used.

2. A road is impossible or impractical to construct, and alternative access has been provided;
   Staff comments: Steep terrain affects the right of way but the terrain would not prohibit the construction of a road. A structure appears to be very close to, or encroaching within, the right of way. The alternative access between Sirius Street and Iceberg Street is Kara Megan Avenue.

3. The surrounding area is fully developed and all planned or needed rights-of-way and utilities are constructed;
   Staff comments: The surrounding is not fully developed. Right of ways and utility easements have been provided to allow for future development. Large acreage parcels are located to the east and west of Wanda Avenue and when further subdivided will be required to provide the matching right of way for Iceberg Street and Sirius Street.

4. The vacation of a public right-of-way provides access to a lake, river, or other area with public interest or value, and if so, whether equal or superior access is provided;
   Staff comments: This right of way does not provide access to any public interest areas or waterbodies.

5 The proposed vacation would limit opportunities for interconnectivity with adjacent parcels, whether developed or undeveloped;
   Staff comments: This vacation will break one connection between Iceberg Street and Sirius Street. Kara Megan Avenue, located to the south, provides a connection between Iceberg Street and Sirius Street. All nearby lots will have legal access from a dedicated right of way.

6. Other public access, other than general road use, exist or are feasible for the right-of-way;
   Staff comments: Other public access, such as pedestrian use, is feasible within the right of way. Other dedicated right of ways provide adequate access.

7. All existing and future utility requirements are met. Rights-of-way which are utilized by a utility, or which logically would be required by a utility, shall not be vacated, unless it can be demonstrated that equal or superior access is or will be available. Where an easement would satisfactorily serve the utility interests, and no other public need for the right-of-way exists, the commission may approve the vacation and require that a utility easement be granted in place of the right-of-way.
   Staff comments: Utility easements were not granted along the right of way. With proper permitting, utility lines can be placed in the outer 10 feet of dedicated of ways. The proposed plat will grant utility easements along any dedicated right of ways.

8. Any other factors that are relevant to the vacation application or the area proposed to be vacated.
   Staff comments: There is a structure within or near the right of way.

A KPB Planning Commission decision denying a vacation application is final. A KPB Planning Commission decision to approve the vacation application is subject to consent or veto by the KPB Assembly or City Council if located within City boundaries. The KPB Assembly or City Council must hear the vacation within thirty days of the Planning Commission decision.

If the vacation is approved, the Assembly will hear the vacation at their scheduled February 15, 2022 meeting.

If approved, a plat will finalize the proposed right of way vacations. The plat is scheduled to be reviewed by the Planning Commission on January 24, 2022 as the surveyor has requested both the plat and this right of way vacation be heard at the same meeting.

KPB department / agency review:

Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Addressing	Reviewer: Haws, Derek Affected Addresses: 32351 SALMON RUN DR Existing Street Names are Correct: Yes List of Correct Street Names: SALMON RUN DR WANDA AVE Existing Street Name Corrections Needed: All New Street Names are Approved: Yes List of Approved Street Names: List of Street Names Denied: Comments: 32351 SALMON RUN DR will remain with lot 3A.
Assessing	Reviewer: Bruns, Matthew Comments: Assessing concern that adjacent parcel 06633004 will have access from Iceberg Street (currently platted) and width of road may not meet KPB road standards.
Advisory Planning Commission	The minutes were not available when the staff report was prepared.

Utility provider review:

HEA	
ENSTAR	No comments or recommendations
ACS	
GCI	Approved as shown.

RECOMMENDATION:

Based on consideration of the merits as per KPB 20.65.050(D) as outlined by Staff comments, Staff recommends APPROVAL as petitioned, subject to:

1. Consent by KPB Assembly.
2. Compliance with the requirements for preliminary plats per Chapter 20 of the KPB Code.
3. Grant utility easements requested by the utility providers.
4. Submittal of a final plat within a timeframe such that the plat can be recorded within one year of vacation consent (KPB 20.70.130).

KPB 20.65.050 – Action on vacation application

H. A planning commission decision to approve a vacation is not effective without the consent of the city council, if the vacated area to be vacated is within a city, or by the assembly in all other cases. The council or assembly shall have 30 days from the date of the planning commission approval to either consent to or veto the vacation. Notice of veto of the vacation shall be immediately given to the planning commission. Failure to act on the vacation within 30 days shall be considered to be consent to the vacation. This provision does not apply to alterations of utility easements under KPB 20.65.070 which do not require the consent of the assembly or city council unless city code specifically provides otherwise.

I. Upon approval of the vacation request by the planning commission and no veto by the city council or assembly, where applicable, the applicant shall have a surveyor prepare and submit a plat including the entire area approved for vacation in conformance with KPB 20.10.080. Only the area approved for vacation by the assembly or council may be included on the plat. The final plat must be recorded within one year of the vacation consent.

J. A planning commission decision denying a vacation application is final. No reapplication or petition concerning the same vacation may be filed within one calendar year of the date of the final denial action except in the case where new evidence or circumstances exist that were not available or present when the original petition was filed.

K. An appeal of the planning commission, city council or assembly vacation action under this chapter must be filed in the superior court in accordance with the Alaska Rules of Appellate Procedure.

The 2019 Kenai Peninsula Borough Comprehensive Plan adopted November, 2019 by Ordinance No. 2019-25. The relevant objectives are listed.

Goal 3. Preserve and improve quality of life on the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.

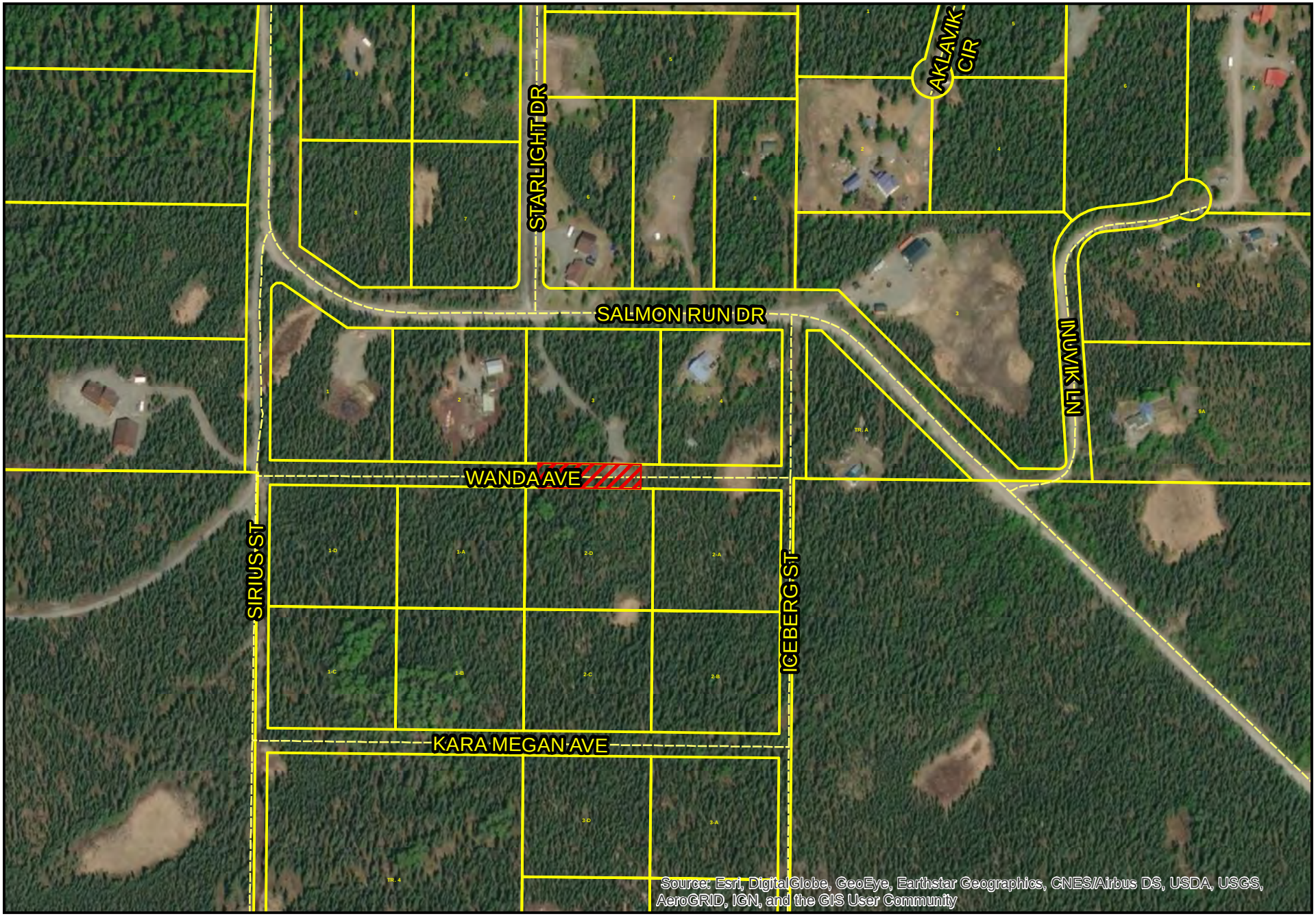
- *Focus Area: Energy and Utilities*
    - *Objective A - Encourage coordination or residential, commercial, and industrial development with extension of utilities and other infrastructure.*

        - *Strategy 1. Near – Term: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.*
        - *Strategy 2. Near – Term: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.*
        - *Strategy 3. Near – Term: Identify potential utility routes on Borough lands.*
- *Housing*
    - *Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.*
        - *Strategy 1. Near – Term: Collaborate with the AK Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to the undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.*

Goal 4. Improve access to, from and connectivity within the Kenai Peninsula Borough

- *Focus Area: Transportation*
    - *Objective B. Ensure new roads are developed in alignment with existing and planned growth and development.*
        - *Strategy 2. Near – Term: Establish subdivision codes that dictate road construction standards to accommodate future interconnectivity and/or public safety.*
        - *Strategy 3. Near – Term: Identify areas of anticipated growth to determine future access needs.*

END OF STAFF REPORT



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

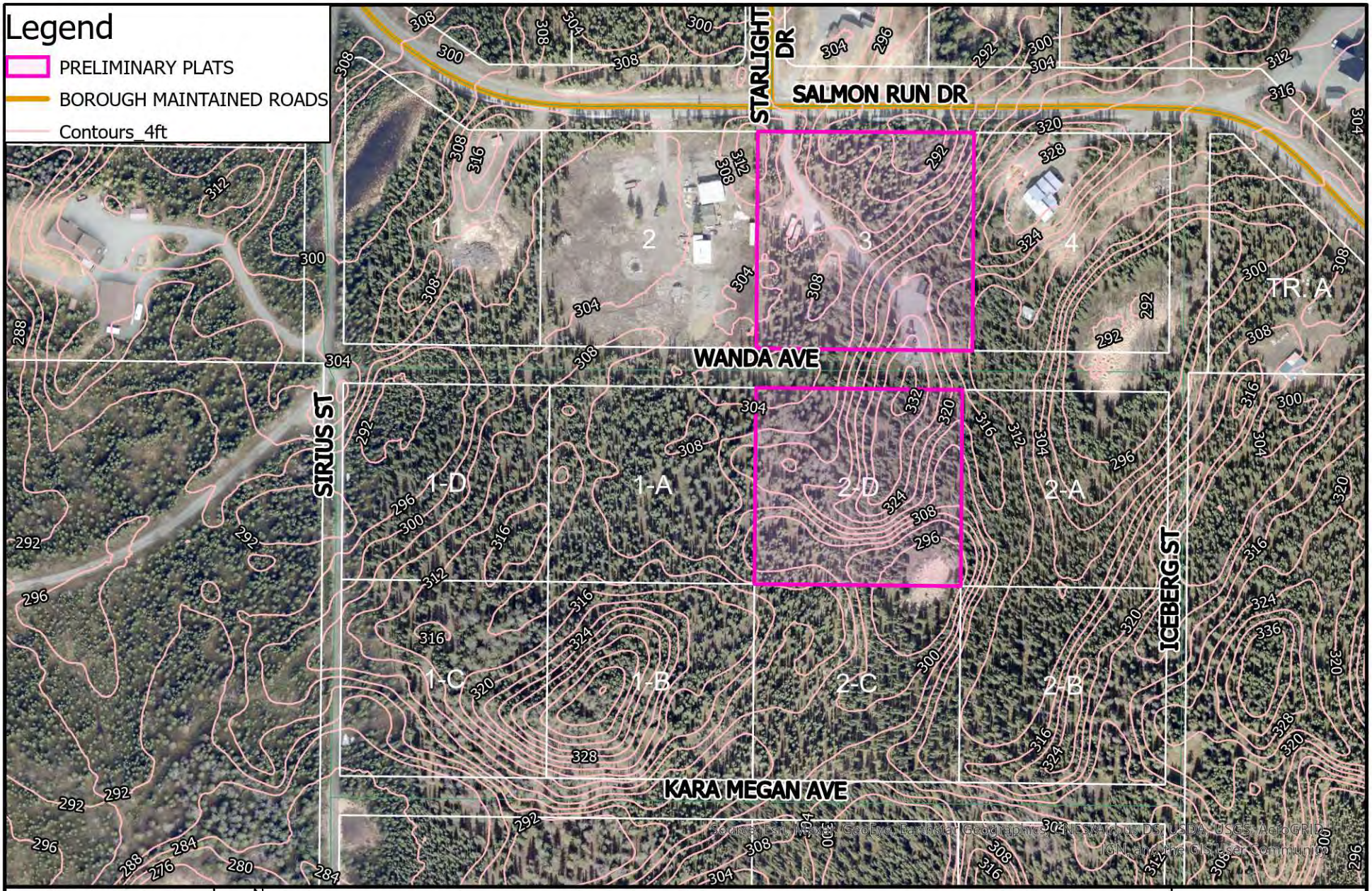
0 112.5 225 450 '

Aerial View

N

Right of Way Vacation

PClements, KPB 2021-168V
Imagery World



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

N W E S

Miles
0 0.03 0.06 0.11

AERIAL IMAGERY 2021

CONTOUR DATA

Date: 5/28/2021
1:50 PM
Scott Huff
Platting Manager

Kenai Peninsula Borough Planning Department

Wetlands

Date: 1/6/2022

N

Wanda Avenue Right of Way Vacation
KPB File 2021-168V



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

SKUSET-PETERSEN SUBD.

KING RAPIDS SUBD.

MORGAN'S ACRES SUBD.

UNSUBDIVIDED

UNSUBDIVIDED

UNSUBDIVIDED

FERGUSON SUBD.

UNSUBDIVIDED

C 1/4 SEC 20 T5N R8W 1974 — C 1/4 COR.

CE 1/16 SEC 20 T5N R8W 1974 — CE 1/16 COR.

1/4 S20 S21 1939 — 1/4 COR. 20 21

Wanda Avenue — N89°54'00"W, 1320.00' (P76-173) (BASIS OF BEARINGS) — 1259.98' — N89°57'05"W, 1320.76'

315.00'	314.99'	314.99'	315.00'	
1D 2.168 Ac.	1A 2.168 Ac.	2D 2.167 Ac.	2A 2.167 Ac.	
N00°10'40"W, 299.79'	N00°10'12"W, 299.77'	N00°09'45"W, 299.75'	N00°09'45"W, 299.72'	
299.81	299.81	299.81	299.72'	
N89°54'17"W, 314.96'	N89°54'17"W, 314.95'	N89°54'17"W, 314.95'	N89°54'17"W, 314.96'	
599.61'	599.61'	599.61'	599.44'	659.44'
1C 2.168 Ac.	1B 2.168 Ac.	2C 2.167 Ac.	2B 2.167 Ac.	
N00°10'40"W, 299.78'	N00°10'12"W, 299.76'	N00°09'45"W, 299.74'	N00°09'45"W, 299.72'	
299.80'	299.80'	299.80'	299.72'	
314.92'	314.91'	314.92'	314.92'	

5' Clearing & Utility Easement

1259.67' — N89°54'28"W, 1319.65'

Wayne Avenue — 629.82' — 659.83' — 629.81'

30' Public Road Easement, Recorded in Book ____ at Page ____

314.90'	314.91'			
3D 2.167 Ac.	3A 2.167 Ac.			
N00°10'12"W, 629.53'	N00°09'45"W, 299.75'			
299.77'	299.72'			
N89°54'42"W, 314.86'	N89°54'42"W, 314.87'			
599.53'	599.44'	659.44'		
3C 2.167 Ac.	3B 2.167 Ac.			
N00°09'45"W, 299.74'	N00°09'45"W, 299.72'			
299.76'	299.72'			
629.66'	314.83'	314.83'	629.66'	

5' Clearing & Utility Easement

Lot 4

Alpine Avenue — N89°54'56"W, 1319.30' — Blue Glacier Lake Brown's Street

629.64'	314.82'	314.82'	629.64'	
5D 2.167 Ac.	5A 2.167 Ac.			
N00°10'40"W, 299.79'				
299.81	299.77'			
N89°55'10"W, 314.78'	N89°55'10"W, 314.78'			
599.61'	599.53'	659.44'		
5C 2.166 Ac.	5B 2.166 Ac.			
N00°10'40"W, 299.78'				
299.80'	299.76'			
629.48'	314.74'	314.74'	629.47'	

5' Clearing & Utility Easement

Lot 6

30' Public Road Easement, Recorded in Book ____ at Page ____

Mary Lou Avenue — N89°55'23"W, 1318.94' — 1258.92' — 629.47'

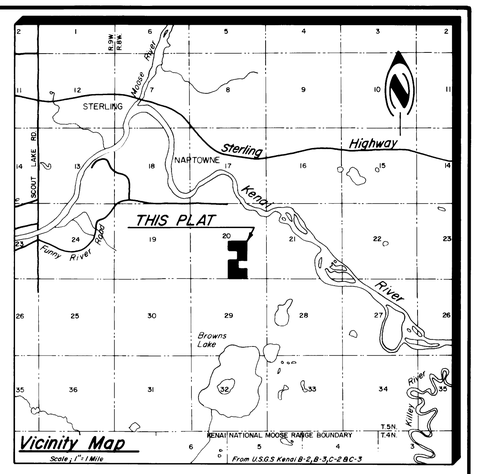
450.00'	370.00'		198.92'	240.00'		
8D 2.114 Ac.	8A 1.963 Ac.		7D 2.233 Ac.	7A 2.066 Ac.		
N00°11'07"W, 204.62'		N20°58'27"E, 344.44'				
204.62'						
N89°55'23"W, 450.00'						
240.00'	210.00'	120.00'				
N64°33'25"W, 277.87'						
N64°33'25"W, 277.87'						
659.62' 579.62'			120.00'	210.00'	240.00'	
375.00'			N00°09'17"W, 375.03'		375.00'	579.44' 659.44'
8C 2.066 Ac.	8B 2.231 Ac.	N20°07'48"E, 344.41'	7C 1.962 Ac.		7B 2.112 Ac.	
N00°11'07"W, 374.97'			N00°09'17"W, 204.44'			
204.44'						
240.00'	198.62'	370.00'			450.00'	

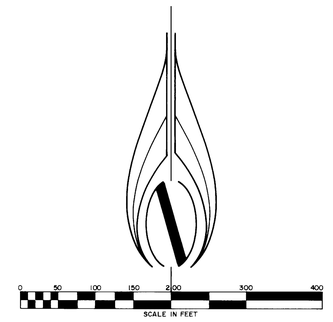
5' Clearing & Utility Easement

1258.62'

610 S 1/4 S20 T5N R8W 1974 — 1/4 COR. 20 29

Leann Avenue — N89°55'51"W, 1318.59' — S 1/16 COR. — N89°55'51"W, 1318.59' — 20 21 29 28 SEC. COR.





NOTE:

NO STRUCTURE MAY BE PLACED NEARER THAN 20 FEET FROM ANY DEDICATED RIGHT-OF-WAY HEREON.

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, UTILITY EASEMENTS AND OTHER OPEN SPACES TO TO PUBLIC USE. DATE Sept 15, 1977

Wayne D. Jack — WAYNE D. JACK, 629 'I' STREET #201, ANCHORAGE, ALASKA

Jack Brainard — JACK BRAINARD, 221 E. 7th AVE. # 106, ANCHORAGE, ALASKA

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 15th DAY OF September, 1977

W. Ray Niemi — NOTARY FOR ALASKA — MY COMMISSION EXPIRES 7-15-79

W. RAY NIEMI NOTARY PUBLIC STATE OF ALASKA

SURVEYOR'S CERTIFICATE

I, W. RAY NIEMI, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS AND CORNERS HEREON ACTUALLY EXIST AS LOCATED AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

W. RAY NIEMI 4027-S

PLAT APPROVAL

THIS PLAT HAVING BEEN APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AS RECORDED IN THE OFFICIAL MINUTES OF THE MEETING OF Oct. 24, 1977, IS HEREBY ADKNOWLEDGED AND ACCEPTED AS THE OFFICIAL PLAT, SUBJECT TO ANY AND ALL CONDITIONS AND REQUIREMENTS OF ORDINANCES AND LAW APPERTAINING THERETO.

KENAI PENINSULA BOROUGH BY Philip Waring

WATER SUPPLY AND SEWAGE DISPOSAL

THIS SUBDIVISION, AT THE TIME OF FILING, IS NOT SERVED BY PUBLIC WATER AND/OR SEWAGE DISPOSAL FACILITIES. NO ON-SITE WATER AND/OR SEWAGE DISPOSAL FACILITIES MAY BE CONSTRUCTED WITHOUT PRIOR APPROVAL OF THE ALASKA DEPARTMENT OF ENVIORONMENTAL CONSERVATION.

LEGEND

- ✠ = G.L.O. BRASS CAPPED MONUMENT RECOVERED THIS SURVEY
- ◒ = MONUMENT, STAMPED AS SHOWN, RECOVERED THIS SURVEY
- ◔ = 2" ALUMINUM SURV-KAP, STAMPED AS SHOWN, ON 5/8" x 30" REBAR SET 29" IN GROUND THIS SURVEY
  ALL OTHER CORNERS ARE 5/8" X 30" REBAR

PLAT OF

LOTS 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 5A, 5B, 5C, 5D, 7A, 7B, 7C, 7D, 8A, 8B, 8C, & 8D BROWN'S LAKE SUBDIVISION

A RESUBDIVISION OF LOTS 1, 2, 3, 5, 7 & 8 BROWN'S LAKE SUBDIVISION LOCATED WITHIN W1/2 SE1/4 SEC. 20, T5N, R8W, S.M., ALASKA COMPRISING 60.000 ACRES MORE OR LESS.

PREPARED BY

W. RAY NIEMI & ASSOCIATES

ANCHORAGE & PALMER, ALASKA

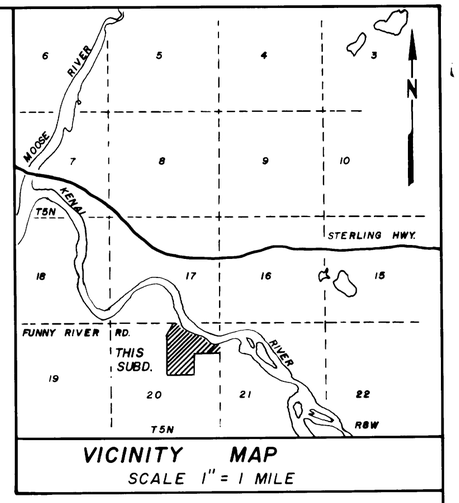
DATE May 2, 1977 — SCALE 1" = 100'

DRAWN servA drafting service — SHEET 1 OF 1 F.B. ___ PG. ___

CURVE DATA

CURVE	DELTA	RAD.	TAN.	ARC.	CH.
①	124°04'03"	20.00	37.67	43.31	35.33
②	90°00'00"	20.00	20.00	31.42	28.28
③	39°27'00"	300.00	107.56	206.56	202.50
④	90°06'07"	20.00	20.04	31.45	28.31
⑤	89°53'53"	20.00	19.96	31.38	28.26
⑥	85°11'00"	20.00	18.39	29.74	27.07
⑦	95°07'34"	20.00	21.87	33.21	29.52
⑧	46°24'26"	20.00	8.57	16.20	15.76
⑨	90°04'05"	20.00	20.02	31.44	28.30
⑩	39°12'45"	500.00	178.10	342.20	335.55





VICINITY MAP
SCALE 1" = 1 MILE

STATE OF ALASKA 49TH
MICHAEL P. McLANE
3932-S
REGISTERED PROFESSIONAL LAND SURVEYOR

N

LEGEND AND NOTES

- Found G.L.O. B.C. monument.
- Set Official Survey monument (2 1/2" Al. mon.)
- ⊥ Set 1/2" X 24" steel rebar at all lot corners

All bearings refer to the North boundary of Section 20 as being N 89° 54' 20" W — assumed datum.

Datum of record shown thus ( ).

All lots are subject to a 20' building set back along all dedicated rights of way

CERTIFICATE OF OWNERSHIP AND DEDICATION

We hereby certify that we are the owners of said property, and request the approval of this plat showing such easements for public utilities, roadways, and or streets dedicated by us for public use.

John S. Vania — owner — 4006 Arkansas Dr, Anchorage, Alaska 99503

Patricia Vania — owner

NOTARY'S ACKNOWLEDGEMENT
Subscribed and sworn before me this 13 day of September, 1976.
My commission expires August 3 1977
Notary public for Alaska

Frances Rausch — owner

Robert A. Rausch — 638 Gold St., Juneau, Ak. 99801 — owner

NOTARY'S ACKNOWLEDGEMENT
Subscribed and sworn before me this 13 day of September, 1976.
My commission expires August 3 1979
Notary public for Alaska

76-173
6
KENAI
12-16
2:22
KPB
76

Alice Propes — owner — Box 780, Willamina, Oregon 97396

NOTARY'S ACKNOWLEDGEMENT
Subscribed and sworn before me this 14th day of October, 1976. My commission expires 1-21-77
Donna L. Cook
Oregon
Notary public for

PLAT APPROVAL

Plat approved by the Commission this 9th day of August, 1976.
Donald E. Gilman
Mayor or Planning Director

KING RAPIDS SUBDIVISION

John S. Vania owner
4006 Arkansas Drive, Anchorage Ak. 99503

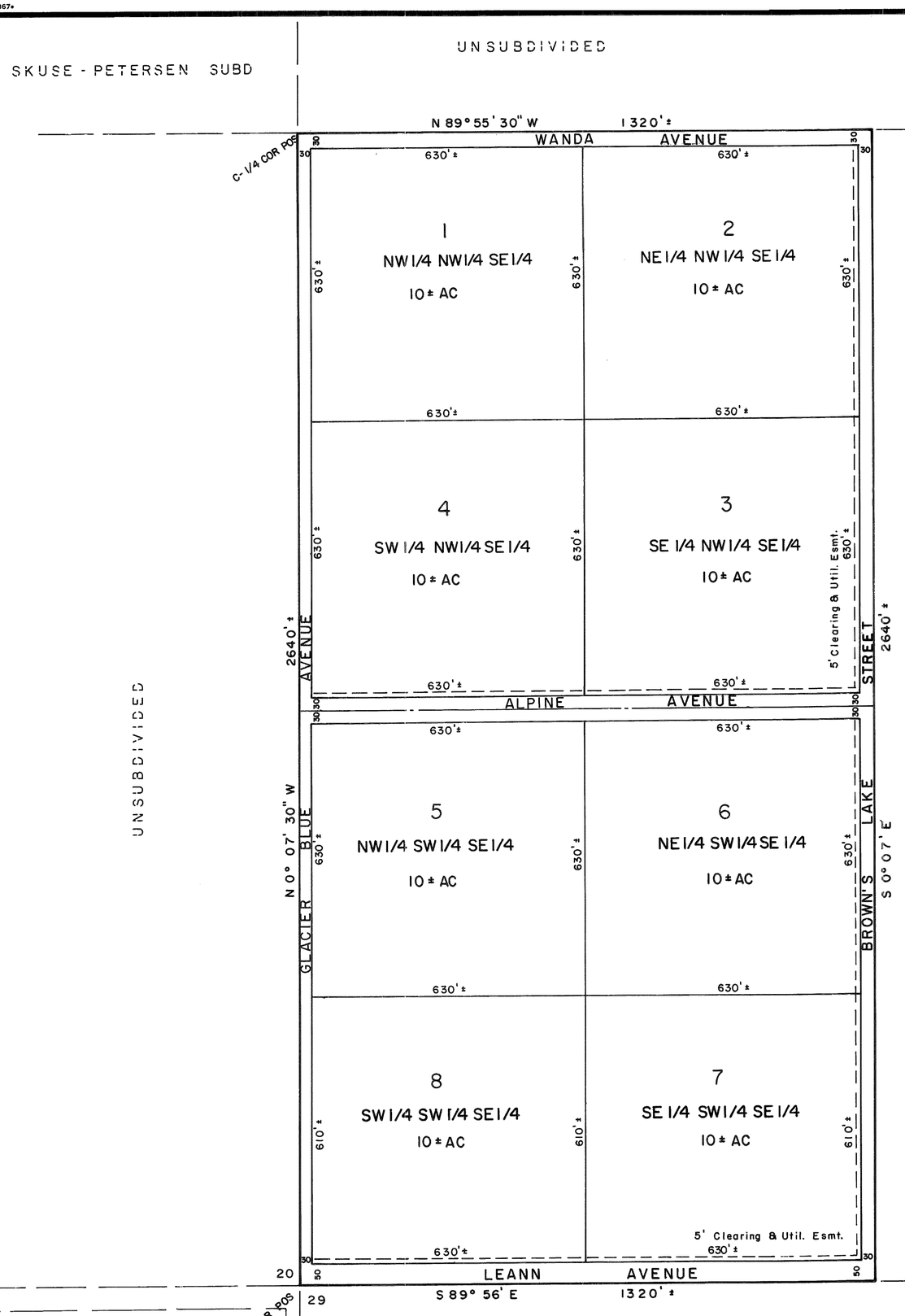
DESCRIPTION

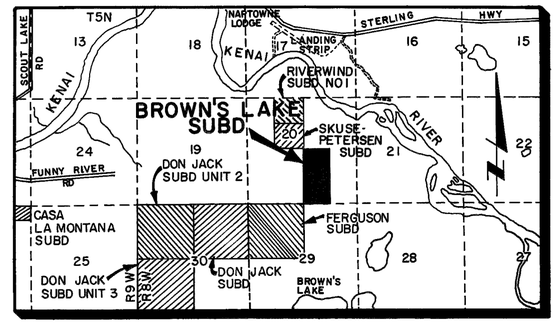
92.527 ACRES SITUATED IN LOTS 2,3 and SW1/4 NE1/4 SEC. 20, T5N, R8W S.M. AK. AND THE KENAI PENINSULA BOROUGH.

Surveyed by: McLane and Associates

DATE OF SURVEY	SCALE	BK. NO
6/1 — 8/2/76	1" = 200'	74-02

K&E 19 1253 6-71 46367•





VICINITY MAP
1" = 1 Mile

NOTES

1. Acreage shown on all tracts within this subdivision includes the adjacent road right-of-way.
2. All bearings and distances shown are based on protracted values and are approximate only.
3. A minimum 20 foot building setback exists along all road rights-of-way.
4. This subdivision at the time of filing is not served by public water and/or sewage facilities. No on-site water and/or sewage disposal facilities may be constructed without prior approval of the Alaska Department of Environmental Conservation.
5. NO FIELD SURVEY WAS MADE nor were any stakes or monuments set.

CERTIFICATE OF OWNERSHIP & DEDICATION

We hereby certify that we are the owners of the property shown and described hereon. We hereby request approval of this plat, showing such easements for public utilities, roadways and alleys dedicated by us for public use.

Donald L. Jack for WAYNE D JACK POA
Donald L. Jack
629 L Street #201
Anchorage, Alaska

NOTARY'S ACKNOWLEDGMENT

Subscribed and sworn before me this 3rd day of May, 1976

Fred Walatka
Notary for Alaska

My Commission expires Oct. 4, 1978

FRED WALATKA NOTARY PUBLIC STATE OF ALASKA

PLAT APPROVAL

I hereby certify that this subdivision plat has been found to comply with the regulations of the Kenai Peninsula Borough and that said plat has been approved by the Kenai Peninsula Borough Planning Commission.

February 23, 1976 Donald E Gilman
Date — Borough Mayor

SURVEYOR'S CERTIFICATE

I hereby certify that I am a registered land surveyor and that this plat was prepared by me and is based on a subdivision of the W 1/2 SE 1/4 Sec. 20, T 5 N, R 8W, S.M., Alaska, as shown hereon. No corners have been established for any of the tracts within this subdivision.

May 3 1976 Fred Walatka
Date — Surveyor

STATE OF ALASKA SURVEYOR Fred Walatka NO. 3255-S REGISTERED PROFESSIONAL LAND SURVEYOR

K-55
RECORDED - FILED
Kenai REC. DIST.
DATE 5/17 1976
TIME 9:35 A M
Requested by KRB
Address

AREA 80 ± AC

PLAT OF
BROWN'S LAKE SUBDIVISION
AN ALIQUOT PARTS SUBDIVISION

LOCATED IN
W1/2 SE 1/4 Sec. 20, T 5 N, R 8W, S.M., Alaska

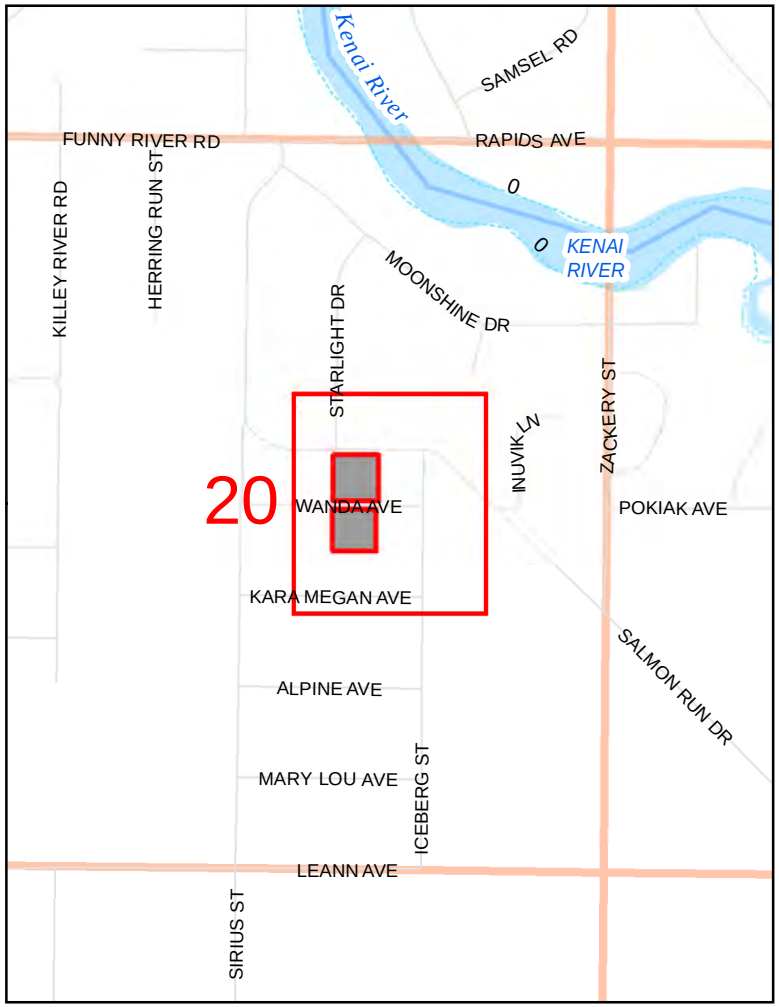
FRED WALATKA & ASSOCIATES
ENGINEERS — SURVEYORS
3107 W. 29th Avenue Anchorage, Alaska

DATE:	FEBRUARY 1976	SCALE:	1" = 200'
DRAWN:	DS	SHEET:	1 OF 1
CHECKED:	FW	GRID:	USGS KENAI (C-2) QUAD

FB - p

KN 76-55





0 1,000 2,000 4,000 Feet

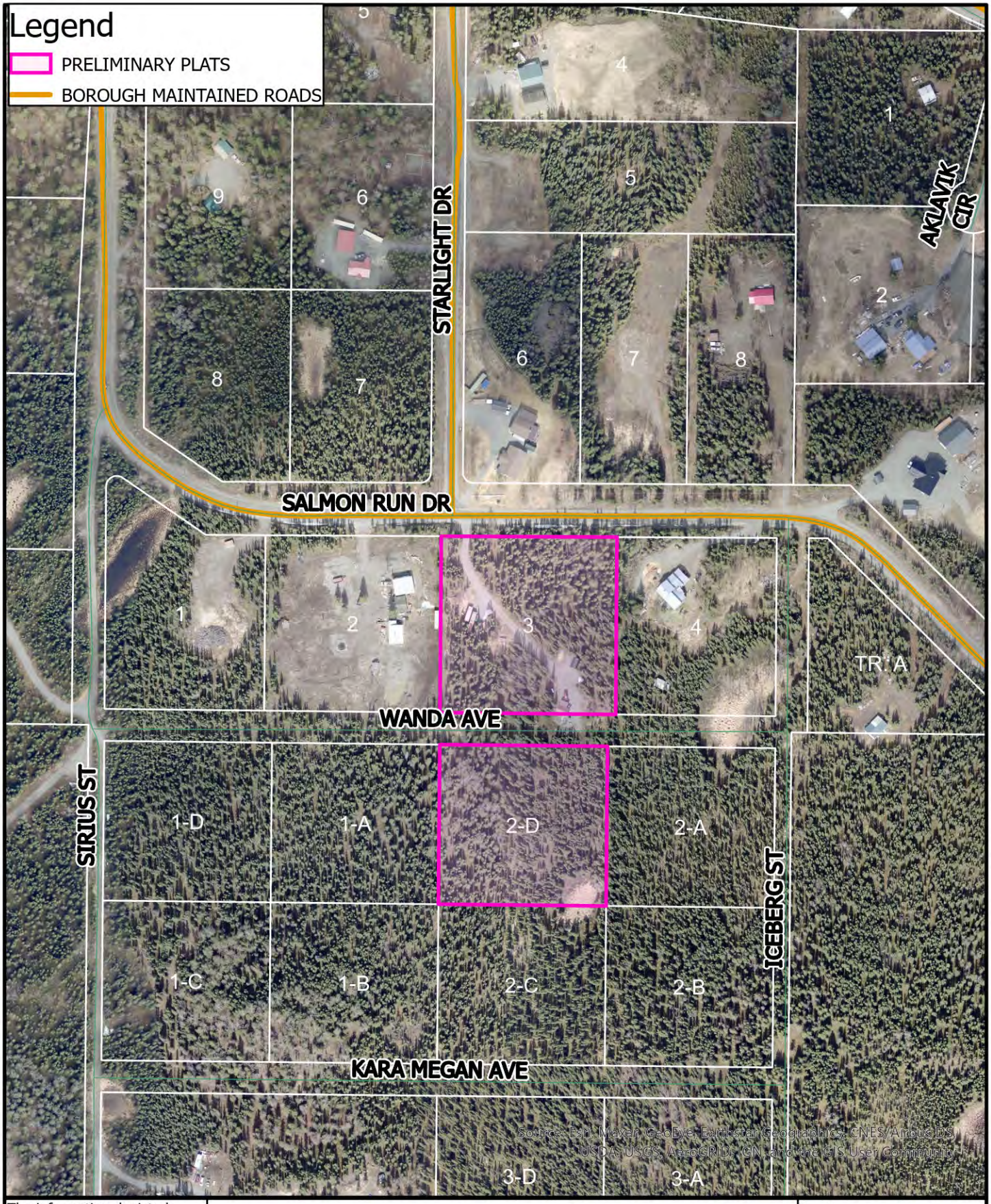
0 150 300 600 '

N

KPB 2021-168
S20 T05N R08W
Funny River

The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

PClements, KPB 2021-168 Date: 12/28/2021



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

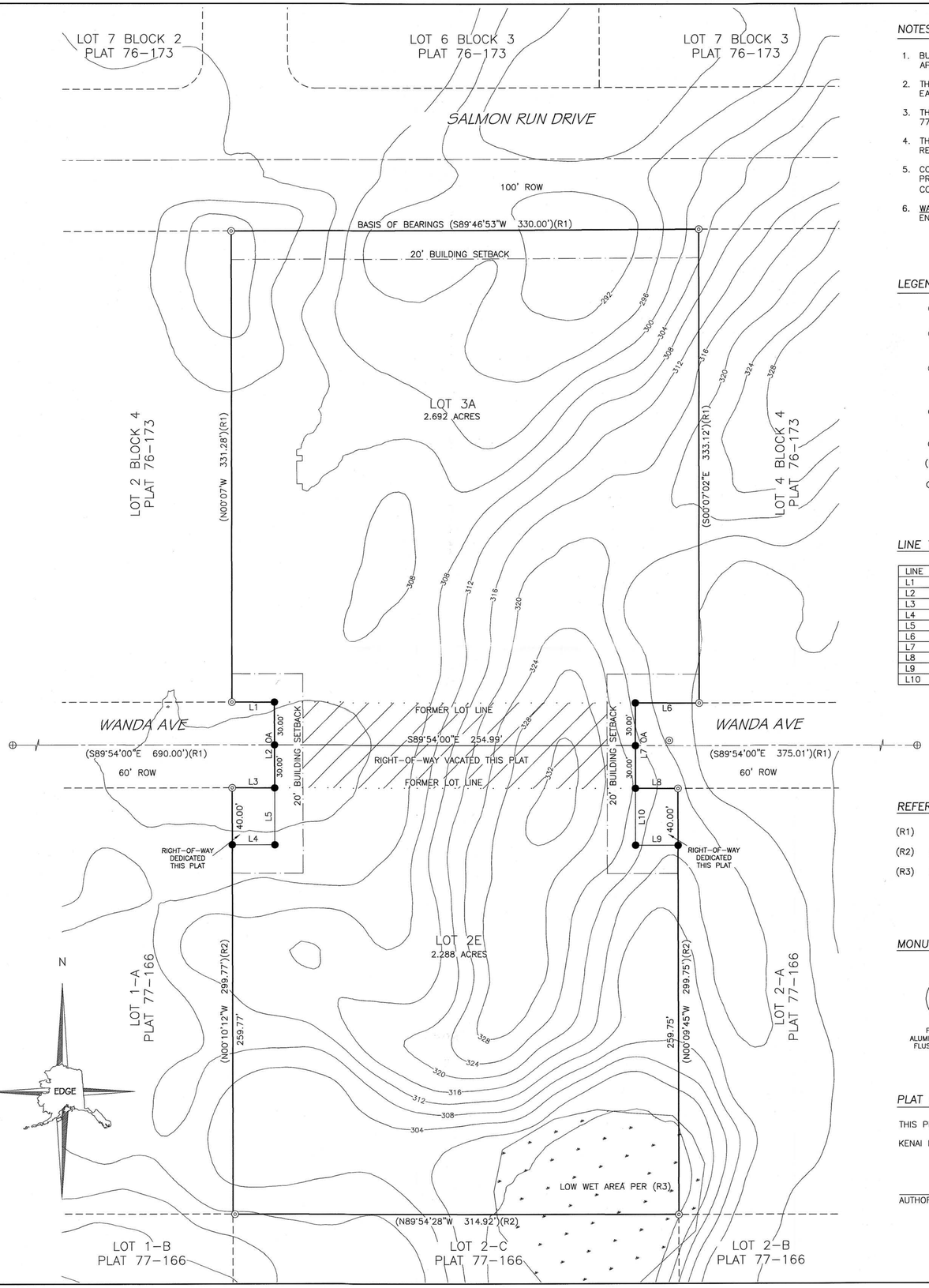
AERIAL IMAGERY 2021

Miles

0 0.03 0.07 0.13

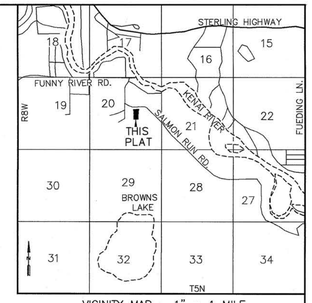
N W E S

Date:
Scott Huff,
Platting Manager,
KPB



NOTES

1. BUILDING SETBACK – A SETBACK OF 20 FEET IS REQUIRED FROM ALL STREET RIGHTS-OF-WAY UNLESS A LESSER STANDARD IS APPROVED BY RESOLUTION OF THE APPROPRIATE PLANNING COMMISSION.
2. THE FRONT 15 FEET ADJACENT TO THE RIGHTS-OF-WAY IS A UTILITY EASEMENT. NO PERMANENT STRUCTURE SHALL BE CONSTRUCTED OR PLACED WITHIN A UTILITY EASEMENT WHICH WOULD INTERFERE WITH THE ABILITY OF A UTILITY TO USE THE EASEMENT.
3. THE KENAI PENINSULA BOROUGH PLANNING COMMISSION APPROVED THE VACATION OF A PORTION OF WANDA AVENUE GRANTED BY PLAT KN 76-173 AND PLAT KN 77-166, AT THE MEETING OF JANUARY 24, 2022.
4. THIS SUBDIVISION IS SUBJECT TO A GENERAL ELECTRICAL EASEMENT GRANTED TO HOMER ELECTRIC ASSOCIATION ON JUNE 4, 1963 IN BOOK 10 PAGE 160, KENAI RECORDING DISTRICT.
5. COVENANTS, CONDITIONS AND RESTRICTIONS, INCLUDING THE TERMS AND PROVISIONS THEREOF, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN TO THE EXTENT SUCH COVENANT, CONDITION OR RESTRICTION VIOLATES 42 USC 3604 (C), AS CONTAINED IN AN INSTRUMENT: RECORDED: DECEMBER 31, 1975 VOLUME/PAGE: 91/600.
6. WASTEWATER DISPOSAL: ANY WASTEWATER TREATMENT AND DISPOSAL SYSTEM MUST MEET THE REGULATORY REQUIREMENTS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.



VICINITY MAP 1" = 1 MILE

LEGEND

⊕	FOUND PRIMARY MONUMENT AS REFERENCED	———	SUBDIVISION BOUNDARY
○	FOUND SECONDARY MONUMENT 5/8" REBAR	———	INTERIOR LOT LINE
◎	FOUND SECONDARY MONUMENT 5/8" REBAR WITH PLASTIC CAP STAMPED	- - - - -	ADJACENT PROPERTY LINE
●	SET SECONDARY MONUMENT 5/8" X 30" REBAR WITH 2" ALUMINUM CAP STAMPED EDGE SURVEY LS-13022 2021	—·—·—	CENTERLINE RIGHT OF WAY
OA	OVER ALL	—·—·—	20 FOOT BUILDING SETBACK
(R#)	RECORD DATA, SEE REFERENCE	- - - - -	EASEMENT
(#)	MONUMENT REFERENCE	.....	FORMER LOT LINE
		—·—·—	SLOPES OVER 20%
		▨	RIGHT OF WAY BEING VACATED

LINE TABLE

LINE	BEARING	DISTANCE
L1	S89°54'00"E	29.97'
L2	S00°10'12"E	60.00'
L3	S89°54'00"E	30.00'
L4	S89°54'00"E	30.00'
L5	S00°10'12"E	40.00'
L6	S89°54'00"E	45.03'
L7	N00°09'48"W	60.00'
L8	N89°54'00"W	30.00'
L9	N89°54'00"W	30.00'
L10	S00°09'48"E	40.00'

REFERENCES

(R1) BROWNS LAKE SUBDIVISION, PLAT NO. 77-166, KENAI RECORDING DISTRICT

(R2) KING RAPIDS SUBDIVISION, PLAT NO. 76-173, KENAI RECORDING DISTRICT

(R3) KENAI WATERSHED FORUM WETLAND ASSESSMENT

MONUMENT REFERENCES

① C 1/4 S20 3932-S 1976 — FOUND 2-1/2" ALUMINUM MONUMENT FLUSH WITH GRADE

② CE 1/16 S20 3932-S 1976 — FOUND 2-1/2" ALUMINUM MONUMENT FLUSH WITH GRADE

PLAT APPROVAL

THIS PLAT WAS APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AT THE MEETING OF DECEMBER 13, 2021.

KENAI PENINSULA BOROUGH

AUTHORIZED OFFICIAL

KPB 2021-168

CERTIFICATE OF SURVEYOR

I, MARK AIMONETTI 13022-S, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THIS SURVEY ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF ALASKA ★ 49TH ★ PRELIMINARY Mark A. Aimonetti No. 13022 – S REGISTERED PROFESSIONAL LAND SURVEYOR

CERTIFICATE OF OWNERSHIP AND DEDICATION

I HEREBY CERTIFY THAT I AM THE OWNERS OF THE REAL PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I HEREBY ADOPT THIS PLAN OF SUBDIVISION AND BY MY FREE CONSENT DEDICATE ALL RIGHTS-OF-WAYS AND PUBLIC AREAS TO PUBLIC USE AND GRANT ALL EASEMENTS TO THE USE SHOWN.

KIM HANSEN
32351 SALMON RUN DRIVE
SOLDOTNA, ALASKA 99669

NOTARY ACKNOWLEDGEMENT

FOR: KIM HANSEN
ACKNOWLEDGED BEFORE ME

THIS _____ DAY OF _____,2022

NOTARY PUBLIC SIGNATURE

NOTARY STAMP AREA

RECORDER'S STAMP AREA 2.25" × 2.25"

KPB FILE No. 2022-000

HANSEN'S SALMON RUN SUBDIVISION

A SUBDIVISION OF
LOTS 3 BLOCK 4
KING RAPIDS SUBDIVISION
PLAT 76-173
KENAI RECORDING DISTRICT
AND
LOT 2-D
BROWN'S LAKE SUBDIVISION
PLAT 77-166
KENAI RECORDING DISTRICT

OWNERS:
KIM HANSEN
32351 SALMON RUN DRIVE
SOLDOTNA, ALASKA 99669

LOCATED WITHIN E 1/2 SECTION 20,
T.5N., R.8W. S.M.
STATE OF ALASKA
KENAI PENINSULA BOROUGH
KENAI RECORDING DISTRICT

CONTAINING 3.194 ACRES

EDGE SURVEY AND DESIGN, LLC
12501 OLD SEWARD, D ANCHORAGE, AK 99515
Phone (907) 344-5990 Fax (907) 344-7794
AECL# 1392

DRAWN BY: JY	DATE: 12/20/2021	PROJECT: 21-574
CHECKED BY: MA	SCALE: 1" = 50'	SHEET: 1 OF 1

AGENDA ITEM E. NEW BUSINESS

ITEM 3 - HANSEN'S SALMON RUN SUBDIVISION

KPB File No.	2021-168
Plat Committee Meeting:	January 24, 2022
Applicant / Owner:	Kim M. Hansen of Soldotna, Alaska
Surveyor:	Jason Young, Mark Aimonetti / Edge Survey and Design, LLC
General Location:	Salmon Run Drive, Wanda Avenue and Iceberg Street, Funny River

Parent Parcel No.:	066-270-02 and 066-330-03
Legal Description:	Lot 3, Block 4, King Rapids Subdivision, Plat No. 76-173 and Lot 2-D, Brown's Lake Subdivision, Plat No 77-166, Kenai Recording District
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat reconfigures two lots by finalizing a right of way vacation with the vacated area attaching to the adjoining lots. The plat will also dedicate right of way for turnaround areas. The northern lot will increase from 2.52 acres to 2.69 acres and the southern lot will increase from 2.17 acres to 2.29 acres.

Location and Legal Access (existing and proposed): The proposed subdivision is located in the Funny River area. The access to the subdivision if from Salmon Run Drive which is located at mile 17 of state maintained Funny River Road. Salmon Run Drive is a 100 foot wide right of way and is maintained by KPB.

Other access to the subdivision if from Wanda Avenue. Wanda Avenue is an east-west 60 foot wide right of way located between Sirius Street and Iceberg Street. Sirius Street and Iceberg Street are dedicated as 60 foot wide north of Wanda Avenue and 30 feet wide south of Wanda Avenue. Sirius Street appears to be partially cleared but neither it nor Iceberg Street are maintained. Wanda Avenue is not constructed.

Although Wanda Avenue will not be a through connection, it will provide legal access to the lots located to the east and west of this subdivision.

The plat will dedicate a turnaround area at each end of Wanda Avenue. Those proposed dedications will be 30 foot by 40 foot right of ways on the south side of Wanda Avenue which will provide an offset hammerhead type turnaround. Improvements exist within, and on the north side of, Wanda Avenue the limit the area where a right of way can be dedicated. ***Staff recommends*** *that the plat committee concur that an offset hammerhead type turn around will be acceptable to provide a turnaround area as there are improvements located on the north side of Wanda Avenue that limit the area available to be a turnaround.*

The vacation will change the design of the block due. Salmon Run Drive, Iceberg Street, Kara Megan Avenue, and Sirius Street will define the new block. The new block will be closed and all block lengths are compliant to KPB Code.

KPB Roads Dept. comments	Out of Jurisdiction: No Roads Director: Uhlin, Dil Comments: The RSA has no comment at this time.
SOA DOT comments	No comment

Site Investigation: The plat contains contour information. Steep slopes appear to be present within the northeast portion of Lot 3A, within the proposed vacation area, and within the southern portion of Lot 2E.

A low wet area is depicted and labeled within the southeastern portion of Lot 2E.

KPB River Center review	A. Floodplain Reviewer: Carver, Nancy Floodplain Status: Not within flood hazard area Comments: No comments B. Habitat Protection Reviewer: Aldridge, Morgan Habitat Protection District Status: Is NOT within HPD Comments: No comments C. State Parks Reviewer: Russell, Pam Comments: No Comments
Alaska Fish and Game	No objections.

Staff Analysis Wanda Avenue was granted by two different plats. Brown's Lake Subdivision, Plat KN 76-55, granted the southern 30 feet of the entire length of Wanda Avenue. King Rapids Subdivision, Plat KN 76-173, granted the northern 30 feet of the entire length of Wanda Avenue and created the northern parent parcel, Lot 3. Plat KN 77-166 further subdivided the lots created by Brown's Lake Subdivision, Plat KN 76-55 and created the current configuration of parent Lot 2-D.

Per the vacation petition, an improvement is either within or very close to the right of way. The Planning Commission will hear the vacation on January 24, 2022. If approved the vacation will be forwarded to the Kenai Peninsula Borough Assembly for hearing on February 15, 2022.

The vacated portions of Wanda Avenue attached back to the parcels from which the land was dedicated from. Additional right of way dedications will be granted from the southern lot to allow offset hammerhead type turnarounds.

A soils report will not be required, as both lots will be increasing in size by more than 1,000 square feet.

Per the preliminary Certificate to Plat, beneficial interest holders do not affect the proposed plat. Notification per KPB 20.25.090 will not be required unless the final Certificate to Plat states the property is affected by beneficial interest holders.

Funny River Advisory Planning Commission minutes were not available when the staff report was prepared (KPB 21.02.020). These will be provided with the desk packet if available.

The subdivision is affected by private covenants and it has been noted on the plat.

Utility Easements The petition to vacate the right of way includes the associated utility easements but when reviewing the parent plats, it does not appear that any utility easements were granted by plat on the parcels involved.

The certificate to plat does indicate an easement has been granted to Homer Electric Association with not defined location. The easement is referenced within plat note 4.

Per plat note 2, 15 foot utility easements will be granted along all dedicated right of ways. ***Staff recommends*** *to depict and label all utility easements with known locations.*

The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process. **Staff recommends** to grant utility easements requested by the utility providers or work with the utility providers to obtain approval.

Utility provider review:

HEA	
ENSTAR	No comments or recommendations
ACS	No objections
GCI	Approved as shown.

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: 32351 SALMON RUN DR Existing Street Names are Correct: Yes List of Correct Street Names: SALMON RUN DR WANDA AVE Existing Street Name Corrections Needed: All New Street Names are Approved: No List of Approved Street Names: List of Street Names Denied: Comments: 32351 SALMON RUN DR will remain with lot 3A.
Code Compliance	Reviewer: Ogren, Eric Comments: No comments
Planner	Reviewer: Aldridge, Morgan There are not any Local Option Zoning District issues with this proposed plat. Material Site Comments: There are not any material site issues with this proposed plat.
Assessing	Reviewer: Bruns, Matthew Comments: Assessing concern that adjacent parcel 06633004 will have narrow road ROW access from Iceberg St (currently platted) that could affect KPB road maintenance standards.
Advisory Planning Commission	Comments not received when staff report was prepared.

The subdivision plat has been reviewed and generally complies with the 2019 Kenai Peninsula Borough Comprehensive plan.

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

KPB 20.25.070 – Form and contents required

***Staff recommendation**: final plat submittals must comply with 20.25.070. Additional information, revisions, and/or corrections are required as noted below.*

A. Within the Title Block

1. Name of the subdivision which shall not be the same as an existing city, town, tract, or subdivision of land in the borough, of which a plat has been previously recorded, or so nearly the same as to mislead the public or cause confusion. The parent plat's name shall be the primary name of the preliminary plat.
2. Legal description, location, date, and total area in acres of the proposed subdivision;
3. Name and address of owner(s), as shown on the KPB records and the certificate to plat, and registered land surveyor.

Staff recommendation:

- *The subdivision is of two parent surveys with different survey names. Staff requests that one of the parent subdivision names be used as the primary subdivision name. Comparing the subdivisions with names starting with King versus Brown, staff recommends "King Rapids Subdivision Hansen's Replat" or "King Rapids Subdivision Hansen's Addition".*
- *Include with the description that this platting action will be finalizing the vacation of Wanda Avenue.*
- *Adjust the total acreage.*
- *The scale is off and appears to be 1"=40'.*

J. Block and lot numbering per KPB 20.60.140, approximate dimensions and total numbers of proposed lots;
***Staff recommendation:** Provide a block label for Lot 3A.*

N. Apparent encroachments, with a statement indicating how the encroachments will be resolved prior to final plat approval;
***Staff recommendation:** Existing improvements are encroaching within the right of way. The vacation and replatting will resolve the issue.*

KPB 20.30 – Subdivision Design Requirements

***Staff recommendation**: final plat submittals must comply with 20.30. Additional information, revisions, and/or corrections are required as noted below.*

20.30.100. Cul-de-sacs.

A. Streets designed to have one end permanently closed shall be no more than 1000 feet long. The closed end of the cul-de-sac shall have a suitable turnaround with a minimum radius of 50 feet to the property line. The turnaround shall be constructible to a 4 percent grade or less.

B. Hammerhead or T -type turnarounds may be allowed on a case-by-case basis. Adequate turning radii, width and depth must be provided for road maintenance and emergency vehicle access. Plans must be reviewed with a recommendation by emergency service providers and the KPB Road Service Area Board prior to submittal for planning commission review.

C. Temporary turnarounds and self-vacating turnarounds shall not be granted or reserved on plats.
***Staff recommendation:** Concur that an offset hammerhead type turnaround will be adequate for each end of Wanda Avenue as improvements exist to the north that limit the area available to be a right of way and the KPB Roads Dept. reviewed the vacation and plat and had no comments.*

KPB 20.40 – Wastewater Disposal

***Staff recommendation**: final plat submittals must comply with 20.40. Additional information, revisions, and/or corrections are required as noted below.*

20.40.010 Wastewater disposal.

Platting Staff Comments: Per 20.40.020(1)(2), a wastewater review is not required as both lots are increasing in size by more than 1,000 square feet.
***Staff recommendation**: comply with 20.40.*

KPB 20.60 – Final Plat

***Staff recommendation**: final plat submittals must comply with 20.60. Additional information, revisions, and/or corrections are required as noted below.*

20.60.030. Certificate of borough finance department required.

Platting Staff Comments: All taxes levied on the property within the subdivision shall be paid prior to recordation of the final plat. If approval is sought between January 1 and the tax due date, there shall be on deposit with the borough finance department an amount sufficient to pay the entire estimated real property tax for the current year. Prior to filing of the final plat, a certificate to this effect shall be provided by the borough finance director or his designee upon request by the planning director. Estimated tax payments shall be applied to the actual bill as of July 1 or such earlier date as the taxes due have been determined.

Taxes owed may include special assessments for utility or road assessment districts established by KPB ordinance.

***Staff recommendation:** comply with 20.60.030.*

20.60.040. Dedication of public use lands. Any land shown on a plat as a street, public park or other public area must be dedicated on the final plat to a tax exempt governmental entity. If the governmental entity is not the Kenai Peninsula Borough, the governmental entity shall be required to execute an acceptance of the dedication on the plat.

***Staff recommendation:** Provide an acceptance certificate for the Wanda Avenue right of way dedications (turnarounds).*

20.60.170. Other data required by law.

A. The plat shall show all other data that are or may be required on the plat by statute or ordinance.

B. Private covenants and restrictions of record in effect at the time the final plat is approved shall be referenced on the plat. The borough will not enforce private covenants, easements, or deed restrictions. The borough will not enforce private covenants, easements, or deed restrictions.

C. The plat must adhere to the requirement of the local option zone, where applicable.

***Staff recommendation**: Add to the existing plat note 5 that the borough does not enforce private covenants per KPB 20.60.170(B). Comply with 20.60.170.*

20.60.180. Plat notes.

A. Plat notes shall not be placed on a final plat unless required by borough code or by the planning commission in order to promote or protect the public health, safety, and welfare consistent with borough and state law.

B. Revision of, or not carrying forward, an existing plat note from the parent plat will adhere to KPB 20.50.010. Separate advertising of the plat note removal is not required, Notification of the requested change will be sent by regular mail to all owners within the subdivision (parent plat and subsequent replats) as shown on the borough tax rolls. Upon approval by the planning commission, the revision or removal of the record plat note shall be finalized by recording a planning commission resolution or subdivision plat.

***Staff recommendation:** Place the following notes on the plat.*

- *Roads must meet the design and construction standards established by the borough in order to be considered for certification and inclusion in the road maintenance program (KPB 14.06).*
- *The borough will not enforce private covenants, easements, or deed restrictions per KPB 20.60.170.*
- *Any person developing the property is responsible for obtaining all required local, state, and federal permits, including a U.S. Army Corps of Engineers wetland determination if applicable.*

Revise plat note 3 by changing Plat KN 77-166 to KN 76-55, which is the plat that dedicated a portion of the right of way. Add to plat note 3 that the vacation received consent by the Assembly and the Assembly meeting date.

Add to Plat Note 4 that there is no definite location disclosed for the utility easement granted to HEA.

20.60.190. Certificates, statements, and signatures required.

***Staff recommendation**: Within the certificate of ownership, change in the first line to "owner". The owner assumed title on the lots differently. Her signature line will need to include both names. This may be done as "Kim Hansen who also took title as Kim M. Hansen." Comply with 20.60.190.*

KPB 20.70 – Vacation Requirements

***Staff recommendation.** Plat must be recorded within one year of assembly consent.*

RECOMMENDATION:

STAFF RECOMMENDS:

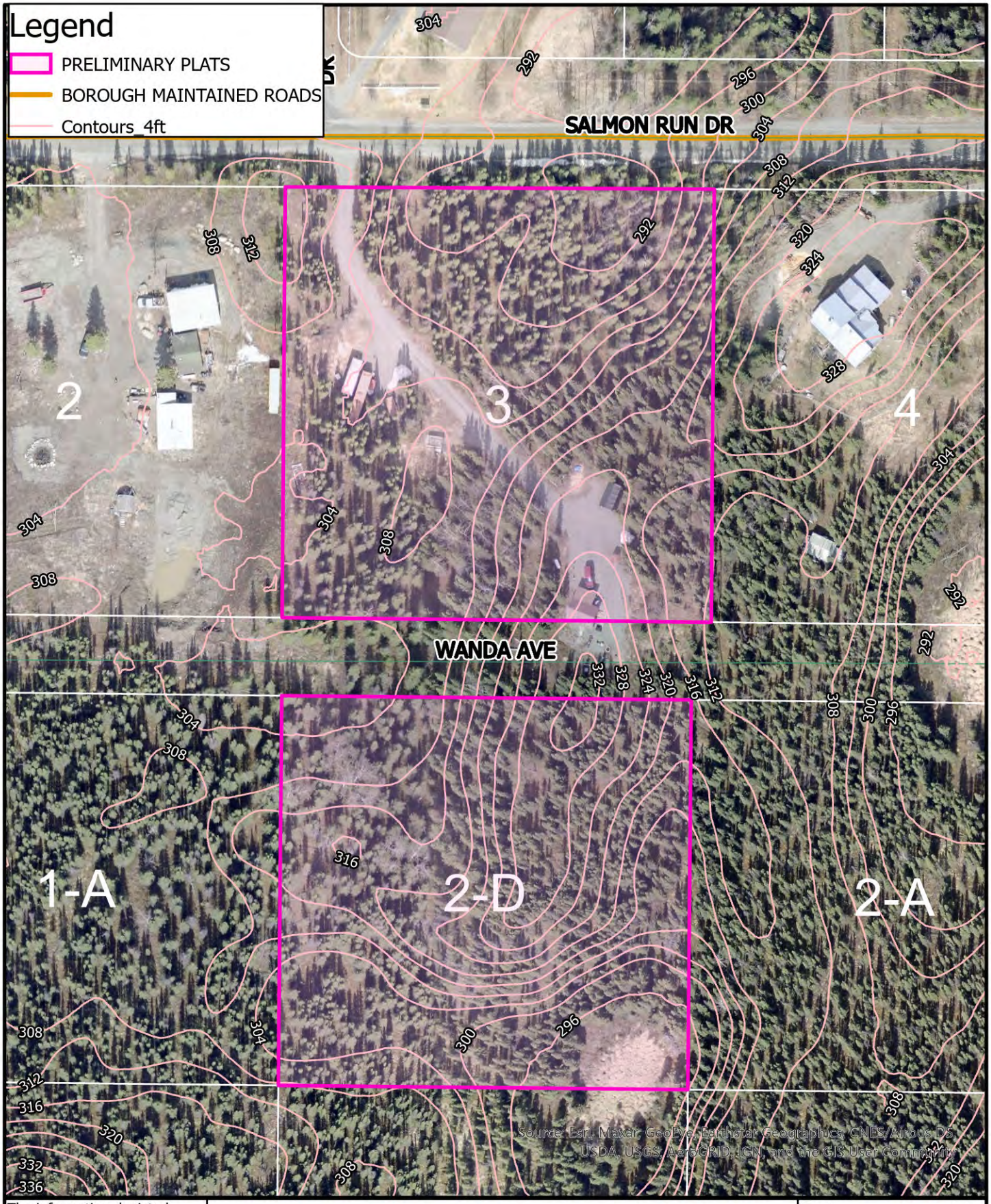
- **GRANT APPROVAL OF THE PRELIMINARY PLAT SUBJECT TO STAFF RECOMMENDATIONS, AND**
- **COMPLIANCE WITH KPB 20.25.070 (FORM AND CONTENTS), KPB 20.25.080 (PETITION REQUIRED), KPB 20.30 (DESIGN REQUIREMENTS); AND KPB 20.40 (WASTEWATER DISPOSAL), AND**
- **COMPLIANCE WITH KPB 20.60 TO ENSURE ADMINISTRATIVE APPROVAL OF THE FINAL PLAT.**

NOTE: 20.25.120. - REVIEW AND APPEAL.

A PARTY OF RECORD MAY REQUEST THAT A DECISION OF THE PLAT COMMITTEE BE REVIEWED BY THE PLANNING COMMISSION BY FILING A WRITTEN REQUEST WITHIN 15 DAYS OF NOTIFICATION OF THE DECISION IN ACCORDANCE WITH KPB 2.40.080.

A DECISION OF THE PLANNING COMMISSION MAY BE APPEALED TO THE HEARING OFFICER BY A PARTY OF RECORD WITHIN 15 DAYS OF THE DATE OF NOTICE OF DECISION IN ACCORDANCE WITH KPB 21.20.250.

END OF STAFF REPORT



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

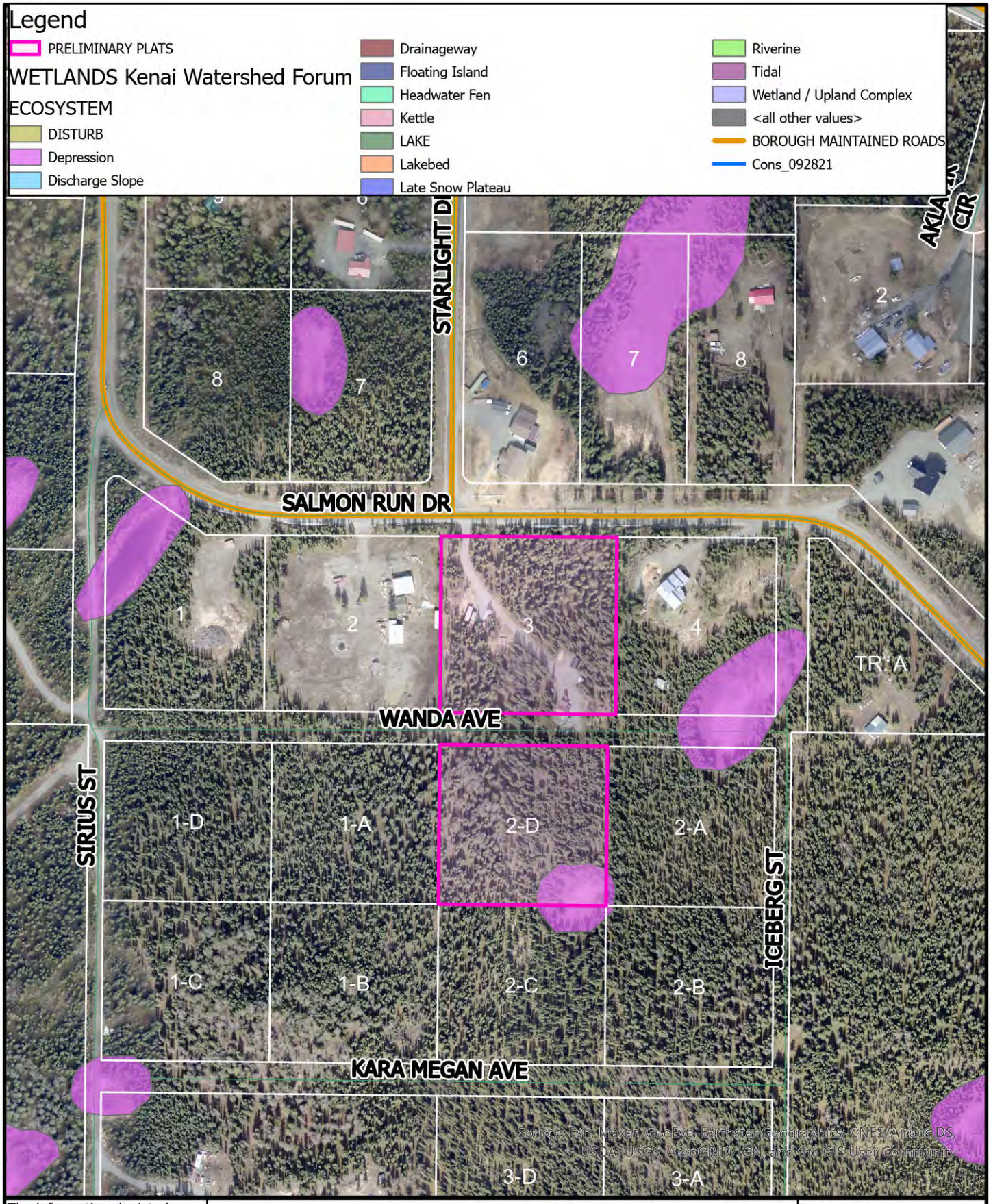
AERIAL IMAGERY 2021

Miles

0 0.01 0.03 0.05

N W E S

Date:
Scott Huff,
Platting Manager,
KPB



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

AERIAL IMAGERY 2021

Miles

0 0.03 0.07 0.13

N W E S

Date:
Scott Huff,
Platting Manager,
KPB

SKUSET-PETERSEN SUBD.

KING RAPIDS SUBD.

MORGAN'S ACRES SUBD.

UNSUBDIVIDED

FERGUSON SUBD.

UNSUBDIVIDED



NOTE:

NO STRUCTURE MAY BE PLACED NEARER THAN 20 FEET FROM ANY DEDICATED RIGHT-OF-WAY HEREON.

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, UTILITY EASEMENTS AND OTHER OPEN SPACES TO TO PUBLIC USE. DATE Sept 15, 1977

Wayne D. Jack
WAYNE D. JACK
629 'I' STREET #201
ANCHORAGE, ALASKA

Jack Brainard
JACK BRAINARD
221 E. 7th AVE. # 106
ANCHORAGE, ALASKA

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 15th DAY OF September, 1977

W. Ray Niemi
NOTARY FOR ALASKA

7-15-79
MY COMMISSION EXPIRES

W. RAY NIEMI NOTARY PUBLIC STATE OF ALASKA

SURVEYOR'S CERTIFICATE

I, W. RAY NIEMI, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS AND CORNERS HEREON ACTUALLY EXIST AS LOCATED AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

W. Ray Niemi
W. RAY NIEMI 4027-S

PLAT APPROVAL

THIS PLAT HAVING BEEN APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AS RECORDED IN THE OFFICIAL MINUTES OF THE MEETING OF Oct. 24, 1977, IS HEREBY ADKNOWLEDGED AND ACCEPTED AS THE OFFICIAL PLAT, SUBJECT TO ANY AND ALL CONDITIONS AND REQUIREMENTS OF ORDINANCES AND LAW APPERTAINING THERETO.

KENAI PENINSULA BOROUGH BY Philip Waring

WATER SUPPLY AND SEWAGE DISPOSAL

THIS SUBDIVISION, AT THE TIME OF FILING, IS NOT SERVED BY PUBLIC WATER AND/OR SEWAGE DISPOSAL FACILITIES. NO ON-SITE WATER AND/OR SEWAGE DISPOSAL FACILITIES MAY BE CONSTRUCTED WITHOUT PRIOR APPROVAL OF THE ALASKA DEPARTMENT OF ENVIORONMENTAL CONSERVATION.

LEGEND

- ✠ = G.L.O. BRASS CAPPED MONUMENT RECOVERED THIS SURVEY
- ◒ = MONUMENT, STAMPED AS SHOWN, RECOVERED THIS SURVEY
- ◔ = 2" ALUMINUM SURV-KAP, STAMPED AS SHOWN, ON 5/8" x 30" REBAR SET 29" IN GROUND THIS SURVEY
  ALL OTHER CORNERS ARE 5/8" X 30" REBAR

PLAT OF
LOTS 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 5A, 5B, 5C, 5D, 7A, 7B, 7C, 7D, 8A, 8B, 8C, & 8D BROWN'S LAKE SUBDIVISION

A RESUBDIVISION OF LOTS 1, 2, 3, 5, 7 & 8 BROWN'S LAKE SUBDIVISION LOCATED WITHIN W1/2 SE1/4 SEC. 20, T5N, R8W, S.M., ALASKA COMPRISING 60.000 ACRES MORE OR LESS.

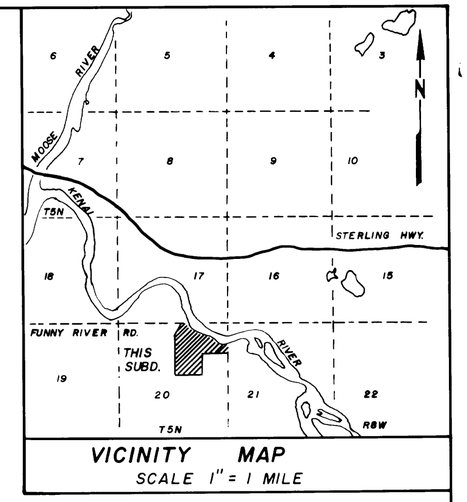
PREPARED BY
W. RAY NIEMI & ASSOCIATES
ANCHORAGE & PALMER, ALASKA

DATE May 2, 1977 | SCALE 1" = 100'
DRAWN servA drafting service | SHEET 1 OF 1 F.B. ___ PG. ___

CURVE DATA

CURVE	DELTA	RAD.	TAN.	ARC.	CH.
①	124°04'03"	20.00	37.67	43.31	35.33
②	90°00'00"	20.00	20.00	31.42	28.28
③	39°27'00"	300.00	107.56	206.56	202.50
④	90°06'07"	20.00	20.04	31.45	28.31
⑤	89°53'53"	20.00	19.96	31.38	28.26
⑥	85°11'00"	20.00	18.39	29.74	27.07
⑦	95°07'34"	20.00	21.87	33.21	29.52
⑧	46°24'26"	20.00	8.57	16.20	15.76
⑨	90°04'05"	20.00	20.02	31.44	28.30
⑩	39°12'45"	500.00	178.10	342.20	335.55





VICINITY MAP
SCALE 1" = 1 MILE

STATE OF ALASKA 49TH
MICHAEL P. McLANE
3932-S
REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND AND NOTES

- Found G.L.O. B.C. monument.
- Set Official Survey monument (2 1/2" Al. mon.)
- ⊥ Set 1/2" X 24" steel rebar at all lot corners

All bearings refer to the North boundary of Section 20 as being N 89° 54' 20" W — assumed datum.

Datum of record shown thus ( ).

All lots are subject to a 20' building set back along all dedicated rights of way

CERTIFICATE OF OWNERSHIP AND DEDICATION

We hereby certify that we are the owners of said property, and request the approval of this plat showing such easements for public utilities, roadways, and or streets dedicated by us for public use.

John S. Vania — owner — 4006 Arkansas Dr, Anchorage, Alaska 99503

Patricia Vania — owner

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn before me this 13 day of September, 1976.
My commission expires August 3 1977

Notary public for Alaska

Frances Rausch — owner

Robert A. Rausch — 638 Gold St., Juneau, Ak. 99801 — owner

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn before me this 13 day of September, 1976.
My commission expires August 3 1979

Notary public for Alaska

76-173
6
KENAI
12-16
2:22
KPB
76

Alice Propes — owner — Box 780, Willamina, Oregon 97396

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn before me this 14th day of October, 1976. My commission expires 1-21-77

Donna L. Cook

Oregon
Notary public for

PLAT APPROVAL

Plat approved by the Commission this 9th day of August, 1976.

Donald E. Gilman
Mayor or Planning Director

KING RAPIDS SUBDIVISION

John S. Vania owner
4006 Arkansas Drive, Anchorage Ak. 99503

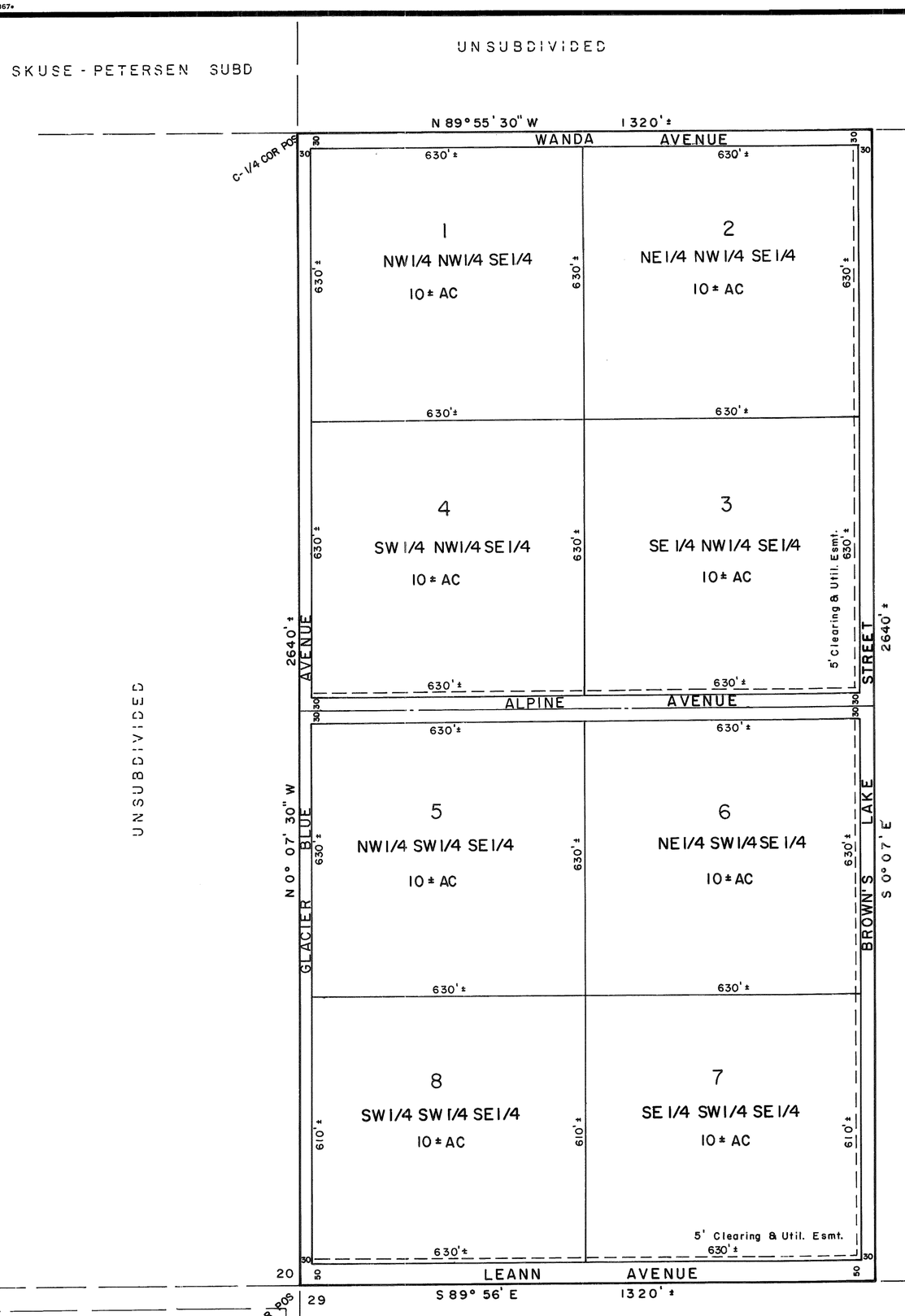
DESCRIPTION

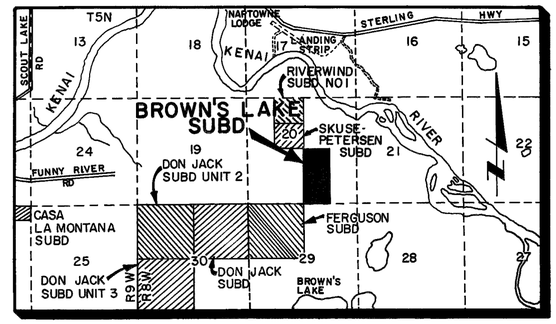
92.527 ACRES SITUATED IN LOTS 2,3 and SW1/4 NE1/4 SEC. 20, T5N, R8W S.M. AK. AND THE KENAI PENINSULA BOROUGH.

Surveyed by: McLane and Associates

DATE OF SURVEY	SCALE	BK. NO
6/1 — 8/2/76	1" = 200'	74-02

K&E 19 1253 6-71 46367•





VICINITY MAP
1" = 1 Mile

NOTES

1. Acreage shown on all tracts within this subdivision includes the adjacent road right-of-way.
2. All bearings and distances shown are based on protracted values and are approximate only.
3. A minimum 20 foot building setback exists along all road rights-of-way.
4. This subdivision at the time of filing is not served by public water and/or sewage facilities. No on-site water and/or sewage disposal facilities may be constructed without prior approval of the Alaska Department of Environmental Conservation.
5. NO FIELD SURVEY WAS MADE nor were any stakes or monuments set.

CERTIFICATE OF OWNERSHIP & DEDICATION

We hereby certify that we are the owners of the property shown and described hereon. We hereby request approval of this plat, showing such easements for public utilities, roadways and alleys dedicated by us for public use.

Donald L. Jack for WAYNE D JACK POA
Donald L. Jack
629 L Street #201
Anchorage, Alaska

NOTARY'S ACKNOWLEDGMENT

Subscribed and sworn before me this 3rd day of May, 1976

Fred Walatka
Notary for Alaska

My Commission expires 04/14/78

FRED WALATKA NOTARY PUBLIC STATE OF ALASKA

PLAT APPROVAL

I hereby certify that this subdivision plat has been found to comply with the regulations of the Kenai Peninsula Borough and that said plat has been approved by the Kenai Peninsula Borough Planning Commission.

February 23, 1976 Donald E. Gilman
Date — Borough Mayor

SURVEYOR'S CERTIFICATE

I hereby certify that I am a registered land surveyor and that this plat was prepared by me and is based on a subdivision of the W 1/2 SE 1/4 Sec. 20, T 5 N, R 8W, S.M., Alaska, as shown hereon. No corners have been established for any of the tracts within this subdivision.

May 3 1976 Fred Walatka
Date — Surveyor

STATE OF ALASKA SURVEYOR Fred Walatka NO. 3255-S REGISTERED PROFESSIONAL LAND SURVEYOR

K-55
RECORDED - FILED
Kenai REC. DIST.
DATE 5/17 1976
TIME 9:35 A M
Requested by KRB
Address

AREA 80± AC

PLAT OF
BROWN'S LAKE SUBDIVISION
AN ALIQUOT PARTS SUBDIVISION

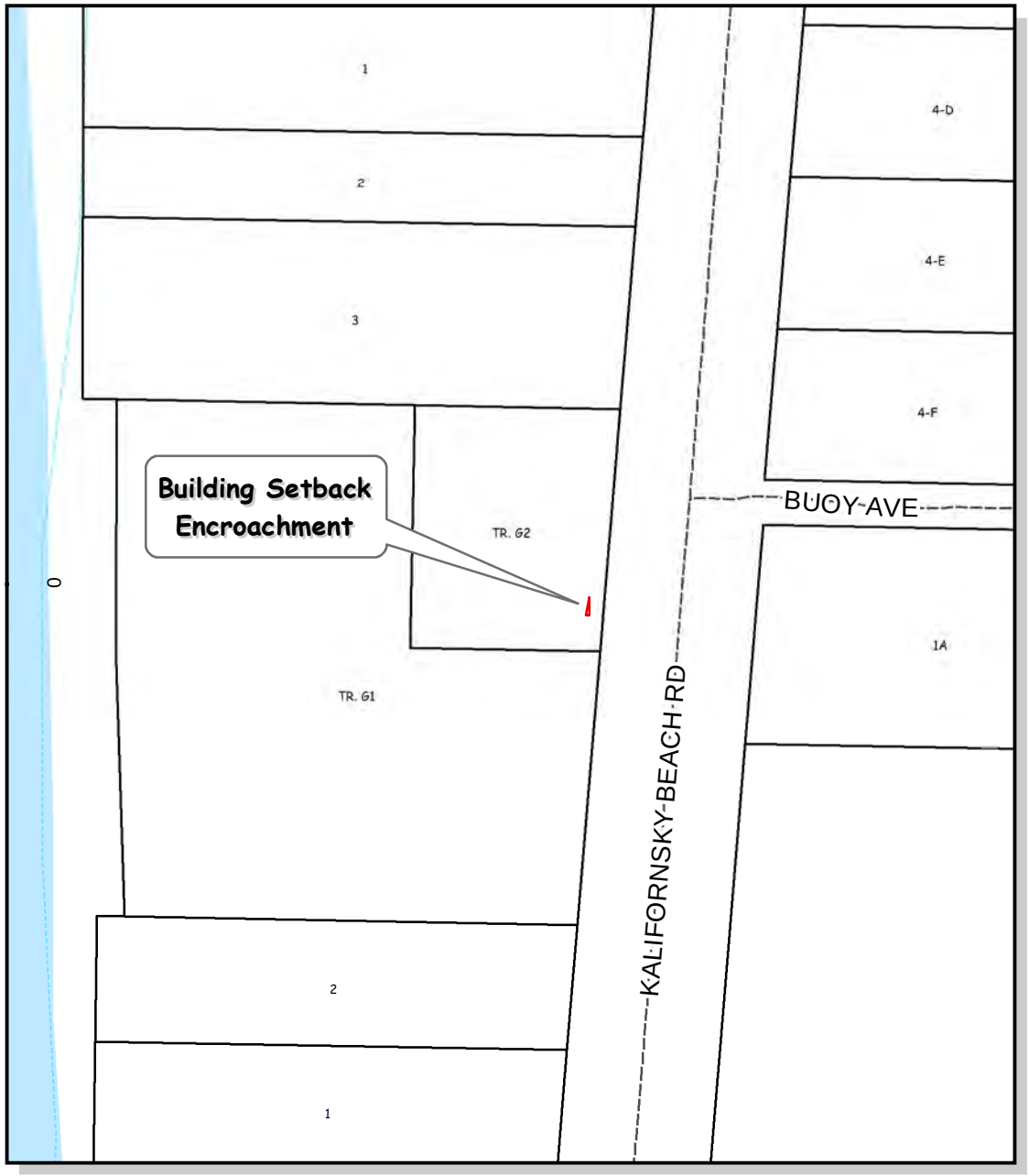
LOCATED IN
W1/2 SE 1/4 Sec. 20, T 5 N, R 8W, S.M., Alaska

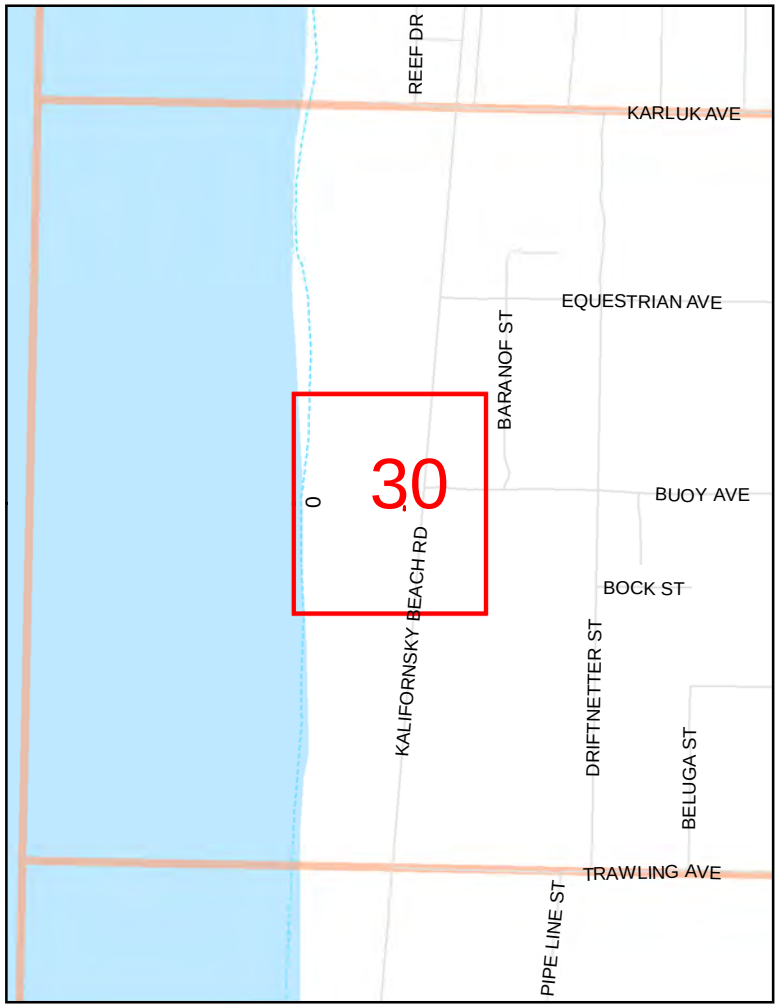
FRED WALATKA & ASSOCIATES
ENGINEERS — SURVEYORS
3107 W. 29th Avenue — Anchorage, Alaska

DATE:	FEBRUARY 1976	SCALE:	1" = 200'
DRAWN:	DS	SHEET:	1 OF 1
CHECKED:	FW	GRID:	USGS KENAI (C-2) QUAD

FB - p

KN 76-55





0 750 1,500 3,000 Feet

The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

0 125 250 500 '

N

KPB 2021-169
S30 T05N R11W
Kalifornsky

PClements, KPB 2021-169 Date: 12/30/2021



The information depicted hereon is for a graphical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility for any errors on this map.

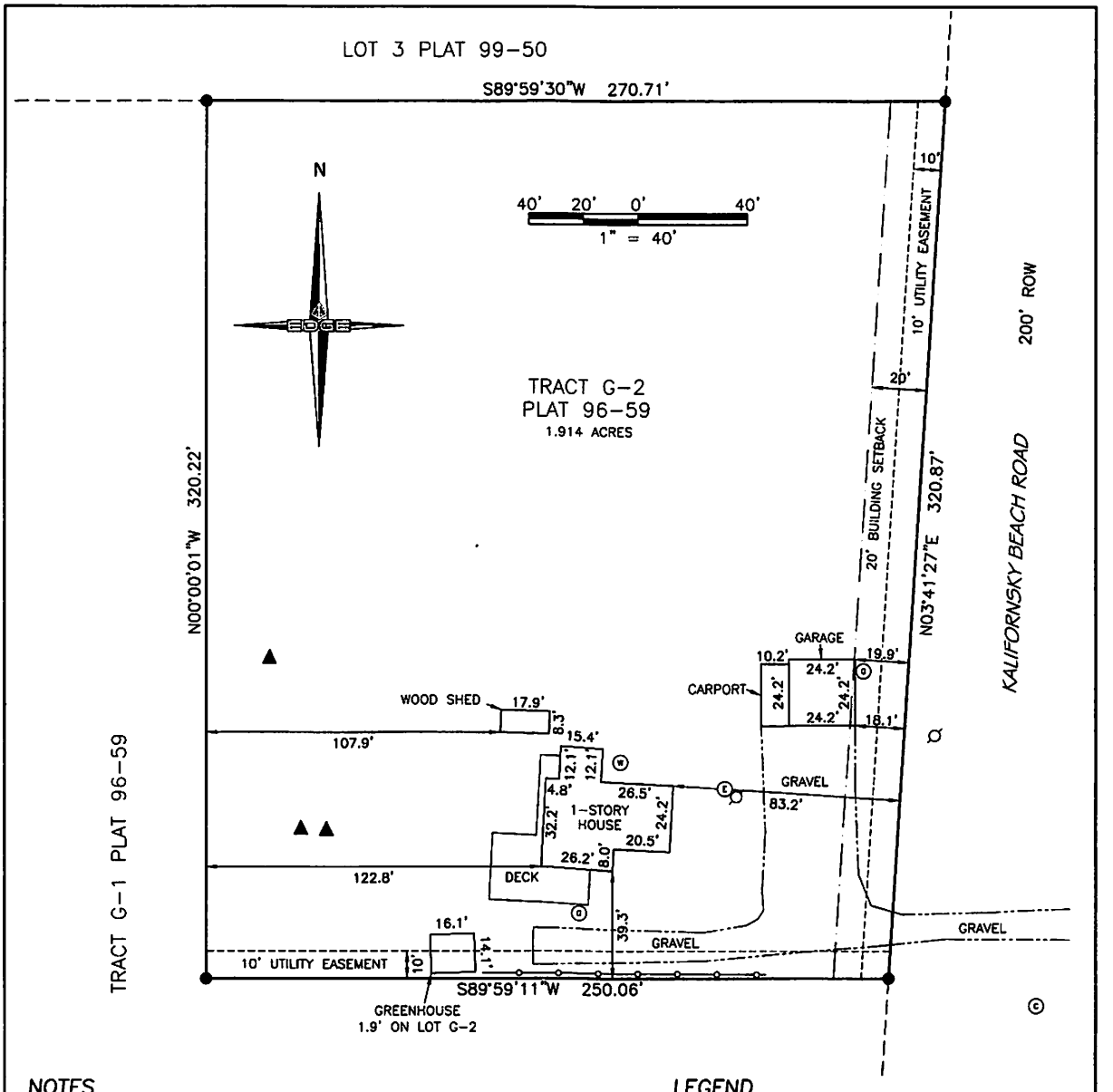
N
W E
S

Miles
0 0.01 0.03 0.06

AERIAL IMAGERY 2021

BUILDING SETBACK PERMIT

Date: 5/28/2021
1:50 PM
Scott Huff
Platting Manager



NOTES

THIS AS-BUILT SURVEY WAS PREPARED FOR MORTGAGE PURPOSES. RE-USE OF THIS DRAWING BY THE ORIGINAL CLIENT OR BY OTHERS, FOR ADDITIONAL USES AT A LATER DATE WITHOUT THE EXPRESS CONSENT OF EDGE SURVEY & DESIGN, LLC IS A VIOLATION OF FEDERAL COPYRIGHT LAW. UNLESS GROSS NEGLIGENCE IS DISCOVERED, THE LIABILITY EXTENT OF THE PREPARER SHALL BE LIMITED TO THE AMOUNT OF FEES COLLECTED FOR SERVICES IN PREPARATION OF THIS PRODUCT.

IT IS THE RESPONSIBILITY OF THE OWNER TO DETERMINE THE EXISTENCE OF ANY EASEMENTS, COVENANTS, OR RESTRICTIONS WHICH DO NOT APPEAR ON THE RECORDED SUBDIVISION. THIS AS-BUILT SURVEY, UNDER NO CIRCUMSTANCE, SHALL BE USED FOR CONSTRUCTION OR BOUNDARY LOCATIONS.

RECORD DATA SHOWN HEREON IS PER PLAT 96-59, KENAI RECORDING DISTRICT.

FIELD SURVEY PERFORMED WITH WINTER SNOW AND ICE CONDITIONS. SOME FEATURES MAY NOT HAVE BEEN VISIBLE AT TIME OF SURVEY.

LEGEND

●	PROPERTY CORNER FOUND
Ⓦ	WELL
▲	SEPTIC VENT
Ⓖ	GAS METER
Ⓔ	ELECTRIC METER
Ⓒ	COMMUNICATION PEDESTAL
⌀	UTILITY POLE
———	PARCEL BOUNDARY
- - - - -	ADJACENT PROPERTY LINE
—·—·—	EDGE GRAVEL
—o—o—	WOOD FENCE

SURVEYOR CERTIFICATE

I HEREBY CERTIFY THAT I HAVE PERFORMED AN AS-BUILT SURVEY ON THE PROPERTY SHOWN HEREON AND THE IMPROVEMENTS EXIST AS SHOWN. FIELD SURVEY 12/20/2021.

12/28/2021

RYAN SORENSEN
PLS 13006-S

STATE OF ALASKA 49TH
Ryan Sorensen
No. 13006 - S
12/28/2021
REGISTERED PROFESSIONAL LAND SURVEYOR

KPB 2021-169

EDGE SURVEY AND DESIGN, LLC
12501 OLD SEWARD, D ANCHORAGE, AK 99515
Phone (907) 344-5990 Fax (907) 344-7794

AS-BUILT SURVEY
TRACT G-2
FISHERMAN ROADS SUBDIVISION
EDELMAN ADDITION
PLAT 96-59 KENAI RECORDING DISTRICT

DRAWN BY: JY	DATE: 12/28/2021	PROJECT: 21-650
CHECKED BY: RS	SCALE: 1" = 40'	SHEET: 1 OF 1

AGENDA ITEM E. NEW BUSINESS

ITEM 4. – BUILDING SETBACK ENCROACHMENT PERMIT
TRACT G2 FISHERMEN ROADS SUBDIVISION EDELMAN ADDITION

KPB File No.	2021-169
Planning Commission Meeting:	January 24, 2022
Applicant / Owner:	Benjamin P. Cheah and Megan M. Cheah of Kenai, Alaska
Surveyor:	Ryan Sorensen / Edge Survey and Design, LLC
General Location:	Kalifornsky Beach Road, Kalifornsky

Parent Parcel No.:	055-360-39
Legal Description:	Tract G-2, Fishermen Roads Subdivision Edelman Addition, Plat KN 96-59, Kenai Recording District
Assessing Use:	Residential
Zoning:	Rural Unrestricted

STAFF REPORT

Specific Request / Purpose as stated in the petition: To allow garage to remain in current location.

Site Investigation: An as-built survey was completed on December 28, 2021. The survey determined that an existing garage is within the 20 foot building setback adjoining Kalifornsky Beach Road. The building is not parallel with the right of way and the encroachment varies from 1.9 feet to 0.1 feet.

Kalifornsky Beach Road is a state maintained right of way that is 200 feet wide. Fishermen Roads Subdivision, Plat KN 84-73, established the 20 foot building setback. The setback was carried forward on Fishermen Roads Subdivision Edelman Addition, Plat KN 96-59.

The constructed width of Kalifornsky Beach Road is approximately 50 feet. Utility lines, ditches, and a patch of trees are between the roadway and the encroaching building. The building does not appear to create a line of sight issue for vehicular traffic.

Staff Analysis: Fishermen Roads Subdivision, Plat KN 84-73, subdivided government lots and aliquot parcels. Tract G was created and a 20 foot building setback was put in place. Plat KN 84-73 contained the plat note “Building setback line to be limit of utility easements along streets.”

Fishermen Roads Subdivision Edelman Addition, Plat KN 96-59, subdivided Tract G. Plat KN 96-59 created the boundary configuration for Tract G-2. The 20 foot building setback note was carried over on this platting action. Plat KN 96-59 contained the plat note “The front ten (10) ft. of the twenty (20) ft. building setback along all street rights-of-way is a utility easement.” This did not vacate or reduce the easement that was granted per KN 84-73.

State of Alaska DOT supplied a comment stating that ‘DOT CR ROW has not comment on setbacks outside the ROW’.

The area subject to the encroachment is relatively flat. Tract G-2 does not appear to be impacted by wetlands.

There is a natural vegetative buffer between the road way and the encroachment. The nearest intersection on the west side of Kalifornsky Beach Road is approximately 2,650 feet in both directions.

The driveway for the subject lot and for Tract G-1 to the south appear to not have a limited line of sight due to the structure. The driveway approaches to Kalifornsky Beach Road are clear due as there are ditches and overhead power lines that are clear of structures and trees.

This review is for the building setback encroachment only. The as-built survey does indicate additional structures located within the 10 foot utility easement located along the southern property line. It was verbally stated to staff that those are moveable structures and there were no plans to vacate the utility easement. As stated above the parent plat, Fishermen Roads KN 84-73 granted a 20 foot utility easement. While the replat had a note granting a 10 foot utility easement, the borough has no record of the 20 foot utility easement being vacated.

If the owners wish to vacate the utility easement for the structure, a utility easement vacation petition will be required and a hearing would be scheduled once a complete application is submitted. ***Staff recommends*** *have the as-built survey corrected to reflect the 20 foot utility easement, correct the subdivision name in the title block to Fisherm<u>e</u>n, and submit the corrected as-built for recording.*

The subject parcel is within the Kalifornsky Beach Advisory Planning Commission boundary. The Kalifornsky APC did not have a quorum at their January 5th, 2022 meeting and were not able to provide comments on this matter.

<u>Findings:</u>

1. Tract G-2 is subject to a 20 foot building setback adjoining Kalifornsky Beach Road right of way as created by Plat KN 84-73 and carried over on Plat KN 96-59.
2. Kalifornsky Beach Road is constructed and maintained by the State of Alaska DOT.
3. The constructed width of Kalifornsky Beach Road does not utilize the full dedication of 200 feet.
4. There are no street intersections within close proximity to the building encroachment.
5. Two driveways connect to the highway south of the building encroachment, the subject parcel and the parcel to the south.
6. The line of sight for the two private drives does not appear to be impacted.
7. The land surrounding the subject encroachment does not contain low wet areas.
8. The land is relatively flat.
9. The garage is built at an angle to the setback line and the widest encroachment width is 1.9 feet.
10. The original subdivision granted 20 foot utility easements resulting in a portion of the garage being within the utility easement.
11. The structure is a 24.2 foot by 24.2 foot garage with additional attachments.
12. Per KPB Assessing information, the garage was built in 2020.
13. State of AK DOT supplied a review of no comment on setbacks outside of the dedicated right of way.

20.10.110. – Building setback encroachment permits.

E. The following standards shall be considered for all building setback encroachment permit applications:

1. The building setback encroachment may not interfere with road maintenance.
Findings 2-4, 6-8 and 13 appear to support this standard.

2. The building setback encroachment may not interfere with sight lines or distances.
Findings 2-4, 6-8 and 13 appear to support this standard.

3. The building setback encroachment may not create a safety hazard.
Findings 2-4, 6-8 and 13 appear to support this standard.

F. The granting of a building setback encroachment permit will only be for the portion of the improvement or building that is located within the building setback and the permit will be valid for the life of the structure or for a period of time set by the Planning Commission. The granting of a building setback permit will not remove any portion of the 20 foot building setback from the parcel.

G. The Planning Commission shall approve or deny a building setback encroachment permit. If approved, a resolution will be adopted by the planning commission and recorded by the planning department within the time frame set out in the resolution to complete the permit. The resolution will require an exhibit drawing showing, and dimensioning, the building setback encroachment permit area. The exhibit drawing shall be prepared, signed and sealed, by a licensed land surveyor.

KPB department / agency review:

SOA DOT comments	DOT CR ROW has not comment on setbacks outside the ROW'
Code Compliance – Eric Ogren	No comment
Advisory Planning Commission	No quorum at the Jan. 5th meeting, not able to provide comments.

RECOMMENDATION:

Based on the standards to grant a building setback encroachment permit, **Staff recommends** to adopt Resolution 2022-04, subject to compliance with KPB 20.10.110 sections F and G.

NOTE:

20.10.110.(H) A decision of the planning commission may be appealed to the hearing officer by a party of record, as defined by KPB 20.90, within 15 days of the date of notice of decision in accordance with KPB 21.20.250.

END OF STAFF REPORT

KENAI PENINSULA BOROUGH PLANNING COMMISSION
RESOLUTION 2022-04
KENAI RECORDING DISTRICT

GRANT A BUILDING SETBACK ENCROACHMENT PERMIT TO A PORTION OF THE 20-FOOT BUILDING SETBACK ADJOINING THE EAST BOUNDARY OF TRACT G-2 FISHERMEN ROADS SUBDIVISION EDELMAN ADDITION (KN 96-59), GRANTED BY FISHERMEN ROADS SUBDIVISION EDELMAN ADDITION (KN 96-59); IN NE1/4 SW1/4 SECTION 30, TOWNSHIP 5 NORTH, RANGE 11 WEST, SEWARD MERIDIAN, ALASKA, WITHIN THE KENAI PENINSULA BOROUGH. KPB FILE 2021-169

WHEREAS, per KPB 20.30.240 – Building Setbacks, a minimum 20-foot building setback shall be required for fee simple non-arterial rights-of-way in subdivisions located outside incorporated cities.

WHEREAS, Benjamin P. Cheah and Megan M. Cheah of Kenai, Alaska requested a building setback permit for the shop located on said lot; and

WHEREAS, per the petition, a garage was constructed in 2020 and is located up to 1.9 feet within the 20 foot building setback adjoining the Kalifornsky Beach Road right of way; and

WHEREAS, the existing building will not obstruct line of sight for traffic; and

WHEREAS, on January 24, 2020, the Kenai Peninsula Borough Planning Commission considered the background information, all comments received, and recommendations from KPB Planning Department staff regarding the proposed building setback permit; and

WHEREAS, the Planning Commission found that granting the building setback permit will not be detrimental to the public interest; and

WHEREAS, 20.10.110 of the Kenai Peninsula Borough Code of Ordinances authorizes the Planning Commission to approve building setback permits by Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH:

Section 1. Approved a permit to allow only the encroaching portion of the shop that extends 1.9 feet into the 20 foot building setback adjoining Kalifornsky Beach Road right of way on the east boundary Tract G-2, Fishermen Roads Subdivision Edelman Addition, granted by Fishermen Roads (KN 84-73).

Section 2. That any new, replacement and/or additional construction will be subject to the twenty-foot building setback limit.

Section 3. That the twenty-foot building setback shall apply to the remainder of said lot.

Section 4. That an exhibit drawing or as-built survey prepared by a licensed land surveyor, showing the location of the portion of the building setback exception to be granted be attached to and made a part of this Resolution, becoming page 2 of 2.

Section 5. That this resolution is eligible for recording upon being signed by the Planning Commission chairperson and will be deemed void if not recorded within 90 days of adoption.

Section 6. That this Resolution becomes effective upon being properly recorded with petitioner being responsible for payment of recording fee.

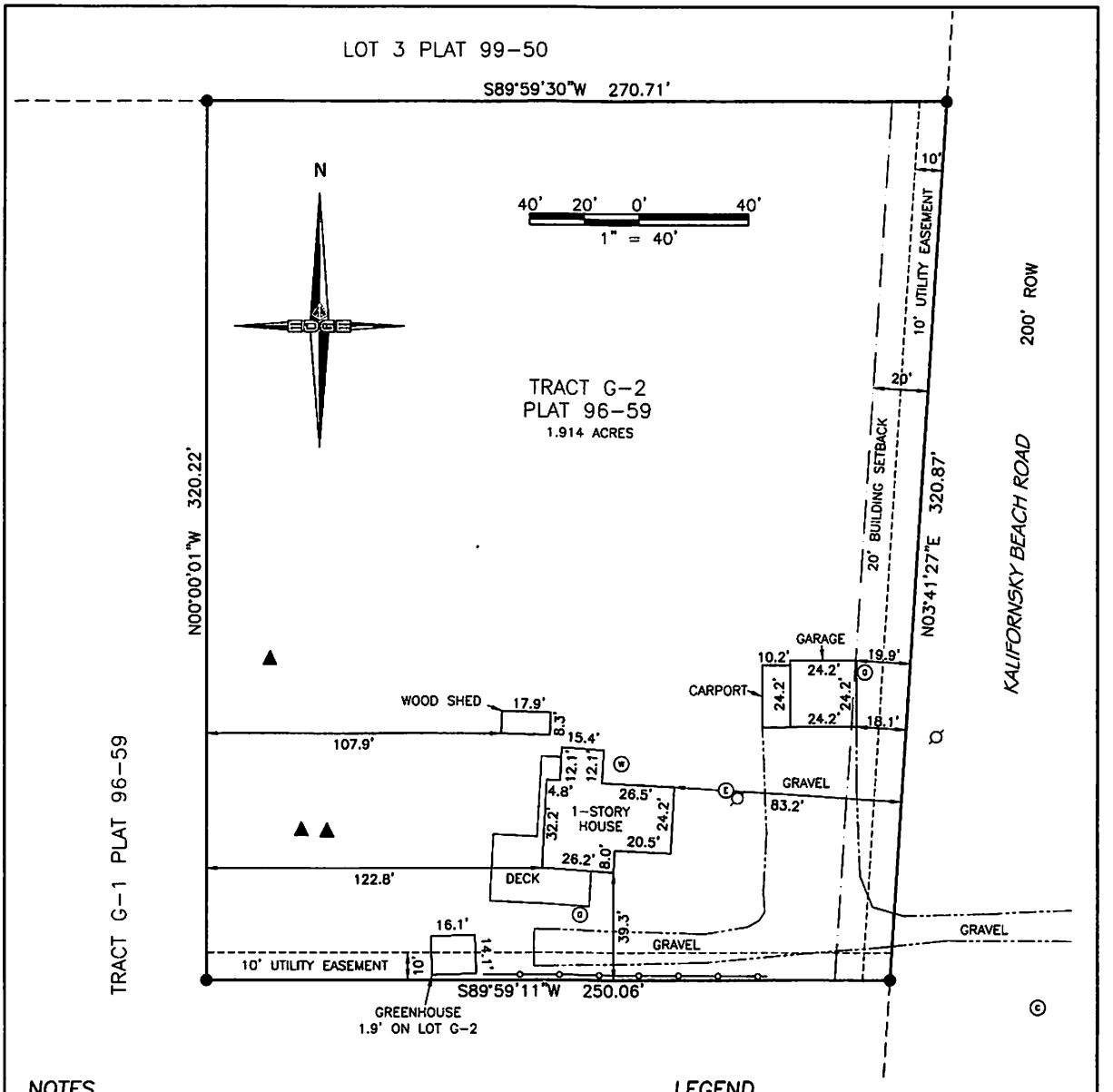
ADOPTED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH ON THIS 24th DAY OF JANUARY, 2022.

_____
Blair J. Martin, Chairperson
Planning Commission

ATTEST:

_____
Ann Shirnberg
Administrative Assistant

Return to:
Kenai Peninsula Borough Planning Department
144 North Binkley Street, Soldotna, Alaska 99669



NOTES

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Ⓦ	WELL
▲	SEPTIC VENT
Ⓖ	GAS METER
Ⓔ	ELECTRIC METER
Ⓒ	COMMUNICATION PEDESTAL
⌀	UTILITY POLE
———	PARCEL BOUNDARY
- - - - - - - -	ADJACENT PROPERTY LINE
—·—·—·—	EDGE GRAVEL
—o—o—o—	WOOD FENCE

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12/28/2021

RYAN SORENSEN
PLS 13006-S

STATE OF ALASKA 49TH
Ryan Sorensen
No. 13006 - S
12/28/2021
REGISTERED PROFESSIONAL LAND SURVEYOR

EDGE SURVEY AND DESIGN, LLC
12501 OLD SEWARD, D ANCHORAGE, AK 99515
Phone (907) 344-5990 Fax (907) 344-7794

AS-BUILT SURVEY
TRACT G-2
FISHERMAN ROADS SUBDIVISION
EDELMAN ADDITION
PLAT 96-59 KENAI RECORDING DISTRICT

DRAWN BY:	DATE:	PROJECT:
JY	12/28/2021	21-650
CHECKED BY:	SCALE:	SHEET:
RS	1" = 40'	1 OF 1

Building Setback Encroachment KPB File 2021-169

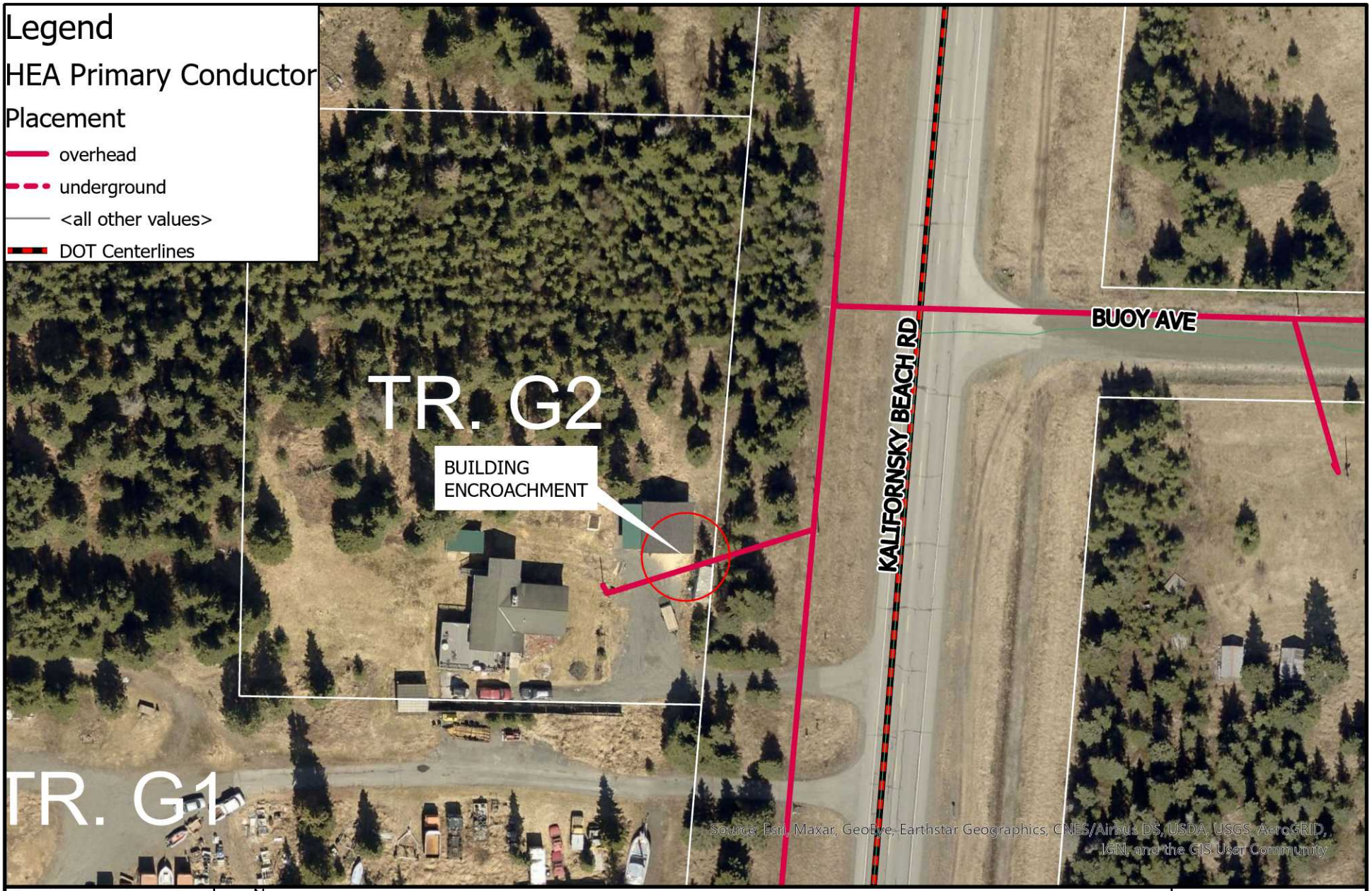


05/13/2021

Fishermen Roads Subdivision Edelman Addition Tract G-2 Building Setback Encroachment 2021-169

Google Street View





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N W E S

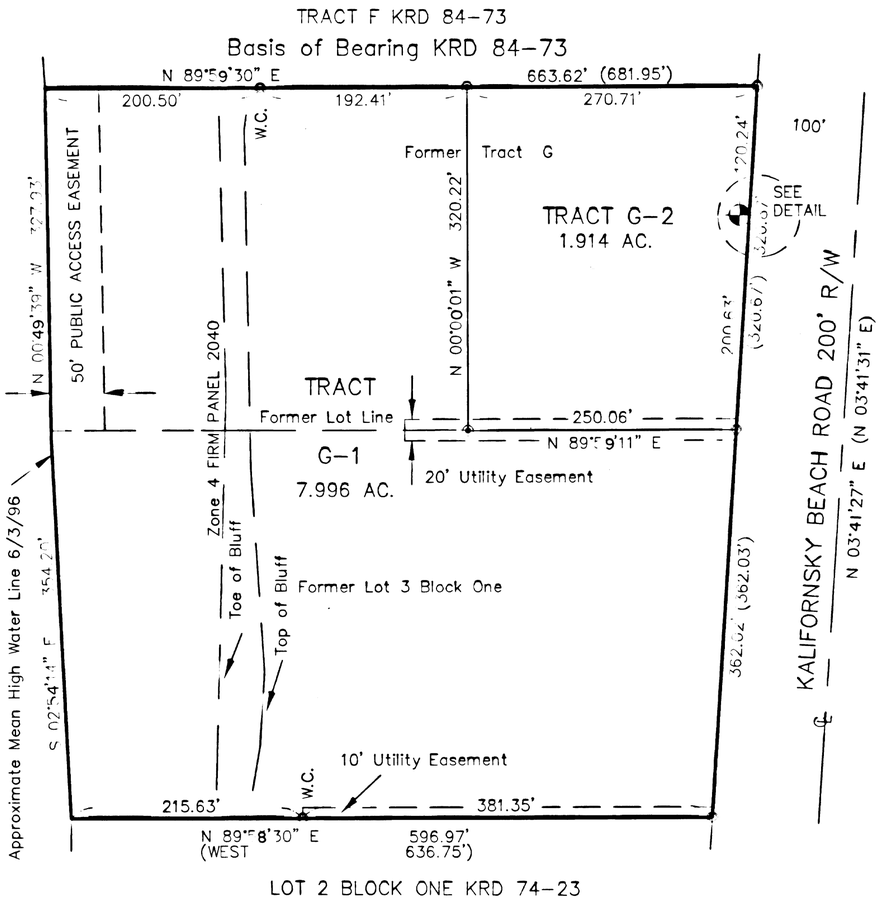
Miles

0 0.01 0.02 0.04

AERIAL IMAGERY 2021

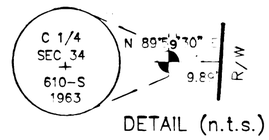
BUILDING SETBACK PERMIT

Date: 5/28/2021
1:50 PM
Scott Huff
Platting Manager



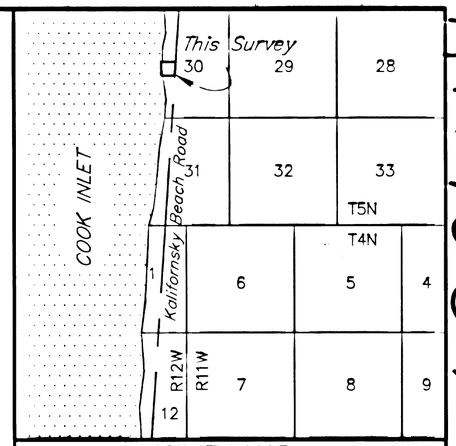
LEGEND

- o Found 1/2" rebar at property corner or witness corner.
- Found 2 1/2" diam. brass cap survey monument.
- Set 1/2" X 24" rebar with McLane cap attached
- ( ) Record data KRD 84-53 and 74-23



DETAIL (n.t.s.)





VICINITY MAP
Scale 1" = 1 Mile

KN 96-59

WASTEWATER DISPOSAL:

TRACT G-2

Soil conditions, water table levels, and soil slopes in this subdivision have been found suitable for conventional onsite wastewater treatment and disposal systems serving single family or duplex residences and meeting the regulatory requirements for the Alaska Department of Environmental Conservaton. Any other type of wastewater treatment and disposal system must be approved by the Alaska Department of Environmental Conservation.

TRACT G-1

Conditions may not be suitable for onsite wastewater treatment and disposal. Any wastewater treatment and or disposal system must meet the regulatory requirements of the Alaska Department of Environmental Conservation.

Subject to any noted restrictions, the Alaska Department of Environmental Conservation approves this subdivision for platting.

Donald Johnson Environmental Engineer 8/22/96
Signature Title Date

NOTES

1) Water supply and sewage disposal systems shall be permitted only in conformance with applicable requirements of 18 AAC 70, 18 AAC 72, and 18 AAC 80.

2) No direct access to state maintained ROWS permitted unless approved by State of Alaska Department of Transportation.

3) No permanent structure shall be constructed or placed within an easement which would interfere with the ability of a utility to use the easement.

4) Lots within this subdivision may be located within a designated flood hazards area: if such is the case, development must comply with Title 21, Chapter 5 of the Kenai Peninsula Borough Code of Ordinances. A survey to determine the elevation of the property may be required prior to construction.

5) The natural meanders of mean high water for Cook Inlet form the true bounds of Tract G-1. The meander line of the approx. 1996 M.H.W.L. shown hereon is for survey computations only.

6) BUILDING SET BACK – A building set back of 20 ft. is required from all street rights-of-way unless a lesser standard is approved by resolution of the appropriate Planning Commission.

7) The front ten (10) ft. of the twenty (20) ft. building setback along all street rights-of-way is a utility easement.

STATE OF ALASKA
NOTARY PUBLIC
M SCOTT McLANE
My Commission Expires 1-13-2000

NOTARY'S ACKNOWLEDGEMENT

FOR: Roseleen Moore
Kenneth D. Moore

Subscribed and sworn before me this 8th day of August, 1996.

My commission expires 1-13-2000

M. Scott McLane
Notary Public for the State of Alaska

STATE OF ALASKA
NOTARY PUBLIC
M SCOTT McLANE
My Commission Expires 1-13-2000

NOTARY'S ACKNOWLEDGEMENT

FOR: Rosalind F. Edelman

Subscribed and sworn before me this 8th day of August, 1996.

My commission expires 1-13-2000

M. Scott McLane
Notary Public for the State of Alaska

CERTIFICATE OF OWNERSHIP AND DEDICATION

We hereby certify that we are the owners of the real property shown and described hereon and we hereby adopt this plan of subdivision and by our free consent grant all easements to the use shown.

We further certify that the Deeds of Trust affecting this property do not contain restrictions which would prohibit this subdivision; or require signature and approval of beneficiaries.

Roseleen Moore
Roseleen Moore, as personal representative of the Estate of Lottie B. Edelman

Kenneth D. Moore — Roseleen Moore

Edwin F. Edelman Jr. by Rosalind F. Edelman POA — Rosalind F. Edelman

Edwin F. Edelman Jr. — Rosalind F. Edelman

PLAT APPROVAL

This plat was approved by the KENAI PENINSULA BOROUGH PLANNING COMMISSION at the meeting of

December 13, 1993,
and September 26, 1994.

KENAI PENINSULA BOROUGH by

Authorized Official

STATE OF ALASKA
49TH
M. SCOTT McLANE
4928-S
REGISTERED PROFESSIONAL LAND SURVEYOR

96-59
RECORDED 20
KENAI REC. DIST
DATE 12-3 19 96
TIME 10:35 A M
REQUESTED BY McLane Consulting Group
ADDRESS P.O. Box 468
Soldotna, AK 99669

FISHERMEN ROADS SUBDIVISION EDELMAN ADDITION

(A Resubdivision of Tract G Fishermen Roads & Lot 3 Block One Edelman Subdivision)

Ed Edelman, owner
P.O. Box 1038
Homer, AK 99603

LOCATION

9.910 AC. M/L SITUATED IN THE NE 1/4, SE 1/4, SW 1/4, NW 1/4 SEC. 30, T.5N., R.11W., S.M., AK. AND THE KENAI PENINSULA BOROUGH IN THE KENAI RECORDING DISTRICT.

Surveyed by : CONSULTING GROUP
McLANE P.O. BOX 468
Soldotna, AK 99669

Date : June 1996	Book No. : 93-27	Project No. 93202
Drawn by & Checked by : MSM	Scale 1" = 100'	KPB File No. 9318

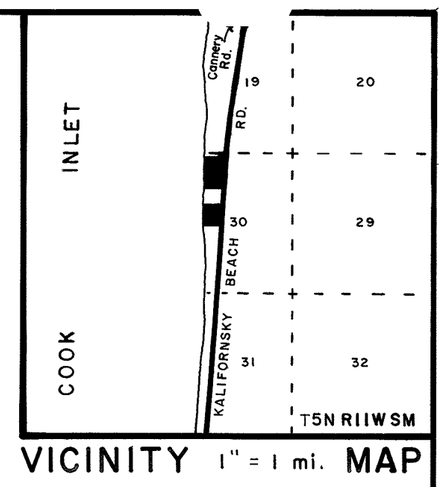
KN 84-73

Fishermen Roads

LOCATED IN NE1/4 SEC. 30 AND IN SE1/4 SEC. 30 AND
LOCATED IN GOV. LOTS 6, 7, 8, 9, 10, 11, & 12 IN FRACTIONAL NW1/4 SEC. 30 AND
IN GOV. LOT 3 IN FRACTIONAL SW1/4 SEC. 30, ALL IN T5N. R11W. S.M. ALASKA

SCALE 1" = 200' AREA = 36.372 AC 10-8-1983

BY KENAI PENINSULA BOROUGH BOX 850 SOLDOTNA, ALASKA 99669



VICINITY 1" = 1 mi. MAP

PLAT APPROVAL

This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of October 24, 1983.

KENAI PENINSULA BOROUGH

BY _____
authorized official

LEGEND

- ○ - 2.5" aluminum monument by 610-S, found
- ⊕ - Brass cap mon. by 610-S, found
- • - 1/2" x 2' rerod set
- ▫ - 6" x 6" conc. post, State R/W marker
- ∘ - 1/2" rerod found
- — — — Former Gov. Lots

NOTES

A building setback of 20' from all ROW's is required unless a lesser standard is approved by a resolution of the appropriate planning commission.

Building setback line to be limit of utility easements along streets.

The purpose of this plat is to combine certain real property titles in Sec. 30, T5N R11W S.M. Alaska under individual tract descriptions; all in conformance with Kenai Peninsula Borough negotiated land sales resolution 83-166 and ordinance 83-41.

OWNER'S CERTIFICATE

We hereby certify that we are the owners of the property shown and described hereon, and that we hereby adopt this plan of subdivision, and dedicate all Rights of Way to public use, and grant all easements to uses shown.

Paul W. Nelson
Paul W. Nelson Rt. 2 box 753 Soldotna, Ak. 99669

Betty J. Nelson by Paul W. Nelson attorney in fact. Bk. 228 Pg. 507 K.R.D.
Betty J. Nelson

Edwin Edelman Sr. by Power Attorney Lottie Edelman Bk. 187 Pg. 922 K.R.D.
Edwin Edelman Rt. 2 box 752 Soldotna, Ak. 99669

Lottie Edelman
Lottie Edelman

Stan Thompson
Stan Thompson, Mayor, Kenai Peninsula Borough
Box 850, Soldotna, AK 99669

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn to before me this 26th day of March, 1984, by Stan Thompson, Mayor of the Kenai Peninsula Borough, an Alaska municipal corporation, on behalf of the corporation.

Carolyn L. Thompson
NOTARY FOR ALASKA

My commission expires 9-21-84

CAROLYN L. THOMPSON NOTARY PUBLIC STATE OF ALASKA

NOTARY'S ACKNOWLEDGEMENT

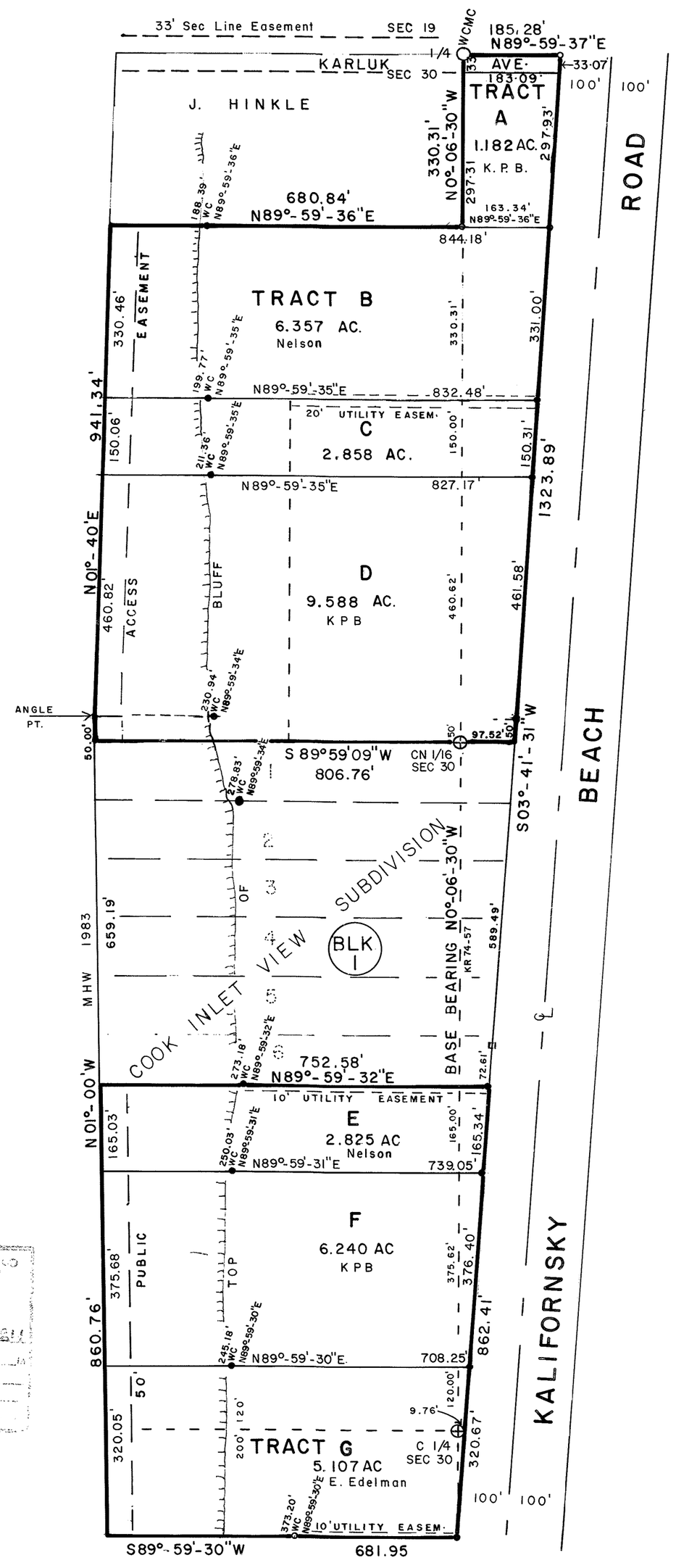
Subscribed and sworn to before me this 31st day of January 1984

Carolyn L. Thompson
NOTARY FOR ALASKA For Paul Nelson, Betty Nelson, Edwin Edleman, Lottie Edleman

My commission expires 9-21-84

CAROLYN L. THOMPSON NOTARY PUBLIC STATE OF ALASKA

84-73
RECORDED - FILED
Kenai
DATE 4-6 19 84
TIME 3:27 P
Requested by KPB
Address



LOT 3, EDELMAN SUBD. NO. 2

ISOLATED SUBDIVISION
ADEC APPROVAL NOT REQUIRED
18 ACC 72.065
Robert P. Cannone

STATE OF ALASKA LOUIS Henning N. Johnson No. 2468 REGISTERED PROFESSIONAL LAND SURVEYOR

Box 27 Clam Gulch, Ak. 99568

AGENDA ITEM NEW BUSINESS

B. Benjamin Ave originally named by Resolution SN 2005-06; Section 21, T05S, R12W; Seward Meridian, Kenai Peninsula Borough, AK; in the Fritz Creek community; ESN 202

STAFF REPORT PC MEETING: January 24, 2022

Applicant: Kenai Peninsula Borough Staff

Existing right-of-way names: Benjamin Ave

Name proposed by staff: Benjamin Ave E & Benjamin Ave W

Reason for Change: Jump Street

Background:

Name	Benjamin Ave
ESN	202
Community	Fritz Creek
YR Dedicated	2005
Constructed	Mostly
Total Lots	32
Residential	32
Commercial	0
E911 Address	22
Decision	Rename

Review and Comments:

Notice was sent by regular mail to the property owners fronting the unnamed private road, as listed on the KPB tax roll.

No comments from property owners were received by the writing of this staff report.

The road name request has been emailed to the Kenai Peninsula Borough Road Maintenance for review. The KPB Roads Department supplied a statement that the Road Service Area has no objections at this time.

Staff Discussion:

First responders identified Benjamin Ave as a jump street. A jump street is a street that is not constructed all the way through therefore creating separate access points to locate addresses assigned to the street. Jump streets are confusing for emergency response when there is no way to determine which access point will get them to the correct address.

Because it is unclear if the unconstructed portion may be constructed in the future staff is proposing to add the post directional E & W.

STAFF RECOMMENDATION: Rename Benjamin Ave to Benjamin Ave E & Benjamin Ave W by adoption of Resolution SN 2022-01.

END OF STAFF REPORT

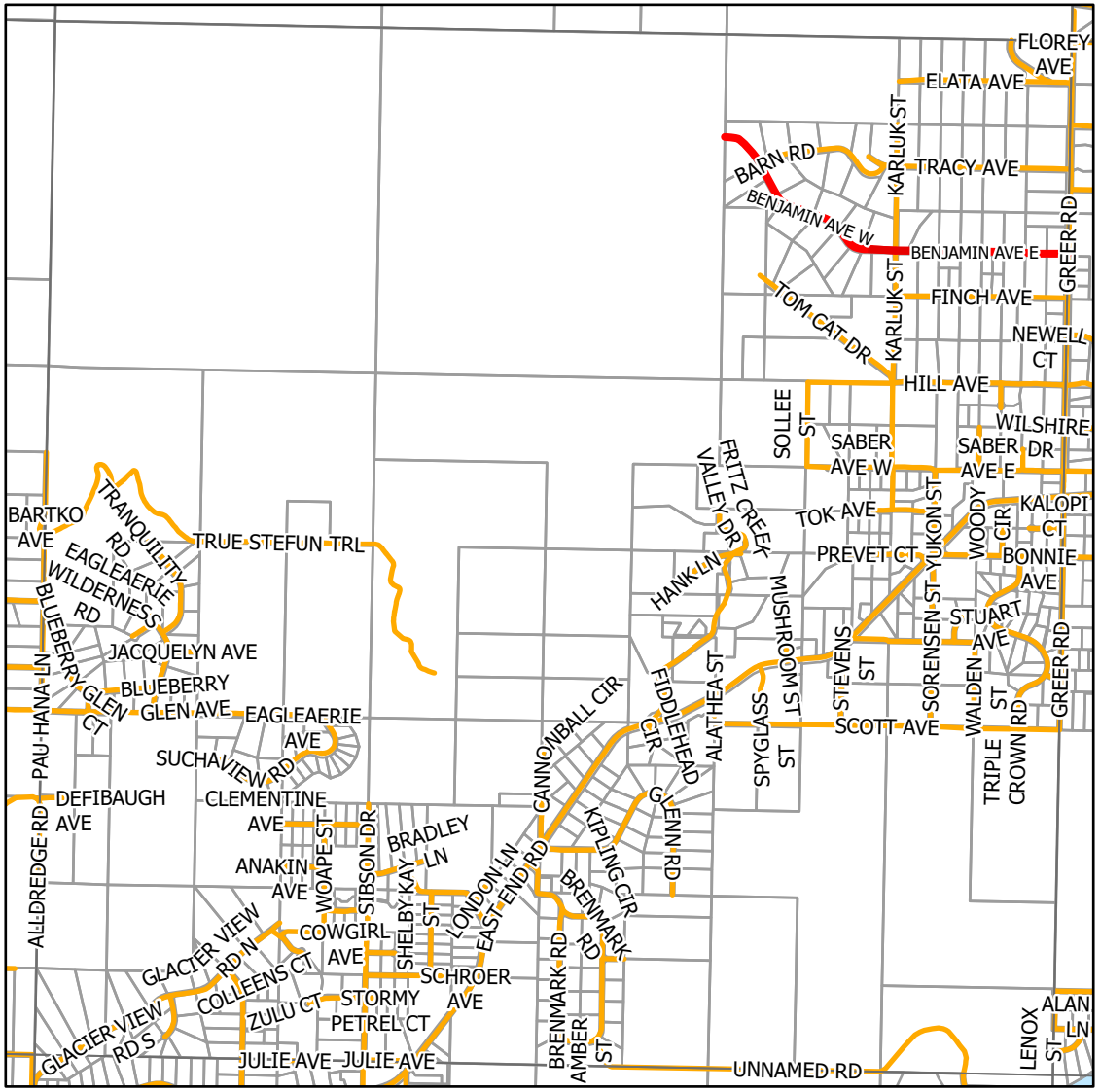
Kenai Peninsula Borough Planning Department

Basemap AR59

Date: 12/30/2021

N

Benjamin Ave Street Name Change
Resolution SN 2022-01



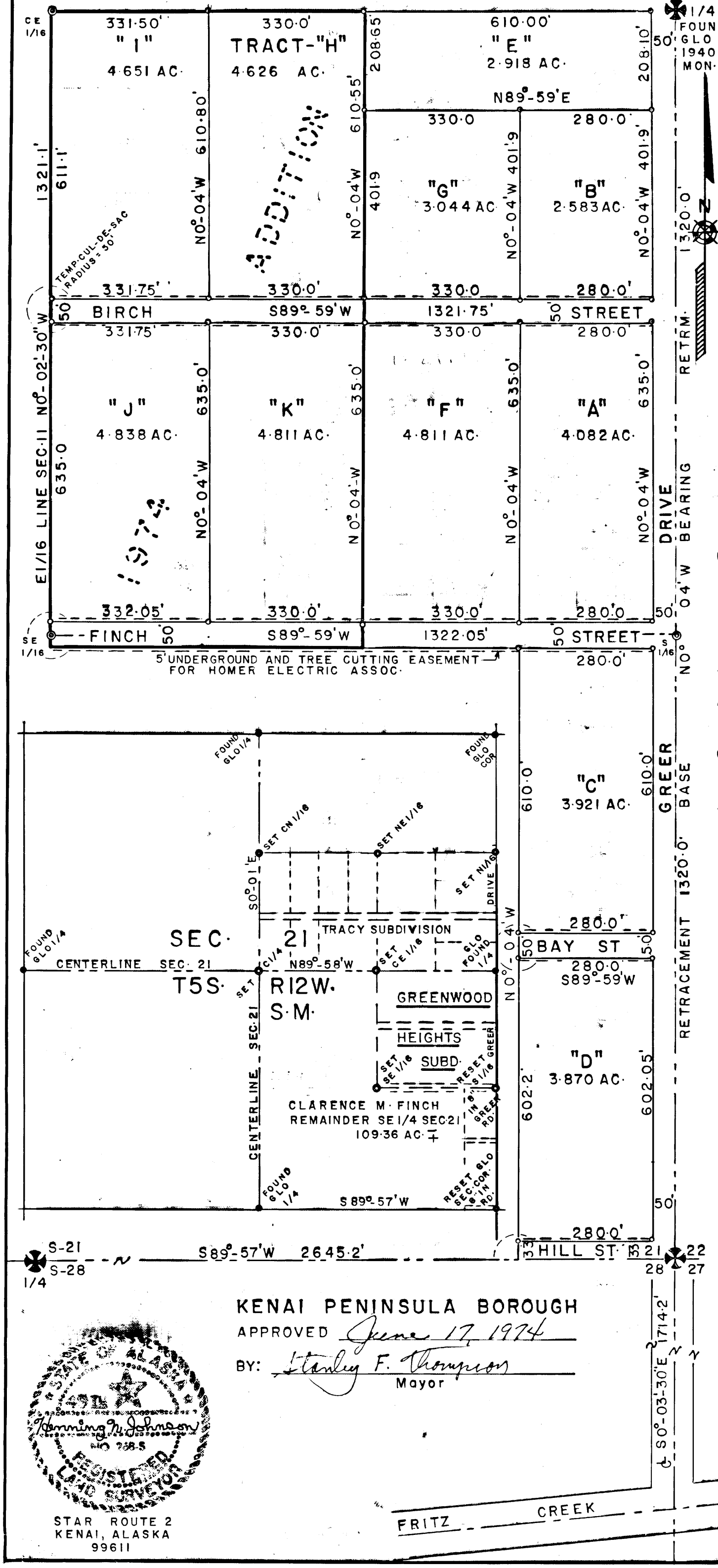
HM 74-1289

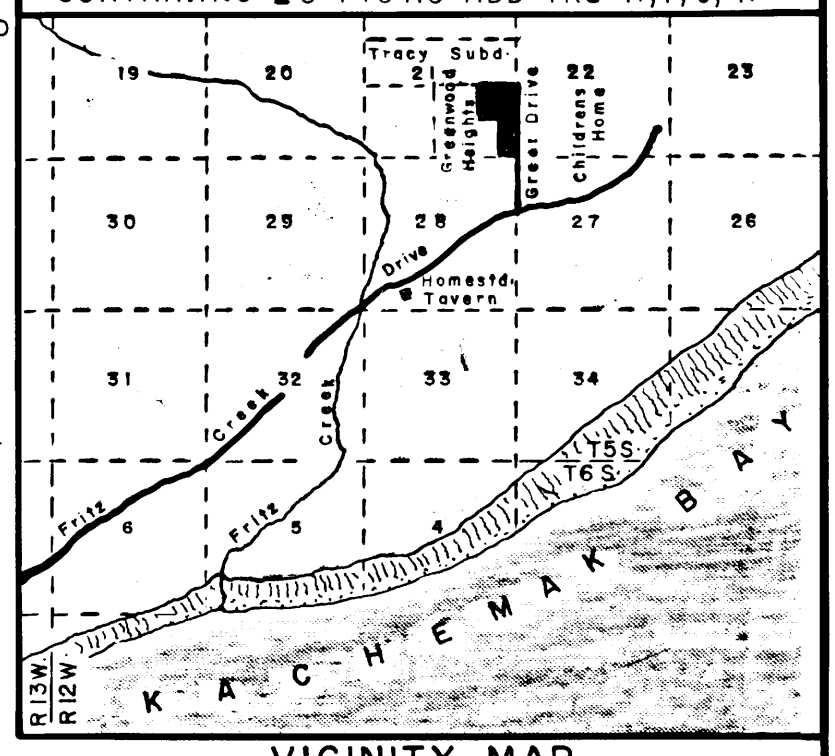
GREENWOOD HEIGHTS 1974 ADDITION

LOCATED IN E1/2 SE 1/4 SEC. 21, T5S. R12W. S.M. ALASKA.

BY: CLARENCE M. FINCH, STAR RTE. "A", HOMER, ALASKA.

CONTAINING 20.446 AC. ADD TRS. "H", "I", "J", "K"





VICINITY MAP
SCALE = 1" = 1.25 MILES

PLAT
SCALE = 1" = 200'

LEGEND

✠ ---INDICATES STANDARD G L O MONUMENT.

⊙ ---- " STANDARD KENAI PENINSULA BOROUGH BRASS CAP ON 3/4" X 3' G.I.P.

o --- 5/8" X 2' REBAR, FOUND OR SET.

REDUCED AREAS OF TRACTS A, B, C, D, DUE TO INCREASE IN GREER DRIVE R.O.W. BY STATE OF ALASKA, ACCDG. TO EASEMENTS OF RECORD.

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBE HEREON, AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION AND DEDICATE ALL STREETS TO PUBLIC USE AND TO THE USE OF PUBLIC UTILITIES.

Clarence Finch
OWNER

OWNER

STATE OF ALASKA,
THIRD JUDICIAL DISTRICT

SUBSCRIBED AND SWORN BEFORE ME THIS 20th DAY OF June, 1974.

Benj. O. Walters
NOTARY PUBLIC FOR ALASKA.
My Commission Expires 12 Nov. 1977

KENAI PENINSULA BOROUGH
APPROVED June 17, 1974
BY: Stanley F. Thompson
Mayor

STATE OF ALASKA
LS 4911
Henning N. Johnson
NO. 2685
REGISTERED LAND SURVEYOR

STAR ROUTE 2
KENAI, ALASKA
99611

HOMER Serial No. 74-1289

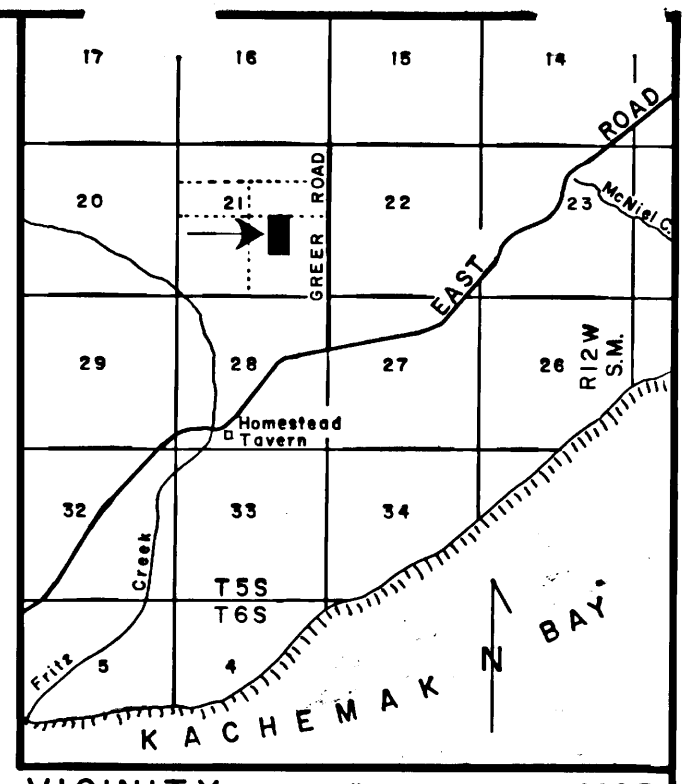
RECORDED - FILED 2 ¼
HOMER REC. DIST.
DATE 7-1- 1974
TIME 3:35 P M
Requested by KPB
Address Soldotna

HM 78-53

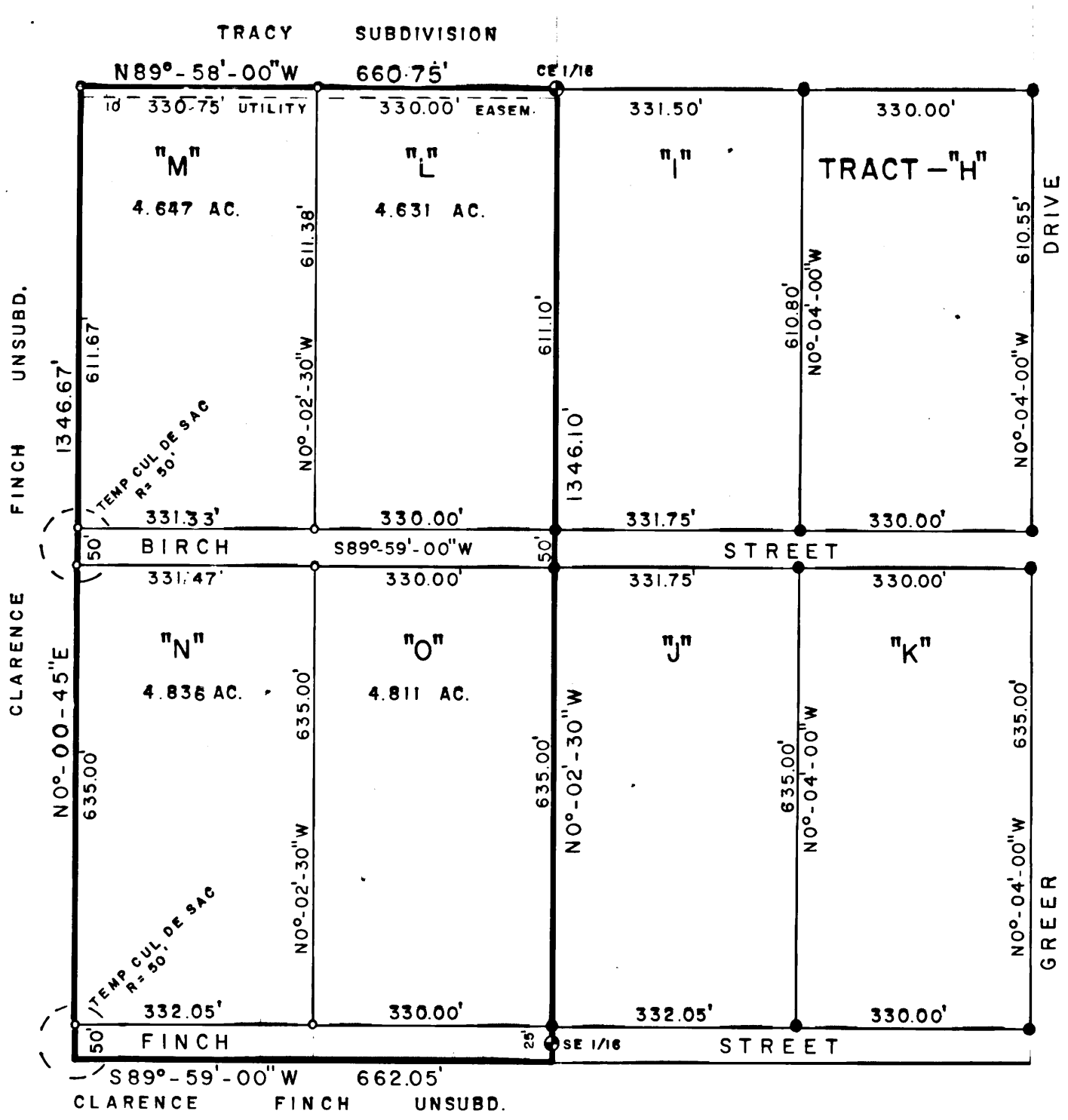
Greenwood Heights 1978 Addition

LOCATED IN E1/2NW1/4SE1/4 SEC. 21, T5S R12W S.M. ALASKA
BY: CLARENCE M. FINCH, STAR ROUTE "A" HOMER, ALASKA
SCALE 1"=200' AREA = 20.444 AC. JAN. 27, 1978





VICINITY SCALE 1"=1.25 MILES MAP



LEGEND

- ⊕ - 1974 brass cap by 268—S found
- ● - 5/8" rebar found
- o - 5/8" rebar set

NOTE: A 20' bldg. set-back line and 5' underground utility, or overhead clearing easement along all streets for Homer Electric Association.
All waste water disposal systems shall comply with existing laws at time of construction.

PLAT APPROVAL

This plat having been approved by the Kenai Peninsula Borough Planning Commission as recorded in the official minutes of the meeting of March 06, 1978 is hereby acknowledged and accepted as the official plat, subject to all conditions and requirements of ordinances and law appertaining thereto.

KENAI PENINSULA BOROUGH
By: Phyllis Warring

CERTIFICATE OF OWNERSHIP AND DEDICATION

We hereby certify that we are the owners of the property shown and described hereon, and that we hereby adopt this plan of subdivision, and dedicate all streets to public use and to the use of public utilities.

Clarence M Finch
CLARENCE M. FINCH STAR ROUTE "A" HOMER, ALASKA 99603

STATE OF ALASKA, THIRD JUDICIAL DISTRICT

Subscribed and sworn to before me this 14 day of March 1978

Gail M. Gibson
NOTARY PUBLIC FOR ALASKA

My commission expires May 14 1981

78-53
RECORDED - FILED 3-
Homer REC. DIST.
DATE 5-24-, 1978
TIME 2:47 P M
Requested by KPB
Address

STATE OF ALASKA 49TH Hanning R. Johnson NO. 2026 REGISTERED PROFESSIONAL LAND SURVEYOR

BOX 27 CLAM GULCH ALASKA 99568

KPB File # 85-082

GREENWOOD HEIGHTS 1985 ADDITION

LOCATED IN NW1/4 SE1/4 SEC. 21, T5S, R12W, S.M., ALASKA
SCALE 1" = 100' AREA = 11.296 AC. 3-1-85
BY CLARENCE M. FINCH, S.R."A" HOMER, AK. 99603

PLAT APPROVAL

This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of March 25, 1985.
KENAI PENINSULA BOROUGH
BY Richard P. Troeger - 6-21-85
authorized official

NOTE

A building setback of 20' from all street r.o.w's is required unless a lesser standard is approved by a resolution of the appropriate planning commission.
Building setback line to be limit of utility easements along streets.

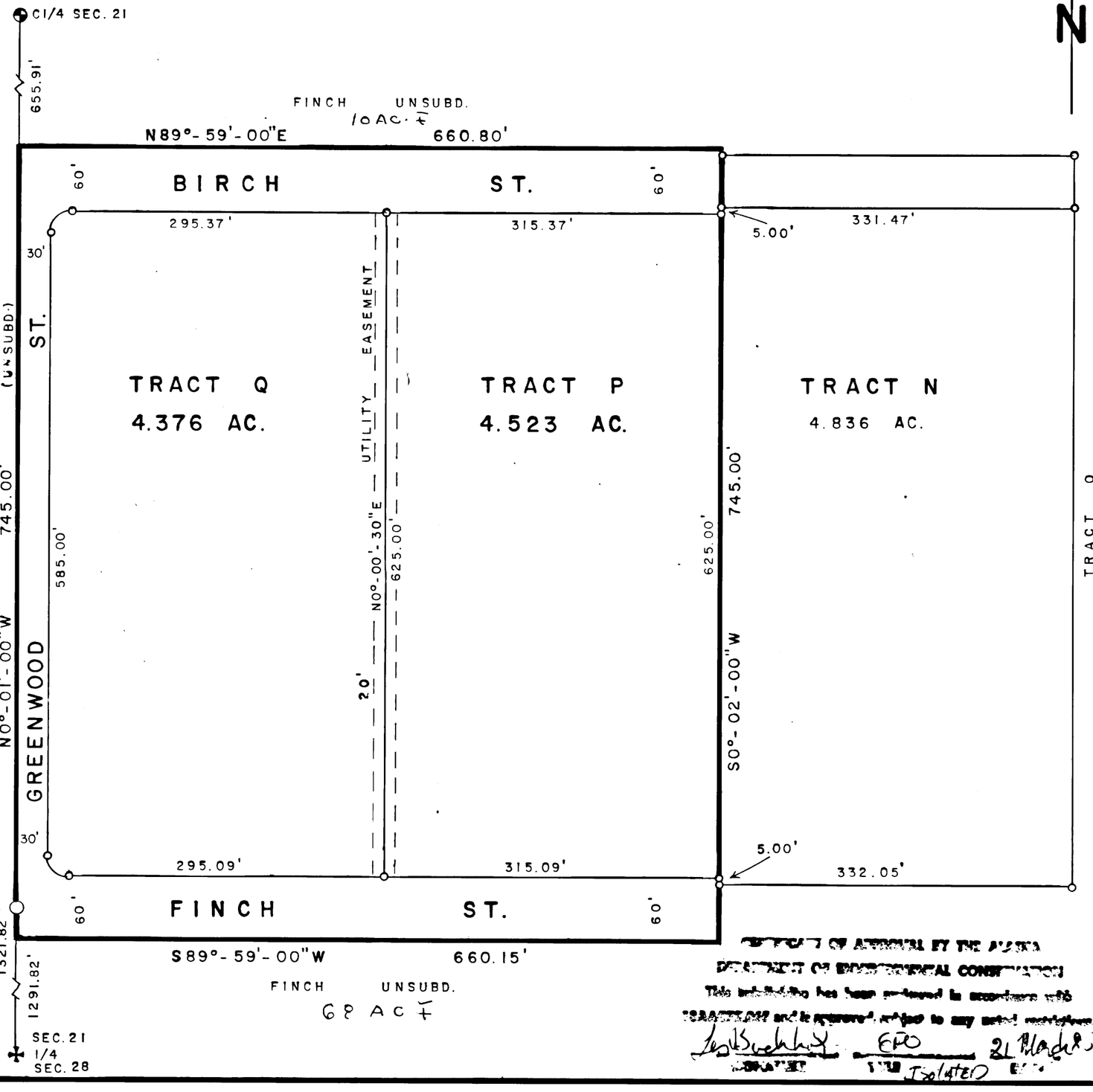
OWNER'S CERTIFICATE & DEDICATION

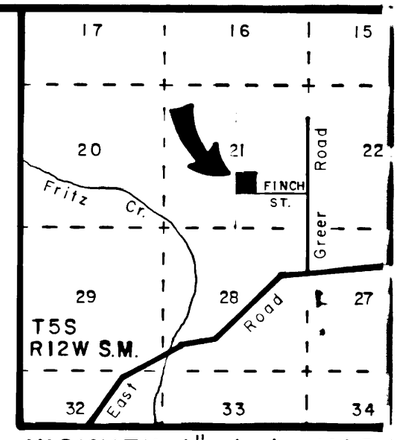
We hereby certify that we are the owners of the property shown and described hereon, and that we hereby adopt this plan of subdivision, and dedicate all r.o.w.'s to public use, and grant all easements to the uses shown.

Clarence M. Finch
Clarence M. Finch
Star Route "A" Homer, Ak. 99603

NOTARY CERTIFICATE

Subscribed and sworn to before me this 6 day of June, 1985
Anne L. Jackson
NOTARY FOR ALASKA
for Clarence Finch
My commission expires 11/8/88





VICINITY 1" = 1 mi. MAP

LEGEND

- ✚ - 1917 brass cap mon. by GLO, fnd
- ⊕ - 1974 brass cap mon. by 268-S, fnd.
- ○ - Aluminum mon. by 268-S, set.
- o - 5/8" rebar, found.
- ● 1/2" x 2' rebar set.

CURVES

A - 90° T - 20'
R - 20' L - 31.42'
C - 28.28'

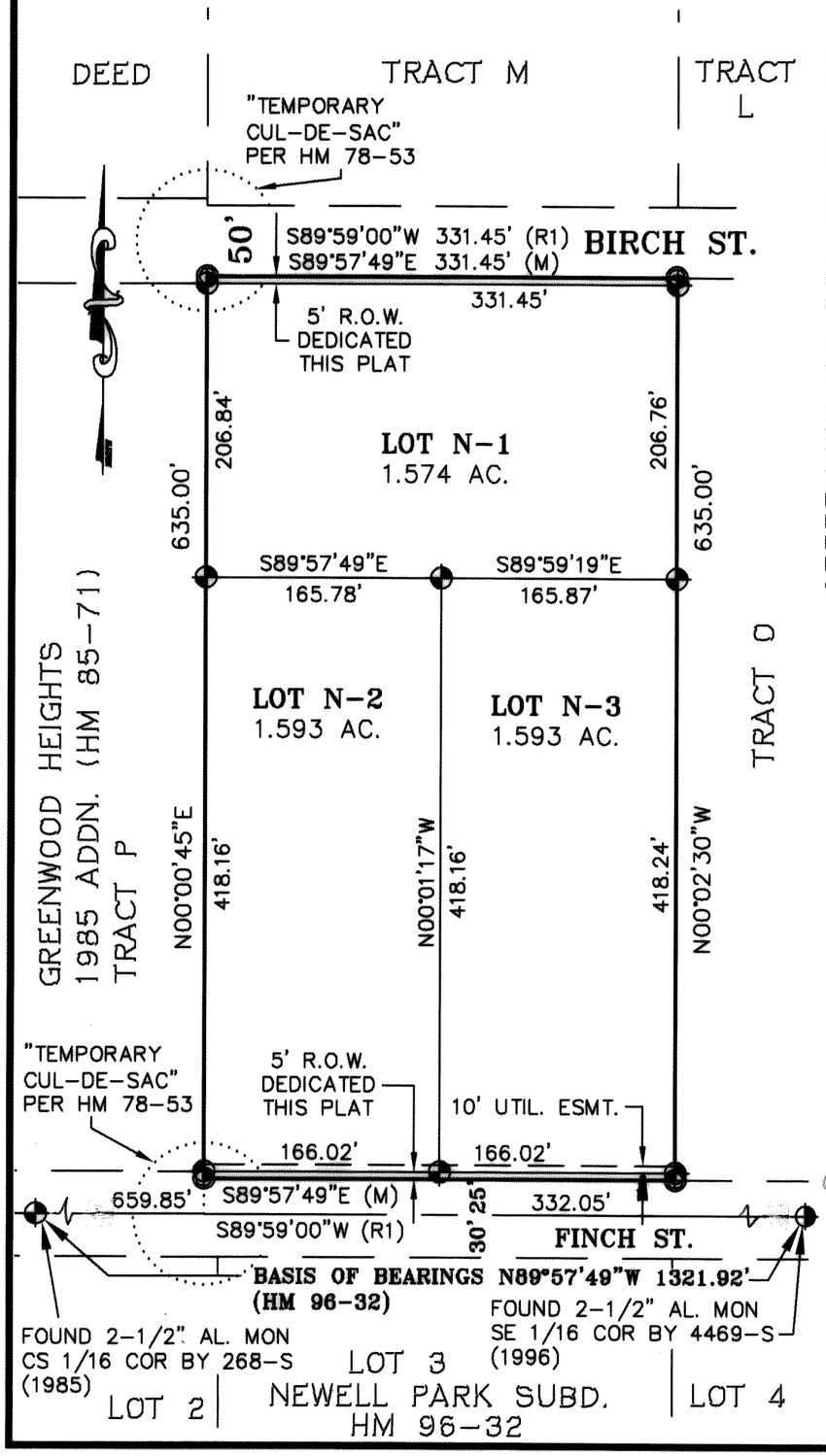
85-71

RECORDED - FILED 10 by
HOMER REC. DIST.
DATE 6-26-1985
TIME 3:30 P M
Requested by KPB
Address Soldotna

STATE OF ALASKA
49TH
Henning N. Johnson
Henning N. Johnson
NO. 268-S
REGISTERED PROFESSIONAL LAND SURVEYOR

CERTIFICATE OF APPROVAL BY THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
This subdivision has been reviewed in accordance with 18AAC80 and is approved subject to any noted restrictions.
Les Buchholz EPO 21 March 85
SIGNATURE TITLE Isolated DATE

BOX 27 CLAM GULCH, AK. 99568



NOTES

1. NO PERMANENT STRUCTURE SHALL BE CONSTRUCTED OR PLACED WITHIN AN EASEMENT WHICH WOULD INTERFERE WITH THE ABILITY OF A UTILITY TO USE THE EASEMENT.

2. THERE EXISTS A 5' UNDERGROUND UTILITY, OR OVERHEAD CLEARING EASEMENT ALONG ALL STREETS FOR HOMER ELECTRIC ASSOCIATION PER HM 78-53.

2. A BUILDING SETBACK OF 20 FEET IS REQUIRED FROM ALL STREET RIGHTS-OF-WAY UNLESS A LESSER STANDARD IS APPROVED BY RESOLUTION OF THE APPROPRIATE PLANNING COMMISSION.

3. ROADS MUST MEET THE DESIGN AND CONSTRUCTION STANDARDS ESTABLISHED BY THE BOROUGH IN ORDER TO BE CONSIDERED FOR CERTIFICATION AND INCLUSION IN THE ROAD MAINTENANCE PROGRAM (KPB 14.06).

4. LOT ACREAGE SHOWN INCLUDES "TEMPORARY CUL-DE-SAC" PORTIONS WITHIN THE LOT SHOWN.

WASTEWATER:
SOIL CONDITIONS IN THIS SUBDIVISION HAVE BEEN FOUND UNSUITABLE FOR CONVENTIONAL ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS. PLANS FOR A TYPICAL ALTERNATE WASTEWATER DISPOSAL SYSTEM FOR USE ON LOTS IN THIS SUBDIVISION ARE INCLUDED IN THE ENGINEER'S SUBDIVISION AND SOILS REPORT AND ARE AVAILABLE FROM THE KENAI PENINSULA BOROUGH. ALL ALTERNATE ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS MUST BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN ALASKA, AND THE DESIGN MUST BE APPROVED BY THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION PRIOR TO CONSTRUCTION.

M Tauriainen — ENGINEER | 3380-E — LICENSE # | 26 Apr 05 — DATE

CERTIFICATE OF OWNERSHIP

We, hereby certify that we are the owners of the real property shown and described hereon, each as to an undivided 1/3 interest, as tenants in common, and that we hereby adopt this plan of subdivision, and by our free consent grant all easements to the use shown.

Brent L. Greer
Brent L. Greer
P.O. Box 993
Homer, AK 99603

Eugene D Greer
Eugene D. Greer
P.O. Box 993
Homer, AK 99603

Daniel L Greer
Daniel L. Greer
P.O. Box 993
Homer, AK 99603

NOTARY'S ACKNOWLEDGEMENT

For Brent L. Greer, Daniel L. Greer and Eugene D. Greer

subscribed and sworn to before me this 28th day of February 2004.

Jolene M. Grady 3/6/06
Notary public for Alaska — My Commission Expires

OFFICIAL SEAL
STATE OF ALASKA
JOLENE M. GRADY
NOTARY PUBLIC
My Comm. Exp.: 3/6/06

PLAT APPROVAL

This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of 12-13-2004

KENAI PENINSULA BOROUGH

BY Mary Toll
Authorized Official

2005-21
Homer REC DIST
Date 5/25 20 05
Time 1:28 PM
Requested By Ability
Address

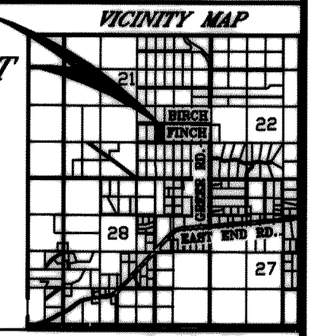
KPB FILE No. 2004-311

LEGEND

- SET 2" AL CAP ON 5/8" x 32" REBAR
- FOUND 1/2" REBAR PER R1
- (R1) RECORD DATA PER HM78-53
- (R2) RECORD DATA PER HM96-32

STATE OF ALASKA
49TH
Gary D. Nelson
Gary D. Nelson
NO. 7610-S
REGISTERED PROFESSIONAL LAND SURVEYOR

VICINITY MAP



SCALE: 1" = 1 MILE

DATE	2-15-05
SCALE	1"=100'
JOB No.	3875
DRAWING:	3875

GREENWOOD HEIGHTS SUBD. 1978 ADDN. GREER REPLAT

A SUBDIVISION OF LOT N, GREENWOOD HEIGHTS SUBD. 1978 ADDN., (HM78-53), LOCATED WITHIN THE SE1/4 SEC 21, T5S, R12W, S. M., KENAI PENINSULA BOROUGH, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, HOMER RECORDING DISTRICT, CONTAINING 4.760 ACRES

ABILITY SURVEYS
GARY D. NELSON, P.L.S.
(907)235-8440
152 DEHEL AVE., HOMER, ALASKA

NOTES

1. BUILDING SETBACK: A setback of 20 feet is required from all street rights-of-way unless a lesser standard is approved by resolution of the appropriate Planning Commission.

2. BASIS OF BEARING: The Basis of Bearing was determined by high precision GPS methods. A local grid oriented to True Geodetic North at the SE corner of the subdivision was used for this survey.

3. The purpose of this plat is to subdivide Tract J into 4 tracts.

4. Acceptance of this plat by the Borough does not indicate acceptance of any encroachments by the Borough.

5. Any person developing these lots is responsible for obtaining all required local, state, and federal permits, including a U.S. Army Corps of Engineers wetlands determination, if applicable.

6. The front 10 feet of the building setback and the entire setback within 5 feet of the side lot lines is a utility easement. No permanent structure shall be constructed or placed within an easement which would interfere with the ability of the utility to use the easement.

7. Roads must meet the design and construction standards established by the Borough in order to be considered for certification and inclusion in the road maintenance program.

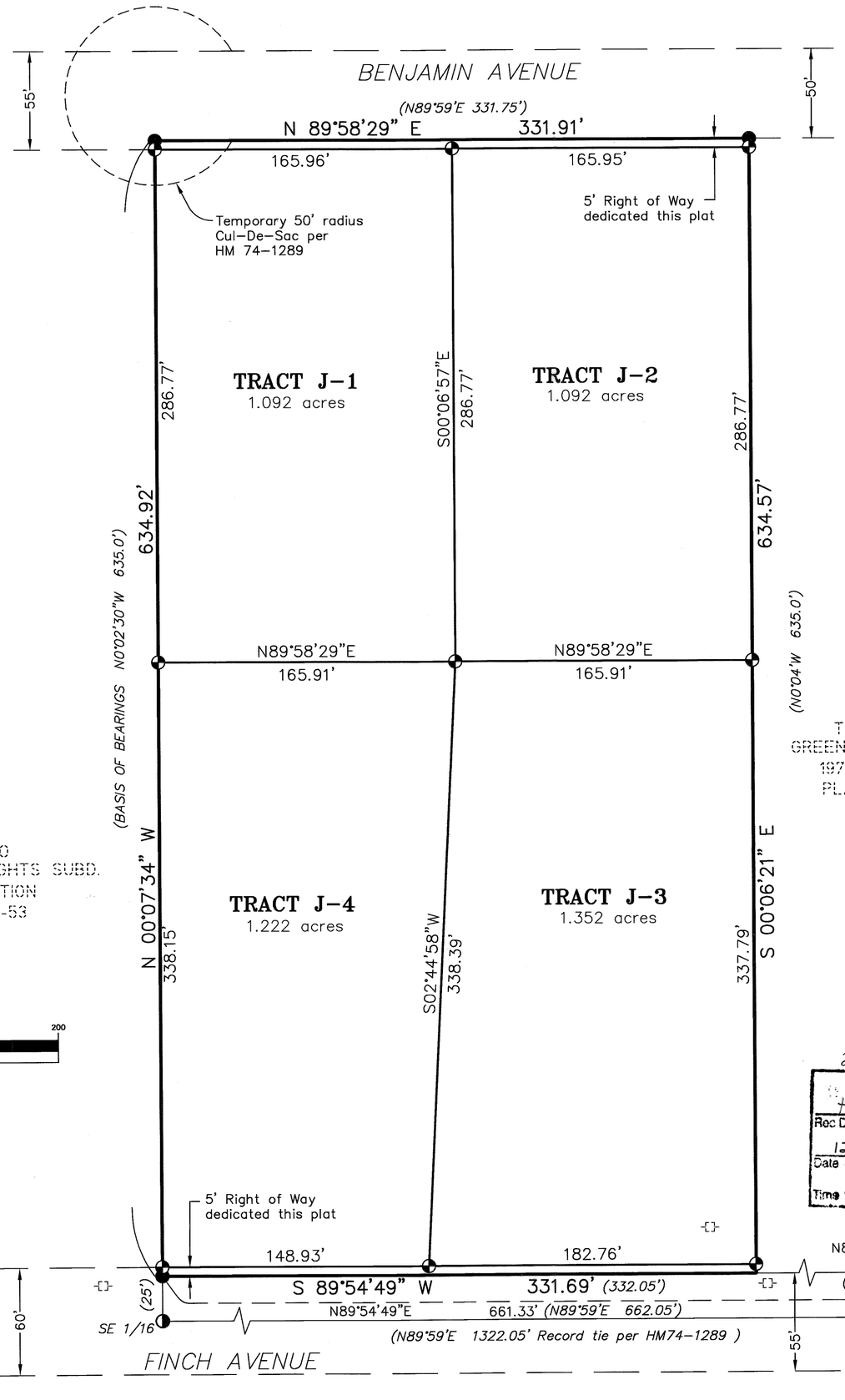
8. WASTEWATER DISPOSAL: Soil conditions, water table levels and soil slopes have been found suitable for conventional onsite wastewater treatment and disposal systems serving single family or duplex residences and meeting the regulatory requirements of the Kenai Peninsula Borough. Any other type of onsite wastewater treatment and disposal system must be designed by a professional engineer, registered to practice in the State of Alaska, and the design must be approved by the Alaska Department of Environmental Conservation.

Engineer — CE 8149 License # — 12/16/12 Date

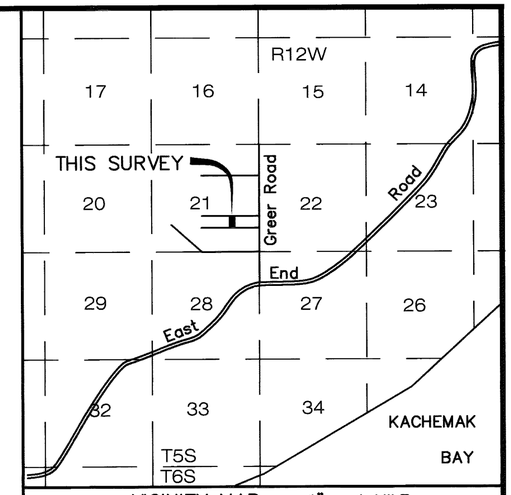
STEVEN R. PANNONE, PE

MULLIKIN SURVEYS
P.O. BOX 790
HOMER, ALASKA 99603-0790
(907) 235-8975

TRACT O
GREENWOOD HEIGHTS SUBD.
1978 ADDITION
PLAT 78-53



TRACT K
GREENWOOD HEIGHTS
1974 ADDITION
PLAT 74-1289



VICINITY MAP 1" = 1 MILE
KPB GIS

CERTIFICATE OF OWNERSHIP AND DEDICATION

I hereby certify that I am the owner of the real property shown and described hereon and that I hereby adopt this plan of subdivision and by my free consent dedicate all rights-of-way to public use and grant all easements to the use shown.

Donald M. DeArmoun 12/10/2012
Donald M. DeArmoun
P.O. Box 111667
Anchorage, AK 99511

NOTARY'S ACKNOWLEDGMENT

For: Donald M. DeArmoun and _____
Subscribed and sworn before me
this 10 day of Dec, 2012.

Notary Public for the State of Alaska
My commission expires May 18, 2015

Notary Public
SARAH BEHRENS
State of Alaska
My Commission Expires May 18, 2015

PLAT APPROVAL

This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of September 10, 2012

KENAI PENINSULA BOROUGH
By: Paul B. Voeller
Authorized Official

2012-61
Plat # HOMER
Rec Dist
12/31/2012
Date
Time 9:45 AM

GRAPHIC SCALE

50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

LEGEND

- ● 5/8" Rebar found
- ⊕ Set 2" Alum. cap on 5/8" x 30" rebar
- -{}- Utility Pole
- ( ) Record data per HM74-1289
- ◑ Monument of Record, Brass Cap per HM74-1289

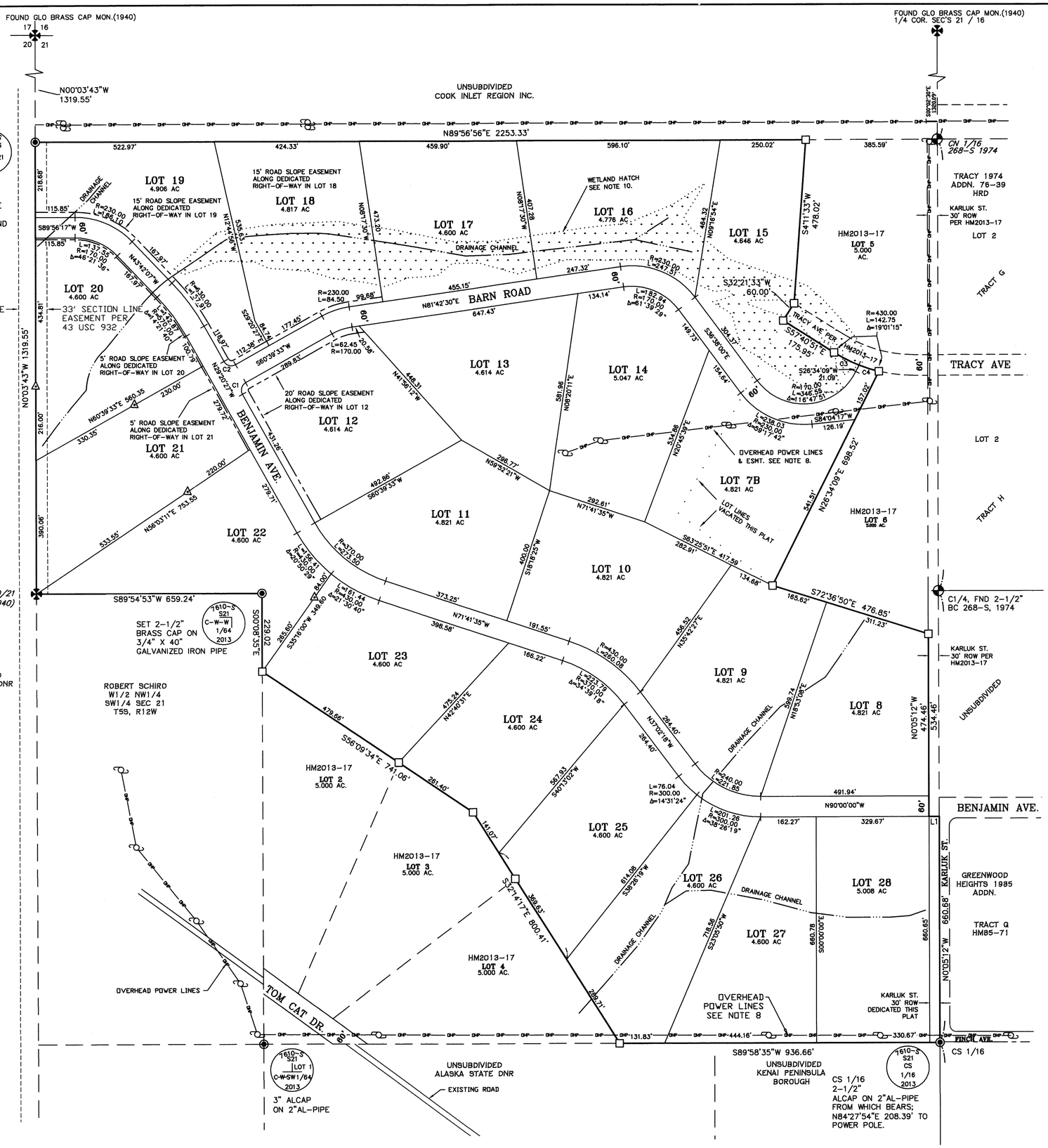
STATE OF ALASKA
49TH
DONALD E. MULLIKIN
4469-S
REGISTERED PROFESSIONAL LAND SURVEYOR
12/3/12

GREENWOOD HEIGHTS 2012 ADDITION

A REPLAT OF TRACT "J",
GREENWOOD HEIGHTS 1974 ADDITION, HM 74-1289
WITHIN THE NE1/4 SE1/4 SEC. 21,
T.5S., R.12W., SEWARD MERIDIAN,
KENAI PENINSULA BOROUGH,
HOMER RECORDING DISTRICT,
THIRD JUDICIAL DISTRICT,

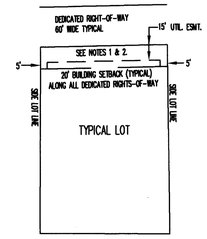
CONTAINING 4.835 Ac.

SURVEYOR	CLIENT
Mullikin Surveys P.O. Box 790 Homer, AK 99603	Donald M. DeArmoun P. O. Box 111667 Homer, AK 99603
Drawn By: TAL	Scale: 1" = 50'
Date: December 1, 2012	File:
Checked By: DEM, JVM	Greenwoodheights 2012
Book No. 322	K.P.B. File 2012-124



NOTES

1. A BUILDING SETBACK OF 20 FEET IS REQUIRED FROM ALL STREET RIGHTS-OF-WAY UNLESS A LESSER STANDARD IS APPROVED BY RESOLUTION OF THE APPROPRIATE PLANNING COMMISSION. (DOES NOT APPLY TO LOT 6 FRONTAGE ON BARN ROAD RIGHT-OF-WAY).
2. THE FRONT 15 FEET OF THE 20 FOOT BUILDING SETBACK AND THE ENTIRE SETBACK WITHIN 5 FEET OF SIDE LOT LINES IS A UTILITY EASEMENT.
3. NO PERMANENT STRUCTURE SHALL BE CONSTRUCTED OR PLACED WITHIN AN EASEMENT WHICH WOULD INTERFERE WITH THE ABILITY OF A UTILITY TO USE THE EASEMENT.
4. ROADS MUST MEET THE DESIGN AND CONSTRUCTION STANDARDS ESTABLISHED BY THE BOROUGH IN ORDER TO BE CONSIDERED FOR CERTIFICATION AND INCLUSION IN THE ROAD MAINTENANCE PROGRAM (KPB 14.06).
5. THE BASIS OF BEARINGS IS S00°06'43"E 2639.10 FEET FROM THE NORTHWEST CORNER OF SECTION 21 TO THE 1/4 CORNER COMMON TO SECTIONS 20 AND 21, DETERMINED FROM A TRUE BEARING BASIS COMPUTED FROM GPS OBSERVATION AT THE CENTER 1/4 CORNER OF SECTION 21, T5S, R12W, SEWARD MERIDIAN.
6. ANY PERSON DEVELOPING THE PROPERTY IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LOCAL, STATE, AND FEDERAL PERMITS, INCLUDING A U.S. ARMY CORPS OF ENGINEERS WETLAND DETERMINATION AND SUBSEQUENT CONSTRUCTION PERMITS.
7. SET SELF-IDENTIFING 2 INCH DIAMETER ALUMINUM CAP ON 5/8" X 30" REBAR AT ALL LOT CORNERS AND POINTS OF CURVATURE UNLESS OTHERWISE NOTED.
8. EXISTING OVERHEAD ELECTRIC TRANSMISSION LINES ARE THE CENTERLINE OF A 20 FOOT WIDE ELECTRIC DISTRIBUTION EASEMENT GRANTED TO HOMER ELECTRIC ASSOCIATION PER THIS PLAT.
9. REFERENCE IS MADE TO THE RIGHT-OF-WAY EASEMENT TO HOMER ELECTRIC ASSOCIATION (BLANKET EASEMENT) RECORDED AT BOOK 18, PAGE 90 IN THE HOMER RECORDING DISTRICT.
10. THIS SUBDIVISION IS THE SUBJECT OF CORPS OF ENGINEERS WETLAND CASE FILE POA-2013-268. WETLANDS WITHIN AND SOUTH OF TRACY AVENUE AND SOUTH OF THE SHOWN DRAINAGE WEST OF TRACY AVENUE WERE LOCATED AS SHOWN HEREON, WETLANDS NORTH OF TRACY AVENUE AND THE SHOWN DRAINAGE ARE ONLY SHOWN APPROXIMATELY AND MAY NEED TO BE DETERMINED FOR DEVELOPMENT PERMITTING.
11. AT THE MEETING OF JULY 14, 2014, THE KENAI PENINSULA BOROUGH PLANNING COMMISSION GRANTED EXCEPTION TO CODE 20.30.170 (BLOCK LENGTHS).



LINE TABLE		
LINE	LENGTH	BEARING
L1	30.00	N89°54'48"E

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	39.27	25.00	90°00'00"
C2	39.27	25.00	90°00'00"
C3	81.91	430.00	10°54'53"
C4	60.84	430.00	8°06'22"

LEGEND

- FOUND 2 1/2" GLO MONUMENT AS DESCRIBED
- FOUND 2 1/2" BRASS CAP
- POWER POLE
- FOUND 2" ALCAP ON 5/8" REBAR BY 5780-S, 2007
- MONUMENT AS DESCRIBED
- 2" ALUM-CAP BY 7610-S, 2013
- 2" ALUM-CAP BY 7610-S, 2014 (AUXILIARY MONUMENTATION)

KPB FILE No. 2014-093

2014-21
HOMER REC DIST
Date 9-22-2014
Time 2:36 PM
Requested By Gary Nelson
Address

CERTIFICATE OF OWNERSHIP

I hereby certify that Spring Mountain LLC is the owner of the real property shown and described hereon, and that Spring Mountain LLC hereby adopts this plan of subdivision, and by its free consent dedicates all public rights-of-way and grants all easements to the use shown.

Joanna Manwiller
Joanna Manwiller as Member/Manager, Spring Mountain LLC
6611 Sherwood Cir.
Anchorage, AK 99504

NOTARY'S ACKNOWLEDGEMENT

For Joanna Manwiller
Acknowledged before me this 5th *day of* September *2014.*
Notary public for Alaska — My Commission Expires April 18, 2018

NOTARY PUBLIC — BLESILDA G. EMPEADOR — STATE OF ALASKA

WASTEWATER DISPOSAL

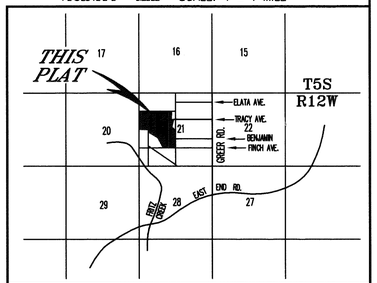
LOTS 7B THROUGH 28 ARE AT LEAST 200,000 SQUARE FEET, OR NOMINAL 5 ACRES IN SIZE AND CONDITIONS MAY NOT BE SUITABLE FOR ONSITE WASTEWATER TREATMENT AND DISPOSAL. ANY WASTEWATER TREATMENT OR DISPOSAL SYSTEM MUST MEET THE REGULATORY REQUIREMENTS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

PLAT APPROVAL

This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of JULY 14, 2014. KENAI PENINSULA BOROUGH BY

Authorized Official

VICINITY MAP SCALE: 1" = 1 MILE



DATE	09-03-2014
SCALE	1"=150'
GRID No.	AR-73
JOB No.	4756
DRAWING:	4756FINAL.dwg

STATE OF ALASKA — 49TH — Gary D. Nelson — Gary D. Nelson NO. 7610-S 9-04-2014 — REGISTERED PROFESSIONAL LAND SURVEYOR

SPRING MOUNTAIN SUBDIVISION VOSS' ADDITION

A SUBDIVISION OF THE UNSUBDIVIDED REMAINDER, AND LOT 7 OF SPRING MOUNTAIN SUBDIVISION (HM2013-17), BEING PORTIONS OF THE S1/2 NW1/4 & THE NE1/4 SW1/4 & THE E1/2 NW1/4 SW1/4 SEC. 21, T5S, R12W, S.M., KENAI PENINSULA BOROUGH, THIRD JUDICIAL DISTRICT, HOMER RECORDING DISTRICT, STATE OF ALASKA CONTAINING 112.037 ACRES

ABILITY SURVEYS
GARY NELSON, PLS
(907) 235-8440
152 DEHEL AVE., HOMER ALASKA 99603

NOTES:

1. A building setback of 20' is required from all street rights-of-way unless a lesser standard is approved by the appropriate Planning Commission.

2. The front 15' and the entire setback within 5 ft. of side lot lines is a utility easement. No permanent structure shall be constructed or placed within a utility easement which would interfere with the ability of a utility to use the easement.

3. Roads must meet design and construction standards established by the Borough in order to be certified for inclusion in the Borough road maintenance program.

4. Any person developing this property is responsible for obtaining all required local, state and federal permits, including a U.S. Army Corps. of Engineers wetland determination if applicable.

5. The Kenai Watershed Forum 2013 Wetlands Mapping classifies this entire subdivision as Wetland/Upland complex.

Plat Approval:

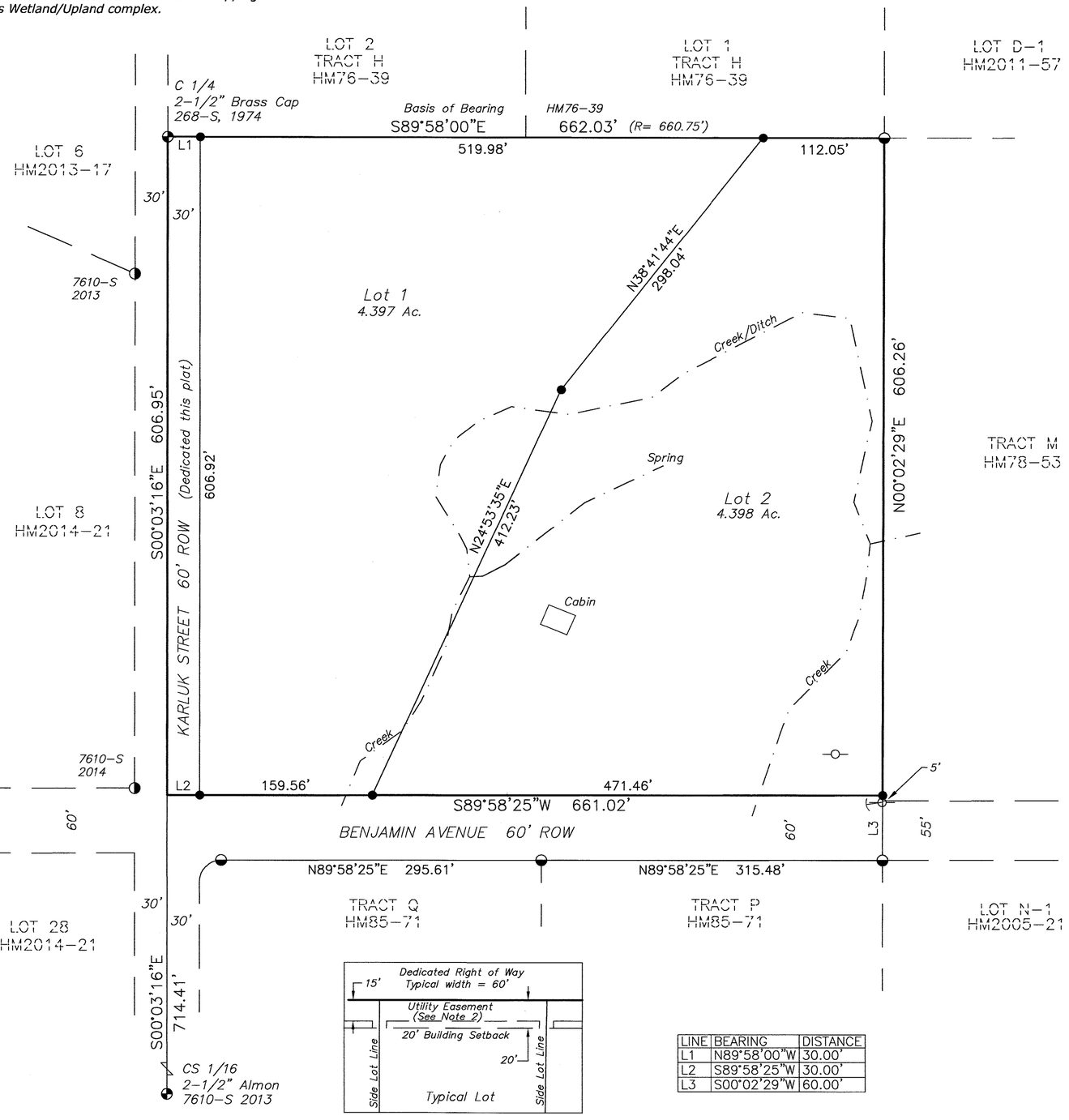
This plat was approved by the Kenai Peninsula Borough Planning Commission at the meeting of June 26, 2017

Kenai Peninsula Borough

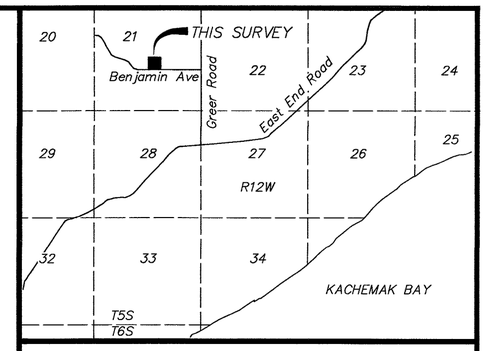
By: _____ 12-19-2017
Authorized Official

LEGEND

- Found Monument as noted
- Found 2" Alcap as noted
- Found 5/8" Rebar
- Set 2" Aluminum Cap on 5/8" x 30" Rebar
- Utility Pole with anchor



LINE	BEARING	DISTANCE
L1	N89°58'00"W	30.00'
L2	S89°58'25"W	30.00'
L3	S00°02'29"W	60.00'



VICINITY MAP 1" = 1 Mile

STATE OF ALASKA
49TH
Thomas A Latimer
THOMAS A. LATIMER
10603-S
11/16/17
REGISTERED PROFESSIONAL LAND SURVEYOR

Ownership Certificate:

We hereby certify that we are the owners of the real property shown and described hereon and that we hereby adopt this plan of subdivision and by our free consent dedicate all rights-of-way to public use and grant all easements to the use shown.

Henry B. Drechnowicz
PO Box 102
Hope, AK 99605

HOPE, AK 99605 DEC 19 2017 USPS

Notary's Acknowledgement:

For Henry B. Drechnowicz
Acknowledged before me this 19 day of December 2017.

Lori J. DeFrance
Notary Public for Alaska
My Commission expires: AK, ASM 112.2

Catherine A. Loughlin
Catherine A. Loughlin as Trustee of
Catherine A. Loughlin Declaration of Trust
117 Lauren Lane
Lincolntown, NC 28092-6436

Notary's Acknowledgement:

For Catherine A Loughlin
Acknowledged before me this 13 day of Dec, 2017.

ROBIN M McCLENDON
NOTARY PUBLIC
LINCOLN COUNTY, NC
My Commission Expires 9-4-2018

Robin M. McClendon
Notary Public for NC
My Commission expires: 9-4-2018

0 80 160 240

FRITZ CREEK ESTATES

A subdivision of NW1/4 NW1/4 SE1/4 Sec. 21
T5S, R12W, SM, Alaska,
Excepting therefrom that portion lying within Greenwood Heights 1985 Addition according to Plat No. 85-71
Kenai Peninsula Borough, Homer Recording District,
Third Judicial District, Alaska
Containing 9.212 Acres

2017-56
Plat #
Homer
Rec Dist
12-21 2017
Date
Time 2:30 PM

Prepared for:	Prepared by:
Henry Drechnowicz PO Box 102 Hope AK 99605 Catherine Loughlin 117 Lauren Lane, Lincolntown, NC 28092	Orion Surveys PO Box 15025, 36570 Maria Road, Fritz Creek, AK 99603 (907) 399-7028 tom@orionsurveys.com
Scale: 1"=80'	Date: 10/5/2017
FB: 7 Job# 567	KPB File No. 2017-075

Sheet 1 of 1

KENAI PENINSULA BOROUGH
PLANNING COMMISSION RESOLUTION

RESOLUTION SN 2005-06

RENAMING CERTAIN PUBLIC RIGHTS-OF-WAY WITHIN SECTION 3, T6S, R13W; SECTION 4, T6S, R13W; SECTION 6, T6S, R12W; SECTION 21, T5S, R12W, S.M., AK WITHIN EMERGENCY SERVICE NUMBER (ESN) 202; SECTIONS 2 & 3, T4S, R14W; SECTIONS 3 & 4, T5S, R15W; SECTION 4, T3S, R14W; SECTION 6, T4S, R14W; SECTION 7, T5S, R14W, S.M., AK WITHIN EMERGENCY SERVICE NUMBER (ESN) 401; SECTION 6, T1N, R12W; SECTION 8, T1N, R12W; SECTION 11, T2S, R14W; SECTION 27, T1N, R13W; SECTION 34, T1S, R14W, S.M., AK WITHIN EMERGENCY SERVICE NUMBER (ESN) 451

WHEREAS, a procedure has been developed to help implement the Enhanced 9-1-1 Street Naming and Addressing project; and

WHEREAS, renaming streets which have the same name will enable 911 Emergency Services to respond to emergencies in an efficient timely manner, thereby avoiding delays in providing necessary emergency services; and

WHEREAS, on April 25, 2005 public hearings were held by the Kenai Peninsula Borough Planning Commission to address all concerns about the proposed street name changes; and

WHEREAS, Chapter 14.10 of the Kenai Peninsula Borough Code of Ordinances authorizes the Planning Commission to accomplish street name changes by Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH:

Section 1. That the rights-of-way listed below are renamed as follows:

DESCRIPTION	FROM	TO	BASE MAP
a. Andes Court within Bridge Creek Cooperative Subdivision (HM 81-5), Section 4, T6S, R13W, S.M., AK; Location: off Arnold Avenue, Homer area; ESN 202 (map a)	Andes Court	Farmwald Circle	AR 69
b. Andrey Lane within Little Boy Subdivision (HM 74-2275), Abbotts Acres Subdivision (HM 76-3), and Fiddlehead Subd (HM 79-137), Sections 33 and 34, T5S, R13W, S.M., AK; Location: north of Twitter Creek Lane, Homer area; ESN 202	REMOVED BY STAFF - NO MAP ATTACHED TO BE BROUGHT BACK TO THE PLANNING COMMISSION DURING A FUTURE MEETING		
c. Birch Avenue within Greenwood Heights 1974 Addition (HM 74-1289), Greenwood Heights 1978 Addition (HM 78-53), and Greenwood Heights 1985 Addition (HM 85-71), Section 21, T5S, R12W, S.M., AK; Location: off Greer Road, Homer area; ESN 202 (map c)	Birch Avenue	Benjamin Avenue	AR 58 and AR 59
d. Clover Avenue within Fernwood Subdivision (HM 76-76) and C & H Estates (HM 80-23), Section 6, T6S, R12W, S.M., AK; Location: off Glacier View Road, Homer area; ESN 202 (map d)	Clover Avenue	Taku Avenue	AR 71

e. Crossman Ridge Road within Paper Plat Park (HM 79-03), Section 4, T6S, R13W, S.M., AK; Location: off Bakke Street, Homer area; ESN 202 (map e)	Crossman Ridge Road (off Bakke Street)	Paper Plat Avenue	AR 69
f. Crossman Ridge Road within Augustine Subdivision (HM 72-1468), Section 3, T6S, R13W, S.M., AK; Location: off Twitter Creek Lane, Homer area; ESN 202 (map f)	Crossman Ridge Road (off Twitter Creek Lane)	St. Olaf Avenue	AR 70
g. Starr Road within Palmer Pines Subdivision Addition No. 3 (HM 2001-21), Section 3, T6S, R13W, S.M., AK; Location: between Twitter Creek Lane and Palmer Street, Homer area; ESN 202 (map g)	Starr Road	Crossman Ridge Road	AR 70
h. Airport Lane within Basham No. Five (HM 84-90), Section 4, T3S, R14W, S.M., AK; Location: Anchor Point; ESN 401 (map h)	Airport Lane	Basham Lane	NL 41
i. Baluga Avenue within Stariski Estates (HM 76-99), Section 6, T4S, R14W, S.M., AK; Location: west of Stariski Creek, Anchor Point area; ESN 401 (map i)	Baluga Avenue	Aven Avenue	AR 02
j. Beluga Boulevard within Inlet View Tracts Subd. (HM 74-698) and Mighty Moose (HM 93-31), Section 7, T5S, R14W, S.M., AK; Location: off Alut Avenue, Anchor Point; ESN 401 (map j)	Beluga Boulevard	Beluga Street	AR 33
k. Buster Court within Southfork No. 2 (HM 85-64), Sections 3 & 4, T5S, R15W, S.M., AK; Location: Anchor Point area; ESN 401 (map k)	Buster Court	Kenton Court	AR 32
l. Long Reach Drive within Long Reach (HM 2004-43), Sections 2 & 3, T4S, R14W, S.M., AK; Location: Chakok River, Anchor Point area; ESN 401 (map l)	Long Reach Drive	Long Reach Lane	AR 03
m. Long Reach Place within Long Reach (HM 2004-43), Sections 2 & 3, T4S, R14W, S.M., AK; Location: Chakok River, Anchor Point area; ESN 401 (map m)	Long Reach Place	Shortcut Street	AR 03
n. Tall Tree Road within Long Reach (HM 2004-43), Sections 2 & 3, T4S, R14W, S.M., AK; Location: Chakok River, Anchor Point area; ESN 401 (map n)	Tall Tree Road	Tall Tree Avenue	AR 03
o. Alan Street within Deep Creek Valley Subdivision (HM 81-50), Section 11, T2S, R14W, S.M., AK; Location: west of Deep Creek, Ninilchik; ESN 451 (map o)	Alan Street	Pcmiller Street	NL 26
p. Barnes Avenue within Barnes Subdivision (HM 80-18), Section 8, T1N, R12W, S.M., AK; Location: southeast of Clammer's Haven Drive, Ninilchik area; ESN 451 (map p)	Barnes Avenue	Compton Avenue	NL 02
q. Blossom Avenue within Corea Bend Subdivision (HM 85-15), Section 27, T1N, R13W, S.M., AK; Location: Ninilchik area, approximately Mile 125.5 Sterling Highway; ESN 451 (map q)	Blossom Avenue	Floyd Blossom Avenue	NL 08
r. Church Avenue within U.S.S. 3036B (HM 65-55), Section 34, T1S, R14W, S.M., AK; Location: Ninilchik; ESN 451 (map r)	Church Avenue	Marva Avenue	NL 23

s. Clam Digger's Court within Clammer's Haven (HM 76-62) and Clammer's Haven Add'n No. 1 (HM 78-25), Section 6, T1N, R12W, S.M., AK; Location: Clam Gulch area; ESN 451 (map s)	Clam Digger's Court	Clam Digger's Avenue	NL 02

Section 2. That according to Kenai Peninsula Borough Code of Ordinance 14.10.030, the official street name map, 1:500 scale base maps, Anchor River Series Maps 2, 3, 32, 33, 58, 59, 69, 70 and 71 and Ninilchik Series Maps 2, 8, 23, 26, and 41 are hereby amended to reflect these changes.

Section 3. That the maps showing the locations of the renamed rights-of-way be attached to, and made a permanent part of this resolution.

Section 4. That this Resolution takes effect immediately upon adoption.

ADOPTED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH THIS 9TH DAY OF MAY 2005.

Philip Bryson, Chairperson
Planning Commission

ATTEST:

Subscribed and sworn to (or affirmed) before me, a notary this 9 day of May 2005 by Philip Bryson.

Patricia Hartley
Notary Public

My Commission expires 3/7/09

OFFICIAL SEAL
STATE OF ALASKA
PATRICIA HARTLEY
NOTARY PUBLIC
My Comm. Exp.: 3/7/09

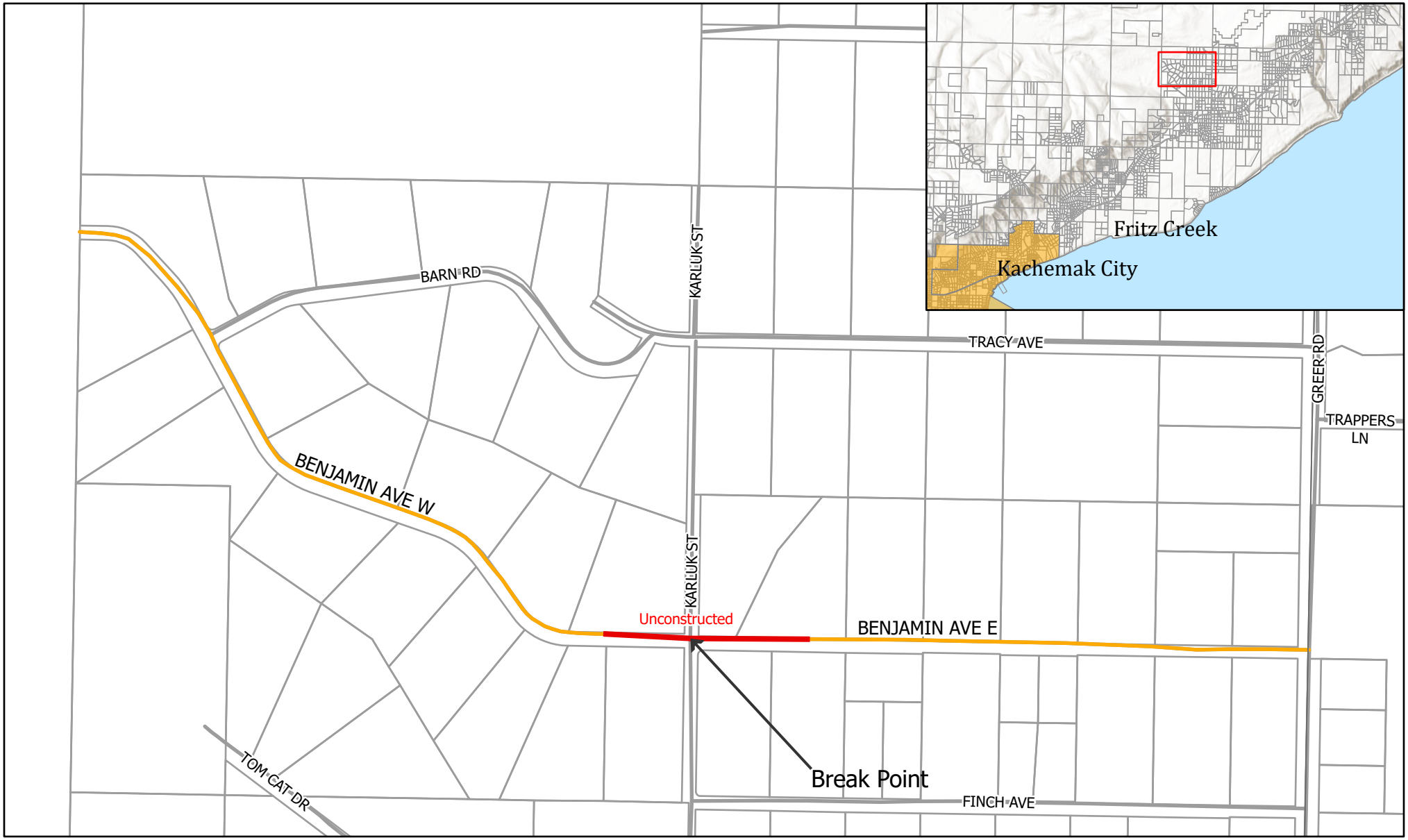
Kenai Peninsula Borough Planning Department

Vicinity Map

Date: 12/30/2021

N

Benjamin Ave Street Name Change
Resolution SN 2022-01



The information depicted hereon is for a geographical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility of any errors on this

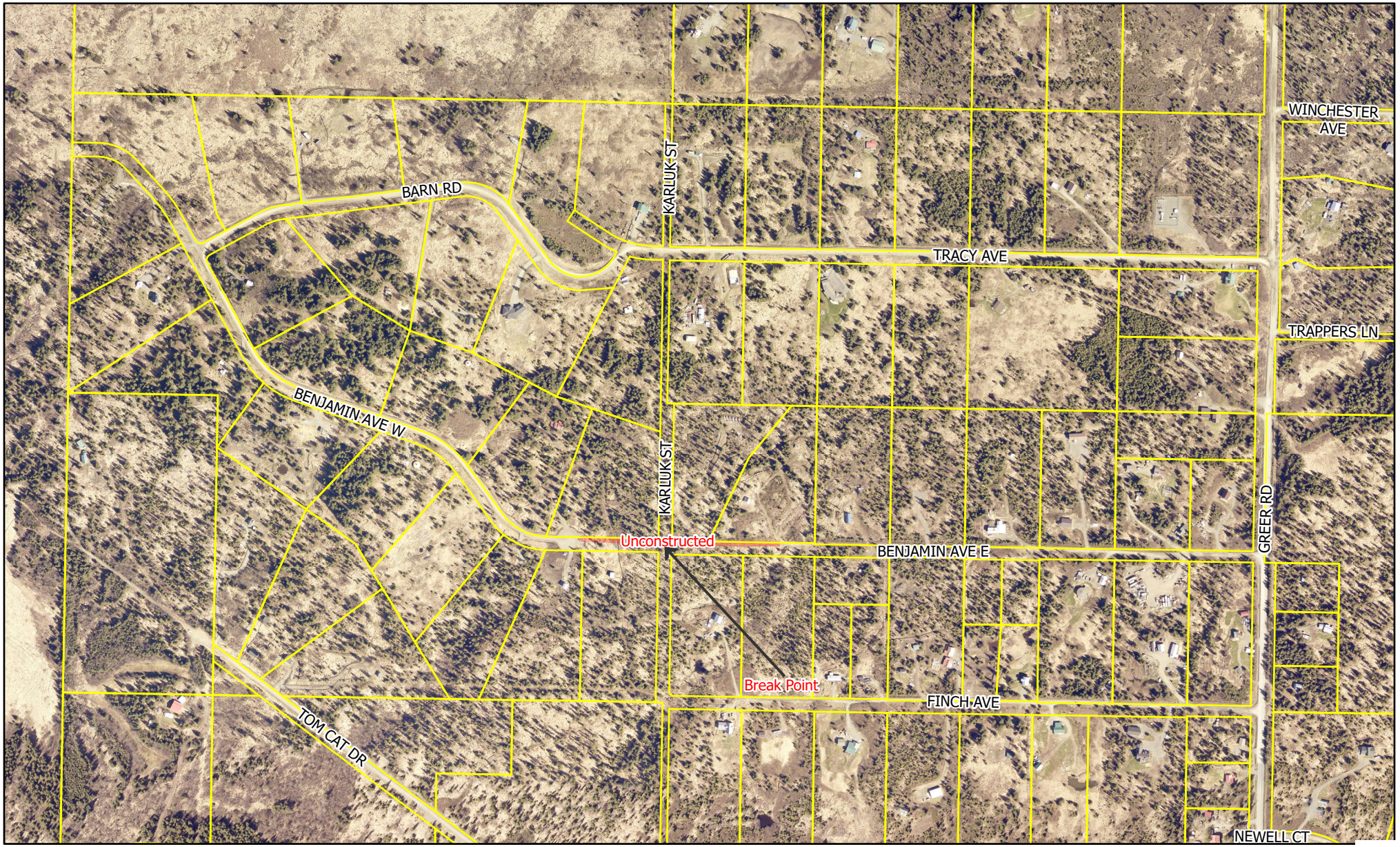
Kenai Peninsula Borough Planning Department

Aerial Imagery

Date: 12/30/2021

N

Benjamin Ave Street Name Change
Resolution SN 2022-01



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AGENDA ITEM NEW BUSINESS

A. An unnamed private road in Section 26, T08N, R11W; Seward Meridian, Kenai Peninsula Borough, AK; in the Nikiski Community; ESN 501

STAFF REPORT PC MEETING: January 24, 2022

Applicant: Brandie and Julie Ware of Nikiski, AK

Existing right-of-way names: None

Name proposed by petitioner: Midnight Sun Dr

Reason for Change: Petition from adjoining property owners

Background:

Name	**unnamed**
ESN	501
Community	Nikiski
YR Named	N/A
Constructed	Yes
Total Lots	2
Residential	2
Commercial	0
E911 Address	2
Decision	Name

Review and Comments:

Notice was sent by regular mail to the property owners fronting the unnamed private road, as listed on the KPB tax roll.

No comments from property owners were received by the writing of this staff report.

The road name request has been emailed to the Kenai Peninsula Borough Road Maintenance for review. The KPB Roads Department supplied a statement that the Road Service Area has no objections at this time.

Staff Discussion:

The unnamed private road can be found in the Nikiski area at the intersection of Lafayette Ave and Horner Rd. The unnamed private road is approximately half a mile in length and provides access to four structures.

The petitioner identified the unnamed road as a problem following a 911 call, when first responders could not find their location.

A petition was received from one of the property owners, and included signatures from 1 out of 2 land owners fronting the unnamed private road.

Although the petition does not include the signatures of 75% of land owners fronting the roadway, naming the unnamed private road is in the best interest of public safety.

Additional street name choices in order of preference include J W Dr. and Wes Marge Dr.

Staff reviewed the suggested name and found no conflict. There are no similar sounding or identically named streets within the same or adjacent emergency service zone.

STAFF RECOMMENDATION: Name the unnamed private road **Midnight Sun Dr** by adoption of Resolution SN 2022-01.

END OF STAFF REPORT

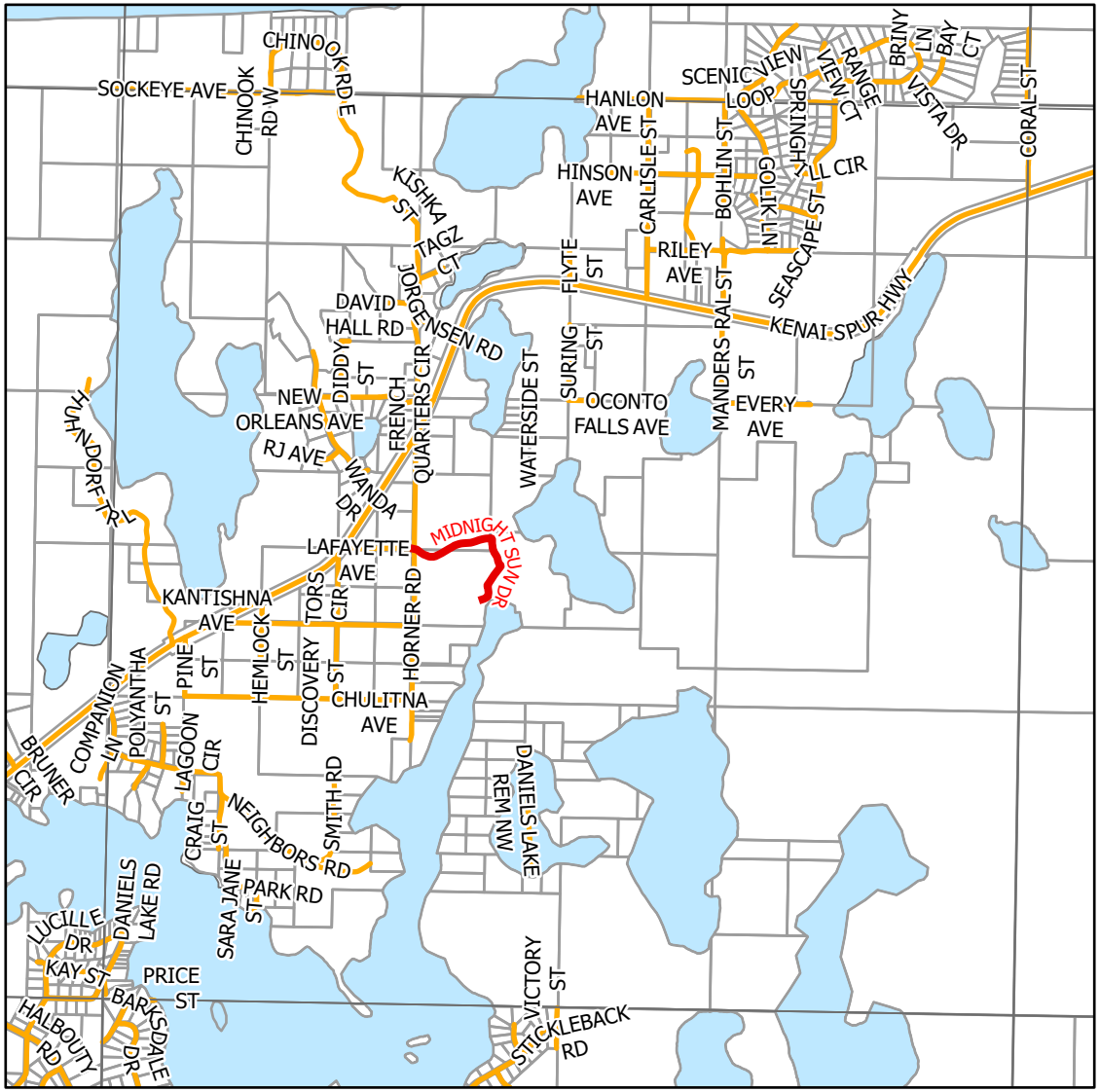
Kenai Peninsula Borough Planning Department

Basemap NK16

Date: 12/30/2021

N

Private Street Naming
Resolution SN 2022-01



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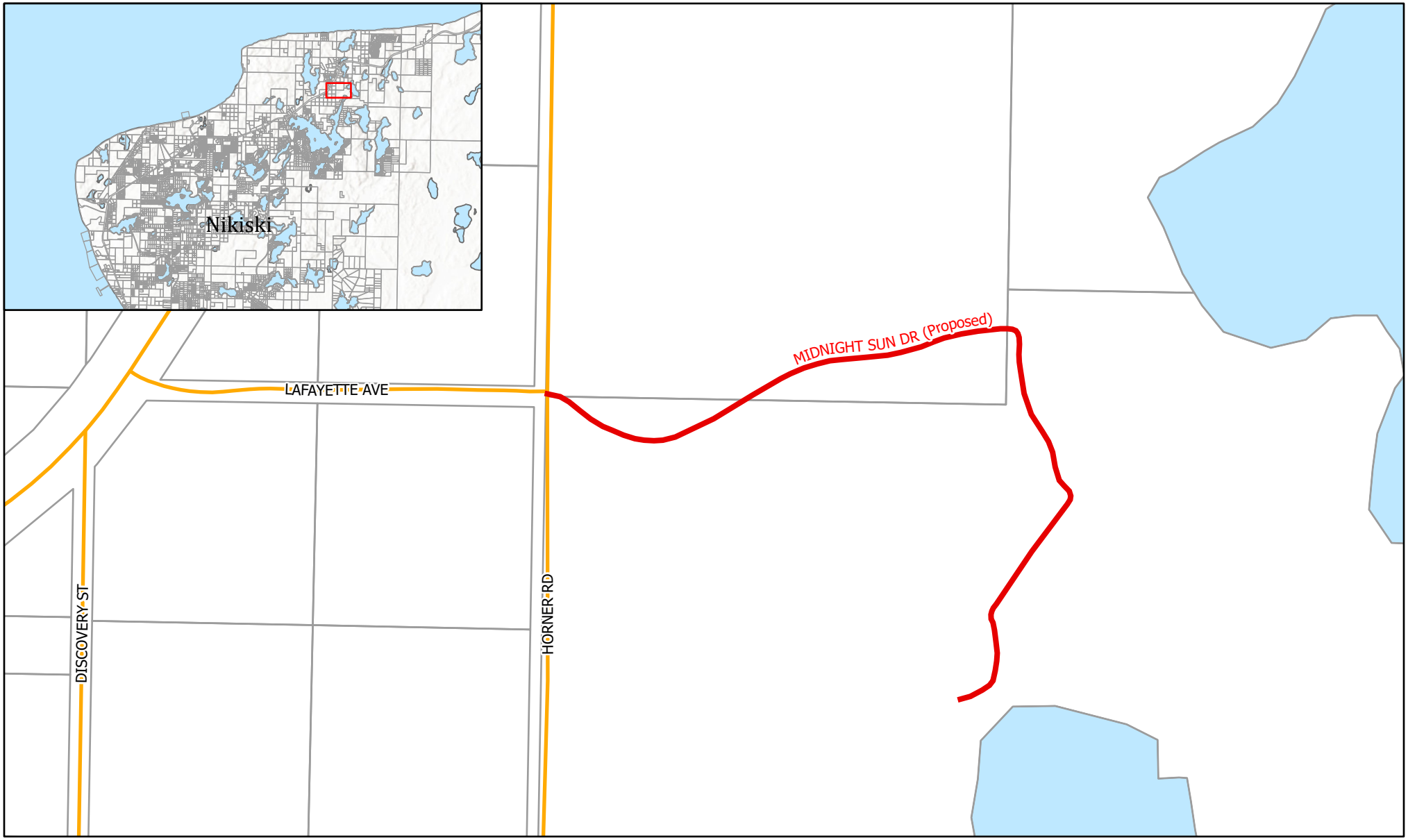
Kenai Peninsula Borough Planning Department

Vicinity Map

Date: 12/30/2021

Private Street Naming
Resolution SN 2022-01



The information depicted hereon is for a geographical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility of any errors on this

Kenai Peninsula Borough Planning Department

Aerial Imagery

Date: 12/30/2021

N

Private Street Naming
Resolution SN 2022-01



The information depicted hereon is for a geographical representation only of best available sources. The Kenai Peninsula Borough assumes no responsibility of any errors on this

Planning Department
144 N. Binkley Street, Soldotna, Alaska 99669 • (907) 714-2200 • (907) 714-2378 Fax

PETITION TO NAME / RENAME A STREET

Kenai Peninsula Borough Planning Department
ATTENTION: E911 Addressing Officer
144 North Binkley Street Soldotna, AK 99669-7520 (907) 714-2200

Petitioner's Name: *(Please Print)* Brandie + Julie Ware

Mailing Address: P.O. Box 7479 Nikiski, AK 99635

E-mail Address: julieware0607@gmail.com

Telephone: 907 398 1543

Current Street Name: None / Lafayette ave

Proposed Street Name: Midnight Sun Drive

Location of Current Street: Township: 8N Range: 11W Section: 26

Subdivision: NONE

The Right-of-Way is: *(Please Check)*	Public	Private
Is the Right-of-Way in use?	☐ Yes	☐ No
Is the road constructed?	☒ Yes	☐ No
Is there a street sign along the Right-of-Way?	☐ Yes	☒ No

Reason for Requested Change: Our driveway has no name, which became a problem after calling 911. The first responders could not find my location with address given.

List Three (3) Choices for a new Street Name, in order of preference.

1. Midnight Sun Drive
2. J.W Drive
3. Wes Marge Drive

New Name Suggestions must not be on the Road Inventory List which can be found at:
https://www.kpb.us/images/KPB/PLN/911/Road_Inventory.pdf

New Street Names must be checked, and approved by the E911 Addressing Officer by email addressing@kpb.us; fax 714-2378; or phone 714-2200.

To be considered complete, the application must be accompanied by the following items:

1. Petition signed by property owners (see instructions).

2. A map showing the road to be named and surrounding property.

3. The filing and sign fees are established by KPB Planning Commission Resolutions 96-22 and 85-3, as follows:

(A) For name changes or naming of public street dedications other than those named during the subdivision process:

			Check Applicable Boxes
(1)	Street Naming Petition and Hearing Advertising Fee	$300	☐
(2)	Installation of each new Borough Service Area Sign, Post, etc. (per sign)	$150	☐
(3)	Replacement of existing Borough Service Area Sign, due to change where no post is needed. (per sign)	$ 80	☐

The minimum fee shall be either a combination of 1 and 2 OR 1 and 3 above; however, all signs that need to be changed and / or maintained by a Borough Service Area must be paid for upon completion of the project.

(B) For Private Road Naming:

(1)	Street Naming Petition and Hearing Advertising Fee	$300	☒
(2)	Installation of each new Borough Service Area sign, Post, etc. (per sign)	$150	☐
(3)	Replacement of existing Borough Service Area Sign, due to change where no post is needed. (per sign)	$ 80	☐
(4)	If no signs are required	No Fee	☐
	TOTAL FEE SUBMITTED	$ 300.	

Additionally, if the Right-of-Way was created by a document other than a recorded plat, a copy of that document must be submitted with this application.

NOTE: INCOMPLETE APPLICATIONS WILL BE RETURNED.

I, the undersigned, hereby affirm that all information made part of this application is true, correct and complete to the best of my knowledge.

Julie Ware
Signature

12/27/2021
Date

Revised 6/3/19

PETITION FOR RENAMING A STREET

Existing Road Name: None / Lafayette Ave.

Proposed Road Name: Midnight Sun Drive

Name of Primary Petitioner: Julie Ware

Identify the Owners of Land affected (include mortgage holders, contract holders and, if owned by a corporation or partnership, provide the needed authority to sign):

Name (print): Julie Ware Phone: 907-398-1543

Signature: Julie Ware

Mailing Address: PO BOX 7479 Nikiski, AK 99635

Legal Description: _____

Name (print): _____ Phone: _____

Signature: _____

Mailing Address: _____

Legal Description: _____

Name (print): _____ Phone: _____

Signature: _____

Mailing Address: _____

Legal Description: _____

Name (print): _____ Phone: _____

Signature: _____

Mailing Address: _____

Legal Description: _____

Name (print): _____ Phone: _____

Signature: _____

Mailing Address: _____

Legal Description: _____


DISCOVERY ST
KENAI SPUR HWY
LAFAYETTE AVE
HORNER RD

State application for a marijuana establishment license; Kasilof Alaska

STAFF REPORT PC MEETING: 01/24/2022

Applicant: STEVE DUPREY

Landowner: STEVE DUPREY

Parcel ID#: 05528239
Legal Description: T 5N R 11W SEC 27 SEWARD MERIDIAN KN 0780224 COTTONWOOD ACRES SUB RESUB OF LOTS 4 & 5 LOT 5-A
Location: 48235 MIRACLE AVE

BACKGROUND INFORMATION:
On 12/08/2021 the applicant notified the borough that he had submitted an application to the state for a marijuana cultivation license. On 11/19/2021 the applicant supplied the borough with a signed acknowledgement form and a site plan of the proposed Limited Marijuana Cultivation Facility on the above described parcel. The Alcohol and Marijuana Control Office notified the borough that the application was complete on 11/12/2021. Staff has reviewed the completed license that has been submitted to the state and the site plan submitted to the borough and has found the following concerning the standards contained in KPB 7.30.020:

1. The Borough finance department has been notified of the complete application and they report that the applicant Is in compliance with the borough tax regulations.

2. Borough planning department staff has evaluated the application and has determined that the proposed cultivation facility will be located GREATER than 1,000 feet from any school.

3. Borough planning department staff has evaluated the application and has determined that the proposed cultivation facility will be located GREATER than 500 feet from all recreation or youth centers, and all buildings in which religious services are regularly conducted, and all correctional facilities.

4. The proposed facility IS NOT located within a local option zoning district.

5. The proposed facility is located where there is sufficient ingress and egress for traffic to the parcel.

    - The site plan indicates that the approach is or will be constructed to a minimum width of 28 feet where it accesses the right-of-way
    - The signed acknowledgement form indicates that there will not be any parking in borough rights-of-way.
    - The site plan indicates a clear route for delivery vehicles which allows vehicles to turn safely.
    - On-site parking and loading areas are designated at a location that would preclude vehicles from backing out into the roadway.

6. Because this application is for cultivation the hours of operation for a retail store is not applicable.

KPB 7.30.020(E) allows the recommendation of additional conditions on a license to meet the following standards:
- protection against damage to adjacent properties,
- protection against offsite odors,
- protection against noise,

- protection against visual impacts,
- protection against road damage,
- protection against criminal activity, and
- protection of public safety.

The Alaska Marijuana Control Board will impose a condition a local government recommends unless the board finds the recommended condition is arbitrary, capricious, and unreasonable (3 ACC 306.060b). If the Planning Commission recommends additional conditions, additional findings must be adopted to support that it is not arbitrary, capricious, or unreasonable.

PUBLIC NOTICE: Public notice of the application was mailed on 02/04/2022 to the 13 landowners of the parcels within 300 feet of the subject parcel. Public notice of the application was published in the 01/12/2022 & 01/19/2022 issues of the Peninsula Clarion

KPB AGENCY REVIEW: Application information was provided to pertinent KPB staff and other agencies on 02/04/2022

ATTACHMENTS

Attachment A:	State marijuana establishment application with associated submitted documents
Attachment B:	Aerial map
Attachment C:	Area land use map with 500’ & 1,000’ parcel radius
Attachment D:	Public Notice
Attachment G:	Agency comments
Attachment H:	Public comments

STAFF RECOMMENDATION

Staff recommends that the planning commission forward this application to the assembly with the findings contained in this staff report and with the recommendation that the following conditions be placed on the state license:

1. The marijuana establishment shall conduct their operation consistent with the site plan submitted to the Kenai Peninsula Borough.
2. There shall be no parking in borough rights-of-way generated by the marijuana establishment.
3. The marijuana establishment shall remain current in all Kenai Peninsula Borough tax obligations consistent with KPB 7.30.020(A).

Office of the Borough Clerk
144 North Binkley Street, Soldotna, Alaska 99669 • (907) 714-2160 • (907) 714-2388 Fax

Johni Blankenship, MMC
Borough Clerk

MARIJUANA LICENSE LOCAL REVIEW STANDARDS ACKNOWLEDGEMENT FORM

Please review the statements below and acknowledge your understanding of the conditions and intent to comply by your signature below.

There shall be no parking in borough rights-of-way generated by the marijuana establishment.

If I have a retail marijuana license, I will not conduct any business on, or allow any consumer to access, the premises, between the hours of 2:00 a.m. and 8:00 a.m. each day.

I must stay current in obligations owed to the Kenai Peninsula Borough or my license may be subject to a protest by the KPB Assembly.

It is my responsibility to abide by all federal, state, and local laws applicable to my marijuana establishment.

I understand Kenai Peninsula Borough staff will enter my property for purposes of evaluating ongoing compliance with KPB 7.30 and any conditions placed on the license by the State of Alaska Marijuana Control Board.

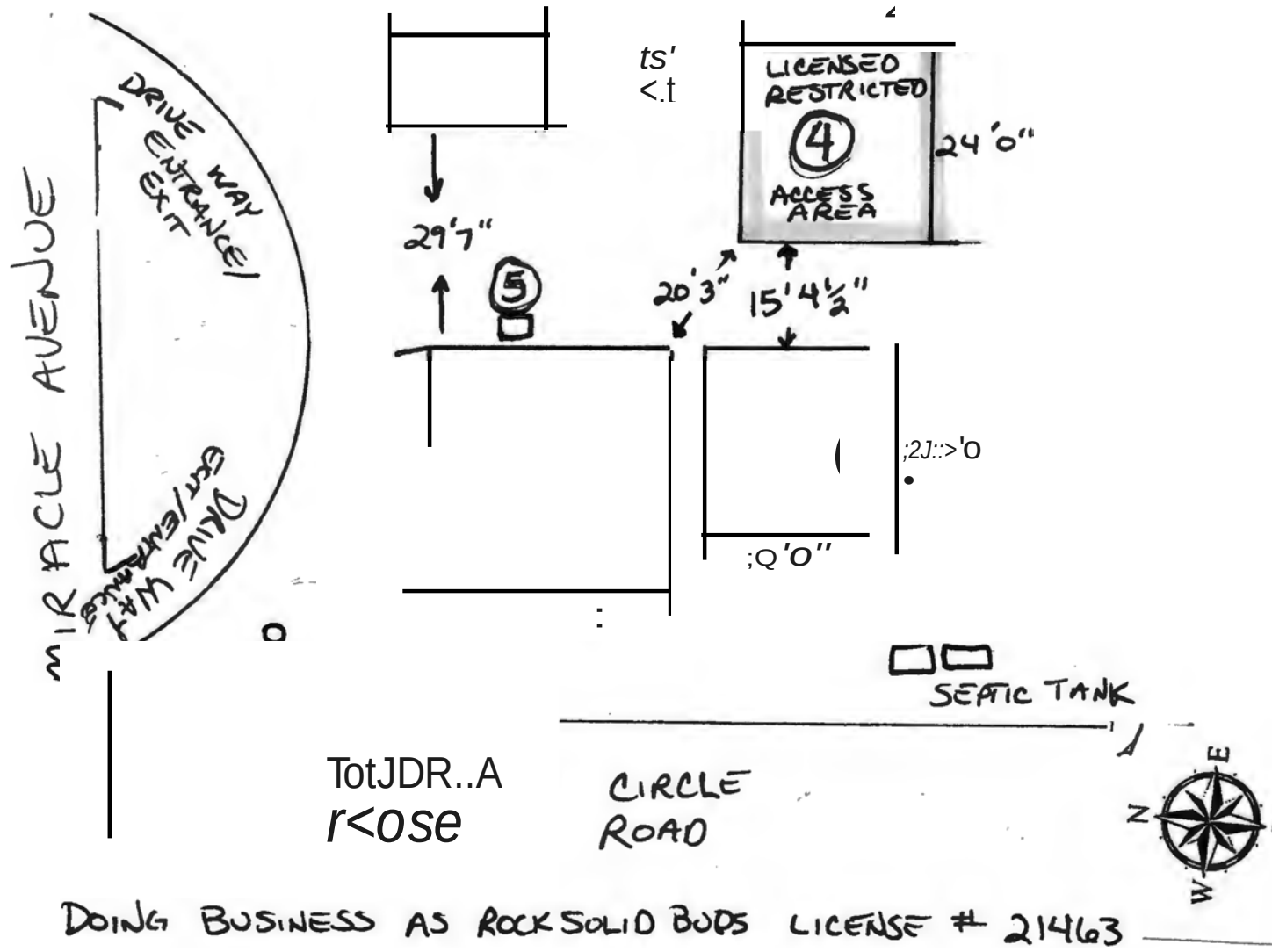
I have received, read and understand the additional review standards and conditions set out in KPB 7.30.

Rock Solid Buds
48235 Miracle Ave; T 5N R 11W SEC 27 Seward Meridian KN 0780224 COTTONWOOD ACRES SUB RESUB LOTS 4 & 5 BLK 4 LOT 5-A BLK 4
Application for Limited Marijuana Cultivation Facility (License Number: 12428)

Signature

3-28-21
Date

Please return completed form along with site development plan to the KPB Clerk's



DOING BUSINESS AS ROCK SOLID BODS LICENSE # 21463

END OF STAFF REPORT

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Commerce, Community, and Economic Development

Alcohol and Marijuana Control Office

550 West 7th Avenue, Suite 1600
Anchorage, AK 99501
Main: 907.269.0350

December 8, 2021

Kenai Peninsula Borough
Attn: Borough Clerk
VIA Email: jblankenship@kpb.us; micheleturner@kpb.us; sness@kpb.us; mjenkins@kpb.us; maldridge@kpb.us; slopez@kpb.us; ncarver@kpb.us; jvanhoose@kpb.us

License Number:	21463
License Type:	Limited Marijuana Cultivation Facility
Licensee:	STEVE DUPREY
Doing Business As:	ROCK SOLID BUDS
Physical Address:	48235 Miracle Ave Soldotna, AK 99669
Designated Licensee:	STEVE DUPREY
Phone Number:	907-394-5297
Email Address:	stevenduprey@live.com

☒ **New Application** ☐ **New Onsite Consumption Endorsement Application (Retail Only)**

AMCO has received a complete application for a marijuana establishment within your jurisdiction. This notice is required under 3 AAC 306.025(d)(2). Application documents will be sent to you separately via ZendTo.

To protest the approval of this application pursuant to 3 AAC 306.060, you must furnish the director **and** the applicant with a clear and concise written statement of reasons for the protest within 60 days of the date of this notice, and provide AMCO proof of service of the protest upon the applicant. If the protest is a "conditional protest" as defined in 3 AAC 306.060(d)(2) and the application otherwise meets all the criteria set forth by the regulations, the Marijuana Control Board may approve the license, but require the applicant to show to the board's satisfaction that the requirements of the local government have been met before the director issues the license.

3 AAC 306.010, 3 AAC 306.080, and 3 AAC 306.250 provide that the board will deny an application for a new license if the board finds that the license is prohibited under AS 17.38 as a result of an ordinance or election conducted under AS 17.38 and 3 AAC 306.200, or when a local government protests an application on the grounds that the proposed licensed premises are located in a place within the local government where a local zoning ordinance prohibits the marijuana establishment, unless the local government has approved a variance from the local ordinance.

This application will be in front of the Marijuana Control Board at our January 19-21, 2022 meeting.

Sincerely,

Glen Klinkhart, Director
amco.localgovernmentonly@alaska.gov

PUBLISHER'S AFFIDAVIT

UNITED STATES OF AMERICA,
STATE OF ALASKA } **SS:**

Jeff Hayden being first duly sworn, on oath deposes and says:

That I am and was at all times here in this affidavit mentions, Supervisor of Legals of the Sound Publishing / Peninsula Clarion, a newspaper of general circulation and published at Kenai, Alaska, that the advertisement, a printed copy of which is hereto annexed was published in said paper on the dates listed below:

Mrijuana License
09/28/21
10/05/21
10/12/21

NEW LIMITED MARIJUANA CULTIVATION FACILITY LICENSE

STEVE DUPREY is applying under **3 AAC 306.400(a)(2)** for **a new Limited Marijuana Cultivation Facility license, license #21463,** doing business as **ROCK SOLID BUDS**, located at **48235 Miracle Ave, Soldotna, AK, 99669, UNITED STATES.**

Interested persons may object to the application by submitting a written statement of reasons for the objection to their local government, the applicant, and the Alcohol & Marijuana Control Office (AMCO) not later than 30 days after the director has determined the application to be complete and has given written notice to the local government. Once an application is determined to be complete, the objection deadline and a copy of the application will be posted on AMCO's website at https://www.commerce.alaska.gov/web/amco. Objections should be sent to AMCO at marijuana.licensing@alaska.gov or to 550 W 7th Ave, Suite 1600, Anchorage, AK 99501.

Pub: Sept. 28, Oct. 5 & 12, 2021 939158

x _____

SUBSCRIBED AND SWORN before me on this
13th **day of** October **, 2021.**

_____
NOTARY PUBLIC in favor for the State of Alaska.

My commission expires 3/6/2024.

Elizabeth A. McDonald
Notary Public, State of Alaska
Commission #200306009
My Commission Expires March 6, 2024

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SOUND PUBLISHING INC.
150 Trading Bay Road, Suite 1
Kenai, AK 99611

BILLING PERIOD	ADVERTISER/CLIENT NAME
October-21	**Steven Duprey**
TOTAL AMOUNT DUE	TERMS OF PAYMENT
$0.00	**Net 30 Days**

BILLING DATE	ACCOUNT NUMBER	INVOICE NUMBER
10/12/21	241118	939158

PENINSULA CLARION

ACCOUNT NAME AND ADDRESS	QUESTIONS
Steven Duprey **PO Box 1494** **Kenai, AK 99611**	For questions regarding rates, sizes or ad charges, please call your local sales representative. Pay past due balance immediately

A FINANCE CHARGE OF 1.5% WHICH IS A ANNUAL RATE OF 18% WILL BE ADDED TO ACCOUNTS OVER 30 DAYS

THE INVOICE/STATEMENT SHALL BE DEEMED CORRECT UNLESS ADVISED IN WRITING WITHIN 30 DAYS OF BILLING DATE

DATE	DESCRIPTION-OTHER COMMENTS/CHARGES	Size	Rate	NET AMOUNT
09/28/21	Mrijuana License	2x3.1	10.45	$64.79
10/05/21				$64.79
10/12/21				$64.79
	Affidavit			$10.00
	Sales Tax			$12.26
	Payment			-$216.63
				$0.00
				TOTAL AMOUNT DUE

BILLING PERIOD	ACCOUNT NUMBER	ADVERTISER/CLIENT NAME
October-21	241118	**Steven Duprey**

SOUND PUBLISHING INC.

REMIT TO
Sound Publishing, Inc **150 Trading Bay Road, Suite 1** **Kenai, AK 9611**

How to pay your bill:
PC or Telephone banking through your financial institution.
By credit card, please call 1-800-489-3390
By check payable to Sound Publishing, Inc.
You may also choose to call your local office at 907-283-7551 and make arrangements there.

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Department of Commerce, Community, and Economic Development
ALCOHOL & MARIJUANA CONTROL OFFICE

SOA / DCCED / Marijuana / Account / #21463

Your application has been submitted.

LICENSE NUMBER 21463

License Number:
21463

License Status:
Initiated

License Type:
Limited Marijuana Cultivation Facility

Business License Number:
1050703

Doing Business As:
ROCK SOLID BUDS

Issue Date:

Effective Date:

Expiration Date:

Designated Licensee:
STEVE DUPREY

Email Address:
stevenduprey@live.com

Local Government:
Kenai Peninsula Borough

Community Council:

Latitude, Longitude:
60.496551, -151.183909

Physical Address:
48235 Miracle Ave
Soldotna, AK 99669
UNITED STATES

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STATE OF ALASKA

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Actions & Documents

Advertisement Notice - License
Public Notice - License
Standard Cover Page

Licensees

First Name:	STEVE
Last Name:	DUPREY
Suffix:	
Date of Birth:	10/30/1968
Alaska Entity Name:	
Alaska Entity Number:	
Phone Number:	907-394-5297
Email Address:	stevenduprey@live.com

Events

All

▸ **Initial Application** **Status: Incomplete**

User Access

User Name:	sneekysteve
First Name:	STEVEN
Last Name:	DUPREY
Email Address:	sneekysteve1488@hotmail.com
	Delete Access

Above is a list of the users that currently have access to this license. You may allow other users to access and modify this license by sending them an invitation email. Please note that all users have the ability to add and remove users from a license. Enter their email address in the box below and click the Send Invite button.

Email Address:

Send Invite



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Alaska Business License # **1050703**

Alaska Department of Commerce, Community, and Economic Development
Division of Corporations, Business and Professional Licensing
P.O. Box 110806, Juneau, Alaska 99811-0806

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STATE OF ALASKA

This is to certify that

ROCK SOLID BUDS

P.O. BOX 1494 KENAI AK 99611

owned by

STEVE DUPREY

is licensed by the department to conduct business for the period

March 13, 2017 through December 31, 2018
for the following line of business:

11 - Agriculture, Forestry, Fishing and Hunting

This license shall not be taken as permission to do business in the state without having complied with the other requirements of the laws of the State or of the United States.

This license must be posted in a conspicuous place at the business location.
It is not transferable or assignable.

Chris Hladick
Commissioner

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-00: Application Certifications

What is this form?

This application certifications form is required for all marijuana establishment license applications. Each person signing an application for a marijuana establishment license must declare that he/she has read and is familiar with AS 17.38 and 3 AAC 306.

This form must be completed and submitted to AMCO's main office by each proposed licensee (as defined in 3 AAC 306.020(b)(2)) before any license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**License Number:**	21463		
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	AK	**ZIP:**	99669

Section 2 – Individual Information

Enter information for the individual licensee.

Name:	Steven Duprey
Title:	Owner/ Operator

Section 3 – Other Licenses

Ownership and financial interest in other licenses: Yes No

Do you currently have or plan to have an ownership interest in, or a direct or indirect financial interest in another marijuana establishment license? ☐ ☑

If "Yes", which license numbers (for existing licenses) and license types do you own or plan to own?

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STATE OF ALASKA

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-00: Application Certifications

Section 4 – Certifications

Read each line below, and then sign your initials in the box to the right of each statement:	Initials
I certify that I have not been convicted of a felony in any state or the United States, including a suspended imposition of sentence, for which less than five years have elapsed from the time of the conviction to the date of this application.	SD
I certify that I am not currently on felony probation or felony parole.	SD
I certify that I have not been found guilty of selling alcohol without a license in violation of AS 04.11.010.	SD
I certify that I have not been found guilty of selling alcohol to an individual under 21 years of age in violation of 04.16.051 or AS 04.16.052.	SD
I certify that I have not been convicted of a misdemeanor crime involving a controlled substance, violence against a person, use of a weapon, or dishonesty within the five years preceding this application.	SD
I certify that I have not been convicted of a class A misdemeanor relating to selling, furnishing, or distributing marijuana or operating an establishment where marijuana is consumed within the two years preceding this application.	SD
I certify that my proposed premises is not within 500 feet of a school ground, recreation or youth center, a building in which religious services are regularly conducted, or a correctional facility, as set forth in 3 AAC 306.010(a).	SD
I certify that my proposed premises is not located in a liquor licensed premises.	SD
I certify that I meet the residency requirement under AS 43.23 for a permanent fund dividend in the calendar year in which I am initiating this application.	SD
I certify that all proposed licensees (as defined in 3 AAC 306.020(b)(2)) have been listed on my online marijuana establishment license application. Additionally, if applicable, all proposed licensees have been listed on my application with the Division of Corporations.	SD
I certify that I understand that providing a false statement on this form, the online application, or any other form provided by AMCO is grounds for denial of my application.	SD

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ALCOHOL MARIJUANA CONTROL OFFICE
STATE OF ALASKA

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-00: Application Certifications

Read each line below, and then sign your initials in the box to the right of each statement:	Initials
I certify and understand that I must operate in compliance with the Alaska Department of Labor and Workforce Development's laws and requirements pertaining to employees.	SD
I certify and understand that I must operate in compliance with each applicable public health, fire, safety, and tax code and ordinance of this state and the local government in which my premises is located.	SD

Read each line below, and then sign your initials in the box to the right of only the applicable statement:	Initials
Only initial next to the following statement if this form is accompanying an application for a marijuana testing facility license:	
I certify that I do not have an ownership in, or a direct or indirect financial interest in a retail marijuana store, a marijuana cultivation facility, or a marijuana products manufacturing facility.	
Only initial next to the following statement if this form is accompanying an application for a retail marijuana store, a marijuana cultivation facility, or a marijuana products manufacturing facility license:	
I certify that I do not have an ownership in, or a direct or indirect financial interest in a marijuana testing facility license.	SD

All marijuana establishment license applicants:

As an applicant for a marijuana establishment license, I declare under penalty of unsworn falsification that I have read and am familiar with AS 17.38 and 3 AAC 306, and that the online application and this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

OFFICIAL SEAL
Tatyanah Shassetz
Notary Public - State of Alaska

Tatyanah Shassetz
Notary Public in and for the State of Alaska

STEVEN DUPREY
Printed name of licensee

My commission expires: 10/23/2022

Subscribed and sworn to before me this 23rd day of March, 2021.

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ALCOHOL & MARIJUANA CONTROL OFFICE

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

What is this form?

An operating plan is required for all marijuana establishment license applications. Applicants should review **Title 17.38 of Alaska Statutes** and **Chapter 306 of the Alaska Administrative Code.** This form will be used to document how an applicant intends to meet the requirements of those statutes and regulations. If your business has a formal operating plan, you may include a copy of that operating plan with your application, but all fields of this form must still be completed per 3 AAC 306.020(c).

What must be covered in an operating plan?

Applicants must identify how the proposed premises will comply with applicable statutes and regulations regarding the following:

- Control plan for persons under the age of 21
- Security
- Business records
- Inventory tracking of all marijuana and marijuana product on the premises
- Employee qualification and training
- Health and safety standards
- Transportation and delivery of marijuana and marijuana products
- Signage and advertising

Applicants must also complete the corresponding operating plan supplemental forms (**Form MJ-03, Form MJ-04, Form MJ-05,** or **Form MJ-06**) to meet the additional operating plan requirements for each license type.

Section 1 – Establishment & Contact Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**MJ License #:**	21463		
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	Alaska	**ZIP:**	99669

Mailing Address:	P.O. Box 1494				
City:	Kenai	**State:**	Alaska	**ZIP:**	99611

Designated Licensee:	Steven Duprey		
Main Phone:	907-394-5297	**Cell Phone:**	907-394-5297
Email:	stevenduprey@live.com		

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

Section 2 – Control Plan for Persons Under the Age of 21

2.1. Describe how the marijuana establishment will prevent persons under the age of 21 from gaining access to any portion of the licensed premises and marijuana items:

1. Any person allowed entry into the premises or allowed around any marijuana items will be required to provide valid identification. 2. Any personthst does not meet requirements of any portion of 3AAC 306 shall be DENIED access. 3. All "visitors" shall be escorted at the ratio not to exceed 1 escort to 5 visitors in accordance with 3 AAC 306.710.
Any person under the age of 21 shall be denied entry This shall satisfy the standards set forth in 3 AAC 306.710

Section 3 – Security

Restricted Access Areas (3 AAC 306.710):

3.1. Describe how you will prevent unescorted members of the public from entering restricted access areas:

1. All exterior doors shall be locked 2. Exterior shall have lighting to help with surveillence. 3. Cameras shall be installed and monitored off site by a professional security company. the company will be required to notify me immediately as to any issues detected by calling my cell phone which will allow an appropriate response. 4. The Cultivation Facility will be in Close proximity of my home, which is Private Property. No trespassing signage shall be posted. 5. Restricted Access Areas shall have signage posted open all entrances. All "Restricted Access Areas " signs shall include "Visitors must be Escorted and Rock Solid Buds Lic # 21463" on them. 6. All doors will be commerial grade, with dead bolts lock sets installed, along with a locking push bar on the inside of the door that will self lock when a person exits. 7. Doors shall also be alarmed thru the same professional security company that will monitor the cameras. 8. The facility shall have no windows that will allow a person to physically enter thru them. If an unauthorized entry occures Law Enforcement shall be called and the M.C.B. shall be notified within 24 hours per 3 AAC 306.715

3.2. Describe your recordkeeping and processes for admitting visitors into and escorting them through restricted access areas:

Only "visitors" that shall be allowed access to the Restricted Access Area will be those on Official Business: Law Enforcement, Members of the M.C.B. , Owners of dispenseries whom are perspective clients, or Craftsmen to do building maintenence. This is a Restricted Access Area and my first priority is SECURITY.
1. All "visitors" shall be required to provide valid identification. 2. They will be entered into a visitors log, which shall record the date, tirhe of entry/exit, their full name, and the reason for the visit. 3. I will make them a visitors badge which they shall be required to wear which will be collected when they exit the area.
this is per 3 AAC 306.710

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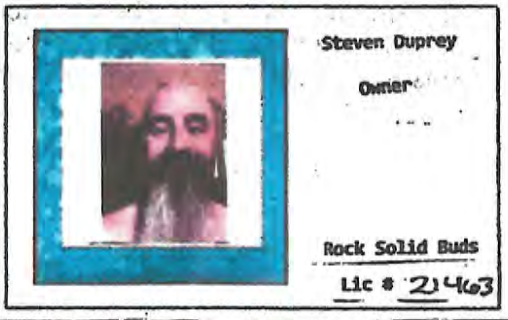
Alaska Marijuana Control Board

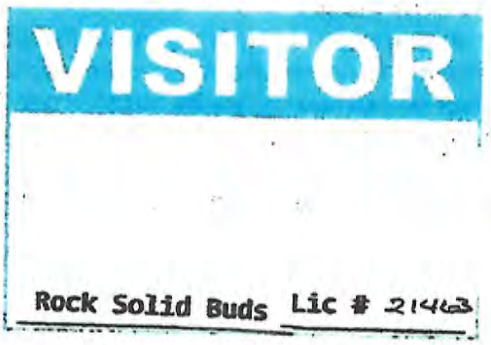
Form MJ-01: Marijuana Establishment Operating Plan

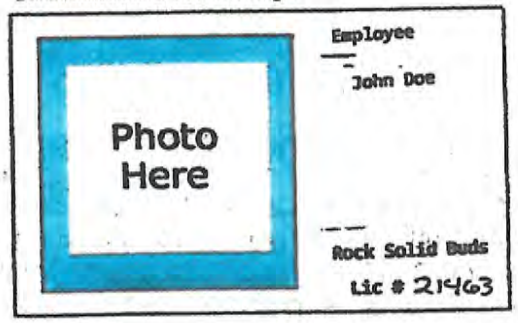
3.3. Provide samples of licensee-produced identification badges that will be displayed by each licensee, employee, or agent while on the premises, and of visitor identification badges that will be worn by all visitors while in restricted access areas:

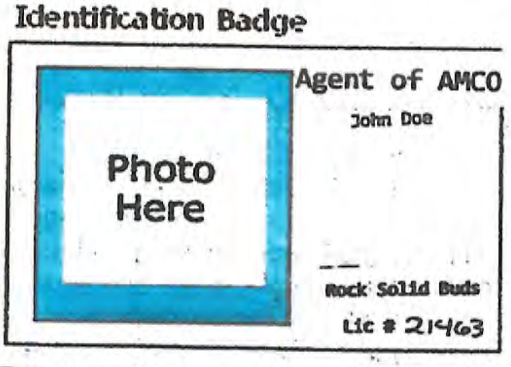
Prior to entry any "visitor" shall be issued a visitors badge AFTER the visitor provides a valid form of Identification proving they are at least 21 years of age. The visitor shall be escorted the whole duration. Upon leaving my facility I will retain the visitors badge.

PLEASE SEE SAMPLE BADGES for Owner, Employee, Agent and "visitor". This shall satisfy 3AAC 306.710









Security Alarm Systems and Lock Standards (3 AAC 306.715):

3.4. Exterior lighting is required to facilitate surveillance. Describe how the exterior lighting will meet this requirement:

1. All exterior lights shall be LED. 2. There shall be "eyes' on them that will turn them on when low light occurs to facilitate surveillance. 3. The installed cameras shall be able to operate in low light situations, both internal and external cameras shall be employed. as required by 3 AAC 306.715 (b) (1)

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

3.5. An alarm system is required for all license types that must be activated on all exterior doors and windows when the licensed premises is closed for business. Describe the security alarm system for the proposed premises, explain how it will meet all regulatory requirements, and outline your policies and procedures regarding the actions to be taken by a licensee, employee, or agent when the alarm system alerts of an unauthorized breach:

1. All entrances/exits and any openings including windows shall be alarmed and monitored by a professional security company of my choosing. Monitoring and storage of video shall be offsite for enhanced security reasons. This will allow a better response should an incident occur while I am away from the site and the video will not be able to be stolen or tampered with..
2. The system can also be upgraded due to business needs or regulation changes, to insure the security of my facility.
3. If an unauthorized breach occurs the security company shall inform me on the cell phone. Once it is determined to be an unauthorized breach, Law Enforcement shall be immediately notified. The MCB shall be notified within 24 hours per 3 AAC 306.715 This is a simple 3 step procedure and will conform to all subparts of 3 AAC 306.715.

I will use this documents language in a written policy after the business is operational.

3.6. Describe your policies and procedures for preventing diversion of marijuana or marijuana product, including by employees:

Video Surveillance shall be conducted in all areas of the Facility that will be cultivating, processing or storing Marijuana. Video will be randomly viewed per 3AAC 306.720. All usable and non-usable marijuana parts shall be inventoried and tracked per 3 AAC 306.730. All non-usable marijuana waste shall be rendered unusable and disposed of per 3 AAC 306.740. No unauthorized persons shall be allowed into the restricted access area per 3 AAC 306.710 All prohibitions in 3 AAC306.405(c) and 3 AAC 306.715 shall be followed. No visitors shall be allowed to handle any Marijuana

3.7. Describe your policies and procedures for preventing loitering:

Private property signs shall be posted every 20 to 50 feet around the perimeter of my property, Restricted access area signs shall be posted on the doors to the Facility in accordance with 3AAC 306.770. all "Restricted Access Areas " signs shall include "Visitors must be Escorted and Rock Solid Buds Lic # 21463" on them. The restricted access area building shall also have no loitering signs on the exterior and a strict 0 tolerance policy will be followed. Loiterers shall have Law Enforcement call and they shall be prosecuted to the fullest extent posible.
3 AAC305.725 (e)

You must be able to certify the statement below. Read the following and then sign your initials in the box to the right: **Initials**

3.8. I certify that if any additional security devices are used, such as a motion detector, pressure switch, and duress, panic, or hold-up alarm, to enhance security of the licensed premises, I will have written policies and procedures describing their use. SD

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

Video Surveillance (3 AAC 306.720):

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
3.9. The video surveillance and camera recording system for the licensed premises covers each restricted access area, and both the interior and exterior of each entrance to the facility.	SD
3.10. Each video surveillance recording: is preserved for a minimum of 40 days, in a format that can be easily accessed for viewing (consistent with the Alcohol & Marijuana Control Office's approved format list); clearly and accurately displays the time and date; and is archived in a format that does not permit alteration of the recorded image.	SD
3.11. The surveillance room or area is clearly defined on the Form MJ-02: Premises Diagram that is submitted with this application.	SD
3.12. Surveillance recording equipment and video surveillance records are housed in a designated, locked, and secure area or in a lock box, cabinet, closet or other secure area where access is limited to the licensee(s), an authorized employee, and law enforcement personnel (including an agent of the Marijuana Control Board).	SD

3.13. Describe how the video cameras will be placed to produce a clear view adequate to identify any individual inside the licensed premises, or within 20 feet of each entrance to the licensed premises:

Video Cameras on the exterior of the building shall be placed within 8 feet of all entry/exit points along with exterior lighting that shall facilitate surveillance
All interior cameras shall be placed to allow no blind spots while allowing full area coverage allowing adequate coverage of any activities conducted by proprietor or possible employees.

This shall/will allow for the IDENTIFICATION of anyone within 20 feet of both entrances and any person whom enters the Restricted Access Area

All cameras must be able to identify any employees, the owner, or visitors. Should it be discovered not to be the case for any reason additional cameras shall be installed as an upgrade to facilitate security needs and regulatory requirements 3 AAC 306.720

3.14. Describe the locked and secure area where video surveillance recording equipment and original copies of surveillance records will be housed and stored, and how you will ensure the area is accessible only to authorized personnel, law enforcement, or an agent of the Marijuana Control Board. If you will be using an offsite monitoring service and offsite storage of video surveillance records, your response must include how the offsite facility will meet these security requirements:

I will be using Simpisafe for cameras and door alarms. Their systems allow for remote viewing, remote responses like notification to Law Enforcement. Their systems record for 30 Straight Days then are Archieved within their system. On a set day every month I will Download the 30 days of recordings to a harddrive, which shall be kept in a fireproof safe and immediately accessable should the need arise. The current 30 days is immediately accessable and reviewable. The added bonus of the company "archieving" the recordings is that if any portion of what I save gets damaged the company will supply the archieved recordings

This will allow me to meet all requirements setforth in 3 AAC 306.7

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

Section 4 – Business Records

Review the requirements under 3 AAC 306.755. All licensed marijuana establishments must maintain, in a format that is readily understood by a reasonably prudent business person, certain business records.

4.1. I certify that the following business records will be maintained and kept on the licensed premises: Initials

a. all books and records necessary to fully account for each business transaction conducted under my license for the current year and three preceding calendar years *(records for the last six months must be maintained on the licensed premises; older records may be archived on or off-premises)*; SD

b. a current employee list setting out the full name and marijuana handler permit number of each licensee, employee, and agent who works at the marijuana establishment; SD

c. the business contact information for vendors that maintain video surveillance systems and security alarm systems for the licensed premises; SD

d. records related to advertising and marketing; SD

e. a current diagram of the licensed premises, including each restricted access area; SD

f. a log recording the name, and date and time of entry of each visitor permitted into a restricted access area; SD

g. all records normally retained for tax purposes; SD

h. accurate and comprehensive inventory tracking records that account for all marijuana inventory activity from seed or immature plant stage until the retail marijuana or retail marijuana product is sold to a consumer, to another marijuana establishment, or destroyed; SD

i. transportation records for marijuana and marijuana product, as required by 3 AAC 306.750(f); and SD

j. registration and inspection reports of scales registered under the Weights and Measures Act, as required by 3 AAC 306.745. SD

4.2. A marijuana establishment is required to exercise due diligence in preserving and maintaining all required records. Describe how you will prevent records and data, including electronically maintained records, from being lost or destroyed:

All records shall be computerized . This will includes, but is not limited to, sales, inventory, transport recorts , and any other regulated activities like taxes. A back up shall be stored on an external/portable hard drive for a minimum of 3 years. These rocords shall be stored in a secure location in a fire proof safe, with easy access to myself. Any paper copies of any documents shall be stored in a locked metal cabinet Per 3 AAC306.755

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

Section 5 – Inventory Tracking of All Marijuana and Marijuana Product

Review the requirements under 3 AAC 306.730. All licensed marijuana establishments must use a marijuana inventory tracking system capable of sharing information with Metrc to ensure all marijuana cultivated and sold in the state, and each marijuana product processed and sold in the state, is identified and tracked from the time the marijuana is propagated from seed or cutting, through transfer to another licensed marijuana establishment, or use in manufacturing a marijuana product, to a completed sale of marijuana or marijuana product, or disposal of the harvest batch of marijuana or production lot of marijuana product.

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
5.1. My marijuana establishment will be using Metrc, and if any other tracking software is used, it will be capable of sharing information with Metrc.	SD
5.2. All marijuana delivered to a marijuana establishment will be weighed on a scale registered in compliance with 3 AAC 306.745.	SD
5.3. My marijuana establishment will use registered scales in compliance with AS 45.75.080 (Weights and Measures Act), as required by 3 AAC 306.745.	SD

Section 6 – Employee Qualification and Training

Review the requirements under 3 AAC 306.700. All licensees, and every employee or agent of the marijuana establishment who sells, cultivates, manufactures, tests, or transports marijuana or a marijuana product, or who checks the identification of a consumer or visitor, must obtain a marijuana handler permit from the board before being licensed or beginning employment at a marijuana establishment.

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
6.1. All licensees, and each employee or agent of the marijuana establishment who sells, cultivates, manufactures, tests, or transports marijuana or marijuana product, or who checks the identification of a consumer or visitor, shall obtain a marijuana handler permit from the board before being licensed or beginning employment at the marijuana establishment.	SD
6.2. Each licensee, employee, or agent who is required to have a marijuana handler permit shall keep that person's marijuana handler permit card in that person's immediate possession (or a valid copy on file on the licensed premises) when on the licensed premises.	SD
6.3. Each licensee, employee, or agent who is required to have a marijuana handler permit shall ensure that that person's marijuana handler permit card is valid and has not expired.	SD

6.4. Describe any in-house training that will be provided to employees and agents (apart from a marijuana handler course):

Any training shall be done "On The Job" style. This will include, but is not limited to, reading system monitors, adding neutrients, adjusting lights, general house keeping, waste disposal , product processing, storage and cultivation techniques.
if an employee is hired these are the minimum I shall train for and they shall be expected to learn the requirements under 3 AAC 306.740 for disposal requirements and 3 AAC 306.730 under the recording requirements They shall be also required to understand all of AS 17.38 as well as all other parts of 3 ACC306. If an employee cannot do this they can be terminated in accordance with employment laws.

AMCO
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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

Section 7 – Health and Safety Standards

Review the requirements under 3 AAC 306.735.

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
7.1. I understand that a marijuana establishment is subject to inspection by the local fire department, building inspector, or code enforcement officer to confirm that health or safety concerns are not present.	SD
7.2. I have policies regarding health and safety standards (including: ensuring a person with an illness or infection does not come into contact with marijuana or marijuana product; good hygienic practices; cleaning and maintenance of equipment and the premises; pest deterrence; chemical storage; sanitation principles; and proper handling of marijuana and marijuana product) and will take all reasonable measures and precautions to ensure that they are met or exceeded.	SD
7.3. I have policies to ensure that any marijuana or marijuana product that has been stored beyond its usable life, or was stored improperly, is not salvaged and returned to the marketplace.	SD
7.4. I have policies to ensure that in the event information about the age or storage conditions of marijuana or marijuana product is unreliable, the marijuana or marijuana product will be handled in accordance with 3 AAC 306.735(d).	SD

Answer "Yes" or "No" to each of the following questions:	Yes	No
7.5. Adequate and readily accessible toilet facilities that are maintained and in good repair and sanitary condition are clearly indicated on my Form MJ-02: Premises Diagram.	☒	☐
7.6. Convenient handwashing facilities with running water at a suitable temperature are clearly indicated on my Form MJ-02: Premises Diagram.	☒	☐

7.7. If you answered "No" to either 7.5 or 7.6 above, describe how toilet and/or handwashing facilities are made accessible, as required by 3 AAC 306.735(b)(2):

hand sanitizer shall be supplied in the facility. If anyone needs to use the restroom they will be able to use the restroom in my house less than 50 feet away.

Section 8 – Transportation and Delivery of Marijuana and Marijuana Products

Review the requirements under 3 AAC 306.750.

8.1. Describe how marijuana or marijuana product will be prepared, packaged, and secured for shipment. Include a description of the type of locked, safe, and secure storage compartments to be used in vehicles transporting marijuana or marijuana product:

All marijuana shall be weighed, then placed into non-breakable containers. Each container shall be labeled. Labels will state: Strain Name, Weight, Business Name, License Number. Each container shall get tamper proof tape applied to it. Each container shall be placed in a locking transportation container. Once shipments are ready a Manifest shall be drafted. The manifest shall be placed into the tote and tote shall be locked with tamper proof tape applied to the tote. Only one tote per transaction shall be used. All information shall be entered into the tracking system per 3 AAC 306.750 (b)(c). Prior to transport a copy of the Manifest, a copy of my Marijuana Handlers Card, all Lab Testing records and any other necessary records, shall be placed into a manilla envelope. This will include Make and model of transport vehicle, plus the license plate number, the type, weight of the marijuana product being transported, name of the transporter, date and time of departure , expected delivery time, per 3AAC 306.750(c) There shall be no unnecessary stops and during transport the tote will be secured in the locked cab of the vehicle and no tampering will be allowed. 3AAC 306.750 (d)

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
8.2. The marijuana establishment from which a shipment of marijuana or marijuana product originates will ensure that any individual transporting marijuana shall have a marijuana handler permit required under 3 AAC 306.700.	SD
8.3. The marijuana establishment that originates the transport of any marijuana or marijuana product will use the marijuana inventory tracking system to record the type, amount, and weight of marijuana or marijuana product being transported, the name of the transporter, the time of departure and expected delivery, and the make, model, and license plate number of the transporting vehicle.	SD
8.4. The marijuana establishment that originates the transport of any marijuana or marijuana product will ensure that a complete printed transport manifest on a form prescribed by the board must be kept with the marijuana or marijuana product at all times during transport.	SD
8.5. During transport, any marijuana or marijuana product will be in a sealed package or container in a locked, safe, and secure storage compartment in the vehicle transporting the marijuana or marijuana product, and the sealed package will not be opened during transport.	SD
8.6. Any vehicle transporting marijuana or marijuana product will travel directly from the shipping marijuana establishment to the receiving marijuana establishment, and will not make any unnecessary stops in between except to deliver or pick up marijuana or marijuana product at any other licensed marijuana establishment.	SD
8.7. When the marijuana establishment receives marijuana or marijuana product from another licensed marijuana establishment, the recipient of the shipment will use the marijuana inventory tracking system to report the type, amount, and weight of marijuana or marijuana product received.	SD
8.8. The marijuana establishment will refuse to accept any shipment of marijuana or marijuana product that is not accompanied by the transport manifest.	SD

Section 9 – Signage and Advertising

Review the requirements under 3 AAC 306.770.

9.1. Describe any signs that you intend to post on your establishment, including quantity, dimensions, graphics, and location on your establishment (photos or drawings may be attached):

Other than the required No Loitering, No tresspassing / Private Property signs, the Restricted Access Area/Visitors must be escorted/business name and license number on it signs and video recording in progress signs there will be no advertisements of what the business is being used for for the security of this business.

there will be 2 restricted access area signs one on each entrance, 2 video recording signs within 10 feet of cameras , no limit on the no tresspassing/private property signs as one shall be posted ever 20-50 feet and 4 no loitering signs one on every side of the building.

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Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

9.2. Describe any advertising you intend to distribute for your establishment. Include medium types and business logos (photos or drawings may be attached):

I will be using a non descript business card. It will be formatted as follows.

Rock Solid Buds
Owner Steven Duprey
License # 21463
907-394-5297
stevenduprey@live.com

As of this time I do not plan on any other advertisement and these cards will be given to prospective clients only.

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

STEVEN DUPREY
Printed name of licensee

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

Randi Broyles
Notary Public in and for the State of Alaska

My commission expires: 07/21/23

Subscribed and sworn to before me this 12 day of November, 2021.

Alaska Marijuana Control Board

Form MJ-01: Marijuana Establishment Operating Plan

(Additional Space as Needed):

The Proposed Cultivation Facility is fully complete. When my licensing starts to move forward I will schedule the installation of my security system thru a company called Simply Safe . This offers me off site storage of my video that is archieved every 30 days and accessable upon request. I feel this enhances my security and allows me to utilize my alotted space more efficiently.

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-02: Premises Diagram

What is this form?

A detailed diagram of the proposed licensed premises is required for all marijuana establishment license applications, per 3 AAC 306.020(b)(8). All areas designated as the licensed premises of a single license must be contiguous. All diagrams must have the licensed premises area labeled, and outlined or shaded as appropriate.

What must be submitted with this form?

Applicants must attach multiple diagrams to this form, including (as applicable):

- **Diagram 1:**
  a diagram showing only the licensed premises areas that will be ready to be operational at the time of your preliminary inspection and license issuance;
- **Diagram 2:**
  if different than Diagram 1, a diagram outlining all areas for which the licensee has legal right of possession (a valid lease or deed), and clearly showing those areas' relationship to the current proposed licensed premises *(details of any planned expansion areas do not need to be included; a complete copy of Form MJ-14: Licensed Premises Diagram Change must be submitted and approved before any planned expansion area may be added to the licensed premises);*
- **Diagram 3:**
  a site plan or as-built of the entire lot, showing all structures on the property and clearly indicating which area(s) will be part of the licensed premises;
- **Diagram 4:**
  an aerial photo of the entire lot and surrounding lots, showing a view of the entire property and surrounding properties, and clearly indicating which area(s) will be part of the licensed premises *(this can be obtained from sources like Google Earth)*; and
- **Diagram 5:**
  a diagram of the entire building in which the licensed premises is located, clearly distinguishing the licensed premises from unlicensed areas and/or premises of other licenses within the building. If your proposed licensed premises is located within a building or building complex that contains multiple business and/or tenants, please provide the addresses and/or suite numbers of the other businesses and/or tenants *(a separate diagram is not required for an establishment that is designating the entire building as a single licensed premises)*.

This form, and all necessary diagrams that meet the requirements on Page 2 of this form, must be completed and submitted to AMCO's main office before any new or transfer license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**MJ License #:**			21463
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	Alaska	**ZIP:**	99669

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Alaska Marijuana Control Board

Form MJ-02: Premises Diagram

Section 2 – Required Information

For your security, do not include locations of security cameras, motion detectors, panic buttons, and other security devices.
Items marked with a double asterisks (**) are only required for those retail marijuana establishments that are also applying for an onsite consumption endorsement.

The following details must be included in all diagrams:

- ☐ License number and DBA
- ☐ Legend or key
- ☐ Color coding
- ☐ Licensed Premises Area Labeled and Shaded, or Outlined as appropriate
- ☐ Dimensions
- ☐ Labels
- ☐ True north arrow

The following additional details must be included in Diagram 1:

- ☐ Surveillance room
- ☐ Restricted access areas
- ☐ Storage areas
- ☐ Entrances, exits, and windows
- ☐ Walls, partitions, and counters
- ☐ Any other areas that must be labeled for specific license or endorsement types
- ☐ ** Serving area(s)
- ☐ **Employee monitoring area(s)
- ☐ **Ventilation exhaust points, if applicable

The following additional details must be included in Diagram 2:

- ☐ Areas of ingress and egress
- ☐ Entrances and exits
- ☐ Walls and partitions

The following additional details must be included in Diagrams 3 and 4:

- ☐ Areas of ingress and egress
- ☐ Cross streets and points of reference

The following additional details must be included in Diagram 5:

- ☐ Areas of ingress and egress
- ☐ Entrances and exits
- ☐ Walls and partitions
- ☐ Cross streets and points of reference

I declare under penalty of unsworn falsification that I have attached all necessary diagrams that meet the above requirements, and that this form, including all accompanying schedules, statements, and depictions is true, correct, and complete.

Signature of licensee

STEVEN DURRETT
Printed name of licensee

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

Randi Broyles
Notary Public in and for the State of Alaska
My commission expires: 07/21/23

Subscribed and sworn to before me this 2nd day of December, 2021.

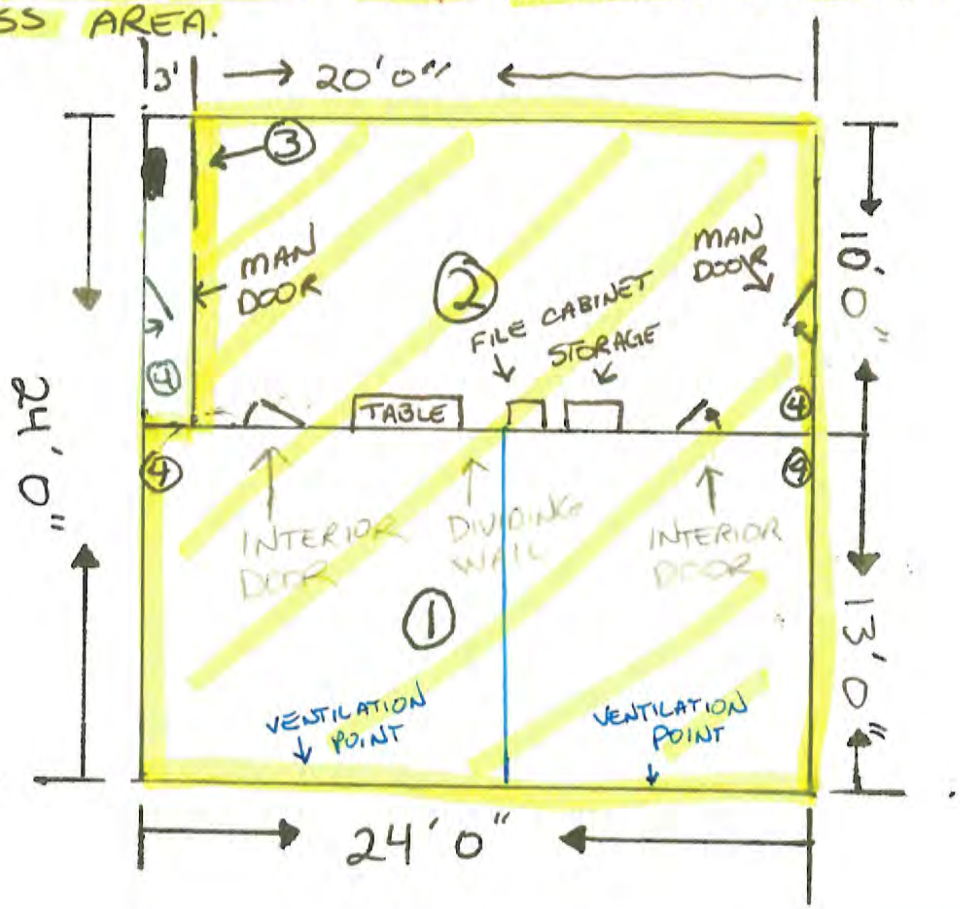
FORM MJ-02 SUPPLIMENTAL INFORMATION

1. Diagram 1-2 does not contain a surveillance room. The reason for this is that all surveillance shall be done thru a third-party company named simply safe. They shall be instructed to notify me and the local authorities should a security issue arise.
2. Diagram #4 caused questions so I added more information by drawing lines around where my property is. I added 2 more pages from the Kenai Peninsula Borough's interactive map. I added a front view picture to give a visual reference to the MCB of my property and the buildings that are on it. I noted on that picture that neither google maps nor the KPB parcel viewer show my tool/wood shed which were built in the summer of 2016.
3. My lot is 1.08 acres, for the record, and encompasses my house, a tool/wood shed, a deck with a hot tub on it which is attached to the house via stairs that exit from my bedroom, and also the proposed Cultivation Facility.
4. The wording on the google maps overhead that says "approximate placement of licensed premises" used the word approximate only due to the fact that there was no real way to accurately express it on the overhead picture as the overhead picture does not show any other structures that are on my property. Not my deck. Not my wood/tool shed. And not the building for the Cultivation facility. The actual measurements are on Diagram 3, which is hand drawn and show multiple dimensions.
5. I hope this clarifies the information provided. Thanks

DIAGRAM #1/2

(1) RESTRICTED ACCESS AREA FOR FLOWING PLANTS
(2) RESTRICTED ACCESS AREA FOR VEGITATING PLANTS
ALL PROCESSING AND STORAGE SHALL BE IN THIS AREA
(3) NOT RESTRICTED ACCESS DUE TO BREAKER PANEL PLACEMENT. FLOOR AROUND THIS AREA SHALL BE CLEAR OF ANY OBSTRUCTIONS PER ELECTRICAL BUILDING CODE
(4) LOCATION OF FIRE EXTINGUISHERS

THE HIGHLITED AREA DENOTES USABLE/RESTRICTED ACCESS AREA.





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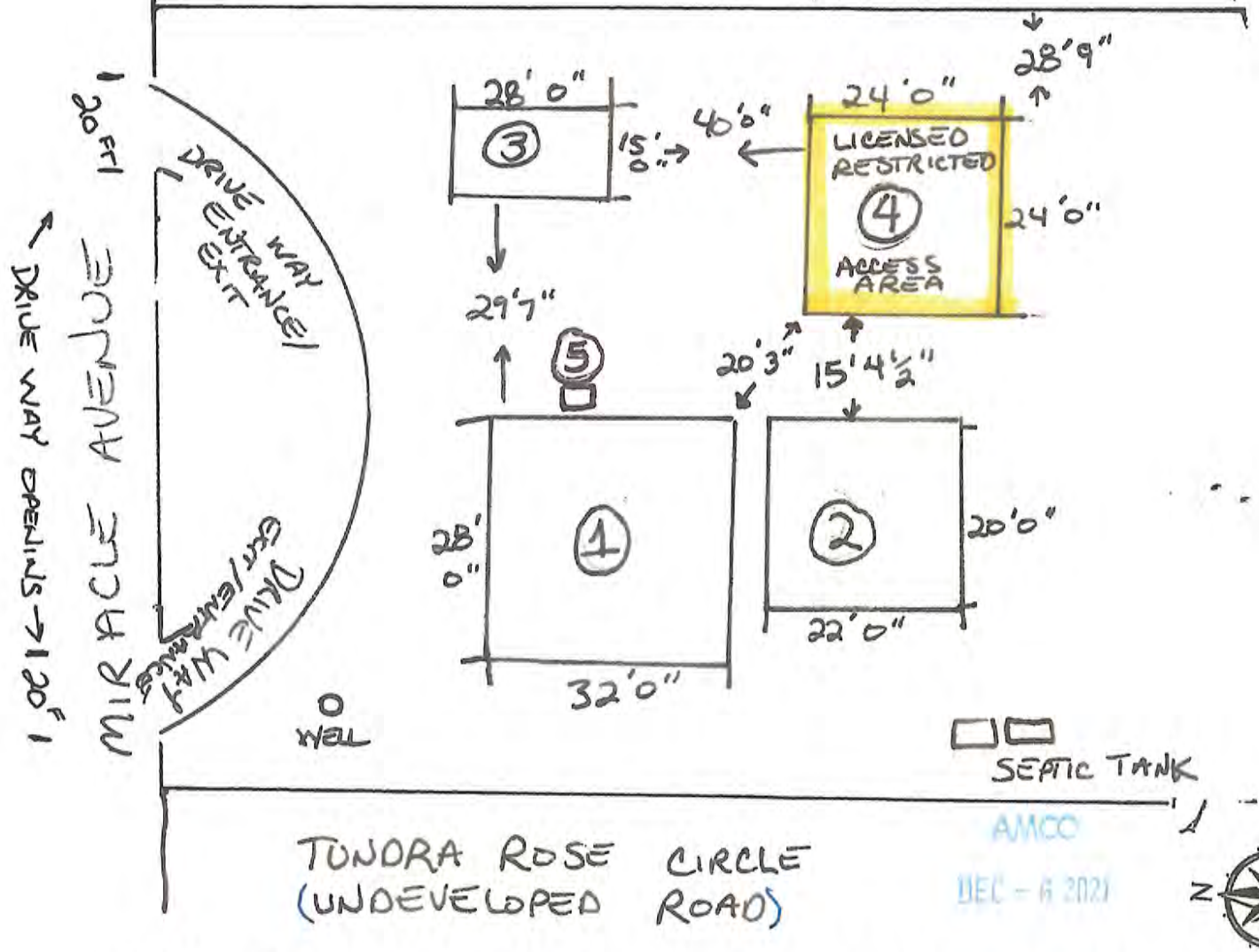
DOING BUSINESS AS: ROCK SOLID BUDS LICENSE# 21463

DIAGRAM # 3 OVER HEAD VIEW OF EXHISTING AND PROPOSED BUILDING AKA: "GENERAL SITE INFORMATION"

① PRINCIPLE RESIDENCE ② DECK BEHIND THE RESIDENCE ③ WODD / TOOL SHED ④ 24FT x 24FT BUILDING FOR PROPOSED CULTIVATION FACILITY ⑤ FUEL OIL TANK

ADDRESS IS 48235 MIRACLE AVE SOLDOTNA ALASKA OWNED BY THE LICENSEE STEVEN OSPREY



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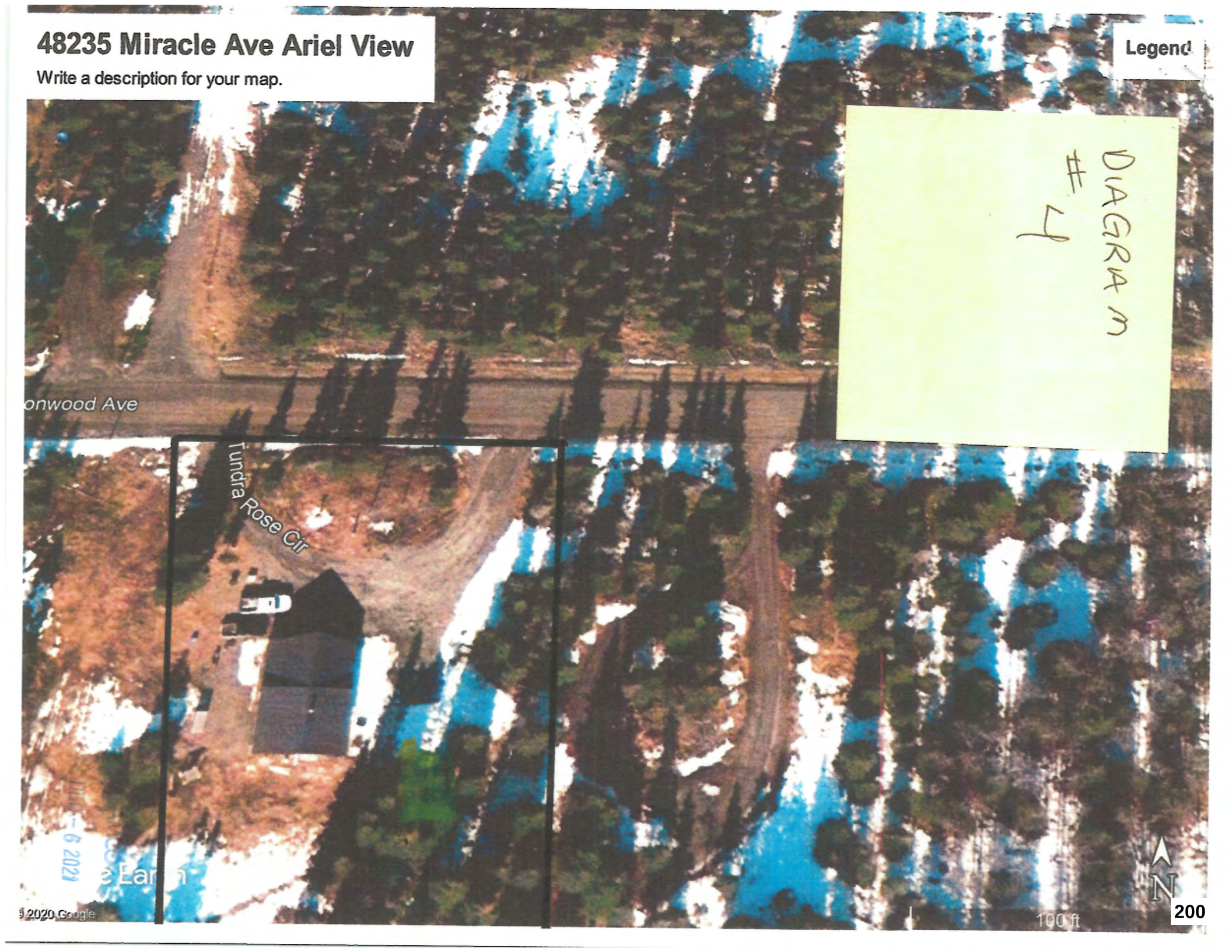
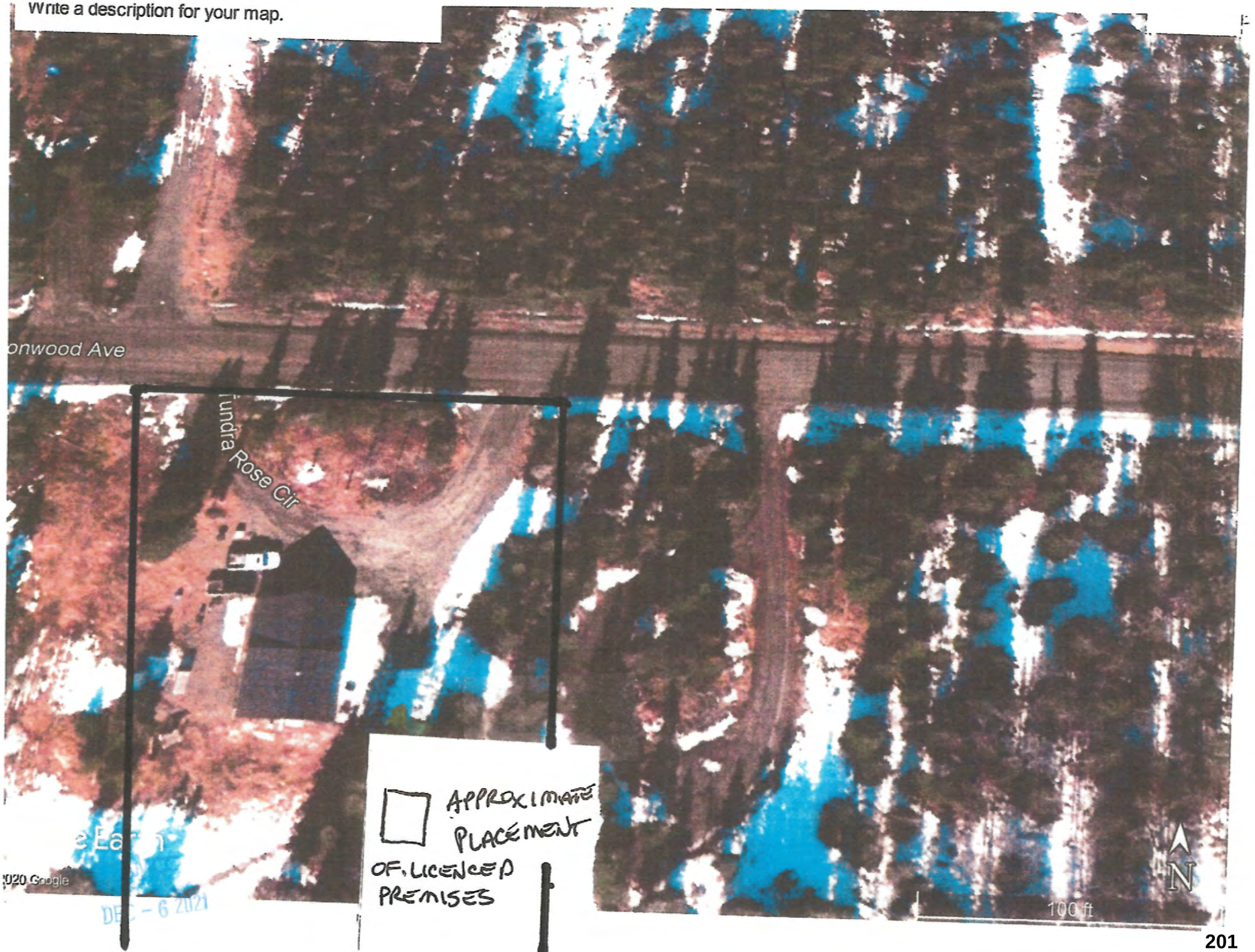
DOING BUSINESS AS ROCK SOLID BUDS LICENSE # 21463


48235 Miracle Ave Ariel View
Write a description for your map.
Legend
DIAGRAM #4
onwood Ave
Tundra Rose Cir
100 ft
N
2020 Google

Write a description for your map.



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Kenai Peninsula Borough
Basic Map Viewer

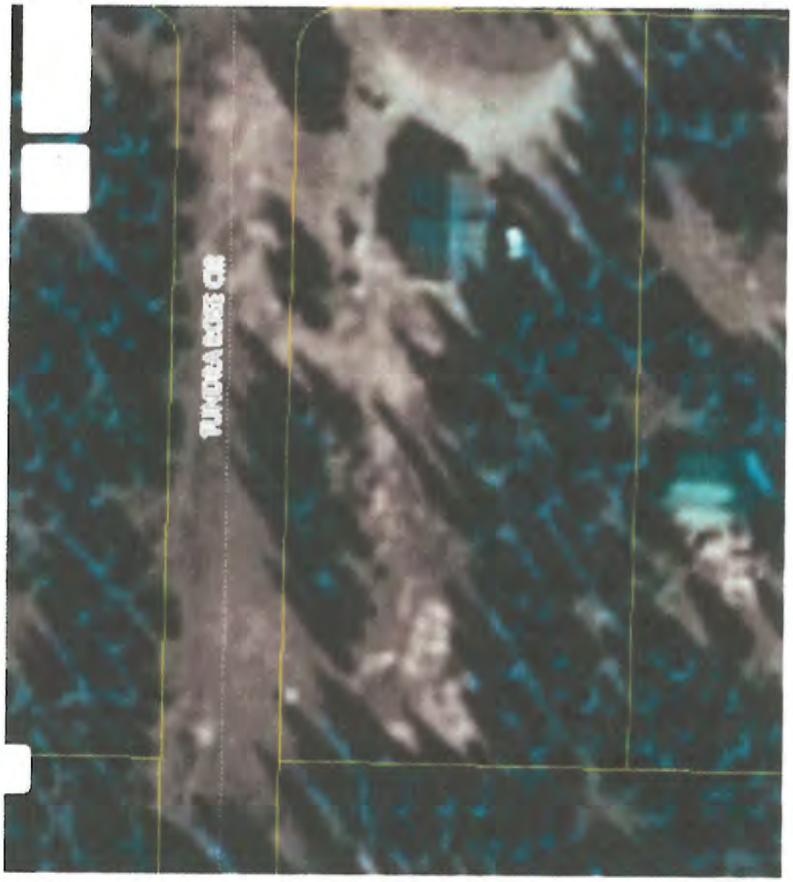
Search... Sign in

Basic Tools

Tool Labels

Filter Layers... Filter

- [x] Places
- [x] Land Records
  - [ ] Local Option Zones
  - [ ] LotLines
  - [x] Parcel Lines and Ownership Type
  - [ ] Township, Range and Section
- [x] Transportation
- [ ] Material Sites
- [x] Water
- [x] Backgrounds
  - [ ] *2020 Imagery (Limited Coverage)*
  - [x] 2012 / 2013 Imagery
  - [x] *Hillshade*



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AMCO
DEC – 6 2021

Layers

0 50 100ft

Kenai Peninsula Borough
Basic Map Viewer

Search... Sign in

Basic Tools

Tool Labels

Filter Layers... Filter

- Places
- Land Records
  - Local Option Zones
  - LotLines
  - Parcel Lines and Ownership Type
  - Township, Range and Section
- Transportation
- Material Sites
- Water
- Backgrounds
  - 2020 Imagery (Limited Coverage)
  - 2012 / 2013 Imagery
  - *Hillshade*



N

AMCO
DEC – 6 2021

Layers

0 150 300ft

← NORTH



THIS IS A FRONT VIEW. PICTURE WAS TAKEN FROM THE ROAD. IF YOU COMPARE THIS PHOTO WITH GOOGLE MAPS OR EVEN THE KENAI PENINSULA PARCEL VIEWER YOU WILL NOT SEE MY WOOD SHED/TOOL SHED WHICH WAS BUILT 5 SUMMERS AGO IN 2016. I WANTED TO NOTE THIS FOR VISUAL PERSPECTIVE.

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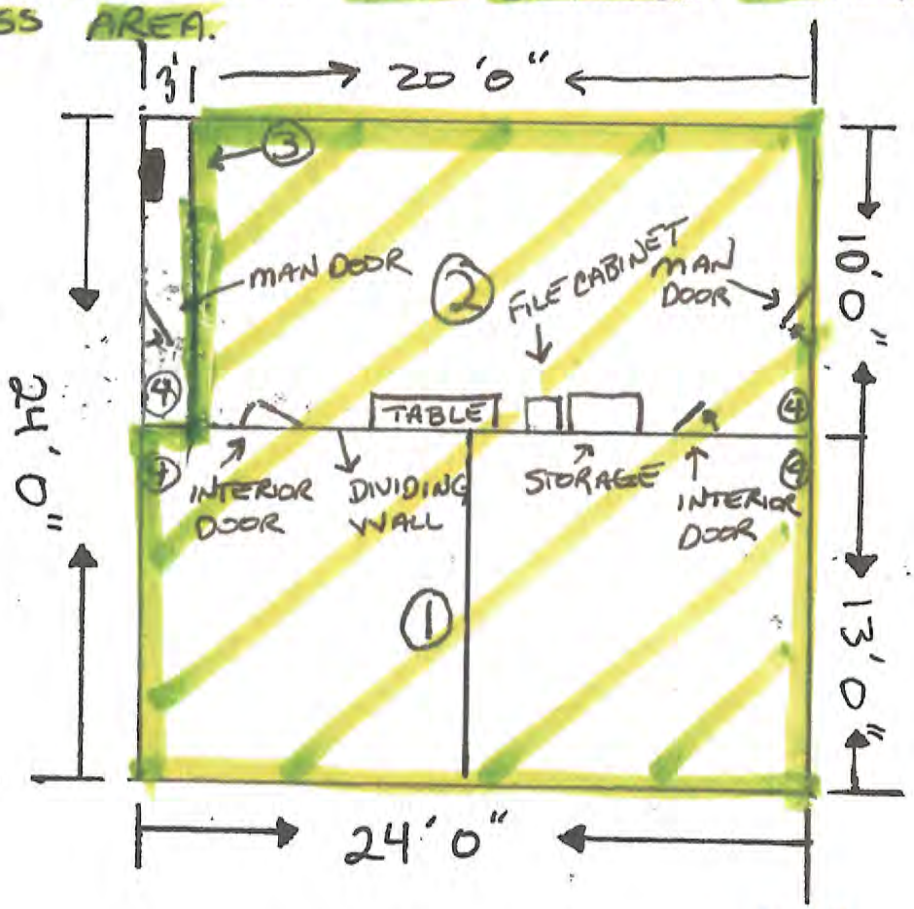
DIAGRAM # 5

① RESTRICTED ACCESS AREA FOR FLOWING PLANTS
② RESTRICTED ACCESS AREA FOR VEGITATING PLANTS
ALL PROCESSING AND STORAGE SHALL BE IN THIS AREA
③ NOT RESTRICTED ACCESS DUE TO BREAKER PANEL PLACEMENT. FLOOR AROUND THIS AREA SHALL BE CLEAR OF ANY OBSTRUCTIONS PER ELECTRICAL BUILDING CODE
④ LOCATION OF FIRE EXTINGUISHERS

THE HIGHLITED AREA DENOTES USABLE/RESTRICTED ACCESS AREA.



AMCO
DEC - 6 2021

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DOING BUSINESS AS: ROCK SOLID BUDS LICENSE# 21463

M[illegible]ged. Center latitude: 60.4968 degrees North. Center longitude: 151.1820 degrees West. Visible Features: 9 f[illegible]ible on typarcels, 4 features visible on Roads, 4 features visible on Addresses.

Kenai Peninsula Borough
Express Map Viewer

48235 MIRACLE AVE

Sign in

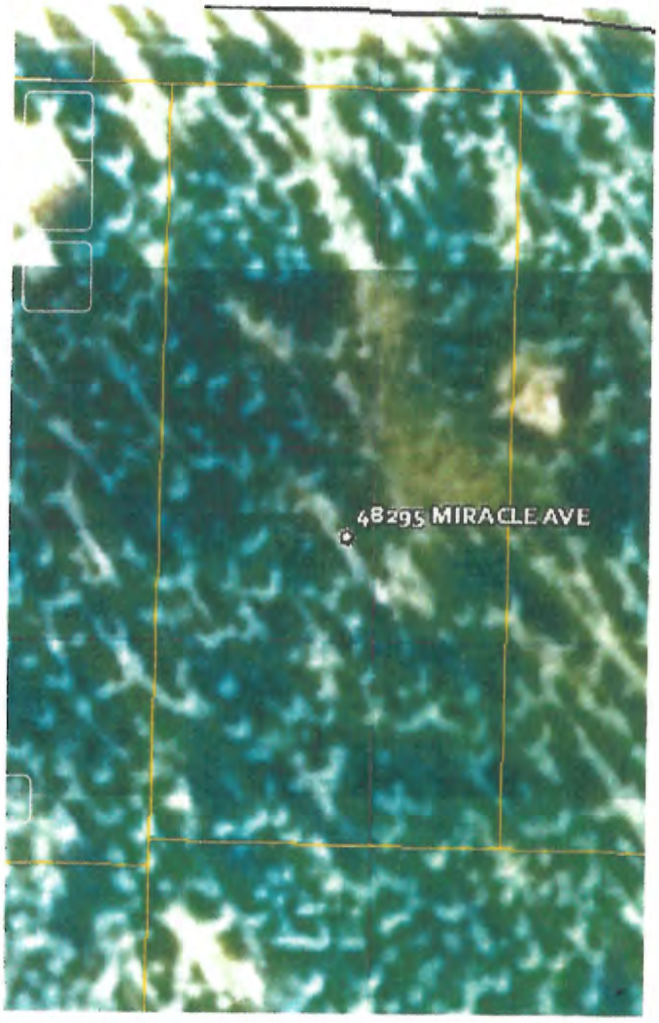
Tools

Tool Labels

Search Results: 48235 MIRACL...

No results to display

Items appear after you perform a valid search or other task that returns results.



WKID: 4326 Lat/Long ▲

Lat: 60.49650° N
Lon: 151.18162° W

Scale 1: 9,975

Go

0 50 100ft

Search Results: 48235 ...

AMCO

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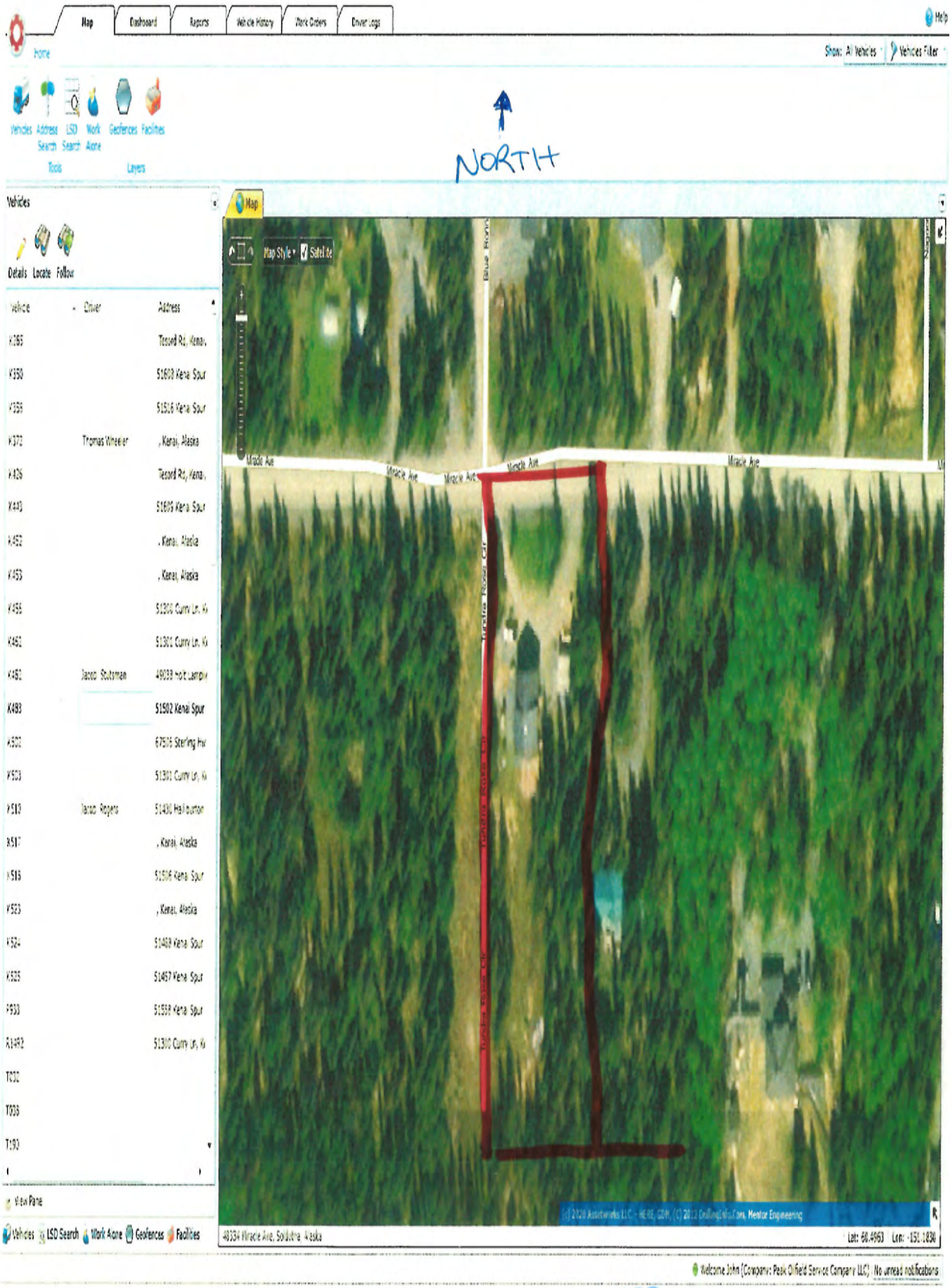

AMCO

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THIS SHOWS THE SECOND ENTRANCE AND IS THE EAST SIDE OF THE BUILDING

LICENSE # 21463

AMCO
DEC - 6 2021

N



SIDE VIEW SHOWING 1 OF 2 ENTRANCES. THIS IS THE WEST SIDE OF THE BUILDING

AMCO
DEC - 6 2021

LICENSE # 21463

←N



THIS IS THE FRONT SIDE OF MY BUILDING, WHICH IS THE NORTH SIDE OF THE BUILDING

LICENSE # 21463

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Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Operating Plan Supplemental
Form MJ-04: Marijuana Cultivation Facility

What is this form?

This operating plan supplemental form is required for all applicants seeking a marijuana cultivation facility license and must accompany **Form MJ-01: Marijuana Establishment Operating Plan**, per 3 AAC 306.020(b)(11). Applicants should review **Chapter 306: Article 4** of the **Alaska Administrative Code**. This form will be used to document how an applicant intends to meet the requirements of the statutes and regulations.

If your business has a formal operating plan, you may include a copy of that operating plan with your application, but all fields of this form must still be completed per 3 AAC 306.020 and 3 AAC 306.420(2).

What additional information is required for cultivation facilities?

Applicants must identify how the proposed establishment will comply with applicable regulations regarding the following:

- Prohibitions
- Cultivation plan
- Waste disposal
- Odor control
- Testing procedure and protocols
- Packaging and labeling

This form must be completed and submitted to AMCO's main office before any new or transfer application for a standard marijuana cultivation facility or limited marijuana cultivation facility license will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**MJ License #:**			21463
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	Alaska	**ZIP:**	99669

AMCO
DEC - 6 2021

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 2 – Overview of Operations

2.1. Provide an overview of your proposed facility's operations. Include information regarding the flow of marijuana from seed or clone to harvest and transfer from your premises:

Marijuana will start from both seed and clone which shall be harvested from mother plants on location. They will be placed in rooting cube like Root Riot Brand rooting cubes and placed in a clone dome. Once rooted they will be put into net pots and placed into the veg system in the "Veg Room" and grown for desired time. they will be trained using different cultivation techniques. They will get transfered to the "Flower Room" and flowered using a 12 hr light/dark cycle for 8 to 9 weeks. Once harvested they will be hung in the "veg room" for drying, then trimmed , sampled, put into labeled containers and stored. Once an order is recieved the orders shall be processed. Each package shall be a single strain. Each package ordered will be weighed out according to the order. No single package will exceed 5 pounds in weight. All marijuana will be in nonbreakable containers with tamper proof tape placed upon it. All containers will be manifested and all labels shall contain Strain Info, weight etc. The accompanying paper work shall also contain all Lab Testing Paperwork, a statement declaring any crop production aids, medium amendments, pesticides, herbicides or fungicides used which shall be disclosed to any retail or other processing facilities

Section 3 – Prohibitions

Review the requirements under 3 AAC 306.405 and 3 AAC 306.410.

3.1. I certify that the marijuana cultivation facility will not: Initials

a. **sell, distribute, or transfer any marijuana or marijuana product to a consumer, with or without compensation;** SD

b. **allow any person, including a licensee, employee, or agent, to consume marijuana or marijuana product on the licensed premises or within 20 feet of the exterior of any building or outdoor cultivation facility; or** SD

c. **treat or otherwise adulterate marijuana with any organic or nonorganic chemical or compound to alter the color, appearance, weight, or odor of the marijuana.** SD

Section 4 – Cultivation Plan

Review the requirements under 3 AAC 306.420 and 3 AAC 306.430.

4.1. Describe the size of the space(s) the marijuana cultivation facility intends to be under cultivation, including dimensions and overall square footage. Provide your calculations below:

The Veg Room is where all vegitative growth, including germination of seed, rooting of clones , mother plants, plus it is where harvested plants shall be hung and processed. Its size shall be 20 feet by 10 feet which totals 200 square feet. Where the breaker panel is located that wall will have a 3 foot buffer zone where no regulated activity will occur. The area shall be demarcated using a safety yellow paint.

The Flower Room will be used only for the flower prodction it will be 23 feetby 13 feet for a 299 Square Foot dimension.

both areas will be under the allowable 500 square foot foot print allowed for a Limited Cultivation Facility

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Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

You must be able to certify the statement below. Read the following and then sign your initials in the box to the right: Initials

4.2. The proposed area(s) for cultivation are clearly identified on the Form MJ-02: Premises Diagram that is submitted with this application. SD

Answer "Yes" or "No" to the following question:	Yes	No
4.3. Will the marijuana cultivation facility include outdoor production?	☐	☑

If "Yes", describe the outdoor structure(s) or the expanse of open or clear ground and how it is fully-enclosed by a physical barrier:

4.4. Describe the method(s) used to ensure that any marijuana at the marijuana cultivation facility, whether indoors or outdoors, cannot be observed by the public from outside the facility:

The primary man door will be facing my home and will not allow anyone to see inside. The dividing wall shall prevent even a look into the "Flowering Room" area. The secondary man door will only be used in cases of emergency.

4.5. Describe the marijuana cultivation facility's growing medium(s) to be used:

All clones and seeds shall start out in Root Riot Rooting cubes. Once rooted they will be inserted into expanded clay pellets. All mother plants will be in organic based soils

4.6. Provide the complete product name and EPA registration # (if applicable) for each of the cultivation facility's pesticide and pest control product to be used. All proposed products must be on DEC's list of approved pesticides in the state of Alaska:

1. Clonex Rooting Gel 79664-1 2. Lost Coast Plant Therapy exempt-25(b) 3. Garden Safe Neem Oil Extract Concentrate 70051-2-39609 4. ProMix BioFungicide plus Mycorrhizae 74267-4 5. Safer Brand Insect Killing Soap Concentrate II 42697-60 6. Bonide Neem Oil Concentrate 70051-2-4

4.7. Describe all other fertilizers, chemicals, gases, and delivery systems, including carbon dioxide management, to be used at the marijuana cultivation facility:

No bottled CO2 shall be used. Breath Brand CO2 bags shall be used. It is a natural means of co2 without the worries of excess co2 in the building. I will include product information.
Nutrients shall come from RX Green Grow part A and Part B. Bloom Part A and Part B. Macronutrients shall be provided with the RX Green products "Bulk" and "Energy". All RX Green Nutrients are naturally made and organic.

I will use General Hydroponics PH Up , PH Down and Cal/Mag products

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

4.8. Describe the marijuana cultivation facility's irrigation and waste water systems to be used:

Irrigation at the facility will be done in contained recirculating manner. The will be a reservoir with a submersible pump and it will be plumbed into the system with pvc and will have a free flowing return system.

The mother plants in dirt I shall manually water them. Same with and starters in the clone dome.

Section 5 – Waste Disposal

Review the requirements under 3 AAC 306.740.

You must be able to certify the statement below. Read the following and then sign your initials in the box to the right: Initials

5.1. The marijuana cultivation facility shall give the board at least three days written notice required under 3 AAC 306.740(c) before making marijuana waste unusable and disposing of it. SP

5.2. Describe how you will store, manage, and dispose of any solid or liquid marijuana waste, including wastewater generated during marijuana cultivation, in compliance with any applicable laws. Include details about the material(s) you will mix with ground marijuana waste and the processes that you will use to make the marijuana waste unusable for any purpose for which it was grown:

All solid marijuana waste shall be segregated by plant number, weighed and entered into metrc. This includes stems, stalks, roots and general leaf foiliage.3 AAC 306.435 They will be accumulated and held in storage in the regulated area. The Board shall be given at least 3 days notice prior to making wastes unusable. All waste shall be ground up and mixed with a non compostable material like cardboard or perlite (as examples) after the notification time is met. The Kenai Peninsula Landfill shall be contacted and when they give approval plus they have available time to process the waste, said waste shall be mixed, weighed, manifested and transported in accordance with 3 AAC 306.730 and 3 AAC 506.740

The system I grow in is a Recirculating system. "Waste water" shall be at a minimum. Water can be pumped into a tank outside for any holding need while systems are cleaned or maintained then pumped back into the systems reutilizing nutrients and minimizing impacts. Any excesses shall be held for use on my house plants. If I must dispose of any I will go to the DEC Office located on KBeach Road in Soldotna and consult with them and ackquire and necessary permits.

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 6 – Odor Control

Review the requirements under 3 AAC 306.430.

Answer "Yes" or "No" to the following question:	Yes	No
6.1. Have you received an exemption from your local government for the odor control requirement set forth in 3 AAC 306.430(c)(2)?	☐	☑

If "Yes", you must be able to certify the statement below. Read the following and then sign your initials in the box:	Initials
I am attaching to this form documentation of my odor control exemption from the local government. N/A	

If "No" to question 6.1., describe the odor control method(s) to be used and how the marijuana cultivation facility will ensure that any marijuana at the facility does not emit an odor that is detectable by the public from outside the facility:

any ventilation to the outside shall have carbon filters in line to scrub any oders

Section 7 – Testing Procedure and Protocols

Review the requirements under 3 AAC 306.455 and 3 AAC 306.465.

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
7.1. I understand and agree that the board or director will, from time to time, require the marijuana cultivation facility to provide samples of the growing medium, soil amendments, fertilizers, crop production aids, pesticides, or water for random compliance checks.	SD
7.2. I will ensure that any individual responsible for collecting random, homogenous samples for required laboratory testing under 3 AAC 306.455 will prepare the necessary accompanying signed statement, provide the signed statement to the marijuana testing facility, and maintain a copy as a business record under 3 AAC 306.755.	SD

7.3. Describe the testing procedures and protocols the marijuana cultivation facility will follow:

I shall randomly collect sampoles of marijuana as proscribed by the Harvest Weight Chart 3 AAC 306.455(a)(1).A statement shall be prepared and signed 3 AAC 306.455 (2)(A)(B)(C) and kept on file. Transport to the testing facility shall be done by these steps. 1. A licensee or desigated agent shall prepare the samples. 2. Enter their info into METRC for tracking. 3. Create a manifest. 4. Insure everything is properly labeled and secured. 5. Transportation will occur with all necessary paperwork and credentials for example MJ Handlers Card, Sample Statements , Manifest etc. No unnecessary stops shall be made during the trip to the testing facility. 3AAC 306.750 shall be adhered to.

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 8 – Packaging and Labeling

Review the requirements under 3 AAC 306.470 and 3 AAC 306.475.

Answer "Yes" or "No" to the following question:	Yes	No
8.1. Will the marijuana cultivation facility be packaging marijuana for a retail marijuana store to sell to a consumer without repackaging?	☐	☑

If "Yes", describe how the marijuana cultivation facility will ensure that the marijuana sold will meet the packaging requirements in 3 AAC 306.470, and provide a sample label that the facility will use to meet the labeling requirements set forth in 3 AAC 306.475:

Answer "Yes" or "No" to the following question:	Yes	No
8.2. Will the marijuana cultivation facility be packaging marijuana in wholesale packages?	☑	☐

If "Yes", describe how the marijuana cultivation facility will ensure that the marijuana sold will meet the packaging requirements in 3 AAC 306.470, and provide a sample label that the facility will use to meet the labeling requirements set forth in 3 AAC 306.475:

Each package shall be a single strain. Each package ordered will be weighed out according to the order. No single package will exceed 5 pounds in weight. All marijuana will be in nonbreakable containers with tamper proof tape placed upon it. All containers will be manifested and all labels shall contain Strain Info, weight etc. The accompanying paper work shall also contain all Lab Testing Paperwork, a statement declaring any crop production aids, medium amendments, pesticides, herbicides or fungicides used which shall be disclosed to any retail or other processing facilities

please see added "transport label"

I certify that as a marijuana cultivation facility, I will submit monthly reports to the Department of Revenue and pay the excise tax required under AS 43.61.010 and AS 43.61.020 on all marijuana sold or provided as a sample to a marijuana establishment, as required under 3 AAC 306.480.

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

Randi Broyles
Notary Public in and for the State of Alaska

STEVEN DOPREP
Printed name of licensee

My commission expires: 07/21/23

Subscribed and sworn to before me this 12th day of November, 2021.

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

(Additional Space as Needed):

LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
1600 X-CLUDE FORMULA 2	499-539			x				
70% NEEM OIL	70051-2-54705	x		x				
ACTINO-IRON BIOLOGICAL FUNGICIDE 0-0-0	73314-2	x						
ACTINOVATE AG BIOLOGICAL FUNGICIDE	73314-1	x						x
ALUDE FUNGICIDE	55146-83	x						x
ATHENA IPM	exempt-25(b)	X		X				
AXIOM PLANT GROWTH STIMULATOR	71771-3-89112						x	
AZAGUARD	70299-17			x	x			x
AZAMAX	71908-1-81268		X	X			X	X
AZASOL	81899-4-74578			x				x
AZERA GARDENING	1021-1872			x				x
AZERA INSECTICIDE	1021-1872			x				x
BIOBIT HP BIOLOGICAL INSECTICIDE WETTABLE POWDER	73049-54			x				x
BONIDE ALL SEASONS HORTICULTURAL AND DORMANT SPRAY OIL CONCENTRATE	4-80			x				
BONIDE BONTONE II ROOTING POWDER	4-489						x	
BONIDE CITRUS FRUIT & NUT ORCHARD SPRAY CONC.	67702-17-4	x		x				
BONIDE CITRUS FRUIT & NUT ORCHARD SPRAY R-T-SPRAY	67702-17-4	x		x				
BONIDE DIATOMACEOUS EARTH CRAWLING INSECT KILLER	73729-1-4			x				
BONIDE INSECTICIDAL SOAP MULTI-PURPOSE INSECT CONTROL R-T-U	67702-13-4			x				
BONIDE LIQUID COPPER FUNGICIDE READY TO USE	67702-1-4	x						
BONIDE MITE X RTU	exempt-25(b)		x					
BONIDE NEEM OIL CONCENTRATE	70051-2-4	x	x	x				

LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
BONIDE NEEM OIL RTU	70051-13-4	x	x	x				
BONIDE ROSE RX 3 IN 1 RTU	70051-13-4	x	x	x				
BONIDE SLUG MAGIC	67702-3-4					x		
BOTANIGARD ES	82074-1			x				x
BUSHDOCTOR FORCE OF NATURE FUNGICIDE	exempt-25(b)	x						
BUSHDOCTOR FORCE OF NATURE INSECTICIDE	1021-1801-71996			x				
BUSHDOCTOR FORCE OF NATURE MITICIDE	exempt-25(b)		x					
CEASE	264-1155-68539	x						x
CLONEX ROOTING GEL	79664-1						x	
CORRY'S SLUG & SNAIL KILLER	67702-33-8119					x		
DESECT DIATOMACEOUS EARTH INSECTICIDE	7655-1			x				
DR. EARTH FINAL STOP DISEASE CONTROL FUNGICIDE	exempt-25(b)	x						
DR. EARTH FINAL STOP SNAIL & SLUG KILLER SPRAY	exempt-25(b)					x		
DR. EARTH FINAL STOP VEGETABLE GARDEN INSECT KILLER	exempt-25(b)			x				
DR. EARTH FINAL STOP YARD & GARDEN INSECT KILLER	exempt-25(b)		x	x				
ECOLOGIC GARDEN INSECT KILLER CONC	exempt-25(b)			x				
ECOZIN PLUS 1.2% ME	5481-559			x	x			x
ELIMINATOR SNAIL & SLUG KILLER	67702-32-59144					x		
EVERGREEN CROP PROTECTION EC 60-6	1021-1770			x				x
EVERGREEN PRO 60-6	1021-1770			x				x
FORTIFY FUNGICIDE	exempt-25(b)	X						
FOSPHITE FUNGICIDE	68573-2		x					x
GARDEN SAFE INSECTICIDAL SOAP INSECT KILLER	67702-13-39609			x				
GARDEN SAFE NEEM OIL EXTRACT CONC	70051-2-39609	x	x	x				
GARDEN SAFE TAKEROOT ROOTING HORMONE	59807-4-39609						x	

LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
GARDENTECH ROOTBOOST ROOTING HORMONE	59807-4-71004						x	
GNATROL WDG BIOLOGICAL LARVICIDE	73049-56			x				x
GOLDEN PEST SPRAY OIL	57538-11			x				x
GRANDEVO CG	84059-27		x	x	x			x
GRANDEVO PTO	84059-17			x				x
GRANDEVO WDG	84059-27		x	x	x			x
HELICOVEX **Approved for use on Hemp only	69553-2			x				x
HORMEX ROOTING POWDER NO. 1	8281-6						x	
HORMEX ROOTING POWDER NO. 3	8281-3						x	
HORMEX ROOTING POWDER NO. 8	8281-1						x	
HORMODIN 1	59807-4						x	x
KALIGREEN	11581-2	x						x
LOST COAST PLANT THERAPY	exempt-25(b)	X	X	X				
LYNX EC 1.4	82074-6			x				x
LYNX EC 5.0	82074-7			x				x
MILSTOP BROAD SPECTRUM FOLIAR FUNGICIDE	70870-1-68539	x						x
MIRACLE-GRO NATURE'S CARE GARDEN DISEASE CONTROL	67702-1-62355	x						
MIRACLE-GRO NATURE'S CARE INSECTICIDAL SOAP	67702-21-62355			x				
MONTEREY B.t. RTU /ORGANIC GARDENING	70051-113-54705			x				
MONTEREY HORTICULTURAL OIL	48813-1-54705	x		x				
MONTEREY NEEM OIL - RTU/ORGANIC GARDENING	70051-13-54705	x		x				
MONTEREY TAKE DOWN GARDEN SPRAY	67702-5-54705			x				
MONTEREY TAKE DOWN GARDEN SPRAY-RTU	67702-6-54705			x				
NATURE-CIDE ALL PURPOSE INSECTICIDE	exempt-25(b)			x				
NIMBIOSYS NEEM OIL	84181-2			x	x			
NUKE EM	exempt-25(b)	x						

LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
ORGANOCIDE PLANT DOCTOR	71962-1-70179	x						
ORNAZIN 3% EC BOTANICAL INSECTICIDE	5481-476-67690			x				x
ORTHO TREE & SHRUB FRUIT TREE SPRAY CONC	70051-75-239	x		x				
OXIDATE 2.0	70299-12	x						x
PHOSTROL AGRICULTURAL FUNGICIDE	55146-83	x						x
PRO-MIX BIOFUNGICIDE + MYCORRHIZAE	74267-4	x					x	x
PRO-MIX BRK BIOFUNGICIDE + MYCORRHIZAE	74267-4	x					x	x
PRO-MIX BRK20 BIOFUNGICIDE + MYCORRHIZAE	74267-4	x					x	x
PRO-MIX BX BIOFUNGICIDE + MYCORRHIZAE	74267-4	x					x	x
PRO-MIX BX WITH BIOFUNGICIDE	74267-1	x					x	x
PRO-MIX HP BIOFUNGICIDE + MYCORRHIZAE	74267-4	x					x	x
PRO-MIX WITH BIOFUNGICIDE	74267-1	x					x	x
PYGANIC CROP PROTECTION EC 1.4 II	1021-1771			x				x
PYGANIC CROP PROTECTION EC 5.0 II	1021-1772			x				x
PYGANIC SPECIALTY	1021-1772			x				x
PYRETHRUM TR TOTAL RELEASE INSECTICIDE	499-479			x				x
PYRONYL CROP SPRAY	89459-26			x				x
REGALIA BIOFUNGICIDE	84059-3	x					x	x
REGALIA CG	84059-3	x					x	x
ROOTSHIELD GRANULES	68539-3	x						x
SAFER BRAND BIONEEM MULTI-PURPOSE INSECTICIDE & REPELLENT CONC	70051-6-42697			x				
SAFER BRAND GARDEN FUNGICIDE CONC FOR FLOWERS, FRUITS & VEGETABLES	42697-37	x						
SAFER BRAND INSECT KILLING SOAP CONCENTRATE II	42697-60		x	x				
SAFER BRAND INSECT KILLING SOAP WITH SEAWEED EXTRACT II	42697-59			x				

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LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
SAFER BRAND PYRETHRIN & INSECTICIDAL SOAP CONCENTRATE II	59913-9			x				
SAFER BRAND TOMATO & VEGETABLE INSECT KILLER II	59913-10			x				
SAFER BRAND YARD & GARDEN INSECT KILLER II	59913-10			x				
SERENADE ASO	264-1152	x						x
SERENADE GARDEN DISEASE CONTROL CONCENTRATE	264-1152	x						x
SERENADE GARDEN DISEASE CONTROL READY TO SPRAY	264-1152	x						x
SERENADE GARDEN DISEASE CONTROL READY TO USE	264-1154	x						x
SERENADE MAX	264-1151	x						x
SERENADE OPTI	264-1160	x						x
SMITE	exempt-25(b)		x					
SNS 217 RTU SPIDER MITE CONTROL	exempt-25(b)		x					
SUBTILEX NG BIOLOGICAL FUNGICIDE	71840-8	x						x
SUNSPRAY ULTRA-FINE SPRAY OIL	86330-11	x		x				x
TERSUS INSECTICIDE	1021-2616			x				x
THE AMAZING DOCTOR ZYMES	exempt-25(b)	X		x				
TRIACT 70	70051-2-59807							x
TRIATHLON BA	70051-107-59807	x						x
TRISHIELD INSECTICIDE, MITICIDE & FUNGICIDE CONCENTRATE	exempt-25(b)	X	X	X				
VENERATE CG	84059-14		x	x	x			x
VENERATE XC BIOINSECTICIDE	84059-14		x	x	x			x
WHITNEY FARMS 3-IN-1 ROSE & FLOWER CARE 1	67702-15-91161	x	x	x				
WHITNEY FARMS INSECTICIDAL SOAP	67702-21-73327			x				
WHITNEY FARMS SLUG & SNAIL KILLER 1	67702-3-91161					x		

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LIST OF PESTICIDES THAT MEET ALASKA CRITERIA FOR USE ON MARIJUANA

(additional products not listed may meet criteria)

Product Name	EPA Registration Number	Controls						WPS required
		Fungus	Mites	Insects	Worms	Slugs	Growth Regulator	
XPECTRO OD	82074-5			x				x
YEAR ROUND SPRAY OIL	6218-71			x				x
ZEROTOL 2.0	70299-12	x						x
ZONIX BIOFUNGICIDE	72431-1	x						x

AMCO
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Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-07: Public Notice Posting Affidavit

What is this form?

A public notice posting affidavit is required for all marijuana establishment license applications, per 3 AAC 306.020(b)(10). As soon as practical after initiating a marijuana establishment license application, an applicant must give notice of the application to the public by posting a true copy of the application for ten (10) days at the location of the proposed licensed premises and one other conspicuous location in the area of the proposed premises, per 3 AAC 306.025(b)(1).

This form must be completed and submitted to AMCO's main office before any new or transfer license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**License Number:**	21463		
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	AK	**ZIP:**	99669

Section 2 – Certification

I certify that I have met the public notice requirement set forth under 3 AAC 306.025(b)(1) by posting a copy of my application for the following 10-day period at the location of the proposed licensed premises and at the following conspicuous location in the area of the proposed premises:

Start Date: 10-01-2021 End Date: 10-20-2021

Other conspicuous location: Bulletin Boards @ Save U More and Fred Meyers in Soldotna Alaska

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

STEVEN DUPREY
Printed name of licensee

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

Randi Broyles
Notary Public in and for the State of Alaska

My commission expires: 07/21/23

Subscribed and sworn to before me this 2nd day of December, 2021.

AMCO
DEC - 6 2021

Public Notice

Application for Marijuana Establishment License

License Number: 21463
License Status: Incomplete
License Type: Limited Marijuana Cultivation Facility
Doing Business As: ROCK SOLID BUDS
Business License Number: 1050703
Email Address: stevenduprey@live.com
Latitude, Longitude: 60.496551, -151.183909
Physical Address: 48235 Miracle Ave
Soldotna, AK 99669
UNITED STATES

Licensee #1

Type: Individual
Name: STEVE DUPREY
Phone Number: 907-394-5297
Email Address: stevenduprey@live.com
Mailing Address: PO Box 1494
Kenai, AK 99611
UNITED STATES

***Note:** No entity officials entered for this license.*

***Note:** No affiliates entered for this license.*

Interested persons may object to the application by submitting a written statement of reasons for the objection to their local government, the applicant, and the Alcohol & Marijuana Control Office (AMCO) not later than 30 days after the director has determined the application to be complete and has given written notice to the local government. Once an application is determined to be complete, the objection deadline and a copy of the application will be posted on AMCO's website at https://www.commerce.alaska.gov/web/amco. Objections should be sent to AMCO at marijuana.licensing@alaska.gov or to 550 W 7th Ave, Suite 1600, Anchorage, AK 99501.

POSTING DATE 10-1-21 - 10-20-21

POSTED @ SAVE-A-MORE
AND FRED MEYERS
PLUS AT RESIDENCE FROM
10-1-21

RECEIVED
NOV 12 2021
Borough Clerk's Office
Kenai Peninsula Borough

Public Notice

Application for Marijuana Establishment License

License Number: 21463
License Status: Incomplete
License Type: Limited Marijuana Cultivation Facility
Doing Business As: ROCK SOLID BUDS
Business License Number: 1050703
Email Address: stevenduprey@live.com
Latitude, Longitude: 60.496551, -151.183909
Physical Address: 48235 Miracle Ave
Soldotna, AK 99669
UNITED STATES

Licensee #1

Type: Individual
Name: STEVE DUPREY
Phone Number: 907-394-5297
Email Address: stevenduprey@live.com
Mailing Address: PO Box 1494
Kenai, AK 99611
UNITED STATES

Note: *No entity officials entered for this license.*

Note: *No affiliates entered for this license.*

Interested persons may object to the application by submitting a written statement of reasons for the objection to their local government, the applicant, and the Alcohol & Marijuana Control Office (AMCO) not later than 30 days after the director has determined the application to be complete and has given written notice to the local government. Once an application is determined to be complete, the objection deadline and a copy of the application will be posted on AMCO's website at https://www.commerce.alaska.gov/web/amco. Objections should be sent to AMCO at marijuana.licensing@alaska.gov or to 550 W 7th Ave, Suite 1600, Anchorage, AK 99501.

POSTING DATE_____

THIS IS WHAT I POSTED ON THE DATES LISTED START AND END DATES

LICENSE # 21463

DEC - 6 2021

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Form MJ-08: Local Government Notice Affidavit

What is this form?

A local government notice affidavit is required for all marijuana establishment license applications with a proposed premises that is located within a local government, per 3 AAC 306.025(b)(3). As soon as practical after initiating a marijuana establishment license application, an applicant must give notice of the application to the public by submitting a copy of the application to each local government and any community council in the area of the proposed licensed premises. For an establishment located inside the boundaries of city that is within a borough, both the city and the borough must be notified.

This form must be completed and submitted to AMCO's main office before any new or transfer license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**License Number:**	21463		
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	AK	**ZIP:**	99669

Section 2 – Certification

I certify that I have met the local government notice requirement set forth under 3 AAC 306.025(b)(3) by submitting a copy of my application to the following local government (LG) official(s) and community council (if applicable):

Local Government(s): Kenai Peninsula Borough/City of Soldotna Date Submitted: 11-26-2021 and 11/19/2021

Name/Title of LG Official 1: Johni Blankenship, MMC/Borough Clerk Name/Title of LG Official 2: John Czarnezki/ Director of E.P.D

Community Council: None Date Submitted: n/a
(Municipality of Anchorage and Matanuska-Susitna Borough only)

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

Randi Broyles
Notary Public in and for the State of Alaska

STEVEN DUPREY
Printed name of licensee

My commission expires: 07/21/23

Subscribed and sworn to before me this 2nd day of December, 2021.

AMCO
DEC – 6 2021

Clarification of Action for form MJ-08

1. On 11-26-2021 I , Steven Duprey, hand delivered my Local Notice with a Site Developement Plan to
Johni Blankenship, whom is the Kenai Peninsula Borough Clerk.

2. On 11-19-2021 I , Steven Duprey, hand delivered my Local Notice with a Site Developement Plan to
John Czarnezki, whom is the Director of the conomic Development & Planning department for the City of
Soldotna.

Steven Duprey

12-2-2021
Date

LICENSE # 21463

AMCO
DEC - 6 2021

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

RECEIVED
MAR 24 2021
ALCOHOL & MARIJUANA CONTROL OFFICE
STATE OF ALASKA

Alaska Marijuana Control Board

Form MJ-09: Statement of Financial Interest

What is this form?

A statement of financial interest completed by each proposed licensee (as defined in 3 AAC 306.020(b)(2)) is required for all marijuana establishment license applications, per 3 AAC 306.020(b)(4). A person other than a licensee may not have direct or indirect financial interest (as defined in 3 AAC 306.015(e)(1)) in the business for which a marijuana establishment license is issued, per 3 AAC 306.015(a).

This form must be completed and submitted to AMCO's main office by each proposed licensee before any license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Steven Duprey	**License Number:**	21463		
License Type:	Limited Marijuana Cultivation Facility				
Doing Business As:	Rock Solid Buds				
Premises Address:	48235 Miracle Ave				
City:	Soldotna	**State:**	AK	**ZIP:**	99669

Section 2 – Individual Information

Enter information for the individual licensee.

Name:	Steven Duprey
Title:	Owner /Operator
[redacted]	

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

RECEIVED
MAR 24 2021
ALCOHOL MARIJUANA CONTROL OFFICE
STATE OF ALASKA

Alaska Marijuana Control Board

Form MJ-09: Statement of Financial Interest

Section 3 – Certifications

I certify that no person other than a proposed licensee listed on my marijuana establishment license application has a direct or indirect financial interest, as defined in 3 AAC 306.015(e)(1), in the business for which a marijuana establishment license is being applied for.

I further certify that any ownership change shall be reported to the board as required under 3 AAC 306.040.

I understand that my fingerprints will be used to check the criminal history records of the Federal Bureau of Investigation (FBI), and that I have the opportunity to complete or challenge the accuracy of the information contained in the FBI identification record.
The procedures for obtaining a change, correction, or updating an FBI identification record are set forth in Title 28, CFR, 16.34.

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

OFFICIAL SEAL
Tatyanah Shassetz
Notary Public - State of Alaska

Tatyanah Shassetz
Notary Public in and for the State of Alaska

STEVEN DUPREY
Printed name of licensee

My commission expires: 10/23/2022

Subscribed and sworn to before me this 23rd day of March, 2021.

Alcohol & Marijuana Control Office

License Number: 21463
License Status: New
License Type: Limited Marijuana Cultivation Facility
Doing Business As: ROCK SOLID BUDS
Business License Number: 1050703
Designated Licensee: STEVE DUPREY
Email Address: stevenduprey@live.com
Local Government: Kenai Peninsula Borough
Community Council:
Latitude, Longitude: 60.496551, -151.183909
Physical Address: 48235 Miracle Ave
Soldotna, AK 99669
UNITED STATES

Licensee #1

Type: Individual
Name: STEVE DUPREY
[redacted]
Phone Number: 907-394-5297
Email Address: stevenduprey@live.com
Mailing Address: PO Box 1494
Kenai, AK 99611
UNITED STATES

Note: *No entity officials entered for this license.*

Note: *No affiliates entered for this license.*

232

Kenai Peninsula Borough, Alaska
Assessing Department

Search Instructions

This site uses the latest single field search technology. Simply enter your search criteria and hit the "search" button to see your results.

Advanced techniques include targeting specific search criteria e.g., "acreage:1-5", the use of the "*" wildcard character, and sorting options for tailoring the results to your specific needs. Please click on the question mark button for instructions and tips on more advanced search techniques.

Property Search

Search

steven Duprey Search

Your search returned 2 records / 1 pages Download

PARCEL: 05528238
ADDRESS:
OWNER: **DUPREY STEVEN**

Land: $8,600
Improvement: $0
Total: $8,600

No Photo

PARCEL: 05528239
ADDRESS: 48235 MIRACLE AVE
OWNER: **DUPREY STEVEN T**

Land: $15,600
Improvement: $199,400
Total: $215,000

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Kenai Peninsula Borough, Alaska
Assessing Department

Go Back | Property Search | Print Report | Property Taxes

General Info

Property Owner:
DUPREY STEVEN T
PO BOX 1494
KENAI AK 99611-1494

Change of Address

Owner(s)

Property ID	05528239
Address	48235 MIRACLE AVE
Transfer Date	1/19/2011
Document / Book Page	20110005790
Acreage	1.0800
Tax Authority Group	58 - CENTRAL EMERGENCY SERVICES

Legal Description

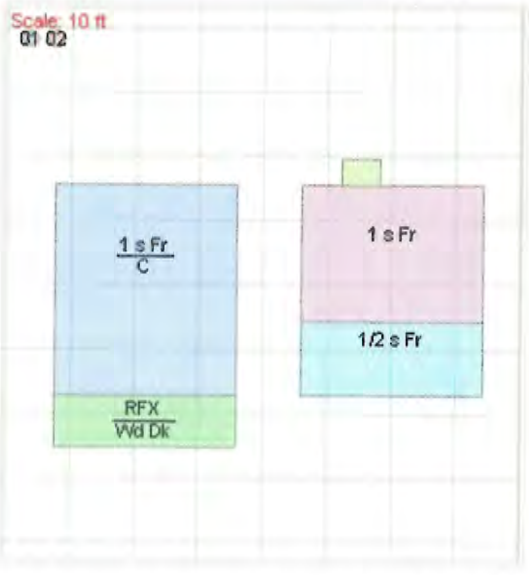
Description
T 5N R 11W SEC 27 Seward Meridian KN 0780224 COTTONWOOD ACRES SUB RESUB OF LO TS 4 & 5 LOT 5-A

Value History

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013
Reason	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certification	Main Roll Certifica
Land Assd	$15,600	$15,600	$15,600	$15,600	$15,600	$15,600	$15,600	$15,600	$15
Imp Assd	$199,400	$197,000	$197,600	$195,000	$195,500	$184,500	$170,700	$158,700	$158
Total Assd	$215,000	$212,600	$213,200	$210,600	$211,100	$200,100	$186,300	$174,300	$173

Extension Details

R01



Attributes | Floor Areas | Exterior Features

Story	Attribute	Detail
	Type	2+ L LOG
	Occupancy	Single family
	Roof Structure	Gable
	Roof Cover	Metal
	Heating	Space heater
	Stories	2.0
	Bathrooms	1
	Bathrooms (Half)	1
	Feature	Wood Stove
1	Exterior Wall	Log rustic
1	Interior Wall	Normal for Class
1	Interior Flooring	Base Allowance
1.5	Exterior Wall	T 111 plywood-economy
1.5	Interior Wall	Normal for Class
1.5	Interior Flooring	Base Allowance
2	Exterior Wall	T 111 plywood-economy
2	Interior Wall	Normal for Class
2	Interior Flooring	Base Allowance

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Address	48235 MIRACLE AVE
Type	2+ L LOG
Grade	A+
Year Built	2000
Value	$186,900

Sketch Legend

Improvements

Code	Description	Year	Building	Length	Width	Units	Unit Type	Value
DRIVE	Gravel Driveway	3000	R01	0	0	1	IT	$2,000
SWL	Residential Sewer Water Landscaping	3000	R01	0	0	1	IT	$10,500

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Kenai Peninsula Borough
Basic Map Viewer

Search... Sign in

Basic Tools

Tool Labels

Filter Layers... Filter

- Places
- Land Records
  - Local Option Zones
  - LotLines
  - Parcel Lines and Ownership Type
  - Township, Range and Section
- Transportation
- Material Sites
- Water
- Backgrounds
  - 2020 Imagery (Limited Coverage)
  - 2012 / 2013 Imagery
  - *Hillshade*



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Still loading Parcels map data...

Layers

PROOF OF POSSESSION FOR PROPOSED PREMISES SUPPLIMENTAL

I am including all formerly submitted documents plus 4 more pages pertaining to the property which I printed off from the Kenai Peninsula Borough website Parcel Look up. These documents include the supplemental information which will allow the MCB to better identify ownership/Link the physical address to the legal description of the Deed

I, Steven Duprey, do hereby certify that all the above statement is true and correct as I am able to do on the 2ND day or November, 2021.

Steven Duprey

Randi Broyles
Notary Public

My Commision expires on: 07/21/23

Subscribed and sworn to me on this 2nd Day of December, 2021

OFFICIAL SEAL
Randi Broyles
Notary Public State of Alaska

AMCO
DEC - 6 2021

Proof of Possession for Proposed Premises

I have included 3 documents to show the History of my ownership. 1. The original Statutory Warranty Deed where Chad Mills and I purchased the property from Zachary Daniels and Yvonne Ryans in July of 2007. 2. Chad Mills moved out and did a "QUIT CLAIM DEED" relinquishing his Ownership in the Property dated on January 13, 2011. 3. I, Steven Duprey, refinanced my home in December of 2020, which is what the DEED OF RECONVEYANCE is.

I, Steven Duprey, hereby declare under the penalty of perjury that the statements above best reflect the truth as I am able to describe it on this 23 Day of March, 2021.

Signature of licensee

Notary Public in and for the State of Alaska

STEVEN DUPREY

My commission expires: 10/23/2022

Subscribed and sworn to before me on this 23rd day of March, 2021

OFFICIAL SEAL
Tatyanah Shassetz
Notary Public - State of Alaska

License # : 21463

AMCO
DEC - 6 2021

ALASKA

2007-007718-0

Recording Dist: 302 - Kenai
7/20/2007 10:56 AM Pages: 1 of 1

File for Record at Request of:
First American Title Insurance Company

AFTER RECORDING MAIL TO:

Name: **Steven T. Duprey ETAL**

Address: ~~48235 Miracle Avenue~~ P.O. 1494

~~Soldotna, AK 99669~~ KENAI, AK 99611

File No.: **0221-1080880 (PV)**

STATUTORY WARRANTY DEED

THE GRANTOR, **Zachary J. Daniels and Yvonne A. Ryans, husband and wife**, whose mailing address is **P.O. Box 413, Sterling, AK 99672**, for and in consideration of **TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION**, in hand paid, conveys and warrants to **Steven T. Duprey, an unmarried person and Chad A. Mills, an unmarried person**, residing at **48235 Miracle Avenue, Soldotna, AK 99669**, the following described real estate, situated in the **Kenai** Recording District, **Third** Judicial District, State of **Alaska**:

Lot 5-A, Block 4, RESUBDIVISION OF LOTS 4 & 5, COTTONWOOD ACRES SUBDIVISION, according to the official plat thereof, filed under Plat Number 78-224, Records of the Kenai Recording District, Third Judicial District, State of Alaska.

SUBJECT TO reservations, exceptions, easements, covenants, conditions and restrictions of record, if any.

Dated: July 20, 2007

Zachary J. Daniels

Yvonne A. Ryans

STATE OF Alaska

Third Judicial District

THIS IS TO CERTIFY that on this **20th day of July, 2007**, before me the undersigned Notary Public, personally appeared **Zachary J. Daniels and Yvonne A. Ryans**, known to me and to me known to be the individual(s) described in and who executed the foregoing instrument and he/she/they acknowledged to me that he/she/they signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

Notary Public in and for Alaska
My commission expires July 31, 2010

AMCO

DEC – 6 2021

ALASKA

2011-000579-0
Recording Dist: 302 - Kenai
1/19/2011 10:01 AM Pages: 1 of 2

File for Record at Request of:
First American Title Insurance Company

AFTER RECORDING MAIL TO:

Name: **Steven T. Duprey**
Address: **PO Box 1494**
Kenai, AK 99611
File No.: **0223-1674552 (MG)**

QUIT CLAIM DEED

THE GRANTOR, **Chad A. Mills, an unmarried person**, whose address is **PO Box 871197, Wasilla, AK 99687-1197**, for and in consideration of **ten dollars**, conveys and quit claims to **Steven T. Duprey, an unmarried person**, whose address is **PO Box 1494, Kenai, AK 99611**, the following described real estate, situated in the Recording District of **Kenai, Third** Judicial District, State of **Alaska**:

Lot 5-A, Block 4, RESUBDIVISION OF LOTS 4 & 5, COTTONWOOD ACRES SUBDIVISION, according to the official plat thereof, filed under Plat Number 78-224, Records of the Kenai Recording District, Third Judicial District, State of Alaska.

together with all after acquired title of the Grantor(s) therein.

Dated: 1/13, 2011.

Chad A. Mills

Chad A. Mills

AMCO
DEC - 6 2021

STATE OF Alaska)
) SS.
Third Judicial District)

THIS IS TO CERTIFY that on this 13 day of January, 2011, before me the undersigned Notary Public, personally appeared **Chad A. Mills**, known to me and to me known to be the individual(s) described in and who executed the foregoing instrument and he/she/they acknowledged to me that he/she/they signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

Notary Public in and for Alaska
My commission expires 6.8.2013

STATE OF ALASKA
NOTARY PUBLIC
CHRISTI ERWIN
My Commission Expires Jun. 8 2013

AMCO
DEC - 6 2021

DEED OF RECONVEYANCE

Cenlar FSB #:0035312396 "DUPREY" Lender ID:A82/001/4007488322 Kenai Recording District , Alaska
MIN #: 100201000000513486 SIS #: 1-888-679-6377

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, all of the indebtedness secured by the Trust Deed executed by STEVEN T DUPREY AN UNMARRIED PERSON as Trustor, to original trustee, FIRST AMERICAN TITLE INSURANCE COMPANY LLC as Trustee, for the benefit of MORTGAGE ELECTRONIC REGISTRATION SYSTEMS INC AS NOMINEE FOR ALASKA USA MORTGAGE COMPANY, LLC ITS SUCCESSORS AND ASSIGNS, as beneficiary, Dated 01/12/2011 and Recorded 01/19/2011 in the recording district of Kenai, Alaska, as Instrument No.: 2011-000580-0,has been paid; and said Beneficiary has requested in writing that this Deed of Reconveyance be executed and delivered, as confirmed by its endorsement below;

NOW THEREFORE, in consideration of such payment and in accordance with the written request of the Beneficiary, the undersigned Trustee does by these present GRANT, REMISE, RELEASE, AND RECONVEY to the person or persons entitled thereto all the interest and estate derived to said Trustee by or through said Trust Deed in the following described premises, together with all buildings, fixtures, improvements and appurtenances thereunto belonging.

By CENLAR FSB as Trustee
On 12/30/2020

TIFFANY WHITE , TRUSTEE

Property Address: 48235 MIRACLE AVENUE, SOLDOTNA, AK 99669

STATE OF New Jersey
COUNTY OF Mercer

On 12/30/2020, before me, NARISSA RADCLIFF, a Notary Public in and for Mercer in the State of New Jersey, personally appeared TIFFANY WHITE , TRUSTEE, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal,

NARISSA RADCLIFF
Notary Expires: 10/09/2025 #50140182

NARISSA RADCLIFF
NOTARY PUBLIC
STATE OF NEW JERSEY
ID # 50140182
MY COMMISSION EXPIRES OCT. 09, 2025

(This area for notarial seal)

When Recorded Return To: SATISFACTIONS, Cenlar FSB PO BOX 77414, EWING, NJ 08628-9829
Loan #:0035312396

AMCO
DEC - 6 2021

Office of the Borough Clerk
144 North Binkley Street, Soldotna, Alaska 99669 • (907) 714-2160 • (907) 714-2388 Fax

Johni Blankenship, MMC
Borough Clerk

MARIJUANA LICENSE LOCAL REVIEW STANDARDS ACKNOWLEDGEMENT FORM

Please review the statements below and acknowledge your understanding of the conditions and intent to comply by your signature below.

There shall be no parking in borough rights-of-way generated by the marijuana establishment.

If I have a retail marijuana license, I will not conduct any business on, or allow any consumer to access, the premises, between the hours of 2:00 a.m. and 8:00 a.m. each day.

I must stay current in obligations owed to the Kenai Peninsula Borough or my license may be subject to a protest by the KPB Assembly.

It is my responsibility to abide by all federal, state, and local laws applicable to my marijuana establishment.

I understand Kenai Peninsula Borough staff will enter my property for purposes of evaluating ongoing compliance with KPB 7.30 and any conditions placed on the license by the State of Alaska Marijuana Control Board.

I have received, read and understand the additional review standards and conditions set out in KPB 7.30.

Rock Solid Buds
48235 Miracle Ave, Soldotna, AK 99669; T 5N R 11W SEC 27 SEWARD MERIDIAN KN 0780224 COTTONWOOD ACRES SUB RESUB LOTS 4 & 5 BLK 4 LOT 5-A
Application for Limited Marijuana Cultivation Facility (License Number: 21463)

Signature _____ Date 11-19-21

Please return completed form along with site development plan to the KPB Clerk's

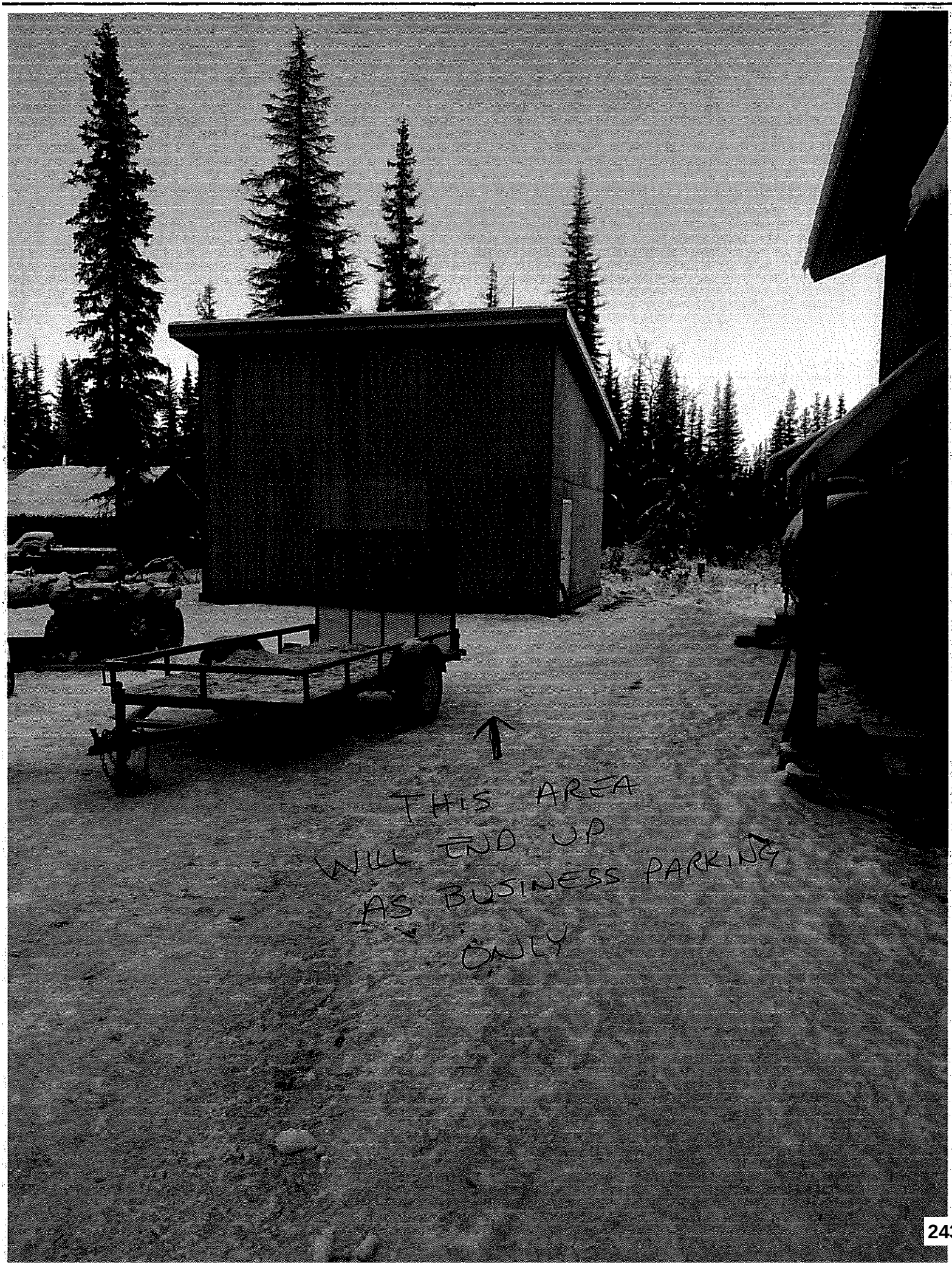
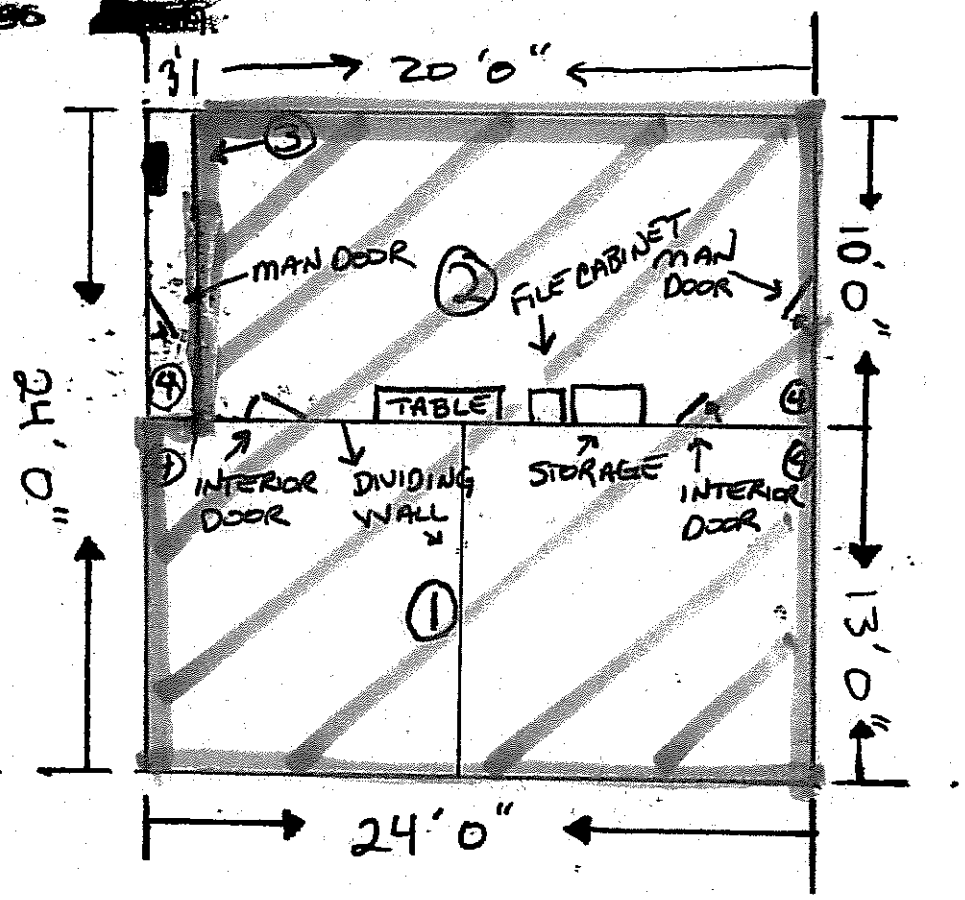

THIS AREA
WILL END UP
AS BUSINESS PARKING
ONLY

DIAGRAM # 5

(1) RESTRICTED ACCESS AREA FOR FLOWING PLANTS
(2) RESTRICTED ACCESS AREA FOR VEGITATING PLANTS ALL PROCESSING AND STORAGE SHALL BE IN THIS AREA
(3) NOT RESTRICTED ACCESS DUE TO BREAKER PANEL PLACEMENT. FLOOR AROUND THIS AREA SHALL BE CLEAR OF ANY OBSTRUCTIONS PER ELECTRICAL BUILDING CODE
(4) LOCATION OF FIRE EXTINGUISHERS

THE [redacted] LITED AREA DENOTES USABLE/RESTRICTED [redacted]





DOING BUSINESS AS: ROCK SOLID BUDS LICENSE# 21463

M[illegible]ged. Center latitude: 60.4968 degrees North. Center longitude: 151.1820 degrees West. Visible Features: 9 f[illegible]ible on typarcels, 4 features visible on Roads, 4 features visible on Addresses.

Kenai Peninsula Borough
Express Map Viewer

48235 MIRACLE AVE

Sign in

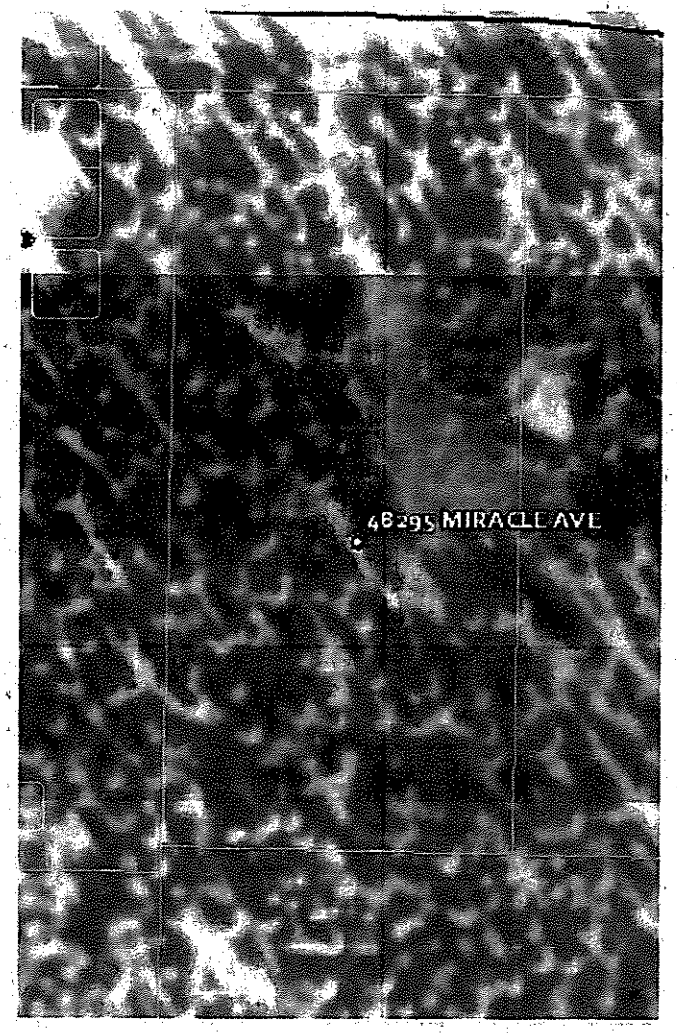
Tools

Tool Labels ✕

Search Results: 48235 MIRACL...

No results to display

Items appear after you perform a valid search or other task that returns results.



WKID: 4326 Lat/Long ▲

Lat: 60.49650° N
Lon: 151.18162° W

Scale 1: 9775

Go

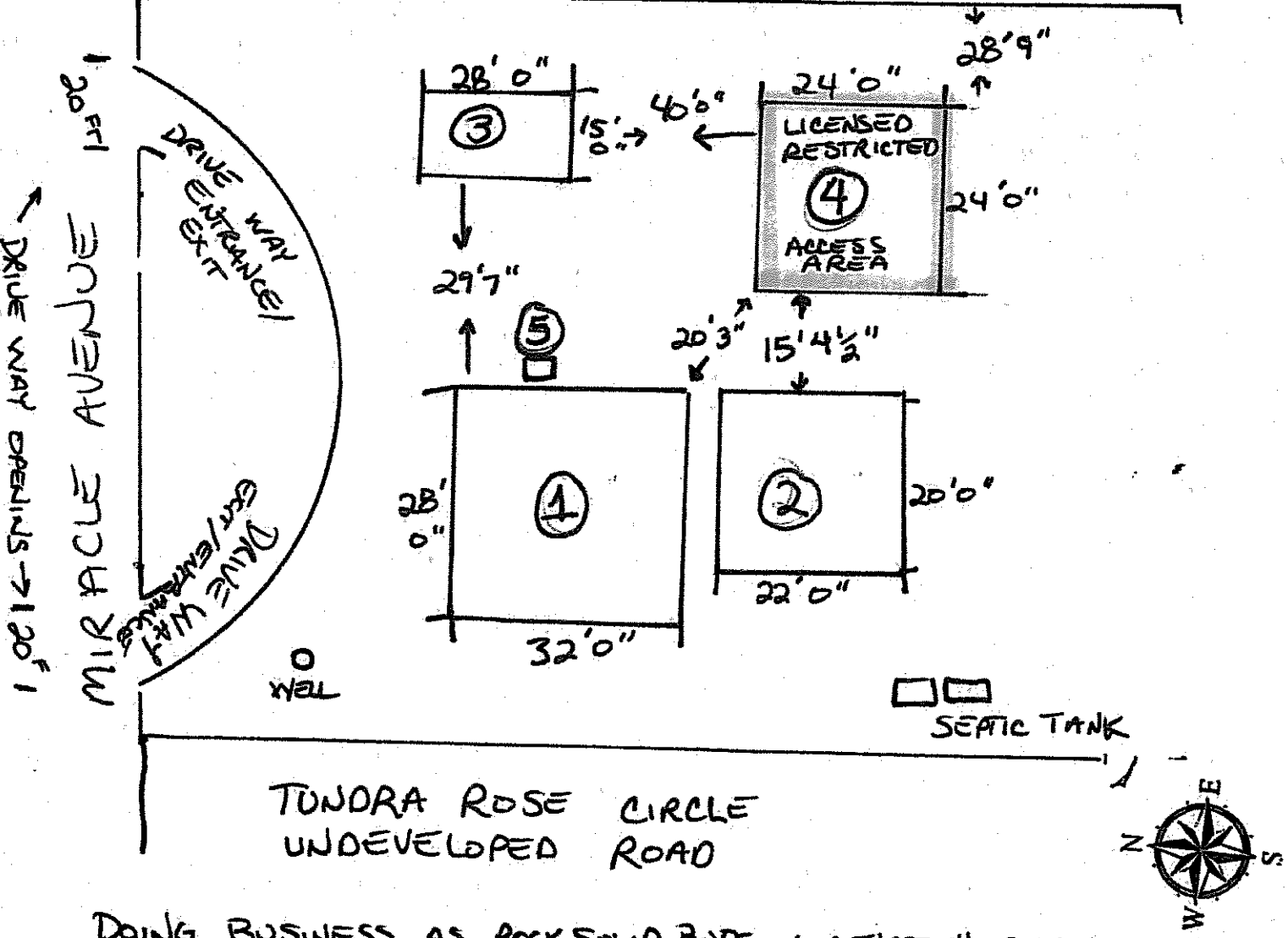
0 50 100ft

Search Results: 48235 ...

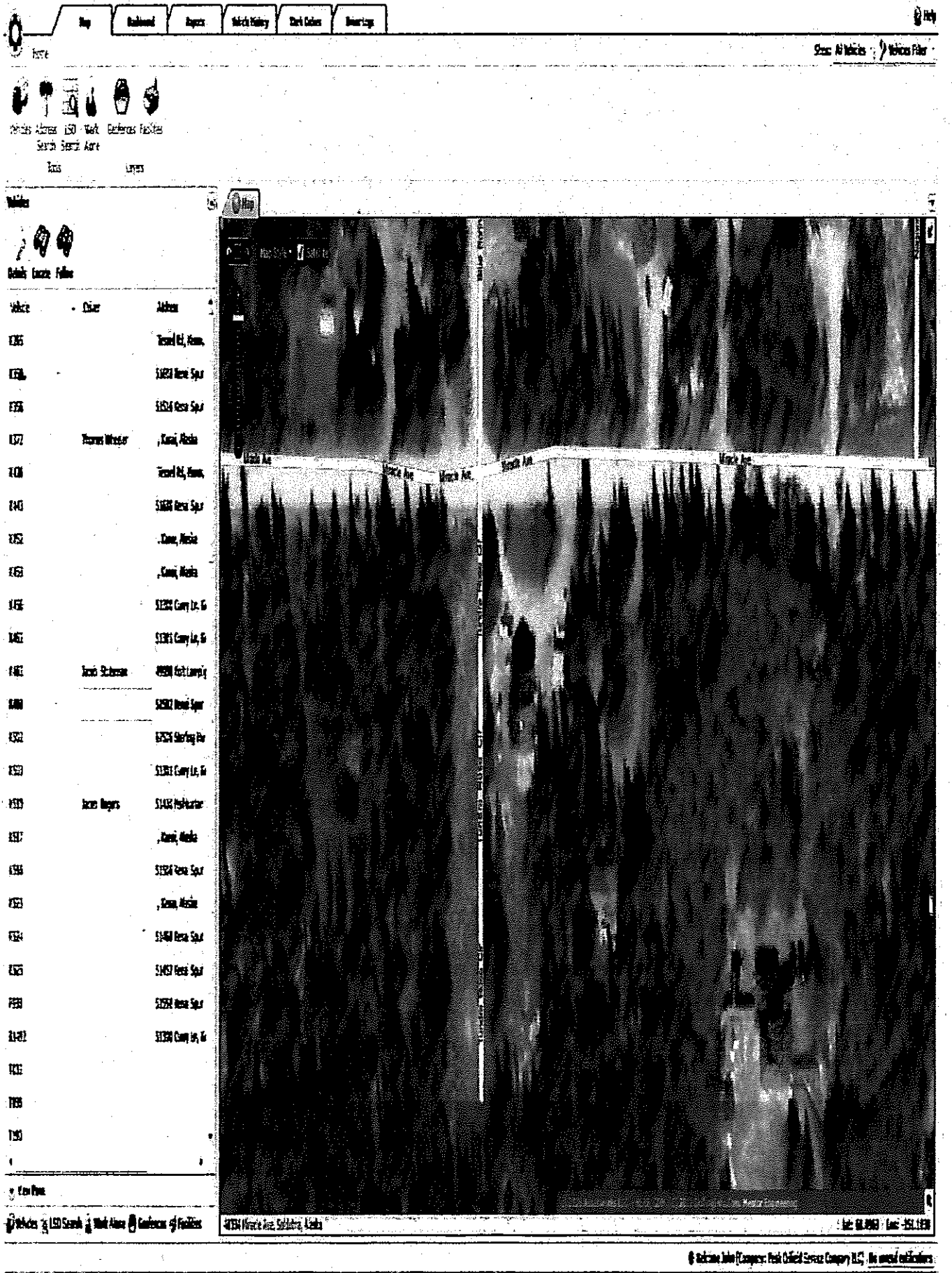
DIAGRAM # 3 OVER HEAD VIEW OF EXHISTING AND PROPOSED BUILDING AKA: "GENERAL SITE INFORMATION"

① PRINCIPLE RESIDENCE ② DECK BEHIND THE RESIDENCE ③ WODD / TOOL SHED ④ 24FT x 24FT BUILDING FOR PROPOSED CULTIVATION FACILITY ⑤ FUEL OIL TANK

ADDRESS IS 48235 MIRACLE AVE SOLDOTNA ALASKA OWNED BY THE LICENSEE STEVEN OSPREY



DOING BUSINESS AS ROCKSOLID BUDS LICENSE # 21463



AFFIDAVIT

① ENTRANCE/EXIT TO PROPERTY WHERE PROPOSED BUSINESS WILL BE LOCATED ARE 20 FEET IN WIDETH.

② THERE IS A CLEAR PATH TO MY HOME AND AS TO ANY DELIVERIES THERE SHALL BE NONE TO THE RESTRICTED ACCESS AREA

③ ALL PARKING BUSINESS RELATED WILL BE DESIGNATED BY SIGNS I WILL HAVE INSTALLED ON THE NORTH/FRONT OF BUILDING

④ DUE TO MY DRIVEWAY BEING CIRCULAR AND THE SQUARE FOOTAGE AVAILABLE, THE SHALL NEVER BE A NEED TO BACK A VEHICLE OUT INTO THE BOROUGH MAINTAINED ROAD AKA MIRACLE AVE

STEVEN DUPREY

11-19-21

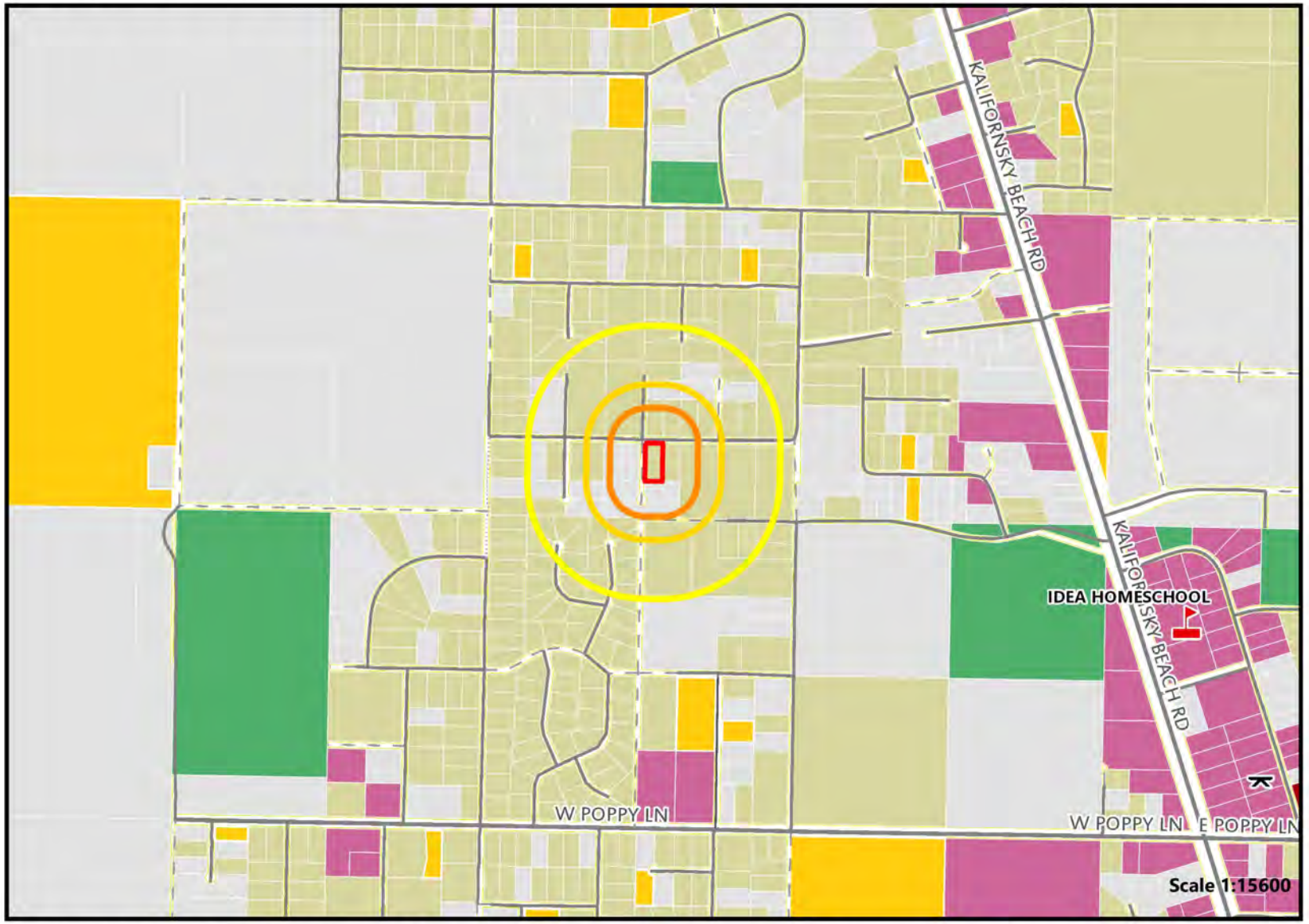
Kenai Peninsula Borough Planning Department

Recommendation on State Application for Limited Marijuana Cultivation Facility

Applicant: Rock Solid Buds

KPB Parcel ID: 05528239

Adjacent Land Use Map



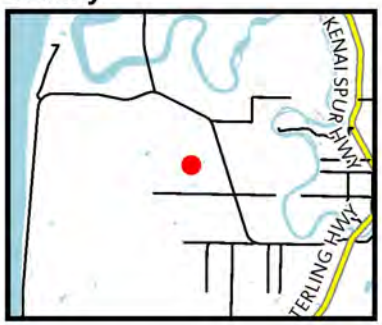
AMCO # 21463

- 1000ft Radius
- 500ft Radius
- 300ft Notification Area
- Parcel Boundary

Land Usage in 1000ft radius

- Residential
  - 52 parcels
- Vacant
  - 19 parcels

Vicinity



Radii shown depict the distance from the parcel boundaries. KPB 7.30 states that the distance must be measured by the shortest pedestrian route. If there were relevant facilities within the 500-foot or 1,000-foot radius, the shortest pedestrian path would be measured and depicted here.

The data displayed herein is neither a legally recorded map nor survey and should only be used for general reference purposes. It is not intended to be used for measurement. Kenai Peninsula Borough assume liability as to the accuracy of any data displayed herein. Original source documents should be consulted for accuracy verification.

12/15/2021 8:56

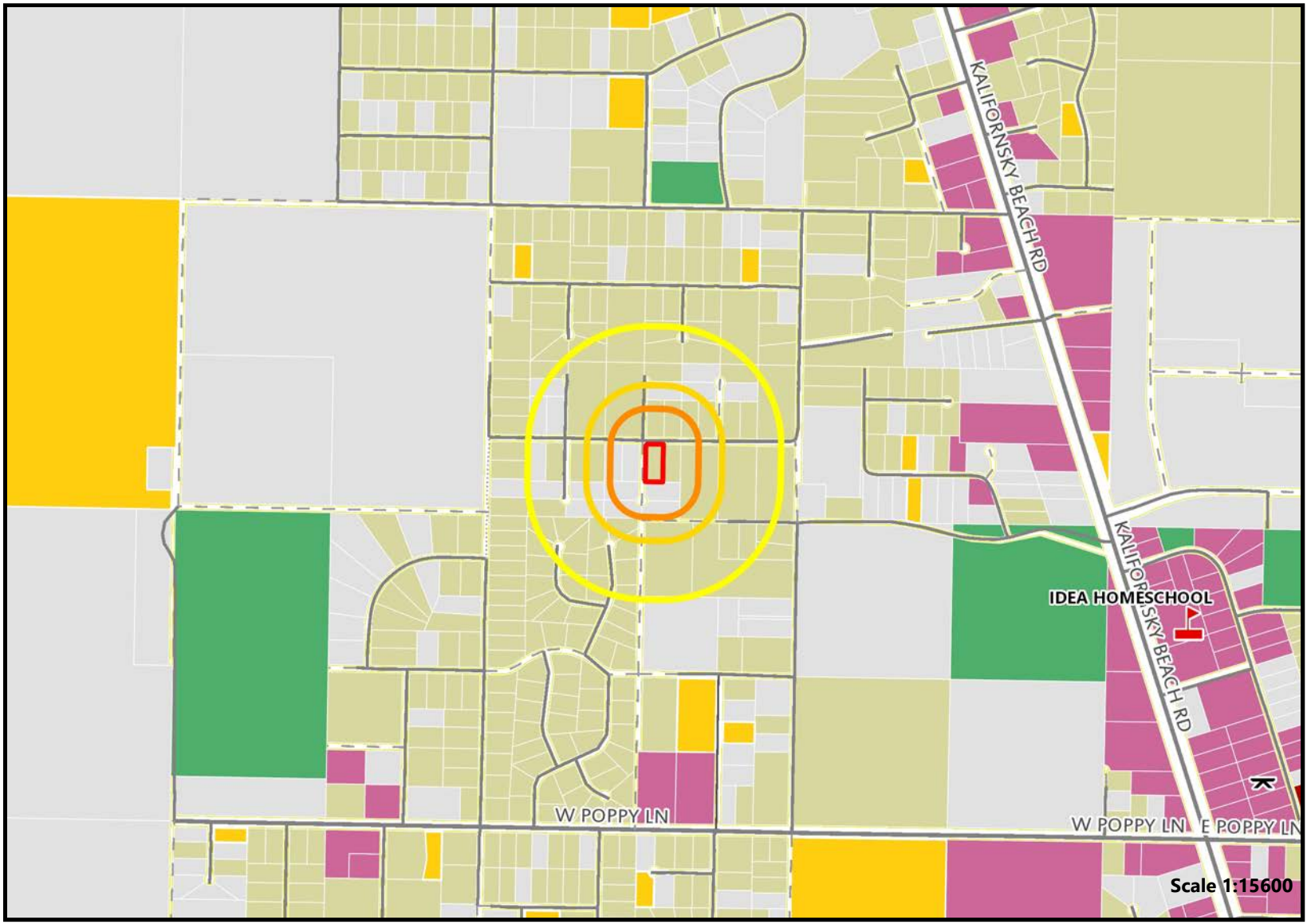
Kenai Peninsula Borough Planning Department

Recommendation on State Application for Limited Marijuana Cultivation Facility

Applicant: Rock Solid Buds

KPB Parcel ID: 05528239

Adjacent Land Use Map



AMCO # 21463

- 1000ft Radius
- 500ft Radius
- 300ft Notification Area
- Parcel Boundary

Land Usage in 1000ft radius

- Residential
  52 parcels
- Vacant
  19 parcels

Vicinity



Radii shown depict the distance from the parcel boundaries. KPB 7.30 states that the distance must be measured by the shortest pedestrian route. If there were relevant facilities within the 500-foot or 1,000-foot radius, the shortest pedestrian path would be measured and depicted here.

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12/15/2021 8:56

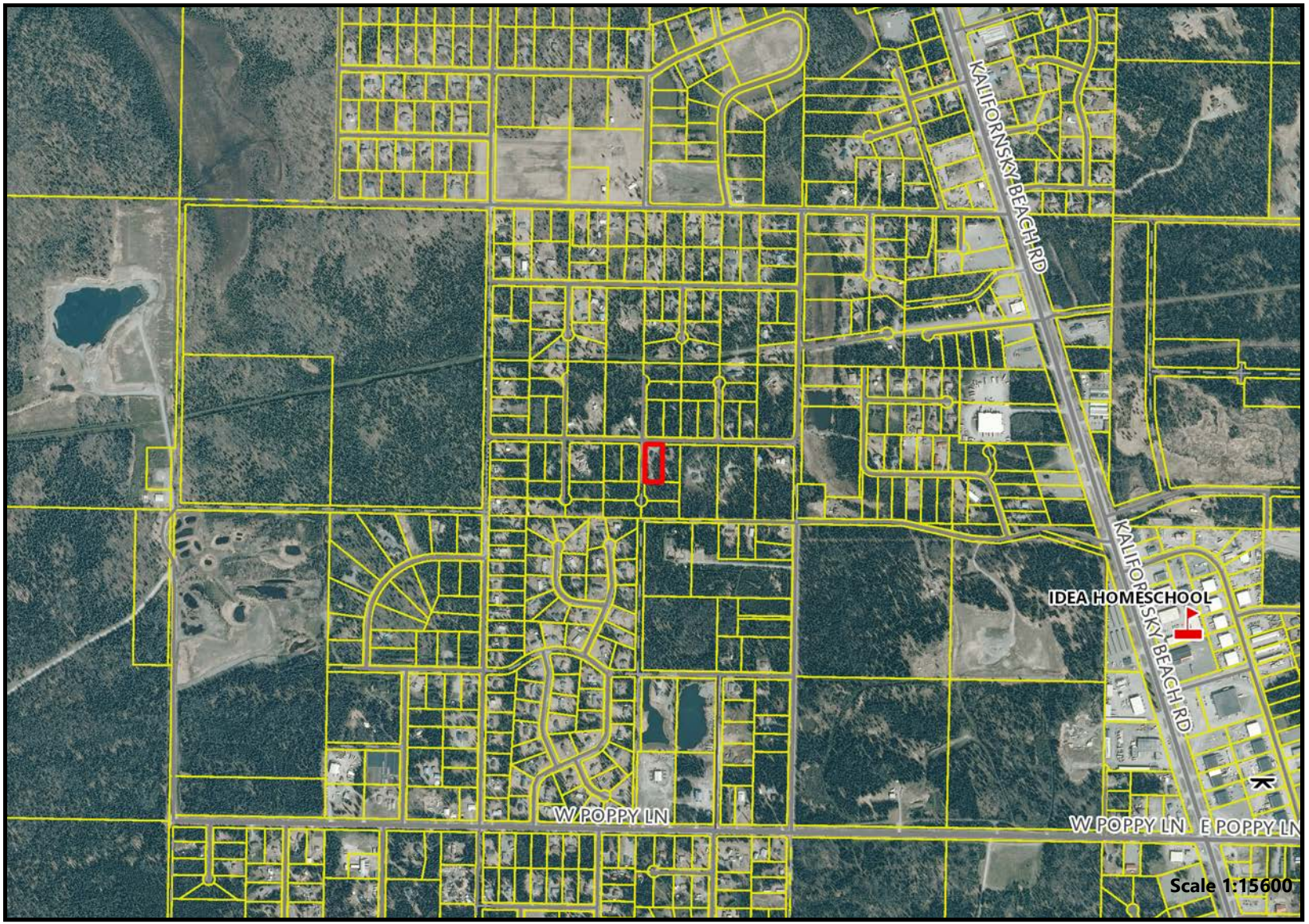
Kenai Peninsula Borough Planning Department

Recommendation on State Application for Limited Marijuana Cultivation Facility

Applicant: Rock Solid Buds

KPB Parcel ID: 05528239

Aerial Imagery Map



Parcel Boundary

All Other Parcels

Vicinity



The data displayed herein is neither a legally recorded map nor survey and should only be used for general reference purposes. It is not intended to be used for measurement. Kenai Peninsula Borough assume liability as to the accuracy of any data displayed herein. Original source documents should be consulted for accuracy verification.

12/15/2021 8:56

Planning Commission Chairman
144 N. Binkley
Soldotna, AK 99669

This comment is regarding Steve Duprey's application for a commercial marijuana cultivation license on parcel number 05528239, at the address 48235 Miracle Avenue; Soldotna, AK.

We would like to start by stating that we are not opposed to the marijuana industry. We are opposed to the smell that coincides with its cultivation. The plants begin to have an odor starting just a few weeks after germination and it only increases in potency over the next several weeks to months until harvest. We have worked hard to make our yard a wonderful place to recreate, and we do not want to smell flowering marijuana while we are in that space.

We would be willing to compromise if adequate carbon filters are installed prior to start-up, scaled appropriately for the size of the operation, and there are set repercussions or motivating fines for non-compliance regarding smell pollution.

In addition to the smell pollution, the water disposal from a large hydroponics grow needs to be taken into consideration. The addition of substantial amounts of discarded nutrients are a concern to the local water table that all the surrounding neighbors use as a source for drinking water. That water should be disposed of safely, with set supervision and repercussions for non-compliance.

The letter states the application is only for the cultivation of marijuana, but it does mention a retail store license as well. Purchasing land in an area zoned residential was a huge part of our decision process 10 years ago, when we bought and started developing our property. We are not interested in the subdivision industrializing or becoming an off the highway area for business. We recently had to write in to oppose a large area Northwest of us attempting to rezone from residential to rural, in order to avoid the laws that are in place to protect residential areas. We often take walks and ride bikes throughout the year, and our road is busy enough without the increased traffic from any type of business, be it storefront, cultivation facility or other industrialization.

I do not desire to be an unsupportive neighbor, but I have the love of my own space and property values to consider. I wish Steve Duprey all the best regarding his business, but I strongly prefer he take it elsewhere.

Thank you for your time and consideration,

Chris & Maria McCaughey
48185 Miracle Avenue
Soldotna, AK 99669

ccmccaughey@gmail.com
907-252-3774
m.j.mccaughey@gmail.com
907-252-3817

Kenai Peninsula Borough
Office of Emergency Management

MEMORANDUM

TO: Blair Martin, Chair & Planning Commission Members

THRU: Charlie Pierce, Mayor
Melanie Aeschliman, Planning Director
Marcus Mueller, Land Management Officer

FROM: Brenda Ahlberg, Emergency Manager

DATE: 01/06/2022

RE: Community Wildfire Protection Plan Update – Draft Plan[1]

Background: From 2006 to 2009, the borough developed 17 Community Wildfire Protection Plans (CWPPs) representing all landscapes across the borough with the exception of Tyonek, Moose Pass, Bear Creek, Seward and Lowell Point. In 2018, the borough received federal pass-through funds in the amount of $103,366 (O2018-19-11) and funds from the spruce bark beetle interest account in the amount of $50,000 (O2019-19-02) to update these plans. This update is being completed by SWCA Environmental Consultants with substantial completion by March 31, 2022.

The 2022 update combines the former 17 plans and encompasses all unincorporated areas and municipalities. The CWPP serves two audiences: 1) provides recommended projects designed to greatly reduce wildfire risk to residents, ensuring that communities live safely in this fire prone environment; and 2) provides guidance to fire and emergency managers, as well as agencies who manage large land holdings.

The intent of this memo is to provide you the "working draft" that is distributed to the CWPP core team, the planning commission and to the advisory planning commissions for initial review and input. Public review dates are January 24 – February 4, 2022; this two-week review period will be legally noticed as well as promoted on borough social media platforms.

For more information please contact Brenda Ahlberg, Emergency Manager, at bahlberg@kpb.us or 907-262-2098. You may also visit the project story map www.kpb.us/cwpp. This story map (an interactive project website designed to tell a story with maps) continues to be used as the primary two-way communication tool, providing information and collecting community input about the project.

[1] This project is being completed by consulting firm SWCA and funded in part by the Kenai Peninsula Borough, Alaska Division of Forestry and Department of Natural Resources pursuant to USDA Forest Service Award No. 2018-DG-110106-810.

This publication is funded in part by the Kenai Peninsula Borough, Alaska Division of Forestry and Department of Natural Resources pursuant to USDA Forest Service Award No. 2018-DG-110106-810.

DRAFT December 2021



SWCA
ENVIRONMENTAL CONSULTANTS

Kenai Peninsula
Community Wildfire Protection Plan





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EXECUTIVE SUMMARY

Placeholder. Executive Summary will be added post-review.

STORY MAP

The Borough opted to develop a story map (online web content) to disseminate information to the public and provide an opportunity for the public to provide input into the plan content. In addition to facilitating information sharing, the story map also provides the Borough with a platform that can be readily revised to keep the CWPP document current. The CWPP is shared on the Kenai Peninsula Borough webpage: https://kenai-cwpp-hub-kpb.hub.arcgis.com/apps/kenai-peninsula-borough-community-wildfire-protection-plan/explore

ACKNOWLEDGEMENTS

We would like to formally thank the Core Team and all stakeholders for contributing their time and expertise throughout the planning process. Your participation has contributed to creating resilient landscapes, implementing public education, reducing structural ignitability, and ensuring safe and effective wildfire response.

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CHAPTER 1 – INTRODUCTION

PURPOSE

Wildfire is the leading disturbance in Alaskan boreal forests, and roughly 80% of Alaskans reside in areas potentially at risk from wildland fire (University of Alaska Fairbanks [UAF] 2018). Communities within the Kenai Peninsula Borough (KPB or Borough) planning area are familiar with community fire planning, having developed 17 community wildfire protection plans since the early 2000s, covering 33 communities (KPB 2019a). Because wildfire does not respect political boundaries, however, the KPB and other land management entities have been working together collaboratively for more than 15 years to treat fire management as a landscape effort, forming the All Lands/All Hands (ALAH) interagency organization, comprising a comprehensive body of land and resource managers across all jurisdictions, who collaborate on landscape-scale planning efforts, housed in the ALAH Action Plan (KPB Interagency 2018).

In support of this collaborative management approach, the purpose of the 2022 community wildlife protection plan (CWPP) update is to

1. provide a peninsula-wide scale of wildfire risk and protection needs,
2. bring together all the responsible wildfire management and suppression entities in the planning area to address the identified needs, and
3. provide a framework for future planning and implementation of necessary mitigation measures.

This CWPP update process involves looking at past fires and treatment accomplishments using the knowledge and expertise of the land and resource managers who work for the various agencies and governing entities in the planning area. This update process incorporates a new assessment of wildfire risk and hazard and supplements local knowledge with relevant science and literature from the northwest region.

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NAVIGATION

The plan provides background information, a risk assessment, and recommendations to reduce or mitigate wildfire risk to communities. The CWPP is designed to be used by the residents of the Borough, as well as stakeholders tasked with forest, fire, and emergency management. Some information is therefore highly technical in order to provide sufficient detail to aid in project implementation.

This CWPP is organized into several chapters with more detailed information compiled into appendixes. Chapter 1 provides an overview of CWPPs and describes the need for a plan; Chapter 2 gives an overview of the fire environment and introduces the reader to fire history information as well as fire response; Chapter 3 describes the methodology used in development of the risk assessment (completed as a separate project from the CWPP); Chapter 4 outlines the mitigation strategies that could be implemented to reduce wildfire risk under the umbrella of the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy), including action plans that outline priorities and recommendations for reducing fuels, initiating public education and outreach, reducing structural ignitability, and improving fire response capabilities; and Chapter 5 provides suggested approaches to monitoring actions.

The CWPP does not require implementation of any of the recommendations; however, these recommendations may be used as guidelines for the implementation process if funding opportunities become available. The recommendations for fuels reduction projects are general in nature; site-specific planning that addresses location, access, land ownership, topography, soils, and fuels would need to be employed upon implementation. Also, it is important to note that the recommendations are specific to wildland urban interface (WUI) areas and are expected to reduce the loss of life and property. All recommendation tables are provided within Chapter 4.

In developing the CWPP, a large amount of background information on the Borough is compiled and analyzed, including the CWPP planning process, fire policy, past planning efforts, location and land use data, population, and demographics, climate and weather data, and other supporting background information. This information is presented in Appendix A, Community and CWPP Background Information.

Additional appendices to this CWPP include the Chugach All-Lands Wildfire Risk Assessment in Appendix B; the Core Team contact list in Appendix C; community descriptions and hazard ratings in Appendix D; the National Fire Protection Association (NFPA) Wildfire Fire Risk and Hazard Severity Form 1144 in Appendix E; funding opportunities in Appendix F; additional resources in Appendix G; community outreach in Appendix H, and project recommendations in Appendix I.

OVERVIEW OF COMMUNITY WILDFIRE PROTECTION PLANS

BACKGROUND

In response to a landmark fire season in 2000, the National Fire Plan (NFP) was established to develop a collaborative approach among various governmental agencies to actively respond to severe wildland fires and ensure sufficient firefighting capacity for the future fuels (U.S. Department of the Interior [USDI] and U.S. Department of Agriculture [USDA] 2000). The NFP was followed by a report in 2001 entitled *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: A 10-*

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year Comprehensive Strategy, which was updated in 2002 to include an implementation plan. This plan was updated once more in 2006, with a similar focus on using a collaborative framework for restoring fire-adapted ecosystems, reducing hazardous fuels, mitigating risks to communities, providing economic benefits, and improving fire prevention and suppression strategies. The 2006 implementation plan also emphasizes information sharing and monitoring of accomplishments and forest conditions, a long-term commitment to maintaining the essential resources for implementation, a landscape-level vision for restoration of fire-adapted ecosystems, the importance of using fire as a management tool, and continued improvements to collaboration efforts (Forests and Rangelands 2006). Progress reports and lessons learned reports for community fire prevention are provided annually.

In 2003, the U.S. Congress recognized widespread declining forest health by passing the Healthy Forests Restoration Act (HFRA), and President Bush signed the act into law (Public Law 108–148, 2003). The HFRA was revised in 2009 to address changes to funding and provide a renewed focus on wildfire mitigation (H.R. 4233 - Healthy Forest Restoration Amendments Act of 2009). The HFRA expedites the development and implementation of hazardous fuels reduction projects on federal land and emphasizes the need for federal agencies to work collaboratively with communities. A key component of the HFRA is the development of CWPPs to facilitate collaboration between federal agencies and communities in order to develop hazardous fuels reduction projects and place priority on treatment areas identified by communities. A CWPP also allows communities to establish their own definition of the WUI, which is used to delineate priority areas for treatment. In addition, priority is placed on municipal watersheds, critical wildlife habitat, and areas impacted by wind throw, insects, and disease. Communities with an established CWPP are given priority for funding of hazardous fuels reduction projects carried out in accordance with the HFRA.

ALIGNMENT WITH THE NATIONAL COHESIVE STRATEGY

In 2014, the final stage of the development of a national cohesive strategy for wildfire was developed: *The National Strategy: The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy* (Forests and Rangelands 2014). The national strategy takes a holistic approach to the future of wildfire management:

To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.

In order to achieve this vision, the national strategy goals are:

> **Restore and maintain landscapes**: Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
>
> **Fire-adapted communities**: Human populations and infrastructure can withstand a wildfire without loss of life and property.
>
> **Wildfire response**: All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions. (Forests and Rangelands 2014:3)

Like the 2014 national strategy, the NFP, state fire plans, 10-year comprehensive strategy, and Federal Emergency Management Agency (FEMA) Disaster Mitigation Act of 2000, all mandate community-based planning efforts with full stakeholder participation, coordination, project identification, prioritization, funding review, and multiagency cooperation. This collaboration aligns with the mission and goals of the ALAH Plan (KPB Interagency 2018). In compliance with Title 1 of the HFRA, a CWPP must be mutually agreed upon by the local government, local fire departments, and the state agency responsible for forest

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management (Alaska Department of Natural Resources [ADNR], Division of Forestry [DOF]). As outlined in the HFRA, this CWPP is developed in consultation with interested parties and the federal agencies managing land surrounding the at-risk communities.

As part of the 2022 update to the CWPP, the plan has been aligned with the Cohesive Strategy and its Phase III Western Regional Action Plan by adhering to the nationwide goal "*to safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire*" (Forests and Rangelands 2014:3).

For more information on the Cohesive Strategy, please visit: https://www.forestsandrangelands.gov/strategy/documents/strategy/CSPhaseIIINationalStrategyApr2014.pdf

Alignment with these Cohesive Strategy goals is described in more detail in Chapter 4, Mitigation Strategies.

GOAL OF A COMMUNITY WILDFIRE PROTECTION PLAN

The goal of a CWPP is to enable local communities to improve their wildfire-mitigation capacity, while working with government agencies to identify high fire risk areas and prioritize areas for mitigation, fire suppression, and emergency preparedness. Another goal of the CWPP is to enhance public awareness by helping residents better understand the natural- and human-caused risks of wildland fires that threaten lives, safety, and the local economy. The minimum requirements for a CWPP, as stated in the HFRA, are

Collaboration: Local and state government representatives, in consultation with federal agencies or other interested groups, must collaboratively develop a CWPP (Society of American Foresters [SAF] 2004).

Prioritized Fuel Reduction: A CWPP must identify and prioritize areas for hazardous fuels reduction and treatments and recommend the types and methods of treatment that will protect one or more communities at risk (CARs) and their essential infrastructures (SAF 2004).

Treatments of Structural Ignitability: A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan (SAF 2004).

CWPP PLANNING PROCESS

The SAF, in collaboration with the National Association of Counties and the National Association of State Foresters, developed a guide entitled *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities* (SAF 2004) to provide communities with a clear process in developing a CWPP. The guide outlines eight steps for developing a CWPP, which have been followed in preparing the Kenai Peninsula Borough CWPP:

Step One: Convene Decision-makers. Form a Core Team made up of representatives from the appropriate local governments, local fire authorities, and state agencies responsible for forest management.

Step Two: Involve Federal Agencies. Identify and engage local federal representatives and contact and involve other land management agencies as appropriate.

Step Three: Engage Interested Parties. Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.

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Step Four: Establish a Community Base Map. Work with partners to establish a base map(s) defining the community's WUI and showing inhabited areas at risk, wildland areas that contain critical human infrastructure, and wildland areas at risk for large-scale fire disturbance.

Step Five: Develop a Community Risk Assessment. Work with partners to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values that may be at risk from wildfire and local preparedness capability. Rate the level of risk for each factor and incorporate this information into the base map as appropriate.

Step Six: Establish Community Priorities and Recommendations. Use the base map and community risk assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for treating fuels and reducing structural ignitability, as well as other issues of interest, such as improving fire response capability. Clearly indicate whether priority projects are directly related to the protection of communities and essential infrastructure or to reducing wildfire risks to other community values.

Step Seven: Develop an Action Plan and Assessment Strategy. Consider developing a detailed implementation strategy to accompany the CWPP as well as a monitoring plan that will ensure its long-term success.

Step Eight: Finalize Community Wildfire Protection Plan. Finalize the CWPP and communicate the results to the community and key partners.

Background and Process for Developing the Kenai CWPP Update

The CWPP update is built on a body of work completed by the ALAH interagency group beginning in 2004 and continuing through today. The ALAH interagency group, formerly called the Kenai Forest, Wildfire Protection and Fuels Management Coordinating Committee, led the charge to proactively develop plans to address wildfire risk in the Kenai Peninsula Borough (KPB). Spruce forests throughout the peninsula experienced a spruce bark beetle (SBB) outbreak beginning in the 1990s, which led to substantial increased risk of catastrophic wildfire.

In 2003, the enactment of the HFRA provided an incentive to communities to engage in comprehensive forest planning across the United States. This community-based forest planning and prioritization led to the formation of the Kenai Forest, Wildfire Protection, and Fuels Management Coordinating Committee, comprised of federal, state, local and tribal governments. The committee's goal was to increase collaboration and coordination for strategic and project-level planning to address the impacts of SBB, that had been ravaging the KPB for years. In November 2003, the committee met to develop an ALAH 5-Year Action Plan, which is frequently updated to serve as a guiding document for forest and wildfire management within the KPB.

In 2004, the first ALAH 5-Year Action Plan was developed. The purpose of the plan was to introduce a collaborative interagency approach to mitigating wildfire risk through a "from the back porch out" philosophy that emphasizes the need to implement fuel reduction, defensible space, and other mitigation efforts from the back porch outward (KPB Interagency 2018). Since 2004, the ALAH Action Plan has been updated in 2012 and 2018, with both updates reflecting lessons learned, new land management approaches, and project implementation guidance. The framework for all ALAH plans was shaped by the NFP and associated HFRA. The 2018 ALAH Action Plan update considers past KPB CWPPs, the FEMA-approved KPB Hazard Mitigation Plan (2019 update), the 2018 Comprehensive Plan, and the 2009 FLAME2 Act,

and was developed in alignment with the 2014 National Cohesive Wildland Fire Management Strategy and associated goals (KPB Interagency 2018).

Guidance from the 2003 HFRA combined with KPB's high-risk status resulted in the 2004 ALAH Action Plan designating a need for communities within the KPB to develop CWPPs (KPB Interagency 2018). This need triggered the development of the original 17 CWPPs.

Based on guidance provided by the ALAH group in the 2018 ALAH Update, the KPB and the DOF led the initiative to update the original 17 CWPPs located throughout the KPB. The KPB successfully applied for and received funding from the U.S. Forest Service (USFS) to support this planning effort. Rather than updating 17 unique plans, the KPB engaged in a substantially different approach and will develop one landscape-level plan for the entire KPB.

Both high-level and small-scale assessment of hazard and risk, as well as recommendations, are provided within this plan. In 2019, the Chugach National Forest contracted the development of a Chugach All Lands Quantitative Wildfire Risk Assessment (QWRA, known as ARRA) that includes the Chugach National Forest and surrounding federal and non-federal land totaling approximately 30 million acres in south-central Alaska (Pyrologix 2021). This comprehensive assessment encompassed the entire peninsula, and therefore, the KPB chose to integrate the assessment into the development of the CWPP. The ARRA provides a landscape-level model of potential losses associated with fire, based on fire behavior throughout the KPB and the location and density of values at risk. To complement this broad risk assessment, an on-the-ground community assessment was completed to identify hazards and risks locally and to provide a summary for each WUI community in the KPB. Additionally, any recommendations made in the original CWPPs that prove still relevant have been incorporated in the 2022 CWPP.

Why a CWPP is Needed

The United States is facing urgent forest and watershed health concerns. Reducing human vulnerability to the impacts of uncharacteristically severe wildfires depends not only on our ability to understand the science, but also upon our ability to integrate that knowledge to residents, fire and emergency managers, and local, state, and federal agencies. While fires are a natural phenomenon across much of the western United States, the presence of humans living, working, and recreating within the WUI means that every year people face the impacts of wildfire within their communities, and as fires are becoming more severe, those impacts are harder to recover from. While the number of annual wildfires has been slightly decreasing (67,700 fires in 2016 vs. 59,000 fires in 2020), the number of acres burned has been on the rise (Congressional Research Service [CRS] 2021). An average of 7 million acres burn every year due to wildfire, more than doubling the annual average of acres burned in the 1990s (CRS 2021). Communities are experiencing the most destructive wildfire seasons in history. The 2015 fire season had the most acreage impacted in a single year since 1960 at 10.13 million acres. 2020 came in second with 10.12 million acres, and 2017 was not far behind at 10.03 million acres (CRS 2021). Furthermore, with increased fires comes increased suppression costs; 2018 beat all previous records, with federal firefighting costs hitting $3,143,256,000 (National Interagency Fire Center 2021).

Alaska is no stranger to wildfire, but the state is facing an intensified pattern of wildfire due to rapidly escalating temperatures and extended growing seasons triggered by climate change. Regardless of season-to-season variability, evidence suggests that wildfire is burning more acres and expanding into new regions of the state (International Arctic Research Center [IARC] 2021). This has statewide consequences, including increased wildfire risk for people, property, and natural resources. Residents of Alaska are especially vulnerable, with an estimated 80% of the population living in areas at risk of wildfire

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(IARC 2021). The KPB alone has over 10.25 million acres of forested lands with 65% of communities located in areas of extreme wildfire risk (KPB 2019a). Population growth and continued expansion in conjunction with dispersed settlement patterns on the Borough create a large WUI (USFS 2017). The total value of structures (e.g., homes, businesses) on private land is expected to increase by 66% during the next five decades—increasing the wildfire vulnerability of the Borough (USFS 2017). Moreover, population dynamics and distribution combined with insect and disease impacts on vegetation are further escalating wildfire risk. Therefore, planning and management regarding climate change, the WUI, and vegetation is a significant need within the Borough (KPB Interagency 2018).

The average annual number of large wildfires has nearly doubled in recent years, from approximately 23 (1950s–1980s) to 40 (1990s–2010s) (IARC 2021). In addition to this increase in the quantity of wildfires, the annual average number of acres burned doubled from 1 million during 1990–2000 to 2 million during 2001–2010. Furthermore, 2001–2010 set a new record for acres burned at 20 million acres (IARC 2021). With increased fire events comes increased suppression costs. 2019 was Alaska's costliest fire season, with costs exceeding $300 million. The 2019 Swan Lake Fire alone cost $46 million (IARC 2021). However, this figure does not include the cost to Alaskans who had their land scorched and homes burned. In addition to economic impacts, wildfires cause loss of life and injury, health problems related to smoke, and ecosystem changes (IARC 2021).

As wildfire severity increases, communities need a plan to help prepare for, reduce the risk of, and adapt to wildland fire events. CWPPs help accomplish these goals. A CWPP provides recommendations that are intended to reduce, but not eliminate, the extreme severity or risk of wildland fire, and seek to build natural and social resilience to wildfire impacts.

> *Wildfire is considered to be 'bad' or in most cases catastrophic, whenever homes and other structures are involved; timber values are lost; critical wildlife habitat is degraded; or other values are lost depending on the location, extent, and intensity of the wildfire. Wildfire can also be 'good' and have positive effects, mainly environmental, such as creating an environment for fire-dependent or fire-tolerant plant species to flourish, enhancing wildlife habitat by diversifying vegetation species and age classes, or removing surface fuels and other downed woody debris to limit the intensity of future wildfires* (KPB Interagency 2018:9).

Story Map

The KPB and DOF decided to develop an interactive website called a story map (online web content) to disseminate information to the public and provide an opportunity for the public to provide input into the plan content. In addition to facilitating information sharing, the story map also provides the Borough with a platform that can be readily revised to keep the CWPP document current. The story map is hosted on the KPB website and acts as a 1-stop shop source of information for all Borough residents.

CORE TEAM

The ALAH group, along with some others representing additional communities or entities, served as the Core Team for the CWPP update. The Core Team list is provided in Appendix C.

Building on the existing ALAH group membership, the Core Team continued to evolve and expand. The Core Team consists of the following:

- KPB
- Alaska Division of Forestry

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- KPB Office of Emergency Management
- KPB Bear Creek Fire
- KPB Central Emergency Services
- KPB Nikiski Fire
- KPB Kachemak Emergency Services
- KPB Western Emergency
- KPB Land Management
- U.S. Fish and Wildlife Service (USFWS), Kenai National Wildlife Refuge
- USFS
- Alaska Department of Fish and Game (ADFG)
- Cities of Homer, Kachemak, Kenai, Seldovia, Seward, Soldotna
- Chugachmiut
- Seldovia Village Tribe
- Volunteer Fire Departments
- Cooper Landing Emergency Services
- Homer Electric
- SWCA Environmental Consultants
- Incident Response Group
- Residents

The Core Team drives the planning process in its decision making, data sharing, experience, and communication with community members who are not on the Core Team. SWCA and the KPB had a project kickoff meeting in February 2020. SWCA facilitated the first Core Team meeting in person on March 12, 2020, and the second Core Team meeting virtually via Zoom on May 14, 2020. Due to the COVID-19 pandemic in 2020, the KPB decided to tactically pause the project from May 2020 through May 2021. In May 2021, the KPB and SWCA re-started the project. SWCA facilitated the third Core Team meeting in person on July 26, 2021, and the fourth Core Team meeting virtually in October 25. All other Core Team communications were limited to email and conference calls. SWCA and the KPB contacted the 10 entities representing Native Alaskan interests to inquire about their community values at risk, project recommendations, and fire response capabilities (see the Community Assessments sections for more information).

PROJECT AREA

The project area includes the entire KPB as delineated by its geographic and political boundaries. The project boundary encompasses several communities that were included in the original round of CWPPs (Figure 1.1). The most populated municipality is the census-designated area of Kalifornsky.

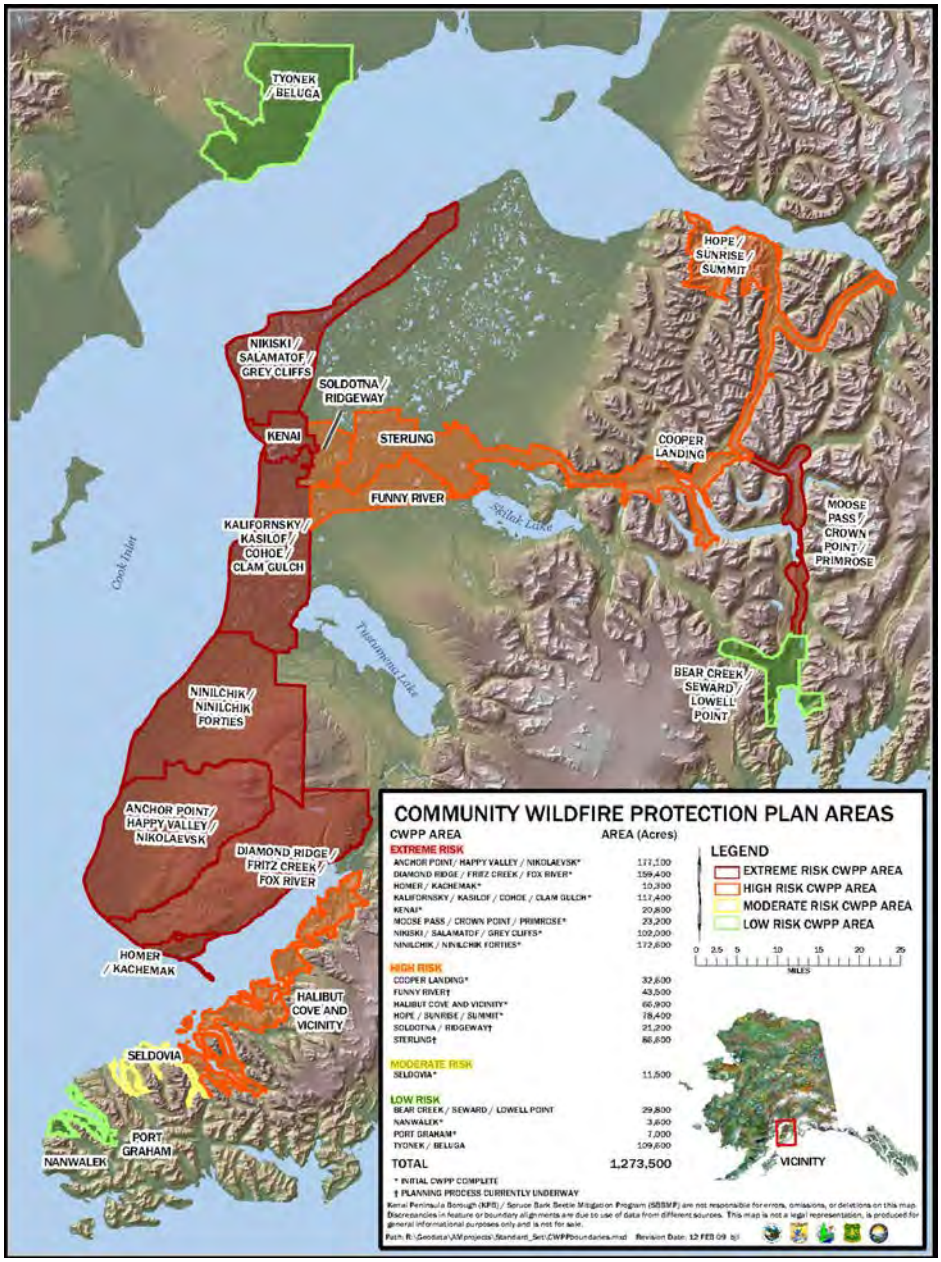


Figure 1.1. Community CWPP project area boundaries.

Source: KPB.

LAND OWNERSHIP

The KPB has varied land ownership, including large areas of USFS, National Park Service (NPS), USFWS, Bureau of Land Management (BLM), tribal, state, and municipal land (Figure 1.2). Alaska natives have a unique structure of ownership and management in Alaska, which is different from the system used in the lower 48 states. There are 12 geographic regions in Alaska identified by the Alaska Native Claims Settlement Act of 1971 (ANCSA) as both ethnic and geographic Native regions. Native entities that were created were first in the form of Tribes, next regional Native corporations, and finally Native village corporations. Each region created a non-profit organization to assume the federal responsibilities for the health and welfare of the Alaska Native peoples by use of a compact agreement with the federal government. The village corporations hold title to land.

Additional information regarding land ownership is provided in Appendix A.

PUBLIC INVOLVEMENT

The Core Team offered multiple public engagement opportunities throughout the planning process. Detailed information regarding public involvement is provided in Appendix H.

Engaging interested parties is critical in the CWPP process; substantive input from the public will ensure that the final document reflects the highest priorities of the local community. A key element in the CWPP process is the meaningful discussions it generates among community members regarding their priorities for local fire protection and forest management (SAF 2004).

The Core Team engaged in outreach using a multimedia approach, using the story map created for the project, social media posts, community surveys, radio interviews, and information distributed through mass emails. The Core Team hosted five public meetings from July 20 through July 24, 2021, throughout the Borough (see Table H.1 in Appendix H for dates and locations). The public meetings were designed using an open house format to encourage interactive communication with stakeholders. In some communities that had not received significant previous wildfire mitigation outreach, a public presentation about the project was held prior to the open house. This two-way communication was intended to increase understanding and build trust, rather than simply provide information. The goal of the public engagement was to inform the public about the KPB CWPP update and to gather feedback about specific topics related to this project, as well as general wildfire concerns. In addition to the open house style of public meetings, the Core Team also hosted an informational booth at a community festival.

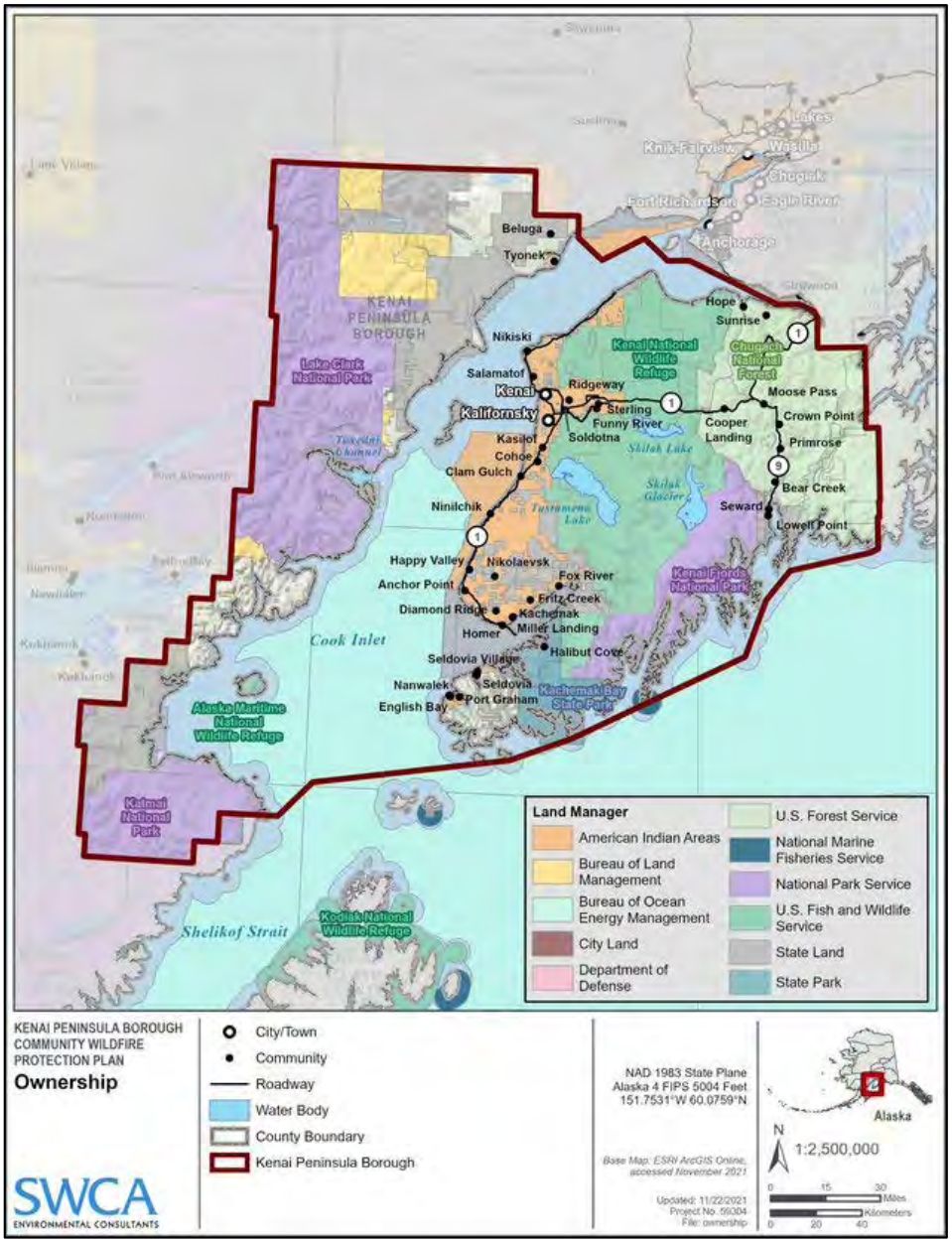
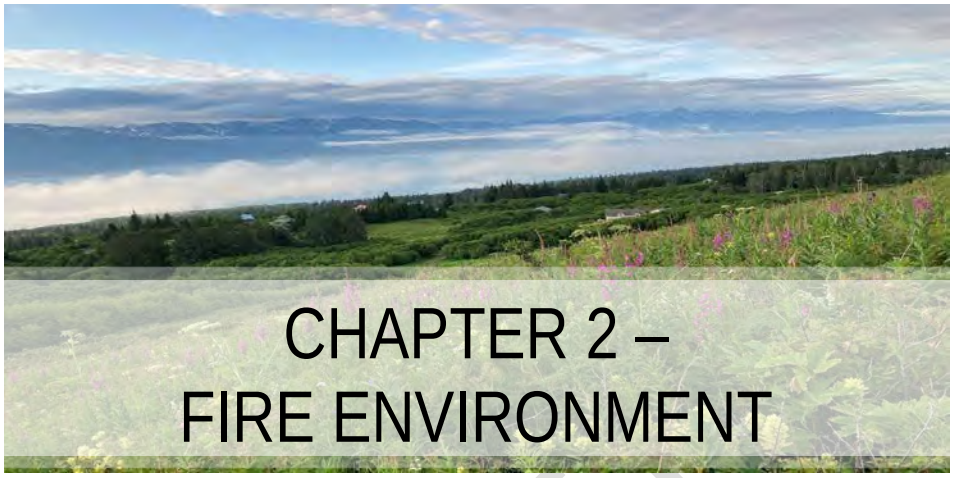


Figure 1.2. KPB land ownership.



CHAPTER 2 – FIRE ENVIRONMENT

WILDLAND URBAN INTERFACE

A WUI is composed of both interface and intermix communities and is generally defined as areas where human habitation and development meet or intermix with wildland fuels (U.S. Department of the Interior and USDA 2001:752–753). Interface areas include housing developments that meet or are in the vicinity of continuous vegetation. Intermix areas are those areas where structures are scattered throughout a wildland area where the cover of continuous vegetation and fuels is often greater than cover by human habitation.

The WUI creates an environment in which fire can move readily between structural and vegetative fuels, increasing the potential for wildland fire ignitions and the corresponding potential loss of life and property. Human encroachment upon wildland ecosystems within recent decades is increasing the extent of the WUI throughout the country as a whole, which is having a significant influence on wildland fire management practices. Combined with the collective effects of fire management policies, resource management practices, land use patterns, climate change, and insect and disease infestations, the expansion of the WUI into areas with high fire risk has created an urgent need to modify fire management practices and policies and to understand and manage fire risk effectively in the WUI (Pyne 2001; Stephens and Ruth 2005). Mitigation techniques for fuels and fire management can be strategically planned and implemented in WUI areas; for example, with the development of defensible space around homes and structures (Figures 2.1 and 2.2).

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Figure 2.1. Example of a coastal WUI in the Borough.



Figure 2.2. Example of forested WUI in the Borough.

A CWPP offers the opportunity for collaboration of land managers to establish a definition and a boundary for the local WUI; to better understand the unique resources, fuels, topography, and climatic and structural characteristics of the area; and to prioritize and plan fuels treatments to mitigate fire risks. At least 50% of all funds appropriated for projects under the HFRA must be used within the WUI area.

This CWPP update aligns the WUI definition and delineation with those previously defined in the existing 17 community CWPPs (Figure 2.3). Those community plans align their WUI delineation with the HFRA as comprising "areas within or adjacent to at-risk communities."

Under HFRA Section 101(1), an at-risk community is one that:

- Comprises a group of homes and other structures with basic infrastructure and services
- Has conditions conducive to a large-scale wildland fire
- Faces a significant threat to human life or property as a result of a wildland fire

WUI fires challenge suppression agencies in Alaska just as they do in other parts of the country. The most acute increase in population and subsequent increased housing density at the interface, on the road system, is occurring on the Kenai Peninsula, in the Matanuska-Susitna Borough, and near Anchorage and Fairbanks. These areas have the classic WUI problems associated with rapid population growth without adequate zoning or fire planning (KPB 2009a).

FIRE HISTORY

HISTORIC FOREST USE

Since the last Ice Age, Alaska Native peoples and Alaskan forests have played an integral part in each other's lives. As the original forest stewards, Alaska Native peoples place significant cultural and spiritual value, in addition to subsistence value, on the forest land. The most noticeable forest management tool used by Alaska Natives was fire. Fire was used in boreal forests to control insects, preserve wildlife habitat, and maintain crops (DOF 2020a). Historical records note the Native people set fires along the Copper River across Alaska in the late nineteenth century and early twentieth century (Fryer 2014).

The Kenai Peninsula has been the home of the Kenaitze Indians for centuries and was developed by non-Natives for its plentiful resources, including oil, timber, fish, coal, gold, and wildlife (USFWS 2014). Early settlement brought increased population and infrastructure development; increased human activity and development resulted in fire regime changes, with many fires occurring along roadways and towns. Through the nineteenth and twentieth centuries, the population of the Kenai Peninsula continued to grow, increasing population increased dramatically following World War II. The population boom post-WWII gave rise to intensive development and other land use changes such as oil and gas development, increased recreational use, vegetation control, and infrastructure expansion (USFWS 2014).

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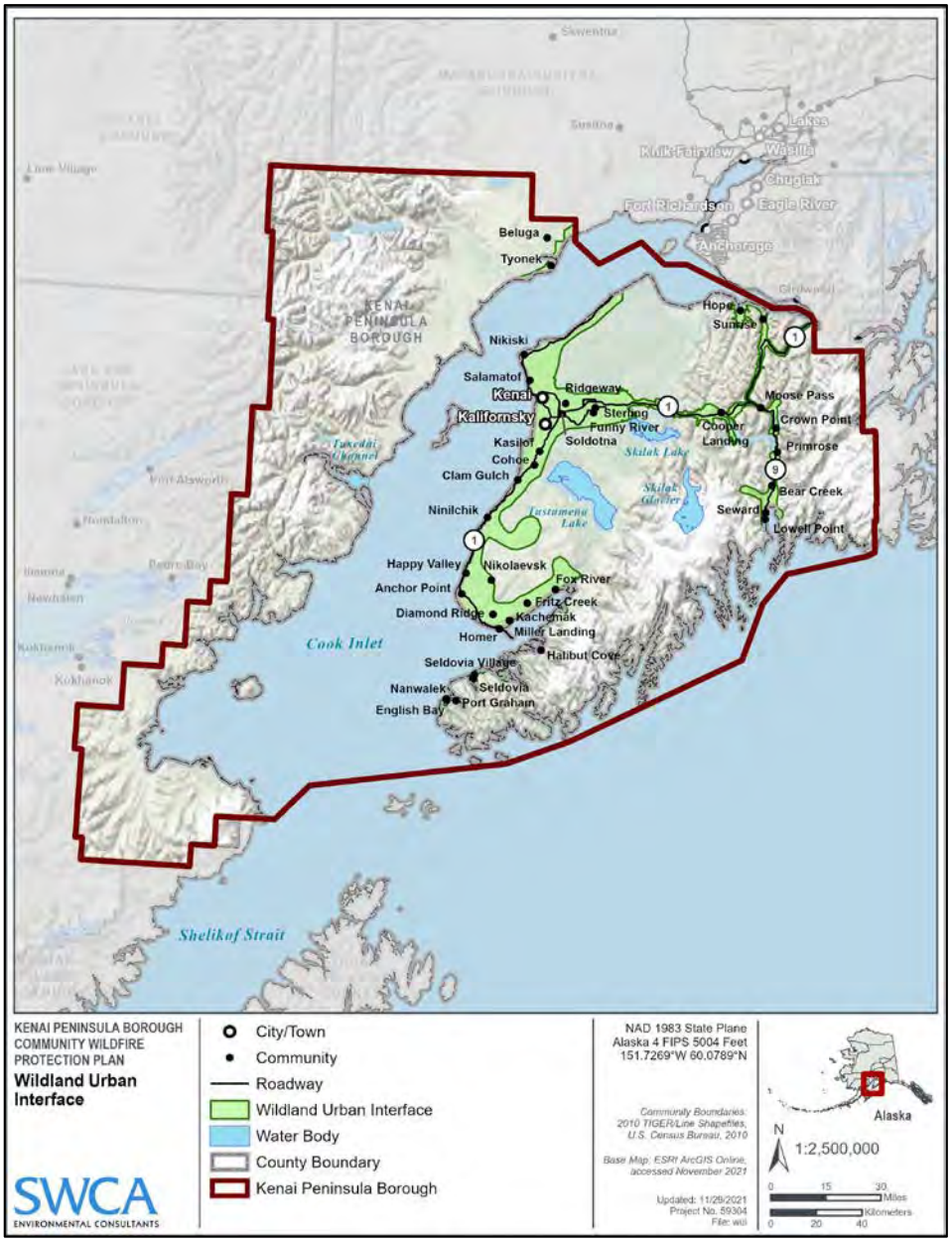

Figure 2.3. WUI delineation for the KPB.

HISTORIC FREQUENCY

Fire frequency is influenced by an interplay between numerous factors, including season, temperature, precipitation, lightning occurrence, forest health, topography, elevation, wind, aspect, and forest species composition and distribution. Therefore, how repeatedly a particular forest burns is determined by location-specific conditions (Fryer 2014).

Forest fires have been prevalent throughout the history of development of Alaska's boreal forests. Studies of the paradigms of big, historic fires in Alaska's taiga indicated that wildfire frequency was episodic, with most fires taking place during brief periods of high fire years (KPB 2006a). In Alaskan taiga, mean fire-return intervals since the eighteenth century vary from 40 to 200 years. Fire frequency data from 1708 through 2004 indicate that historic fire frequency on the Kenai Peninsula ranged from 25 to 185 years, with an average of 89 years (Fryer 2014).

Anthropogenic activity is another important factor in determining how often a forest will burn. Studies conducted in Alaska's taiga, including the Kenai Peninsula, indicate that before the European settlement of Alaska, the fire regime was distinguished by small fires (≤50,000 acres) and infrequent larger fires. Post European settlement, the Kenai Peninsula underwent an increase in the occurrence and acreage of fires linked to the increased presence of people (Ecology and Environment 2006).

FIRE SEASON

The majority of wildfires in the Alaskan boreal forests occur in summer; however, variation in fire season is significant. The fire season in the Kenai Peninsula usually extends from the beginning of April to the end of September, with May through late August being the most active fire months. This is because the period from May through late August has the highest average temperatures and lowest average humidity and precipitation (Fryer 2014). Fire season for the state of Alaska is defined as April 1 through August 31 by state law (Alaska Interagency Coordination Center [AICC] 2021a). However, it should be noted that climatic shifts have been implicated in the earlier arrival and extension of the fire season.

A multitude of studies have reached the conclusion that the Earth's climate is getting warmer. This warming trend has been especially profound in recent decades. In the early 2000s, in Alaskan boreal forests, increases in mean annual air temperatures were accompanied by a trend toward larger, more frequent fires (Fryer 2014). In addition to increased fire frequency and severity, climatic warming has also been responsible for retreating glaciers, shrinking icefields, and decreasing lake levels and ponds (KPB 2006a).

Global warming has also increased fire risk on the Kenai Peninsula by creating conditions favorable to problematic insects. SBB thrive in warmer temperatures, and spruce trees weakened by the effects of climate change are more susceptible to infestations and fire. In the 1990s there was an unusually dry and warm trend in Alaska, which was accompanied by an exponential increase in SBB (KPB 2006a). Specifically, Alaska's Kenai Peninsula and Copper River Valley experienced an SBB outbreak that had infested about 2.3 million acres, killing most large-diameter spruce trees (NPS 2021a).

The warmer climate pattern has also triggered the onset of earlier-than-average snow-free events, which brings the premature arrival of the fire season. Under such circumstances, the desiccation of vegetation occurs more readily and for longer periods of time. Additionally, the shifting climate patterns create conditions that amplify the occurrence of lightning strikes. The combination of increased lightning strikes and ample fuels increases the risk of catastrophic wildfire on the Kenai Peninsula (KPB 2006a).

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RECENT FIRE OCCURRENCE

Recent wildfire history for the Kenai Peninsula suggests that the risk of destructive wildfire remains elevated. Recent fires include the 2004 Glacier Creek Fire (8,600 acres), 2005 Fox Creek Fire (25,500 acres), 2005 Tracy Avenue Fire (5,400 acres), 2005 King County Creek Fire (10,000 acres), 2007 Caribou Hills Fire (55,000 acres), 2009 Shanta Creek Fire (13,000 acres), 2014 Funny River Fire (196,000 acres), 2015 Card Street Fire (8,900 acres), and the 2017 East Fork Fire (1,000 acres) (KPB 2006a).

More recently, in 2019, southcentral Alaska had an extraordinarily hot, dry spring and summer season. June (2019) was the second-warmest month in the state's history, which, combined with higher-than-average lightning strikes created ideal conditions for extreme wildfires (National Oceanic and Atmospheric Administration [NOAA] 2021a). Consequently, the 2019 wildfire fire season was the second-most destructive in Alaska (ADNR 2019). One of the largest fires of the 2019 fire season was the Swan Lake Fire (Figure 2.4). The Swan Lake Fire was a lightning-caused wildfire that burned approximately 170,000 acres between Sterling and Cooper Landing on the Kenai Peninsula.



Figure 2.4. Swan Lake burned area, showing extensive landscape-scale of the fire.

Historic data indicate that most wildfires in Alaskan black spruce communities, including those on the Kenai Peninsula, are ignited by summer lightning. Yet, humans are increasingly the culprit of ignitions in black spruce communities. Human-caused fires from 1956 through 2000 averaged at 131 fires per year; in comparison, lightning strikes caused an average of 136 fires per year (Fryer 2014). More recent fire management records also demonstrate an increasing trend of human-caused fires. The records from 1990 through 2005 for the Kenai Peninsula show that a total of 1,079 fires were recorded; of those, 1,052 (97.5%) were determined to be human-caused fires (Ecology and Environment 2006).

The Borough's recent wildland fire history (1990–2020) shows that fire occurrence follows a cyclical pattern, with brief periods of elevated fire events and longer periods with fewer fire events (Figure 2.5). For the period of 1990 through 2020, the top two causes of fire events were lightning and human activity (Figure 2.6). Human-caused fires represent 95% of the fire causes; however, it should be noted that human-caused fires are generally smaller than lightning-caused fires (Fryer 2014). In addition, there has been an increasing trend toward fires larger than 5 acres; the period of 1990 through 2020 is anomalous compared with the historic pattern (Figure 2.7).

Moreover, for a period of 80 years (1940–2020), a total of 946,052 acres have burned in areas throughout the Borough (Figure 2.8 and Figure 2.9). The decadal graph also shows a recent trend toward increasing acreage burned in the 2010 through 2020 period (see Figure 2.8).

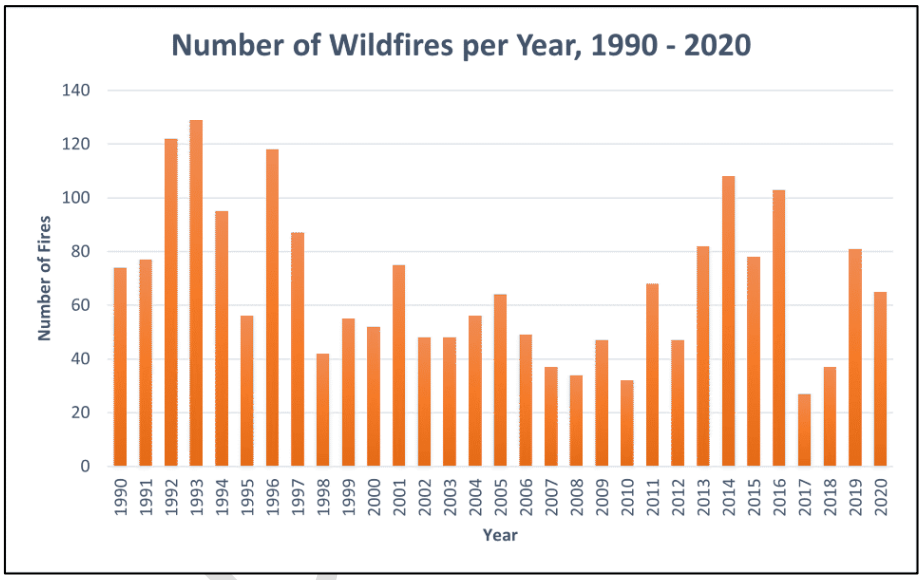

Figure 2.5. Annual wildfire frequency in the Borough from 1990 through 2020.
Source: BLM Alaska Fire Service.

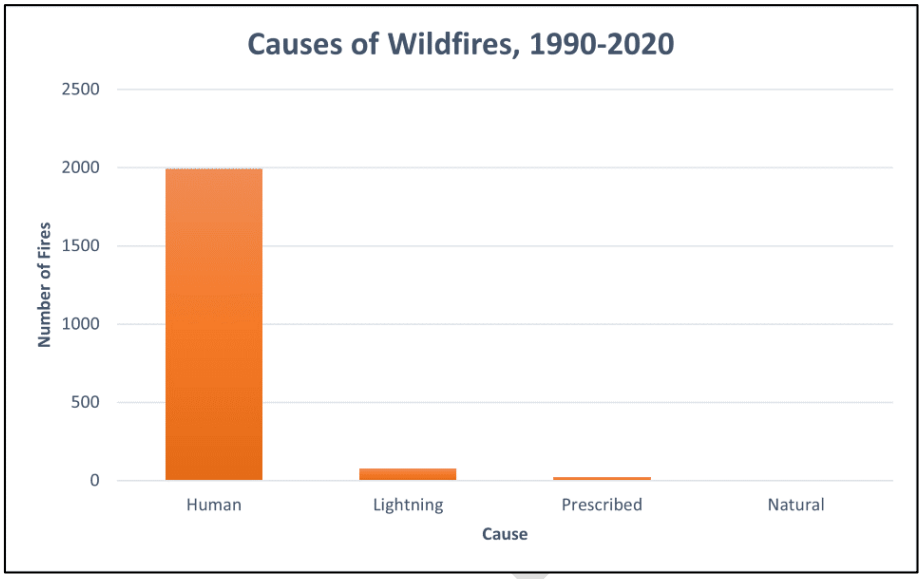

Figure 2.6. Fire causes for the Borough from 1990 through 2020.

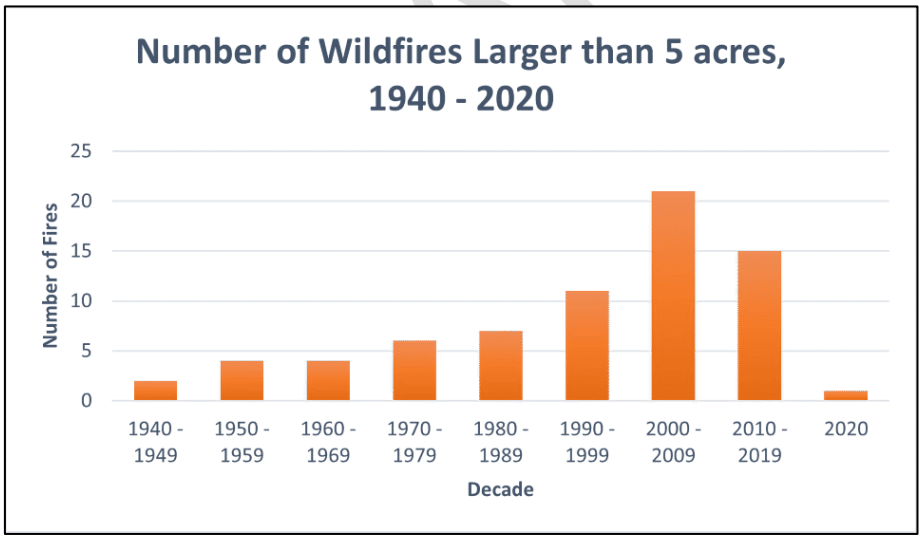

Figure 2.7. Number of wildfires larger than 5 acres in the Borough based on data from 1940 through 2020.

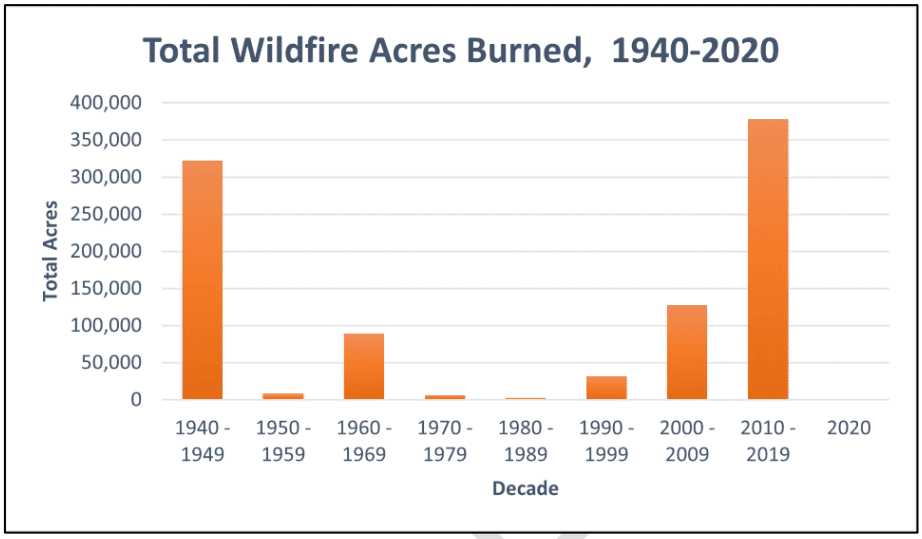

Figure 2.8. Fire size statistics for the Borough based on fire history data from 1940 through 2020.

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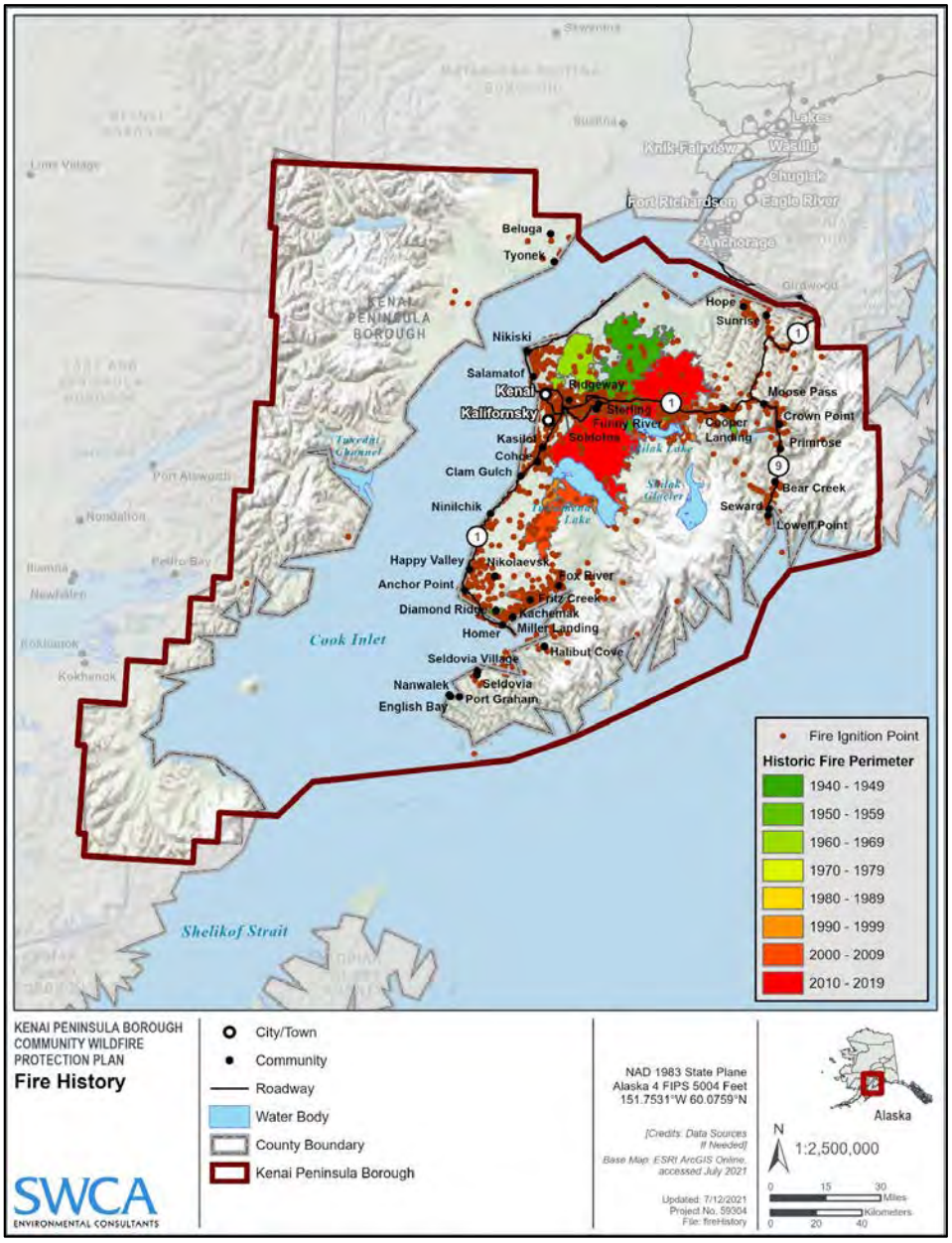

Figure 2.9. Fire history for the KPB from 1940 to 2019.

VEGETATION AND FIRE ECOLOGY

Vegetation zones within the KPB are primarily a function of elevation, slope, aspect, substrate, and associated climatic regimes. Since a broad range in elevation and topography exists across the Borough, characteristics in vegetative communities are quite variable from site to site (Figure 2.10).

The KPB is predominantly composed of spruce (needleleaf) and hardwood (broadleaf) forests (Table 2.1). Black, white, Sitka, and hybrid Lutz spruce present volatile fuels due to high needle resin content and branch configuration. Hardwood species include paper birch, balsam poplar, quaking aspen, and green alder (tall shrub), which are less flammable than spruce species. Forests on the KPB can be composed of individual species as well as mixed-species communities (mixed forest).

Fire plays an important role in in the ecology of spruce forests in Alaska and is the main catalyst of change in the boreal forest system. Fires clear the ground from organic layers and expose fertile ground that promotes seed germination. Both black and white spruce are dependent on fire for optimal regeneration. Although black spruce are easily damaged by fire, black spruce seedlings prosper in post-fire conditions. Fire assists in opening cones, and the open seedbed prepared by the fire provides conditions for optimal growth (KPB 2006a).

The USFS, in collaboration with other land management organizations, including federal, state, borough, tribal, and non-profit partners, prepared an existing vegetation map for the Kenai Peninsula (USFS 2020a). The map covers all the Kenai Peninsula; however, it omits a small part of the Borough—the Tyonek and Beluga communities across the Cook Inlet (see Figure 2.10). Vegetation data for the omitted areas can be accessed through the National Land Cover Database (U.S. Geological Survey 2019). Vegetation in and surrounding Tyonek and Beluga is composed primarily of mixed and deciduous forest, sedge/herbaceous communities, and wetlands. Minor vegetation types in the area include dispersed patches of evergreen forest and shrub/scrub communities.

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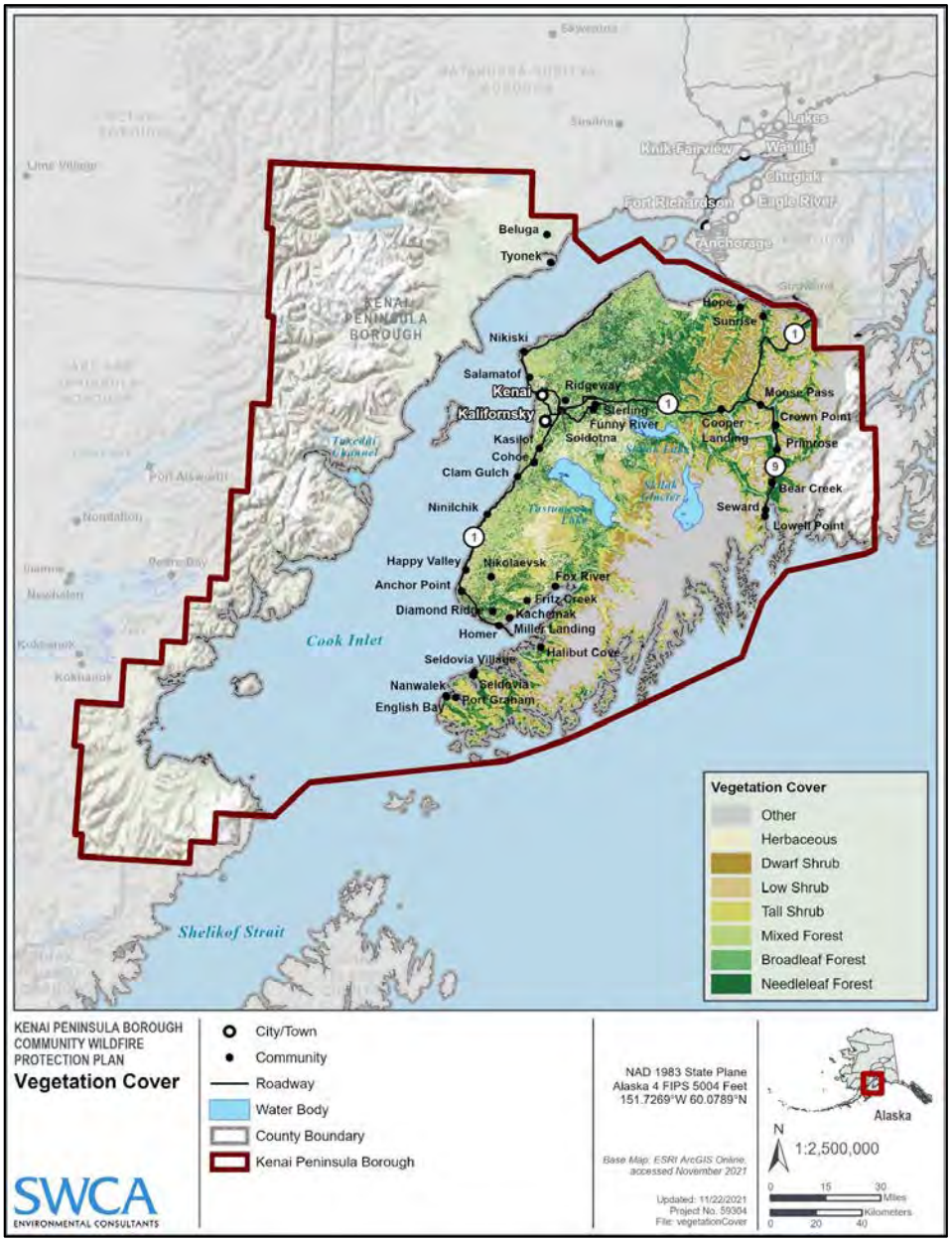

Figure 2.10. Existing vegetation cover within the Kenai Peninsula Borough.

Table 2.1. Major Vegetation Types within the Borough

Existing Vegetation Type*	Acres	Percent
Other	1,956,370	36%
Needleleaf Forest	1,052,638	19%
Tall Shrub	580,651	11%
Mixed Forest	506,055	9%
Dwarf Shrub	483,065	9%
Herbaceous	469,115	8%
Low Shrub	247,041	5%
Broadleaf Forest	153,351	3%

*Based on data from the USFS story map (USFS 2020a)

Spruce Forests

Black spruce is the most common type of forest in the Kenai Peninsula. However, other species of spruce trees are also present, including white spruce, Sitka spruce, and the hybrid Lutz spruce. The multilayered structure—branches covering the trunk from top to bottom, with twigs angled downward—and chemical composition of black spruce make them highly flammable (NPS 2015a). Additionally, recurring infestations of SBB have altered the forest composition; downed trees open the canopy and allow for light, flammable fuels, e.g., Canada bluejoint reedgrass, to colonize the forest floor. Light and flammable fuels, such as grasses, combined with weakened or beetle-killed trees create the perfect conditions for intensified fire risk (KPB 2006a).

Black Spruce Forests

Black spruce is the most common forest type in Alaska. When compared with other Alaskan vegetation types, black spruce forests have short to medium mean fire-return intervals (MFRIs). MFRIs since the 1700s in black spruce range from 40 to 200 years. How often black spruce stands burn is determined by the site's stand composition, solar insulation, altitude, slope, drainage, presence and thickness of permafrost, and fires history. Fire return intervals of less than 30 years can result in black spruce recruitment failure. On the Kenai Peninsula, studies have demonstrated at least 35 years between fires in black spruce forests. Small fires are more common in black spruce stands; however, large fires occasionally do occur. All fires are typically crown fires with associated surface and ground fire. Live black spruce trees are very flammable because the needles contain low moisture levels and are dense. Furthermore, a thick forest floor of detritus and resinous shrubs in the understory typically are associated with black spruce stands. Fine fuels on the black spruce forest floor react quickly to dry conditions and increase extreme fire behavior. Black spruce is partially dependent on stand-replacing fires because cones are opened by canopy fire, exposing the seeds (Fryer 2014).

Human-caused fires are more common recently in the WUI on the Kenai Peninsula. In the early 2000s, there was a shift toward larger, more frequent fires compared with the last half of the twentieth century. These increases have been attributed to increase temperature, resulting in drought stress in black spruce.

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White/Lutz Spruce Forests

White spruce is widespread in Alaska, particularly in the interior regions. The distribution of white spruce stands is influenced by elevation, soil drainage, fire history, topography, presence of permafrost, and climate. Upland white spruce communities occur on warm, well-drained, south-facing slopes. White spruce typically displays less intense fire behavior than black spruce. Historically, MFRIs in white spruce communities range from 40 to over 250 years. Fire return intervals of 40 years or less can result in white spruce recruitment failure. Floodplain, stringer, and treeline white spruce may have longer MFRIs. Ground, surface, and crown fires can all occur in white spruce stands, but crown fires are less typical in white spruce than they are in black spruce. On Kenai lowlands, fires burning in black spruce often stop upon reaching white spruce forests. When white spruce does burn, canopy mortality is high. White spruce stands experience less frequent crown fire than black spruce due to an absence of ladder fuels and lower needle resin content. Most fires in white spruce are stand-replacing (Abrahamson 2014).

On the Kenai Peninsula, only two fires over 10,000 hectares have been recorded in white spruce as of 2014, one fire occurring in the late 1800s and the other in 2014. Although lightning was the historical source of ignition in the Alaskan boreal forest, lightning-caused fires are rare on the Kenai Peninsula. Climate change may increase the size and severity of fires as a result of increase fire season, drought, and higher ignition rates.

Sitka Spruce Forests

On the Kenai Peninsula, Sitka spruce dominates valley bottoms and lower side slopes. Along the eastern coast of the Kenai Peninsula, Sitka spruce forests occur at all elevations. However, Sitka spruce stands are more abundant at low elevations and in areas with periodic disturbances such as water movement, wind, soil mass movement, and salt spray. Sitka spruce is often favored post-fire, as it is well adapted to large openings, and when mineral soil is exposed. Generalized studies of fire in costal Sitka spruce forests describe large, stand-replacing fires. However, these fires in Sitka spruce stands are rare on the Kenai Peninsula (Zouhar 2017).

Hardwood Forests

Hardwood species common on the Kenai Peninsula include paper birch, balsam polar, quaking aspen, and green alder. These species are less flammable than the spruce species. Hardwood species do not burn with high intensity but, when they do burn, can be difficult to extinguish due to deep leaf litter and longer intervals between fires. Quaking aspen is a minor but widespread forest type in Alaska. Aspen generally occupy warm slopes lacking permafrost. Quaking aspen generally succeed to spruce forests in the absence of stand-replacing fire. Quaking aspen MFRIs range from 40 to over 200 years in Alaska. Fires are low severity and typically stay on the surface, but stand-replacing fires can occur infrequently. Climate warming may favorite quaking aspen at the expense of spruce forests due to decreasing fire return intervals. Another common hardwood species, Balsam poplar, is confined to floodplains and is succeeded by white spruce in the absence of stand-replacing fire. Balsam poplar forests have infrequent, low-severity surface and infrequent stand-replacing fires (Fryer 2014).

Grasslands and Shrublands

Grasslands on the Kenai Peninsula, particularly where there have been disturbances, consist primarily of bluejoint reedgrass and *Festuca altaica*. These species occur particularly where stands of white spruce were attacked by SBB. Additionally, repeated, severe fires may result in replacement by shrub or herb communities such as bluejoint reedgrass sedge meadows. This species shift raises concerns regarding

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increased fuel loads and altered fuel characteristics that increase the risk of severe fire. Bluejoint reedgrass is the primary carrier of wildland fire in south-central Alaska due to dangerous fire behavior. High winds can quickly spread a small grass fire over a large area, often spreading hundreds of acres before first responders can arrive. Alaska sub-boreal mesic subalpine alder shrublands can be intermixed with bluejoint reedgrass and other fireweed communities (Zouhar 2017).

FUTURE CHALLENGES FOR FIRE REGIMES

Impact of Spruce Bark Beetle

The SBB (*Dendroctonus rufipennis*) is a category of bark beetle. Bark beetles bore through a tree's bark to feed on its carbohydrate-rich phloem tissue and to nest in the galleries created by boring. Significant disruption in the trees vascular tissue (phloem), such as a large number of beetles feeding, starves the tree and can result in tree mortality. SBB also carry a blue-stain fungus that blocks the water-transporting tissue (xylem), accelerating tree mortality (NPS 2021a).

As a natural component of Alaska's forest habitats, the native SBB has a history of initiating large spruce die-off occurrences in many areas of the state. They primarily infest white, Sitka, and Lutz spruce, and rarely black spruce. In the 1990s, the Kenai Peninsula and Copper River Valley experienced a SBB outbreak that affected close to 2.3 million acres by 1996, killing nearly all large-diameter spruce trees. In 2016, another outbreak was recorded. A 2016 aerial detection study mapped 190,000 acres of SBB damage (NPS 2021a). Since the 2016 outbreak began, more than 1 million acres in south-central Alaska have been impacted, with 145,000 acres of SBB damage recorded in 2020 alone (USFS 2021d). Beetle-killed trees are a complex fuel type and pose an escalated risk for wildfire (Figure 2.11.). The needles remain on the branches an entire season after the tree dies and make the tree relatively more flammable during this period. As the tree dries, branches and crowns are perfect fuel ladders for surface fires. Deceased trees combined with forest surface debris (needles, grasses, and organic layers) result in a particularly dangerous fuel complex (KPB 2009a).

In its Alaska Forest Health Conditions report, the USFS's aerial surveys detected about 115,000 acres of SBB activity, of which 108,00 acres were recent mortality (USFS 2021d); 96% of the damage mapped is within south-central Alaska. On the Kenai Peninsula, 18,330 acres of SBB activity was detected. Specifically, SBB activity increased substantially in the Cooper Landing area in 2020, with patches of damage observed along the Sterling Highway and the Kenai River from around Quartz Creek campground to Skilak Lake Road. SBB-caused mortality was also dispersed along the Russian River several miles upstream from its confluence with the Kenai River. Moreover, SBB activity continued to expand in the Kenai and Soldotna areas, with activity continuing in the Kenai National Wildlife Refuge and in the vicinity of the Kenai Spur Highway from Soldotna to Kenai. Equally extensive damage was noted in the Soldotna vicinity, particularly along the south side of the Kenai River and continuing to Kasilof. Additional areas with SBB activity include Tustumena Lake in Caribou Hills, Port Dick Creek, the Rocky River, Seldovia Lake, and on Perl and Elizabeth Islands (USFS 2021d).

SBB outbreaks tend to affect forest composition and soil properties. Forest canopy reductions via diseased or killed trees causes the canopy to open, which can allow for an entirely different community of plants to emerge. For example, Canada bluejoint reedgrass is a plant that thrives with the increased light penetration allowed by reduced or absent canopies. The grass grows thick and tall in areas of the Kenai Peninsula where there are many dead trees. The cover of dense grass decreases soil temperatures, altering the growing environment for understory plants. Some plants, such as shrubs, prosper in these new environments (ADFG 2021a). Shrubs and grasses are light and flashy fuels that colonize affected

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areas. For instance, one survey found that grass coverage in the understory had increased from about 5% to above 55%, five years following SBB infestation. Mixed grass, shrubs, and beetle-killed trees provide abundant fuels for wildfires (KPB 2006a).

Temperature is one of the major controls on SBB population numbers. For example, during abnormally warm springs, SBB may become active sooner in the season. Contrarily, an extreme winter may kill SBB wintering above the snowline (NPS 2021a). As a result, SBB outbreaks are associated with warmer temperatures. Berg et al. (2006) determined that SBB outbreaks on the Kenai Peninsula are attributed to relatively long periods of elevated summer temperatures that enhance both rapid growth of SBB and extensive drought stress of host trees. With the warming trend persisting, SBB outbreaks will likely continue to increase in their frequency and severity and expand their geographical and host ranges (Berg et al. 2006).



Figure 2.11. Spruce Bark Beetle killed trees visible along this roadside

Impact of Climate Change

In Alaska, global warming trends have been especially dramatic; the rate at which Alaska's temperature has been increasing is two times as fast as the global average since the middle of the 20th century (U.S. Global Change Research Program [USGCRP] 2018). Average temperatures throughout the state for 2014, 2015, and 2016 were exceptionally warmer relative to the last few decades, with 2016 being the warmest on record. In 2019, the record was set again when an average temperature of 58.1 degrees Fahrenheit (°F) was recorded for the month of July (NOAA 2019). The trend toward hotter temperatures is projected to increase; climate models indicate that by mid-century (2046–2065) the highest daily maximum temperature is expected to increase 4°F to 8°F relative to the average for 1981 through 2000 (USGCRP 2018). However, climate shifts are not evenly distributed throughout the state. Interior regions, along with the Arctic, are expected to warm faster than the southern and coastal regions of Alaska. Additionally, maximum 1-day precipitation is also projected to increase by 5% to 10% in southeastern Alaska and by more than 15% in the rest of Alaska, yet the longest dry and wet spells are not expected to

change over much of the state. Therefore, long periods of dry weather are expected to persist (USGCRP 2018).

The shifting climate patterns have broad implications on wildfire occurrence and susceptibility. Hotter temperatures drive the early disappearance of snow, reduced fuel moisture content, higher surface heating, longer fire seasons, shrinking permafrost layers, and shifts in forest composition. The longest fire season on record was recorded in 2016, beginning with a wildfire in April and ending with a WUI fire in (UAF 2018). In addition, the changing weather also creates conditions conducive to the occurrence of lightning strikes (KPB 2006a). In June 2015, a cascade of lightning in Alaska ignited 295 fires over a period of 7 days, which eventually consumed 5.1 million acres and 80 homes. State and federal fire expenditures in Alaska in 2015 alone were $188 million (UAF 2018).

Climate warming is impacting fire potential on the Kenai Peninsula and in Alaska overall. The annual area burned by wildfires varies significantly on an annual basis, but the frequency of big fire years (>2 million acres) has been increasing—since the year 2000, three out of the top four fire years (in terms of acres burned) have occurred (USGCRP 2018). Models suggest that this trend will persist and amplify; predictions gauging the area burned for 2006 through 2100 are estimated at 120 million acres under a high scenario and 98 million acres under a low scenario (USGCRP 2018).

While black spruce trees are fire adapted, dramatic changes in fire regimes undermine resilience and often result in recruitment failure (Baltzer et al. 2020). Consequently, forest composition in many regions of Alaska have changed; there has been a general shift toward shrubs and less acreage of older spruce forest. Additionally, shrubs and other light fuels have been expanding their range with the warming temperatures—increasing the spatial extent of areas susceptible to severe wildfires (USGCRP 2018).

A recent study, *Climate Change Vulnerability Assessment for the Chugach National Forest and the Kenai Peninsula*, by the USFS evaluates the impacts of future climate change on a set of ecosystems in the Kenai Peninsula and Chugach National Forest regions (USFS 2017). The study highlights the potential effects of climate change on the fire environment, among other things. With respect to assessing future vulnerability to wildfire they found that 1) most of the area in the southwestern Kenai Peninsula is projected to change from forest to grassland, which is currently composed of beetle-killed spruce and blue joint grass, and 2) the distribution of land cover types dominated by black spruce is projected to remain similar to the current distribution. Therefore, vegetation types currently classified as high hazard will likely remain high over the next 50 years. Furthermore, the total value of structures (e.g., homes, businesses) on private land is expected to increase by 66% over the next 50 years. Population growth and expansion in conjunction with dispersed settlement patterns on the peninsula create a large WUI. As such, the wildfire vulnerability of the Kenai Peninsula is expected to increase (USFS 2017).

FIRE RESPONSE

Alaska fire management planning, preparedness, suppression operations, prescribed fire, and related activities are coordinated on an interagency basis with the full involvement of state, federal, and local government cooperators. The Alaska Interagency Wildland Fire Management Plan, 2021 (AIWFMP) details operational guidance under the Alaska Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (Alaska Master Agreement) and the Alaska Statewide Operating Plan (AICC 2021a). Its purpose is to "*promote a cooperative, consistent, cost-effective, interagency approach to wildland fire management; and it is the interagency reference for wildland fire operational information*" (AICC 2021a:1).

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The AIWFMP does not supersede any individual agency fire policies and requirements and, therefore, must be applied in conjunction with individual land and resource management plans and fire management plans when they exist (AICC 2021a).

The collaborative nature of the interagency wildland fire organization allows fire response agencies to coordinate response for enhanced public safety as well as coordinate other fire management activities for the purpose of enhancing ecosystem health. It also enables fire response agencies to serve communities that do not have their own fire departments or have very limited fire response capabilities, such as Nanwalek, Port Graham, Seldovia, Tyonek, Beluga, Razdolna, Voznesenka, Kachemak-Selo, and others.

By Alaska statute, the DOF has fire protection responsibility for state, private, and municipal land; and the BLM, USFWS, and the USFS have legal responsibility for fires on federal land.

The DOF also has cooperative agreements with numerous local governments, as well as tribal and volunteer fire departments, throughout the Borough. Fire protection, as well as emergency medical services, is also provided by the KPB in geographic service areas, by city fire departments, and by volunteer fire departments in areas outside of KPB service areas. Local fire service areas have established mutual-aid agreements, whereby a neighboring service area may dispatch resources to assist during an emergency (KPB 2006a).

Under the ANCSA, the federal government is directed to provide wildland fire suppression on land conveyed to Native regional and village corporations. ANCSA [43 United States Code 1620(e)] provides for forest fire protection services from the United States at no cost to Native individuals or to Native groups, villages, and regional corporations organized under ANCSA, as long as there are no substantial revenues from such land (USFWS 2013).

The KPB Office of Emergency Management (OEM) implements evacuation and communication plans for the Borough and, in partnership with DOF, oversees the development and maintenance of CWPPs.

FIRE MANAGEMENT OPTIONS

Wildfire response across the state is guided by the AIWFMP and fire management options. Firefighter and public safety is of the highest priority for all options. The various suppression strategies include critical protection, full protection, modified protection, and limited protection and provide a full range of suppression responses, from aggressive control to surveillance (Figure 2.12). The fire management options are described as follows (AICC 2021a):

Critical Protection

Suppression action provided on a wildland fire that threatens human life, inhabited property, designated physical developments and structural resources such as those designated as National Historic Landmarks. The suppression objective is to provide complete protection to identified sites and control the fire at the smallest acreage reasonably possible. The allocation of suppression resources to fires threatening critical sites is given the highest priority.

Full Protection

Suppression action provided on a wildland fire that threatens uninhabited private property, highly valued natural resource areas, and other highly valued areas such as identified cultural and historical sites. The suppression objective is to control the fire at the smallest acreage reasonably possible.

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The allocation of suppression resources to fires receiving the full protection option is second in priority only to fires threatening a critical protection area.

Modified Protection

Suppression action provided on a wildland fire in areas where values to be protected do not justify the expense of full protection. The suppression objective is to reduce overall suppression costs without compromising protection of more highly valued adjacent resources. The allocation of suppression resources to fires receiving the modified protection option is of a lower priority than those in critical and full protection areas. A higher level of protection may be given during the peak burning periods of the fire season than early or late in the fire season.

Limited Protection

Lowest level of suppression action provided on a wildland fire in areas where values to be protected do not justify the expense of a higher level of protection, and where opportunities can be provided for fire to help achieve land and resource protection objectives. The suppression objective is to minimize suppression costs without compromising protection of more highly valued adjacent resources.
The allocation of suppression resources to fires receiving the limited protection option is of the lowest priority. Surveillance is an acceptable suppression response as long as more highly valued adjacent resources are not threatened.

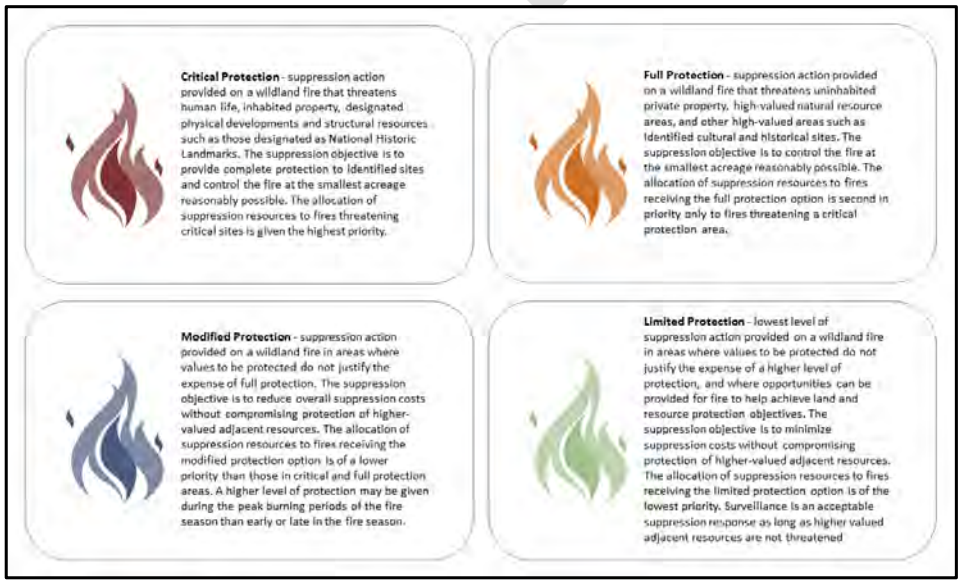

Figure 2.12. Alaska fire management options.

Costs associated with wildfires are contingent on response zones. More resources are used on wildfires in the full and critical zones due to the elevated risk to human health and property. However, there are patches within the limited and modified zones that necessitate a suppression response. For instance, Alaskan Native allotments are usually located in areas that are difficult to access. Still, fire protection is

legally mandated in these areas. Although most wildfires in isolated Alaskan wilderness are permitted to burn under supervision, any wildfire threatening an Alaskan Native land allotment must be suppressed with state or federal firefighting resources (UAF 2018). Fire response resources are depicted in Figure 2.13.

MUTUAL AID AND AGREEMENTS

The wildland fire community is well known for its development of mutual aid agreements at the federal, state, and local levels. Aid agreements allow for closest forces to respond to an incident as quickly as possible regardless of jurisdiction. Such agreements may also describe how reimbursement will be conducted; state resources responding to wildfires on federal land may have their associated costs reimbursed by the responsible federal agency, and the reverse is true for federal resources suppressing a wildfire on state land. There are three main types of aid agreements within the planning area (FEMA 2017):

1. **Local Mutual Aid:** Local mutual aid agreements between neighboring jurisdictions or organizations involve a formal request for assistance and generally cover a larger geographic area than local automatic mutual aid agreements do. Under these agreements, local resources may be used to assist federal departments and agencies in fulfilling their missions under special circumstances, and vice versa. Incorporating private sector, nongovernmental organizations, and community- and faith-based organizations into the mutual aid network provides parties with access to significant additional resources.
2. **Local Automatic Aid:** Local automatic mutual aid agreements permit the automatic dispatch and response of requested resources without incident-specific approvals or consideration of entity boundaries. These agreements are usually basic contracts between or among neighboring local entities (local entities may include nearby governments (including federal government installations), private sector facilities, nongovernmental organizations, and faith-based organizations) and are used under conditions when time is of the essence to save lives, prevent human suffering, or mitigate property damage following an incident.
3. **Regional, Intrastate, or Statewide Mutual Aid:** Sub-state regional mutual aid agreements are between multiple jurisdictions that are often sponsored by a council of governments or a similar regional body. Statewide/intrastate mutual aid agreements are often coordinated through the state and incorporate both state and local governmental and nongovernmental assets in an attempt to increase preparedness statewide. This approach can help reduce the number of local and jurisdiction-to-jurisdiction mutual aid agreements. In some instances, state law requires participation in an intrastate mutual aid system.

The ADNR operates under the Master Cooperative Wildland Fire Management and Stafford Act Agreement (the agreement), which documents the coordination and exchange of personnel, equipment, supplies, services, and funds between land management agencies. The agreement details wildland fire management activities such as prevention, preparedness, communication and education, fuels treatment and hazard mitigation, fire planning, response strategies, tactics and alternatives, suppression and post-fire rehabilitation and restoration. Agencies participating in the agreement include the BLM (Region 11 [Alaska]), NPS (Region 11), Bureau of Indian Affairs (Alaska Region), USFWS (Region 11), USDA (Region 10 [Alaska]), and the ADNR. This agreement does not supersede individual agency policies and requirements.

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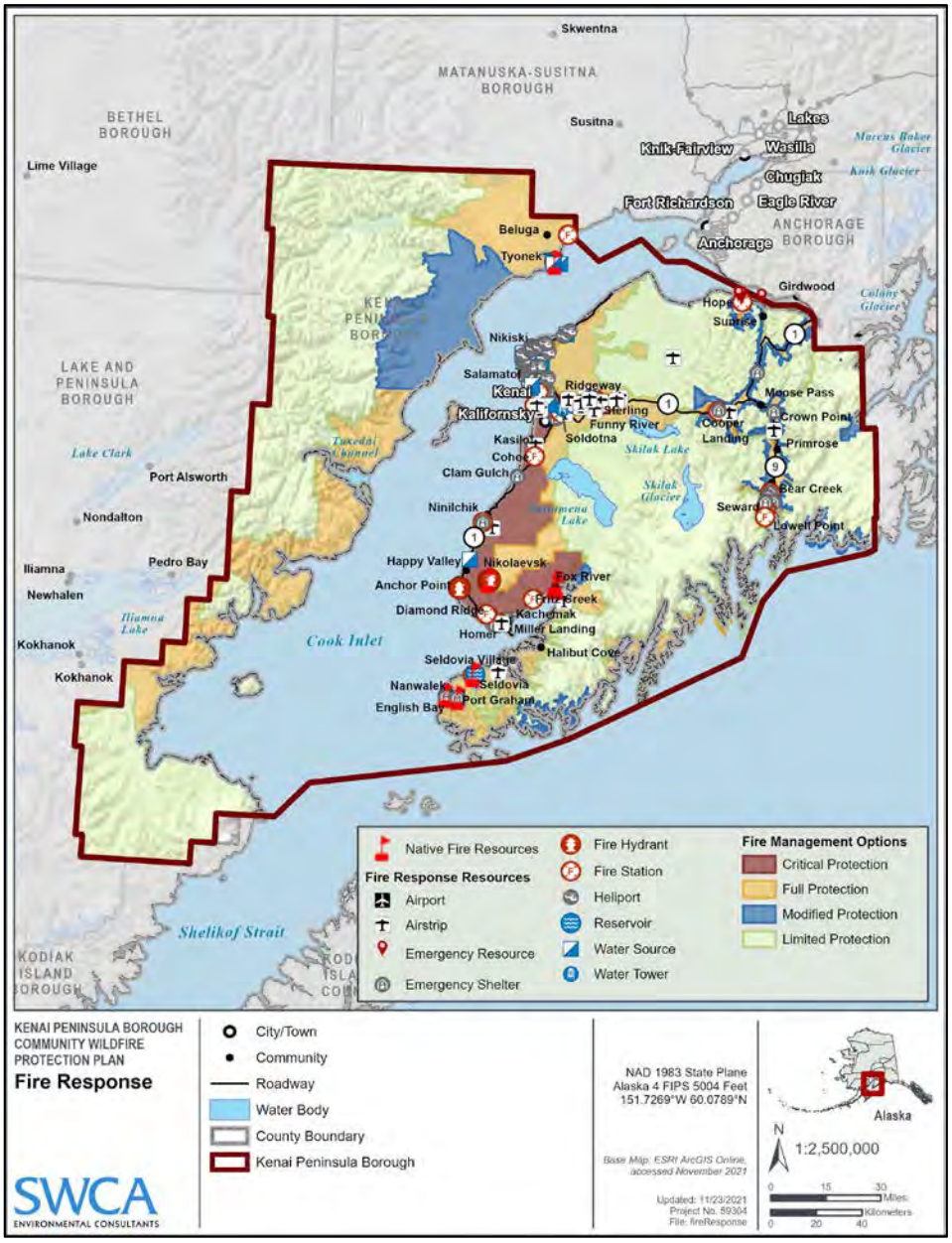

Figure 2.13. Fire management options and response resources.

LOCAL RESPONSE RESOURCES

Local Fire Departments

There are X fire departments in the Borough serving a population of 58,799 people. Departments include KPB departments, volunteer departments, and more regional departments, like the Central Emergency Services, which includes six stations and serves several communities. In addition to responding to calls for fire suppression, local fire departments respond to medical emergencies, incidents involving hazardous materials, rescue calls, and motor vehicle or other accidents. Due to the remote nature of some communities and varied road conditions, fire response on the peninsula can sometimes be more complicated than in other regions (Figure 2.14 and Figure 2.15).

Commented [VA1]: Brenda- we are seeing varying numbers reported. Please can you confirm.

Volunteer and career firefighters at the community level have similar capabilities throughout the entire year, while state and federal responders are affected by fire season. In spite of the continuous level of capabilities, ebbs and flows occur within the volunteer service. Recruiting and retaining volunteers is challenging due to people's lifestyles and the training requirements one must follow to be a volunteer firefighter. Although several volunteer firefighters are present in the Borough, not all are available to respond to every fire.



Figure 2.14. Narrow unsurfaced road that may make fire response difficult.



Figure 2.15. Very remote communities may only be accessible by ATV or UTV, requiring the fire departments to have suitable apparatus and equipment in order to serve these areas.

Local firefighting capabilities, resources, and apparatuses are described in detail in Appendix D.

STATE RESPONSE RESOURCES

Alaska Division of Forestry

The DOF's Fire and Aviation Program aims to provide safe, cost-effective, and efficient fire protection services and management on state, private, and municipal land, and land negotiated through agreement. By Alaska statute, the DOF is responsible for fire response and protection on state, private, and municipal land. In addition, the DOF also provides fire protection services to American Indian land through mutual aid agreements (AICC 2021a). Under the "closest forces" principle, applying cooperative agreements, agencies are permitted to respond to fire events within their protection areas regardless of land ownership. This approach reduces response time and duplicated efforts, thereby increasing safety, effectiveness, and cost efficacy (KPB 2006a). The DOF is not bound by federal fire management policies on land under state jurisdiction (AICC 2021a).

For most of the KPB, dispatch, coordination, and logistical support is provided via the Kenai-Kodiak Area Office in Soldotna (AICC 2021b), which operates under the AICC. The Chugach National Forest Office serves the northeastern portion of the KPB, which also operates under the AICC. The AICC functions as the focal point for initial attack resource coordination and logistics support for all state and federal agencies involved in wildland fire management and suppression in Alaska. The AICC is a collaborative effort between various agencies, including the DOF, BLM, USFS, NPS, Bureau of Indian Affairs, and USFWS (AICC 2021b).

Fire response resources within the Kenai-Kodiak Area Office include 12 seasonal fire technicians and one contract helicopter (from the third week of April through the first week of August).

Success in fire-suppression efforts is influenced by an effective initial response. In turn, the effectiveness of an initial response is determined by the level of training and experience of the labor force as well as the availability of firefighting equipment. The DOF attempts to train extra staff to respond during emergencies. Emergency firefighters are hired as needed to supplement the workforce in all aspects of firefighting duties. The DOF also aims to train sufficient emergency firefighters to keep a 16-person handcrew that is ready to immediately respond to wildland fires. Extra emergency firefighters are hired to serve as heliattack or engine crewmen, aviation assistants, or warehouse employees during a wildland fire event (KPB 2006a).

The DOF usually contracts two air tankers in preparedness for the fire season. Air tanker support bases are typically located at the Palmer Airport and the Kenai Airport. The BLM in Fairbanks also contracts aircraft for dispatch to the KPB contingent on the statewide fire activity level. Additionally, on-call water-scooping air tankers may be operated out of the lakes on the KPB and the Cook Inlet. Other aerial firefighting resources include aircraft rental companies on the KPB, which may have available helicopters for heliattack operations and water drops. Statewide tactical resources may be strategically positioned at the Kenai Airport base during periods of high fire danger (KPB 2006a).

Firefighting resources for the DOF include (DOF 2021a):

- Wildland Fire and Resource Technicians
- Division of Forestry Agency Fire Crews
- Pioneer Peak Interagency Hotshot Crew
- Gannett Glacier Type 2 Initial Attack Crew
- White Mountain Type 2 Initial Attack Crew
- Type 2 EFF Crews
- Support Positions
- Alaska Incident Management Teams
- Interagency Resources

Fire Department Statistics: Department of Forestry		
Communities Served:		
Fulltime Firefighters:	On-call Firefighters:	Dispatch Centers:
Hand Crews: -		
Wildland Engines: -		
Other resources: -		

Commented [BP2]: Diane Campbell / or DOF representative - please complete this table.

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TRIBAL RESPONSE RESOURCES

Yukon Fire Crew

Chugachmiut started the Yukon Fire Crew, originally based out of McGrath, Alaska, in 2005. In 2009, the crew moved to Soldotna Alaska and have been fighting fire on the Borough since that time. The Yukon Fire Crew is typically assembled between late May and October each fire season and is the only standing wildland fire crew located on the KPB. When not fighting fires, the crew spends time conducting hazard fuel mitigation projects. Projects the Yukon Fire Crew have worked on include the Funny River Fuel Break, the Sterling Fuel Break, hazard tree mitigation at the Russian River Campground, Firewise treatments on elders' homes, and Firewise treatment on KPB schools.

Jurisdictional agencies have land management responsibility for a specified geographical area as designated by federal, state, or local law. Jurisdictional agencies are required to create and implement agency planning documents detailing wildland fire and fuels management programs at the unit level. In 1971, the ANCSA transferred 45 million acres to Native corporations. However, some lands are pending conveyance; jurisdiction for the pending lands remains with the federal government. Surface and subsurface jurisdiction for a parcel of land may differ. Generally, the surface jurisdiction is responsible for fire planning and management (AICC 2021a).

Fire Department Statistics: Yukon Fire Crew		
Communities Served:		
Fulltime Firefighters:	On-call Firefighters:	Dispatch Centers:
Hand Crews:		
-		
Wildland Engines:		
-		
Other resources:		
-		

Commented [BP3]: Nathan Lojewski please complete this table.

Chugachmiut

Chugachmiut, a non-profit Native consortium, works as an agent for the Native landowners—both Native allotment owners and Trust townsite lot owners—associated with Nanwalek and Port Graham, Alaska. The consortium has been involved in developing fire fuel breaks around Sterling, Soldotna, Kenai, Nikiski, Cooper Landing, and the Moose Pass area on Native corporation, USFS, USFWS, and various state, and private lands, especially if Native lands.

FEDERAL RESPONSE RESOURCES

U.S. Department of Agriculture: U.S. Forest Service

The USFS is responsible for fire response on all National Forest land and grasslands. Overall, the USFS provides wildfire response and management for over 193 million acres of National Forest System land (CRS 2021).

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Chugach National Forest

The USFS furnishes wildfire protection services for land and inholdings within the Chugach National Forest boundary. This may involve cooperative agreements with local volunteer fire departments for mutual aid support as well as local incident requests. The Chugach National Forest facilitates the coordination and exchange of personnel, equipment, supplies, and services in sustaining wildland fire management activities such as prevention, preparedness, communication and education, fuels treatment and hazard mitigation, fire planning, response strategies, tactics and alternatives, suppression, and post-fire rehabilitation and restoration.

Fire response within the Chugach National Forest is dispatched by the Chugach National Forest Office. The USFS maintains mutual aid agreements with the BLM and DOF (AICC 2021a).

Fire Department Statistics: Chugach National Forest

Communities Served: **Chenega Bay, Cooper Landing, Cordova, Girdwood, Hope, Moose Pass, Seward, Tatitlek, Valdez, and Whittier.**

Fulltime Firefighters: 17 On-call Firefighters: 40+ Chugach Wildfire Dispatch Centers: 7

Hand Crews:

- 1, 10-Person Suppression Module
- 1 (on call), 20-Person Type 2 Initial Attack

Wildland Engines:

- 2, Type 6 (4x4)

Other resources:

- Fire Boat/Skiff: 1
- Port-a-Tanks: 2
- Portable Pumps: 8
- Type 3 Fire Cache: 1

Commented [VA4]: Mark Cahur or USFS rep, please complete this table.

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U.S. Department of the Interior: U.S. Fish and Wildlife Service and National Park Service

The BLM Alaska Fire Service is assigned the lead role as the Wildland Fire Protecting Agency for the U.S. Department of the Interior agencies in Alaska (USFWS 2013). The State of Alaska established a wildland fire suppression organization in the DOF and began to gradually assume suppression responsibilities in southwest Alaska, including the KPB, starting in the 1970s. The Master Agreement, with its exhibits, defines the roles and responsibilities of the jurisdictional and protection agencies, as well as operating procedures (USFWS 2013).

Kenai National Wildlife Refuge

The Kenai National Wildlife Refuge Fire Management Plan (USFWS 2013) guides all fire management operations on and for the refuge. The refuge is in the process of transitioning fire planning to a spatial format under the Wildland Fire Decision Support System. The fire management plan addresses a full range of potential wildfires and considers a full spectrum of tactical options (from monitoring to intensive management actions) for wildfires in order to meet Fire Management Unit objectives (USFWS 2013).

The DOF is the designated fire protection agency for the Kenai National Wildlife Refuge per the Master Agreement (AICC 2021a). However, the refuge is responsible for collaboration with fire response and prevention activities. The Refuge Fire Management Officer is required to be available by phone or radio to respond to the DOF and other cooperating emergency management agencies at all times during fire season. In addition, qualified refuge staff commonly take part in prevention patrols during periods of high fire danger and will contribute to initial and extended attack suppression efforts on refuge fires (USFWS 2013).

Fire response in the refuge is dispatched and coordinated by the Kenai-Kodiak Area Office (USFWS 2013).

Fire Department Statistics: Kenai National Wildlife Refuge		
Communities Served:		
Fulltime Firefighters:	On-call Firefighters:	Dispatch Centers:
Hand Crews: -		
Wildland Engines: -		
Other resources: -		

Commented [BP5]: Jeff Bouscher, please complete this table.

Kenai Fjords National Park

The DOF is responsible for fire protection in the Kenai Fjords National Park (KFNP) (AICC 2021a), while the NPS manages the land (NPS 1984). Dispatch, coordination, and logistical support is provided via the Kenai-Kodiak Area Office (AICC 2021b).

There is no existing fire management plan for the KFNP; this is because the NPS is required to have fire management plans only for parks with burnable vegetation (NPS 2021c). The KFNP is generally not vulnerable to severe fires; the glaciers, streams, and fjords serve as natural fire barriers (NPS 1984).

Lake Clark National Park and Preserve

The DOF is responsible for fire response in the Lake Clark National Park and Preserve (AICC 2021a). However, the NPS is responsible for other fire management activities. NPS fire professionals and staff reduce the risk around park structures by clearing flammable vegetation. NPS personnel also monitor the impacts of fires. In addition, the NPS shares responsibilities with the DOF to protect life, property, and natural and cultural resources. They also collaborate with communities, and local, state, federal, and Native organizations to keep people and ecosystems healthy (NPS 2020b).

There is no current fire management plan for the Lake Clark National Park and Preserve.

Fire response in the Lake Clark National Park is dispatched and coordinated by the Southwest District Office, which operates under the AICC (AICC 2021b).

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EVACUATION RESOURCES

The KPB OEM implements evacuation and communication plans for the KPB. The latest evacuation guide can be found here: https://radiokenai.net/wp-content/uploads/2019/08/KPB-Wildland-Fire-Emergency-Evacuation-Guide_updated_07072019.pdf

As part of emergency management protocols, the KPB has adopted the Ready, Set, Go! protocols for community evacuation. The Kenai wildfire preparedness webpage is here: https://www.kpb.us/emergency-mgmt/disaster/fire.

To increase public safety and awareness, tsunami evacuation signs are posted on evacuation routes throughout the peninsula (Figure 2.16). The OEM utilizes the Community Alert Network to telephone residents within a specified zone to convey evacuation procedures. The Community Alert Network can also dial emergency responders and assign tasks based on the results of an automated query. The OEM has pinpointed potential emergency shelters. However, emergency evacuation routes have not been designated due to the distinct nature of each wildfire event (Ecology and Environment 2006)



Figure 2.16. Tsunami evacuation signage in Lowell Point.

Livestock and Pets

Some homes on the KPB have horses and other large animals and livestock, and pets are common in homes throughout the planning area. In the event of a wildfire, it is important that residents and fire responders have a plan for evacuation of pets and livestock. Evacuation planning often neglects to describe how animals will be evacuated and where they will be taken. The loading of horses, for example, during a fire and smoke situation, and transport of stock vehicles down narrow roads under stressful situations, can be very difficult.

Commented [BP6]: Brenda, could you please help me confirm animal/pet evacuation procedures?

The 2019 wildfire evacuation guide says to take pets to a designated pet evacuation center. However, I can't find any list of those centers, and all the other pet information from the KPB states that residents need to find a safe place to bring pets as they may not be allowed in evacuation centers.

We also found this pet shelter annex, but I am not sure if it is still relevant? http://www2.borough.kenai.ak.us/AssemblyClerk/Assembly/Resolutions/2013/R2013-021%20Annex%204%20Pet%20Shelter.pdf

Thank you!

The Borough recommends developing an emergency plan for animals, including a safe place to bring animals during an emergency, an emergency to-go kit with supplies such as food, water, medication, first aid kid, familiar items, and photographs in case residents and pets become separated (KPB 2021).

Kenai Pet Preparedness information is here: https://www.kpb.us/emergency-mgmt/disaster/pets

The Kenai Pet Plan checklist can be viewed here: https://www.kpb.us/images/KPB/OEM/Pet_Plan.pdf

There is a need to pre-identify where animals can be taken, such as using fairgrounds as a large animal shelter. Similarly, locations where small animals such as dogs and cats picked up in the fire area should also be pre-identified, as well as the lead agencies, such as humane societies, coordinating this work.

Commented [BP7]: Brenda, we will update this text based on your response to the comment above.

WATER AVAILABILITY AND SUPPLY

Water supply is variable around the Borough and may be provided by hydrants, wells, lakes, sprinklers, and pumps. Many rural and unincorporated communities lack water for fire suppression. Upgrades are currently being implemented in some communities, including installation of additional water lines and hydrants. Additional water storage is still needed in many areas.

In some cases, ponds and rivers are suitable alternatives for sources of water supply for suppression. However, it is not clear which fire stations have appropriate equipment or abilities to use these sources of supply.

Limited water supply can impact International Standards Organization (ISO) ratings for fire departments, so improvements to water infrastructure have been identified as a priority for this CWPP update.
The hydrant location dataset for the KPB is incomplete, and therefore, mapping is identified as a needed project in this CWPP update.

PUBLIC EDUCATION AND OUTREACH PROGRAMS

Public education and outreach programs are a common factor in virtually every agency and organization involved with the wildfire issue. Detailed information on these programs is provided in Appendix A.

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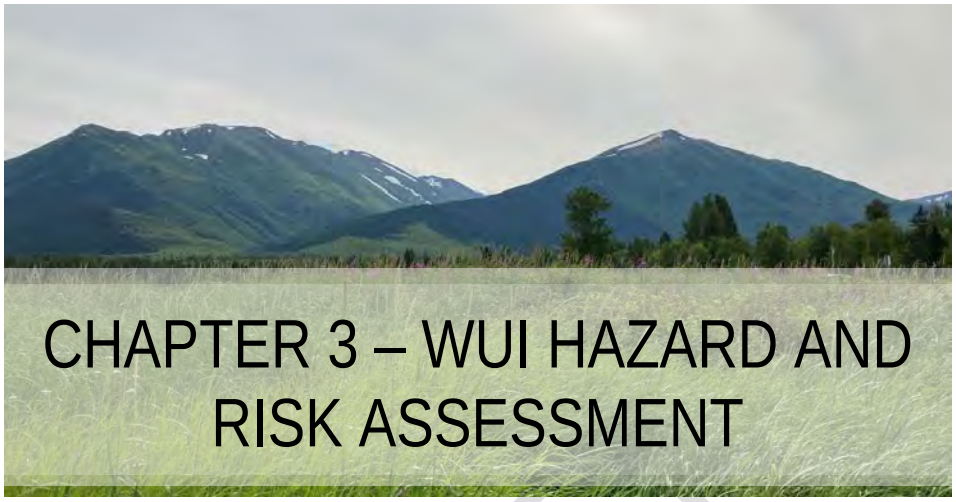

CHAPTER 3 – WUI HAZARD AND RISK ASSESSMENT

PURPOSE

The WUI hazard and risk assessment for the CWPP is based on the Chugach All-Lands Wildfire Risk Assessment (known as ARRA), developed between 2019 and 2021 by Pyrologix, under contract to the USFS.[1] The purpose of the ARRA is to provide foundational information about wildfire hazard and risk to highly valued resources and assets (HVRAs) for the Chugach National Forest and surrounding areas in south-central Alaska (Pyrologix 2021). The ARRA provides a quantitative analysis of the assets and resources across the landscape and how they are potentially impacted by fire. The analysis is described in detail in the final ARRA report, but in summary it considers (Pyrologix 2021):

- Likelihood of fire burning
- Intensity of a fire if one should occur
- Exposure of assets and resources based on their locations
- Susceptibility of those assets and resources to wildfire

The assessment defines assets as "human-made features, such as commercial structures, critical facilities, housing etc., that have specific importance or value", while resources are defined as "natural features such as wildlife habitat, vegetation type, or water, that also have specific value or importance" (Pyrologix 2021).

The ARRA is based on a risk modeling framework that is a function of two main factors: 1) wildfire hazard and 2) HVRA vulnerability (Figure 3.1).

Commented [VA8]: Mark Cahur- do you have a preferred citation for the ARRA? Should it be Pyrologix, or Napoli et al. 2021, or something else?

[1] ARRA is an acronym for the original title of the project – Alaska Region Risk Assessment (Pyrologix 2021).

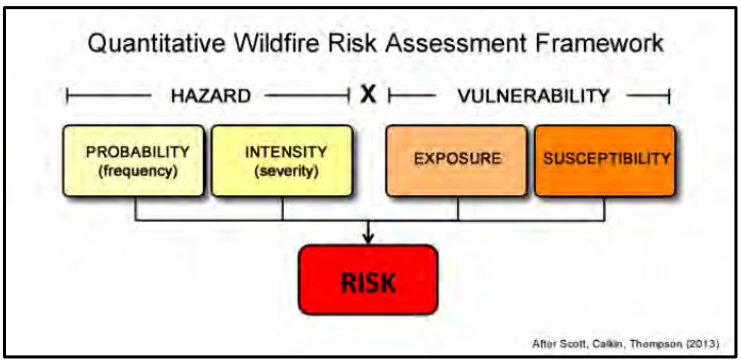

Figure 3.1. The components of the QWRA framework used for the ARRA.
Source: Pyrologix (2021)

Wildfire hazard under the QWRA framework is measured by burn probability (likelihood of burning) and fire intensity (flame length, fireline intensity, etc.) (Thompson et al. 2013). Vulnerability to identified HVRAs is composed of exposure and susceptibility. Exposure is the placement of an HVRA in a hazardous environment (e.g., a home in a flammable landscape), and susceptibility is how easily an HVRA is damaged by wildfire (e.g., some homes or structures might be hardened to mitigate wildfire damage).

The ARRA assessment is a tool that allows land use managers, fire officials, planners, and others to identify high-risk/hazard areas on the landscape and prepare strategies and methods for reducing the threat of wildfire, as well as work with community members to educate them about methods for reducing the damaging consequences of fire.

The QWRA framework and the ARRA process is described in detail in the ARRA report (located in Appendix B). The following provides a synopsis of some of the main features of the report that are pertinent to the CWPP.

RISK ASSESSMENT COMPONENTS

The ARRA uses the FSim large-fire simulator to quantify the likelihood of a large fire (a fire that would grow to over 100 acres) occurring across the Analysis Area based on current fuelscape and historical weather conditions (Finney et al. 2011; Pyrologix 2021).

FUELSCAPE

The fuelscape represents the vegetative fuels and topography across the analysis area. Several geospatial datasets comprise the fuelscape, including fuel models, canopy characteristics of trees and other vegetation, and topographical characteristics. A significant degree of data compilation occurs during development of the fuelscape, as well as calibration to address disturbances from recent wildfires, mortality resulting from insect and disease, wind damage, and mechanical or prescribed fire treatments. The fuelscape development also integrated findings from the Kenai Peninsula Vegetation Mapping project, which provided information on tree cover and vegetation height.

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WILDFIRE OCCURRENCE

Wildfire occurrence across the analysis area was based on data gathered from the Fire Occurrence Database for a period from 1992 through 2017. The analysis focuses only on historic fires that grew to over 100 acres. These data are used in FSim to generate the most accurate estimate of wildfire likelihood.

HISTORICAL WEATHER

FSim incorporates weather inputs for wind speed, fuel moistures, and Energy Release Component collected from Remote Automated Weather Stations (RAWS) located throughout the analysis area.

WILDFIRE SIMULATION

Figure 3.2 shows the components that go into the wildfire simulation and outputs of those simulations in FSim.

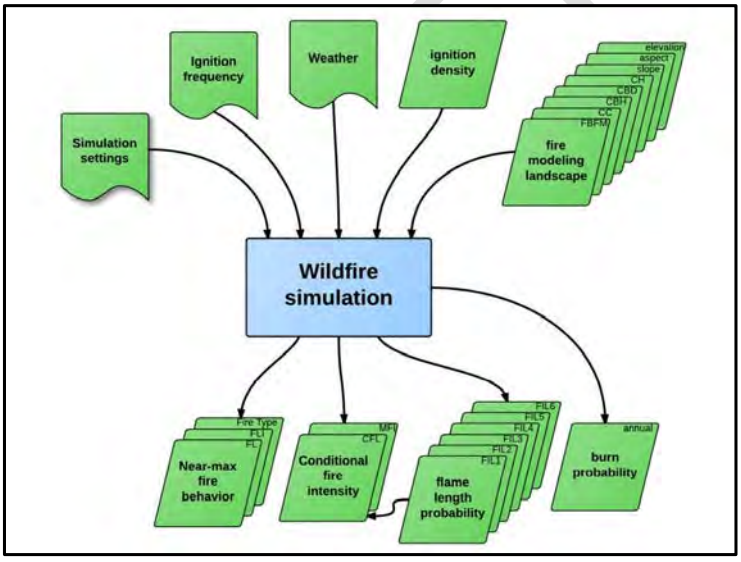

Figure 3.2. The primary elements used to derive burn probability in FSim.
Source: Pyrologix (2021)

HVRA CHARACTERIZATION

HVRAs are the resources and assets on the landscape most likely to warrant protection if found to be at risk of wildfire (Pyrologix 2021). The identification and compilation of HVRAs was a collaborative effort by stakeholders in the region. In order to be included in the ARRA, an HVRA must be of greatest importance to the region, the spatial data must be readily available, and the spatial extent of the identified HVRA

must be complete (Pyrologix 2021). Eleven HVRAs were selected for the ARRA under the major categories of people and property, infrastructure, carbon, and watershed (Table 3.1).

Each HVRA selected is also assigned a response function, meaning how that HVRA responds to wildfire, whether positive or negative.

Table 3.1. HVRA and sub-HVRA identified for the ARRA

HVRA & Sub-HVRA	Data Source
People and Property	
People and Property	Represents housing unity density data produced by Pyrologix using the building footprints and U.S. Census - Census Block population data. Data depicting building locations was provided by Chugach NF and adjusted by Pyrologix.
Native Allotments	The data was provided by the Bureau of Land Management, Alaska State Office, representing areas designated as 'Conveyed Native Allotments' within Alaska.
Infrastructure	
Electric transmission lines – high & low voltage	The provided linear features represent electric power transmission lines. Data was provided by Chugach NF and supplemented with data from the Homeland Infrastructure Foundation-Level Data (HIFLD) program.
Communication Sites	Data represents the location of communication sites. Data was provided by Chugach NF and supplemented with data from the Homeland Infrastructure Foundation-Level Data (HIFLD) program.
Power: Power Plants & Substations	The provided data represents the locations of power plants and substations. Data was provided by Chugach NF and supplemented with data from the Homeland Infrastructure Foundation-Level Data (HIFLD) program.
Oil & Gas Wells	The data contains the location of surface wells & structures. Well locations were limited to those designated as active wells; structures were limited to items designated as oil/gas buildings. Data was provided by Chugach NF.
Pipelines	The data depicts pipeline locations in Alaska as digitized from USGS maps. Ancillary source documentation was provided by the AK DNR and used as necessary for updates.
Fish Hatcheries	These sport subsistence sites represent the known locations of sport and commercial fish rearing facilities (commercial salmon fishery) located in Southcentral AK. Data was provided by Chugach NF.
Recreation & Administrative Sites	The data contains the locations of administrative buildings, offices, recreation sites, and service/utility structures on lands owned by Alaska State Parks, USDA (Forest Service) lands, and the National Park Service. Data was provided by Chugach NF.
Carbon	
Carbon Credits	Mapped areas represent forested land used in carbon trading markets and identify areas of biomass (forest) marketable as carbon credits. Data provided by Chugach NF.
Watershed	
Critical Watersheds	Surface drinking water protection areas (Zone C, G boundaries) were delineated from local topography and anticipated effects on the drinking water source intake. Data provided by Chugach NF and Alaska DEC Open Data.

Source: Pyrologix (2021)

During the stakeholder workshops, each HVRA was also assigned a relative importance or rank (Figure 3.3). Each HVRA and sub-HVRA, and its response function and relative importance, is described in detail in Section 3.4 of the ARRA report. That section describes the impacts that might occur to each HVRA as a result of varying levels of fire intensity (based on modeled flame length). Some HVRAs are expected to experience increasing potential loss with increasing fire intensities; for example, recreation and administrative sites are vulnerable to higher flame lengths, and therefore, the negative response function increases with flame length. Other HVRAs that are more hardened to wildfire with established defensible space (for example, oil well pads) have a very low response to fire and low potential loss. Forested carbon sequestration areas are very susceptible and sensitive to wildfire and therefore exhibit a strong negative response and potential loss at fire intensities over 8 feet.

Sometimes, within HVRAs there may be varying response functions based on the sub-HVRA type; for example, low-voltage power distribution lines constructed with wooden poles have a higher potential loss from fire compared with higher-voltage transmission lines that are constructed on metal pylons. Drinking water protection areas and their associated water facilities contributed 11% to the overall relative importance in the ARRA, demonstrating the importance that this resource has to communities. At high wildfire intensities, these resources have a very high potential for loss due to the potential post-fire impacts on the watershed.

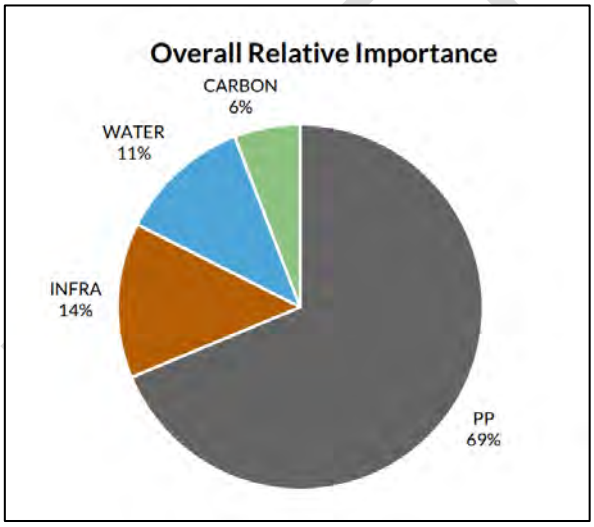

Figure 3.3. Overall HVRA relative importance included in the ARRA.

Source: Pyrologix (2021)

RISK ASSESSMENT RESULTS

The ARRA describes wildfire risk based on the conditional and expected change in value from wildfire disturbance to all HVRAs included in the analysis. The expected net value change (eNVC) has the added utility that it captures the relative likelihood of wildfire disturbance (burn probability), and therefore is the metric that is included in the CWPP. Burn probability is illustrated in Figure 3.4.

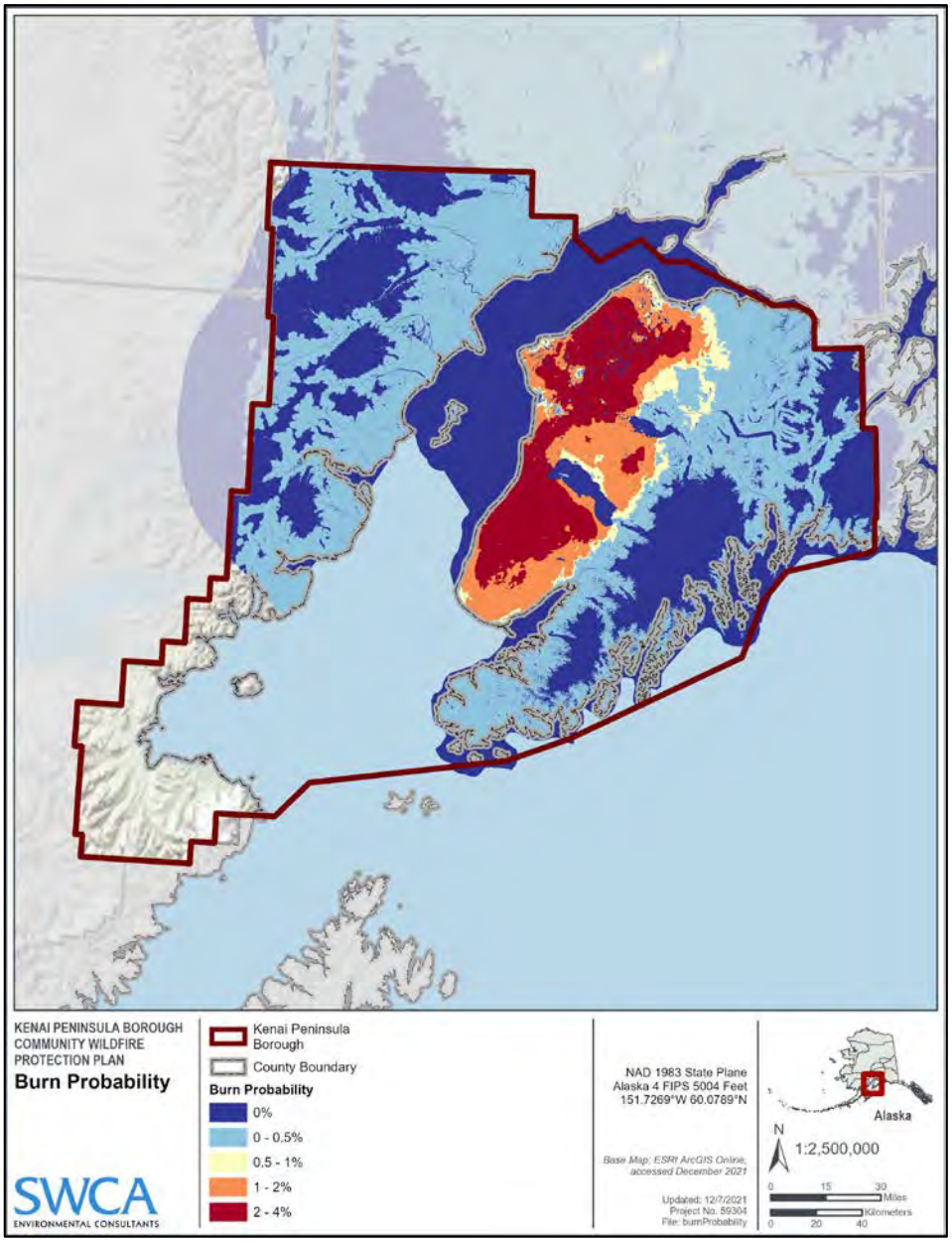

Figure 3.4. Map of integrated FSim burn probability.
Source: Pyrologix (2021)

Cumulative effects of wildfire across the landscape vary by HVRA, with a net negative eNVC for all the HVRAs. People and property show the greatest cumulative wildfire losses, followed by infrastructure, drinking water, and carbon as the HVRAs with the greatest cumulative risk (Pyrologix 2021) (Figure 3.5). Figure 3.6 illustrates the spatial spread of negative outcomes to HVRAs based on the likelihood of an HVRA being impacted by fire (burn probability).

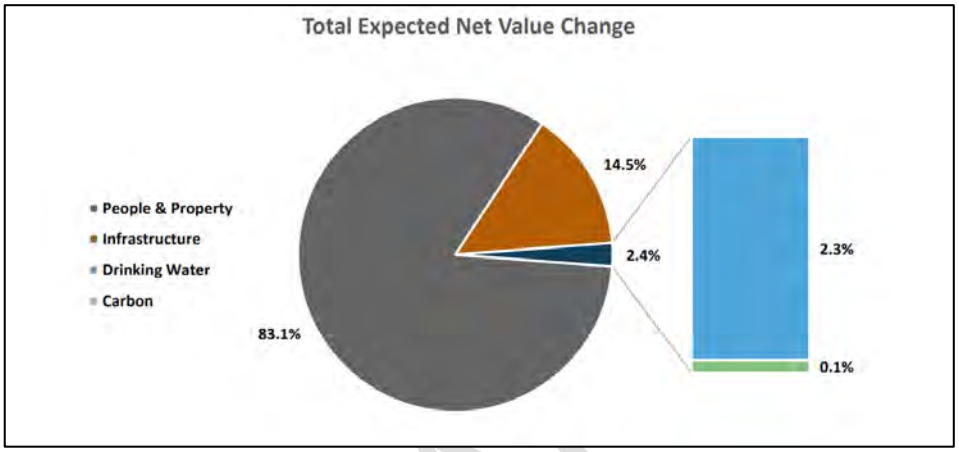

Figure 3.5. Weighted net response for HVRAs in the assessment listed in order of net value change and scaled to eNVC values for the people and property HVRA.
Source: Pyrologix (2021)

The ARRA assessment also provides an assessment of mean eNVC on a watershed scale (Figure 3.7). This metric can help to prioritize mitigation actions across the landscape by showing which watersheds house HVRAs that could experience the greatest potential loss.

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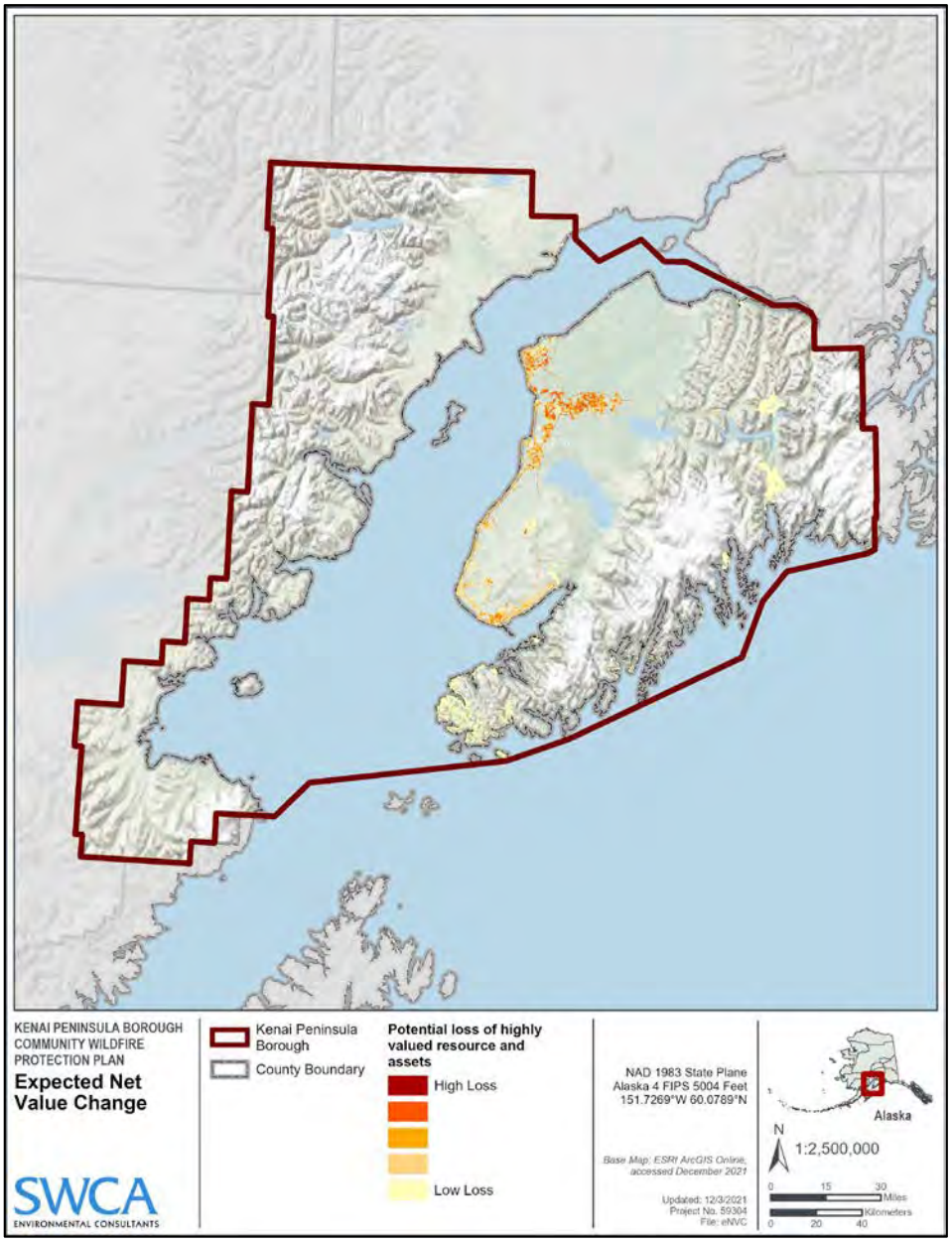

Figure 3.6. Map of eNVC for the KPB CWPP portion of the ARRA analysis area.
Source: Pyrologix (2021)

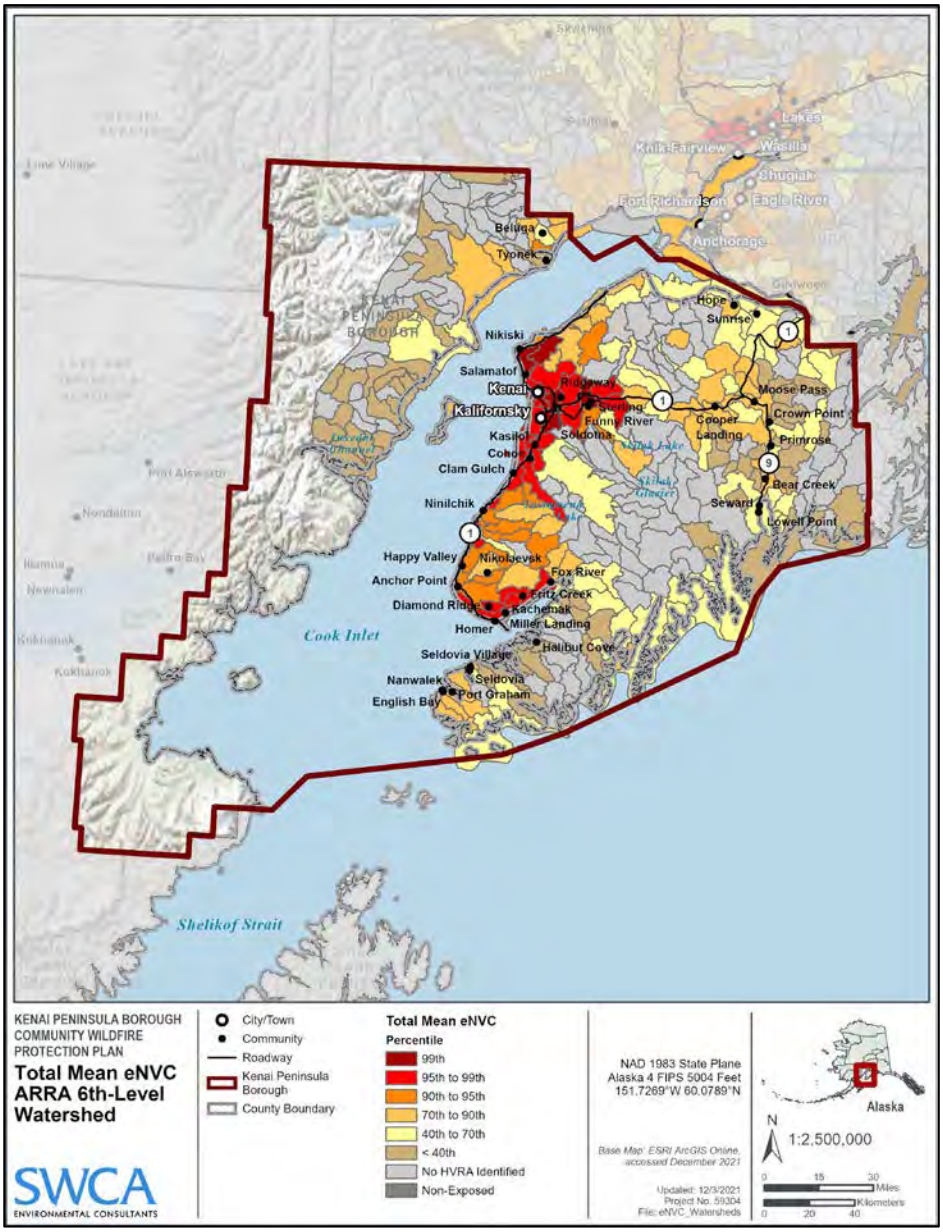

Figure 3.7. Map of total mean eNVC for the KPB CWPP portion of the ARRA Sixth-Level Watersheds.

Source: Pyrologix (2021)

COMMUNITY ASSESSMENTS

In order to properly assess the hazards in and around the Kenai Peninsula communities, several field days were implemented to carry out community assessments.

The assessment was conducted in summer 2021 using the NFPA Wildland Fire Risk and Hazard Severity Form 1144 (Appendix E). This form is based on the NFPA Standard for Reducing Structure Ignition Hazards from Wildland Fire 2013 Edition. The NFPA standard focuses on individual structure hazards and requires a spatial approach to assessing and mitigating wildfire hazards around existing structures. It also includes ignition-resistant requirements for new construction and is used by planners and developers in areas that are threatened by wildfire and is commonly applied in the development of Firewise Communities (for more information, see www.firewise.org).

Each area was rated based on conditions within the community and immediately surrounding structures, including access, adjacent vegetation (fuels), defensible space, adjacent topography, roof and building characteristics, available fire protection, and placement of utilities. Where a range of conditions was less easily parsed out, a range of values was assigned on a single assessment form. Each score was given a corresponding adjective rating of low, moderate, or high. An example of the assessment form used in this plan is in Appendix E.

The purpose of the community WUI assessment and subsequent hazard ratings is to identify fire hazard and risks and prioritize areas requiring mitigation and more detailed planning. These assessments should not be seen as tactical pre-suppression or triage plans. The community assessment helps to drive the recommendations for mitigation of structural ignitability, community preparedness, and public education. The assessment also helps to prioritize areas for fuels treatment based on the hazard rating.

The CAR hazard ratings from the community assessment and the GIS hazard/risk assessment are provided in Appendix D.

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Figure 3.8. Example of yard debris, a common finding of the 1144 assessments.

COMMUNITY VALUES

The ARRA incorporated data compilation of several HVRAs across the peninsula. In addition to those datasets, during CWPP meetings, the public and Core Team were invited to share their lists of resources and assets that they value in and around their communities (Figures 3.9 and 3.10). In addition to critical infrastructure, these community values can also include natural, social, and cultural resources. It is important to note that, although an identification of valued resources and assets can inform treatment recommendations, a number of factors must be considered in order to fully prioritize areas for treatment; these factors include appropriateness of treatment, land ownership constraints, locations of ongoing projects, available resources, and other physical, social, or ecological barriers to treatment.

The scope of this CWPP does not allow determination of the absolute natural, socioeconomic, and cultural values that could be impacted by wildfire in the planning area. In terms of socioeconomic values, the impact due to wildfire would cross many scales and sectors of the economy and call upon resources locally, regionally, and nationally.

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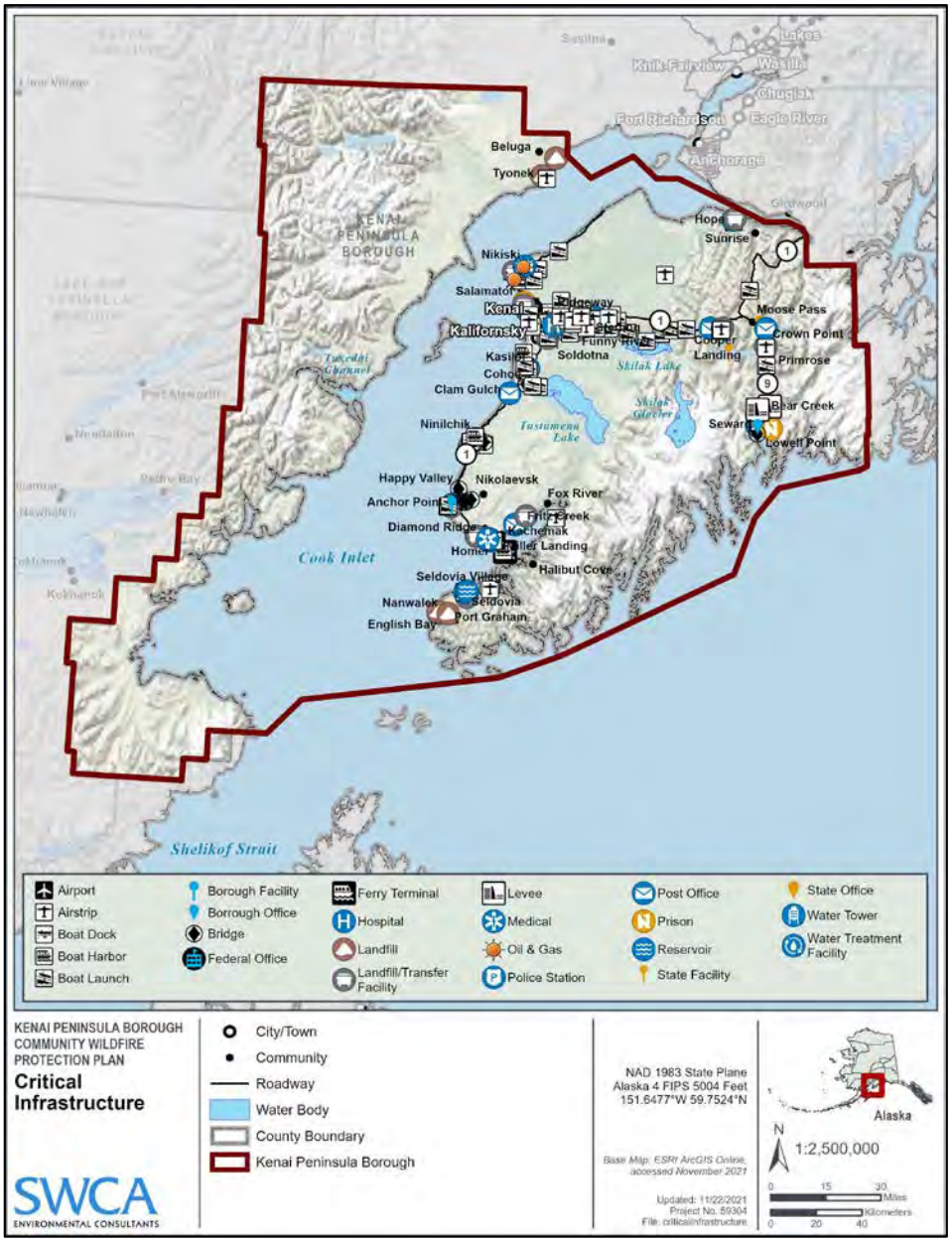

Figure 3.9. Critical infrastructure.

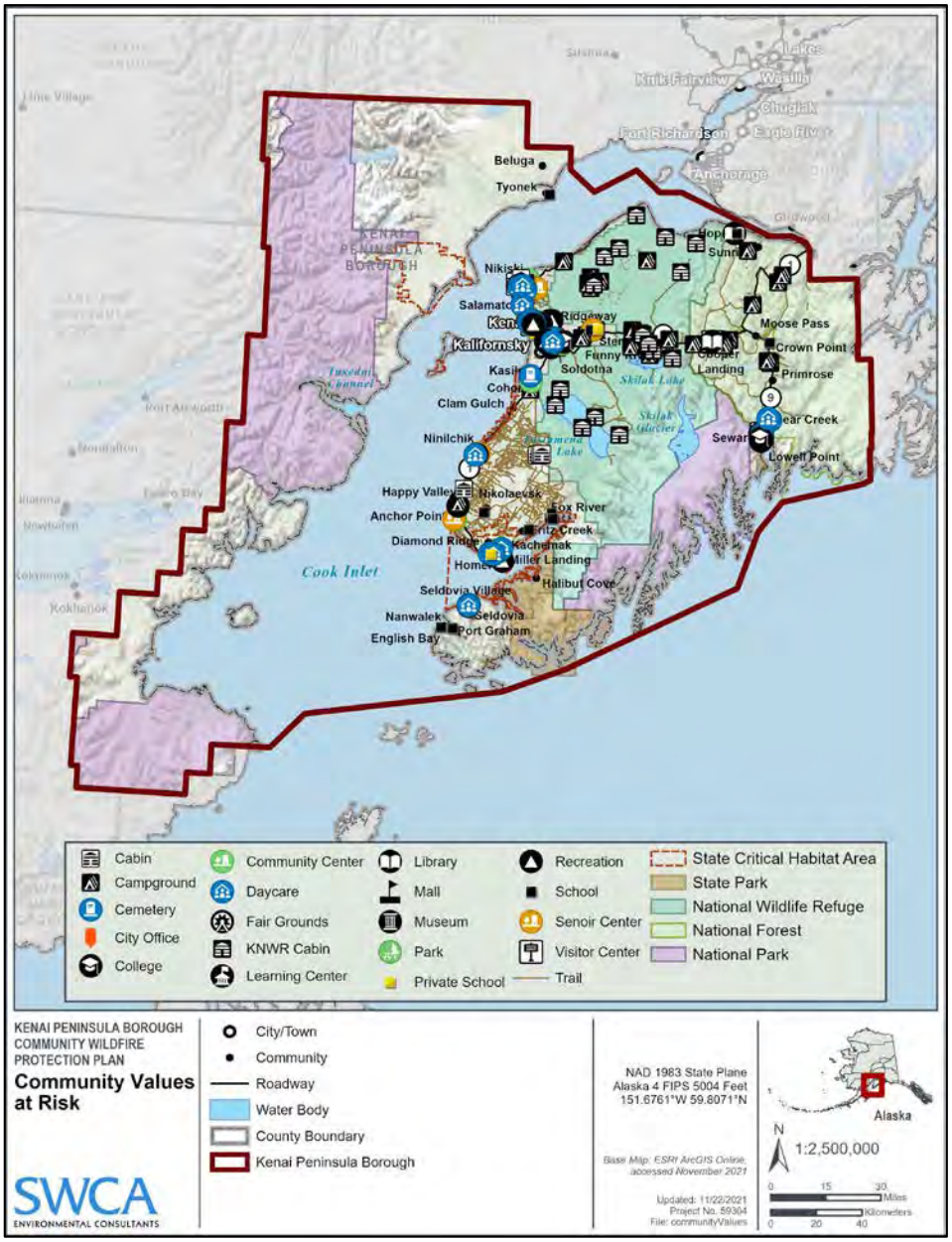

Figure 3.10. Community values across the Kenai Peninsula.

NATURAL VALUES

The CWPP planning area has a variety of natural resources of particular concern to land managers, such as rare habitats and listed plant and wildlife species. Public outreach throughout the planning area has emphasized the importance of natural/ecological values to the general public. Examples of natural values identified by the public and the Core Team include the following:

- Public land
- Hunting areas (Figure 3.11)
- Watersheds and water quality
- Agricultural land
- Forest land
- Wildlife habitat and game species



Figure 3.11. Example of natural values, hunting land and watersheds.

SOCIOECONOMIC VALUES

Socioeconomic values include population, recreation, infrastructure, agriculture, and the built environment. Much of the built environment in the planning area falls within the WUI zones that comprise the community assessments (Appendix D). Examples include the following:

- Pipelines
- Utility facilities
- Tourism (Figure 3.12)
- LMR system facilities
- Staging areas
- Docks and barge landings
- Highways and road systems
- Medical facilities
- Schools
- Water storage
- Fire departments
- Recreation sites



Figure 3.12. Example of a socioeconomic value, a historic café.

CULTURAL VALUES

Many historical landmarks are scattered throughout the planning area. Particular cultural values that have been identified by the Core Team and the public in the CWPP planning area are the following:

- Pit houses
- Gathering centers (e.g., Tribal center)
- Village corporations
- Archeological resources
- Village cemetery
- Coastal fishing camps
- Churches (Figure 3.13)
- Shirley Lodging Facility



Figure 3.13. Example of a cultural value, a church.

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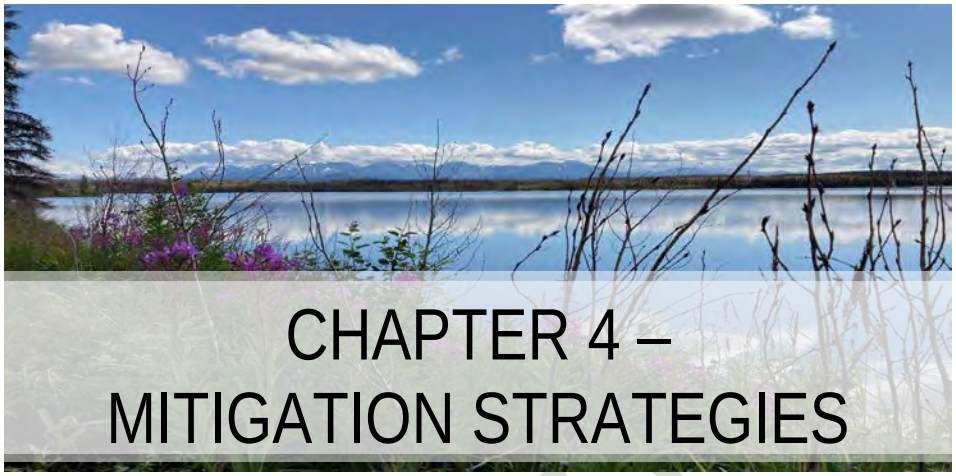

CHAPTER 4 – MITIGATION STRATEGIES

In developing this KPB-wide CWPP, the plan has been aligned with the Cohesive Strategy and its Phase III Western Regional Action Plan by adhering to the nationwide goal "*to safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire*" (Forests and Rangelands 2014:3).

In order to do this, the CWPP recommendations have been structured around the three main goals of the Cohesive Strategy: restoring and maintaining landscapes, fire-adapted communities, and wildfire response.

This chapter provides guidance for implementing recommendations under each Cohesive Strategy goal. Recommendations were developed based on input from Core Team, Tribal, and stakeholder meetings, including a unique stakeholder group focused on strategic infrastructure. Many of these community-specific recommendations can be implemented at the homeowner or community level. Projects requiring large-scale support should be prioritized based on the ARRA developed for the Borough.

COHESIVE STRATEGY GOAL 1: RESTORE AND MAINTAIN LANDSCAPES

Goal 1 of the Cohesive Strategy and the Western Regional Action Plan is **Restore and Maintain Landscapes**: Landscapes across all jurisdictions are resilient to fire and other disturbances in accordance with management objectives.

> *"Sustaining landscape resiliency and the role of wildland fire as a critical ecological process requires a mix of actions that are consistent with management objectives. The West will use all available methods and tools for active management of the landscape to consider and conserve a diversity of ecological, social, and economic values. The West will coordinate with all partners and seek continued stakeholder engagement in developing market-based, flexible and proactive solutions that can take advantage of economies of scale. All aspects of wildland fire will be used to*

restore and maintain resilient landscapes. Emphasis will be placed on protecting the middle lands near communities." (Western Regional Strategy Committee 2013:14).

Strategic actions listed within the ALAH Action Plan to serve the goal of **restoring and maintaining landscapes include** (KPB Interagency 2018):

- Develop methods to assist and inform private landowners with managing fuels.
- Promote prescribed fire certification and training to provide safe use of fire.
- Promote landscape-scale fuels management activities, such as prescribed fire and wildland fire, that address the creation and maintenance of resilient landscapes.
- Include fuels reduction and fire risk management activities into existing and future land management programs.
- Promote cost-effective, active forest management.

Forest managers in the region are addressing land management objectives through the use of mechanical and manual treatments to promote more resilient forest land. Figure 4.1 illustrates ongoing fuels management on the peninsula. Private, state, and federal lands are interspersed, creating a matrix of land ownership, which is often a hurdle to implementation of landscape-level treatments. By working with private landowners, forest managers are enhancing landscape-scale efforts to create more resilient forest communities.

In this CWPP, recommendations to restore and maintain landscapes focus on vegetation management and hazardous fuel reduction.

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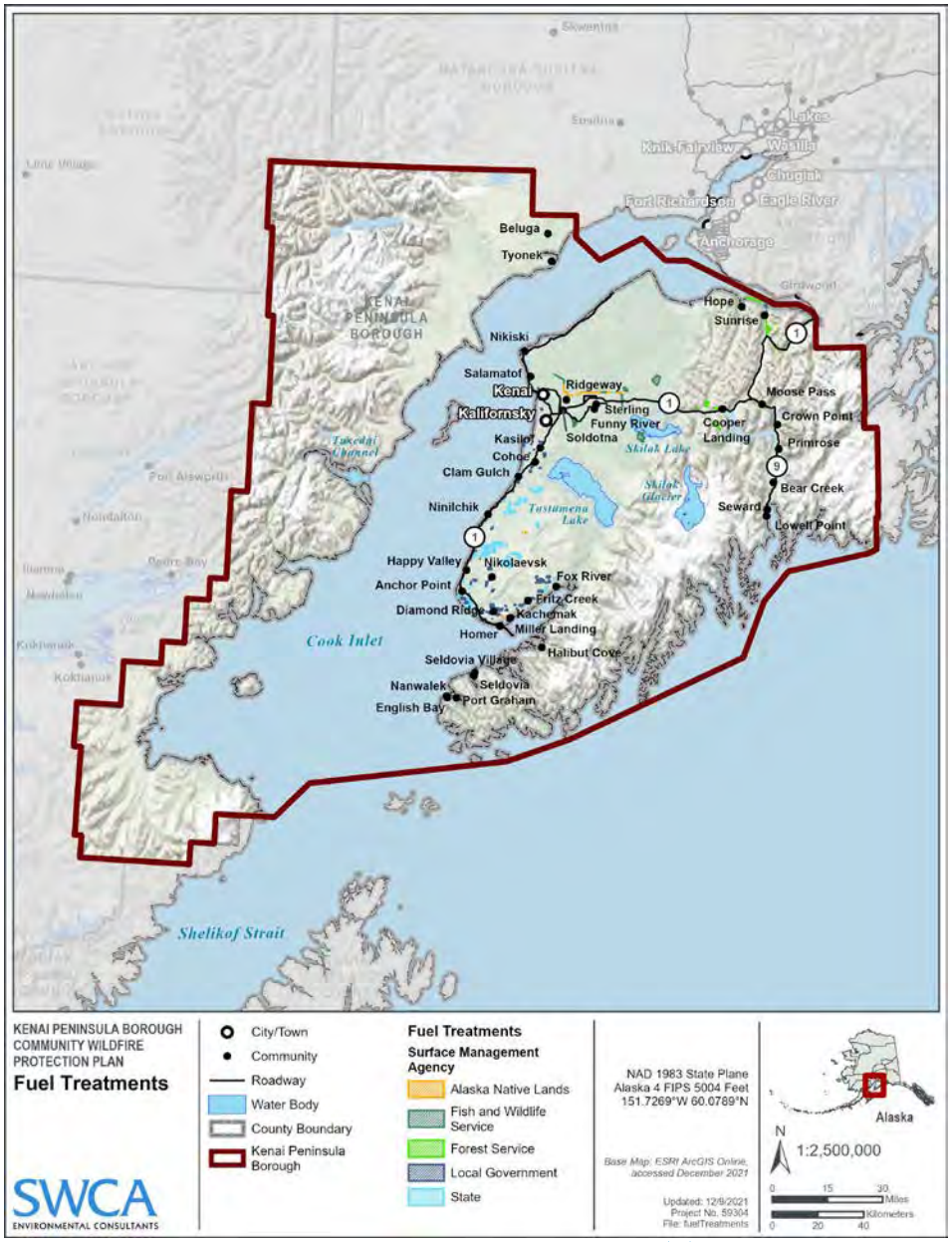

Figure 4.1. Ongoing fuel treatments implemented across the peninsula.

Commented [VA1]: Core Team- we understand at this scale the map is not very helpful. This data will also be presented in the story map, so data viewing will be far superior through that platform. We will likely remove this map from the document following review, we just wanted you all to see that it is available as a dataset. If we remove this map from the document we will add a reference to the story map so people know where to find this dataset.

RECOMMENDATIONS FOR HAZARDOUS FUEL REDUCATION

Fuels management of public and private land is key to the survival of structures during a wildfire event, as well as the means to meet the criteria of Goal 1, creating resilient landscapes. As wildfire frequency, size, destruction, and restoration costs have been on an incline, the need for wildfire mitigation via fuels treatment is at an all-time high (UAF 2018). The importance of fuels management is reflected in forest policy at the federal level, with the HFRA requiring that federal land management agencies spend at least 50% of their fuels reduction funds on projects in the WUI. In addition, various Alaskan studies have proven the success of fuels treatments regarding mitigating wildfire intensity and damage (UAF 2018).

A case study done in 2014 during the Funny River Fire concluded that fuel treatments were imperative in preventing fire spread. In addition, field samples and photographic evidence from the Eagle Trail (2010), Funny River (2014), Card Street (2015), and Nenana Ridge (2009 and 2015) Fires indicate fuel treatments resulted in lower fire behavior, increased accessibility, and decreased visual obstructions (due to fuel treatments such as canopy thinning). Furthermore, those treatments gave firefighters the ability to use treatments, such as fuel breaks, to anchor backfiring operations and burn out other treated areas (UAF 2018). Of the documented cases described in UAF (2018), all showed that fuel breaks in Alaska significantly alter fire behavior; fires in untreated areas grew to active crown fires, then dropped down to surface fire in the treated areas. However, fuel breaks alone may not stop a fire from advancing, so it is important to integrate multiple treatment methods (UAF 2018).

Fuels should be modified with a strategic approach across the planning area to reduce the threat that high-intensity wildfires pose to lives, property, and other values. Pursuant to these objectives, recommendations have been developed in the context of existing and planned fuels management projects. These recommendations initially focus on areas adjacent to structures (defensible space), then near community boundaries (fuel breaks, cleanup of adjacent open spaces), and finally in the wildlands beyond community boundaries (larger-scale forest health and restoration treatments).

While not necessarily at odds with one another, the emphasis of each of these treatment types is different. Proximate to structures, the recommendations focus on reducing fire intensity consistent with Firewise. Further into open space areas, treatments will tend to emphasize forest health and increasing resiliency to catastrophic wildfire and other disturbances, including SBB infestation. Cooperators in fuels management should include federal, state, and local agencies as well as interested members of the public. Federal land management plans focus on these more landscape-level treatments, so the CWPP incorporates most federal land management by reference to those land management planning documents. The CWPP focuses primarily on projects within or adjacent to WUI areas.

Table 4.1 summarizes the types of treatments recommended throughout the planning area, and Figure 4.2 delineates areas of concern where treatments should be prioritized. These areas of concern were delineated collaboratively during the fourth Core Team meeting and areas were identified based on stakeholder knowledge, connecting existing treatments (as illustrated in Figure 4.1) and delineating lands based on the ARRA findings. Areas projected in ARRA to have the greatest potential loss (eNVC) include HVRAs that are susceptible to intense wildfire behavior. Many of these areas are close to communities due to the density of HVRAs in those areas. These areas are delineated as areas of concern in Figure 4.3 so that land managers can prioritize fuel mitigation treatments to protect HVRAs.

Many of these treatment recommendations in Table 4.1 are general across the communities because similar conditions and concerns were raised for all communities that border wildland areas. Community-

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specific recommendations can be found in Appendix D, Community Descriptions. Table 4.1 also addresses the requirement for an action plan and assessment strategy by providing monitoring guidelines and a timeline for implementation. This timeline is obviously dependent on available funding and resources, as well as National Environmental Policy Act (NEPA) protocols for any treatments pursued on public land.

The treatment list is by no means exhaustive and should be considered purely a sample of required projects for the future management of the planning area. Many projects may be eligible for grant funds available from federal and/or state sources. A key source of funding for implementing hazardous fuel reduction are funds available through the Western Regional Action Plan, which is the reason this CWPP tiers to those goals. Because much of the wildfire risk is associated with extreme volumes of SBB infested, dead and dying trees, securing funding to address the ongoing outbreaks in these forests should be a significant focus for land managers. For an additional list of funding sources, please refer to Appendix F.

Each land management agency has a different set of policies governing the planning and implementation of fuels reduction projects. A thorough assessment of current fuel loading is an important prerequisite for any fuels prescription (see Figure 4.2 for an example of fuel loading), and all treatment recommendations should be based on the best possible science. When possible, simultaneously planning for the management of multiple resources while reducing fuels will ensure that the land remains viable for multiple uses in the long term. The effectiveness of any fuels reduction treatment depends on the degree of maintenance and monitoring that is employed. Monitoring will also ensure that objectives are being met in a cost-effective manner.

Fire management cannot be a one-size-fits-all endeavor; this plan is designed to be flexible. Treatment approaches and methods will be site-specific and should be adapted to best meet the needs of the landowner and the resources available. Moreover, each treatment recommendation should address protection of valued resources and assets, particularly the protection of threatened and endangered species.

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Figure 4.2. Swan Lake Fire area showing heavy downed trees and fuel loading.

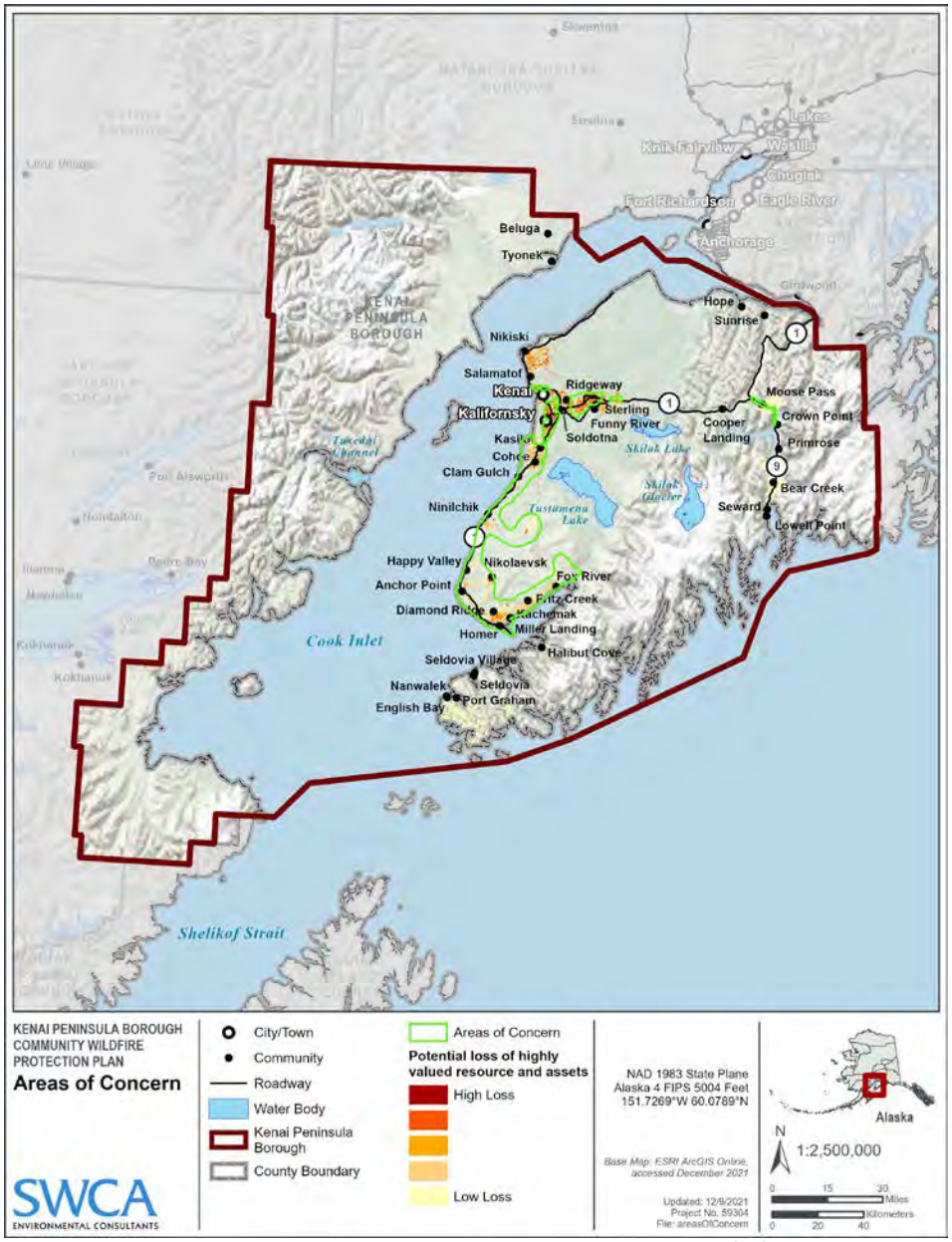

Figure 4.3. Areas of Concern where future fuel treatments should be prioritized.

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Table 4.1. Recommendations for Creating Resilient Landscapes (Hazardous Fuel Treatments)

Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Agencies prioritize treatments for hazardous fuel removal	• Kenai Peninsula Borough-wide • Area for high potential loss from the QWRA • Focus cost effective fuel management treatment in critical and full protection level areas identified in the Alaska Wildland Fire Management Plan (*from 2019 KPB HMP*) (Figure 4.2, Chapter 4)	State Forestry, Kenai Peninsula Borough	• Develop and implement a process for all levels of government to collaborate on annual selection of fuel treatment projects in their jurisdictions (*from 2019 KPB HMP*) • Focus cost effective silvicultural treatments in high human use areas to minimize public safety hazards, prevent or control additional SBB impacts and/or restore forest cover *(from 2019 KPB HMP*) • Utilize GIS tools and the QWRA to increase prioritization of treatments based on risk. • Look for opportunities to create landscape level treatments wherever possible. • Use a diverse toolbox of treatment types and tailor plans to specific site conditions. • Look for opportunities to create multiple resource benefits in addition to hazard reduction (wildlife habitat, invasive species control, recreation etc.). • Build in resource protection measures to prescriptions. • Build collaboration to increase potential funding sources and develop ownership. • Develop maintenance plans to ensure sustainability. • Develop monitoring plans and adaptive management to mitigate against harmful impacts on resources. • Promote the retention of hardwoods and desirable species/habitat when possible. • Increase public engagement to build community support for projects and facilitate efficient environmental compliance to advance implementation. • Identify tracks of fuel that are contiguous – address large tracts v individual lots	• Assess hazard mitigation opportunities to protect values at risk within areas of highest exposure potential • Create resilient landscapes	Ongoing	H	• Implement a monitoring program on initiation of each project • Utilize the NFPORS (National Fire Plan Operations & Reporting System) data base to enter, track and report planned and completed projects in KPB (*from 2019 KPB HMP*)	• Internal budgets • Fuel reduction agency grants • Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Firewise Communities • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center, Wildland Fire Prevention/Education • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Continue to maintain and expand the Strategic Fuel Break (also called the Sterling Fuel Break) across multiple jurisdictions (*Meets several goals of the 2019 KPB HMP- Table 3.5 and 3.6*)	Western extension Nikiski to Grey Cliffs (Figure 4.10, Chapter 4)	Multi-agency, cross boundary projects contingent on public/ private land ownership	• Continue to work with stakeholders and land managers to expand fuel break to serve communities in northern areas (Nikiski etc.). • Consider rebranding name to disassociate just with community of Sterling. • Continue maintenance on existing sections. • Evaluate maintenance schedules based on assessment of conditions. • Utilize the Quantitative Wildfire Risk Assessment (QWRA) in future expansion of the fuel break. Prioritize areas of high and extreme potential for loss. • Enhance community outreach on the fuel break, including regular status updates. Use the story map and other mediums to share information. • Utilize the potential Type 2 crew in fuel break construction, increasing the season for the crew. • Develop fuel break attributes and characteristics based on specific site conditions: assessment of wildfire risk, topography, vegetation communities and existing fuel conditions- ~300 ft break. • Identify costs and plan for long term maintenance (~$1K/acre for development)	• Protect life and property by mitigating extreme fire behavior and creating a barrier to fire spread	Ongoing (likely implementation would be during fall and winter months)	H	• Regular maintenance needed to ensure the fuel break remains clear of vegetation (+/- every 10 years). • Monitor for erosion and invasive species. • Incorporate habitat restoration into planning, especially consideration of impacts on anadromous streams.	• Agency budgets • Internal budgets • Fuel reduction agency grants • Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center, Wildland Fire Prevention/Education • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska
Disrupt fuel continuity by creating two fuel breaks on lower Peninsula: Tustumena West Fuel Break and Crooked Creek Caribou	•	•	•	•				

Commented [VA3]: Core Team- this was a project identified in the HMP. Lets discuss at the Core Team meeting.

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Remove standing dead trees on public and private property	Kenai Peninsula-wide	Public and Private land AK Dept of Public Safety	• Preferentially remove beetle killed trees that pose a hazard adjacent to homes or structures. • Work from structure outwards to edge of property line. • Remove slash and dispose of appropriately, following beetle slash protocols. • Consult with tree removal specialists (see "KPB Land Management- Kenai Peninsula Forestry Directory for qualified contractors"- Appendix X- Local Resources). • Remove hazard trees along trails and other public ROW. • Utilize best management practices outlined by the University of Alaska Cooperative Extension (see "Spruce Beetles – A Guide to Tree Management Options for Home and Woodlot Owners"- Appendix X- Local Resources). • Identify incentives to promote private operators to remove trees with removed trees as payment.	• Protect life and property by mitigating extreme fire behavior.	Ongoing	H	• Regular maintenance is required.	• Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation – Alaska • Western Bark Beetle Initiative Grant Program

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Enhance road ROW clearance to facilitate safe ingress and egress	Kenai Peninsula-wide	DOT, State Forestry, AK Dept of Public Safety, Kenai Peninsula Borough and municipalities	• Increase removal of dead trees located along State Highways and KPB road ROW to provide for safe egress along evacuation routes. • Utilize a new Type 2 crew or roads crew to carry out ROW treatments. • Tie to the QWRA, targeting areas identified as highest potential loss first. • Focus on main routes first, then move on to side roads based on priority in the risk assessment.	• Protect life and property by mitigating extreme fire behavior.	Start within 1 year, and make this an ongoing project	H	• Annual spring maintenance of ROW • ROW sizes vary. Develop protocols based on type of ROW being treated	• Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Community Development Block Grants – Mitigation – Alaska • Western Bark Beetle Initiative Grant Program
Increase workforce capacity to respond to hazardous fuel treatment needs	Kenai Peninsula-wide	USFS Kenai Peninsula Borough Chugachmiut/CIRI lands State Forestry	• Carryout a feasibility assessment for the creation of a hazardous fuels crew (State Type II Crew) with primary role of fuels management (secondary fire suppression role). See Fire Response Matrix for details. o Convene working group to complete feasibility assessment and identify administrative structure, budget and scope. • Use existing type 2 fire crews to work on fuel breaks and mitigation pre- and post-fire season to extend the season they work. • Develop industry support and incentives to hire forestry contractors to conduct treatments. • Use workforce development programs to increase supply of trained foresters.	• Increase capacity to address hazardous fuels and built resilient landscapes.	Within 1 year	H	• Annual review of progress, needs and accomplishments.	• Funding for Fire Departments and First Responders • Emergency Management Performance Grant (EMPG) • Regional Catastrophic Preparedness Grants • Volunteer Fire Assistance Program • Staffing for Adequate Fire and Emergency Response (SAFER) • Assistance to Firefighters Grants (AFG) • State and Private Forestry Programs – NASF • National Fire Protection Association • Alaska Firewise • Hazard Mitigation Planning Assistance • Community Assistance Program

Commented [EG4]: Core Team – throughout the entire matrix please review the projects where Kenai Peninsula Borough is listed as a lead agency and note if this is beyond the jurisdiction of the Borough. If this is beyond the jurisdiction, we could note that this recommendation would require a vote.

Brenda - Please note should this say KPB OEM instead of KPB?

Commented [VA5]: Core Team- John Winters provided an excellent summary of the factors that should be considered in forming this type of crew. My suggestion is this document is included as a deliverable with this plan to help move this recommendations forward. Does not need to be included in the document itself but can be included with project files. John, please advise.

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Strategically plan post-fire restoration projects to maximize future wildfire resilience on public and private lands	Kenai Peninsula-wide	State Forestry and Kenai Peninsula Borough	• Promote the use of the Forest Stewardship Program managed by the AK Department of Natural Resources, Division of Forestry, to assist private landowners with forest planning and on-the-groundwork. • Ensure that replanting areas do not unintentionally create fuel hazards in the future by including these projects in Forest Stewardship Plans (these plans have a 10-year outlook and follow the landowner's goals.) • Transplanting and planting • Integrate with Firewise landscaping • Utilize drones to identify areas of need • Utilize cooperative extension service	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities.	Start within 2 years, and make this an ongoing project	M	• Identify non-traditional participants like Cooperative Extension re UAF, etc.	• Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation – Alaska • Alaska Firewise

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Address existing limitations of slash disposal facilities (*Meets goal of the 2019 KPB HMP- Provide slash disposal sites near high-risk areas- Table 3.6)*	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough, Cities and Communities	• Form a multi-agency working group (maybe a committee under the ALAH group) to discuss options and solutions to this problem. • Identify an agency(s) to address slash disposal and build ownership in the solution. • Develop multi-strategy approach to disposal. Consider the following: o Capacity of existing facilities. o Installation of air-curtain incinerator in central location. o Initiating a “chipper days” campaign and schedule. o A mix of options- 1) mobile chipper taken to the community, 2) satellite geographic areas where slash is transported and dropped, 3) fenced/staff operated drop-off with fees, 4) fenced/staff operated drop-off without fees. o Potential need to contract chipper operator (liability concerns). o Potential market/use for chips- landscaping, trails, “mushers” for use in kennels. o Creating role for a new Type 2 team to help man the chipper and slash program. o Budget for managing chipper program. Charge nominal fee for slash disposal. o Utilize chips in trail construction as a means of disposing of green waste	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities. • Create and maintain accountability with local landowners. • Reduce fuel and debris that can carry ground fire around property where trees may have been removed.	Start within 1 year, and make this an ongoing project	H	• Regular review needed to determine whether facilities are meeting demand	• Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Hazard Mitigation Grant Program (HMGP) – Post Fire • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Community Assistance Program • Community Development Block Grants – Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Agencies to increase defensible space around publicly owned structures and infrastructure	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough, Cities and Communities	• Develop and adopt local land use plans and ordinances that provide maintenance of defensible space and fuel management on municipal and public property (*from 2019 KPB HMP*) • Defensible space will help increase protection of values at risk and to act as demonstration site for increasing public engagement in structure ignitability mitigation. • Utilize the QWRA to prioritize protection of areas modeled has having greater potential for loss. • Utilize the CWPP and public engagement to identify values at risk that they would like to see protected. • Identify state parcels that are located near strategic infrastructure and plan treatment near roadways and property lines.	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities.	Within 2 years	H	• Carry out a 2-year review of accomplishments in improving defensible space across the Borough	• Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • National Fire Protection Association • National Interagency Fire Center • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Community Development Block Grants – Mitigation - Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Initiate campaign to encourage defensible space actions on private lands	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough, Cities and Communities to promote action by residents	• Defensible space will help increase protection of life and property. • Utilize the QWRA to outreach to the public the areas that should be prioritized for protection based on modeled potential loss. • Provide educational materials and outline available resources. • Consider use of incentives to encourage participation in campaign (i.e., tax incentives, working with insurance agents on reduced premiums etc.)	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities. • Building fire adapted communities • Facilitate safe deployment of fire suppression resources	Within 2 years	H	• Carry out a 2-year review of accomplishments in improving defensible space in WUI areas across the Peninsula.	• Firewise Communities • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center, Wildland Fire Prevention/Education • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • The National Fire Plan (NFP) • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation – Alaska Firewise
Plan for increased grass fuel fire regimes	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough	• Build into long-term planning the potential for the Borough to exhibit more of a grass fuel fire regime as large areas of timber are removed in large fires. This cover type change would increase fire frequency and fire suppression resource needs and tactics. • Identify how these new fuels will impact fire season (longer) or months of year this fuel is susceptible to extreme fire spread	• Prepare for more resilient landscapes and address potential for extreme wildfire behavior in and around communities.	Start within 1 year, and make this an ongoing project	M	• Identify as an agenda item for discussion annually by the ALAH group.	• Pre-disaster Mitigation (PDM) Grant Program • General Assistance Program • Multipurpose Grants to States and Tribes • Environmental Quality Incentives Program (EQIP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Catalog of Federal Funding Sources; Land Resources • Matching Awards Program • U.S. Endowment for Forestry and Communities • Hazard Mitigation Planning Assistance

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Increase capacity for use of prescribed fire	Kenai Peninsula-wide	ADGF State Forestry	• Form a working group to explore options for collaboration and increased application of fire into existing management practices and strategies (maybe a committee under the ALAH group). • Prescribed fire needs to occur at same time as wildfire for optimum benefits. • Develop and train interagency prescribed burn team (*from 2019 KPB HMP*) • Increased crew capacity would allow prescribed fires to continue even during active fire seasons. • Expand the use of crews beyond the Peninsula. • Utilize inter-agency burn crews (include local FD's and VFD's).	• Create resilient and fire adapted landscapes and address potential for extreme wildfire behavior in and around communities.	Within 5 years	H	• Review progress annually • Number of acres treated • Number of agencies collaborating	• Funding for Fire Departments and First Responders • Emergency Management Performance Grant (EMPG) • Volunteer Fire Assistance Program • Staffing for Adequate Fire and Emergency Response (SAFER) • Assistance to Firefighters Grants (AFG) • State and Private Forestry Programs – NASF • National Fire Protection Association • Matching Awards Program • Serve Alaska • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska
Continue to promote wildlife habitat improvements through forest management	Kenai Peninsula-wide	ADGF State Forestry	• Increase promotion of the use of prescribed fire for moose habitat • Utilize science-based literature from agencies • Utilize literature that shows multiple wildlife benefits • Reforest/restore burn areas for wildlife habitat improvements. • Address "shrubification" concerns- shrubs moving to higher elevations and encroaching on alpine tundra. • Highlight the perils of returning to a suppression era on wildlife habitat. • Utilize science on beetle infestations. • Continue to buffer WUI communities so that wildfire can play a larger role in the broader landscape.	• Protection of wildlife habitat	Ongoing	H	• Review progress annually • Identify metrics and monitor accomplishments in promoting wildlife habitat	• Pre-disaster Mitigation (PDM) Grant Program • General Assistance Program • Multipurpose Grants to States and Tribes • Environmental Quality Incentives Program (EQIP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Catalog of Federal Funding Sources; Land Resources • Emergency Forest Restoration Program (EFRP) • The National Fire Plan (NFP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation – Alaska • Western Wildland-Urban Interface (WUI) Grants • Western Bark Beetle Initiative Grant Program • Community Development Block Grants – Disaster Recovery - Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Collaboratively plan for vegetation management treatments that serve a demand for increasing recreation opportunities	Kenai Peninsula-wide	ADGF State Forestry USFS State Div. of Parks City rec depts.	• Plan for mutually beneficial goals by coordinating fire and vegetation management with recreation to build public support. • Work with utility companies to seek opportunities to create recreational spaces in existing or proposed ROW. • Utilize dozer lines (fire suppression actions) for recreation and increased access for fire protection. • Develop new recreational trails strategically to provide for increased access for fire suppression. • Integrate with stewardship planning • Address hazard trees on trails and ROW to enhance public safety • Identify and work with communities interested in recreational use and fuel breaks- Cooper Landing, Moose Pass, Hope, Sunrise, Seward, Homer.	• Create mutual benefits for hazardous fuels treatments.	Ongoing	H	• Review progress annually • Update and revise plans annually	• State Parks funding • NRCS EQUIP • Pittman-Robinson dollars can be used on trails and fuel breaks • Look for cost-match opportunities- i.e., utilizing Chugachmiut crews. • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Pre-disaster Mitigation (PDM) Grant Program • Staffing for Adequate Fire and Emergency Response (SAFER) • Assistance to Firefighters Grants (AFG) • State and Private Forestry Programs – NASF • Firewise Communities • National Fire Protection Association • National Interagency Fire Center, Wildland Fire Prevention/Education • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation – Alaska • Alaska Firewise
Reinvigorate timber industry to provide market for lumber removed through treatments. (*Meets goal of the 2019 KPB HMP- Decrease fuels in high-risk areas-Table 3.6*)	Kenai Peninsula-wide	Commercial Industry KPB Planning Dept	• Form a working group to explore options for building and maintaining a forest industry (maybe a committee under the ALAH group). • Complete a feasibility study for markets, infrastructure, and transportation. • Improve technical assistance program to promote commercial uses for fuel reduction materials (*from 2019 KPB HMP*) • Look for market options for beetle killed trees- i.e., harvest dead white spruce prior to rot so as to maximize value. • Develop plan for shipping/transit out of state. • Coordinate federal, state, and local efforts to provide public firewood cutting areas as a means to reduce potential wildfire fuel sources by taking dead and downed trees (*from the 2019 KPB HMP*)	• Reduce hazardous fuel loads and increase future resiliency against continued beetle outbreaks.	Over next 10 years	M	• Incentives likely at first to develop the system	• Funds: federal infrastructure spending • Pre-disaster Mitigation (PDM) Grant Program • Building Resilient Infrastructure and Communities (BRIC) program • RAISE Discretionary Grants • Rural Opportunities to Use Transportation for Economic Success (ROUTES) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Western Bark Beetle Initiative Grant Program • Community Assistance Program

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Work with utilities/ infrastructure entities to address wildfire risk along utility/infrastructure ROW (see Strategic Infrastructure Recommendation Matrix [Table X] for more recommendations related to infrastructure resilience).	Along ROWs & utility easements	Utilities, Energy Industry and associated landowners	• Developed fire management plans for utilities focused on vegetation management, infrastructure hardening, situational awareness etc. • Look for opportunities to provide multiple benefits from ROW clearance and maintenance – recreation, fire suppression access etc. • Index different types of ROW's & develop specific treatment protocols • Accompany fire management and fuels treatment plans with strategies to address debris removal and maintenance. • Deploy resources to ensure ROW and utilities are maintained • Identify policy incentives for utilities to invest in aggressive ROW clearing	• Increase security afforded by transportation, electricity, communications & natural gas. • Reduce potential ignitions in the WUI. • Enhance fire suppression tactics	Within 1 year	H	• Maintenance and monitoring plans	• Company budgets • Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • General Assistance Program • Public Assistance Grant Program • Emergency Forest Restoration Program (EFRP) • Matching Awards Program • U.S. Endowment for Forestry and Communities • Firewise Communities • The Urban Land Institute (ULI) • The National Fire Plan (NFP) • Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Serve Alaska • Environmental Quality Incentives Program (EQIP) • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Community Development Block Grants – Mitigation - Alaska
Streamline grant management	Kenai Peninsula-wide	Kenai Peninsula Borough State Forestry Conservation Districts	• Develop and implement consistent and effective procedures for procurement, contracting, grants and agreements to support interagency projects (*from 2019 KPB HMP*) • Use one agency to manage grants for fuels treatments on all lands instead of having each agency competing for grant monies • Establish KPB internet-based information system to ID funding opportunities (*from 2019 KPB HMP*) • Assign 1 person or agency to monitor funding opportunities, prepare application assistance for grant monies and coordinate with other agencies	• Increase capacity and leverage agency resources	Within 2 years	H	• Annual review of progress, needs and accomplishments.	• Agency Budgets • Community Assistance Program

Commented [VA6]: Core Team, we have developed a separate matrix that focuses specifically on infrastructure protection.

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Fuels Treatment Scales

Defensible Space

Defensible space is perhaps the fastest, most cost-effective, and most efficacious means of reducing the risk of loss of life and property. Although fire agencies can be valuable in providing guidance and assistance, creating defensible space is the responsibility of the individual homeowner (Figure 4.4).

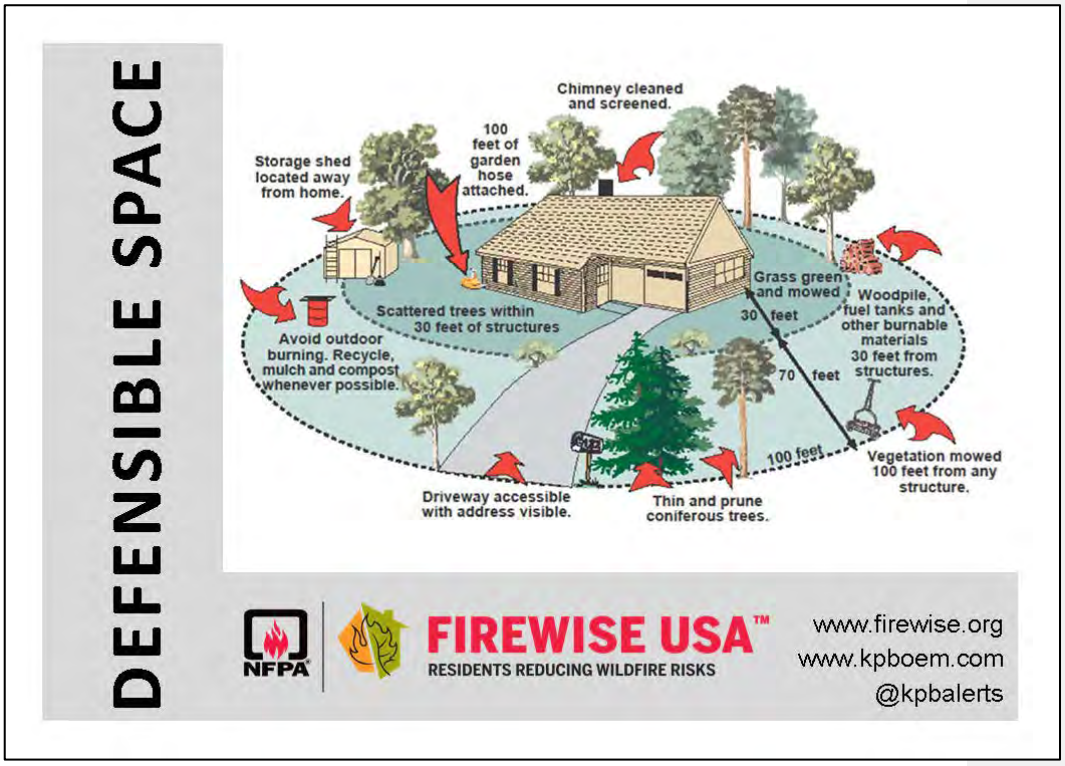

Figure 4.4. Defensible space providing clearance between a structure and adjacent woodland or forest fuels.

Source: Alaska Firewise

Effective defensible space consists of creating an essentially fire-free zone adjacent to the home, a treated secondary zone that is thinned and cleaned of surface fuels, and (if the parcel is large enough) a transitional third zone that is basically a managed forest area. These components work together in a proven and predictable manner. Zone 1 keeps fire from burning directly to the home; Zone 2 reduces the adjacent fire intensity and the likelihood of torching, crown fire, and ember production; and Zone 3 does the same at a broader scale, keeping the fire intensity lower by maintaining a more natural, historic condition (Figures 4.4 and 4.5).

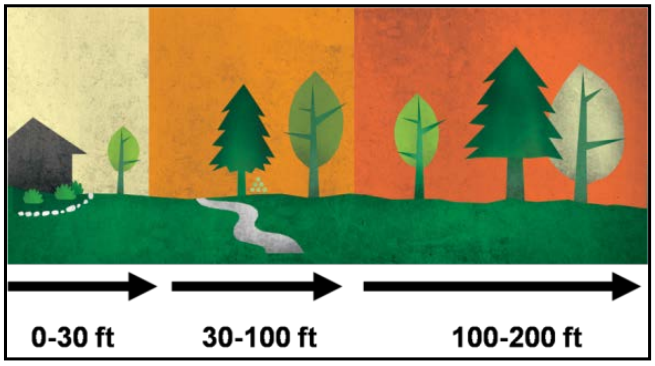

Figure 4.5. Defensible space zones.
Source: www.firewise.org.

Three zones for defensible space actions are described below:

Zone 1: This zone, which consists of an area of 0 to 30 feet around the structure, features the most intense modification and treatment. This distance is measured from the outside edge of the home's eaves and any attached structures, such as decks. Do not plant directly beneath windows or next to foundation vents. Frequently prune and maintain plants in this zone to ensure vigorous growth and a low growth habit. Remove dead branches, stems, and leaves. Do not store firewood or other combustible materials in this area. Enclose or screen decks with metal screening. Extend gravel coverage under the decks. Do not use areas under decks for storage. Prune low-lying branches (ladder fuels that would allow a surface fire to climb into the tree) and any branches that interfere with the roof or are within 10 feet of the chimney. In all other areas, prune all branches of shrubs or trees up to a height of 10 feet above ground (or one-third the height, whichever is the least).

Zone 2: This zone features fuel reduction efforts and serves as a transitional area between Zones 1 and 3. The size of Zone 2 depends on the slope of the ground where the structure is built. Typically, the defensible space should extend at least 100 feet from the structure. Remove stressed, diseased, dead, or dying trees and shrubs, following guidance from forestry professionals (Appendix G). Thin and prune the remaining larger trees and shrubs. Be sure to extend thinning along either side of your driveway all the way to your main access road. These actions help eliminate the continuous fuel surrounding a structure while enhancing home site safety and the aesthetics of the property. Keep grass and wildflowers under 8 inches in height. Regularly remove leaf and needle debris from the yard.

Zone 3: This area extends from the edge of your defensible space to your property boundaries. The healthiest forest is one that has multiple ages, sizes, and species of trees where adequate growing room is maintained over time, so maintain a distance of at least 10 feet between the tops of trees. Remove ladder fuels, creating a separation between low-level vegetation and tree branches to keep fire from climbing up trees. A greater number of wildlife trees can remain in Zone 3, but regularly remove dead trees and shrubs. Ensure trees in this area do not pose a threat to power lines or access roads.

It should be emphasized that defensible space is just that—an area that allows firefighters to work effectively and with some degree of safety to defend structures. While defensible space may increase a home's chance of surviving a fire on its own, a structure's survival is not guaranteed, with or without

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firefighter protection. Nevertheless, when these principles are consistently applied across a neighborhood, everybody benefits.

Specific recommendations should be based on the hazards adjacent to a structure such as slope steepness and fuel type. Firewise guidelines and the Homeowner's Guide (Appendix G) are excellent resources but creating defensible space does not have to be an overwhelming process. The National Fire Protection Association (NFPA) offers a free Community Wildfire Risk Assessment Tutorial and an online learning module, Understanding the Wildfire Threat to Homes. Both tools are great resources for learning about, and implementing, defensible space.

Assisting neighbors in defensible space activities may be essential in many cases in order to expand the extent of treatments on private lands. Homeowners should consider assisting the elderly, sharing ladders for gutter cleaning, and assisting neighbors with large thinning needs. Homeowner actions have been found to also motivate neighbors to act, increasing the scope of the wildfire mitigation across a community (Evans et al. 2015). The DOF has been tracking homeowners' activities related to defensible space. Figure 4.6 shows the number of completed homeowners' defensible space activities beginning in 2015 and through 2021. This information conveys that many residents are already taking responsibility for mitigating their own properties, but more work is needed in order to provide greater effect on fuels in the WUI (Figure 4.7).

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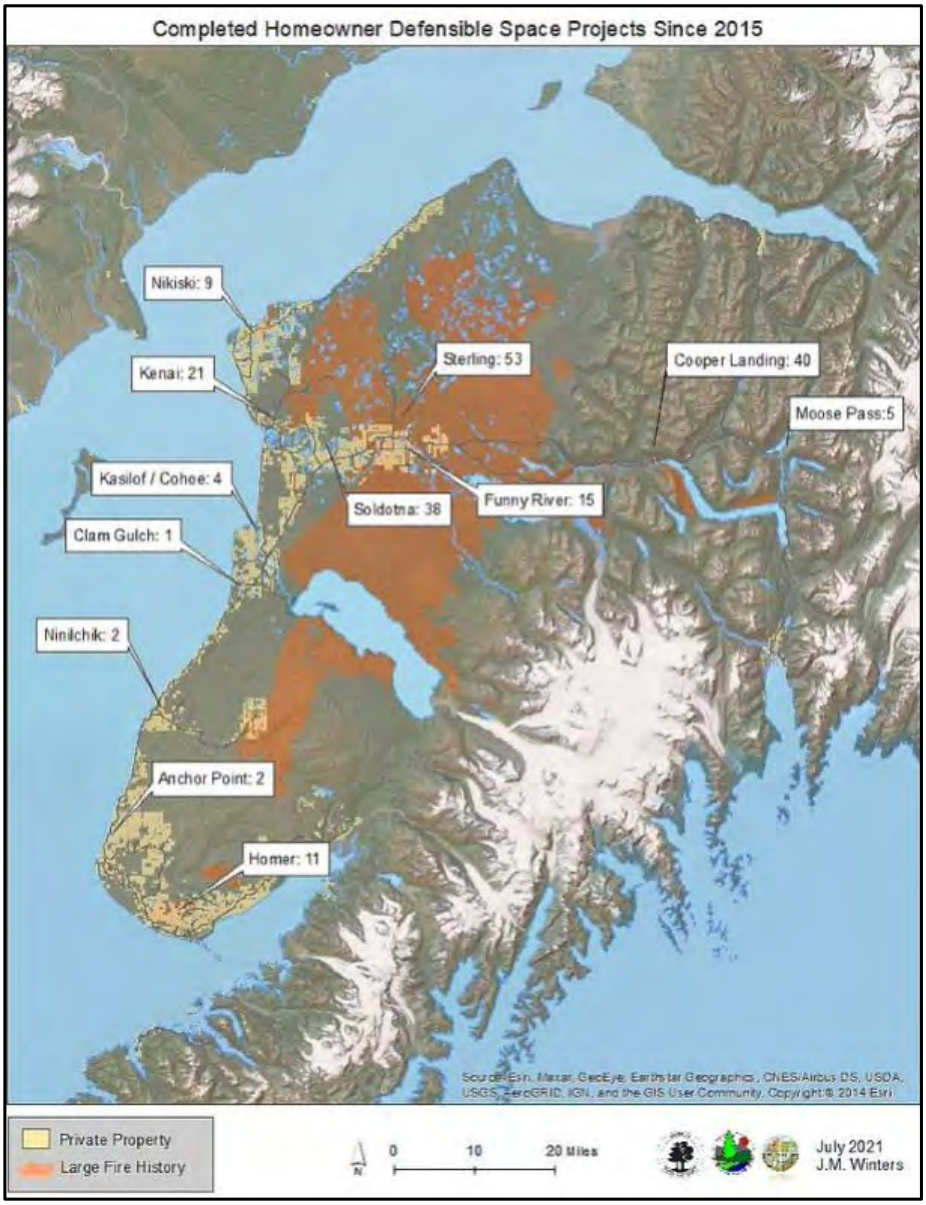

Figure 4.6 Homeowner Defensible Space from 2015 through 2021.
Source: DOF.



Figure 4.7. Example of poor defensible space.

Adopting a phased approach to home hardening can make the process more manageable and encourage maintenance (Table 4.2).

Table 4.2. Example of a Phased Approach to Mitigating Home Ignitability

Year	Project	Actions
1	Basic yard cleanup (annual)	Dispose of clutter in the yard and under porches. Remove dead branches from yard. Mow and rake. Clean off roofs and gutters. Remove combustible vegetation near structures. Coordinate disposal as a neighborhood or community. Post 4-inch reflective address numbers visible from road.
2	Understory thinning near structures	Repeat basic yard cleanup. Limb trees up to 6–10 feet. Trim branches back 15 feet from chimneys. Trim or cut down brush. Remove young trees that can carry fire into forest canopy. Coordinate disposal as a neighborhood or community.
3	Understory thinning on private property along roads and drainages	Limb trees up to 6–10 feet. Trim or cut down brush. Remove young trees that can carry fire into forest canopy. Coordinate disposal as a neighborhood or community.
4	Overstory treatments on private property	Evaluate the need to thin mature or diseased trees. Prioritize and coordinate tree removal within neighborhoods to increase cost effectiveness.

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Year	Project	Actions
5	Restart defensible space treatment cycle	Continue the annual basic yard cleanup. Evaluate need to revisit past efforts or catch those that were bypassed.

Fuel Breaks

Fuel treatments are methods for controlling live and dead vegetation with the purpose of minimizing the negative impacts of an area burning during a wildfire. While fuel breaks are a suitable tool for mitigating fire spread in this fuel type, land managers are cautioned that fuel breaks will not always stop a fire under extreme fire behavior or strong winds; these should only be seen as a mitigating measure and not a fail-safe method for fire containment. Furthermore, fuel break utility is contingent upon regular maintenance, as regrowth in a fuel break can quickly reduce its effectiveness and vegetation in this ecosystem is known to quickly re-sprout and reestablish. Maintenance of existing breaks could be more cost efficient than installation of new features.

Well-managed fuels reduction projects often result in ecological benefits to wildlife and watershed health. Simultaneously, planning and resource management efforts should occur when possible while reducing fuels to ensure that the land remains viable for multiple uses in the long term. For example, fuel breaks could be aligned with existing areas of ROW clearance by working with utility companies and combining resources. Similarly, fuel breaks could be developed in conjunction with recreational trails to serve multiple purposes and provide access to the community. The effectiveness of any fuels reduction treatment will increase over time with a maintenance and monitoring plan. Monitoring will also ensure that objectives are being met in a cost-effective manner.

It is not possible to provide a standard treatment prescription for the entire landscape because fuel break dimensions should be based on the local fuel conditions and prevailing weather patterns. For example, in some areas, clearing an area too wide could open the landscape to strong winds that could generate more intense fire behavior and/or create wind throw. Fire behavior in the CWPP planning area has been modeled as part of the QWRA. This assessment provides estimates of flame length and other fire behavior; the information should be used by land managers when prescribing treatments.

Strategic placement of fuel breaks is critical to prevent fire from moving from wildland fuels into adjacent neighborhoods. For effective management of most fuels, fuel breaks should be prescribed based on the conditions in each particular treatment area. Some examples of this would be to place fuel breaks in areas where fuels are heavier or in areas with easy access for fire crews. In areas where the vegetation is discontinuous, fuel treatments may not be necessary. In this situation it is best to leave the site in its current condition to avoid the introduction of more flammable, exotic species which may respond readily following disturbance.

Fuel Breaks on the Peninsula

The use of fuel breaks is well practiced across the Borough, with several large fuel break projects in place or in planning. The majority of fuel treatments in Alaskan communities have been inserted as firebreaks (a section of bare, open space to stop the spread of fire) or fuel breaks (a section of vegetation that has been modified to decrease fire behavior) (UAF 2018). The idea is that fuel treatments that reduce fuel loading or alter fuel properties can result in modifications in fire behavior such as limiting a fire to the surface as opposed to a canopy fire (UAF 2018). Lower intensity surface fires may even be beneficial to the ecosystem and allow for improved firefighter access.

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Fuel treatments can have a wide range of impacts on the local ecosystem, including unintended impacts. For instance, a study by the UAF and USFS, *Evaluating Fuel Treatments in Alaska* (the study) (UAF 2018), found that a couple sites receiving cleared fuel breaks experienced surface drying, increased flammable surface fuels, and higher mid-flame windspeeds. Another important finding of the study was that fuel breaks can result in unintended tree damage and loss. Pruning punctures and thinning shock increase susceptibility to insect infestation and increases the risk of tree mortality. Additionally, the degree of change in understory plant communities is influenced by fuel treatment type. For example, the study found that significant vegetation shifts occurred with a higher frequency in cleared breaks than in shaded breaks.

Removing or significantly reducing canopy cover alters the ecology of the treated landscape. Negative impacts such as the growth of light and flashy fuels, thawing of the permafrost layer, and increasing tree susceptibility to wind and insect infestation have been noted in treated areas. Therefore, fuel treatments should be planned to keep as much of the canopy cover as possible to shade the understory, decrease wind speeds, and decrease the potential growth of light and flashy fuels. The study determined that a maximum spacing of 8 × 8 feet with pruning from below in interior Alaskan black spruce forests could decrease the potential negative ecological effects of fuel treatment while maintaining the positive benefits of lowering canopy fire potential and allowing for easier fire response access. The study also discovered that rates of spread were often higher in cleared breaks (canopy removal) relative to shaded fuel breaks in white spruce hardwood stands. They also detected the shift from timber understory to a grass and shrub community, with the associated increased rates of spread and flame lengths due to the nature of the new fuels.

Models gauging the effect of fuel breaks on fire behavior indicate that changes to fire behavior persist as much as 14 years post treatment, specifically in interior Alaskan black spruce forests. (UAF 2018). The models were executed under average summer conditions and drier summer conditions; both scenarios showed that fuel treatment lowered fire behavior properties, including rate of spread, flame length, and Fireline intensity (UAF 2018). Overall, the study found that fuel treatments minimize fire behavior potential under a range of weather conditions; however, benefits start decreasing with increasing wind speed. It should also be noted that fuel treatments, particularly around communities, should not be expected to stop a fire without human intervention. Instead, fuel treatments should be planned and implemented within a cohesive fire suppression plan or CWPP that details how the treated area will be utilized to assist fire suppression efforts.

Maintenance of fuel treatments on a consistent schedule will allow for treatments to retain the properties required for reducing fire behavior potential. UAF's 2018 modeling results indicate that changes to fire behavior remain as long as 14 years after treatment, particularly in interior Alaskan black spruce forests. Therefore, UAF (2018) recommends fuel treatments maintenance on a 10- to 15-year period, although slow-growing interior black spruce stands may necessitate longer maintenance periods. UAF (2018) also recommends fuel treatments to be arranged and maintained within a broad fire management plan that details how the treated areas will be utilized by fire personnel in the event of advancing wildfires and the frequency of treatment maintenance.

An example of a recent fuel break on the KPB is the Sterling Fuel Break. The fuel break has been under construction since 2016, and in 2020, the fuel break covered approximately 12 miles along the WUI between Sterling and the Kenai Wildlife Refuge. The fuel break is around 300 feet wide and was constructed using an assortment of methods, equipment, and resources. The next phase of the project is a proposed extension, named the Kenai Fuel Break. This break would be around 8 miles long and 300 feet wide, situated on Kenai Wildlife Refuge land roughly 8 miles northwest of the community of Kenai, and connecting an area between Marathon Road and Spirit Lake, buffering the Homer Electric

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and Enstar natural gas utility corridor. The proposed area for the Kenai Fuel Break is unique in that the area has a large amount of beetle-killed spruce trees; treatment of these areas would require felling of dead trees (USFWS 2020a).

Fuel Breaks and Open Space Cleanup

The next location priority for fuels treatments should be where the community meets the wildland. This may be the outer margins of a town or an area adjacent to occluded open spaces such as a park. Fuel breaks (also known as shaded fuel breaks) are strips of land where fuel (for example living trees and brush, and dead branches, leaves or downed logs) has been modified or reduced to limit the fire's ability to spread rapidly (Figure 4.8). Fuel breaks should not be confused with firebreaks, which are areas where vegetation and organic matter is removed down to mineral soil. Shaded fuel breaks may be created to provide options for suppression resources or to provide opportunities to introduce prescribed fire. In many cases, shaded fuel breaks may be created by thinning along roads. This provides access for mitigation resources and firefighters, as well as enhancing the safety of evacuation routes.



Figure 4.8. Shaded fuel break area with deciduous regrowth.

Larger-scale Treatments

Farther away from WUI communities, the emphasis of treatments often becomes broader. While reducing the buildup of hazardous fuels remains important, other objectives are often included, such as forest health and resiliency to catastrophic wildfire and climate change considerations. Wildfires frequently burn across jurisdictional boundaries, sometimes on landscape scales. As such, these larger treatments need to be coordinated on a strategic level. This requires coordination between projects and jurisdictions, as is currently occurring. Land managers have carried out numerous forest restoration projects across the Borough and have ongoing projects planned on public land that are designed to reduce hazardous fuels to protect communities and resources, while restoring fire-adapted communities (see Figure 4.1).

SBB infestation is the top cause of death for mature spruce trees in Alaska and is currently responsible for about 900,000 acres of deceased and dying trees in the southcentral portion of the state. Trees that have been overwhelmed by SBB can begin falling within 1 to 3 years. The buildup of dead and downed trees on the surface can impact wildfire behavior. As such, SBB mitigation efforts are in progress in the Chugach National Forest. The mitigation efforts are being implemented in five USFS campgrounds: Cooper Creek, Quartz Creek, Russian River, Crescent Creek, and Tenderfoot. Mitigation methods are focused on removing dead and dying trees to minimize the risk of wildfire hazards. Contingent on the degree of SBB infestation, treatment options include removal of entire stands of infected trees, thinning infected areas of dense stands, or applying inhibitory agents to protect healthy trees from SBB infestation (USFS 2021e).

Another large-scale treatment currently in progress on the Kenai Peninsula is the Kenai Peninsula Habitat Enhancement (KPHE) project. The KPHE project area comprises over 117 acres and is located on the southern Kenai Peninsula in the Anchor River/Fritz Creek critical habitat area. The project focuses on enhancing moose habitat by stimulating willow regeneration. Treatment consists mainly of mowing mature willows to stimulate regeneration from the base of plants. Other treatments include top-killing or felling of hardwood trees, such as cottonwoods, to encourage stump sprouting (ADFG 2021b).

Fuel Treatment Methods

Since specifics of the treatments are not provided in detail in Table 4.1, different fuels reduction methods are outlined in the following narrative.

Several treatment methods are commonly used, including manual and mechanized treatments and targeted treatments to address hazard trees and beetle kill (Appendix G); prescribed fire is another treatment option that is being considered for additional use in forest and fuels management (Table 4.3). This brief synopsis of treatment options is provided for general knowledge; specific projects will require further planning. The appropriate treatment method and cost will vary depending on factors such as the following:

- Diameter of materials
- Proximity to structures
- Acreage of project
- Fuel costs
- Steepness of slope
- Area accessibility
- Density of fuels
- Project objectives

It is imperative that long-term monitoring and maintenance of all treatments is implemented. Post-treatment rehabilitation such as seeding with native plants and erosion control may be necessary.

Table 4.3. Summary of Fuels Treatment Methods

Treatment	Comments
Machine mowing	Appropriate for large, flat, grassy areas on relatively flat terrain.

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Treatment	Comments
Prescribed fire	Not widely used on the Borough but could be integrated into vegetation management through further interagency coordination. Can be very cost effective. Ecologically beneficial. Introducing fire back into a fire adapted ecosystem. Can be used as training opportunities for firefighters. May require manual or mechanical pretreatment. Carries risk of escape, which may be unacceptable in some WUI areas. Unreliable scheduling due to weather and smoke management constraints.
Brush mastication	Brush species tend to re-sprout vigorously after mechanical treatment. Frequent maintenance of treatments are typically necessary. Mastication tends to be less expensive than manual (chainsaw) treatment and eliminates disposal issues.
Timber mastication	Materials up to 10 inches in diameter and slopes up to 30% can be treated. Eliminates disposal issues. Environmental impact of residue being left on site is still being studied.
Manual treatment with chipping or pile burning	Requires chipping, hauling, pile burning of slash in cases where lop and scatter is inappropriate. Pile burning must comply with smoke management policy.
Feller buncher	Mechanical treatment on slopes more than 30% or of materials more than 10 inches in diameter may require a feller buncher rather than a masticator. Costs tend to be considerably higher than masticator.

Manual Treatment

Manual treatment refers to crew-implemented cutting with chainsaws. Although it can be more expensive than mechanized treatment, crews can access many areas that are too steep or otherwise inaccessible with machines. Treatments can often be implemented with more precision than prescribed fire or mechanized methods allow. Merchantable materials and firewood can be removed, while non-merchantable materials are often lopped and scattered, chipped, or piled and burned on-site. Care should be exercised to not increase the fire hazard by failing to remove or treat discarded material in a site-appropriate manner.

Strategic timing and placement of fuels treatments is critical for effective fuels management practices and should be prescribed based on the conditions of each particular treatment area. Some examples of this would be to place fuel breaks in areas where the fuels are heavier and in the path of prevailing winds and to mow grasses just before they cure and become flammable. Also, burning during the hotter end of the prescription is important since hotter fires are typically more effective at reducing heavy fuels and shrub growth. In areas where the vegetation is sparse and not continuous, fuels treatments may not be necessary to create a defensible area where firefighters can work. In this situation, where the amount of fuel to carry a fire is minimal, it is best to leave the site in its current condition to avoid the introduction of exotic species.

Mechanized Treatments

Mechanized treatments include mowing, mastication (ground-up timber into small pieces), and whole tree felling. These treatments allow for more precision than prescribed fire and are often more cost-effective than manual treatment (Figures 4.9–4.13).

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Figure 4.9. Fire crew burning out a treated area.
Photo Credit: USFWS 2014

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Figure 4.10. Sterling Fuel Break.
Photo Credit: Inciweb



Figure 4.11. Yukon Fire Crew.
Photo Credit: Chugachmiut Forestry



Figure 4.12. Example of treated stand.
Photo Credit: Chugachmiut Forestry



Figure 4.13. Sterling Fuel Break.
Photo Credit: USFWS (2017)

Mowing, including ATV- and tractor-pulled mower decks, can effectively reduce grass fuels adjacent to structures and along highway rights-of-way (Figure 4.14) and fence lines. For heavier fuels, a number of different masticating machines can be used, including drum- or blade-type masticating heads mounted on machines and ranging in size from a small skid-steer to large front-end loaders. Some masticators are capable of grinding standing timber up to 10 inches in diameter. Other masticators are more effective for use in brush or surface fuels. Mowing and mastication do not actually reduce the amount of on-site biomass but alter the fuel arrangement to a less combustible profile.

In existing fuel break areas, maintenance is crucial especially in areas of encroaching shrubs or trees. In extreme risk areas more intensive fuels treatments may be necessary to keep the fire on the ground surface and reduce flame lengths. Within the fuel break, shrubs should be removed, and the branches of trees should be pruned from the ground surface to a height of 4 to 8 feet, depending on the height of the fuel below the canopy, and thinned with a spacing of at least two to three times the height of the trees to avoid movement of an active fire into the canopy.

Mechanical shears mounted on feller bunchers are used for whole tree removal (Figure 4.15). The stems are typically hauled off-site for utilization while the limbs are discarded. The discarded material may be masticated, chipped, or burned in order to reduce the wildfire hazard and to speed the recycling of nutrients.



Figure 4.14. Example of fuels along roadways.



Figure 4.15. Feller buncher used to remove whole trees.

Prescribed Burning

Prescribed burning is also a useful tool to reduce the threat of extreme fire behavior by removing excessive standing plant material, litter, and woody debris while limiting the encroachment of shrubby vegetation. While not commonly practiced currently on the Borough, in the future, the reintroduction of fire through prescribed methods, would provide ecological benefit to many vegetation communities. Land managers are currently strategizing to increase prescribed burning within the Borough.

If a prescribed burn program is introduced, all prescribed fire operations would be conducted in accordance with federal and state laws and regulations. Public safety would be the primary consideration in the design of any prescribed burn plan so as to not negatively impact the WUI. Agency use of prescribed fire on public lands would be carried out within the confines of the agency's fire management planning documents and would require individual prescribed burn plans that consider smoke management concerns, air quality criteria, and sensitive receptors within the WUI. All burn plans must be approved by the Agency Administrator (AICC 2021a). In addition, all prescribed burn operations must be in accordance with the latest Alaska Department of Environmental Conservation (ADEC) Enhanced Smoke Management Plan. The Interagency Prescribed Fire Planning and Implementation Procedures Guide may be used to supplement burn planning. Furthermore, under Alaska regulation, permits are required for prescribed burn operations depending on the burn size and/or time of year. The ADEC administers permits for burns 40 acres or larger, and the ADNR administers permits for burns 40 acres or less from April 1 through September 1.

Following any type of fuels reduction treatment, post-treatment monitoring should ensure that management actions continue to be effective throughout the fire season. The vegetation within this ecosystem can change rapidly in response to drought or moisture from year to year and during the course of the season, so fuels treatments should be adjusted accordingly.

Several re-entries may be needed to meet full resource management objectives, so a solid maintenance plan is needed to ensure success.

Impacts of Prescribed Fire on Communities

Managing smoke from prescribed fires is an important part of planning for prescribed burning. The ADEC, Division of Air Quality, has smoke management guidelines to protect the health and welfare of Alaskans from the impacts of smoke (AICC 2021a). Smoke from burning vegetation produces air pollutants that are regulated by both the U.S Environmental Protection Agency and the State of Alaska.

More information regarding open burn regulations is provided here: https://dec.alaska.gov/air/air-permit/open-burn-info

Thinning and Prescribed Fire Combined

Combining thinning and prescribed fire can be the most effective treatment (Graham et al. 2004). In forests where fire exclusion or disease has created a buildup of hazardous fuels, prescribed fire cannot be safely applied, and pre-burn thinning is required. The subsequent use of fire can further reduce residual fuels and reintroduce this ecologically imperative process.

Management of Non-Native Plants

The ADNR, Division of Agriculture, maintains a list of noxious weeds rated from A to C based on the current degree of infestation of the species and the potential for eradication (ADNR 2021a). Fuel treatment approaches should always consider the potential for introduction or proliferation of invasive non-native species as a result of management actions.

The list of noxious weeds is available here: http://plants.alaska.gov/invasives/noxious-weeds.htm

The Strategic Plan for Invasive Weed & Agricultural Pest Management and Prevention in Alaska is located here: http://plants.alaska.gov/invasives/strategic-plan.htm

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Wildlife Habitat and Species Protections

Alaska contains 365.5 million acres of land, 28.8 million acres of freshwater lakes, rivers and ponds, and 6,640 miles of coastline. Around 88% of the state is in public ownership and many areas are set aside to protect their natural features, including a broad variety of fish and wildlife habitats. These areas differ in their specific purposes and include sanctuaries, critical habitat areas, state wildlife refuges, and waters important to anadromous fish (ADFG 2021c).

Many of the rivers, lakes, and streams in Alaska support a variety of anadromous fish, including Pacific salmon, several species of trout, char, whitefish, lamprey, and smelt. Due to the importance of these fish to Alaska's economy and environment, these waters receive special protections to ensure they keep supporting abundant runs of fish. These protections require that individuals or governmental agencies seeking to construct a hydraulic project or use, divert, obstruct, pollute, or change the natural flow or bed of a specified river, lake, or stream must notify the ADFG (ADFG 2021d).

Critical habitat areas, state wildlife refuges, and wildlife sanctuaries are designated as special areas by the Alaska State Legislature. These areas were created to protect fish and wildlife habitats. Most recreational activities such as fishing, hunting, and wildlife viewing on these lands do not require a permit. However, many other activities that have the potential to impact fish, wildlife, or habitats require a permit. Activities requiring a permit include, but are not limited to, clearing or disturbing vegetation, construction or placement of structures, streambank or shoreline modifications, and any activity that is likely to have a significant effect on vegetation, drainage, water quality, soil stability, fish, wildlife, or their habitat (ADFG 2021e).

Because stream crossing and water withdrawals during wildland fire suppression activities constitute a disruption to fish and their habitat, the DOF has obtained a permit from the ADFG for fire response activities on the peninsula. The permit is valid from December 21, 2020, through December 31, 2025. The permit applies to waterbodies throughout the state and allows for the following (ADFG 2020):

- Crossing all resident fish waterbodies and the extents of catalogued waterbodies not designated as spawning habitat for anadromous fish with vehicles and heavy equipment.
- The potential construction of reinforced crossing structures, aerial scooping, and subsurface pumping of water from waterbodies during wildland fire–related suppression activities.

In addition, the permit stipulates that projects proposed by the DOF should not have adverse impacts on anadromous fish or their habitat and should not obstruct the free passage of fish, in accordance with the Anadromous Fish Act and Fishway Act (ADFG 2020).

There are several special areas within the KPB managed by a number of agencies that may require special treatment.

More information about ADFG protected areas can be found here:
https://www.adfg.alaska.gov/index.cfm?adfg=conservationareas.locator

The ADFG protected waters on the Kenai Peninsula can be found in the Anadromous Water Catalog:
https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=maps.displayViewer

Information about protected areas on federally managed land is provided in Appendix A.

Land treatments that are used to reduce fuels are also potentially beneficial to wildlife and their habitats. Crushing and burning vegetation may not appear to be ecosystem enhancements, but wildland fires are a natural part of the interior Alaska ecosystem, and animals and plants have adapted to periodic fires.

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Plants like willow, fireweed, aspen, and birch are nutritious, high-quality forage for moose. These plants typically regenerate and thrive after specific kinds of disturbances, such as fire or smashing. Renewing growth isn't the only benefit of fire. Standing dead trees provide roosts for birds of prey and homes for cavity nesters such as woodpeckers. Downed trees provide cover for hares, voles, and marten—shelter that is critically needed in winter (ADFG 2015).

Another process that stimulates plant growth is the large chunks of ice that are rafted down rivers and rake riverbanks and gravel bars. Mechanical crushing imitates the process and encourages plant regeneration as well. For instance, when aspen are cut down, they resprout quickly by producing root suckers. Different age classes of aspen provide varied resources to ruffed grouse throughout the year. Older aged aspens provide breeding and wintering habitat. Younger, denser aspen stands provide cover for clutches of chicks in summer, shielding them from predators (ADFG 2015).

COHESIVE STRATEGY GOAL 2: FIRE ADAPTED COMMUNITIES

Goal 2 of the Cohesive Strategy/Western Regional Action Plan is: Fire-Adapted Communities: Human populations and infrastructure can withstand a wildfire without loss of life and property. The basic premise of this goal is:

> *"Preventing or minimizing the loss of life and property due to wildfire requires a combination of thorough pre-fire planning and action, followed by prudent and immediate response during a wildfire event. Post-fire activities can also speed community recovery efforts and help limit the long-term effects and costs of wildfire. CWPPs should identify high-risk areas and actions residents can take to reduce their risk. Fuels treatments in and near communities can provide buffer zones to protect structures, important community values and evacuation routes. Collaboration, self-sufficiency, acceptance of the risks and consequences of actions (or non-action), assisting those who need assistance (such as the elderly), and encouraging cultural and behavioral changes regarding fire and fire protection are important concepts. Attention will be paid to values to be protected in the middle ground (lands between the community and the forest) including: watersheds, viewsheds, utility and transportation corridors, cultural and historic values, etc."* (Western Regional Strategy Committee 2013:15).

Strategic actions listed within the ALAH Action Plan that serve the goal of **creating fire adapted communities** include (KPB Interagency 2018) the following:

- Inform and support communities that want to participate as a FAC that shares the responsibility for wildland fire mitigation practices.
- Collaboratively update and implement CWPPs.
- Promote fire resilient structures and defensible space practices advocated through nationally recognized programs.
- Support local response agencies with the capability to help communities prepare for and respond to wildland fires, including but not limited to establishing and promoting evacuation procedures and routes.
- Ensure that cooperative agreements among response agencies are current.
- Influence governing codes or ordinances that guide development within the WUI.

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- Include as many stakeholders as possible in the design and implementation of fuel breaks to ensure a community-wide approach to fuels reduction projects.

In this CWPP update, recommendations for fire-adapted communities include public education and outreach actions and actions to reduce structural ignitability.

RECOMMENDATIONS FOR PUBLIC EDUCATION AND OUTREACH

Just as environmental hazards need to be mitigated to reduce the risk of fire loss, so do the human hazards. Lack of knowledge, lack of positive actions, and negative actions all contribute to increased risk of loss in the WUI.

Many residents understand the risk that wildfire poses to their communities. However, it is important to continually raise awareness of fire risk and improve fire education, particularly because the Borough is composed of such a vast area of forested public land that has been experiencing an intensified wildfire pattern (IARC 2021a). Table 4.4 lists recommendations for improving public education and outreach.

There are currently no Firewise certified communities within the Kenai Peninsula Borough. The Borough would benefit from greater exposure to the Firewise Communities (NFPA 2021), Fire Adapted Communities (Fire Adapted 2021), and Ready, Set, Go! (International Association of Fire Chiefs 2021) programs. Firewise programs have been found to motivate residents to carry out defensible space and other actions within their community, empower residents to take control of addressing wildfire risk, improve community cohesion through collective actions, and encourage coordination of outside agencies (Evan et al. 2019). Continuing enthusiasm over long periods is difficult however, particularly if a community "spark plug" or active coordinator leaves or steps down (Evans et al. 2015). Greater participation in these programs could improve local understanding of wildfire and, in turn, improve protection and preparedness.

Other methods to improve public education could include increasing awareness about fire department response and fire department resource needs; providing workshops at demonstration sites showing Firewise Communities landscaping techniques or fuels treatment projects; organizing community cleanups to remove green waste; publicizing availability of government funds for thinning and prescribed burning on private lands; and, most importantly, improving communication between homeowners and local land management agencies to improve and build trust, particularly because the implementation of fuel treatments and better maintenance of existing treatments needs to occur in the interface between public and private lands.

Considering the shared nature of wildfire risk experienced by numerous WUI communities, getting homeowners to implement fuel treatments on their property is usually a challenging task. However, it has been suggested that willingness to private wildfire risk mitigation activities is influenced by the presence and category of fuel treatment on adjacent public lands. A survey conducted by UAF (2018) found that homeowners were more likely to perform fuel treatments on their property if the neighboring lands had been treated. Homeowners were also more likely to execute the fuel treatment if the type was shaded fuel breaks as opposed to cleared fuel breaks. Furthermore, fuel breaks around communities endow a sense of protection in the event of a wildfire; thus, allowing communities to respond calmly in the event of a potentially dangerous situation (UAF 2018).

Table 4.4 lists public education and outreach projects recommended for implementation in the Borough.

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RECOMMENDATIONS FOR REDUCING STRUCTURAL IGNITABILITY

Table 4.4 also provides a list of community-based recommendations to reduce structural ignitability that should be implemented throughout the CWPP planning area. Reduction of structural ignitability depends largely on public education that provides homeowners the information they need to take responsibility for protecting their own properties. A list of action items that individual homeowners can follow can be found below. Carrying out fuels reduction treatments on public land may only be effective in reducing fire risk to some communities; however, if homeowners have failed to provide mitigation efforts on their own land, the risk of home ignition remains high, and firefighter lives are put at risk when they carry out structural defense.

Preparing for wildland fire by creating defensible space around the home is an effective strategy for reducing structural ignitability. Studies have shown that burning vegetation beyond 120 feet of a structure is unlikely to ignite that property through radiant heat (Butler and Cohen 1996), but fire brands that travel independently of the flaming front have been known to destroy houses that had not been impacted by direct flame impingement. Hardening the home to ignition from embers, including maintaining vent coverings and other openings are also strongly advised as measures to protect a home from structural ignitability. Education about managing the landscape around a structure, such as removing weeds and debris within a 30-foot radius and keeping the roof and gutters of a home clean, are maintenance measures proven to limit combustible materials that could provide an ember bed and ignite the structure. Educating people about the benefits of proper maintenance of their property that includes pruning and trimming trees and shrubs and, where warranted, the removal of trees and other vegetation, and using Firewise Communities landscaping methods on their property is also essential for successful household protection.

It is important to note that no two properties are the same. Homeowners and communities are encouraged to research which treatments would have the most effect for their properties. Owners of properties on steep slopes, for example, should be aware that when constructing defensible space, they have to factor in slope and topography, which would require extensions to the conventional 30-foot recommendations. More detailed information on reducing structural ignitability can also be found in Appendix G (Additional Resources).

Some structural ignitability hazards are related to homes being in disrepair, vacant or abandoned lots, and minimal yard maintenance. In order to influence change in homeowner behavior, county ordinances may be needed.

In addition to protection of residences and other values, the Core Team convened a focus group meeting with KPB utility providers and fire responders, to discuss protection of strategic infrastructure. Those recommendations are provided in Table 4.4.

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Table 4.4. Recommendations for Creating Fire-Adapted Communities (Public Education and Outreach and Structural Ignitability)

Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Increase understanding of the importance that fire plays in maintaining resilient landscapes	Kenai Peninsula-wide	FWS - Kenai Refuge Kenai Peninsula Borough ADGF State Forestry USFS	• Create interpretative trails in burn areas. • Place education signage at strategic turnouts along highways that show history / recovery, etc. • Build upon existing efforts to educate residents and visitors on the benefits of wildfire for forest health, wildlife habitat and resilience to insect and disease. • Project for ALAH group.	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities.	Ongoing	H	• Review progress annually • Number of educational initiatives	• National Interagency Fire Center • Firewise Communities • Serve Alaska • Matching Awards Program • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska • Alaska Firewise
Promote publicly the use of a mixed mosaic of fuel types and structures for wildfire risk reduction in the WUI	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough ADGF Kenai Peninsula Builders Association Watershed Forum, Nature Conservancy, others	• Create mosaic landscapes in public places (demonstration site) to serve as example of vegetation management actions for wildfire mitigation and wildlife habitat improvement- i.e., refuge around high valued infrastructure. • Promote using a multi-media outreach campaign to build understanding and support. • Develop vegetation graphic that can be shared across multiple agencies on the use of vegetation management to create resilient landscapes in the WUI. Build on existing educational materials developed by State Forestry. • Cooperative Extension education outreach, tree / shrub giveaways	• Create resilient landscapes and address potential for extreme wildfire behavior in and around communities.	Start within 1 year, and make this an ongoing project	H	• Review progress annually	• National Interagency Fire Center • Firewise Communities • Serve Alaska • The National Fire Plan (NFP) • Matching Awards Program • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Environmental Systems Research Institute (ESRI) • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska • Alaska Firewise
Build self-assessment (“self-planning”) tools into existing forest stewardship planning.	Kenai Peninsula-wide	State Forestry	• Create self-assessment protocol. Consider NFPA 1144 (or similar) protocols. • Create a train-the-trainer methodology for assessment. Train the fire departments, HOAs etc. • Post to stewardship website (State Forestry) • Utilize consistent literature for defensible space etc. • Utilize consistent literature for structure hardening. • Capitalize on elevated interest in structural ignitability and stewardship plans due to bark beetle concerns and increased fire activity.	• Increase adoption of measures to reduce structural ignitability	Start within 1 year, and make this an ongoing project	H	• Annual review of number of assessments completed	• Firewise Communities • National Fire Protection Association • Hazard Mitigation Grant Program (HMGP) • Alaska Firewise • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Target fire prevention efforts to "younger" or first-time homeowners	Kenai Peninsula-wide	Kenai Peninsula Borough Area banks, mortgage companies, local realtor assn.	• Capitalize on a thirst for knowledge from younger generation of land/homeowners. Show them to protect their investments. Build messaging around following patterns: o Younger demographic of landowners o Market to seasonal properties owners • Provide the resources residents need to take action: 1) stewardship self-assessment 2) creating a toolbox (house within the Story Map)	• Build capacity of residents to address their own wildfire risk.	Start within 1 year, and make this an ongoing project	H	• Annual review of materials developed and assess future needs	• Firewise Communities • National Fire Protection Association • National Interagency Fire Center • Environmental Education Grants • Alaska Firewise
Encourage Firewise participation (*Meets goal of the 2019 KPB HMP- Protect residents and structures in the WUI- Table 3.5*)	Kenai Peninsula-wide	Multi-agency	• Restore the Firewise Program (*from the 2019 KPB HMP*) • Capitalize on elevated interest in structural ignitability and stewardship plans due to bark beetle concerns and increased fire activity. • Increase number of Firewise certified communities. • Provide education for citizens on defensible space and encourage self-assessment	• Build visibility of fire prevention efforts.	Start within 1 year, and make this an ongoing project	H	• Document the number of new Firewise communities.	• Firewise Communities • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Community Development Block Grants – Mitigation - Alaska • Alaska Firewise
Increase promotion/ awareness of agency actions (*Meets goal of the 2019 KPB HMP- Shared public messaging to reduce human caused fires- Table 3.6*)	Kenai Peninsula-wide	Kenai Peninsula Borough	• Form a working group to develop consistent and continuous messaging to the public on ongoing activities related to forestry, fuels and fire mitigation (maybe a committee under the ALAH group). • Post maps of treatments on the story map. • Provide updates on ongoing initiatives online and through public meeting formats- i.e., Sterling Fuel Break progress. • Create a video series to communicate that forest crews are working on activities. • Encourage community engagement through regular meetings to gather input. • Encourage community participation in fuel load education and planning.	• Build visibility of fire prevention efforts and benefits. • Improve understanding of ongoing work to protect communities and infrastructure	Start within 1 year, and make this an ongoing project	H	• Review of number of meetings held • Review of number of posts provided on online media • Assess understanding of public through surveys.	• Firewise Communities • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Serve Alaska • Alaska Firewise • Community Assistance Program • Hazard Mitigation Planning Assistance
Promote and utilize a range of outreach types (*Meets goal of the 2019 KPB HMP- Notify landowners in high-risk areas- Table 3.7*)	Kenai Peninsula-wide	All agencies	• Bring awareness beyond social media – utilize brick and mortar venues and other media like prints (post offices, grocery stores, utility flyers) chamber of commerce, senior citizen centers • Provide in-person and radio education and outreach for people that do not engage in "online" activities • Promote all existing multi-media educational materials- i.e., Chugachmiut video series, Division of Forestry media, outreach videos (created by John Winters) and other materials • Utilize PSA's when appropriate	• Enhance education and outreach	Start within 1 year, and make this an ongoing project	M	• Assess effectiveness of messaging through surveys	• Firewise Communities • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Alaska Firewise

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Invest in workforce training for forestry and wildfire careers	Kenai Peninsula-wide	Kenai Peninsula Economic Development District Multi-agency working group	• Build capacity and interest in forest-based careers through development and maintenance of youth forestry/fire programs • Utilize existing programs to support youth development – i.e. Student Conservation Association, Forest Service Pathways Program. • Work with Peninsula based academic institutions to identify potential opportunities for associate degree programs in fire management and fire ecology • Work with KPBSD to have a fire danger component added to curriculum in spring, prior to leaf out (*from 2019 KPB HMP*)	• Enhance and build future workforce to manage wildfire management and fuels concerns • Increase opportunities for Peninsula youth	Within next 5 years	M	• Annual program review	• Agency budgets • Firewise Communities • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Alaska Firewise • Community Assistance Program
Build consistent messaging for wildfire mitigation actions	Kenai Peninsula-wide	Kenai Peninsula Borough CWPP Story Map	• Utilize the CWPP Story Map as a one-stop shop for education materials and literature. • Create an inventory (database) of existing materials • Create a QR code list of literature • Work with ALAH group to determine consistent messaging and outreach	• Build capacity for fire adapted communities	Ongoing	H	• Ensure maintenance and update of Story Map. • Refresh messaging as policies changes.	• Agency budgets • Alaska Firewise
Increase scope and frequency of outreach (*Meets goal of the 2019 KPB HMP- Encourage fire adapted communities- Table 3.6*)	Kenai Peninsula-wide	Kenai Peninsula Borough CWPP Story Map	• Review existing programs (Ready-Set-Go, Firewise, FAC) for suitability of existing fire prevention materials and where necessary fund development of unique adapted materials and presentations to highlight how a fire might affect particular groups within the community while promoting the fire adapted community framework. • Increase number and frequency of face-to-face opportunities to engage with the public in wildfire mitigation education and activities. • Highlight the fact that fire is impacting protection of values at risk and sensitive environmental concerns like habitat management. • Consider hiring a communications officer for the Peninsula who should pursue continuous and repeat interactions with residents to generate greater mitigation actions. • Utilize local events for outreach on wildfire mitigation. • Increase community education and outreach about climate change hazards, emergency preparedness and sheltering options. • Develop educational messages that are locally relevant to help residents be more prepared for wildfire, including a defensible space checklist specific to local structural and wildland fuel considerations. • Continue to emphasize message of personal responsibility for hazard reduction in regard to structural ignitability.	• Engage a broad cross-section of the population instead of attracting only those residents who are already engaged in fire prevention and risk reduction activities. • Social science has shown that face-to-face engagement is the most effective way to generate action. • Deliver a clear and consistent message that impacts of wildfire are far-reaching and that it is in the best interest of a diverse set of stakeholders to become involved in planning and preparing for fire.	Initiate focus on this task within 3 months of completion of CWPP	H	• Develop a regular meeting cadence	• Agency budgets • Firewise Communities • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Alaska Firewise

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Develop education campaign for beetle kill tree removal	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough, Cities and Communities	• Provide directions on best management practices for the treatment and removal of dead trees. • Develop multi-media education materials for distribution. • Develop printed materials for distribution. • Example content- Inform citizens to only cut dead trees if they have a plan to remove them. o If they are unable to remove them, the cut trees present a greater risk than leaving them standing. • Use “sleeves up for the summer” as an example campaign • Have a familiar face or someone who is trusted by the public to deliver the message • Develop campaigns year-round to continue to raise awareness	• Protect communities and infrastructure through increasing public awareness	Within next 6 months	H	• Review annually the success of campaign and additional information needs	• Agency budgets • Firewise Communities • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Western Bark Beetle Initiative Grant Program • Hazard Mitigation Planning Assistance
Increase messaging to the public about the potential for slow response times at distance from fire departments.	Kenai Peninsula-wide	Fire Departments State Forestry, Kenai Peninsula Borough, Cities and Communities	• Greater transparency and facts are needed regarding fire dept capacity to respond to fires that are located in rural areas. • Emphasize the importance of personal responsibility in these areas. • Provide list of realistic measures homeowners can implement to be more prepared for fire in areas with slow response times.	• Increase education to enhance homeowner capacity to address fire risk	Start within 1 year, and make this an ongoing project	H	• Review annually the success of campaign and additional information needs	• Agency budgets • Firewise Communities • Alaska Firewise • Community Assistance Program
Increase education and outreach on Fire Management Options	Kenai Peninsula-wide	State Forestry, State Forestry, Kenai Peninsula Borough, ADGF, USFS Kenai Refuge	• Create public outreach campaign that avoids terminology and jargon as much as possible. • Multi-agency effort and messaging needed. • Utilize the story map and share via a range of platforms. • Use models from large companies, such as Marathon, to spread the word to employees. • Possibly hire a marketing group to help with messaging to the public. • People understand critical response but have inadequate understanding of “limited and moderate” response. Focus on these issues.	• Increase education to enhance understanding and trust between public and fire response agencies.	Start within 1 year, and make this an ongoing project	H	• Review annually and update as needed	• Agency budgets • Firewise Communities • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S)
Provide liability insurance education	Kenai Peninsula-wide	Insurance companies in partnership with Kenai Peninsula Borough and Fire Depts.	• Provide information for homeowners about liability insurance and wildfire. • Look for incentives by insurance companies for implementation of defensible space.	• Protect communities and infrastructure through increasing public awareness	Start within 2 years, and make this an ongoing project	M	• Update frequently as insurance policies and requirements change • Market incentives widely.	• Agency budgets
Increase awareness about burn permits	Kenai Peninsula-wide, especially in communities located on the east side	State Forestry	• Need to increase people’s awareness about the importance of burn permits and why they are needed. • Increase outreach through different channels- fire dept, dispatch, community events, printed materials in utility bills, etc. • Use permit interactions to also emphasize Firewise actions. • Need to address the (unintended) consequence of online burn permits. • People are no longer calling the fire departments when they start a fire, but fire departments still need this information. • Have a “closed” season for debris burning • Ensure funding accounts for personnel time for CES, Dispatch, Municipalities	• Protect communities and infrastructure through increasing public awareness	Start within 1 year, and make this an ongoing project	M	• Assess awareness annually and restructure outreach as needed. • Ensure more continuous boots-on-the-ground messaging	• Agency budgets • Firewise Communities • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Funding for Fire Departments and First Responders • Alaska Firewise

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Develop educational messages for recreationist (*Meets goal of the 2019 KPB HMP- Notify public and visitors of fire danger and procedures- Table 3.7*)	Kenai Peninsula-wide	State Forestry, Kenai Peninsula Borough, Cities and Communities	• Target public outreach to recreationist • Install signage at popular recreation sites • Educate recreationists about risk of fire, particularly in the spring when there is a greater risk of grass fire • Provide reader board type signs at highly visible Borough locations (highway or main thoroughfare locations such as the Solid Waste site, transfer facilities, highway fronting schools) showing hazard danger as needed (*from 2019 KPB HMP*).	• Protect communities and infrastructure through increasing public awareness	Start within 1 year, and make this an ongoing project	H	• Assess awareness annually and restructure outreach as needed if ignitions increase	• Agency budgets • National Interagency Fire Center • Environmental Education Grants • The Fire Prevention and Safety Grants (FP&S) • Alaska Firewise
Increase structure hardening of public buildings and structures	Kenai Peninsula-wide	All government agencies	• Number of wooden bridges on KPB lands • Harden for long term use, maintain more often • Retrofit/replace flammable roofs on public buildings	• Increase structure resilience to wildfire	Start within 1 year, and make this an ongoing project	H	• Document accomplishments	• RAISE Discretionary Grants • Infrastructure For Rebuilding America • Pre-disaster Mitigation (PDM) Grant Program • Building Resilient Infrastructure and Communities (BRIC) program • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Community Development Block Grants – Mitigation - Alaska
Identify vulnerable populations who may require assistance during fire prevention, fire response and post fire recovery phases.	Kenai Peninsula-wide	Kenai Peninsula Borough, Cities and Communities	• Convene a working group to collectively identify and document vulnerable populations (elderly, disabled, low income, indigenous populations) who may need additional assistance to carryout defensible space treatments, structure hardening, enhancing ingress/egress, preparing their family for evacuation, safely navigating evacuation processes, and returning post-fire. • Identify and evaluate funding needs to provide sufficient support.	• Reduces hurdles for residents to achieve fire prevention • Provides for public safety in the event of an incident	Within 2 years	H	• Document number of meetings held to address these issues.	• Agency budgets • Serve Alaska • Firewise Communities • National Fire Protection Association • Environmental Systems Research Institute (ESRI) • National Interagency Fire Center • Private Landowner Assistance Grant • Alaska Firewise • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska

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Action Items for Homeowners to Reduce Structural Ignitability

Low or No Cost Investment (<$50)	Regularly check fire extinguishers and have a 100-foot hose available to wet perimeter.
	Maintain defensible space for 30 feet around home. Work with neighbors to provide adequate fuels mitigation in the event of overlapping property boundaries.
	Make every effort to keep lawn mowed and green during fire season.
	Screen vents with non-combustible meshing with mesh opening not to exceed nominal ¼-inch size.
	Ensure that house numbers are easily viewed from the street.
	Keep wooden fence perimeters free of dry leaves and combustible materials. If possible, non-combustible material should link the house and the fence.
	Keep gutters free of vegetative litter. Gutters can act as collecting points for fire brands and ashes.
	Store combustible materials (firewood, propane tanks, grills) away from the house; in shed, if available.
	Clear out materials from under decks and/or stacked against the structure. Stack firewood at least 30 feet from the home, if possible.
	Reduce your workload by considering local weather patterns. Because prevailing winds in the area are often from the west-southwest, consider mitigating hazards on the west corner of your property first, then work around to cover the entire area.
	Seal up any gaps in roofing material and enclose gaps that could allow fire brands to enter under the roof tiles or shingles.
	Remove flammable materials from around propane tanks.
Minimal Investment (<$250)	When landscaping in the home ignition zone (HIZ) (approximately 30 feet around the property), select non-combustible plants, lawn furniture, and landscaping material. Combustible plant material like junipers and ornamental conifers should be pruned and kept away from siding. If possible, trees should be planted in islands and no closer than 10 feet to the house. Tree crowns should have a spacing of at least 18 feet when within the HIZ. Vegetation at the greatest distance from the structure and closest to wildland fuels should be carefully trimmed and pruned to reduce ladder fuels, and density should be reduced with approximately 6-foot spacing between trees crowns.
	Box in eaves, attic ventilation, and crawl spaces with non-combustible material.
	Work on mitigating hazards on adjoining structures. Sheds, garages, barns, etc., can act as ignition points to your home.
	Enclose open space underneath permanently located manufactured homes using non-combustible skirting.
	Clear and thin vegetation along driveways and access roads so they can act as a safe evacuation route and allow emergency responders to access the home.
	Purchase or use a National Oceanic and Atmospheric Administration weather alert radio to hear fire weather announcements.

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Moderate to High Investment (>$250)	Construct a non-combustible wall or barrier between your property and wildland fuels. This could be particularly effective at mitigating the effect of radiant heat and fire spread where 30 feet of defensible space is not available around the structure.
	Construct or retrofit overhanging projections with heavy timber that is less combustible.
	Replace exterior windows and skylights with tempered glass or multilayered glazed panels.
	Invest in updating your roof to non-combustible construction. Look for materials that have been treated and given a fire-resistant roof classification of Class A. Wood materials are highly combustible unless they have gone through a pressure-impregnation fire-retardant process.
	Construct a gravel turnaround in your driveway to improve access and mobilization of fire responders.
	Treat construction materials with fire-retardant chemicals.
	Install a roof irrigation system.
	Replace wood or vinyl siding with nonflammable materials.
	Relocate propane tanks underground.

COHESIVE STRATEGY GOAL 3: WILDFIRE RESPONSE

Goal 3 of the Cohesive Strategy/Western Regional Action Plan is Wildfire Response: All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions:

> *"A balanced wildfire response requires integrated pre-fire planning with effective, efficient, and coordinated emergency response. Pre-fire planning helps tailor responses to wildfires across jurisdictions and landscape units that have different uses and management objectives. Improved prediction and understanding of weather, burning conditions, and various contingencies during wildfire events can improve firefighting effectiveness, thereby reducing losses and minimizing risks to firefighter and public health and safety. Wildfire response capability will consider the responsibilities identified in the Federal Response Framework. Local fire districts and municipalities with statutory responsibility for wildland fire response are not fully represented throughout the existing wildland fire governance structure, particularly at the NWCG, NMAC, and GACC levels."* (Western Regional Strategy Committee 2013:15).

Strategic actions listed within the ALAH Action Plan to serve the goal of **safe and effective wildfire response** include (KPB Interagency 2018):

- Develop and implement standards and protocols that strengthen national mobilization capabilities.
- Invest in the wildland firefighting workforce at all levels (federal, state, tribal, territorial, and local) to meet the increasing complexities and demands of firefighting in the wildland urban interface.
- Manage wildfires to both protect values and accomplish resource management objectives

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RECOMMENDATIONS FOR IMPROVING FIRE RESPONSE CAPABILITIES

Educating the public so they can reduce dependence on fire departments is essential because these resources are often stretched thin due to limited personnel and the scale of the response area. Table 4.5 provides recommendations for improving firefighting capabilities. Many of these recommendations are general in nature with more specific community related recommendations presented in Appendix D.

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Table 4.5. Fire Response Capability Recommendations

Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Enhance situational awareness and communications	Peninsula Wide	ALAH group	• ALAH provides a model for interagency cooperation • Continue to encourage open communication • Pursue annual updates • Utilize the QWRA to guide treatments • Develop a master spreadsheet to track accomplishments	• Add more capacity	Ongoing	H	• Regular meetings and email updates	• Agency budgets • Emergency Management Performance Grant (EMPG) • Community Assistance Program
Support additional wildland crews with increased Peninsula-wide capacity	Kenai Peninsula-wide	State Forestry USFS	• In addition to the Yukon Crew, add another State sponsored Type 2 crew (See Resilient Landscape Matrix – feasibility study). • Type 2 crews would: o Receive training for fire response and fuels management o operate seasonally (April-October) o would serve in a fuel's role initially until fire suppression quals are expanded o Once qualified, crew members could be "farmed out" to local initial attack crews, for training etc. • Need to carefully consider the evolution of a new type 2 crew. • Closely plan out crew qualifications. • Budget sufficient funds for administration and oversight. • Fully consider budget line items.	• Add more capacity and provide for safe and effective wildfire response	Start within 1 year, and make this an ongoing project	H	• Closely assess accomplishment, needs, budgetary constraints annually. • Plan goals each year as part of multi-agency meeting.	• Funding for Fire Departments and First Responders • ~~Volunteer Fire Assistance~~ Program • Staffing for Adequate Fire and Emergency Response (SAFER) • Assistance to Firefighters Grants (AFG) • State and Private Forestry Programs – NASF • National Fire Protection Association • GSA-Federal Excess Personal Property • Community Assistance Program • Community Development Block Grants – Alaska
Improve fire notifications and coordination between Alaskan Native Villages and Incident Command Teams	Kenai Peninsula-wide	Fire response agencies and Alaskan Native Villages	• Need to improve fire notifications and coordination between Alaskan Native village lands and incident management teams to make sure cultural values are considered when developing suppression strategies. Encourage use of MIST (minimum impact suppression strategies) on Village lands.	• Use of MIST tactic to limit harmful impacts to cultural resources	Ongoing	H	• Annual review and update of contacts at Alaskan Native Villages	• Pre-disaster Mitigation (PDM) Grant Program • Building Resilient Infrastructure and Communities (BRIC) program • General Assistance Program • Regional Catastrophic Preparedness Grants • Community Development Block Grants – Alaska
Increase the number of "red-carded" individuals in each fire department	Kenai Peninsula-wide	All fire departments	• NWCG Basic Wildland Fire Fighting and Fire Behavior, S-130/ S-190 classes to VFDs every Fall with an option to attend on weekends. • Possible incentives needed to encourage attendance. • Use online forum to facilitate scheduling. • Work with State and federal agencies to develop evening and weekend courses for volunteers (volunteers on fire line can be a liability and labor law problem). • Pursue online training programs and have trainees work with an in-house trained mentor to complete training. • Utilize available funds for volunteers to participate in annual Wildfire Academy. • Educate fire departments on the availability of volunteer fire assistance grants that could be used to purchase equipment and support training. • Seek funding to increase availability of state training specialists	• Add more capacity to the local fire departments and provide for safe and effective wildfire response • Not just suppression staff but others like: staging area / supply, Ground Support, PIO, LOFR, Logistics support, admin positions	Ongoing	H	• Annual review of training opportunities and barriers to attendance	• VFA • Funding for Fire Departments and First Responders • Emergency Management Performance Grant (EMPG) • Regional Catastrophic Preparedness Grants • Volunteer Fire Assistance Program • Staffing for Adequate Fire and Emergency Response (SAFER) • Assistance to Firefighters Grants (AFG) • State and Private Forestry Programs – NASF • National Fire Protection Association • GSA-Federal Excess Personal Property • Community Assistance Program

Commented [VA8]: Core Team- as noted above, John Winters provided a list of considerations when moving this project forward.

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
								• Community Development Block Grants – Alaska
Need better preparation for emerging fire and fuels issue, fire behavior and climate change	Kenai Peninsula-wide	USFS (have climate assessment)	• WUI is growing, but fire resources are not. • Need climate vulnerability assessment for resource needs. Utilize and expand upon Chugach NF climate vulnerability assessment to identify vulnerable areas to prioritize treatments and strategies.	• Increase capabilities of existing personnel	Within next 3 years	H	• Review progress of discussions annually.	• Urban and Community Forestry Program, 2021 National Urban and Community Forestry Challenge Cost Share Grant Program • Leonardo DiCaprio Foundation Grants • Community Development Block Grants – Mitigation – Alaska • Hazard Mitigation Planning Assistance • Western Wildland-Urban Interface (WUI) Grants • Alaska Climate Change Impact Mitigation Program
Develop and coordinate a Peninsula wide comprehensive online emergency preparedness, response, and recovery plan. (*Meets goal of the 2019 KPB HMP- Maintain a viable and functional response plan- Table 3.5*)	Kenai Peninsula-wide	Collaborative effort, led by Kenai Peninsula Borough OEM	• Create an online dashboard for use by emergency management agency decision support. • Dashboard would be created in a Story Map or "Hub" format and would include: o Break dashboard into sections of the emergency management cycle: preparedness, response, recovery o Identify roles and responsibilities for each agency/partner under each section of the cycle o Include BMPs for each section of the cycle o Include coordination plan for interagency communications before, during and after an event o Include a tracking module to track actions needed and status o include a funding matrix to support implementation of actions o align actions as closely as possible with the Peninsula and State HMP	• Improve fire response and readiness across the Peninsula. • Could be used to initiate an assessment of Peninsula-wide emergency management protocols.	Within 2 years	H	• Would be an active and live platform, updated in real time and reviewed on an annual basis	• FEMA • Agency budgets • Emergency Management Performance Grant (EMPG) • Regional Catastrophic Preparedness Grants • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Alaska Firewise
Complete inventory of available equipment for inter-operations	Kenai Peninsula-wide	All agencies	• Inventory apparatus and equipment across Peninsula to assess agency sharing options. • Identify apparatus needs that could be fulfilled through sharing agreements- i.e., UTV for accessing inaccessible areas, boat for coastal access. • Identify non-suppression support services such as caterers, camp support, car / truck rental, etc. (i.e., local oil field support contractors do this)	• Improve fire-fighting response when available equipment is identified	Start within 1 year	H	• Annual inventory of equipment needs, including assessment of equipment condition	• Agency budgets • Emergency Management Performance Grant (EMPG) • Regional Catastrophic Preparedness Grants • GSA-Federal Excess Personal Property • Funding for Fire Departments and First Responders • Community Assistance Program • Community Development Block Grants – Alaska

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Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves to:	Timeline for Action	Priority (H, M, L)	Monitoring or Maintenance Requirements	Funding Sources
Facilitate greater preparedness for evacuations (*Meets goal of the 2019 KPB HMP- Evacuation and Response Routes- Table 3.5*)	Kenai Peninsula-wide	Kenai Peninsula Borough Fire Departments Department of Transportation? Dept. of Public Safety (Troopers) Local PD's.	• Identify and map alternate routes for ingress/egress for WUI areas as a specific part of the KPB Transportation Plan (*from 2019 KPB HMP*) • Prioritize capital improvement projects (CIPs) based on need for response and evacuation routes (*from 2019 KPB HMP*) • Encourage all residents to sign-up to KPB alert system. • Utilize pre-season planning to identify roles for departments to address evacuation. • Draft up scenarios and contingencies in the event of slow response times. • Identify vulnerable populations who may require assistance during evacuation (i.e., critical facilities – daycare, medical facilities, school, mass care center, elderly housing) • Seek grant opportunities to support assistance for vulnerable populations. • Develop contingency plans. • Build in plan for livestock and animal evacuation, including transportation needs and shelter options.	• Improve safe and effective wildfire response	Start within 1 year	H	• Annual review of how many residents are registered for KPB Alert. • Test system annually • Annual review of activities	• Firewise Communities • Emergency Management Performance Grant (EMPG) • Regional Catastrophic Preparedness Grants • Pre-disaster Mitigation (PDM) Grant Program • Hazard Mitigation Grant Program (HMGP) • Infrastructure For Rebuilding America • Building Resilient Infrastructure and Communities (BRIC) program • Western Wildland-Urban Interface (WUI) Grants • Private Landowner Assistance Grant • Hazard Mitigation Planning Assistance • Community Development Block Grants – Mitigation - Alaska • Alaska Firewise
Increase water availability for suppression	Kenai Peninsula-wide	Kenai Peninsula Borough Public Water Systems Fire Departments ADF&G – waterway / lake drafting sites / permits	• Initiate a detailed study of feasible locations for water development improvements. • Map all water fill sites and hydrants across jurisdictions. • Update any existing inventories. • Incorporate wildlife habitat concerns into inventory to avoid potential impacts- i.e., anadromous streams. Integrate statewide permits into planning. • Incorporate information on avoidance of aquatic invasives into inventory. • Utilize inventory to stage fire tanks in areas with limited water availability. • Install dry hydrants to pump pond water for firefighting. • Install hand pumps or other methods independent of the grid for accessing private well water. • Pre-identify and address permit issues for natural waterbody drafting sites	• Improve fire-fighting response if water is more readily available or closest locations could be identified on a GIS map on a tablet/computer. • Alleviates public and agency concern for limited water supply in remote areas	Start within 1 year	H	• Review number of water improvements annually and remaining needs.	• Pre-disaster Mitigation (PDM) Grant Program • Building Resilient Infrastructure and Communities (BRIC) program • Emergency Management Performance Grant (EMPG) • Multipurpose Grants to States and Tribes • Emergency Watershed Protection (EWP) Program • Fire Management Assistance Grant (FMAG) • Catalog of Federal Funding Sources; Water Resources • Hazard Mitigation Planning Assistance • Community Assistance Program • Community Development Block Grants – Alaska • Community Development Block Grants – Mitigation - Alaska
Continued support on VFA grant	Kenai Peninsula-wide	State Forestry	• Need to continue to fund it over time to follow through with financial commitments previously made • Use funding to increase training	• Increase capabilities of existing personnel	Already in progress, continue as long as possible.	H	• Annual review	• N/A

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POST-FIRE RESPONSE AND REHABILITATION

The recent increase in severe fires has highlighted the numerous complexities of post-fire response. Fires, especially severe fires, have significant impacts on vegetation and soil. The major soil physical properties affected by a fire are structure stability, water repellency, texture, temperature, and amount of surface organic matter. Erosion is typically associated with postfire effects because of its impact on water quality and the potential for debris flows (USFS 2011c). Following a fire, heavy rains may result in widespread floods carrying trees, boulders, and soil through canyons, ultimately damaging communities and critical infrastructure—particularly in landslide prone areas such as the Kenai Peninsula (Alaska Division of Geological & Geophysical Surveys 2021).

The extensive impacts of wildfires are illustrated in a recent large fire that occurred on the Kenai Peninsula. The 2019 Swan Lake Fire was a lightning-caused fire that burned roughly 170,000 acres between Sterling and Cooper Landing. Main concerns for the burned area consisted of (National BAER Team 2020):

- The threat of invasive species to the recovery of the native vegetation
- The threat of increased runoff and potential debris flow to public safety and highway infrastructure
- The threat of excess runoff and sediment reaching streams and deteriorating fish habitat in anadromous streams
- Damage to recreational areas and associated hazards
- Damage to historic structures, archaeological sites, and traditional cultural properties

The time needed for a forest to recover following a fire is contingent on three factors: whether vegetation survives a fire, seedling recruitment from either seed banks in the soil or transported to the site, or sprouting new growth from roots (USFS 2011c). However, each forest is unique in how it recovers following a wildfire. The degree to which a forest can recover following a fire is contingent on the forest composition, soils, fire frequency, and climate. For instance, birch has seeds that disperse long distances; aspen has prolific roots that allow sprouting after a fire; black spruce has cones that open when exposed to heat; and white spruce produces large seed crops following a hot, dry summer (USFS 2011c).

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Figure 4.16. Vegetation recovery in the Swan Lake burn area.

Creating a plan that outlines steps for agencies, municipalities, and the county to follow will streamline post-fire recovery efforts and reduce the inherent stress to the community.

There are many facets to post-fire recovery, including but not limited to:

- Ensuring public health and safety—prompt removal of downed and hazard trees, addressing watershed damage, and mitigating potential flooding.
- Rebuilding communities and assessing economic needs—securing the financial resources necessary for communities to rebuild homes, business, and infrastructure.
- Restoring the damaged landscape—restoration of watersheds, soil stabilization, and tree planting.
- Reducing fire risk in the future—identifying hazard areas and implementing mitigation.
- Prioritizing the needs of vulnerable and disadvantaged communities during response and disaster recovery efforts.
- Reducing post fire recovery time by replanting native species.
- Ensuring fire protection measures enhance sustainability of restoration projects.
- Retaining downed logs for erosion control and habitat maintenance.
- Evaluating and updating disaster recovery plans every 5 years to respond to changing needs and characteristics of the community.
- Coordinating with planning, housing, health and human services, and other local, regional or state agencies to develop contingency plans for meeting short-term, temporary housing needs of those displaced during a catastrophic wildfire event.
- Incorporating forecasted impacts from climate change intro trends and projections of future risk and consideration of policies to address identified risk.

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Recovery of the vegetated landscape is often more straightforward than recovery of the human environment. Assessments of the burned landscape are often well-coordinated using interagency crews who are mobilized immediately after a fire to assess the post-fire environment and make recommendations for rehabilitation efforts.

For the community impacted by fire, however, there is often very little planning at the local level to guide their return after the fire. Residents impacted by the fire need assistance making insurance claims; finding temporary accommodation for themselves, pets, and livestock; rebuilding or repairing damaged property; removing debris and burned trees; stabilizing the land for construction; mitigating potential flood damage; repairing infrastructure; reconnecting to utilities; and mitigating impacts to health. Oftentimes, physical impacts can be mitigated over time, but emotional impacts of the loss and change to surroundings are long-lasting and require support and compassion from the community.

AFTER THE FIRE

Returning Home

First and foremost, follow the advice and recommendations of emergency management agencies, fire departments, utility companies, and local aid organizations regarding activities following the wildfire. Do not attempt to return to your home until fire personnel have deemed it safe to do so.

Even if the fire did not damage your house, do not expect to return to normal routines immediately. Expect that utility infrastructure may have been damaged and repairs may be necessary. When you return to your home, check for hazards, such as gas or water leaks and electrical shorts. Turn off damaged utilities if you did not do so previously. Request that the fire department or utility companies turn the utilities back on once the area is secured. Similarly, water supply systems may have been damaged; do not drink from the tap until you have been advised that it is safe to do so. Finally, keep a “fire watch”; look for smoke or sparks in houses and other buildings.

When returning home after a wildfire (FEMA 2021a):

- Avoid hot ash, charred trees, smoldering debris, and embers. The ground may have hot spots that can burn you or ignite another fire.
- Use a respirator to limit your exposure to dust particles; wet debris to minimize aerosolization. People with asthma, chronic obstructive pulmonary disease, or other lung ailments should take precautions in areas with poor air quality.
- Send text messages or use social media to contact family and friends. Phone lines are often busy following a disaster. Limit calls to emergencies only.

Once at home conduct the following (Alaska Wildland Fire Coordinating Group [AWFCG] 2009):

- Check the roof and perimeter of the home right away; extinguish any smoldering debris and sparks.
- Be aware of downed power lines and other hazards.
- Check propane tanks, regulators, and lines before turning on gas. Only a qualified technician should turn on utilities.
- Check the house carefully for hidden embers or smoldering fires.
- Check inside the attic for embers.

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- Check the yard for burning vegetation, woodpiles, fences, or other materials.
- Keep doors and windows closed.
- Document property damage with photographs. Conduct an inventory of damaged or missing items and contact your insurance company for assistance.

Wildland fire smoke is particulate matter, a mixture of micro solids and liquid droplets suspended in air. The size of the particles is linked to their potential for causing health issues. Particles less than 2.5 micrometers in diameter present the greatest issues, since they can penetrate deep into the lungs, or even the bloodstream. Wildland fire smoke particles are generally smaller than 0.5 microns in diameter. Exposure to these particles can impact both lung and heart health. Particles larger than 10 micrometers in diameter are less of a concern; however, they can irritate eyes, nose, throat, and skin. Follow these tips to reduce your exposure to smoke (ADEC 2021):

- Pay attention to local air quality reports and stay alert to any health warnings related to smoke.
- Use common sense. If it's smoky outside, limit time outdoors and do not allow children to play outdoors.
- Close windows and doors when smoky.
- Clean air filters and vents in home.
- Plan activities away from dense smoke.

Insurance Claims

Preparedness is a crucial factor in the event of a catastrophe. Reviewing your insurance policy now can prevent total loss later. Once there is an imminent disaster, insurance carriers may decide against adding or amending coverage. Be aware whether you have adequate coverage—if you have replacement cost or actual cash value coverage. Replacement cost is the amount it would take to rebuild or replace your home and its contents with similar materials or goods. Actual cash value is replacement cost minus depreciation (Alaska Department of Commerce, Community, and Economic Development [ADCCED] 2021).

Tips for knowing your insurance coverage (ADCCED 2021):

- Carefully read and understand your insurance policy, particularly all endorsements/riders.
- Verify that your policy covers additional living expenses, including temporary housing, if you can't return home.
- Consider adding increased cost of construction or building ordinance coverage. This pays for any increased cost to replace or repair the home to meet requirements of current laws or ordinances.
- Consider special coverage for valuables. This covers jewelry, furs, coins, guns, stamps, computers, antiques, musical instruments, and other high-value possession that exceed normal policy limits.

Your insurance agent is the best source of information for submitting a claim. It is recommended you take photos of your home in preparation of an emergency and keep the photos in a safe place as this will make the insurance claim process easier. Most of the expenses incurred during the time you are forced to live elsewhere may be reimbursed, so be sure to keep all receipts.

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Tips for streamlining insurance claims (ADCCED 2019):

- Keep copies and records of all communication between you and the adjuster.
- Take photos and videos of the damage before things are repaired to present to the adjuster.
- Prepare a detailed list of the destroyed or damaged items.
- Wait on making repairs until your insurance company has inspected the property and you have reached an agreement on the cost of repairs.
- If it's safe, make temporary repairs to prevent further damage by covering leaking roofs, broken windows, and damaged walls. Keeps receipts for the adjuster.
- If you can't stay in your home due to damage, most policies have coverage for additional living expenses while repairs are being made.
- Save all receipts, including food and hotel as well as any other necessities.

Community Safety: Post-Fire Floods and Debris Flows

Large-scale wildfires significantly modify the terrain and surface conditions. Usually, vegetation absorbs rainfall, reducing the amount of runoff. However, wildfires leave the ground, barren, charred, and unable to absorb water, creating the perfect conditions for flash flooding, mudflows, and debris flows. Floods are the most common and costly natural hazard in the nation. Flash floods are particularly common after wildfires and can occur within minutes after the beginning of a rainstorm. Even areas that are not usually susceptible to floods are at risk, due to the altered landscape (FEMA 2021b).

Factors that contribute to flooding and debris flows are steep slopes, heavy rainfall, weak or loose rock and soil, and improper construction and grading. Even small rainfall can cause a flash flood, transporting debris and damaging homes and other structures. Flood risk remains significantly higher until vegetation is restored, which can be up to 5 years after a wildfire. Flooding and flood damage is likely more extreme, as debris and ash left from the fire can form mudflows. As rainwater moves across barren terrain, it can also pick up and transport soil and sediment—causing greater damage (FEMA 2021b).

A post-fire flood doesn't have to be a catastrophic event to bring high damage expenses, and it is not necessary to live in a high-risk flood area to incur flood damage. In fact, from 2014 to 2018, policyholders not residing in high-risk flood areas filed over 40% of all National Flood Insurance Program claims (FEMA 2021b).

Property owners should remember to (FEMA 2021b):

- Be prepared. Develop an evacuation plan, keep important papers in a safe, waterproof place, and itemize and record (take photos) of valuables and other possessions inside and outside the home.
- Buy flood insurance. Most standard policies do not cover flood damage.
- Plan ahead. Gather supplies in case of a storm, upgrade your home against damage, and review insurance coverage.

Mobilizing Your Community

Several factors make the KPB face significant emergency management challenges. Some of the factors include the lack of a widespread interconnected road system; unusual and unpredictable weather;

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geographic isolation; an aging community infrastructure; and communication issues. In some cases, it may take up to a week for disaster assistance to reach impacted communities. Thus, it is important to create local community response and recovery teams. The local Emergency Manager will collaborate with state and federal partners to manage disaster response and urgent needs. Still, mobilizing a response and recovery team or a group of teams in a community can function as a vital part of the recovery procedure (Alaska Division of Homeland Security & Emergency Management [DHSEM] 2011).

Objectives for response and recovery teams include (DHSEM 2011):

- Safety/damage assessment of homes, businesses, and public infrastructure.
- Identity people in shelters who require special care and those who need to be relocated into specialized-care facilities.
- Locating and opening relief-supply food-distribution points.
- Produce, update, and distribute a disaster fact sheet. Include critical public information to aid emergency responders, residents, and the media.
- Track costs for local responders. This will help recovering costs if determined eligible for state or federal disaster assistance.
- Monitor and address hazardous environmental situations such as air quality, mudslides, and weakened trees.
- Assess the need to identify specific routes and timeframes for critical relief supplies.

Residents throughout Alaska are encouraged to join forces to create local Alaskan Firewise Communities (AFCs) to minimize and prevent wildfire losses. AFCs are community-based organizations that mobilize residents to protect their properties, communities, and environments from disastrous wildfires. AFCs educate homeowners about community wildfire preparedness activities while collaborating with local fire officials to plan and implement projects that increase the wildfire resilience of their communities (AWFCG 2009).

The following resources may be helpful for the post-fire and volunteer coordinators (ADHSEM 2011):

- Alaska Housing Finance Corporation
- Food Bank of Alaska
- Alaska Division of Forestry (DOF)
- AICC
- American Red Cross
- Salvation Army
- Federal or state temporary disaster housing
- FEMA
- Tribal nonprofits
- Churches and other faith-based organizations
- Voluntary organizations active in disaster
- National Flood Insurance Program

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- Individual and family grant programs

Communication

After a team is assembled and immediate tasks are identified, find the best way to spread information in your community. You may distribute flyers, set up a voicemail box, work to find pets or livestock that have been displaced, develop a mailing list for property owners, hold regular public meetings, etc. It is important that a long-term communications plan is developed (FEMA 2011). Applying the following steps can aid in successful communication (FEMA 2011):

- Convey post-wildfire hazards to the public.
- Develop and maintain emergency notification systems that allow authorized official to alert residents of emergency situations.
- Public meetings to inform the public about programs and services available in the community.
- Determine the best way to relay information, e.g., phone calls, radio, TV, or social media.
- Find out how emergency response teams, local officials, and volunteers will communicate with the community.

Post-Fire Rehabilitation and Resources

Wildfires that cause extensive damage necessitate dedicated efforts to avert issues afterwards. Loss of vegetation increases soil susceptibility to erosion; water runoff may increase and lead to flooding; sediments and debris may be transported downstream and damage properties or saturate reservoirs putting endangered species and water reserves at risk (USFS 2021b). Following a fire, the primary priority is emergency stabilization to prevent additional damage to life, property, or natural resources. The soil stabilization work starts immediately and may proceed for up to a year. The rehabilitation effort to restore damage caused by the fire starts after the fire is out and may persist for various years. For the most part, rehabilitation efforts focus on the lands not likely to recover naturally from wildfire damage (USFS 2021b).

The USFS's post-fire emergency stabilization program is called the Burned Area Emergency Response (BAER) program. The goal of the BAER program is to discover post-wildfire threats to human life and safety, property, and critical natural or cultural resources on USFS lands and take appropriate actions to mitigate unacceptable risks (USFS 2021c). BAER groups are composed of trained professionals in different fields: soil scientists, engineers, hydrologists, biologists, botanists, archaeologists, and others who quickly assess the burned area and advise emergency stabilization treatments (USFS 2021c).

The Natural Resources Conservation Service (NRCS) Emergency Watershed Protection (EWP) program aids communities recover from natural disasters by providing technical and financial services for watershed repair on public (state and local) and private land. The goal is reduced flood risk via funding and expert advice for land treatments. The EWP program can provide up to 75% of funds; local sponsors must acquire the remaining 25% in cash or in-kind services (NRCS 2021a).

Examples of potential treatments include (USFS 2021c):

- Hillside stabilization (for example, placing bundles of straw parallel to the slope to slow erosion)
- Hazard tree cutting
- Felling trees perpendicular to the slope contour to reduce runoff

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- Mulching areas seeded with native vegetation
- Stream enhancements and construction of catchments to control erosion, runoff, and debris flows
- Planting or seeding native species to limit spread of invasive species

A comparison of potential hillside, channel, and road treatments is available at https://www.afterwildfirenm.org/post-fire-treatments/which-treatment-do-i-use.

The effectiveness of various treatments is described at https://www.fws.gov/fire/downloads/ES_BAR/Post-Fire_Hillslope_Treatment_Synthesis.pdf.

Specific Treatment Details

Hillslope Treatments

Cover Applications:

- Dry mulch provides immediate ground cover with mulch to reduce erosion and downstream flow.
- Wet mulch (hydromulch) provides immediate cover to hold moisture and seeds on slopes using a combination of organic fibers, glue, suspension agents, and seeds (most effective on inaccessible slopes).
- Slash spreading provides ground cover to reduce erosion by felling trees in burned areas.
- Seeding reduces soil erosion over time with an application of native seed mixtures (most successful in combination with mulching). Breaking up and loosening topsoil to break down the hydrophobic layer on top of the soil is also effective.

Erosion Barrier Applications:

- Erosion control mat: organic mats staked on the soil surface to provide stability for vegetation establishment.
- Log erosion barrier: trees felled perpendicular to the hillslope to slow runoff.
- Fiber rolls (wattles): rolls placed perpendicular to the hillslope to reduce surface flows and reduce erosion.
- Silt fencing: permeable fabric fencing installed parallel to the slope contour to trap sediment as water flows down the hillslope.

Channel Treatments

- Check dam: small dams built to trap and store sediment in stream channels.
- In-channel tree felling: felling trees in a staggered pattern in a channel to trap debris and sediment.
- Grade stabilizer: structures made of natural materials placed in ephemeral channels for stabilization.
- Stream bank armoring: reinforcing streambanks with natural materials to reduce bank cutting during stream flow.

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- Channel deflector: an engineered structure to direct flow away from unstable banks or nearby roads.
- Debris basin: constructed to store large amounts of sediment moving in a stream channel.

Road and Trail Treatments

- Outsloping and rolling dips (water bars) alter the road shape or template to disperse water and reduce erosion.
- Overflow structures protect the road by controlling runoff and diverting stream flow to constructed channels.
- Low water stream crossing: culverts replaced by natural fords to prevent stream diversion and keep water in the natural channel.
- Culvert modification: upgrading culvert size to prevent road damage.
- Debris rack and deflectors: structure placed in a stream channel to collect debris before reaching a culvert.
- Riser pipes filter out debris and allow the passage of water in stream channels.
- Catchment-basin cleanout: using machinery to clean debris and sediment out of stream channels and catchment basins.
- Trail stabilization: constructing water bars and spillways to provide drainage away from the trail surface.

These treatments and descriptions are further detailed at https://afterwildfirenm.org/post-fire-treatments/treatment-descriptions.

For more information about how to install and build treatments, see the Wildfire Restoration Handbook at https://www.rmfi.org/sites/default/files/hero-content-files/Fire-Restoration-HandbookDraft_2015_2.compressed_0.pdf.

Timber Salvage

Many private landowners may decide to harvest trees killed in the fire, a decision that can be highly controversial. Any remaining trees post-fire can be instrumental for soil and wildlife habitat recovery. Furthermore, burned soils are especially susceptible to soil compaction and erosion. Therefore, timber salvage must be performed by professionals. Several programs assist landowners with timber salvage, including the NRCS Environmental Quality Incentives Program (EQIP) (NRCS 2021b).

Invasive Species Management and Native Revegetation

The BLM has identified more than 27,000 invasive weed infestations in Alaska. Further complicating the invasive weed problem are more frequent and intense wildfires. Wildfire provides opportunity for many invasive species to dominate the landscape because many of these species thrive on recently burned landscapes. Therefore, it is imperative that landowners prevent invasive establishment by eradicating weeds early, planting native species, and limiting invasive seed dispersal (BLM 2021).

Planting native seeds is an economical way to restore a disturbed landscape. Vegetation provides protection against erosion and stabilizes exposed soils. To be successful, seeds must be planted during

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the proper time of year and using correct techniques. Use a native seed mixture with a diversity of species and consider the species' ability to compete with invasive species. Before planting, the seedbed must be prepared with topsoil and by raking to break up the hydrophobic soil layer. If you choose to transplant or plant native species, consider whether the landscape has made a sufficient recovery to ensure the safety of the individuals (ADNR, Division of Agriculture [DOA] 2008).

A comprehensive revegetation manual for Alaska can be found here: http://dnr.alaska.gov/ag/akpmc/pdf/RevegManual.pdf

Long-Term Community Recovery

On non-federal land, recovery efforts are the responsibility of local governments and private landowners. Challenges associated with long-term recovery include homes that were severely damaged or were saved but are located in high-severity burn areas. Furthermore, homes saved but located on unstable slopes or in areas in danger of flooding or landslides present a more complicated challenge. Economically, essential businesses that were burned or were otherwise forced to close pose a challenge to communities of all sizes. Given these complications, rebuilding and recovery efforts can last for years, with invasive species control and ecosystem restoration lasting even longer (CUSP 2016). It is critical that a long-term plan is in place and there is sufficient funding and support for all necessary ecosystem and community recovery. To learn about more post-fire recovery resources, visit the After the Flames website here: https://aftertheflames.com/resources/

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CHAPTER 5 – MONITORING AND EVALUATION STRATEGY

Developing an action plan and an assessment strategy that identifies roles and responsibilities, funding needs, and timetables for completing highest-priority projects is an important step in organizing the implementation of the CWPP. Table 4.1 in the previous section identifies tentative timelines and monitoring protocols for fuels reduction treatments, the details of which are outlined below.

All stakeholders and signatories to this CWPP desire worthwhile outcomes. We also know that risk reduction work on the ground, for the most part, is often not attainable in a few months—or even years. The amount of money and effort invested in implementing a plan such as this requires that there be a means to describe, quantitatively or qualitatively, if the goals and objectives expressed in this plan are being accomplished according to expectations.

This section will present a suite of recommended CWPP monitoring strategies intended to help track progress, evaluate work accomplished, and assist planners in adaptive management.

The strategies outlined in this section take into account several variables:

- Do the priorities identified for treatment reflect the goals stated in the plan? Monitoring protocols can help address this question.
- Can there be ecological consequences associated with fuels work? We may be concerned about soil movement and/or invasive species encroachment post-treatment. Relatively cost-effective monitoring may help clarify changes.
- Vegetation will grow back. Thus, fuel break maintenance and fuels modification in both the home ignition zone and at the landscape scale require periodic assessment. Monitoring these changes can help decision-makers identify appropriate treatment intervals.

As the CWPP evolves over time, there may be a need to track changes in policy, requirements, stakeholder changes, and levels of preparedness. These can be significant for any future revisions and/or addendums to the CWPP.

Table 5.1 identifies recommended monitoring strategies, both quantifiable and non-quantifiable, for assessing the progress of the CWPP. It must be emphasized that these strategies are 1) not exhaustive (new strategies and protocols can evolve with new CWPP action items) and 2) dependent on available funds and personnel to implement them.

There are many resources for designing and implementing community based, multi-party monitoring that could support and further inform a monitoring program for the CWPP (Egan 2013). Multiparty monitoring involves a diverse group consisting of community members, community-based groups, regional and national interest groups, and public agencies. This approach increases understanding of the effects of restoration efforts and trust among restoration partners. Multiparty monitoring may be more time-consuming due to the collaborative nature of the work; therefore, a clear and concise monitoring plan must be developed.

Table 5.1. Recommended Monitoring Strategies

Strategy	Task/Tool	Lead	Remarks
Photographic record (documents pre- and post-fuels reduction work, evacuation routes, workshops, classes, field trips, changes in open space, treatment type, etc.)	Establish field global positioning system (GPS) location; photo points of cardinal directions; keep photos protected in archival location	Core Team member	Relatively low cost; repeatable over time; used for programs, and tracking objectives
Number of acres treated (by fuel type, treatment method)	GPS/GIS/fire behavior prediction system	Core Team member	Evaluating costs, potential fire behavior
Number of home ignition zones/defensible space treated to reduce structural ignitability	GPS	Homeowner	Structure protection
Number of residents/citizens participating in any CWPP projects and events	Meetings, media interviews, articles	Core Team member	Evaluate culture change objective
Number of homeowner contacts (brochures, flyers, posters, etc.)	Visits, phone	Agency representative	Evaluate objective
Number of jobs created	Contracts and grants	Core Team member	Evaluate local job growth
Education outreach: number, kinds of involvement	Workshops, classes, field trips, signage	Core Team member	Evaluate objectives
Emergency management: changes in agency response capacity	*Collaboration*	Agency representative	Evaluate mutual aid
Codes and policy changes affecting CWPP	Qualitative	Core Team	CWPP changes
Number of stakeholders	Added or dropped	Core Team	CWPP changes
Wildfire acres burned, human injuries/fatalities, infrastructure loss, environmental damage, suppression and rehabilitation costs	Wildfire records	Core Team	Compare with 5- or 10-year average

An often overlooked but critical component of fuel treatment is monitoring. It is important to evaluate whether fuel treatments have accomplished their defined objectives and whether any unexpected outcomes have occurred. In addition to monitoring mechanical treatments, it is important to carry out comprehensive monitoring of burned areas to establish the success of fuels reduction treatments on fire behavior, as well as monitoring for ecological impacts, repercussions of burning on wildlife, and effects on soil chemistry and physics. Adaptive management is a term that refers to adjusting future management

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based on the effects of past management. Monitoring is required to gather the information necessary to inform future management decisions. Economic and legal questions may also be addressed through monitoring. In addition, monitoring activities can provide valuable educational opportunities for students.

The monitoring of each fuel's reduction project would be site-specific, and decisions regarding the timeline for monitoring and the type of monitoring to be used would be determined by project. Monitoring and reporting contribute to the long-term evaluation of changes in ecosystems, as well as the knowledge base about how natural resource management decisions affect both the environment and the people who live in it.

The most important part of choosing a monitoring program is selecting a method appropriate to the people, place, and available time. Several levels of monitoring activities meet different objectives, have different levels of time intensity, and are appropriate for different groups of people. They include the following:

Minimum—Level 1: Pre- and Post-project Photographs

Appropriate for many individual homeowners who conduct fuels reduction projects on their properties.

Moderate—Level 2: Multiple Permanent Photo Points

Permanent photo locations are established using rebar or wood posts, global positioning system (GPS)-recorded locations, and photographs taken on a regular basis. Ideally, this process would continue over several years. This approach might be appropriate for more enthusiastic homeowners or for agencies conducting small-scale, general treatments.

High—Level 3: Basic Vegetation Plots

A series of plots can allow monitors to evaluate vegetation characteristics such as species composition, percentage of cover, and frequency. Monitors then can record site characteristics such as slope, aspect, and elevation. Parameters would be assessed pre- and post-treatment. The monitoring agency should establish plot protocols based on the types of vegetation present and the level of detail needed to analyze the management objectives.

Intense—Level 4: Basic Vegetation Plus Dead and Downed Fuels Inventory

The protocol for this level would include the vegetation plots described above but would add more details regarding fuel loading. Crown height or canopy closure might be included for live fuels. Dead and downed fuels could be assessed using other methods, such as Brown's transects (Brown 1974), an appropriate photo series (Ottmar et al. 2000), or fire monitoring (Fire Effects Monitoring and Inventory System [FIREMON]; Lutes et al. 2006) plots.

IDENTIFY TIMELINE FOR UPDATING THE CWPP

The HFRA allows for maximum flexibility in the CWPP planning process, permitting the Core Team to determine the time frame for updating the CWPP; it is suggested that a formal revision be made on the fifth anniversary of signing and every 5 years following. The Core Team members are encouraged to meet on an annual basis to review the project list, discuss project successes, and strategize regarding project implementation funding. If possible, the CWPP revision should coincide with the revision of the Borough HMP. A goal of the 2018 ALAH Plan is to maintain and implement the CWPP, including project recommendations.

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IMPLEMENTATION

This CWPP makes recommendations for prioritized fuels reduction projects and measures to reduce structural ignitability and carry out public education and outreach. Implementation of fuels reduction projects need to be tailored to the specific project and will be unique to the location depending on available resources and regulations. On-the-ground implementation of the recommendations in the CWPP planning area will require development of an action plan and assessment strategy for completing each project. This step will identify the roles and responsibilities of the people and agencies involved, as well as funding needs and timetables for completing the highest-priority projects (SAF 2004). Information pertaining to funding is provided in Appendix F.

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ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
ADCCED	Alaska Department of Commerce, Community, and Economic Development
ADEC	Alaska Department of Environmental Conservation
AICC	Alaska Interagency Coordination Center
AIWFMP	Alaska Interagency Wildland Fire Management Plan, 2021
ALAH	All Lands/All Hands
ANCSA	Alaska Native Claims Settlement Act of 1971
ARRA	Alaska Region Risk Assessment
ATV	all-terrain vehicle
AWFCG	Alaska Wildland Fire Coordinating Group
BAER	Burned Area Emergency Rehabilitation
BLM	Bureau of Land Management
BSM	battered sallow moth
BTU/ft/sec	British thermal units per foot per second
CAR	community at risk
ch/hr	chains per hour
CIG	Conservation Innovation Grants
CIRI	Cook Inlet Region, Inc.
Cohesive Strategy	National Cohesive Wildland Fire Management Strategy
CRS	Congressional Research Service
County	Dukes County
CVARs	Community Values at Risk
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
DEM	digital elevation model
DHS	Department of Homeland Security
DHSEM	Alaska Division of Homeland Security & Emergency Management
EAS	Emergency Alert System
EBC	European bird cherry
EMS	Emergency Management System
eNVC	expected net value change
EPA	U.S. Environmental Protection Agency
EQIP	Environmental Quality Incentives Program

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ESRI	Environmental Systems Research Institute
EWP	Emergency Watershed Protection
FAC	fire-adapted community
FEMA	Federal Emergency Management Agency
FLAME	Federal Land Assistance, Management and Enhancement Act
FMU	Fire Management Unit
FP&S	Fire Prevention and Safety
FRI	fire return interval
GAID	Geographic Area Interagency Division
GIS	geographic information system
GOPR	Governor's Office of Planning and Research
GPS	global positioning system
HFRA	Healthy Forest Restoration Act
HIZ	Home Ignition Zone
HMP	Hazard Mitigation Plan
HVRA	highly valued resource and asset
IARC	International Arctic Research Center
IBHS	Institute for Business and Home Safety
ICC	International Code Council
IFTDSS	Interagency Fuel Treatment Decision Support System
ISO	International Standards Organization
JPA	Joint Powers Agreement
KFNP	Kenai Fjords National Park
LCNPP	Lake Clark National Park and Preserve
MA	Management Area
MFI	mean fire interval
NEPA	National Environmental Policy Act
NFP	National Fire Plan
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWCG	National Wildfire Coordinating Group
PERI	Public Entity Risk Institute
PPE	personal protective equipment
QWRA	Quantitative Wildfire Risk Assessment

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RAWS	remote automated weather station
RFA	Rural Fire Assistance
SAF	Society of American Foresters
SAFER	Staffing for Adequate Fire and Emergency Response
SHPO	State Historic Preservation Office
SWCA	SWCA Environmental Consultants
UAA	University of Alaska Anchorage
ULI	Urban Land Institute
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VCC	Vegetation Condition Class
VDEP	Vegetation Departure
WUI	wildland urban interface

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GLOSSARY OF TERMS

Aspect: Cardinal direction toward which a slope faces in relation to the sun (National Wildfire Coordinating Group [NWCG] 2021a).

Active Crown Fire: A crown fire in which the entire fuel complex is involved in flame, but the crowning phase remains dependent on heat released from surface fuel for continued spread. An active crown fire presents a solid wall of flame from the surface through the canopy fuel layers. Flames appear to emanate from the canopy as a whole rather than from individual trees within the canopy. Active crown fire is one of several types of crown fire and is contrasted with **passive crown fires**, which are less vigorous types of crown fire that do not emit continuous, solid flames from the canopy (SWCA).

Available Canopy Fuel: The mass of canopy fuel per unit area consumed in a crown fire. There is no post-frontal combustion in canopy fuels, so only fine canopy fuels are consumed. We assume that only the foliage and a small fraction of the branchwood is available (Twisp 2021).

Available Fuel: The total mass of ground, surface and canopy fuel per unit area available fuel consumed by a fire, including fuels consumed in postfrontal combustion of duff, organic soils, and large woody fuels (Twisp 2021).

Backfiring: Intentionally setting fire to fuels inside a control line to contain a fire (Twisp 2021).

Biomass: Organic material. Also refers to the weight of organic material (e.g., biomass roots, branches, needles, and leaves) within a given ecosystem (Twisp 2021).

Burn Severity: A qualitative assessment of the heat pulse directed toward the ground during a fire. Burn severity relates to soil heating, large fuel and duff consumption, consumption of the litter and organic layer beneath trees and isolated shrubs, and mortality of buried plant parts (SWCA).

Canopy: The more or less continuous cover of branches and foliage formed collectively by adjacent trees and other woody species in a forest stand. Where significant height differences occur between trees within a stand, formation of a multiple canopy (multi-layered) condition can result (SWCA).

Chain: Unit of measure in land survey, equal to 66 feet (20 M) (80 chains equal 1 mile). Commonly used to report fire perimeters and other fireline distances. Popular in fire management because of its convenience in calculating acreage (example: 10 square chains equal one acre) (NM FFA 2021).

Climate Adaptation: Adaptation is an adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (Governor's Office of Planning and Research [GOPR] 2020).

Climate Change: A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods (GOPR 2020).

Community Assessment: An analysis designed to identify factors that increase the potential and/or severity of undesirable fire outcomes in wildland urban interface communities (SWCA).

Communities at Risk: Defined by the Healthy Forest Restoration Act of 2003 as "Wildland-Urban Interface Communities within the vicinity of federal lands that are at high risk from wildfire" (GOPR 2020).

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Community Emergency Response Team (CERT): The CERT program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a consistent, nationwide approach to volunteer training and organization that professional responders can rely on during disaster situations, allowing them to focus on more complex tasks.

Community Wildfire Protection Plan (CWPP): A planning document that seeks to reduce the threat to life and property from wildfire by identifying and mitigating wildfire hazards to communities and infrastructure located in the WUI as developed from the Healthy Forest Restoration Act of 2003. Addresses issues such as wildfire response, hazard mitigation, community preparedness, or structure protection (SWCA).

Conditional Surface Fire: A potential type of fire in which conditions for sustained conditional surface fire active crown fire spread are met but conditions for crown fire initiation are not. If the fire begins as a surface fire, it is expected to remain so. If it begins as an active crown fire in an adjacent stand, it may continue to spread as an active crown fire (Twisp 2021).

Contain: A tactical point at which a fire's spread is stopped by and within specific contain features, constructed or natural; also, the result of stopping a fire's spread so that no further spread is expected under foreseeable conditions. For reporting purposes, the time and date of containment. This term no longer has a strategic meaning in Federal wildland fire policy (Twisp 2021).

Control: To construct fireline or use natural features to surround a fire and any control spot fires therefrom and reduce its burning potential to a point that it no longer threatens further spread or resource damage under foreseeable conditions. For reporting purposes, the time and date of control. This term no longer has a strategic meaning in Federal wildland fire policy (Twisp 2021).

Cover Type: The type of vegetation (or lack of it) growing on an area, based on cover type minimum and maximum percent cover of the dominant species, species group or non-living land cover (such as water, rock, etc.). The cover type defines both a qualitative aspect (the dominant cover type) as well as a quantitative aspect (the abundance of the predominant features of that cover type) (Twisp 2021).

Creeping Fire: A low intensity fire with a negligible rate of spread (Twisp 2021).

Crown Fire: A fire that advances at great speed from crown to crown in tree canopies, often well in advance of the fire on the ground (National Geographic Society 2021).

Defensible Space: An area around a structure where fuels and vegetation are modified, cleared, or reduced to slow the spread of wildfire toward or from a structure. The design and distance of the defensible space is based on fuels, topography, and the design/materials used in the construction of the structure (SWCA).

Duff: The layer of decomposing organic materials lying below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil (SWCA).

Ecosystem: An interacting natural system including all the component organisms together with the abiotic environment and processes affecting them (SWCA).

Environmental Conditions: That part of the fire environment that undergoes short-term changes: weather, which is most commonly manifest as windspeed, and dead fuel moisture content (Twisp 2021).

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Escape Route: A preplanned and understood route firefighters take to move to a safety zone or other low-risk area. When escape routes deviate from a defined physical path, they should be clearly marked (flagged) (SWCA).

Evacuation: The temporary movement of people and their possessions from locations threatened by wildfire (SWCA).

Fire-Adapted Communities: A fire-adapted community collaborates to identify its wildfire risk and works collectively on actionable steps to reduce its risk of loss. This work protects property and increases the safety of firefighters and residents (USFA 2021a).

Fire Behavior: The manner in which fuel ignites, flame develops, and fire spread and exhibits other related phenomena as determined by the interaction of fuels, weather, and topography (Frames 2021).

Fire Break: Areas where vegetation and organic matter are removed down to mineral soil (SWCA).

Fire Environment: The characteristics of a site that influence fire behavior. In fire modeling the fire environment is described by surface and canopy fuel characteristics, windspeed and direction, relative humidity, and slope steepness (Twisp 2021).

Fire Frequency: A broad measure of the rate of fire occurrence in a particular area. For historical analyses, fire frequency is often expressed using the fire return interval calculation. For modern-era analyses, where data on timing and size of fires are recorded, fire frequency is often best expressed using fire rotation (SWCA)

Fire Hazard: Fire hazard is the potential fire behavior or fire intensity in an area, given the type(s) of fuel present – including both the natural and built environment – and their combustibility (GOPR 2020).

Fire Hazard Severity Zones: Fire hazard severity zones are defined based on vegetation, topography, and weather (temperature, humidity and wind), and represents the likelihood of an area burning over a 30- to 50-year time period without considering modifications such as fuel reduction efforts (GOPR 2020).

Fire History: The chronological record of the occurrence of fire in an ecosystem or at a specific site. The fire history of an area may inform planners and residents about the level of wildfire hazard in that area (SWCA).

Fire Intensity: A general term relating to the heat energy released in a fire (SWCA).

Fireline Intensity: Amount of heat release per unit time per unit length of fire front. Numerically, the product of the heat of combustion, quantity of fuel consumed per unit area in the fire front, and the rate of spread of a fire, expressed in kilowatts per minute (SWCA). This expression is commonly used to describe the power of wildland fires, but it does not necessarily follow that the severity, defined as the vegetation mortality, will be correspondingly high (Twisp 2021).

Fire Prevention: Activities such as public education, community outreach, planning, building code enforcement, engineering (construction standards), and reduction of fuel hazards that is intended to reduce the incidence of unwanted human-caused wildfires and the risks they pose to life, property or resources (GOPR 2020).

Fire Regime: A measure of the general pattern of fire frequency and severity typical to a particular area or type of landscape: The regime can include other metrics of the fire, including seasonality and typical fire size, as well as a measure of the pattern of variability in characteristics (SWCA).

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Fire Regime Condition Class: Condition classes are a function of the degree of fire regime condition class departure from historical fire regimes resulting in alterations of key ecosystem components such as composition structural stage, stand age, and canopy closure (Twisp 2021).

Fire Return Interval: Number of years (interval) between two successive fires in a designated area (SWCA).

Fire Risk: "Risk" takes into account the intensity and likelihood of a fire event to occur as well as the chance, whether high or low, that a hazard such as a wildfire will cause harm. Fire risk can be determined by identifying the susceptibility of a value or asset to the potential direct or indirect impacts of wildfire hazard events (GOPR 2020).

Fire Severity: A qualitative measure of the immediate effects of fire on the fire severity ecosystem. It relates to the extent of mortality and survival of plant and animal life both aboveground and belowground and to loss of organic matter. It is determined by heat released aboveground and belowground. Fire Severity is dependent on intensity and residence time of the burn. For trees, severity is often measured as percentage of basal area removed. An intense fire may not necessarily be severe (Twisp 2021).

Flammability: The relative ease with which fuels ignite and burn regardless of the quantity of the fuels (SWCA).

Flame Length: The length of flames in the propagating fire front measured along the slant of the flame from the midpoint of its base to its tip. It is mathematically related to fireline intensity and tree crown scorch height (Twisp 2021).

Foliar Moisture content: Moisture content (dry weight basis) of live foliage, foliar moisture content expressed as a percent. Effective foliar moisture content incorporates the moisture content of other canopy fuels such as lichen, dead foliage, and live and dead branchwood (Twisp 2021).

Forest Fire: uncontrolled burning of a woodland area (National Geographic Society 2021).

Fuel Break: A natural or manmade change in fuel characteristics which affects fire behavior so that fires burning into them can be more readily controlled (NWCG 2021b).

Fuel Complex: The combination of ground, surface, and canopy fuel strata (Twisp 2021).

Fuel Condition: Relative flammability of fuel as determined by fuel type and environmental conditions (SWCA).

Fuel Continuity: A qualitative description of the distribution of fuel both horizontally and vertically. Continuous fuels readily support fire spread. The larger the fuel discontinuity, the greater the fire intensity required for fire spread (Twisp 2021).

Fuel Loading: The volume of fuel in a given area generally expressed in tons per acre (SWCA). Dead woody fuel loadings are commonly described for small material in diameter classes of 0 to 0.25, 0.25 to 1, and 1 to 3 inches and for large material greater than 3 inches (Twisp 2021).

Fuel Management/Fuel Reduction: Manipulation or removal of fuels to reduce the likelihood of ignition and to reduce potential damage in case of a wildfire. Fuel reduction methods include prescribed fire, mechanical treatments (mowing, chopping), herbicides, biomass removal (thinning or harvesting or trees, harvesting of pine straw), and grazing. Fuel management techniques may sometimes be combined for greater effect (SWCA).

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Fuel Model: A set of surface fuel bed characteristics (load and surface-area-to- fuel model volume-ratio by size class, heat content, and depth) organized for input to a fire model (Twisp 2021).

Fuel Modification: The manipulation or removal of fuels (i.e., combustible biomass such as wood, leaves, grass, or other vegetation) to reduce the likelihood of igniting and to reduce fire intensity. Fuel modification activities may include lopping, chipping, crushing, piling and burning, including prescribed burning. These activities may be performed using mechanical treatments or by hand crews. Herbicides and prescribed herbivory (grazing) may also be used in some cases. Fuel modification may also sometimes be referred to as "vegetation treatment" (GOPR 2020).

Fuel Moisture Content: This is expressed as a percent or fraction of oven dry fuel moisture content weight of fuel. It is the most important fuel property controlling flammability. In living plants, it is physiologically bound. Its daily fluctuations vary considerably by species but are usually above 80 to 100 percent. As plants mature, moisture content decreases. When herbaceous plants cure, their moisture content responds as dead fuel moisture content, which fluctuates according to changes in temperature, humidity, and precipitation (Twisp 2021).

Fuel Treatment: The manipulation or removal of fuels to minimize the probability of ignition and/or to reduce potential damage and resistance to fire suppression activities (NWCG 2021g). Synonymous with fuel modification.

Grazing: There are two types of grazing: 1) traditional grazing, and 2) targeted grazing. Traditional grazing refers to cattle that are managed in extensive pastures to produce meat. Targeted grazing involves having livestock graze at a specific density for a given period of time for the purpose of managing vegetation. Even though both kinds of grazing manage fuel loading in range- and forested lands, targeted grazing is different in that its sole purpose is to manage fuels. Targeted grazing is done by a variety of livestock species such as sheep, goats, or cows (UC, Agriculture and Natural Resources 2019).

Ground Fire: Fire that burns organic matter in the soil, or humus; usually does not appear at the surface (National Geographic Society 2021).

Ground Fuels: Fuels that lie beneath surface fuels, such as organic soils, duff, decomposing litter, buried logs, roots, and the below-surface portion of stumps (Twisp 2021).

Hazard: A "hazard" can be defined generally as an event that could cause harm or damage to human health, safety, or property (GOPR 2020).

Hazardous Areas: Those wildland areas where the combination of vegetation, topography, weather, and the threat of fire to life and property create difficult and dangerous problems (SWCA).

Hazardous Fuels: A fuel complex defined by type, arrangement, volume, condition, and location that poses a threat of ignition and resistance to fire suppression (NWCG 2021h).

Hazardous Fuels Reduction: Any strategy that reduces the amount of flammable material in a fire-prone ecosystem. Two common strategies are mechanical thinning and controlled burning (Twisp 2021).

Hazard Reduction: Any treatment that reduces the threat of ignition and spread of fire (SWCA).

Highly Valued Resources and Assets (HVRAs): Landscape features that are influenced positively and/or negatively by fire. Resources are naturally occurring, while Assets are human-made (Interagency Fuel Treatment Decision Support System [IFTDSS] 2021).

Ignition: The action of setting something on fire or starting to burn.

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Incident: An occurrence or event, either natural or person-caused, which requires an emergency response to prevent loss of life or damage to property or natural resources (Twisp 2021).

Influence Zone: An area that, with respect to wildland and urban fire, has a set of conditions that facilitate the opportunity for fire to burn from wildland fuels to the home and or structure ignition zone (NWCG 2021).

Initial Attack: The actions taken by the first resources to arrive at a wildfire to protect lives and property, and prevent further extension of the fire (SWCA).

Ladder Fuels: Fuels that provide vertical continuity allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease (SWCA).

Litter: Recently fallen plant material that is only partially decomposed and is still discernible (SWCA).

Manual Treatments: Felling and piling of fuels done by hand. The volume of material generated from a manual fuel treatment is typically too small to warrant a biomass sale therefore collected material is disposed of by burning or chipping. The work can be performed by either a single individual or a large organized crew with powered equipment (UC, Agriculture and Natural Resources 2021a).

Mechanized Treatments: Mechanical treatments pulverize large continuous patches of fuel to reduce the volume and continuity of material. Mechanical treatments can be applied as either mastication or chipping treatments. Both treatments shred woody material, but mastication leaves residue on-site while chipping collects the particles for transportation off site. Similar to hand treatments, mechanical treatments can target specific areas and vegetation while excluding areas of concern. In addition, mechanical treatment is easily scalable to large areas (>30 acres) with little added cost. (UC, Agriculture and Natural Resources 2021b).

Mitigation: Action that moderates the severity of a fire hazard or risk (SWCA).

Mutual Aid: Assistance in firefighting or investigation by fire agencies, irrespective of jurisdictional boundaries (NWCG 2021j).

National Cohesive Strategy: The National Cohesive Wildland Fire Management Strategy is a strategic push to work collaboratively among all stakeholders and across all landscapes, using best science, to make meaningful progress towards the three goals:

- Resilient Landscapes
- Fire Adapted Communities
- Safe and Effective Wildfire Response

Vision: To safely and effectively extinguish fire when needed; use fire where allowable; manage our natural resources; and as a nation, to live with wildland fire (Forests and Rangelands 2021).

Native Revegetation: The process of replanting and rebuilding the soil of disturbed land (e.g., burned) with native plant species (USDA 2005).

Native Species: A species that evolved naturally in the habitat, ecosystem, or region as determined by climate, soil, and biotic factors (USDA 2005).

Overstory: That portion of the trees in a forest which forms the upper or uppermost layer (SWCA).

Passive Crown Fire: A type of crown fire in which the crowns of individual trees or small groups of trees burn, but solid flaming in the canopy cannot be maintained except for short periods. Passive crown fire

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encompasses a wide range of crown fire behavior, from occasional torching of isolated trees to nearly active crown fire. Passive crown fire is also called torching or candling. A fire in the crowns of the trees in which trees or groups of trees torch, ignited by the passing front of the fire. The torching trees reinforce the spread rate, but these fires are not basically different from surface (SWCA).

Prescribed Burning: Any fire ignited by management actions under specific, predetermined conditions to meet specific objectives related to hazardous fuels or habitat improvement. Usually, a written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition (USFS 2021g).

Rate of Spread: The relative activity of a fire in extending its horizontal dimensions. It is expressed as rate of increase of the total perimeter of the fire, as rate of forward spread of the fire front, or as rate of increase in area, depending on the intended use of the information. Usually, it is expressed in chains or acres per hour for a specific period in the fire's history (NWCG 2021d).

Resilience: Resilience is the capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience (GOPR 2020).

Response: Movement of an individual firefighting resource from its assigned standby location to another location or to an incident in reaction to dispatch orders or to a reported alarm (SWCA).

Safety Element: One of the seven mandatory elements of a local general plan (a county plan that forms the foundation for future development), the safety element must identify hazards and hazard abatement provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element should contain general hazard and risk reduction strategies and policies supporting hazard mitigation measures (GOPR 2020).

Slash: Debris left after logging, pruning, thinning, or brush cutting. Slash includes logs, chips, bark, branches, stumps, and broken trees or brush that may be fuel for a wildfire (SWCA).

Slope Percent: The ratio between the amount of vertical rise of a slope and horizontal distance as expressed in a percent. One hundred feet of rise to 100 feet of horizontal distance equals 100 percent (NWCG 2021e).

Suppression: The most aggressive fire protection strategy, it leads to the total extinguishment of a fire (SWCA).

Surface Fire: fire that typically burns only surface litter and undergrowth (National Geographic Society 2021).

Surface Fuel: Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants (SWCA).

Structural Ignitability: The ability of structures (such as homes or fences) to catch fire (SWCA).

Topography: The arrangement of the natural and artificial physical features of an area.

Total Fuel Load: The mass of fuel per unit area that could possibly be consumed in a hypothetical fire of the highest intensity in the driest fuels (Twisp 2021).

Tree Crown: The primary and secondary branches growing out from the main stem, together with twigs and foliage (SWCA).

Understory: Low-growing vegetation (herbaceous, brush or reproduction) growing under a stand of trees. Also, that portion of trees in a forest stand below the overstory (SWCA).

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Understory Fire: A fire burning in the understory, more intense than a surface fire with flame lengths of 1 to 3 m (Twisp 2021).

Values and Assets at Risk: The elements of a community or natural area considered valuable by an individual or community that could be negatively impacted by a wildfire or wildfire operations. These values can vary by community and can include public and private assets (natural and manmade), such as homes, specific structures, water supply, power grids, natural and cultural resources, and community infrastructure, as well as other economic, environmental, and social values (GOPR 2020).

Vulnerable Community: Vulnerable communities experience heightened risk and increased sensitivity to natural hazard and climate change impacts and have less capacity and fewer resources to cope with, adapt to, or recover from the impacts of natural hazards and increasingly severe hazard events because of climate change. These disproportionate effects are caused by physical (built and environmental), social, political, and/ or economic factor(s), which are exacerbated by climate impacts. These factors include, but are not limited to, race, class, sexual orientation and identification, national origin, and income inequality (GOPR 2020).

Wildfire: A "wildfire" can be generally defined as any unplanned fire in a "wildland" area or in the WUI (GOPR 2020).

Wildfire Exposure: During fire suppression activities, an exposure is any area/property that is threatened by the initial fire, but in National Fire Incident Reporting System (NFIRS) a reportable exposure is any fire that is caused by another fire, i.e., a fire resulting from another fire outside that building, structure, or vehicle, or a fire that extends to an outside property from a building, structure, or vehicle (USFA 2020).

Wildfire Influence Zone: A wildland area with susceptible vegetation up to 1.5 miles from the interface or intermix WUI (GOPR 2020).

Wildland: Those unincorporated areas covered wholly or in part by trees, brush, grass, or other flammable vegetation (GOPR 2020).

Wildland Fire: Fire that occurs in the wildland as the result of an unplanned ignition (GOPR 2020).

Wildland Fuels (aka fuels): Fuel is the material that is burning. It can be any kind of combustible material, especially petroleum-based products, and wildland fuels. For wildland fire, it is usually live, or dead plant material, but can also include artificial materials such as houses, sheds, fences, pipelines, and trash piles. In terms of vegetation, there are 6 wildland fuel types (Fuel Type: An identifiable association of fuel elements of distinctive species, form, size, arrangement, or other characteristics that will cause a predictable rate of spread or resistance to control under specified weather conditions.) The 6 wildland fuel types are (NWCG 2021f):

1. Grass
2. Shrub
3. Grass-Shrub
4. Timber Litter
5. Timber-Understory
6. Slash-Blowdown

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Wildland Urban Interface (WUI): The WUI is the zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (USFA 2021b). In the absence of a Community Wildfire Protection Plan, Section 101 (16) of the Healthy Foresters Restoration Act defines the wildland urban interface as " (I) an area extending ½ mile from the boundary of an at-risk community; (II) an area within 1 ½ miles of the boundary of an at-risk community, including any land that (1) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community; (2) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or (3) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; (III) an area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk community, requires hazardous fuels reduction to provide safer evacuation from the at-risk community." A Community Wildfire Protection Plan offers the opportunity to establish a localized definition and boundary for the wildland urban interface (USFS 2021h)

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APPENDIX A:

Community and CWPP Background Information

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FIRE MANAGEMENT POLICY

The primary responsibility for WUI fire prevention and protection lies with property owners and state and local governments. Property owners must comply with existing state statutes and local regulations. These primary responsibilities should be carried out in partnership with the federal government and private sector areas. The current Federal Fire Policy states that protection priorities are 1) life, 2) property, and 3) natural resources. These priorities often limit flexibility in the decision-making process, especially when a wildland fire occurs within the WUI.

LAWS, ORDINANCES, STANDARDS, AND CODES FOR WILDFIRE PREVENTION

Municipal Direction

There are currently no WUI or Fire codes within the Kenai Peninsula Borough.

State Direction

Department of Natural Resources (DOF)

"Alaska Statutes sections 41.15.010 - 41.15.240 mandate the Department of Natural Resources to manage the wildland fire program for the State of Alaska. Statute 41.15.010 addresses "protection from wildland fire and other destructive agents, commensurate with the values at risk, on land that is owned privately, by the state, or by a municipality." Alaska State House Bill 395 signed on May 4, 2005 defines the official Alaska Fire Season as April 1 to August 31; this was incorporated into state law under statute 41.15.050. In 2018, the Alaska State Legislature updated and approved House Bill 355 which brought additional changes, revisions and updates to the existing Alaska wildland fire protection laws. Links to the updated statutes and regulations can be found on the Alaska Division of Forestry webpage-(http://forestry.alaska.gov/)." (AICC 2021a)

The State of Alaska is not constrained by federal fire management policies on lands under state jurisdiction, i.e. state, private and municipal lands. However, the DOF *is* bound by the Alaska statutes and administrative code sections, the *Alaska Forest Resources and Practices Act*, and *Alaska Forest Resources and Practices Regulations* that directly regulate forest management endeavors on state forest lands (AICC 2021a). Information regarding the state fire management and forest health programs, including burn permits, available grants, Community Wildfire Protection Plans, and Firewise, is available on the Alaska Division of Forestry webpage (http://forestry.alaska.gov/) (AICC 2021a).

Alaska Department of Game and Fish (ADF&G)

"Pursuant to Alaska Statute 16.20, ADF&G shares jurisdictional authority with the Department of Natural Resources for 32 state game refuges, critical habitat areas, and wildlife sanctuaries across the state, totaling 3 million acres. ADF&G manages the wildlife and habitat within these legislatively designated areas. Alaska Statute 16.05.871(a) requires ADF&G to specify the various rivers, lakes, and streams, or parts of them, that are important for spawning, rearing, or migration of anadromous fishes. Protection of these specified water bodies is addressed by other sections of AS 16.05.871, which requires persons or governmental agencies to submit plans and specifications to ADF&G and receive written approval in the

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form of a Fish Habitat Permit or concurrence prior to beginning the proposed use, construction or activity that would take place in specified water bodies." (AICC 2021a)

In order to uphold their mission to protect, maintain and improve fish, game and aquatic plant resources, the ADF&G 2009 fire management policy incorporates an aim to encourage wildland and prescribed fire management policies, practices, and decisions that are beneficial to the fish and wildlife resource (ADFG 2009).

Alaska Department of Environmental Conservation (ADEC)

"ADEC has primacy for implementing the federal Clean Air Act (CAA) and maintaining and enforcing the National Ambient Air Quality Standards (NAAQS) within the State (AS 46.03.020(a)). ADEC's policy is to minimize air pollution that is injurious to human health or welfare, animal or plant life, or property, or that would unreasonably interfere with the enjoyment of life or property. All prescribed burning in the state, whether requiring written approval from ADEC or not, must be done in a way that maintains maximum combustion efficiency throughout the burning period." (AICC 2021a).

Tribal Direction

More detailed information is available in the Alaska Native Organizations and Lands of the Alaska Statewide Operating Plan.

Policy affecting fire management responsibilities relating to Alaska Native organizations and lands can be found in the following documents (AICC 2021a:7):

- 1891 Townsite Act
- 1906 Alaska Native Allotment Act (amended 1956)
- 1971 Alaska Native Claims Settlement Act (ANCSA)
- 1980 Alaska National Interest Lands Conservation Act (ANILCA)
- 1998 Alaska Native Veteran Allotment Act
- Department of the Interior Manual 620 Chapter 5.3

ANCSA Native Corporations

"Alaska Regional and Village Native Corporations (ANCSA Corporations) were established in 1971 by the Alaska Native Claims Settlement Act (ANCSA). Individual ANCSA Corporations are considered the Jurisdictional Agency for their lands, and are annually given the opportunity to validate or change the AIWFMP Fire Management Options for those lands. As specified in DOI manual 620 Chapter 5.3, BLM-Alaska Fire Service (AFS) is responsible for fire protection on ANCSA Corporation lands. BLM-AFS provides fire management liaisons to the ANCSA Corporations to ensure they are informed about fires occurring on or threatening their lands and interests are represented in fire management decisions." (AICC 2021a)

Tribal Governments

"There are 229 federally recognized tribes in Alaska. Most have tribal councils as their governing bodies. Tribal governments in Alaska are distinct from ANCSA Regional and Village Corporations and have the same governmental status as other federally recognized Indian tribes by virtue of their status as Indian

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tribes. They have a government-to-government relationship with the United States, and are entitled to the same protections, immunities, and privileges as other federally recognized tribes. Some tribes receive funding from BIA to provide certain fire management services such as advising protection agencies of their needs during active wildfires and fuels management work. Even though ANCSA places its land entitlement with the ANCSA Corporations, most tribes in Alaska own some land. Tribally owned land is in fee simple status and in Alaska is not considered held in Trust for jurisdictional purposes. Although tribally owned lands are in fee simple status, and fire management responsibilities are not identified in ANCSA, ANILCA, or 620 DM 5.3, tribal lands are currently treated similarly to ANCSA Corporation lands for fire management purposes." (AICC 2021a)

FEDERALLY ADMINISTERED INDIAN TRUST LANDS (INCLUDING NATIVE ALLOTMENTS)

"Federally administered Indian trust lands in Alaska include the Annette Island Indian Reservation and some Town Site lots created under the 1891 Townsite Act. Lands placed into trust under the fee-into trust regulation that was broadened to include Alaska tribes in 2013 are also included. A Native Allotment is a parcel or parcels of land, totaling up to 160 acres, conveyed by restricted title to an Alaska Native under the terms and conditions of the Alaska Native Allotment Act of 1906 and 1956 amendment; and the Alaska Native Veteran Allotment Act of 1998. 43 U.S.C. §§ 357, 357a, 357b. The restricted title exempts the land from taxes and specifies that the federal government will maintain the land and associated trust assets in perpetuity. Restricted-title Alaska Native Allotments are treated as trust lands for the purpose of fire protection. The Native Allotment itself is a value that needs to be protected from fire. Other trust assets (values) such as timber, cultural sites, houses, fish camps, exist on the allotments. Allotments are placed in Full protection regardless of the fire management option selected on surrounding lands by other agencies. The Department of the Interior, Bureau of Indian Affairs (BIA) has been tasked with the protection of Alaska native trust lands and serves as the Jurisdictional Agency for fire management purposes. Some of Alaska's federally recognized tribes, as well as several tribal consortiums, have compacted with the BIA through their Tribal Governments to become a service provider for some allotment owners. These providers serve as additional points of contact for fire managers. The BIA is still ultimately responsible for ensuring that the federal government's trust responsibilities are met. Where an additional provider exists, both BIA and the provider need to be notified of wildfires and included in the decision-making process. BIA will assist with this. Per DOI Manual 620, Chapter 5.3, the BLM-AFS provides fire protection for the BIA, in some parts of the state DNR or USFS have agreed to carry out AFS' responsibility and protect BIA land through the Statewide Master Agreement. Thus, both BIA and AFS will be involved in fire management decisions in order to ensure the federal responsibilities are met." (AICC 2021a)

Federal Direction

"Federal wildland fire policy forms the basis for Department of the Interior (Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and U.S. Fish and Wildlife Service) and Department of Agriculture (U.S. Forest Service) fire management programs in Alaska. Additional guidance for the lands withdrawn for military use can be found in memorandum of agreements and annual operating plans between BLM-AFS and the Department of Defense agencies. Federal policies and programs are implemented through Congressional appropriations and funding levels vary annually." (AICC 2021a)

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Guidance for Implementation of Federal Wildland Fire Management Policy

"The Federal Wildland Fire Management Policy and Program Review Final Report (December 18, 1995) was the first joint comprehensive fire policy for the Departments of the Interior and Agriculture. The Final Report contained guiding principles that directed federal agencies to achieve a balance between suppression to protect life, property and resources, and fire use to regulate fuels and maintain healthy ecosystems. It promoted the use of wildland fire to accomplish resource management objectives and supported implementation of policies and recommendations in conjunction with states, tribes, and local governments. The review and update of the 1995 Federal Wildland Fire Management Policy (January 2001) contained specific actions to enhance wildland fire management and seeks to build on the strengths of the original policy. Firefighter and public safety is listed as the first priority and the 2001 policy directs all fire management plans and activities to reflect this commitment. The 2001 guiding principle and policy statements guide the philosophy, direction, and implementation of fire planning, activities and projects on federal lands. All the principles and policy statements are incorporated by reference into this Plan and, where appropriate, the statements are included within this Plan. The first Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy was issued in 2003; it was replaced by the Guidance for Implementation of Federal Wildland Fire Management Policy (February 13, 2009). The 2009 Guidance affirmed the soundness of the 2001 review and update, and clarifies implementation direction to achieve the intent of the 2001 policy." (AICC 2021a)

National Fire Plan

"The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season in the Lower 48, with the intent of actively responding to severe wildfires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The NFP addresses five key points: firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability." (AICC 2021a)

Healthy Forests Initiative and Restoration Act

"Fuels management was addressed further in the Healthy Forests Initiative (August 2002) which sought to reduce the risks severe wildfires pose to people, communities, and the environment. The Initiative was followed by the Healthy Forests Restoration Act of 2003 which contains a variety of provisions to speed up hazardous-fuel reduction and forest-restoration projects on specific types of federal land that are at risk of wildfire and/or of insect and disease epidemics." (AICC 2021a)

Good Neighbor Authority

"The Good Neighbor Authority authorizes the Forest Service and BLM to partner with states, local governments, and tribes in order to implement watershed and forest management activities on federal lands. The authority was permanently authorized in the 2014 Farm Bill. It is intended to expand limited federal capacity to implement and plan projects, and addresses shared, cross boundary priorities like fire risk, invasive species, and water quality and wood products supply. The authority is broad, allowing for a wide range of restoration services that will improve 'forest, rangeland, or watershed health.'" (AICC 2021a)

Federal Aid in Wildlife Restoration (Pittman-Robertson Act)

"The Pittman-Robertson Act, passed in 1937, now known as Federal Aid in Wildlife Restoration, imposes an excise tax on the sale of firearms and ammunition to help fund wildlife conservation in the United

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State. Revenues generated from these excise taxes are apportioned to state wildlife agencies for their conservation efforts, hunter education programs, and operation of archery and shooting ranges. ADF&G has been able to leverage funds generated through this act for habitat restoration projects." (AICC 2021a)

Reserved Treaty Right Lands (RTRL)

"Beginning in FY 2015, Fuels Management Funding has been appropriated for the purpose of treating and restoring tribal landscapes within and adjacent to reserved treaty right lands. The Department's Reserved Treaty Right Lands (RTRL) program enables Tribes to participate in collaborative projects with non-Tribal landowners to enhance the health and resiliency of priority tribal natural resources at high risk to wildland fire. The RTRL allocation is provided to the BIA through the DOI's Wildland Fire Management appropriation and is made available through the fuels management program." (AICC 2021a)

Cohesive Wildland Fire Management Strategy

"The National Strategy is the result of a collaborative effort by Federal, state, local, and tribal governments and non- governmental partners and public stakeholders, in conjunction with scientific data analysis. It recognizes and accepts fire as a natural process necessary for the maintenance of many ecosystems, and strives to reduce conflicts between fire-prone landscapes and people. By simultaneously considering the role of fire in the landscape, the ability of humans to plan for and adapt to living with fire, and the need to be prepared to respond to fire when it occurs, the Cohesive Strategy takes a holistic approach to the future of wildland fire management." (AICC 2021a)

Dingell Act

"Public Law 116-9, the John D. Dingell, Jr. Conservation, Management, and Recreation Act of March 12, 2019 (Dingell Act) is a combined package of more than 100 individual bills introduced by over 50 members of Congress. It lays out provisions for various programs and activities affecting the management and conservation of natural resources on federal lands, to include wildland fire operations. Section 1114 of the Dingell Act, titled Wildfire Technology Modernization, mandates interagency collaboration to expand the use of unmanned aircraft systems, location trackers, and decision management systems. It also calls for the enhancement of smoke projections, erosion data, and predictive services." (AICC 2021a)

Executive Order 13855

"In response to the deadly wildfires of 2017 and 2018, the President signed Executive Order 13855 - Promoting Active Management of America's Forests, Rangelands, and Other Federal Lands To Improve Conditions and Reduce Wildfire Risk on December 21, 2018 calling for federal land managers to improve conditions and reduce wildfire risk through active management of their lands. Executive Order 13855 emphasizes that federal agencies must collaborate with state and local institutions and incorporate active management principles into all land management planning efforts in order to address the challenges of wildland fire. Quoting from Section 1: "With the same vigor and commitment that characterizes our efforts to fight wildfires, we must actively manage our forests, rangelands, and other Federal lands to improve conditions and reduce wildfire risk." Section 5 of the executive order directs the Secretaries of Interior and Agriculture to jointly develop a Wildfire Strategy in collaboration with Federal, State, tribal, and local partners that supports local Federal land managers in project decision-making and informs local fire management decisions related to forests, rangelands, and other Federal lands, thereby protecting habitats and communities, and reducing risks to physical infrastructure." (AICC 2021a)

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EMERGENCY MANAGEMENT PLANNING

The Kenai Peninsula Borough updated its Hazard Mitigation Plan (HMP) in 2019. This CWPP dovetails with the wildfire section of the HMP by incorporating wildfire hazard mitigations identified in that plan. In the future, the Borough should consider revising both plans in unison.

PUBLIC LAND MANAGEMENT

Past Land Management Strategies

Beginning in the early 1900s, the policy for handling wildland fire leaned heavily toward suppression. Over the years, other agencies, such as the BLM, the Bureau of Indian Affairs, and the NPS, followed the lead of the USFS and adopted fire suppression as the primary means for protecting the nation from wildfire. As a result, many areas now have excessive fuel buildups, dense and continuous vegetative cover, and tree and shrub encroachment into open grasslands.

Over the past few decades, several elements have compounded to alter forest composition, understory and overstory composition, fuel dynamics, and historical fire regimes. Insect outbreaks, changes in land use practices, the shifting climate, and increased human presence and activity have all been implicated as contributing elements (Fryer 2014). Although black spruce trees are fire adapted, significant changes in fire regimes undermine resilience and often result in recruitment failure (Baltzer et al. 2020). As a result, forest composition in many regions of Alaska has changed; there has been a general shift toward shrubs and less acreage of older spruce forest. The shifts in forest composition are likely to increase forest flammability and shorten fire-return intervals (Fryer 2014). Moreover, shrubs and other light fuels have been expanding their range with the warming temperatures—increasing the spatial extent of areas susceptible to severe wildfires (USGCRP 2018).

Current Land Management Strategies

The KPB has a long history of SBB outbreaks. In 1999, SBB damage reached a high point with over 1.2 million acres impacted (KPB Interagency 2018). Southcentral Alaska is currently undergoing another SBB outbreak. More than 1.2 million acres have been impacted since the outbreak began in 2016. In 2020 alone, 145,000 acres of SBB activity was recorded, with 18,330 acres located on the KPB (USFS 2021d).

The 2018 ALAH plan focuses on managing wildfire risk and the hazards linked with trees damaged by SBB. Accordingly, the aim of the ALAH plan is to address fire hazards and forest health. Strategic actions include (KPB Interagency 2018):

- The promotion of prescribed fire training and certification, landscape scale fuels treatments, and active forest management
- The development of methods to assist and inform private landowners with fuels management
- The integration of fuels reduction and fire risk management methods into existing and future land management plans

For SBB management, implementation tasks include the prioritization of hazard tree removal linked with SBB in areas with high human activity to reduce public safety hazard and protect critical infrastructure (KPB Interagency 2018).

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Alaska Division of Forestry

The mission of the DOF is to develop, conserve, and enhance Alaska's forests to provide a sustainable supply of forest resources for Alaskans (AICC 2021a). Within the DOF is the Wildland Fire and Aviation Program. This program operates with the mission of providing safe, cost-effective, and efficient fire protection services and related fire and aviation management activities on state, private, municipal lands, and lands negotiated through agreement, commensurate with the values at risk (AICC 2021a).

National and State Forest priorities, as defined in the State Forest Action Plan are to (DOF 2020a):

- Conserve and manage working forest landscapes for multiple values and uses
- Protect forests from threats
- Enhance public benefits from trees and forests

Further detail on the priorities listed above is provided in Figure A.1.

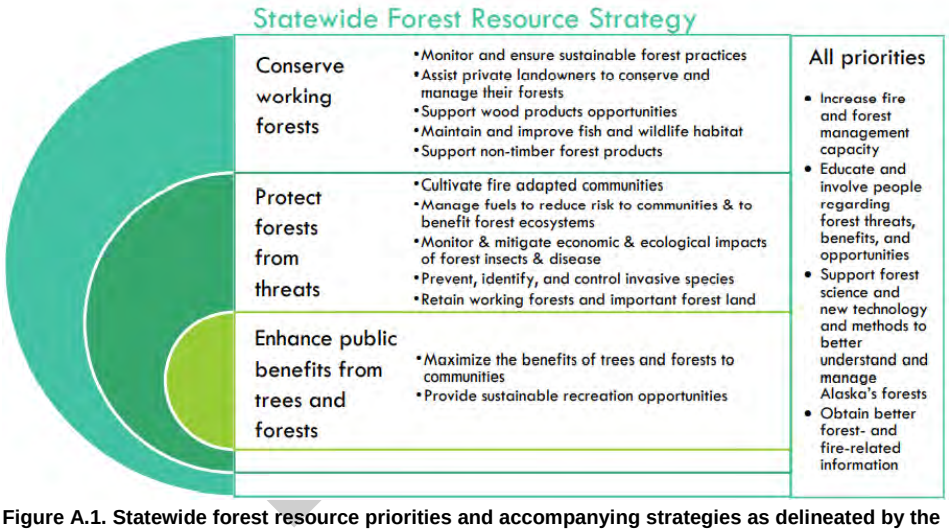


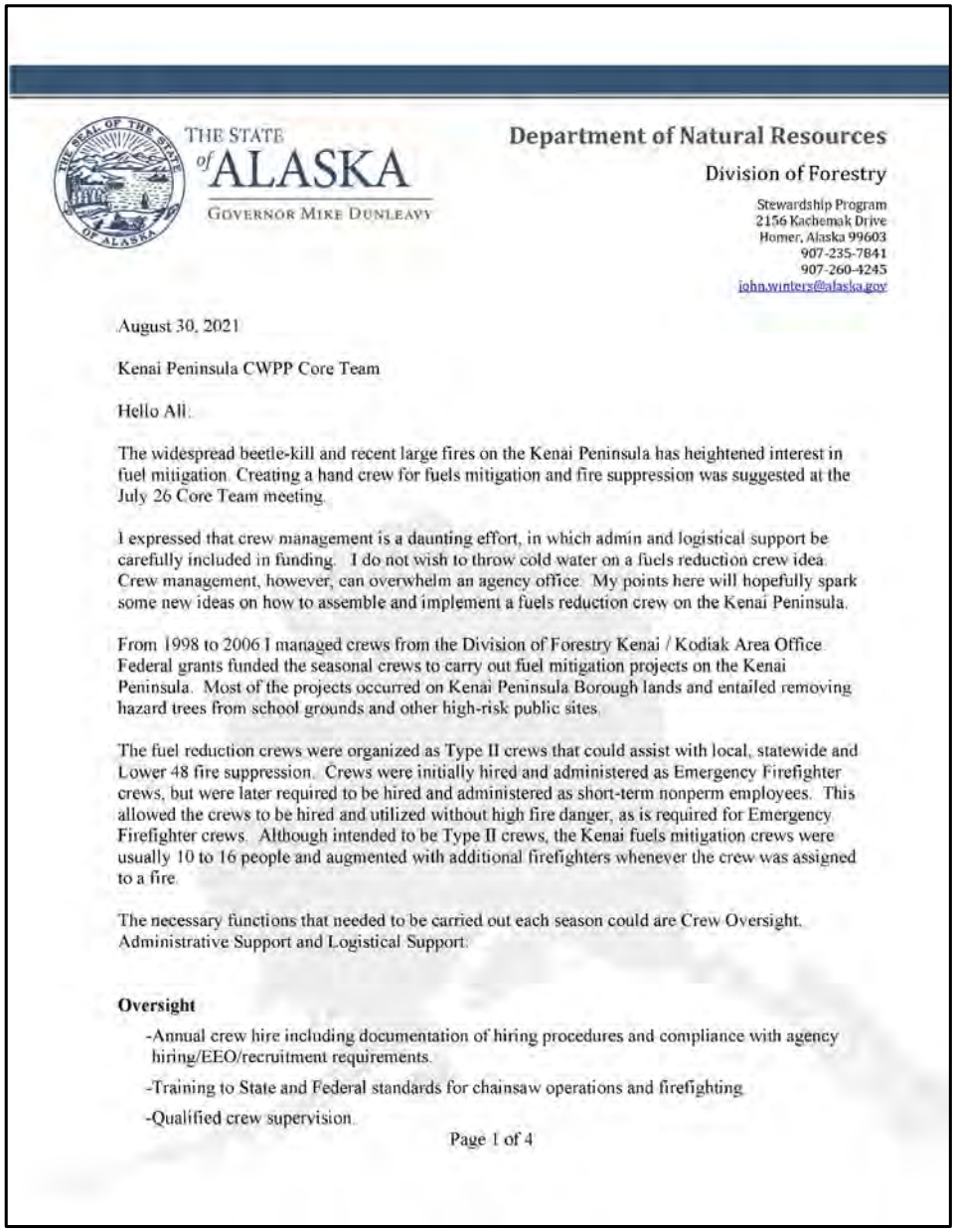
Figure A.1. Statewide forest resource priorities and accompanying strategies as delineated by the 2020 Alaska Forest Action Plan.

Source: Alaska DOF (2020)

Fuel Reduction Crew Management

Some new ideas on how to assemble and implement a fuels reduction crew on the Kenai Peninsula are included in a memo prepared by a Core Team member with vast experience in this arena.

Commented [VA1]: Core Team (especially John Winters) if you would prefer, we can include this letter with the project files for the CWPP instead of including here. Please advise.



THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources
Division of Forestry

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August 30, 2021

Kenai Peninsula CWPP Core Team

Hello All.

The widespread beetle-kill and recent large fires on the Kenai Peninsula has heightened interest in fuel mitigation. Creating a hand crew for fuels mitigation and fire suppression was suggested at the July 26 Core Team meeting.

I expressed that crew management is a daunting effort, in which admin and logistical support be carefully included in funding. I do not wish to throw cold water on a fuels reduction crew idea. Crew management, however, can overwhelm an agency office. My points here will hopefully spark some new ideas on how to assemble and implement a fuels reduction crew on the Kenai Peninsula.

From 1998 to 2006 I managed crews from the Division of Forestry Kenai / Kodiak Area Office. Federal grants funded the seasonal crews to carry out fuel mitigation projects on the Kenai Peninsula. Most of the projects occurred on Kenai Peninsula Borough lands and entailed removing hazard trees from school grounds and other high-risk public sites.

The fuel reduction crews were organized as Type II crews that could assist with local, statewide and Lower 48 fire suppression. Crews were initially hired and administered as Emergency Firefighter crews, but were later required to be hired and administered as short-term nonperm employees. This allowed the crews to be hired and utilized without high fire danger, as is required for Emergency Firefighter crews. Although intended to be Type II crews, the Kenai fuels mitigation crews were usually 10 to 16 people and augmented with additional firefighters whenever the crew was assigned to a fire.

The necessary functions that needed to be carried out each season could are Crew Oversight, Administrative Support and Logistical Support.

Oversight

-Annual crew hire including documentation of hiring procedures and compliance with agency hiring/EEO/recruitment requirements.

-Training to State and Federal standards for chainsaw operations and firefighting.

-Qualified crew supervision.

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-Appropriate and competitive pay level for the Crew boss and squad leaders.

-Coordination of projects with local agencies.

-Budget management.

-Initializing and maintaining records of training and recertification and fire qualifications.

-Agency non-fire training requirements to satisfy agency health, safety and EEO requirements.

-COVID-19 mitigation protocols.

-Injury and property loss/damage accountability.

-Personnel files containing performance evaluations, and related administrative documents.

Administrative Support

-Payroll-timesheet processing.

-Seasonal "New-Hire" documentation: "Returning Seasonal" employment documents, health insurance enrollment, Worker's Comp., driving records, background checks.

-Arranging for procurement including credit cards and tax-exempt identification cards.

*An important point: I spoke with two Administrative Assistants stationed offices that employed 20-person fire crews. Despite those offices acquiring crews, the admin staffing was never augmented with additional positions. I would therefore recommend that any agency taking on a crew factor admin support into the personnel budget.

Logistical Support

-Personal protective equipment and fire clothes.

-Dedicated vehicles and their support including agency maintenance schedules. Vehicle compliment should be capable of transporting 20 firefighters and equipment to assemble at least 4 saw teams.

-Fuel for vehicles transporting the crew and chainsaws.

Profile of a Crew Boss

The crew boss would need to coordinate diligently with administrative offices, warehouses, fire dispatchers, HR Offices and Job Service. This will therefore require the commensurate communications, interpersonal, technical skills.

For these reasons, the crew Boss should be a dedicated position, and not assigned to a staff supervisor in charge of initial attack crews, in my opinion. Crews call for focused attention especially if their primary function is tree felling and chainsaw operations. The role of a fuels mitigation crew leader is complex enough to warrant pay equal to fire staff supervisors. Under the national wildland qualification system, a Type II Crew Boss is part of the Single Resource Boss group which includes engines, helitack, dozers, plows etc. All receive the same pay if hired as Emergency firefighters. I believe that the Crew Boss position is the most taxing of these Single Resource Boss positions, especially if hiring, procurement and the other administrative/support functions are added to their position description. The Division of Forestry's initial attack Engine Helitack crew leaders are employed as Wildland Fire & Resources Technician III's. I further believe that the supervisor for a 20-person Type II fuels reduction/fire crew should be paid at a level

commensurate with a Fire & Resources Technician IV, or similar federal counterpart pay level. Again, these points are my opinion based on experience with recruitment and retention of crews in the early 2000's.

In recent discussions with DOF offices on crew management, the general consensus is a crew adds considerably to their workload even with the benefits that a local fire crew offers.

Managing Chainsaw Operations
There is a huge liability managing a crew assigned to fell and remove dead trees near buildings, power lines and public facilities. It is reasonable to expect that the crew will have minimal chainsaw experience yet be faced with projects requiring advanced skills. An important role of the crew supervisor is to ensure that the crew is not lassoed into tree removal projects beyond their capabilities. Annual turnover will likely be high, as quality crew members [rightfully] advance to higher paying jobs. The crew proficiency cycle restarts continually; and needs to be proactively addressed through an effective training program.

Firefighter Development Opportunities
Going to fires has historically been a key incentive for crew members to stick around. Cutting trees and stacking slash all day strains young attention spans and enthusiasm. Fire assignments—and associated overtime pay—will boost morale. Fire assignments will also boost work seasons and budgets. Past crews provided training opportunities for agency firefighters to gain leadership experience and fulfill their Crew Boss / Squad Boss qualification requirements.

A crew offers a strong source of strong recruits for the DOF, Forest Service and Refuge seasonal fire staff. From my experience, strong crew members also became strong agency technicians.

Proposed Solutions to Crew Management Challenges
Mitigate risks of tree felling. A crew of first-year firefighters felling large dead trees poses unacceptable risks. However, the risks would be mitigated by advance fallers cutting trees ahead of time. This would provide an opportunity for Faller-Trainees to sharpen their skills while assisting with a project. More of the felling could be gradually carried out by a hazard fuels crew as they become more proficient using chainsaws. Slash disposal alone is a large enough undertaking to fully occupy a crew. Advanced fallers and a crew focused on slash disposal could result in more efficient fuels mitigation.

Tree removal services could also provide tree mechanical tree felling leaving slash disposal to the crew.

Start with smaller crews. A crew is as effective as it can be managed and supported. If a 20-person crew is overwhelming, then a smaller crew could carry out daily operations and respond to fires as Initial Attack squads. Since Type II crews are incident-driven, the smaller fuels reduction crew could be augmented with sufficient firefighters/supervisors from cooperating fire agencies to form a Type II crew for a specific incident. A smaller crew would better enable funding for added admin and / or logistical support.

I hope that this information is helpful.

Sincerely,
John Winters
Stewardship Forester—Kenai Peninsula

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Alaska Department of Fish and Game

The State of Alaska, Department of Fish and Game (ADFG) follows a mission to protect, maintain, and improve the fish, game, and aquatic plant resources of the state, and manage their use and development in the best interest of the economy and the well-being of the people of the state, consistent with the sustained yield principle (AICC 2021a).

The 2009 ADFG fire management policy aims to implement strategic practices and decisions which benefit Alaskan resources, including wildland fire and prescribed fire management policies (AICC 2021a).

All Lands, All Hands Action Group

According to the ALAH Action Plan, continued expansion of the WUI, the effects of a changing climate on wildfire extent and seasonality, and vegetation that has been unfavorably affected by insect infestations are main concerns within the KPB that require planning and management. To address these forest health concerns and increasing wildfire risk, the ALAH Action Plan has aligned all goals, and corresponding desired outcomes, strategic actions, implementation tasks, and performance measures for the years 2018-2022 with the three main goals of the Cohesive Strategy (KPB Interagency 2018).

FIRE PLANNING – PAST EFFORTS

There is a number of existing documents relating to fire management in the Borough, the main fire management document being the Alaska Interagency Wildland Fire Management Plan (FMP), which provides more detailed information regarding operational procedures relating to wildfire on state and federal lands. This CWPP is meant to supplement and not replace the FMP or any other existing plans.

Regional Plans

2018 All Lands All Hands Action Plan:

In 2018, the KPB Interagency prepared the All Lands All Hands Action Plan Update for the Borough. The plan was created to be a working document that also considers the FEMA-approved Hazard Mitigation Plan and 2018 Comprehensive Plan, 2009 Federal Land Assistance, Management, and Enhancement Act (FLAME), and integrates the 2014 Cohesive Strategy (KPB Interagency 2018). The plan focuses on the use of science-based data analysis to support planning, decision making, and implementation as a mechanism to produce substantial reductions in wildfire risk both in the short and long-term. The plan also integrates monitoring and evaluation of these efforts to evaluate progress towards the desired outcomes. Specifically, the plan identifies actions and tasks with respect to restoring and maintaining landscapes, fire adapted communities, and wildfire response (KPB Interagency 2018).

2019 Kenai Peninsula Borough Hazard Mitigation Plan:

In 2019 the KPB updated its 2019 Hazard Mitigation Plan. The update modifies the previous plan to integrate information regarding hazard risk assessment, climate, geography, and population demographics, among others. The objective of the plan is to minimize or eliminate injuries or fatalities, damages and losses from natural and human-caused hazards (KPB 2019a). This plan was developed to review past disasters, predict the potential of future disasters, and determine mitigation priorities. The document provides an overview of the Borough and its communities, a description of the planning

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process, updates to mitigation goals, a risk assessment, capabilities assessment, goals and strategies, and implementation measures.

State Plans

2018 Alaska Disaster Response Plan

In 2018, the Alaska Department of Environmental Conservation (DEC) developed the Disaster Response Plan (DEC 2018). This plan was designed to act as a guideline or reference for organizing and coordinating disaster response at the agency level. The plan establishes a framework to improve coordinated emergency response efforts between communities, local and tribal organizations, state and federal agencies, and first responders. The plan prioritizes 5 objectives in responding to disaster emergencies: safety, health, environment, cleanup, and recovery. In addition, the plan outlines the DEC's responsibilities in assisting emergency response agencies during disaster emergencies (DEC 2018).

In 2011, the DHSEM developed the **Alaska Emergency Response Guide for Small Communities** (DHSEM 2011). The guide was created to assist local governments in emergency response and preparation planning in their communities. The guide provides several recommended actions during the first 72 hours of a disaster and details efforts to begin the recovery phase (DHSEM 2011).

2020 Annual Report

In 2020, the DOF published the 2020 Annual Report. The report reviews many aspects of and relating to Alaska state forests, including forest practices, forest management, fire programs, fire management, forest health status, resource development, and cooperative forestry programs. The report details past and current forest projects such as fuels reduction, timber harvesting, and forest health monitoring. The report also includes a fire section describing 2020's fire season, which covers fire causes, fire statistics, fire impacts, and weather patterns (DOF 2020b).

2020 Alaska Forest Action Plan:

In 2020 the DOF developed the 2020 Alaska Forest Action Plan. The plan aims to identify threats facing Alaska's forests and the opportunities to improve the benefits of Alaska's Forests, and to present a guide of methods that can be utilized by landowners across Alaska. The overall purpose of the Forest Action Plan is to guide the use of federal, state, local, and private funding to conserve Alaska's forest resources and maximize the public benefits of Alaska's forests. The plan is guided by three national priorities: to conserve and manage working forest landscapes for multiple uses and values, to protect forests from threats, and to enhance public benefits from forests (DOF 2020a).

2021 Alaska Interagency Wildland Fire Management Plan:

In 2021, the Alaska Interagency, an organization composed of various state, federal, and native organizations, developed the Wildland Fire Management Plan for Alaska (AICC 2021a). The plan was developed to promote a consistent, cooperative, and cost-effective interagency approach to wildland fire management. The plan emphasizes firefighter and public safety as the overriding priority in all fire management activities for all agencies. Strategies outlined within the plan include vegetation management, prevention of human starts, wildfire investigation, adjustment of fire management options to changing environmental and regulatory conditions, and the integration of a wide range of economically and ecologically sound fire management options (AICC 2021a).

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Federal Plans

2013 Kenai National Wildlife Refuge Fire Management Plan:

In 2013, the USFWS updated the Kenai National Wildlife Refuge 2001 Fire Management Plan. The plan provides the framework and management direction necessary to ensure refuge objectives are met, while providing for the protection and/or enhancement of cultural and natural resources and life and personal property (USFWS 2013). To meet its objectives, the plan emphasizes public engagement, prescribed fire, hazardous fuel reductions, and coordination with cooperating agencies. These plans are typically evaluated after 15 years but may be updated earlier as needed. Future updates of the Kenai National Wildlife refuge FMP will follow the 15-year Comprehensive Conservation Plan revision cycle to provide uniformity in objectives and management strategy development (USFWS 2013).

2020 Forest Health Conditions in Alaska:

In 2020, the USFS published the Forest Health Conditions in Alaska report. The report summarizes monitoring data collected annually by the Forest Health Protection team and integrates information from many sources to inform land managers, resource professionals, decision-makers, and other interested parties on forest health conditions. In addition, the report fulfills the congressional mandate (The Cooperative Forestry Assistance Act of 1978) that requires surveying, monitoring, and annual reports of the health of the forests (USFS 2021d).

2020 Chugach National Forest Land Management Plan:

In 2020, the USFS published the Chugach National Forest Land Management Plan (Forest Plan). The purpose of the Forest Plan is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. The Forest Plan provides management direction for the National Forest System lands within the boundary of the Chugach National Forest. It emphasizes coordination and communication with communities, tribes, and federal, state, borough, and local governments for hazard fuel management, community wildfire protection planning, preparedness actions, and wildfire response (USFS 2020b).

LOCATION AND GEOGRAPHY

The KPB is roughly 10 million acres and is bordered by the Gulf of Alaska to the southeast, the Cook Inlet to the southwest, and Anchorage to the north. The KPB is at the southern terminus of Alaska. The main transportation corridors include the Sterling and Seward Highways. The Sterling Highway connects the Borough to Anchorage and the mainland. The Seward Highway originates at Tern Lake in Moose Pass and provides access to Seward City. Land ownership information is provided in Table A.1.

Land ownership in the Borough is spread across different agencies, organizations, and tribes. Major federal landowners include the NPS, USFWS, USFS, and BLM. The state and local governments also own a considerable amount of land (23%). Native lands and allotments constitute about 11% of land ownership in the Borough. Lastly, private landowners represent a little over 2% of the entire area (Table A.1; Figure A.2).

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Table A.1. Breakdown of Land Ownership in Borough

Land Ownership	Acres	Percentage of the County
National Park Service	3,003,770	29%
State	2,333,304	22%
U.S. Fish and Wildlife Service	1,822,810	17%
U.S. Forest Service	1,250,793	12%
Alaska Native Lands Patented or Interim Conveyed	1,004,335	10%
Bureau of Land Management	475,230	5%
Undetermined	255,286	2%
Private	251,932	2%
Local Government	89,072	<1%
Alaska Native Allotment	16,533	<1%
Coast Guard	1,696	<1%
Federal Aviation Administration	179	<1%
Other Federal	125	<1%
Army	32	<1%
Air Force	11	<1%
Department of Defense	10	<1%
United States Postal Service	10	<1%

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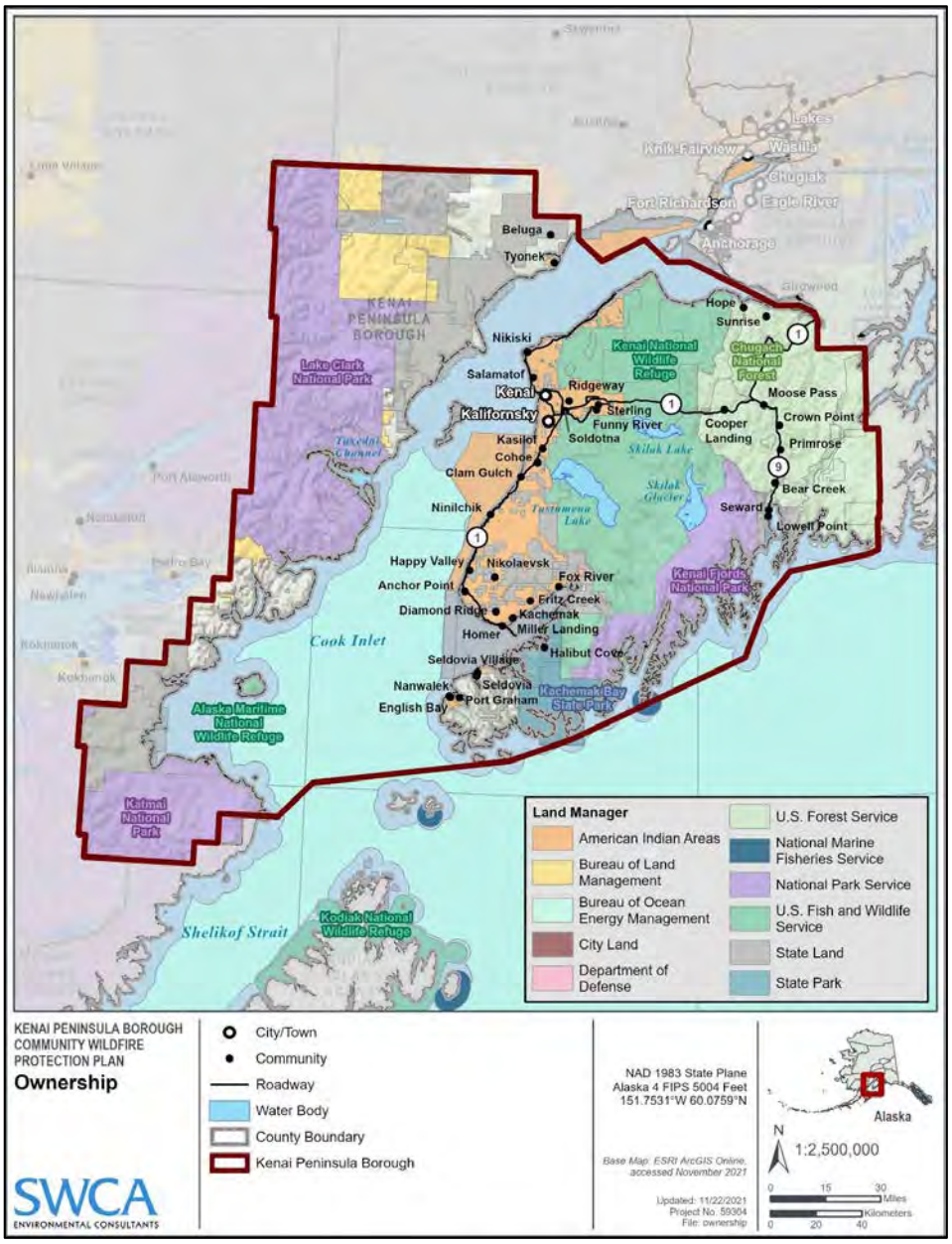

Figure A.2. Land ownership within the KPB.

FEDERAL, STATE, AND TRIBAL LANDS

Federal Lands

Kenai National Wildlife Refuge

The Kenai Wildlife Refuge is in the western portion Kenai Peninsula and comprises approximately 2 million acres. The Refuge stretches across the western slopes of the Kenai Mountains, forested lowlands along Cook Inlet, wetlands, rivers, and series of lakes. A variety of habitats are present in the Refuge, including ice fields and glaciers, mountain tundra, lakes and wetlands, rivers, and boreal forests. The diverse ecosystems support a diversity of wildlife, including brown and black bears, mountain goats, caribou, moose, eagles, wolves, lynx, and trumpeter swans. The Refuge is part of the National Wildlife Refuge System, a diverse network of lands and waters dedicated to conserve America's fish and wildlife heritage and is managed by the U.S. Fish and Wildlife Service (USFWS) (2021).

The Refuge is managed by the USFWS, and the leading fire management document is the Kenai National Wildlife Refuge 2013 Fire Management Plan. The plan was created to guide all fire management activities on and for the Refuge. The Refuge is divided into four Fire Management Units (FMUs): Wilderness, Minimal, Moderate, and Intensive. The four FMUs are described below (USFWS 2013):

- The Wilderness FMU manages areas designated as units of the National Wilderness Preservations System, which represent the largest area of the Refuge. Management within the Wilderness FMU aims to preserve all values and resources of the area.
- The Minimal FMU manages the second largest area of the Refuge (26%). Management within the Minimal FMU operates under the goal of maintaining the natural environment, therefore allowing natural ecosystem fluctuations to occur, and keeping public use disturbances to a minimum.
- The Moderate FMU manages about 50,000 acres on the northern end of the Refuge. Management guidelines for the Moderate FMU permits activities that may result in small-scale temporary or permanent changes, but do not disrupt natural processes. While human disturbance may be evident, the goal of this FMU is to restore, maintain, or enhance habitat.
- The Intensive FMU manages approximately 50,000 acres with the management objective of allowing compatible actions. This means activities are permitted to cause alteration to the natural environment, obvious human disturbance is acceptable, and habitat conditions may be altered or controlled for habitat improvement.

Kenai Fjords National Park

The Kenai Fjords National Park (KFNP) encompasses an area of 600,000 acres of icefields, glaciers, water bodies, valleys, mountains, and fjords (NPS 2020a). The KFNP spans from the southern edge of the city of Seward to the northern end of the Kachemak Bay State Park. The KFNP supports a diversity of wildlife such as lynx, mountain goats, moose, wolverines, orcas, humpback whales, sea otters, and harbor seals. The Park also provides important habitat for many migratory and resident birds, including cormorants, pigeon guillemots, kittiwakes, eagles, and puffins (NPS 2021b).

KFNP lands are managed by the NPS (NPS 1984). There is no existing fire management plan for the KFNP; this is because the NPS is required to have fire management plans only for parks with burnable vegetation (NPS 2021c). The KFNP is generally not vulnerable to severe fires; the glaciers, streams, and fjords serve as natural fire barriers (NPS 1984). However, the NPS develops State of the Park reports to

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assess the overall conditions and trends of park resources. The latest State of the Park report for the Kenai Fjords National Park was completed in 2017 (NPS 2021d).

Lake Clark National Park and Preserve

Lake Clark National Park and Preserve (LCNPP) is located on the western edge of Cook Inlet and comprises about 4 million acres. The LCNPP ranges in elevation from sea level to over 10,000 feet and stretches across the Aleutian Range, wetlands, rivers, lakes, volcanoes, tundra, and boreal forest. The diverse ecosystems provide habitat for a diversity of wildlife, including Dall sheep, brown and black bears, porcupine, caribou, moose, subarctic fish, wolves, lynx, and numerous species of birds. In addition, Lake Clark maintains the ancestral homelands of the Dena'ina people, an intact ecosystem with the largest sockeye salmon fishery in the world (NPS 2020c).

The LCNPP is managed by the NPS. There is no current fire management plan for the LCNPP. However, the NPS implements fire management activities such as clearing flammable vegetation around structures and monitoring the impacts of fires. In addition, the NPS shares responsibilities with the DOF to protect life, property, and natural and cultural resources. They also collaborate with communities, local, state, federal, and native organizations to keep people and ecosystems healthy (NPS 2020b).

Chugach National Forest

The Chugach National Forest is located in south-central Alaska and encompasses an area of 5.4 million acres. It is the nation's second-largest forest and spans from the waters and peaks of Prince William Sound to the streams of the Kenai Peninsula. The Forest is composed of three discrete landscapes: the Copper River Delta, Eastern Kenai Peninsula and Prince Willian Sound. The various landscapes contain rain forests, coastal inlets, wetlands, boreal woods, glaciers, and rivers. The Forest is also home to several of Alaska's Native peoples, including Chugach, Eyak, Dena'ina, and Ahtna.

The Forest is managed by the U.S. Forest Service (USFS 2021a), and the main fire management document is the Chugach National Forest Land Management Plan (USFS 2020b). The Forest is divided into eight Management Areas (MAs), and each of these areas determines suitable uses and activities. However, only five of the eight MAs are located on the KPB (USFS 2020b):

- The Wilderness Study Area MA covers 1,944 acres on the KPB. Management objectives in these areas are to protect ecological properties of all the wilderness areas and to preserve their existing state.
- The Wild, Scenic, and Recreational Rivers MA covers 28,345 acres on the KPB. Management objectives in this MA are to preserve and safeguard the free-flowing properties of specific river sections that display significant natural and recreational values.
- The Research Natural Areas MA covers 5,951 acres on the KPB. Management objectives in this MA are to preserve the unique properties of natural environments. Ecosystems in these areas are representative of undisturbed environments, which serve as controls to gauge ecosystem effects relative to disturbed areas. These areas present perfect opportunities for monitoring, observation, and research activities.
- The Backcountry Areas MA covers 1,013,205 acres on the KPB. Management objectives in these areas are to enhance backcountry environments to promote varied recreational activities. Ecosystems in these areas are preserved and natural processes are mostly unaltered by human activity.

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- The Front Country MA covers 104,566 acres on the KPB. Areas under this MA have high levels of human activities and associated construction, including utilities, trails, and roads. Management objectives in these areas are to restore fish and wildlife habitat and to manage forest vegetation to mitigate wildfire risk.

Figure A.3. Forest management on the Chugach National Forest.

Commented [VA2]: @Mark Cahur- do you have any good fire or fuels treatment photos on the NF that we could add here?

State Lands

Kachemak Bay State Park and Kachemak Bay State Wilderness Park

The Kachemak Bay State Park and Kachemak Bay State Wilderness Park (Park) span an area of 400,000 acres of forests, mountains, glaciers, and ocean. It extends from the southern boundary of the Kenai Mountains to the Gulf of Alaska. The Park is managed by the ADNR; however, there are two critical habitat areas on the Park which are managed by the ADFG. Kachemak Bay is one of the critical habitat areas, which supports many species of marine life such as fish, shellfish, sea otters, porpoise, waterfowl, shorebirds, seabirds, and whales (ADNR 2021b). The other critical habitat area is the Fox River Flats. The Flats are located at the head of Kachemak Bay and cover expansive intertidal mud flats and a complex of low-lying marshlands in the lower Fox River Valley. The Flats serve as a staging area for more than a million shorebirds and thousands of waterfowl that pause to feed and rest during migration. The area also serves as important habitat for moose, black and brown bear, coyote, wolves, red fox, mink, and muskrat. In addition, many of the streams in the area support anadromous fish (ADFG 2021f).

The DOF has primary responsibility for wildland fire response in the Park. The Management Plan for Kachemak Bay State Park and Kachemak Bay State Wilderness Park (1995) is the guiding policy document for forest and fire management on the forest (ADNR 1995). However, the plan does not include a fire management component. An updated plan that will integrate fire management is in progress (ADNR 2020).

Tribal Lands - Alaska Native Regional Corporations and Non-profits on the Kenai Peninsula

Regional corporations were created by the Alaska Native Claims Settlement Act of 1971 (ANCSA) assume the federal responsibilities for the health and welfare of the Alaska Native peoples by use of a compact agreement with the federal government. Native owned corporations provide stewardship of ancestral lands, resources and finances for Alaska's native people. In addition to these regional corporations, some villages formed their own village corporations who take responsibility for leadership roles in native communities and villages in Alaska.

Cook Inlet Region, Inc (CIRI)

Cook Inlet Region, Inc (CIRI) is one of 12 Alaska Native regional corporations created by the ANCSA and is located on the Kenai Peninsula Borough. ANCSA addressed the aboriginal claim to land by Alaska Native people by mandating the formation of for-profit corporations representing various regions, and by providing land and seed capital to those corporations (CIRI 2021).

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ANCSA created 12 distinct regional and over 200 village corporations representing over 79,000 Alaska Native people. The Act provided for the conveyance of 44 million acres of land, allocating land to each of the regional and village corporations (CIRI 2021).

Ninilchik, Salamatof, Seldovia and Tyonek are native villages located in the Kenai Peninsula. They are CIRI shareholders and each has its own village corporation.

Chugachmiut

Commented [EG3]: Charlie and Nathan – please review and revise as needed

Chugachmiut is a native consortium and regional non-profit. The tribes in the Chugach Region developed a cooperative agreement among the 7 tribes in the region to develop a health and social services regional non-profit, which has become Chugachmiut. (As a non-profit, Chugachmiut does not use a business nomenclature such as “Inc”, “Company”, or “LLC” or other such construction for a business name.) Chugachmiut represents the two tribal communities of Nanwalek and Port Graham on the Kenai Peninsula providing health and social services to the members of these communities. Chugachmiut works as an agent for the Native landowners both Native allotment owners and Trust townsite lot owners associated with Nanwalek and Port Graham. Chugachmiut also represents Qutekcak Native Tribe out of Seward, Alaska. They have no formally recognized Native corporation.

Commented [EG4]: Charlie Sink - Do Nanwalek or Port Graham have Native Corporations?

TOPOGRAPHY

The KPB is in southern Alaska and is topographically varied. The KPB has distinct topographical zones: mountain, valley, and foothill regions. The landscapes present on the KPB include ice fields, forests, fjords, and coastal areas. The western half of the KPB is lower in elevation relative to the eastern half. The eastern portion of the KPB contains the Kenai mountains, which reach up to 7,000 feet in elevation. Additionally, the KPB encompasses 14 major watershed and contains over 20,000 miles of stream habitat as well as more than 350,000 acres of wetland habitat (KPB 2019b).

ROAD SYSTEMS

Some of the KPB is accessible via surfaced roads and highways; however, some communities are accessed only via unsurfaced roads (Figure A.4), which in more remote areas are often narrow and windy with many dead-end roads (Figure A.5). These routes may prove hazardous during emergency evacuation, especially where they are adjacent to forested land with vegetation close to or overhanging the road. Fuel treatment may be needed along some roads where vegetation is overhanging and could prevent safe evacuation of residents or safe access by emergency responders.

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Figure A.4. Example of an unsurfaced road that has not been well maintained or frequently traveled.



Figure A.5. Example of narrow roads within the KPB.

TRANSPORTATION CORRIDORS

The two main transportation corridors serving the KPB are the Sterling and Seward corridors. The Sterling Highway connects the KPB to Anchorage, running from south Anchorage to Homer. The Sterling Highway intersects many communities on the western border, including Soldotna, Sterling, Kasilof, Clam Gulch, Ninilchik, Anchor Point, and Happy Valley. The Seward highway starts in Moose Pass and terminates in the city of Seward and intersects many communities on the eastern border such as Moose Pass, Crown Point, Primrose, Bear Creek, and Seward.

In addition to the surfaced highways, numerous smaller roads, and forest roads traverse the KPB, with variable road conditions. Some steep grades and gravel road surfaces may impede travel in the event of a wildfire evacuation or emergency response (Figures A.6 and A.7).



Figure A.6. Photograph showing typical road surface on side roads in the Borough.



Figure A.7. One of many dead-end roads on the Borough that may impede ingress and egress.

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POPULATION

The following information is drawn primarily from U.S. census data (U.S. Census Bureau 2020). In 2020, the population estimate of the KPB was 58,799 persons, an increase of 6% over the 2010 census numbers of 55,400. In 2019, there were 31,439 housing units on the KPB. The KPB has a population density of 3.4 people per square mile.

RECREATION

Outdoor recreation is extremely popular on the KPB, with the Kachemak Bay State Park, Kenai Fjords National Park, Chugach National Forest, and Kenai Wildlife Refuge attracting thousands of visitors. Hunting, fishing, and camping are popular on public land (Figure A.8).

Tourism has been one of fastest growing sectors in the KPB. Each summer, around 500,000 people visit the Borough, with outdoor recreation and sport fishing representing the major visiting activities (Kenai Chamber of Commerce 2021). During these peak seasons and large events, a significant number of people can congregate in a relatively small space, which constitutes a large population to evacuate.



Figure A.8. Peak of salmon fishing on the Kenai River.

PUBLIC EDUCATION AND OUTREACH PROGRAMS

Public education and outreach programs are a common factor in virtually every agency and organization involved with the wildfire issue.

LOCAL AND STATE PROGRAMS

Alaska Department of Natural Resources, Division of Forestry

Firewise Alaska

The DOF encourages Alaskan communities to form Firewise communities. Firewise is a collaborative effort between local, state, federal, and private agencies and organizations to encourage fire safety in the WUI. Firewise Alaska is a reference guide for homeowners designed by the Alaska Wildland Fire Coordinating Group (AWFCG 2009). The guide details the steps an Alaskan homeowner can take to reduce the probability that their home and property will be consumed by a wildfire. The guide focuses on preparation and is well suited for small communities, developments, and residential home associations of all types (ADFG 2021g). The guide can be accessed here: http://forestry.alaska.gov/Assets/pdfs/home/firewise09.pdf

Forest Stewardship Program

The DOF's Forest Stewardship Program is a collaborative state and federal service that aids private landowners with forest concerns. Usual concerns include insect and disease pests, wildfire protection for homes, firewood assessment, tree planting, and wildlife habitat. The aim is to help the active management of forest resources to maintain land productivity for present and future owners and increase the ecological and economic benefits. Upon request for assistance, a site assessment is conducted, and a plan is subsequently developed based on the findings. Financial assistance is available for some

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activities recommended in the plan. The following examples constitute eligible projects: dead tree and spruce removal around homes, soil preparation for tree seedling establishment, and tree seedling purchase and planting. Alaskan landowners with 7 or more acres of land capable of growing trees are eligible; some homeowners with wildfire hazard and 2 or more acres may also qualify. Alaska Native corporations are also eligible (DOF 2021b).

NATIONAL PROGRAMS

Ready, Set, Go!

The Ready, Set, Go! Program, which is managed by the International Association of Fire Chiefs, was launched in 2011 at the WUI conference. The program seeks to develop and improve the dialogue between fire departments and residents, providing teaching for residents who live in high-risk wildfire areas—and the WUI—on how to best prepare themselves and their properties against fire threats. The program works in collaborative and synergistic fashion with Firewise USA and other existing wildland fire education efforts (International Association of Fire Chiefs 2021).

The tenets of Ready, Set, Go! as included on the website (http://www.wildlandfirersg.org) are:

Ready – Take personal responsibility and prepare long before the threat of a wildland fire so your home is ready in case of a fire. Create defensible space by clearing brush away from your home. Use fire-resistant landscaping and harden your home with fire-safe construction measures. Assemble emergency supplies and belongings in a safe place. Plan escape routes and ensure all those residing within the home know the plan of action.

Set – Pack your emergency items. Stay aware of the latest news and information on the fire from local media, your local fire department, and public safety.

Go – Follow your personal wildland fire action plan. Doing so will not only support your safety but will allow firefighters to best maneuver resources to combat the fire.

National Fire Protection Association

The NFPA is a global non-profit organization devoted to eliminating death, injury, property, and economic loss due to fire, electrical, and related hazards. Its 300 codes and standards are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation around the world.

The NFPA develops easy-to-use educational programs, tools, and resources for all ages and audiences, including Fire Prevention Week, an annual campaign that addresses a specific fire safety theme. The NFPA's Firewise Communities program (www.firewise.org) encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks.

The NFPA is a premier resource for fire data analysis, research, and analysis. The Fire Analysis and Research division conducts investigations of fire incidents and produces a wide range of annual reports and special studies on all aspects of the nation's fire problem.

Insurance Institute for Business and Home Safety

The Insurance Institute for Business and Home Safety (IBHS) is an independent, non-profit, scientific research and communications organization supported solely by property insurers and reinsurers.

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The IBHS's building safety research leads to real-world solutions for home and business owners, helping to create more resilient communities. Its mission is to conduct objective, scientific research to identify and promote the most effective ways to strengthen homes, businesses, and communities against natural disasters and other causes of loss.

The IBHS conducts laboratory and field experiments in structural ignitability and has helped develop new guidelines for defensible space zones to emphasize ember resistance and a "home ignition zone" (Figure A.9).



Figure A.9. Defensible space standards from the IBHS.

CLIMATE AND WEATHER PATTERNS

There are two major forest climates within the planning area: coastal and boreal. The coastal forest is grouped under the maritime climate zone and is characterized by year-round precipitation, cloudy cool summers with temperatures (in °F) averaging upper 50s, and mild winters with temperatures ranging from low 20s to mid-30s (DOF 2020a). However, precipitation levels and precipitation type vary significantly by geographic location. Coastal forests located in the northern part of the state see cooler temperatures and less precipitation than coastal forests in the southern portion of the state. To compare extremes, the northern edge of coastal forested areas near Homer receives only 24 inches of precipitation a year while the southernmost coastal forests in Alaska receive 220 inches of precipitation per year. Furthermore, rain is the common precipitation form in areas with lower elevations, while areas with higher elevation levels see snow and ice. The snow encourages the development of ice fields and glaciers, driving glacial winds. Winter storms with Gale-force winds are common from October to February (DOF 2020a).

Boreal forests extend into both the transitional and continental climate zones and are characterized by temperature extremes. Summer months show temperatures in the upper 90s° F while winter months

experience temperatures as low as -40 F, with significant temperature inversions between ridgetops and valley bottoms (DOF 2020a). The mean annual temperature for Alaskan boreal forests sits between 20°F and 30°F with an annual precipitation level of 6 to 12 inches. Despite low precipitation levels, the low evaporation rates, and lack of drainage due to permafrost create wetland ecosystems within boreal forests. River flooding is relatively common due to snow and ice melt in the spring and heavy rain in the summer. In addition, valley entrances and coastal areas frequently experience strong winds (DOF 2020a).

Differences in topographical characteristics throughout the state of Alaska and the KPB contribute to the divergent climatic regimes within the planning area. Maritime, transitional, continental , and arctic are the four major climatic zones of the state (DOF 2020a). Despite having organized climatic zones, weather prediction is difficult as there is no "typical" weather pattern for the state of Alaska (KPB 2009a). Strong high-pressure systems may linger for days at a time, bringing in warm temperatures and low humidity levels. Those high-pressure systems may result in daily thunderstorm activity and atmospheric conditions, contributing to high-intensity, plume-dominated, blow-up fires. On the contrary, the high-pressure systems can break down with ease, bringing in cool, humid, arctic air which is rapidly followed by replaced high pressure and favorable burning conditions (KPB 2009a). In addition to the various weather systems, the state sees 24 hours of daylight in June and July. Under normal light conditions, fire activity dramatically decreases in the night hours as humidity levels rise. The constant sunlight experienced in June and July significantly limits the ability for humidity levels to "recover" (KPB 2009a), resulting in increased fire risk.

Table A.2. Mean Annual Temperature and Precipitation by Station within the KPB

Station	Period of Record	Mean Annual Precipitation (Inches)	Mean Annual Temperature (°F)		
			Max	Min	Mean Annual
Campbell Creek Science Center	1991-2020	17.81	43.9	24.3	34.1
Kenai Airport	1991-2020	18.27	43.5	27.7	35.6
Seldovia Airport	1991-2020	40.39	45.4	33.6	39.5
Seward Airport	1991-2020	69.71	46.3	34.5	40.4

Source: NOAA (2021b)

July is generally the warmest month of the year in the KPB, with average monthly maximum temperatures ranging from 61.8ºF in Seldovia (Seldovia Airport) to 68.6ºF in Anchorage (Campbell Creek Science Center). January is the coldest month, with average temperatures ranging from 19.1ºF in Anchorage to 31.3ºF in Seward. Mean annual temperatures do not vary significantly across the KPB, mean annual temperatures only range from approximately 34.1ºF in Anchorage to 40.2ºF in Seward. Within the KPB, maximum mean annual temperatures vary even less with a range from 43.5ºF in Kenai to 46.3ºF in Seward. Minimum annual temperatures range from 24.3ºF in Anchorage to 34.5ºF in Seward (Table A.2) (National Oceanic and Atmospheric Administration [NOAA] 2021b).

The mean annual precipitation within the KPB is light to abundant, ranging from 17.81 inches in Anchorage to 69.71 inches in Seward. The maximum annual rainfall within the planning area has been recorded as high as 71.81 inches in 2009 in Big River Lakes. Homer had the lowest minimum average annual precipitation at 12.95 inches in 1996 (Western Regional Climate Center 2021). The highest precipitation levels typically occur from late summer to early fall in the KPB. September and October are usually the wettest months of the year, with monthly averages ranging from 3.14 inches in September in

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Anchorage to 9.9 inches in September in Seward. The lowest precipitation levels occur from spring to early summer in the KPB. March through June are typically the driest months of the year, with monthly precipitation averages ranging from 0.34 inch in April in Anchorage to 2.34 inches in June in Seward.

Monthly climate normals (30-year averages) for the KPB are graphed by weather station below (Figures A.10–A.13).

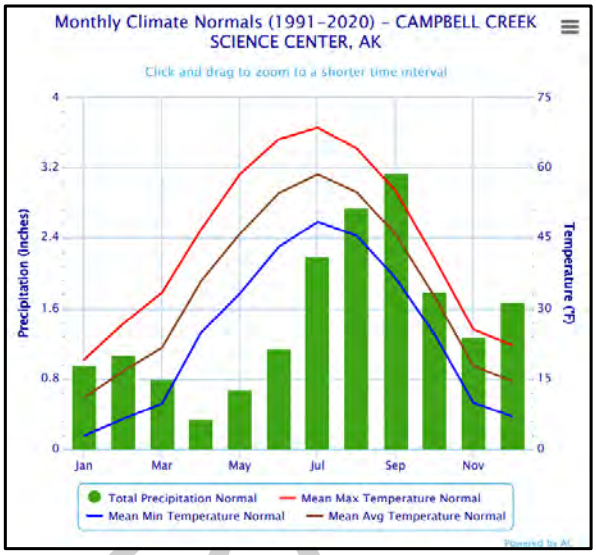

Figure A.10. Monthly climate normals for the Campbell Creek Science Center weather station for the period of record (1991–2021).

Source: NOAA (2021b)

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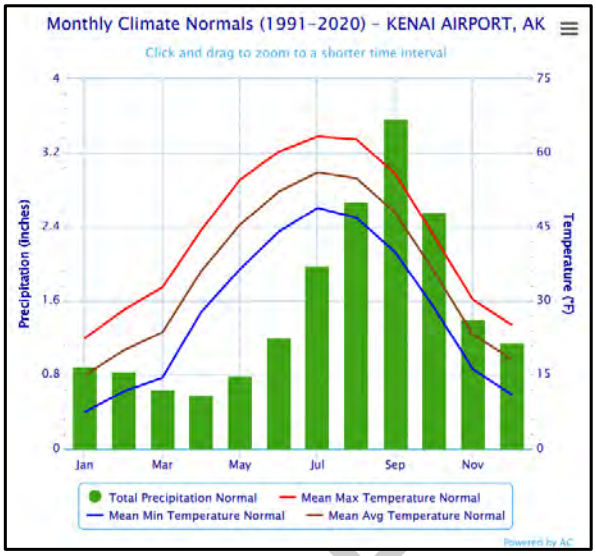

Figure A.11. Monthly climate normals for the Kenai Airport weather station for the period of record (1991–2021).

Source: NOAA (2021b)

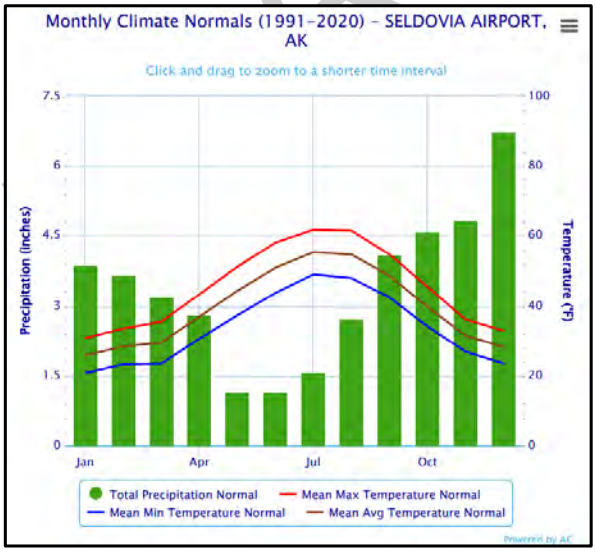

Figure A.12. Monthly climate normals for the Seldovia Airport weather station for the period of record (1991–2021).

Source: NOAA (2021b)

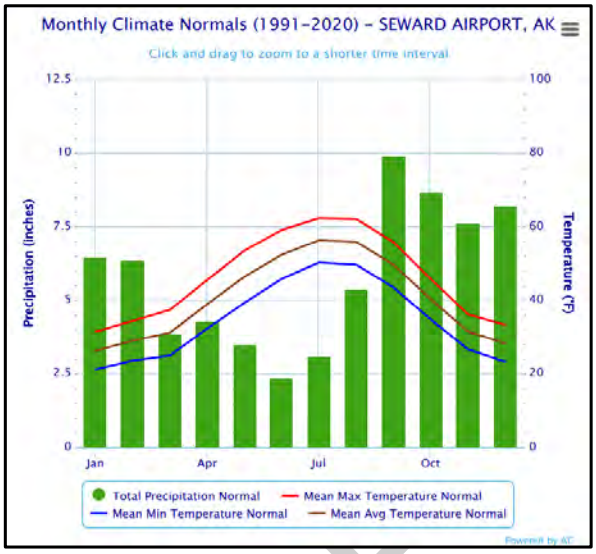

Figure A.13. Monthly climate normals for the Seward Airport weather station for the period of record (1991–2021).

Source: NOAA (2021b)

FOREST HEALTH CONSIDERATIONS

INVASIVE PLANT SPECIES

Invasive plant species are those that take over the habitat of other species (native), displacing the native species from their natural environment. Invasive species are highly adaptive, competitive, and successful at reproducing quickly in varied environments, including the KPB. The KPB has vast natural areas such as national forests, state parks, conservation areas, and scenic waterways. These resources are being threatened by invasive species. While trade and travel increase so does the risk of new invasion. Invasion can devastate industries such as fisheries, agriculture, recreation, tourism, and hydroelectric. Invasion and establishment of invasive plant species can also destabilize soil and alter the hydrology of rivers, lakes, streams, and wetlands (Alaska Department of Natural Resources, Division of Agriculture [DOA] 2021).

The following list includes some of the invasive plants that have been identified as high priority in the Chugach National Forest.

European bird cherry (*Prunus padus*) is a low-branched tree which disperses by seed and can reach up to 35 feet in height. European bird cherry (EBC) can create tall shrub layers, eliminating native willow layers underneath. The plant occurs along urban streams and rivers, displacing native trees and shrubs. EBC is known to reduce the quality of willow-dominated foraging sites for moose. Also, EBC can be toxic to deer, moose, sheep, goats, and cattle (University of Alaska Anchorage [UAA] 2011a).

Orange hawkweed (*Hieracium aurantiacum*) is a perennial herb that has shallow, fibrous roots. Stems can reach a height of around 31 centimeters. Orange hawkweeds establish dense monocultures that lower biodiversity and diminish the forage value of grasslands for grazing animals. The plant also reduces soil moisture and nutrient availability (UAA 2011b).

Reed canarygrass (*Phalaris arundinacea*) is a tall, reed-like perennial that invades wetlands. Reed canarygrass outcompetes all native vegetation, threatening waterfowl habitat. The grass also threatens salmon streams by increasing silt deposition and contracting water ways, modifying stream hydrology and degrading salmon habitat (Homer Soil and Water Conservation District 2021).

White sweet clover (*Melitotus albus*) is a biennial plant that grows from 61 to 152 centimeters tall. Each plant can produce up to 350,000 seeds, which can remain viable in the soil for up to 80 years. Natural and human-caused fires generate ideal growing conditions since they open seeds and promote germinations. White sweet clover degrades natural grassland communities by overtopping and shading native species. It is toxic to some animals and can alter sedimentation rates of river ecosystems (UAA 2011c).

In addition, over 70 invasive plant species were recorded in 2019 on the Kenai National Wildlife Refuge (USFWS 2020b). A considerable number of invasive plants have also been detected on the Kenai Fjords National Park (NPS 2015b).

INSECTS

Native insect epidemics within plant communities are usually part of a natural disturbance cycle similar to wildfire. They are often cyclic in nature and are usually followed by the natural succession of vegetation over time. Of primary interest are those that attack tree species because of the implications for fire management.

Present-day insect epidemics in Alaska's spruce forests are on the rise. Spruce beetle infestation is the top cause of death for mature spruce trees in Alaska and is currently responsible for about 900,000 acres of deceased and dying trees in the southcentral portion of the state (USFS 2021e).

SBB outbreaks are linked to drought-related stress and/or faster completion of life cycles due to warmer climate regimes (NPS 2021a). Stands of trees that have been killed by insects have varying degrees of associated fire danger depending on the time lapse following an insect attack and structure of the dead fuels that remain. However, forests with a large degree of mortality following an insect attack may have the potential to experience extremely high fire danger, especially if a large degree of needle cover remains in the canopy.

Southcentral Alaska is currently undergoing a SBB outbreak. More than 1.2 million acres have been impacted since the outbreak began in 2016. In 2020 alone, 145,000 acres of SBB activity was recorded, with 18,330 acres located on the Kenai Peninsula (USFS 2021d). SBB history, ecological impacts, and recent outbreak specifics are detailed in chapter 2. This section covers other problematic insects.

Insects that have infested or have the potential to infect the forests within and around the planning area are discussed below.

Battered Sallow Moth (Sunira verberata) is a generalist hardwood defoliator. The battered sallow moth (BSM) attacks aspen, birch, willows, soapberry, highbush cranberry, roses, and nearly any other broad-leaved plant. In 2020, outbreaks of BSM were observed on the Kenai Peninsula, particularly in the Kenai National Wildlife refuge and in the areas from Cooper Landing to Sterling to Kasilof (USFS 2021d). Even though deciduous trees and shrubs like alders and willows usually endure defoliation from BSM without

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incurring lasting damage, severe outbreaks can lead to mortality. For instance, the largest recorded outbreak on the Peninsula (2003-2006) resulted in alder mortality on mountain slopes over vast areas (Friends of Alaska National Wildlife Refuge 2021).

Birch Aphid (*Euceraphis betulae*) is a non-native, sap-sucking, asexually reproducing insect. These insects typically pierce leaves to derive nutritional needs. Birch aphids primarily attack birch tree, specifically silver birch. Although aphid damage to Alaska birch forests is usually negligible, aphid feeding causes a decline in tree vigor and, in some instances, tree mortality (USFS 2011a). In 2020, the USFS recorded birch aphid activity in the Sterling area; however, the outbreaks were of moderate size (USFS 2021d).

Aspen Leafminer (*Phyllocnistis populiella*) adults are tiny, lance-shaped moths with white wings speckled with brown and black markings. Aspen leafminers are hardwood defoliators; their hosts include aspen, poplar, willow, and cottonwood. Damage due to feeding is generally described as cosmetic. However, severely mined leaves have been shown to lose their photosynthetic capacity, causing the leaves to dry and turn brown, which is suspected to result in branch dieback and top-kill (USFS 2011b). In 2020, around 50 acres of aspen leafminer damage was recorded in the Kenai and Soldotna areas (USFS 2021d).

DISEASES

Diseases of trees, such as parasitic plants, fungi, and bacteria, can also affect forests on the KPB. These diseases impact forest systems by degrading the productivity and health of the forest. Some of the more common forest diseases that are found on the KPB are described below. Trees that are killed by disease have the similar potential to increase fire hazards.

Spruce needle casts/blights are a disease complex of spruce in Alaska that is caused by different fungi: *Lirula macrospora, Lophodermium piceae,* and *Rhizosphaera pini.* Fungal spores are typically spread by splashing water or wind. Host trees consist of black, Sitka, and white spruce. Symptoms include needle discoloration and black fruiting bodies. Trees are not usually killed by needle cast. However, the disease results in large quantities of dry needles on the trees and the forest floor (USFS 2021f). In 2020, the 3 fungi were detected infecting black, Sitka, and white spruce on the Kenai Peninsula (USFS 2021d).

Spruce needle rust (*Chrysomyxa ledicola*) is a fungus infecting white, black, and Sitka spruce and Labrador tea. The fungus has 5 life stages and completes its life cycle between two different hosts: spruce trees and Labrador tea. Severely infected trees have pale orange to yellow spore masses projecting from infected needles (USFS 2001). Spruce trees are typically not killed by needle rust, but high infection levels may limit growth and increase stress. In 2020, USFS ground surveys detected multiple incidences of needle rust on the Kenai Peninsula affecting white, black, and Sitka spruce as well as Labrador tea (USFS 2021d).

Spruce bud blight is a disease caused by the fungal parasites *Camarosporium* sp*., Dichomera gemmicloa,* and *Gemmamyces piceae*. These parasites cause loss of buds, which strips the tree's ability to produce new needles. Fungi transmission is through, rain, wind, or insect vectors. Although *Gemmamyces piceae* is known to cause tree mortality in Colorado blue spruce, mortality has not been documented in Alaska. In 2020, spruce bud blight was detected throughout southcentral and interior Alaska (USFS 2021d).

Spruce broom rust is a disease caused by the fungus *Chrysomyxa arctostaphyli*. The fungus affects white, black, and Sitka spruce trees in Alaska, particularly in the interior and southcentral regions. However, the fungus needs bearberry and spruce to complete its life cycle. Therefore, rust infection

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closely follows the distribution of bearberry. Infected trees have dense clusters of branches with a yellow-orange appearance. Depending on the severity of infection, the disease may cause reduced growth, top-kill, or tree mortality. In 2020, spruce broom rust was observed on the northeastern portion of the Peninsula (USFS 2021d).

Alder canker (V*alsa melanodiscus; Valsalnicola* spp.) is a disease caused by fungal pathogens. The primary hosts for these pathogens are alder trees. Symptoms include bumpy, fruiting outgrowths from the trunk of the tree. In 2020, alder dieback was extensive on the Kenai Peninsula, with 650 acres of dieback detected near Tustumena Lake (USFS 2021d).

Other diseases detected in 2020 on the Kenai Peninsula include Canker-rot of birch, brown crumbly rot, trunk rot of aspen, trunk rot of birch, red ring rot, and armillaria root disease (USFS 2021d).

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APPENDIX B:

Chugach All-Lands Wildfire Risk Assessment (ARRA)

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APPENDIX C:

Core Team List

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Name	Organization
Miles Spathelf	Alaska Dept of Fish and Game
Sue Rodman	Alaska Dept of Fish and Game/ Division of Wildlife Conservation
Jon Marsh	Anchor Point Fire (Now Western Emergency Service Area)
Jim Butler	Baldwin and Butler
Charlie Sink	Chugachmiut
Nathan Lojewski	Chugachmiut
Mark Kirko	City of Homer
Rick Abboud	City of Homer
Jeremy Hamilton	City of Kenai
Tony Prior	City of Kenai
Ryan Foster	City of Kenai
Willie Anderson	City of Kenai
Rachel Friedlander	City of Seldovia
Courtney Bringhurst	City of Seward
Jason Bickling	City of Seward
Clinton Crites	City of Seward Fire
Jennifer Hester	City of Soldotna
John Czarnezki	City of Soldotna
John Czarnezki	City of Soldotna
Riley Shurtleff	Cooper Landing Emergency Services
Hans Rinke (NEW POSITION)	Division of Forestry
Diane Campbell	Division of Forestry Kenai/Kodiak
Howie Kent	Division of Forestry Kenai/Kodiak
John Winters	Division of Forestry Kenai/Kodiak
Cody Neuendorf	Homer Electric
Jeff Jaworski	Homer Electric
Steven Cannon	Homer Electric
Jack Thomas	Hope Volunteer Fire
Travis Peterson	Hope Volunteer Fire
Wendy Wayne	Kachemak City
Bobbi Lay	Kenai Peninsula Borough
Brenda Ahlberg	Kenai Peninsula Borough
Bryan Taylor	Kenai Peninsula Borough
Celina Robertson	Kenai Peninsula Borough
Marcus Mueller	Kenai Peninsula Borough
Richard Brackin	Kenai Peninsula Borough Bear Creek Fire Service Area

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Name	Organization
Roy Browning	Kenai Peninsula Borough Central Emergency Services
Bob Cicciarella	Kenai Peninsula Borough Kachemak Emergency Services
Bryan Crisp	Kenai Peninsula Borough Nikiski Fire Service Area
Trent Burnett	Kenai Peninsula Borough Nikiski Fire Service Area
Karl Van Buskirk	Lowell Point Volunteer Fire
Mike Van de Grift	Marathon Petroleum
Phillip Ingersoll	Moose Pass Volunteer Fire Co.
Mitch Michaud	Private Consultant
Wade Wahrenbrock	Resident
Mark Ball	Seldovia Village Tribe
Emily Geery	SWCA
Vicky Amato	SWCA
Jeff Bouschor	U.S. Fish and Wildlife Service, Kenai National Wildlife Refuge
Will Jenks	U.S. Fish and Wildlife Service, Kenai National Wildlife Refuge
Kristi Bulock	U.S. Fish and Wildlife Service (former), Citizen Advocate
Mark Cahur	U.S. Forest Service
Erick Stahlin	U.S. Forest Service, Chugach National Forest
Franscisco Sanchez	U.S. Forest Service, Chugach National Forest
Jonathan Tepley	U.S. Forest Service, Chugach National Forest
Tim Spencer	U.S. Forest Service, Chugach National Forest

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KENAI PENINSULA BOROUGH COMMUNITY RISK ASSESSMENTS

WILDLAND URBAN INTERFACE COMMUNITIES

SWCA conducted on-the-ground community risk assessment surveys between July 20 and 27, 2021, using the National Fire Protection Association (NFPA) 1144 standard for assessing structure ignitability in the Wildland Urban Interface (WUI). The standard provides a process for assessing wildland fire hazards around existing structures to determine the potential for structure ignition from wildland fire ignitions. The following summaries provide a total score of risk and hazard based on various parameters observed during the surveys. The surveys highlight the percentage of land classified as WUI, amount of land impacted by modeled wildfire related loss, dominant fuel types, potential fire behavior, fire response capacity, current fire and fuel management programs and plans, positive and negative attributes associated with structural hazards in each community polygon, and suggested mitigation focus areas. The information in the suggested mitigation focus sections was compiled from the public meetings and from the existing community CWPPs.

This updated CWPP provides an assessment of risk to wildfire throughout the entire peninsula. However, the Community Risk Assessments provide information about risk for each community in the Kenai Peninsula. This finer scale assessment is intended to allow communities are to identify and prepare for risk locally.

These assessments also provide information about fire response capabilities, so that those data can be found in once place in the document. Within each community, there is a local protocol for fire response. Additionally, there is a larger-scale fire response agreement between the State of Alaska and land management agencies. The State of Alaska, Department of Natural Resources (DNR), operates under the Master Cooperative Wildland Fire Management and Stafford Act Agreement (the Agreement), which documents the coordination and exchange of personnel, equipment, supplies, services, and funds between land management agencies. The Agreement details wildland fire management activities such as prevention, preparedness, communication and education, fuels treatment and hazard mitigation, fire planning, response strategies, tactics and alternatives, suppression and post-fire rehabilitation and restoration. This Agreement does not supersede individual agency policies and requirements.

SWCA and the KPB contacted the following entities representing Native Alaskan interests to inquire about their community values at risk, project recommendations and fire response capabilities.

1. Port Graham Village Council
2. Native Village of Tyonek
3. Seldovia Village Tribe
4. Qutekcak Native Tribe
5. Ninilchik Village Tribe
6. Chugachmuit and Nanwalek IRA Council
7. Kenaitze Indian Tribe

8. Salamatof Native Association
9. Chugachmiut
10. Cook Inlet Region, Inc (CIRI)

Four entities, Chugachmiut, (representing Nanwalek and Port Graham), CIRI (an Alaska Native Corporation and the largest private landowner in Southcentral Alaska), Salamotof Native Association and Native Village of Tyonek, were available to engage in this conversation. In some cases, they provided recommendations, which are included within the appropriate community polygon.

Figure D.1 identifies all community polygons delineated across the Kenai Peninsula. Conditions are averaged across each polygon to provide an overarching risk rating for each WUI area.

Commented [VA1]: Core Team- once these summaries are finalized, we will be integrating this information into the Story Map, so you can access polygon summaries through the story map.

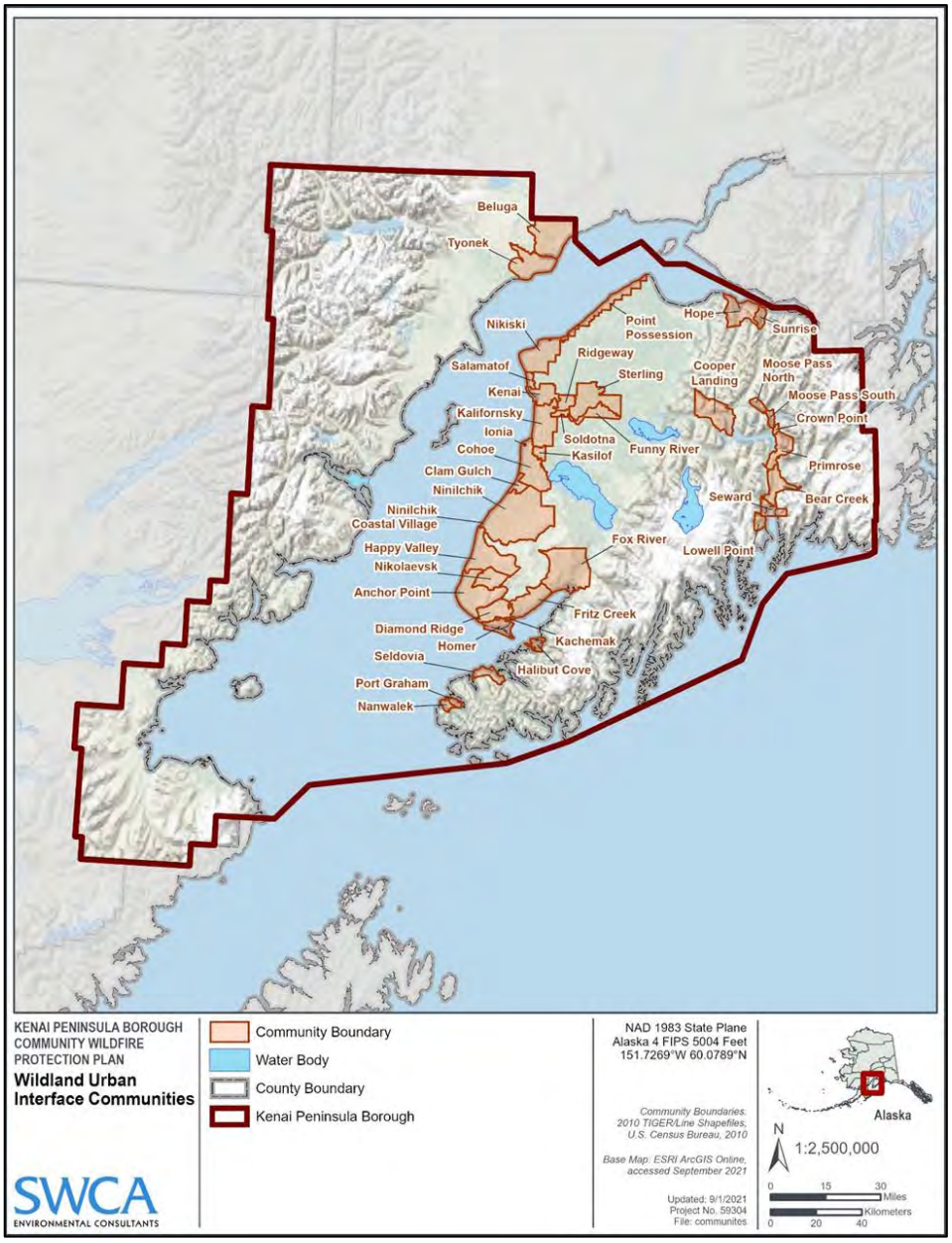

Figure D.2. WUI community polygon delineations.

Source: U.S. Census Bureau TIGER/Line Shapefiles of census designated places

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

ANCHOR POINT POLYGON SUMMARY STATISTICS

Community Description

Anchor Point is located on the Kenai Peninsula at the junction of the Anchor River and its North Fork, 14 miles northwest of Homer. It lies at mile 156 of the Sterling Highway at approximately 59.776670° north latitude and -151.83139° west longitude. Anchor Point is located in the Homer Recording District. The area encompasses 90.8 square miles of land. January temperatures range from -40° F to 42° F. July temperatures range from 46° F to 75° F. Average annual precipitation is 20 inches. Western Emergency Services (formerly Anchor Point Volunteer Fire Department) and the Alaska Division of Forestry provides fire protection to Anchor Point residents (Kenai Peninsula Borough [KPB], 2006a). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006a).

Commented [BP2]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Anchor Point **Total Score:** 59 **Rating:** Moderate

Town: Anchor Point

Land Area (*mi.²*): 91.2

Population Density (people/*mi.²*)$_1$: 22.2

Home Density (housing units/ *mi.²*)$_2$: 25.0

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 81.0

Percent: 88.1%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
9.7%	13.7%	2.5%	0.4%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1	SH2 SH5	TU2 TU3 TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 99%	0-0.5 (mi.): 1%
4-8 (ft): 41%	0.5-1.0 (mi.): 3%
8-12 (ft): 1%	1.0-1.5 (mi.): 4%
>12 (ft): 0%	>1.5 (mi.): 92%

Fire Department Statistics: Western Emergency Services (formerly Anchor Point)					
Communities Served: **Anchor Point, Ninilchik, Nikolaevsk, Happy Valley**					
Fulltime Firefighters: 10		On-call Firefighters: 0		Volunteer Firefighters: 38	
Water Tender:			Wildland Engines		
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:	
Type 2:	1-3	Type 3: ----	0	0	
Type 3:	0	Type 4: ----	0	0	
Structure Engines:		Type 5: ----	0	0	
Type 1:	1-3	Type 6: 1-3	1-3	1-3	
Type 2:	0	Type 7: ----	0	0	
Port-A-Tanks:	8				
Portable Pumps:	4				
Recent Fires within the polygon: N/A					
Fire Management Options:					
Critical Protection around urban areas: **99%**		Full Protection around WUI: **0%**			

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Anchor Point/Happy Valley/Nikolaevsk Community Wildfire Protection Plan.

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: mixture of grass, shrub, timber understory, and timber litter fuels
- Defensible space: moderate
- Building construction: metal and composite roofs dominant
- Slope: area has a 10% to 20% slope
- Water source: hydrants present

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of Concern

- Whiskey Gulch East of Sterling Highway, Old Sterling and Dusty Street area, South Fork of Anchor River land is steep; picnic areas, such as State Parks, and shooting areas need to be cleared (Anchor Point / Happy Valley / Nikolaevsk CWPP, 2006).
- Campgrounds
- Nikolaevsk, North Fork area (Anchor Point), and Oilwell Road area (Ninilchik).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Spruce bark beetle damage is moderate or minimal
- Gradient winds in the area. Pressure differences between land and sea elevates fire danger.
- Many buildings have no exterior siding, which exposes the home to potential ember penetration and reduces the home's resistance to convective heat.

- Clean downed timber and piles through chipping and burns (Anchor Point / Happy Valley / Nikolaevsk CWPP, 2006).
- Provide public disposal site for brush/slash to be burned by the KPB once or twice per year (Anchor Point / Happy Valley / Nikolaevsk CWPP, 2006).

Fire Department Concerns:

- Nikolaevsk, North Fork area (Anchor Point) and Oilwell road area (Ninilchik) are highest risk
- Goals (in order of importance): training, hazardous fuels reduction, ecological management

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

BEAR CREEK POLYGON SUMMARY STATISTICS

Community Description

Bear Creek is located on the Kenai Peninsula, next to Resurrection Bay. It is bordered to the north by Primrose and to the south by Seward. Bear Creek encompasses an area of 37.4 square miles. Bear Creek is situated at approximately 60.136420° north latitude and -149.382348° west longitude. Bear Creek is in the Seward Recording District (ADNR 2021). Winter temperatures range from 4 degrees F to 27 on average. Some winters it has been 20 below. Summer temperatures vary from 45 to 65 degrees. Bear Creek Volunteer Fire and the Alaska Division of Forestry provide fire protection to the Bear Creek area (KPB, 2021a).

Commented [BP3]: Core Team, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Bear Creek | **Total Score:** 66 | **Rating:** Moderate

Town: Bear Creek

Land Area (*mi.²*): 37.4

Population Density (people/*mi.²*)$_1$: 52.3

Home Density (housing units/ *mi.²*)$_2$: 29.0

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 19.1

Percent: 48.4%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium – Low	Medium	Medium – High	High
3.2%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
		SH5	TU1, TU2	TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 95%	0-0.5 (mi.): 2%
4-8 (ft): 1%	0.5-1.0 (mi.): 5%
8-12 (ft): 0%	1.0-1.5 (mi.): 8%
>12 (ft): 0%	>1.5 (mi.): 85%

Fire Department Statistics: Bear Creek Volunteer Fire				
Communities Served: **Bear Creek***				
Fulltime Firefighters: 2		On-call Firefighters: 0	Volunteer Firefighters: 28	
Water Tender:			Wildland Engines	
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	1-3	Type 3: 1-3	1-3	1-3
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3	Type 6: 1-3	1-3	1-3
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	5			
Portable Pumps:	4			
Recent Fires within the polygon: N/A				
Fire Management Options:				
Critical Protection around urban areas: **24%**		Full Protection around WUI: **31%**		

* Bear Creek, Seward, and Lowell Point Fire Departments support each other's firefighting efforts through Automatic Aid Agreements.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: more humid forest cover
- Building construction: metal and composite roofs dominant
- Organized response: fire department in community
- History of fire occurrence: low
- Severe fire weather potential: low; high humidity

Negative Attributes (High Scores)

- Building construction: combustible siding
- Water source: no water availability through hydrants but do have water tender
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Fire response access to private residences: weak bridges
- Defensible space: minimal, with some homes with poor maintenance and refuse in yard.

Suggested Mitigation Focus Area

Areas of Concern:

- Forest Acres subdivision and the base of Mt. Marathon.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document):

- Need a lumber market and processing to support increased fuel treatments
- Need fire weather reports that are specific to east-side peninsula communities. Currently using Kodiak reports. Using weather reporting from outside of the peninsula can impact fire danger ratings and burn restrictions.
- Address access concerns within Bear Creek, especially weak bridges to private residences.
- Address yard maintenance and derelict property concerns in Bear Creek.
- Address ignition concern on adjacent USFS property through education campaigns on safe campfire use.

Fire Department Concerns:

- Goals (in order of importance): training, hazardous fuels reduction, forest management.
- The department would like to offer volunteers a weekend-long training option.
- Need more frequent inventory of PPE and equipment.
- Ensure all fire fighters have appropriate PPE.



Figure D.3. Example of homes in Bear Creek with very minimal defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

BELUGA POLYGON SUMMARY STATISTICS

Community Description

Beluga is located on the Kenai Peninsula, south of Anchorage along the Seward Highway. It is bordered by Tyonek to the southwest and encompasses an area of 95.3 square miles. Beluga is situated at approximately 61.182384° north latitude and -151.069518° west longitude. Beluga is in the Anchorage Recording District (Alaska Department of Natural Resources [ADNR] 2021). Winter temperatures range from -10˚ F to 35˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. The Tyonek Volunteer Fire Department and the Nikiski Fire Service provide fire protection to Beluga residents (KPB, 2021b).

Community Polygon Summary

Community Polygon Name: Beluga	**Total Score:** 104	**Rating:** High

Town: Beluga

Land Area (*mi.²*): 95.3

Population Density (people/*mi.²*)$_1$: 0.2

Home Density (housing units/ *mi.²*)$_2$: 0.5

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 19.4

Percent: 19.3%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0.5%	1.9%	0.1%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR5	GS1 GS2 GS3	SH2	TU2, TU3, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 69%	0-0.5 (mi.): 1%
4-8 (ft): 33%	0.5-1.0 (mi.): 2%
8-12 (ft): 3%	1.0-1.5 (mi.): 3%
>12 (ft): 2%	>1.5 (mi.): 95%

Fire Department Statistics: Nikiski Fire Department

Communities Served: **Nikiski, Beluga*, Tyonek**

Fulltime Firefighters: 25 | On-call Firefighters: 0 | Volunteer Firefighters: 30

Water Tender:			Wildland Engines		
Type 1:	4-7	Total Number:	4WD/AWD:	Brush Breaker:	
Type 2:	0	Type 3: ----	0	0	
Type 3:	0	Type 4: ----	0	0	
Structure Engines:		Type 5: ----	0	0	
Type 1:	4-7	Type 6: 1-3	1-3	0	
Type 2:	0	Type 7: ----	0	0	
Port-A-Tanks:	10				
Portable Pumps:	0				

Recent Fires within the polygon:

- Tyonek, 2014

Fire Management Options:

Critical Protection around urban areas: **0%**	Full Protection around WUI: **19%**

* The Tyonek Volunteer Fire Department provides fire response support.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan

Community Polygon NFPA 1144 Survey Summary

(No assessments completed during 2021 CWPP update. Desktop analysis only)

Positive Attributes (Low Scores)

- Values at risk: Low population density
- Separation of adjacent structures: good
- Slope: area has a 10% to 20% slope
- Street signs: visible and reflective
- Building construction: metal and composite roofs dominant

Negative Attributes (High Scores)

- Ingress and egress: Very inaccessible. Sea and air access only
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Vegetation type: timber understory- flammable
- Fire response from Nikiski

Suggested Mitigation Focus Area

Areas of Concern:

- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park, and KNWR.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase defensible space around values at risk and safety shelters.
- Implement understory thinning and overall fuel reduction in areas determined to be at risk of intense fire behavior as determined by the risk assessment.
- Relocate wood piles to 100+ feet away from structures and install a fire break with a 10-foot buffer around the wood pile.
- Increase fuel free buffers along roads to prevent fire jumping the road. Remove or prune alder trees that impede on the roadways.
- Partner with logging companies to harvest and sell beetle kill wood or look for opportunities to utilize as fuel wood.

- Implement regular wildland fire training events for local volunteer fire responders.
- Increase defensible space and road access – install fuel breaks and response vehicle turn-outs along narrow roads.
- Install firebreaks around all above ground utility tanks with a 15-foot buffer.
- Distribute wildfire education resources in regard to home hardening, defensible space, structural ignitability, and how to shelter in place if you will not evacuate.
- Consider the use of prescribed fire (where appropriate) to maintain grassland areas.
- Implement fuel breaks in strategic locations to slow fire spread, for example in areas perpendicular to prevailing winds on the edge of the community.
- Host firefighter recruitment events.
- Implement regular prescribed fire training events.

Fire Department Concerns:

- Need volunteers for local fire department
- Need training to respond to wildfire and to do prescribed burns

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

CLAM GULCH POLYGON SUMMARY STATISTICS

Community Description

Located on the Kenai Peninsula, Clam Gulch lies on Sterling Highway 24 miles south of the City of Kenai at approximately 60.231110° north latitude and -151.39361° west longitude. Clam Gulch is in the Kenai Recording District. The area encompasses 13.3 square miles of land. January temperatures range from 4˚ F to 22˚ F degrees Fahrenheit. July temperatures vary from 46˚ F to 65˚ F degrees. Average annual precipitation is 20 inches. Fire and EMS protection is provided to Clam Gulch area residents by the KPB Central Emergency Services (CES). The Alaska Division of Forestry also provides wildland fire protection to the area. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer (KPB, 2006b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006b).

Commented [BP4]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Clam Gulch	**Total Score:** 52	**Rating:** Moderate
Town: Clam Gulch		
Land Area (*mi.²*): 13.3		
Population Density (people/*mi.²*)$_1$: 12.5		
Home Density (housing units/ *mi.²*)$_2$: 25.9		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 31
Percent: 45.3%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.8%	13.7%	6.0%	3.2%	0.%
Dominant Fuel Type				
Grass	Grass-Shrub	Shrub	Timber Understory	Timber Litter
	GS1		TU2, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 97%	0-0.5 (mi.): 0%
4-8 (ft): 32%	0.5-1.0 (mi.): 0%
8-12 (ft): 1%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	4-7	Type 3: 1-3	1-3	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	0
Type 1:	8-10, 1-3 have 4WD	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kalifornsky/ Kasilof /Cohoe/Clam Gulch Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved and more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: timber understory
- Building construction: metal and composite roofs dominant
- Slope: area has a 10% to 20% slope
- Water source: hydrants

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of concern

- Johnson Lake Road, Cohoe Loop, Tustumena Lake Road, north of Clamshell Lodge, Captain Cook subdivision from Wayside Park (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at State Park facilities (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).

- Caribou Hills area (far east of Clam Gulch) has many cabins and no water. Could make significant improvements by increasing defensible space in the area. Due to limited access, people need to be more self-sufficient in mitigation.
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments.
- Homes off of borough roads need maintenance and have very limited access.
- Evaluate electric grid in subdivisions and identify need for electric generators
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Support Firewise programs
- The Caribou Lakes area has a high hazardous fuel loading and is not easily accessible (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- Public slash disposal site in Kasilof/Clam Gulch area (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- Continue removal of dead trees and brush piles on public and private land (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at State Park facilities (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).

Fire Department Concerns:

- Fuel hazards, beetle kill throughout the interface both in developed areas and open areas.
- Goals (in order of importance): training, hazardous fuels reduction, ecological management
- Kasilof/Cohoe, Funny River, Tustumena are highest risk



Figure D.4. Example of an unsurfaced road, a frequent occurrence within the community.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

COHOE POLYGON SUMMARY STATISTICS

Community Description

Cohoe is located on the Kenai Peninsula on the west bank of the Kasilof River, 13 miles south of the City of Kenai on the Sterling Highway at approximately 60.368030° north latitude and - 151.3086° west longitude. Cohoe is in the Kenai Recording District. The area encompasses 69.9 square miles of land. January temperatures range from 4˚ F to 22˚ F. July temperatures vary from 46˚ F to 65˚ F. Average annual precipitation is 20 inches. Fire and EMS protection is provided to the Cohoe area residents by KPB Central Emergency Services (CES). The Alaska Division of Forestry also provides wildland fire protection to the area. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer (KPB, 2006b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006b).

Commented [BP5]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Cohoe	**Total Score:** 54	**Rating:** Moderate
	Town: Cohoe	
	Land Area (*mi.²*): 69.9	
	Population Density (people/*mi.²*)$_1$: 20.3	
	Home Density (housing units/ *mi.²*)$_2$: 19.5	

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 51.9
Percent: 70.8%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.3%	11.3%	6.8%	4.4%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1	GS1	SH5	TU2, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 78%	0-0.5 (mi.): 1%
4-8 (ft): 27%	0.5-1.0 (mi.): 3%
8-12 (ft): 5%	1.0-1.5 (mi.): 4%
>12 (ft): 0%	>1.5 (mi.): 92%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0	Type 3: 1-3	1-3	0
Type 2:	4-7	Type 4: ----	0	0
Type 3:	0	Type 5: 1-3	1-3	0
Structure Engines:		Type 6: ----	0	0
Type 1:	8-10, 1-3 have 4WD	Type 7: ----	0	0
Type 2:	0			
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Cohoe Loop, 2006
- Crooked Creek, 1996

Fire Management Options:

Critical Protection around urban areas: **99%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kalifornsky/Kasilof/Cohoe/Clam Gulch Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved and more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: mixture of fuels, including timber-litter, timber-understory, and grass-shrub
- Building construction: metal and composite roofs dominant
- Slope: minimal slope adjacent to most homes
- Defensible space: moderate

Negative Attributes (High Scores)

- Building construction: combustible siding
- Water source: no water availability through hydrants but do have water tender
- Utility placement: aboveground
- Decking and fencing: combustible

Suggested Mitigation Focus Area

Areas of concern

- Johnson Lake Road, Cohoe Loop, Tustumena Lake Road, North of Clamshell Lodge, Captain Cook subdivision from Wayside Park (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at state park facilities (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Noticeable spruce bark beetle damage and standing dead trees. Continue removal of dead trees and brush piles on public and private land.
- Evaluate electric grid in subdivisions and identify need for electric generators
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Support Firewise programs
- Public slash disposal site in Kasilof/Clam Gulch area (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- Continue removal of dead trees and brush piles on public and private land (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at State Park facilities (Kalifornsky/ Kasilof /Cohoe/Clam Gulch CWPP, 2006).

Fire Department Concerns:

- Fuel hazards, beetle kill throughout the interface both in developed areas and open areas.
- Goals (in order of importance): training, hazardous fuels reduction, ecological management
- Kasilof/Cohoe, Funny River, Tustumena are highest risk.



Figure D.5. Example of an unsurfaced road, a frequent occurrence within the community.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

COOPER LANDING POLYGON SUMMARY STATISTICS

Community Description

Cooper Landing lies at the west end of Kenai Lake on a stretch of the Sterling Highway, 30 miles northwest of Seward in the Chugach Mountains. Its coordinates are approximately 60.49° North Latitude and -149.83417° West Longitude. Cooper Landing is in the Seward Recording District. The area encompasses 65.3 sq. miles of land. January temperatures range from 4 to 22 degrees Fahrenheit. July temperatures vary from 46 to 65 degrees Fahrenheit. Average annual precipitation is 20 inches. Fire protection is provided to the area by the Cooper Landing Volunteer Fire Department (VFD). Other fire agencies such as USFS, Moose Pass VFD, Girdwood FD are at a minimum 45 minutes to one hour away. The Cooper Landing VFD and the Forest Service have joint cooperative agreements in place (Ecology and Environment [E&E], 2006a). Additional information about community background and demographics can be found in the community CWPP (E&E, 2006a).

Commented [BP6]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate?

Community Polygon Summary		
Community Polygon Name: Cooper Landing	**Total Score:** 62	**Rating:** Moderate
Town: Cooper Landing		
Land Area (*mi.²*): 65.3		
Population Density (people/*mi.²*)$_1$: 3.6		
Home Density (housing units/ *mi.²*)$_2$: 5.9		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 31.6
Percent: 45.3%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.3	2.9	0.4	0.1	0
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR2	GS1	SH1	TU1, TU2, TU5	TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 92%	0-0.5 (mi.): 1%
4-8 (ft): 6%	0.5-1.0 (mi.): 3%
8-12 (ft): 0%	1.0-1.5 (mi.): 6%
>12 (ft): 0%	>1.5 (mi.): 90%

Fire Department Statistics: Cooper Landing Volunteer Fire Department

Communities Served: **Cooper Landing***

Fulltime Firefighters: .75 (3/4 position, 1 person) On-call Firefighters: 0 Volunteer Firefighters: 25

Water Tender:			Wildland Engines	
Type 1:	1, 4WD	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: 1	1	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	0	Type 6: 1	1	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	5			
Portable Pumps:	4			

Recent Fires within the polygon:

- Swan Lake, 2019
- Stetson Creek, 2015
- Snug Harbor, 1999
- Bean Creek #2, 1992
- Round Mountain, 1974
- Russian River, 1969
- Kenai Lake, 1959

Fire Management Options:

Critical Protection around urban areas: **61%**	Full Protection around WUI: **18%**

* USFWS lands within Cooper Landing are also supported by the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Cooper Landing Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved and more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: significant buffer to continuous heavy fuels due to Swan Lake fire extent adjacent to community
- Building construction: metal and composite roofs dominant
- Slope: minimal slope adjacent to most homes
- Water: available but gallon-capacity limited
- Defensible space: moderate

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal spacing between some homes
- Fire occurrence history: high
- Severe fire weather potential

Suggested Mitigation Focus Area

Areas of Concern:

- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a solution for green waste disposal. Snug Harbor Road dump fills up rapidly.
- Education on wildfire risk (even post Swan Lake) is needed across the community.
- Need to target education at seasonal homeowners.
- Need to provide Firewise type assessments to homeowners to provide specific action items for mitigation. Include Emergency Vehicle Access. Many homeowners clear space for personal vehicle size, not large equipment
- Need local training opportunities for volunteer firefighters. Local, specific to CL. 1 hour Travel each way discourages volunteer training.
- Need to look into incentives for defensible space actions.
- Need to address threats to HEA lines associated with wind throw.
- Need to seek funding to provide programmable radios to the fire department.
- Need to purchase a new brush truck. Current Forestry-owned/loaned vehicle is 1985. Mechanically broken, 5x since Swan Lake.
- Upgrade the Quartz Creek bridge to allow passage of fire response vehicles. - Still Needed. Largest Vehicles unable to transverse 11 Ton Capacity limited bridge (Cooper Landing CWPP, 2006).
- Establish Dry Hydrant/Year Round Draft Site (Cooper Landing CWPP, 2006).
- Improve Water Supply beyond on-board apparatus tanks (Cooper Landing CWPP, 2006).
- Institute a voluntary Firewise Inspection program within the community as a benefit to community residents to bring recommendations to protect their homes and structures (Cooper Landing CWPP, 2006).
- Establish fire patrols. - Not needed during 2021 Season. Fluctuates based on weather conditions (Cooper Landing CWPP, 2006).
- Develop contingency plans for voluntary community evacuation (Cooper Landing CWPP, 2006).
- Survey private and public structures for main power shut-offs, fuel storage, etc. for fire personnel safety Meet and coordinate with all agencies that would be involved in an incident (Cooper Landing CWPP, 2006).

Fire Department Concerns:

- N/A



Figure D.6. Cooper Landing has a density of tourist values at risk from fire and was recently impacted by the Swan Lake Fire.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

CROWN POINT POLYGON SUMMARY STATISTICS

Community Description

Crown Point is located on the Kenai Peninsula within the Moose Pass area. Crown Point is an unincorporated community located approximately 22 miles north of Seward. Winter temperatures range from 4 degrees F to 27 on average. Some winters it has reached 20 below. Summer temperatures vary from 45 to 65 degrees. Annual precipitation ranges from 20 inches at the south end of the valley to 24 inches at the north end. The Moose Pass Volunteer Fire Company and the United States Forest Service provide initial attack fire protection to Crown Point area residents. Operations are based out of the fire station located at 1 Depot Road in Moose Pass (KPB, 2006c). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006c).

Commented [BP7]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Crown Point **Total Score:** 76 **Rating:** High

Town: Crown Point

Land Area (*mi.²*): 3.5

Population Density (people/*mi.²*)$_1$: 17.6

Home Density (housing units/ *mi.²*)$_2$: 19.9

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 3.4

Percent: 96%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
5.7%	0.6%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU1	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 99%	0-0.5 (mi.): 0%
4-8 (ft): 0%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Moose Pass Volunteer Fire Company				
Communities Served: **Moose Pass*, Crown Point*, Primrose***				
Fulltime Firefighters:	On-call Firefighters: 4		Volunteer Firefighters: 5	
Water Tender: 1			Wildland Engines	
Type 1: ---		Total Number:	4WD/AWD:	Brush Breaker:
Type 2: ---		Type 3: ----	0	0
Type 3: ---		Type 4: ----	0	0
Structure Engines: 3		Type 5: ----	0	0
Type 1: ---		Type 6: ----	0	0
Type 2: ---		Type 7: ----	0	0
Port-A-Tanks: 2				
Portable Pumps: 2				
Recent Fires within the polygon: - Unnamed fire in 2001 burned 3,529 acres just outside of polygon.				
Fire Management Options:				
Critical Protection around urban areas: **22%**		Full Protection around WUI: **74%**		

* Moose Pass, Crown Point, and Primrose are supported by the USFS via mutual aid agreement.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Moose Pass/Crown Point/Primrose Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Topography: limited slope
- Previous fire occurrence: low
- Potential for severe fire weather: low
- Separation of structures: good, large plots (except around some USFS infrastructure)
- Roofing: metal
- Water source: hydrants and tanks
- Emergency shelter in polygon
- Firefighting resources in polygon enhancing fire response capacity: USFS resources; Lawing Airstrip. Moose Pass FD provides fire response.

Negative Attributes (High Scores)

- Ingress and egress: main highway is paved, but still one road in and out to access community
- Ingress and egress: some narrow unsurfaced roads around USFS infrastructure and campgrounds
- Ingress and egress: poor turnaround space for apparatus
- Defensible space: limited clearance around some structures.
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- High density of values at risk in and adjacent to the polygon (i.e., campsites, USFS resources)

Suggested Mitigation Focus Area

Areas of Concern

- Individual homeowner preparedness (Moose Pass Area CWPP 2006).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Improve access by creating additional turnaround spaces.
- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale and create fuel breaks around community values at risk, especially critical infrastructure utilized for fire protection.
- Enhance fuel breaks with naturally occurring birch or willow.
- Manage popular recreation sites with outreach to users.
- Seek funding for water tender (Moose Pass Area CWPP 2006).
- Seek funding for portable water storage (Moose Pass Area CWPP 2006).
- Seek additional USFS and DOF training opportunities (Moose Pass Area CWPP 2006).
- Create equipment cache on north and south end of Moose Pass, Crown Point area (Moose Pass Area CWPP 2006).
- Create a pre-attack suppression plan with a focus on protection of cultural resources (Moose Pass Area CWPP 2006).
- Expand CERT and Fire Corps program (Moose Pass Area CWPP 2006).
- Encourage residents to develop a secondary water source (Moose Pass Area CWPP 2006).
- Restrict motorized access into areas where hazardous fuels exist on public land (Moose Pass Area CWPP 2006).

Fire Department Concerns:

- Fuels Hazards
- Beetle kill throughout the interface both developed and undeveloped areas
- Goals, in order of importance:
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.7. Example of cabins and other values at risk with limited defensible space, suggesting fire response concerns.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

DIAMOND RIDGE POLYGON SUMMARY STATISTICS

Community Description

The Diamond Ridge area is located on the bluff above Homer. It lies just south of Anchor Point at approximately 59.699040° north latitude and -151.56071° west longitude. Diamond Ridge is in the Homer Recording District. The area encompasses 42.4 square miles of land. January temperatures range from -10˚F to +35˚ F. July temperatures vary from 46˚ F to 65 ˚ F. Average annual precipitation is 20 inches. Kachemak Emergency Services Area (KESA) currently contracts with the City of Homer (HVFD) for fire and emergency medical services. The KESA station houses fire response equipment and is large enough to host training sessions. HVFD Fire Division firefighters are state certified at the Firefighter I, II, or Fire Officer I levels (KPB, 2006d). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006d).

Commented [BP8]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Diamond Ridge	**Total Score:** 62	**Rating:** Moderate
Town: Diamond Ridge		
Land Area (*mi.²*): 42.4		
Population Density (people/*mi.²*)$_1$: 29.0		
Home Density (housing units/ *mi.²*)$_2$: 23.1		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 39.9
Percent: 94.1%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
7.0%	14.0%	8.7%	4.8%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1	GS1		TU1 TU2 TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 100%	0-0.5 (mi.): 2%
4-8 (ft): 41%	0.5-1.0 (mi.): 6%
8-12 (ft): 1%	1.0-1.5 (mi.): 10%
>12 (ft): 0%	>1.5 (mi.): 83%

Fire Department Statistics: Kachemak Emergency Services Area (KESA)

Communities Served: **Greater Homer**

Fulltime Firefighters: 5 On-call Firefighters: 0 Volunteer Firefighters: 30

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	1-3 4WD brush breakers			
Type 2:	1-3 4WD brush breakers	Type 3: 1-3	0	0
Type 3:	1-3 excess property	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	1-3
Type 1:	1-3 excess property 4-7 4WD brush breakers	Type 6: 1-3	1-3	1-3
Type 2:	1-3 4WD brush breakers	Type 7: 1-3	1-3	1-3
Port-A-Tanks:	6			
Portable Pumps:	5			

Recent Fires within the polygon:

- North Fork, 2019
- Gould Fire, 1950
- Davis, 1946

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Diamond Ridge/Fritz Creek/Fox River Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: mixture of timber-understory and timber-litter fuels
- Defensible space: good
- Building construction: metal and composite roofs dominant
- Water source: hydrants

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Slope: 31% to 40%
- Topographic features: steep slopes with ridge top homes that are exposed to fire spread

Suggested Mitigation Focus Area

Areas of Concern:

- On bluff beyond Vosnesenka School (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Baycrest skiing and hiking areas are surrounded by subdivisions. Much of the area is state and borough lands at extreme risk for wildfire. This would be an excellent location for demonstration projects (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Kachemak Bay State Park (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- The Caribou Lakes area has a high hazardous fuel loading and is not easily accessible (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- East End Road,
- Skyline Drive,
- Caribou Lake
- Diamond Ridge

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- The local road system needs improvement. Many roads are not part of city or borough management and fall outside regular state maintenance. Skyline, Olson Mountain, and Hutler Roads need year-round access, with a better road base. They are impassable at critical times of the year, e.g., during spring “break up.” (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Identify EERd location for slash disposal to be burned, possibly with KPB incinerator (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Pursue public slash pickup/disposal service (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Create firebreaks along section lines and around perimeters of areas with heavy fuel loading that are within 0.25 mile of structures (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).

Fire Department Concerns:

- N/A



Figure D.8. Example of a ridge which many homes are located.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

FOX RIVER POLYGON SUMMARY STATISTICS

Community Description

The Fox River area comprises of 127 square miles of land and consists of small communities: Voznesenka, Razdolna, and Kachemak Selo. The three Russian Old Believer villages at the head of Kachemak Bay are similar in history and composition. Razdolna is located on a bluff on the east side of Swift Creek at the end of five-mile-long Circle Lake Road which branches off East End Road to the north about 19 miles east of Homer. The community of Voznesenka is located about 21 miles east of Homer and makes up the final occupied area on East End Road before the road ends and descends as a trail down the "Switchback" to the shore at the head of Kachemak Bay. The village stretches mainly along the final two miles of the road as well as along one side road that parallels the last mile of the main road. Most of the dwellings are on individual lots of 1 to 5 acres. Kachemak Selo lies on the shore of the head of Kachemak Bay at the bottom of the Switchback and northeast about 1 mile along the shore.
The Switchback allows four-wheel drive traffic most of the year. The houses of the village are mostly on small individual lots. Kachemak Emergency Services Area currently contracts with the City of Homer (HVFD) for fire and emergency medical services. HVFD Fire Division firefighters are state certified at the Firefighter I, II, or Fire Officer I levels. (KPB, 2006d) Additional information about community background and demographics can be found in the community CWPP (KPB, 2006d).

Commented [BP9]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Fox River	**Total Score:** 82	**Rating:** Moderate
Town: Fox River		
Land Area (*mi.²*): 126.84		
Population Density (people/*mi.²*)$_1$: 5.3		
Home Density (housing units/ *mi.²*)$_2$: 2.6		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 49.7
Percent: 38.7%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
3.2%	1.5%	0.7%	0.3%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1	SH2	TU1, TU2, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 94%	0-0.5 (mi.): 0%
4-8 (ft): 30%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Kachemak Emergency Services Area (KESA)

Communities Served: **Greater Homer**

Fulltime Firefighters: 5 On-call Firefighters: 0 Volunteer Firefighters: 30

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	1-3 4WD brush breakers			
Type 2:	1-3 4WD brush breakers	Type 3: 1-3	0	0
Type 3:	1-3 excess property	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	1-3
Type 1:	1-3 excess property 4-7 4WD brush breakers	Type 6: 1-3	1-3	1-3
Type 2:	1-3 4WD brush breakers	Type 7: 1-3	1-3	1-3
Port-A-Tanks:	6			
Portable Pumps:	5			

Recent Fires within the polygon:

- Caribou Lake, 2019
- Caribou Hills, 2007

Fire Management Options:

Critical Protection around urban areas: **90%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Diamond Ridge/Fritz Creek/Fox River Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: timber and grass mixture. Grass and grass shrubs at higher elevation.
- Defensible space: good; well-maintained homes and yards in many areas
- Building construction: metal and composite roofs dominant
- Water source: hydrants

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Slope: area has a 31% to 40% slope
- Topographic features: steep slopes with ridge top homes that are exposed to fire spread

Suggested Mitigation Focus Area

Areas of Concern:

- On bluff beyond Vosnesenka School (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Baycrest skiing and hiking areas are surrounded by subdivisions. Much of the area is state and borough lands at extreme risk for wildfire. This would be an excellent location for demonstration projects (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Kachemak Bay State Park (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- East End Road,
- Skyline Drive,
- Caribou Lake
- Diamond Ridge

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Scenic values, cultural values and historic buildings need to be protected.
- The local road system needs improvement. Many roads are not part of city or borough management and fall outside regular state maintenance. Skyline, Olson Mountain, and Hutler Roads need year-round access, with a better road base. They are impassable at critical times of the year, e.g., during spring “break up.” (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Identify EERd location for slash disposal to be burned, possibly with KPB incinerator (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Pursue public slash pickup/disposal service (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).

Fire Department Concerns:

- N/A



Figure D.9. Fox River is sparsely populated and comprises many cultural and natural values at risk, including critical habitat.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

FRITZ CREEK POLYGON SUMMARY STATISTICS

Community Description

Fritz Creek is located 7 miles northeast of Homer, on the north shore of Kachemak Bay, off East End Road. It lies at the foot of Bald Mountain at approximately 59.748420° north latitude and - 151.2778° west longitude. Fritz Creek is in the Homer Recording District. The area encompasses 54 square miles of land. Winter temperatures range from -10˚ F to +35˚ F; summer temperatures vary from 45˚ F to 65 ˚F. Average annual precipitation is 24 inches. Kachemak Emergency Services Area currently contracts with the City of Homer (HVFD) for fire and emergency medical services. HVFD Fire Division firefighters are state certified at the Firefighter I, II, or Fire Officer I levels. (KPB, 2006d) Additional information about community background and demographics can be found in the community CWPP (KPB, 2006d).

Commented [BP10]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Fritz Creek	**Total Score:** 54	**Rating:** Moderate
Town: Fritz Creek		
Land Area (*mi.²*): 53.9		
Population Density (people/*mi.²*)$_1$: 39.0		
Home Density (housing units/ *mi.²*)$_2$: 28.7		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 51.8
Percent: 95.9%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
5.8%	20.4%	4.9%	1.7%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1 GS2	SH2 SH5	TU1, TU2, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 100%	0-0.5 (mi.): 1%
4-8 (ft): 59%	0.5-1.0 (mi.): 4%
8-12 (ft): 0%	1.0-1.5 (mi.): 7%
>12 (ft): 0%	>1.5 (mi.): 87%

Fire Department Statistics: Kachemak Emergency Services Area (KESA)

Communities Served: **Greater Homer**

Fulltime Firefighters: 5 On-call Firefighters: 0 Volunteer Firefighters: 30

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	1-3 4WD brush breakers			
Type 2:	1-3 4WD brush breakers	Type 3: 1-3	0	0
Type 3:	1-3 excess property	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	1-3
Type 1:	1-3 excess property 4-7 4WD brush breakers	Type 6: 1-3	1-3	1-3
Type 2:	1-3 4WD brush breakers	Type 7: 1-3	1-3	1-3
Port-A-Tanks:	6			
Portable Pumps:	5			

Recent Fires within the polygon:

- 17 East End Road, 2009
- Tracy Ave, 2005
- Circle Lake Fire, 2002
- Mansfield Ave, 1999

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Diamond Ridge/Fritz Creek/Fox River Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street Signs: visible and reflective
- Vegetation type: timber, grass and shrub mixture, forests are more open with some meadow areas interspersed.
- Defensible space: good
- Building construction: metal and composite roofs dominant
- Water source: hydrants
- Slope: Area slope is 10% to 20%

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Water source: no water availability through hydrants but do have water tender
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of Concern:

- On bluff beyond Vosnesenka School (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Baycrest skiing and hiking areas are surrounded by subdivisions. Much of the area is state and borough lands at extreme risk for wildfire. This would be an excellent location for demonstration projects (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Kachemak Bay State Park (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- East End Road
- Skyline Drive
- Caribou Lake
- Diamond Ridge

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments on the east side of Peninsula.
- Agricultural, livestock, horses; tourism and viewshed to be protected
- The local road system needs improvement. Many roads are not part of city or borough management and fall outside regular state maintenance. Skyline, Olson Mountain, and Hutler Roads need year-round access, with a better road base. They are impassable at critical times of the year, e.g., during spring "break up." (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Identify EERd location for slash disposal to be burned, possibly with KPB incinerator (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).
- Pursue public slash pickup/disposal service (Diamond Ridge/Fritz Creek/Fox River CWPP, 2006).

Fire Department Concerns:

- N/A

Commented [EG11]: Core Team - what does EERd stand for? Please spell out the acronym.



Figure D.10. The Fritz Creek WUI is comprised of scattered properties with varied topography.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

FUNNY RIVER POLYGON SUMMARY STATISTICS

Community Description

Funny River is located on the Kenai Peninsula, approximately 15 miles east of Soldotna and along the Kenai River, from River Mile 29 to 45. It lies at approximately 60.48 degrees North Latitude and 150.84 degrees West Longitude. Funny River is in the Kenai Recording District. The area encompasses 27.2 sq. miles of land. The Funny River Volunteer Fire Department and the Central Emergency Services Fire Department provide fire protection to Funny River residents (KPB, 2009a). Additional information about community background and demographics can be found in the community CWPP (KPB, 2009a).

Commented [BP12]: Core Team, this information was taken from the 2009 CWPP. Can you please confirm if this is still accurate? I did not find the Funny River VFD online.

Community Polygon Summary		
Community Polygon Name: Funny River	**Total Score:** 44	**Rating:** Moderate
Town: Funny River		
Land Area (*mi.²*): 26.6		
Population Density (people/*mi.²*)$_1$: 32.8		
Home Density (housing units/ *mi.²*)$_2$: 53.8		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 29
Percent: 100%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
0.7%	17.0%	12.5%	10.3%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1	GS1	SH5	TU1, TU3, TU5	TL3, TL6

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 63%	0-0.5 (mi.): 2%
4-8 (ft): 69%	0.5-1.0 (mi.): 4%
8-12 (ft): 1%	1.0-1.5 (mi.): 9%
>12 (ft): 0%	>1.5 (mi.): 85%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0	Type 3: 1-3	1-3	0
Type 2:	4-7	Type 4: ----	0	0
Type 3:	0	Type 5: 1-3	1-3	0
Structure Engines:		Type 6: ----	0	0
Type 1:	8-10, 1-3 have 4WD	Type 7: ----	0	0
Type 2:	0			
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Card Street, 2015
- Funny River, 2014
- Ashley, 2009
- Kenai Fire, 1947

Fire Management Options:

Critical Protection around urban areas: **68%**	Full Protection around WUI: **33%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2009 Funny River Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: good turnarounds for most homes
- Defensible space: very good clearance for some homes.
- Topography: flat
- History for fire occurrence: low
- Potential for severe fire weather: low
- Separation of adjacent structures: good, larger lots
- Water source: drafting from river possible
- Station close to community
- Signage: present and reflective

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Ingress and egress: some unsurfaced and poorly maintained roads with narrow sections
- Vegetation type: timber and understory fuels
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern

- State Park (Funny River Area CWPP, 2009).
- East end of Funny River Road (Funny River Area CWPP, 2009).
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Reduce structure ignition potential through use of home ignition zone training.
- Develop projects and seek funding for fuel treatments at Funny River State Park.
- Develop options for the public to access beetle killed trees for firewood.
- Identify slash disposal sites.
- Widen utility ROW for use as fire breaks.
- Develop programs to support vulnerable populations with defensible space actions
- Support Firewise programs
- Locate and identify alternative routes to serve as escape routes
- Identify safety zones.
- Map water sources.
- Identify and map fill sites.
- Create alternative ingress/egress route for Funny River (currently only one ingress/egress).
- Road widening is needed in some places to accommodate tankers and other large equipment.
- Evaluate electric grid in subdivisions and identify need for electric generators
- Develop residential inspection program for structural ignitability
- Increase/expand use of CERT and associated training (Funny River Area CWPP, 2009).
  Develop a CWPP media outreach plan (Funny River Area CWPP, 2009).
- Develop a "rapid notify in place" system for the area (Funny River Area CWPP, 2009).
- Develop a boat escape plan (Funny River Area CWPP, 2009).

Fire Department Concerns:

- Pre-season fire planning to identify critical infrastructure where point protection should be applied.



Figure D.11. Example of good defensible space around a home in Funny River.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

HALIBUT COVE POLYGON SUMMARY STATISTICS

Community Description

The Halibut Cove area includes 25 miles of mountainous shoreline from Bear Cove to Jakolof Bay. There are an increasing number of secondary and primary homes throughout the numerous coves and bays. The area is primarily bordered by the southern shore of Kachemak Bay. The Halibut Cove area encompasses 8.3 square miles. There is no local or state fire department to house equipment or provide training. The nearest wildland fire resources are a seasonal State Forestry crew based in Homer which responds by local hire helicopter or marine vessel. Soldotna Forestry has a helicopter crew with a 140-gallon bucket based in Soldotna during most of the spring fire danger. Air attack retardant provided by State Forestry is based in Palmer, though during high fire danger it can be pre-positioned at the Kenai airport (Terry Anderson Consulting [TAC], 2008a). Additional information about community background and demographics can be found in the community CWPP (TAC, 2008a).

Commented [BP13]: Core Team - Could you please verify if this statement about is still true? Or update it as needed?

Community Polygon Summary

Community Polygon Name: Halibut Cove **Total Score:** 105 **Rating:** High

Town: Halibut Cove (not a traditional town; it is a group of cabins and a few year-round residences)

Land Area (*mi.²*): 8.3

Population Density (people/*mi.²*)1: 7.4

Home Density (housing units/ *mi.²*)2: 77

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 3.9

Percent: 33.7%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0%	0%	0%	0%	0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU2, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 76%	0-0.5 (mi.): 0%
4-8 (ft): 6%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: N/A – No local Fire Department

Communities Served: Halibut Cove* does not have a local fire department. Mutual aid is provided by State and Federal Resources.

Fulltime Firefighters: N/A On-call Firefighters: N/A Volunteer Firefighters: N/A

Water Tender:		Wildland Engines	
Type 1: ---	Total Number:	4WD/AWD:	Brush Breaker:
Type 2: ---	Type 3: ----	0	0
Type 3: ---	Type 4: ----	0	0
Structure Engines:	Type 5: ----	0	0
Type 1: ---	Type 6: ----	0	0
Type 2: ---	Type 7: ----	0	0

Port-A-Tanks: ---

Portable Pumps: ---

Recent Fires within the polygon:

- N/A

Fire Management Options:

Critical Protection around urban areas: **18%**	Full Protection around WUI: **21%**

* Kenai Kodiak Area Statistics: 12 seasonal fire technicians and 1 contract helicopter (from the 3rd week of April through the first week of August).

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2008 Halibut Cove and Vicinity Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

(No assessments completed during 2021 CWPP update, desktop analysis only)

Positive Attributes (Low Scores)

- Vegetation Types: coastal and humid
- Fire History: minimal
- Values at risk: minimal - cabins

Negative Attributes (High Scores)

- Ingress and egress: Bad. Accessible only by water.
- Building construction: combustible siding
- Decking and fencing: combustible
- Water source: drafting only
- Fire response: from mainland

Suggested Mitigation Focus Area

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- NA (based on the level of fire risk and the number of year-round residents)

Fire Department Concerns:

- There is no local fire department. Suppression efforts are dependent upon State Forestry resources.
- There are no wildland or structural engines available to the area, past suppression efforts were provided via boat.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

HAPPY VALLEY POLYGON SUMMARY STATISTICS

Community Description

Happy Valley lies on the west coast of the Kenai Peninsula on Sterling Highway, 22 miles northwest of Homer, on Happy Valley Creek at approximately 59.935830° north latitude and - 151.73722° west longitude. Happy Valley is in the Homer Recording District. The area encompasses 88 square miles of land. Winter temperatures range from -40˚ F to 37˚ F; summer temperatures vary from 45˚ F to 80˚ F. Average annual precipitation is 24 inches. Western Emergency Services (formerly Anchor Point Volunteer Fire Department) and the Alaska Division of Forestry provide fire protection to Anchor Point residents (KPB, 2006a). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006a).

Commented [BP14]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Happy Valley	**Total Score:** 67	**Rating:** Moderate
Town: Happy Valley		
Land Area (*mi.²*): 88.1		
Population Density (people/*mi.²*)$_1$: 7.1		
Home Density (housing units/ *mi.²*)$_2$: 10.7		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 35.6
Percent: 40.3%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
5.3%	6.5%	0.8%	1.0%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1	SH2 SH5	TU2, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 100%	0-0.5 (mi.): 0%
4-8 (ft): 64%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 1%
>12 (ft): 0%	>1.5 (mi.): 99%

Fire Department Statistics: Western Emergency Services (formerly Anchor Point)

Communities Served: **Anchor Point, Ninilchik, Nikolaevsk, Happy Valley**

Fulltime Firefighters: 10 | On-call Firefighters: 0 | Volunteer Firefighters: 38

Water Tender:		Total Number:	Wildland Engines 4WD/AWD:	Brush Breaker:
Type 1:	1-3			
Type 2:	1-3	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3	Type 6: 1-3	1-3	1-3
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	8			
Portable Pumps:	4			

Recent Fires within the polygon:

- Homestead, 2008
- Cottonfield Road, 2003
- Dimitri Road, 2002

Fire Management Options:

Critical Protection around urban areas: **80%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Anchor Point/Happy Valley/Nikolaevsk Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved and more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: open forest and grassland mixture
- Building construction: metal and composite roofs dominant
- Poor defensible space
- Slope: area slope is 10% to 20%
- Water source: hydrants

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of Concern

- Whiskey Gulch east of Sterling Highway, Old Sterling and Dusty Street area, South Fork of Anchor River land is steep, Picnic areas, such as State Parks, and shooting areas need to be cleared.
- Nikolaevsk, North Fork area (Anchor Point), and Oilwell Road area (Ninilchik).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Commercial, tourism, coastal resource, fishing and industry values to be protected.
- Clean downed timber and piles through chipping and burns (Anchor Point/Happy Valley/Nikolaevsk CWPP, 2006).
- Provide public disposal site for brush/slash to be burned by the KPB once or twice a year (Anchor Point/Happy Valley/Nikolaevsk CWPP, 2006).

Fire Department Concerns:

- Nikolaevsk, North Fork area (Anchor Point) and Oilwell road area (Ninilchik) are highest risk
- Goals (in order of importance):
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.12. Example of the landscape in Happy Valley.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

HOMER POLYGON SUMMARY STATISTICS

Community Description

The City of Homer is located on the north shore of Kachemak Bay on the southwestern edge of the Kenai Peninsula. The Homer Spit, a 4.5-mile-long bar of gravel, extends from the Homer shoreline. Homer is 227 road miles south of Anchorage, at the southernmost point of Sterling Highway. It lies at approximately 59.6425° north latitude and -151.54833° west longitude. Homer is in the Homer Recording District. The area encompasses 14 square miles of uplands, including Beluga Lake. Homer lies in the maritime climate zone. During the winter, temperatures range from 14˚F to 27˚ F; summer temperatures vary from 45˚F to 65˚ F. Average annual precipitation is 24 inches, including 55 inches of snow. The Homer Fire Department (HFD), Kenai Emergency Services, and the Alaska Division of Forestry provide fire protection to the Homer area. HFD Fire Division firefighters are state certified at the Firefighter I, II, or Fire Officer I levels. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer. International Organization for Standardization (ISO) fire protection Class-3 rating has been provided in areas equipped with hydrants (KPB, 2006e). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006e).

Commented [BP15]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, are there mutual aid agreements in place?

Community Polygon Summary		
Community Polygon Name: Homer	**Total Score:** 32	**Rating:** Low
Town: Homer		
Land Area (*mi.²*): 13.8		
Population Density (people/*mi.²*)$_1$: 195.5		
Home Density (housing units/ *mi.²*)$_2$: 139.9		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 14.1
Percent: 53.5%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
5.0%	17.4%	9.2%	5.6%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2			TU1, TU2, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 51%	0-0.5 (mi.): 3%
4-8 (ft): 17%	0.5-1.0 (mi.): 9%
8-12 (ft): 0%	1.0-1.5 (mi.): 14%
>12 (ft): 0%	>1.5 (mi.): 74%

Fire Department Statistics: Homer Volunteer Fire Department

Communities Served: **Homer*, Kachemak City***

Fulltime Firefighters: 8 On-call Firefighters: 0 Volunteer Firefighters: 16

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	1-3	Type 3: 1-3	0	0
Type 2:	0	Type 4: ----	0	0
Type 3:	0	Type 5: ----	0	0
Structure Engines:		Type 6: ----	0	0
Type 1:	1-3 excess property	Type 7: 1-3	0	0
Type 2:	1-3			
Port-A-Tanks:	1			
Portable Pumps:	1			

Recent Fires within the polygon:

- Davis, 1946

Fire Management Options:

Critical Protection around urban areas: **53%**	Full Protection around WUI: **0%**

* Homer is also supported by Kachemak Emergency Service Area (KESA).

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 City of Homer and Kachemak City Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: grass and shrub in coastal areas, mixture of grasses and timber-understory at higher elevation
- Building construction: metal and composite roofs dominant
- Water source: hydrants but some are low flow
- Defensible space is good

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Some homes located on slopes (mid and top of slope)

Suggested Mitigation Focus Area

Areas of Concern

- East End Road, Skyline Drive, Caribou Lake, and Diamond Ridge.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- High volume of tourism in summer. Consider addressing seasonal visitors and sharing fire education messaging to tourists using signage on heavily trafficked roads.
- Tsunami evacuation route well marked.
- Suggestion to create a trails network as a fuel break

Fire Department Concerns:

- Goals (in order of importance): training, hazardous fuels reduction, ecological management
- Would like to purchase a couple of new brush trucks
- Would like ATV or UTV to increase access into narrow areas.
- Would like a Class A Pumper
- Areas of risk depend upon the fire season and conditions.
- Area north of the airport is a concern due to grass/fine fuel hazard.
- Sprucewood Drive area is a concern due to no hydrants.
- Areas along the bluff are more inaccessible and have slow response times.
- Easter Day Road and North Fork Fire Area is a concern due to continued fire danger. Need Firewise recommendations applied in the area.
- Evacuation concerns for communities in eastern portion. Russian villages – Razdolna- would be impossible to evacuate. They need a safety zone so they can shelter in place. Would require fuel treatments and education to community members. Hayfields (only if hayed) could provide shelter in place.
- Kachemak Selo – switchbacks and slow response and evacuation. Beach could be a safety zone in worst case scenario
- Firewise program used to be more active. It has stagnated recently. Need to reinvigorate.



Figure D.13. The Homer WUI is composed of some scattered homes transitioning to more densely populated urban area.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

HOPE POLYGON SUMMARY STATISTICS

Community Description

Hope lies on the northern end of Kenai Peninsula, on the south shore of the Turnagain Arm of Cook Inlet. The community lies on the 17-mile Hope Highway, northwest of the Seward Highway, near the mouth of Resurrection Creek. It lies at approximately 60.920280° North Latitude and -149.64028° West Longitude. Hope is in the Seward Recording District. The area encompasses 51.6 sq. miles of land. Winter temperatures range from 14 to 27; summer temperatures vary from 45 to 65. Average annual precipitation is 20 inches. Fire protection is provided to the Hope area by the Hope-Sunrise Volunteer Fire Department (HSVFD). Other fire agencies, for example, USFS, Moose Pass Volunteer Fire Department, Girdwood Fire Department are at a minimum 45 minutes to one hour away. The HSVFD and the Forest Service have a joint cooperative agreement in place (E&E, 2006b). Additional information about community background and demographics can be found in the community CWPP (E&E, 2006b).

Commented [BP16]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate?

Is this statement still accurate?
"The DOF also has an interagency agreement for use of 16 smokejumpers and associated aircraft."

Community Polygon Summary		
Community Polygon Name: Hope	**Total Score:** 93	**Rating:** High
Town: Hope		
Land Area (*mi.²*): 51.6		
Population Density (people/*mi.²*)$_1$: 3.7		
Home Density (housing units/ *mi.²*)$_2$: 4.8		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 21.6
Percent: 41.7%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.9%	0.3%	0.0%	0.0%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU1, TU5	TL1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 99%	0-0.5 (mi.): 1%
4-8 (ft): 0%	0.5-1.0 (mi.): 3%
8-12 (ft): 0%	1.0-1.5 (mi.): 5%
12 (ft): 05	>1.5 (mi.): 90%

Fire Department Statistics: Hope-Sunrise Volunteer Fire Department

Communities Served: Hope and Sunrise

Fulltime Firefighters: 0

On-call Firefighters: 2

Volunteer Firefighters: 7

Water Tender: 1

Wildland Engines 1

Type 1:		Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	0	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	1			
Portable Pumps:	2 float pumps			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **32%**	Full Protection around WUI**: 29%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Hope-Sunrise-Summit Lake Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- History of fire occurrence: low
- Humid environment
- Street signs: visible and reflective

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Ingress and egress: non-surfaced road with narrow sections throughout community
- Ingress and egress: limited turnaround space for some homes
- Building construction: combustible siding
- Decking and fencing: combustible
- Vegetation type: timber is thick and continuous adjacent to community; coastal and riparian vegetation close to town; beetle killed trees
- Topography: steep and variable topography along access route
- Separation of adjacent structures: minimal
- Water source: no water availability
- Utility placement: aboveground
- Severe weather potential- extreme winds

Suggested Mitigation Focus Area

Areas of Concern

- Utility ROW (Hope-Sunrise-Summit Lake CWPP 2006).
- Critical infrastructure: roads and powerlines (Hope-Sunrise-Summit Lake CWPP 2006).
- Prioritize fire breaks based on fuel hazard (see 2006 plan) (Hope-Sunrise-Summit Lake CWPP 2006).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Develop strategies for evacuation and alternative ingress/egress routes.
- Promote individual homeowner preparedness.
- Identify vulnerable populations that require additional assistance for evacuation.
- Map water locations available for strategic firefighting.
- Create alternative ingress/egress route for Hope (currently only one ingress/egress).
- Implement a volunteer fire wise community program and associated home inspections (Hope-Sunrise-Summit Lake CWPP 2006).
- Educate community about vigilance during electrical storms, windstorms and camping (Hope-Sunrise-Summit Lake CWPP 2006).
- Utilize town meeting format for public education and preparedness (Hope-Sunrise-Summit Lake CWPP 2006).
- Implement fuel breaks along slopes above Hope Road (Hope-Sunrise-Summit Lake CWPP 2006).
- Purchase community satellite phones for emergency communications (Hope-Sunrise-Summit Lake CWPP 2006).
- Build economic community capacity (Hope-Sunrise-Summit Lake CWPP 2006).
- Define and promote stewardship contracting (Hope-Sunrise-Summit Lake CWPP 2006).
- Create water resources map (Hope-Sunrise-Summit Lake CWPP 2006).
- Appeal to USFS to create year-round fire training center in Hope (Hope-Sunrise-Summit Lake CWPP 2006).
- Develop and execute annual pre-season exercises with agency partners (Hope-Sunrise-Summit Lake CWPP 2006).
- Establish fire patrols during peak season (Hope-Sunrise-Summit Lake CWPP 2006).
- Create cache of emergency supplies (water, food, medical supplies) at fire station (Hope-Sunrise-Summit Lake CWPP 2006).

Fire Department Concerns:

- Increase firefighting training
- Purchase chipper for green waste disposal
- Increasing population, new tracts of land have been developed and sold. Fire department does not have a good road map of where everyone lives, nor up-to-date records on new tracts of land.
- No street numbers on new homes
- Many homes do not have defensible space
- Community doesn't have fire break zones
- Need to improve and expand working relationship to increase training opportunities and work with other departments throughout the peninsula
- Coordinating resources and equipment throughout the peninsula. (Fire department has trucks they can loan).
- Fire Department needs an administrator, they are currently seeking funding.



Figure D.14. Hope Historic District has many historic community values at risk from wildfire.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

IONIA POLYGON SUMMARY STATISTICS

Community Description

Ionia is located on the Kenai Peninsula on the west bank of the Kasilof River, 13 miles south of the City of Kenai on the Sterling Highway at approximately 60.375053° north latitude and - 151.319077° west longitude. Ionia is in the Kenai Recording District. The area encompasses 0.2 square miles of land. January temperatures range from 4˚ F to 22˚ F. July temperatures vary from 46˚ F to 65˚ F. Average annual precipitation is 20 inches. Fire protection is provided to the Ionia area residents by KPB Central Emergency Services (CES) (KPB, 2006b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006b).

Community Polygon Summary

Community Polygon Name: Ionia	**Total Score:** 50	**Rating:** Moderate

Town: Ionia

Land Area (*mi.²*): 0.2

Population Density (people/*mi.²*)$_1$: 200.8

Home Density (housing units/ *mi.²*)$_2$: 64.3

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 0.2

Percent: 100%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
22.0%	27.4%	4.7%	19.1%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 77%	0-0.5 (mi.): 0%
4-8 (ft): 52%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:		Total Number:	Wildland Engines 4WD/AWD:	Brush Breaker:
Type 1:	0			
Type 2:	4-7	Type 3: 1-3	1-3	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	0
Type 1:	8-10, 1-3 have 4WD	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Funny River, 2014

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kalifornsky/Kasilof/Cohoe/Clam Gulch Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: timber with grass or shrub understory; some fuel treatments carried out around larger buildings; large meadow areas and agricultural land create buffer to fire spread.
- Defensible space: good; wood piles are moved away from main community buildings
- Slope: area slope is 9% or less
- Building construction: metal and composite roofs dominant
- Building construction: siding materials (stucco) are fire resistive
- Water sources: sprinklers, wells, and pumps

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of Concern:

- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments.
- Community buildings, agricultural and residential values at risk and need to be protected.
- Main community buildings have good access. Residential loop is narrower and has fuels close to the road.
- Community has a goal to secure water independence (ability to respond to fire without assistance from others). Working to set up sprinklers on the peaks of community building roofs.
- Community has fire mitigation plan and fire crew.
- Need to continue to remove spruce beetle killed trees (have already removed numerous trees).
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Support Firewise programs

Fire Department Concerns:

- N/A



Figure D.15. The Ionia community has many timber framed buildings, but have implemented fire protection measures with defensible space and installation of sprinklers on community buildings.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

KACHEMAK POLYGON SUMMARY STATISTICS

Community Description

The Kachemak polygon comprises Kachemak City and the separate Kachemak Emergency Service Area (KESA). The assessment averages conditions across the City and KESA.

The City of Kachemak is located adjacent to and northeast of the City of Homer on East End Road. It lies on the northern shore of Kachemak Bay, within the Kenai Peninsula Borough, approximately 59.67° north latitude and -151.43417° west longitude. Kachemak is in the Homer Recording District. The area encompasses 1.6 square miles of land. Winter temperatures average 14˚ F to 27˚ F; summer temperatures typically range from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. The Homer Fire Department (HFD), Kachemak Emergency Services, and the Alaska Division of Forestry provide fire protection to the City of Kachemak. HFD Fire Division firefighters are state certified at the Firefighter I, II, or Fire Officer I levels. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer (KPB, 2006e). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006e).

Commented [BP17]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Kachemak | **Total Score:** 50 | **Rating:** Moderate

Town: Kachemak

Land Area (*mi.²*): 1.6

Population Density (people/*mi.²*)$_1$: 291.9

Home Density (housing units/ *mi.²*)$_2$: 239.5

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 1.6

Percent: 99.2%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
5.7%	68.7%	14.6%	5.9%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR2			TU1	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 98%	0-0.5 (mi.): 0%
4-8 (ft): 29%	0.5-1.0 (mi.):0%

8-12 (ft): 80%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Homer Volunteer Fire Department

Communities Served: **Homer*, Kachemak City***

Fulltime Firefighters: 8 On-call Firefighters: 0 Volunteer Firefighters: 16

Water Tender:			Wildland Engines	
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: 1-3	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3 excess property	Type 6: ----	0	0
Type 2:	1-3	Type 7: 1-3	0	0
Port-A-Tanks:	1			
Portable Pumps:	1			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **99%**	Full Protection around WUI: **0%**

* Kachemak is also supported by Kachemak Emergency Service Area (KESA). KESA serves areas outside of Kachemak City boundaries.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 City of Homer and Kachemak City Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: primarily grass with timber and shrub overstories
- Building construction: metal and composite roofs dominant
- Moderate defensible space
- Slope: 10% to 20% (steep elevation in some areas)

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Severe fire weather potential (extreme wind shifts)
- Water source: Some hydrants within Kachemak City boundaries, but no hydrants within the KESA, with exception of Russian Village of Vonesenka within the KESA protection area this only services the villages and some adjoining roads. This is a private water system fed by a 300,000 water tower.

Suggested Mitigation Focus Area

Areas of concern:

- Prioritize protection of homes, structures, and infrastructure (City of Homer and Kachemak City CWPP 2006).
- Schools and churches identified as emergency shelters in KPB disaster plan must have maintained defensible space (City of Homer and Kachemak City CWPP 2006).
- The forested area north of Beluga Lake and near Paul Banks school contains heavy hazard fuels loading (City of Homer and Kachemak City CWPP 2006).
- Skyline/West Hill, Toulin/Olson, and Bridge Creek Watershed areas (City of Homer and Kachemak City CWPP 2006).
- The water treatment plant needs to be protected from wildfire (City of Homer and Kachemak City CWPP 2006).
- Far east side of town due to poor access
- There has been a lot of new development across the area, and the fire dept has seen an increase in call volume in last few years.
- East End Road, Skyline Drive, Caribou Lake, and Diamond Ridge.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document):

- Need a lumber market and processing to support increased fuel treatments.
- Viewshed, tourism, and residential values at risk and need to be protected.
- Need to recognize the evacuation risks for communities in eastern portion. The Russian villages (Razdolna in particular) would be impossible to evacuate. They need a safety zone so they can shelter in place.
- Fuel treatments needed and education to community members. Hayfields (only if hayed) could provide shelter in place.
- Kachemak Selo has switchbacks on the roads and slow response and difficult evacuation. Beach could be a safety zone.
- Kachemak Selo may be building a new school, which potentially would be a value at risk to be protected
- Reduce thick fuels located at Olson Mountain
- The community has been implementing some defensible space in some areas and needs to continue this effort.
- Need to reinvigorate Firewise program.
- Need a green waste disposal site.
- There is a weather phenomenon in the area that contributes to extreme (180 degree) wind shifts. Observed during several recent fires.
- There are no hydrants in Kachemak area. Identify locations for strategic water storage/water tanks.
- Utilize a “pump to dump” water operation, using drafting and then transport in tanks.
- Baycrest Ski and Hiking areas & Demonstration Forest (City of Homer and Kachemak City CWPP 2006):
  - Location for demonstration projects.
  - Much of the area is state and borough lands at extreme risk for wildfire and surrounded by subdivisions.

Fire Department Concerns:

- East End Road, Skyline Drive, Caribou Lake, Diamond Ridge are highest risk
- Goals (in order of importance): training, hazardous fuels reduction, ecological management



Figure D.16. The Kachemak WUI includes some scattered homes located in varied topography.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

KALIFORNSKY POLYGON SUMMARY STATISTICS

Community Description

Kalifornsky is located on the Kenai Peninsula on the east shore of Cook Inlet. This area lies on Kalifornsky Beach Road. It lies off the Sterling Highway, 10 miles south of the City of Kenai at approximately 60.418330° north latitude and -151.29° west longitude. Kalifornsky is in the Kenai Recording District. The area encompasses 68.2 square miles of land. Winter temperatures range from 14˚ F to 27˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. Fire and EMS protection is provided to the Kalifornsky area residents by KPB Central Emergency Services (CES). The Alaska Division of Forestry also provides wildland fire protection to the area. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer (KPB, 2006b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006b).

Commented [BP18]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Kalifornsky	**Total Score:** 45	**Rating:** Moderate
Town: Kalifornsky		
Land Area (*mi.²*): 68.2		
Population Density (people/*mi.²*)$_1$: 124.4		
Home Density (housing units/ *mi.²*)$_2$: 73.4		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 69.5
Percent: 99.7%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.9%	12.2%	11.5%	13.6%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1	SH2 SH5	TU1, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 74%	0-0.5 (mi.): 1%
4-8 (ft): 23%	0.5-1.0 (mi.): 2%
8-12 (ft): 8%	1.0-1.5 (mi.): 3%
>12 (ft): 0%	>1.5 (mi.): 95%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0	Type 3: 1-3	1-3	0
Type 2:	4-7	Type 4: ----	0	0
Type 3:	0	Type 5: 1-3	1-3	0
Structure Engines:		Type 6: ----	0	0
Type 1:	8-10, 1-3 have 4WD	Type 7: ----	0	0
Type 2:	0			
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Funny River, 2014
- Mile 101, 1981
- ECHO, 1969

Fire Management Options:

Critical Protection around urban areas: **91%**	Full Protection around WUI: **9%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kalifornsky/Kasilof/Cohoe/Clam Gulch Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved, and more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: timber-understory, younger and smaller-diameter trees, open forest
- Building construction: metal and composite roofs dominant
- Organized response: fire department in community
- Water source: hydrants
- Slope: minimal slope adjacent to most homes
- Defensible space: moderate; yards are well-kept.

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: moderate

Suggested Mitigation Focus Area

Areas of concern

- Johnson Lake Road, Cohoe Loop, Tustumena Lake Road, North of Clamshell Lodge, The Captain Cook subdivision from Wayside Park (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments on the east side of Peninsula.
- Industrial and commercial values are present in the community and need to be protected
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Support Firewise programs
- Public slash disposal site in Kasilof/Clam Gulch area (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- Continue removal of dead trees and brush piles on public and private lands (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at State Park facilities (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).

Fire Department Concerns:

- Fuel hazards, beetle kill throughout the interface both in developed areas as well as open areas.
- Kasilof/Cohoe, Funny River, Tustumena are highest risk
- Goals (in order of importance):
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.17. Example of typical Kalifornsky landscape

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

KASILOF POLYGON SUMMARY STATISTICS

Community Description

Kasilof is located on the east shore of Cook Inlet on the Kenai Peninsula. It lies on Sterling Highway, 12 miles south of the City of Kenai at approximately 60.336920° north latitude and - 151.27665° west longitude. Kasilof is in the Kenai Recording District. The area encompasses 10.4 square miles of land. Winter temperatures range from 14˚ F to 27˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. Fire and EMS protection is provided to the Kasilof area residents by KPB Central Emergency Services (CES). The Alaska Division of Forestry also provides wildland fire protection to the area. DOF bases its Kenai Peninsula operations at the Kenai-Kodiak Area Office (KKAO) located in Soldotna with a seasonal field office in Homer (KPB, 2006b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006b).

Commented [BP19]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Kasilof | **Total Score:** 54 | **Rating:** Moderate

Town: Kasilof

Land Area (*mi.²*): 10.2

Population Density (people/*mi.²*)$_1$: 50.1

Home Density (housing units/ *mi.²*)$_2$: 44.2

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 10.6

Percent: 100%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium – Low	Medium	Medium – High	High
1.5%	15.4%	19.3%	15.6%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
	GS1		TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 62%	0-0.5 (mi.): 0%
4-8 (ft): 17%	0.5-1.0 (mi.): 2%
8-12 (ft): 15%	1.0-1.5 (mi.): 11%
>12 (ft): 0%	>1.5 (mi.): 87%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof*, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0			
Type 2:	4-7	Type 3: 1-3	1-3	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	0
Type 1:	8-10, 1-3 have 4WD	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Funny River, 2014

Fire Management Options:

Critical Protection around urban areas: **66%**	Full Protection around WUI: **34%**

* USFWS lands within Kasilof are also supported by the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kalifornsky/Kasilof/Cohoe/Clam Gulch Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and Egress: main highway paved; more than one road in and out of most subdivisions
- Street signs: visible and reflective
- Vegetation type: timber-understory, younger and smaller-diameter trees, open forest
- Building construction: metal and composite roofs dominant
- Organized response: fire department in community
- Slope: minimal slope adjacent to most homes
- Defensible space: moderate

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: moderate
- Water source: no hydrants

Suggested Mitigation Focus Area

Areas of concern

- Johnson Lake Road, Cohoe Loop, Tustumena Lake Road, North of Clamshell Lodge, The Captain Cook subdivision from Wayside Park (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- Kasilof/Cohoe, Funny River, and Tustumena.
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments.
- Reduce heavy fuel loads on a landscape scale (interagency), target dead beetle killed trees, create additional fuel breaks around community.
- Implement aggressive fuel breaks around population centers
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Support Firewise programs
- Public slash disposal site in Kasilof/Clam Gulch area (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- Continue removal of dead trees and brush piles on public and private lands (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at state park facilities (Kalifornsky/Kasilof/Cohoe/Clam Gulch CWPP, 2006).

Fire Department Concerns:

- Fuel hazards, beetle kill throughout the interface both in developed areas as well as open areas.
- Kasilof/Cohoe, Funny River, Tustumena are highest risk
- Goals (in order of importance):
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.18. The Central Emergency Services, Kasilof station serves the community.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

KENAI POLYGON SUMMARY STATISTICS

Community Description

Kenai is located on the western coast of the Kenai Peninsula, fronting Cook Inlet. It lies on the western boundary of the Kenai National Wildlife Refuge, on the Kenai Spur Highway. It is approximately 155 highway miles southwest of Anchorage via Sterling Highway. It lies at approximately 60.34° north latitude and 151.15° west longitude. Kenai is in the Kenai Recording District. The area encompasses 29.5 square miles of land. Winter temperatures range from 4° F to 22° F; summer temperatures average from 46° F to 65° F. Average annual precipitation is 20 inches. The City of Kenai Fire Department and the Alaska Division of Forestry provide fire protection to Kenai area residents. Kenai Fire Department firefighters are state certified at the Firefighter I and II levels. International Organization for Standardization (ISO) fire protection Class-3 rating has been provided in areas served by hydrants (KPB, 2006f). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006f).

Commented [BP20]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Kenai	**Total Score:** 50	**Rating:** Moderate
Town: Kenai		
Land Area (*mi.²*): 29.5		
Population Density (people/*mi.²*)$_1$: 200.5		
Home Density (housing units/ *mi.²*)$_2$: 132.1		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 32
Percent: 90.2%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
1.2%	6.1%	5.0%	13.3%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1	GS1	SH2	TU3, TU4, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 68%	0-0.5 (mi.): 2%
4-8 (ft): 25%	0.5-1.0 (mi.): 7%
8-12 (ft): 0%	1.0-1.5 (mi.): 12%

>12 (ft): 0%	>1.5 (mi.): 79%

Fire Department Statistics:

Communities Served: **Kenai***

Fulltime Firefighters: 19 On-call Firefighters: 0 Volunteer Firefighters: 28

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0			
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	- 3 Class A structural engines - 1 95' Aerial Platform - 1500 GPM pump that holds 200-gals water	Type 6: 2	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	2 - 500 gal tanks 4 - 2500 gal tanks			
Portable Pumps:	1			

Recent Fires within the polygon:

- Candlelight, 1984
- Swanson River, 1969

Fire Management Options:

Critical Protection around urban areas: **66%**	Full Protection around WUI: **26%**

* USFWS lands within Kenai are also supported by with the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Kenai Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved with minimal grade
- Ingress and egress: more than one road in and out
- Ingress and egress: moderate turnarounds around many homes
- Street signs: visible and reflective
- Topography: flat
- Water source: hydrants throughout community
- Fire protection: fire department in community
- Separation of adjacent structures: mixed
- Building construction: metal and composite roofs dominant

Negative Attributes (High Scores)

- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- Vegetation: spruce bark beetle mortality; combination of timber and grass understory
- Heavy density of values at risk
- Significant development activity in the WUI

Suggested Mitigation Focus Area

Areas of Concern

- Kenai River Delta (Kenai Area CWPP, 2006).
- Treed gullies (Kenai Area CWPP, 2006).
- Hilly terrain (Kenai Area CWPP, 2006).
- ROW - north end of city (along Spur Road) (Kenai Area CWPP, 2006).
- Historic portion of town (Kenai Area CWPP, 2006).
- Areas behind Sears Elementary and Mtn View Elementary (Kenai Area CWPP, 2006).
- Auk Subdivision (Kenai Area CWPP, 2006).
- Beaver Creek Drainage (Kenai Area CWPP, 2006).
- State land north of Spur Highway (Kenai Area CWPP, 2006).
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Support individual property owners making properties Firewise:
  - Targeted and coordinated public outreach campaign focused on defensible space, structure hardening etc. Utilize community events. Repeat messaging.
  - Initiate a community program for hazardous fuel reduction- chipper days, subdivision cleanup etc.
  - Develop home assessment program using an NFPA 1144 methodology or similar.
  - Consider monetary reimbursement to support landowners with costs associated with clearing property.
- Make escape route a priority for North Kenai. Consider paving.
- Create fire breaks using mechanized approaches:
  - Create 300-foot fuel break around Kenai refinery. Remove beetle killed trees.
  - Identify and implement (in conjunction with oil and gas operators) strategic fuels treatments around oil and gas infrastructure and Right of Ways throughout Kenai Gas Field areas.
  - Create fuel breaks along edges of existing subdivisions.
- Remove hazardous fuels along Beaver Creek Road
- Clear dead and dying trees out of creek gullies.
- Provide incentives (tax break, insurance reduction) to homeowners for implementing Firewise techniques (Kenai Area CWPP, 2006).
- Establish new slash disposal site (Kenai Area CWPP, 2006).
- Identify contractors who can carry out tree removal (Kenai Area CWPP, 2006).
- Pursue adoption of the International WUI Code (Kenai Area CWPP, 2006).
- Educate land developers, realtors etc., on Firewise techniques (Kenai Area CWPP, 2006).
- Provide fire prevention education at the Kenai Visitors Center (targeting tourists) (Kenai Area CWPP, 2006).
- Improve public notifications of emergency situations (Kenai Area CWPP, 2006).
- Educate residents on evacuation district procedures (Kenai Area CWPP, 2006).
- Address concerns related to smoke on highway as part of education campaign (Kenai Area CWPP, 2006).

Fire Department Concerns:

- Equipment needs- tanker and wildland engine with a CAFS unit (Kenai Area CWPP, 2006).
- Increase water supply to air retardant base (Kenai Area CWPP, 2006).
- Expand number of firefighting water storage or drafting sites (Kenai Area CWPP, 2006).
- Recruit and train more personnel (Kenai Area CWPP, 2006).
- Build a substation in Beaver Creek Area (Kenai Area CWPP, 2006).
- Provide National Incident Management training (NIMS) (Kenai Area CWPP, 2006).



Figure D.19. Some parts of the community are more urban with landscaping and minimal vegetation.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

LOWELL POINT POLYGON SUMMARY STATISTICS

Community Description

Lowell Point is located on the Kenai Peninsula, adjacent to Resurrection Bay. It is bordered to the north by Seward. Lowell Point encompasses an area of 11.9 square miles. Lowell Point is situated at approximately 60.074769° north latitude and -149.468314° west longitude. Lowell Point is in the Seward Recording District (ADNR 2021). Winter temperatures range from 4 degrees F to 27 on average. Some winters it has been 20 below. Summer temperatures vary from 45 to 65 degrees. Lowell Point Volunteer Fire Department provides fire protection to Lowell Point residents (Lowell Point Community Council, 2021).

Community Polygon Summary

Community Polygon Name: Lowell Point | **Total Score:** 83 | **Rating:** High

Town: Lowell Point

Land Area (*mi.²*): 11.9

Population Density (people/*mi.²*)$_1$: 6.4

Home Density (housing units/ *mi.²*)$_2$: 7.0

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 2.5

Percent: 21.2%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0.3%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
				TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 5%	0-0.5 (mi.): 96%
4-8 (ft): 10%	0.5-1.0 (mi.): 1%
8-12 (ft): 13%	1.0-1.5 (mi.): 0%
>12 (ft): 72%	>1.5 (mi.): 0%

Fire Department Statistics: Lowell Point Volunteer Fire Department (LPVFD)

Communities Served: **Lowell Point**

Fulltime Firefighters: 0 On-call Firefighters: 7 (also volunteer) Volunteer Firefighters: --

Water Tender:			Wildland Engines	
Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	2*	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	0	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	1, 2500 gals			
Portable Pumps:	1, 120 GPM			

* Tanker 221 w/ 2500 Gallons Water and 750 GPM Pump, Tanker 222 w/ 4000 Gallons Water and 1000 GPM Pump

Recent Fires within the polygon:

- NA – Lowell Point Volunteer Fire Department responded to and extinguished a wildland fire in the area in 2020

Fire Management Options:

Critical Protection around urban areas: **11%**	Full Protection around WUI: **12%**

* Bear Creek, Seward, and Lowell Point Fire Departments support each other's firefighting efforts through Automatic Aid Agreements.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street Signs: visible and reflective
- Vegetation type: more humid forest cover
- Previous fire history: low
- Potential for severe weather potential: low
- Building construction: metal and composite roofs dominant
- Water: hydrants – No hydrants in the area – Purpose built, 20,000 Gallon underground tank with submersible pump for water source
- Fire protection: fire station in community

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Ingress and egress: very limited turnaround space
- Defensible space: very limited
- Topography: steep topography adjacent to community
- Separation of adjacent structures: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground – 90% of utilities are underground

Suggested Mitigation Focus Area

Areas of Concern

- Evacuation
- Forest Acres subdivision and the base of Mt. Marathon.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need fire weather reports specific to this portion of the Peninsula.
- Targeted and coordinated public outreach campaign focused on defensible space, structure hardening etc. Utilize community events. Repeat messaging.
- Develop home assessment program using an NFPA 1144 methodology or similar.
- Look at options to create greater turnaround areas to improve ingress and egress of fire equipment.

Fire Department Concerns:

- Limited fire response resources. Depend on Seward for support. Mutual Automatic Aid Agreements with Seward Fire and Bear Creek
- Need strategies to address evacuation concerns.
- Need increased training options for volunteers (weekends, etc.) and more focus on wildland training.
- Need to inventory wildland PPE and provide appropriate equipment for all volunteers and new recruits.



Figure D.20. Because the community is compact and encapsulated due to topography, many homes have limited defensible space or structure separation.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

MOOSE PASS SOUTH POLYGON SUMMARY STATISTICS

Community Description

The Moose Pass area encompasses 8.3 square miles and is comprised of the communities of Moose Pass, Crown Point, Lawing, Lakeview, and Primrose. All are unincorporated communities located from 17 miles to 32 miles north of Seward. Although separate communities they all consider themselves to be part of the Moose Pass area. The communities are all located in the Seward Recording District. Winter temperatures range from 4 degrees F to 27 on average. Some winters it has been 20 below. Summer temperatures vary from 45 to 65 F. Annual precipitation ranges from 20 inches at the south end of the valley to 24 inches at the north end. The Moose Pass Volunteer Fire Company and the United States Forest Service provide initial attack efforts to community residents. Operations are based out of the fire station located at 1 Depot Road in Moose Pass (KPB, 2006c). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006c).

Commented [BP21]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Moose Pass- Downtown Moose Pass and south **Total Score:** 60 **Rating:** Moderate

Town: Moose Point

Land Area (*mi.²*): 8.3

Population Density (people/*mi.²*)$_1$: 27.5

Home Density (housing units/ *mi.²*)$_2$: 11.7

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 3.4

Percent: 40.9%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
6.5%	0.3%	0%	0%	0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
		SH1		TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 98%	0-0.5 (mi.): 0%
4-8 (ft): 1%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Moose Pass Volunteer Fire Company				
Communities Served: **Moose Pass*, Crown Point*, Primrose***				
Fulltime Firefighters: 0	On-call Firefighters: 4		Volunteer Firefighters: 5	
Water Tender: 1			Wildland Engines	
Type 1: ---		Total Number:	4WD/AWD:	Brush Breaker:
Type 2: ---		Type 3: ----	0	0
Type 3: ---		Type 4: ----	0	0
Structure Engines: 3		Type 5: ----	0	0
Type 1: ---		Type 6: ----	0	0
Type 2: ---		Type 7: ----	0	0
Port-A-Tanks: 2				
Portable Pumps: 2				
Recent Fires within the polygon: - Moose Pass, 1986				
Fire Management Options:				
Critical Protection around urban areas: **16%**		Full Protection around WUI: **26%**		

* Moose Pass, Crown Point, and Primrose are supported by the USFS via mutual aid agreement.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Moose Pass Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Ingress and egress: good turnaround areas, short driveways
- Street signs: visible and reflective
- Topography: limited in WUI
- Previous fire history: low
- Potential for severe weather: low
- Separation of adjacent structures: good
- Building construction: metal and composite roofs dominant
- Fire protection: station in community

Negative Attributes (High Scores)

- Vegetation: timber and understory; spruce bark beetle; some previous treatments but have not been well maintained
- Building construction: combustible siding
- Defensible space: some homes have poor defensible space
- Decking and fencing: combustible
- Utility placement: aboveground
- Water source: no water availability through hydrants; need to shuttle water

Suggested Mitigation Focus Area

Areas of Concern:

- Individual homeowner preparedness (Moose Pass Area CWPP, 2006).
- Ignition concerns from road and railroad

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document):

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale, target dead trees, create fuel breaks around community values at risk, especially critical infrastructure utilized for fire protection.
- Enhance fuel breaks with naturally occurring birch or willow.
- Connect previous treatments and extend from Tern Lake to the Crown Point area.
- Work with private landowners to support removal of beetle killed trees (Bean Creek Road identified as area of concern).
- Manage popular recreation sites with outreach to users.
- Seek funding for water tender (Moose Pass Area CWPP, 2006).
- Seek funding for portable water storage (Moose Pass Area CWPP, 2006).
- Seek additional USFS and DOF training opportunities (Moose Pass Area CWPP, 2006).
- Create equipment cache on north and south end of Moose Pass, Crown Point area (Moose Pass Area CWPP, 2006).
- Create a pre-attack suppression plan with a focus on protection of cultural resources (Moose Pass Area CWPP, 2006).
- Expand CERT and Fire Corps program (Moose Pass Area CWPP, 2006).
- Encourage residents to develop a secondary water source (Moose Pass Area CWPP, 2006).
- Restrict motorized access into areas where hazardous fuels exist on public lands (Moose Pass Area CWPP, 2006).

Fire Department Concerns:

- Increased response capacity, education, fuel reduction, and ignition source management.
- Fuels Hazards
- Beetle kill throughout the interface both developed and undeveloped areas
- Goals, in order of importance:
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.21. Moose Pass homes and structures are typically surrounded by forested lands, sometimes with limited defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

MOOSE PASS NORTH POLYGON SUMMARY STATISTICS

Community Description

The Moose Pass North area encompasses 9.3 square miles. Winter temperatures range from 4 degrees F to 27 on average. Some winters it has been 20 below. Summer temperatures vary from 45 to 65 degrees. Annual precipitation ranges from 20 inches at the south end of the valley to 24 inches at the north end. The Moose Pass Volunteer Fire Company and the United States Forest Service provide initial attack efforts to community residents. Operations are based out of the fire station located at 1 Depot Road in Moose Pass (KPB, 2006c). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006c).

Commented [BP22]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Moose Pass North (area north of downtown Moose Pass) **Total Score:** 89 **Rating:** High

Town: Moose Point

Land Area (*mi.²*): 9.3

Population Density (people/*mi.²*)$_1$: 21.1

Home Density (housing units/ *mi.²*)$_2$: 9.5

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 4.3

Percent: 44.9%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
5.1%	4.8%	0%	0%	0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
		SH1	TU1	TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 98%	0-0.5 (mi.): 0%
4-8 (ft): 1%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 0%

Fire Department Statistics: Moose Pass Fire				
Communities Served: **Moose Pass*, Crown Point*, Primrose***				
Fulltime Firefighters: 0	On-call Firefighters: 4		Volunteer Firefighters: 5	
Water Tender: 1			Wildland Engines	
Type 1: ---		Total Number:	4WD/AWD:	Brush Breaker:
Type 2: ---		Type 3: ----	0	0
Type 3: ---		Type 4: ----	0	0
Structure Engines: 3		Type 5: ----	0	0
Type 1: ---		Type 6: ----	0	0
Type 2: ---		Type 7: ----	0	0
Port-A-Tanks: 2				
Portable Pumps: 2				
Recent Fires within the polygon: N/A				
Fire Management Options:				
Critical Protection around urban areas: **19%**	Full Protection around WUI: **24%**			

* Moose Pass, Crown Point, and Primrose are supported by the USFS via mutual aid agreement.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- Moose Pass Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Building construction: metal and composite roofs dominant
- Previous fire occurrence: low
- Potential for severe fire weather: low
- Separation of adjacent structures: good, larger lots

Negative Attributes (High Scores)

- Ingress and egress: limited turnarounds
- Vegetation: timber and understory, spruce bark beetle, some previous treatments but have not been well maintained.
- Building construction: combustible siding
- Defensible space: limited around many homes
- Decking and fencing: combustible
- Utility placement: aboveground
- Topography: steep grades close to homes
- Water source: no water availability through hydrants; need to shuttle water
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern:

- Individual homeowner preparedness (Moose Pass Area CWPP, 2006).
- Ignition concerns from road and railroad

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale, target dead trees, create fuel breaks around community values at risk, especially critical infrastructure utilized for fire protection.
- Enhance fuel breaks with naturally occurring birch or willow.

- Manage popular recreation sites with outreach to users.
- Seek funding for water tender (Moose Pass Area CWPP, 2006).
- Seek funding for portable water storage (Moose Pass Area CWPP, 2006).
- Seek additional USFS and DOF training opportunities (Moose Pass Area CWPP, 2006).
- Create equipment cache on north and south end of Moose Pass, Crown Point area (Moose Pass Area CWPP, 2006).
- Create a pre-attack suppression plan with a focus on protection of cultural resources (Moose Pass Area CWPP, 2006).
- Expand CERT and Fire Corps program (Moose Pass Area CWPP, 2006).
- Encourage residents to develop a secondary water source (Moose Pass Area CWPP, 2006).
- Restrict motorized access into areas where hazardous fuels exist on public lands (Moose Pass Area CWPP, 2006).

Fire Department Concerns:

- Increased response capacity, education, fuel reduction, and ignition source management
- Fuels Hazards
- Beetle kill throughout the interface both developed and undeveloped areas
- Goals, in order of importance:
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.22. Some homes have an abundance of yard debris and hazards that increase the risk ratings.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

NANWALEK POLYGON SUMMARY STATISTICS

Community Description

Nanwalek is located at the southern tip of the Kenai Peninsula, 10 miles southwest of Seldovia and four miles east of Port Graham. The area encompasses 8.1 square miles of land. Winter temperatures range from 14 to 27 degrees. Summer temperatures vary from 45 to 60. Average annual precipitation is 24 inches. Wildland and structure fire equipment is provided by the Alaska State Fire Marshals' Project Code Red program. This consists of a compressed air foam system, portable pumps, and wildland fire tools. Secondary resource for wildland firefighting is a State Forestry crew based in Homer, which could respond by local hire helicopter or marine vessels. Soldotna State Forestry has a dedicated helitack crew and ship based in Soldotna during May through July (TAC, 2008d). Additional information about community background and demographics can be found in the community CWPP (TAC, 2008d).

Commented [BP23]: Core Team, this information was taken from the 2008 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

The Bureau of Indian Affairs has trust responsibility to manage native allotment lands on behalf of their owners. The majority of the land in Nanwalek is designated as Native Allotment. Chugachmiut, a non-profit Native consortium, works as an agent for the Native landowners both Native allotment owners and Trust townsite lot owners associated with Nanwalek and Port Graham, Alaska.

Community Polygon Summary

Community Polygon Name: Nanwalek | **Total Score:** 93 | **Rating:** High

Town: Nanwalek

Land Area (*mi.²*): 8.1

Population Density (people/*mi.²*)$_1$: 35.7

Home Density (housing units/ *mi.²*)$_2$: 9.0

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 1.6

Percent: 0%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
4.8%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
				TL1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 95%	0-0.5 (mi.): 0%

4-8 (ft): 5%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Nanwalek Volunteer Fire Department **

Communities Served: Nanwalek*

Fulltime Firefighters: 1 On-call Firefighters: 1 Volunteer Firefighters: 0***

Water Tender: 0 Wildland Engines: 0 – Use personal vehicles and ATVs

Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines: 0 – use personal vehicles and ATVs		Type 5: ----	0	0
Type 1:	0	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	1			
Portable Pumps:	2			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **0%**	Full Protection around WUI: **19%**

* Nanwalek has a code red firefighting system
** The Nanwalek VFD service area is currently installing new water lines and fire hydrants.
*** There is no list of active volunteers. However, if a fire occurs the volunteers will support suppression efforts. Chief is currently looking into options to increase recruitment.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2008 Nanwalek Community Wildfire Protection Plan

Community Polygon NFPA 1144 Summaries

(No assessments completed during 2021 CWPP update. Desktop analysis only)

Positive Attributes (Low Scores)

- Vegetation type: more humid forest cover
- Building construction: metal and composite roofs dominant
- Fire History: low
- Values at risk: lower density

Negative Attributes (High Scores)

- Ingress and egress: Bad. Access by air and sea
- Topography: steep topography adjacent to community
- Separation of adjacent structures: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern

- No organized fire response (Nanwalek CWPP 2008).

- No fire resources (Nanwalek CWPP 2008).
- Limited fresh water supply for fire suppression (Nanwalek CWPP 2008).
- Low fire risk (Nanwalek CWPP 2008).
- Limited fire mitigation around homes (Nanwalek CWPP 2008).
- Poor access (Nanwalek CWPP 2008).
- The Nanwalek airport is difficult to use
- (Name of Creek?) is the primary source of drinking water and often dries in the summer months (Bottles of drinking water need to be brought to the community during these times)
- English Bay River is extremely important for salmon fishing
- Cabins surrounding lakes which are used by community members for fishing and hunting

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Procure a small air compressor to effectively fight fire with compressed air foam (Nanwalek CWPP 2008).
- Procure a shipping container to house fire equipment (Nanwalek CWPP 2008).
- Inventory all homes for smoke detectors and fire extinguishers (Nanwalek CWPP 2008).
- Conduct Firewise assessments and home assessments to identify mitigation needs (Nanwalek CWPP 2008).
- Provide fire (structure and wildland) protection training to community members (Nanwalek CWPP 2008).
- Provide school curriculum to students on wildfire prevention and mitigation (Nanwalek CWPP 2008).
- Increase public awareness through mail campaign (Nanwalek CWPP 2008).
- Support water improvement projects, creating adequate supply for fire suppression (Nanwalek CWPP 2008).
- Sign mutual aid agreement with all South Kachemak communities for fire response (Nanwalek CWPP 2008).
- Water resources and habitat are highly valued in Nanwalek and the protection of riparian areas, fisheries, particularly for salmon, and drinking water is critical
- Many cultural values need to be protected
- Need to create a map to identify the location transmission/distribution line between Port Graham and Nanwalek and work with HEA to identify any needed upgrades to the line and/or vegetation management actions needed to enhance fire resilience and protection. There is a trail that is not maintained regularly that may be used to access the lines, but the trail is not accessible by vehicle.
- Consider enhancing ROW for the transmission line to serve as a fuel break recreational trail.
- Enhance existing road access. Look at feasibility of connecting and expanding existing road network, while protecting resources. (Currently a BIA roads project is in planning phase).
- Enhance road connections between Port Graham and Nanwalek to facilitate transport of fire crews from Port Graham airport into Nanwalek.
- Build firefighting resources and capabilities for wildland fire. Procure wildland fire equipment and PPE and identify location and resources to build appropriate storage. Provide optional training for residents in basic wildland fire fighting.
- Pre-season planning to practice bringing in resources from the sea.
- Initiate a public education campaign to inform residents of the threat of wildfire and focus efforts on encouraging defensible space practices around properties and values at risk, and preparedness and evacuation.
- Identify location(s) for evacuation shelter and safety zones and provide messaging to the community on those locations.
- Identify evacuation routes and develop maintenance schedule to ensure they remain safe routes for residents to utilize.
- Ensure that all previous treatments are maintained to preserve effectiveness.
- Identify vulnerable residents and build a plan to address preparedness and response needs for those populations.
- Improve the existing or build a new airport

Fire Department Concerns:

- Fire crews need to enter and exit Nanwalek through the Nanwalek airport, which is known to be difficult to use due to its location and the physical landscape (steep cliffs).
- Fire department is 100% volunteer and are focused on structural fires, not wildland fire.
- Do not have firefighting hand tools. Have significant equipment needs. They currently have a code red trailer, but it may not be functional.
  - Code red trailer: A trailer used to house fire response equipment
- Need to identify a designated site for evacuation and evacuation routes

Commented [EG24]: Charlie or Nathan - could you please provide the name of the creek?

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

NIKISKI POLYGON SUMMARY STATISTICS

Community Description

Nikiski is located on the Kenai Peninsula, 9 miles north of the City of Kenai, on the Kenai Spur Road. It is also known as Port Nikiski and Nikishka. It lies at approximately 60.716050° north latitude and -151.34066° west longitude. Nikiski is in the Kenai Recording District. The area encompasses 67.4 square miles of land. Winter temperatures range from -10˚ F to 35˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. The Nikiski Fire Department (NFD) and Alaska Division of Forestry provide fire protection to Nikiski area residents. The NFD firefighters are state-certified at the Firefighter I, II, or Fire Officer I levels (KPB, 2006g). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006g).

Commented [BP25]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Nikiski	**Total Score:** 47	**Rating:** Moderate
Town: Nikiski		
Land Area (*mi.²*): 67.4		
Population Density (people/*mi.²*)$_1$: 60.8		
Home Density (housing units/ *mi.²*)$_2$: 40.4		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 75.6
Percent: 99.6%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
5.9%	14.3%	8.9%	12.6%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR2	GS1	SH5	TU1, TU2, TU5	TL2, TL3, TL6

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 50%	0-0.5 (mi.): 1%
4-8 (ft): 10%	0.5-1.0 (mi.): 3%
8-12 (ft): 21%	1.0-1.5 (mi.): 4%
>12 (ft): 0%	>1.5 (mi.): 92%

Fire Department Statistics: Nikiski Fire Department					
Communities Served: **Nikiski*, Beluga, Tyonek**					
Fulltime Firefighters: 25		On-call Firefighters: 0		Volunteer Firefighters: 30	
Water Tender:				Wildland Engines	
Type 1:	4-7	Total Number:		4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: ----		0	0
Type 3:	0	Type 4: ----		0	0
Structure Engines:		Type 5: ----		0	0
Type 1:	4-7	Type 6: 1-3		1-3	0
Type 2:	0	Type 7: ----		0	0
Port-A-Tanks:	10				
Portable Pumps:	0				
Recent Fires within the polygon: - Island Lake, 1970 - Swanson River, 1969					
Fire Management Options:					
Critical Protection around urban areas: **84%**		Full Protection around WUI: **16%**			

* USFWS lands within Nikiski are also supported by the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Nikiski /Salamatof Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved and more than one road in and out of most subdivision areas
- Street signs: visible and reflective
- Vegetation type: hardwood dominant with conifer component
- Building construction: metal and composite roofs dominant
- Defensible space: moderate

Negative Attributes (High Scores)

- Building construction: combustible siding
- Water source: hydrants only in some areas
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Northern portion of community has poor access

Suggested Mitigation Focus Area

Areas of concern

- Captain Cook State Park mitigation and fuel reduction. Create defensible space/safe zones (Nikiski/Salamatof CWPP, 2006).
- Include Cottonwood Lane and Admiralty Drive (Nikiski/Salamatof CWPP, 2006).
- Empty/abandoned buildings and vehicles pose a fire/safety hazard and should be removed (Nikiski/Salamatof CWPP, 2006).
- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park, and KNWR.
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments.
- The Strategic Fuel Break is adjacent to Nikiski and will continue to be extended. There is strong support for extending the fuel break and continuing to maintain the fuel break.
- Need a fill site closer to Halibouty. An underground cistern would work.
- Transient population in the Halibouty area. In the event of a wildfire, there may be people who haven't been recognized, who would need to evacuate.
- Investigate access issues including turn-around and access areas for Puppy Dog Lake, Tauriainan Trail, Goode Lake, Beck Lake, Bishops Creek, and Northwoods subdivision at Bishop Creek Bar, Halibouty Road.
- Build a fuel break from Funny River to Homer using the easement Right of Way. Integrate the fuel break with recreational uses such as snowmobilers.
- Develop community evacuation plans, with goal of developing subdivision plans. Provide outreach to educate population on evacuation routes.
- Define and provide education on "shelter in place" vs. evacuation.
- Implement education campaign on the importance of defensible space.
- Implement defensible space and hazardous fuel reduction projects within Captain Cook State Park
- Identify and implement (in conjunction with oil and gas operators) strategic fuels treatments around oil and gas infrastructure and Right of Ways throughout Kenai Gas Field areas.
- Lisburne/Pipeline is a very long road, and access problems will occur if traffic is backed up along Lisburne to Basteen. Improve section of Basteen (Nikiski/Salamatof CWPP, 2006).
- Empty/abandoned buildings and vehicles pose a fire/safety hazard and should be removed (Nikiski/Salamatof CWPP, 2006).

Fire Department Concerns:

- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park and KNWR are highest risk
- Goals (in order of importance): training, hazardous fuels reduction, ecological management
- Need additional staff



Figure D.23. The community is served by the Nikiski Fire Department.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

NIKOLAESVK POLYGON SUMMARY STATISTICS

Community Description

Nikolaevsk is located inland on the Kenai Peninsula, near Anchor Point. It lies on a road leading from North Fork Road and the Sterling Highway. It was named to honor St. Nicholas, the patron saint of the town's church. It lies at approximately 59.811940° north latitude and -151.61056° west longitude. Nikolaevsk is in the Homer Recording District. The area encompasses 34.8 square miles of land. Winter temperatures range from -40˚ F to 37˚ F; summer temperatures vary from 45˚ F to 80˚ F. Average annual precipitation is 24 inches. Western Emergency Services (formerly Anchor Point Volunteer Fire Department) and the Alaska Division of Forestry provide fire protection to Anchor Point residents (KPB, 2006a). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006a).

Commented [BP26]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Nikolaesvk	**Total Score:** 67	**Rating:** Moderate
Town: Nikolaesvk		
Land Area (*mi.²*): 34.8		
Population Density (people/*mi.²*)$_1$: 8.2		
Home Density (housing units/ *mi.²*)$_2$: 9.8		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 18.8
Percent: 53.9%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
4.9%	6.6%	1.8%	0.7%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR2	GS1	SH2	TU1, TU2, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 100%	0-0.5 (mi.): 2%
4-8 (ft): 60%	0.5-1.0 (mi.): 6%
8-12 (ft): 0%	1.0-1.5 (mi.): 9%
>12 (ft): 0%	>1.5 (mi.): 83%

Fire Department Statistics: Western Emergency Services (formerly Anchor Point)

Communities Served: **Anchor Point, Ninilchik, Nikolaevsk, Happy Valley**

Fulltime Firefighters: 10 On-call Firefighters: 0 Volunteer Firefighters: 38

Water Tender:			Wildland Engines	
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	1-3	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3	Type 6: 1-3	1-3	1-3
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	8			
Portable Pumps:	4			

Recent Fires within the polygon:

- Nikolaesvk, 2018

Fire Management Options:

Critical Protection around urban areas: **95%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Anchor Point/Happy Valley/Nikolaevsk Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: mixture of timber litter, timber understory, grass and shrub fuels, open woodland, and forest patches
- Defensible space: moderate
- Water source: hydrants
- Slope: area has a 10% to 20% slope

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Water source: limited numbers of hydrants but do have water tender.
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- History fire occurrence: high
- Building construction: pressure-treated composite shakes and shingles

Suggested Mitigation Focus Area

Areas of Concern

- Whiskey Gulch East of Sterling Highway, Old Sterling and Dusty Street area, South Fork of Anchor River land is steep, Picnic areas, such as State parks, and shooting areas need to be cleared (Anchor Point/Happy Valley/Nikolaevsk CWPP, 2006).
- Bull Crossing Road is area of concern. Recent fires and poor access.
- North of Nikolaevsk is very poor access. Poor maintenance of roads. Need improvements and increased Right of Way.

- Nikolaevsk, North Fork area (Anchor Point), and Oilwell Road area (Ninilchik).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Cultural values at risk in village
- Education and outreach about defensible space and home hardening is needed here as many homes are close together, homes are missing siding and have poor yard maintenance.
- There are many logging slash piles that need to be removed and managed. They increase hazard, especially in early winter when it could dry out.
- During a recent fire in Caribou Hills Fire, they observed poor access. Need to improve access.
- In poor access areas the Division of Forestry can provide heli-crews to improve access for suppression. This is more limited during a busy fire season.
- There are a lot of locked gates.
- There is a lot of potential development. Lots of platted land with poor access.
- A fuel break is needed around the community.
- Clean downed timber and piles through chipping and burns (Anchor Point/Happy Valley/Nikolaevsk CWPP, 2006).
- Provide public disposal site for brush/slash to be burned by the KPB once or twice a year (Anchor Point/Happy Valley/Nikolaevsk CWPP, 2006).

Fire Department Concerns:

- Nikolaevsk, North Fork area (Anchor Point) and Oilwell Road area (Ninilchik) are highest risk
- Goals (in order of importance): training, hazardous fuels reduction, ecological management



Figure D.24. Example of limited defensible space in Nikolaevsk.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

NINILCHIK VILLAGE POLYGON SUMMARY STATISTICS

Community Description

Ninilchik Village lies on the west coast of the Kenai Peninsula on the Sterling Highway, 38 miles southwest of the City of Kenai, and 188 road miles from Anchorage. The community lies between mileposts 119 and 144 of the Sterling Highway. It lies at approximately 60.051390° north latitude and -151.66889° west longitude. Ninilchik is in the Homer Recording District. The area encompasses 0.1 square miles of land. Winter temperatures range from 14˚ F to 27˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. The Ninilchik Emergency Services (NES) and the Alaska Division of Forestry provide fire protection to the Ninilchik area. The NES fire service area extends from milepost 144 to 119 on the Sterling Highway and along secondary roads, including Oil Well Road. They officially respond to wildfires located up to 1,000 feet off an established roadway (KPB, 2006h). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006h).

Commented [BP27]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Ninilchik Village **Total Score:** 69 **Rating:** Moderate

Town: Ninilchik Village

Land Area (*mi.²*): 0.1

Population Density (people/*mi.²*)1: 3588.2

Home Density (housing units/ *mi.²*)2: 771.5

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 0

Percent: 87.2%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0.1%	22.5%	64.7%	7.8%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR2	GS1	SH2 SH5	TU2, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 95%	0-0.5 (mi.): 51%
4-8 (ft): 89%	0.5-1.0 (mi.): 50%
8-12 (ft):0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 0%

Fire Department Statistics: Western Emergency Services (formerly Anchor Point)

Communities Served: **Anchor Point, Ninilchik, Nikolaesvk, Happy Valley**

Fulltime Firefighters: 10 On-call Firefighters: 0 Volunteer Firefighters: 38

Water Tender:			Wildland Engines	
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	1-3	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3	Type 6: 1-3	1-3	1-3
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	8			
Portable Pumps:	4			

Recent Fires within the polygon:

- Caribou Hills, 2007
- Crooked Creek, 1996
- Oilwell Road, 1989

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Ninilchik Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: grass and shrub dominant
- Good defensible space
- Slope: 21% to 30%

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Roofing: intreated wood single, plywood, particle board
- Water source: no hydrants
- Utility placement: aboveground
- Decking and fencing: combustible

Suggested Mitigation Focus Area

Areas of Concern:

- Nikolaevsk, North Fork area (Anchor Point), and Oilwell Road area (Ninilchik).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Historic structures, heritage, tourism and fishing need to be protected
- Roads are narrow and windy. Access needs to be improved.
- Educate the public on emergency evacuation routes, procedures, including CAN system, and shelters are needed (Ninilchik Area CWPP, 2006).

- Develop water supply system in Ninilchik (Village) to provide guaranteed water supply for firefighting and community sustainability (Ninilchik Area CWPP, 2006).
- Set up slash disposal sites. Brush chipped or incinerated by KPB equipment (Ninilchik Area CWPP, 2006).

Fire Department Concerns:

- Insufficient water supply. Primary fill sites are in Ninilchik village and alternative fill sites are not developed.

Commented [BP28]: John Marsh or Core Team member - could you please verify this information about the water supply in Ninilchik. Has this already been achieved?



Figure D.25. Ninilchik Village has many historic and cultural sites that should be protected with mitigation measures such as defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

NINILCHIK POLYGON SUMMARY STATISTICS

Community Description

Ninilchik lies on the west coast of the Kenai Peninsula on the Sterling Highway, 25 miles southwest of the City of Kenai, and 176 road miles from Anchorage. It lies at approximately 60.151684° north latitude and -151.485068° west longitude. Ninilchik is in the Homer Recording District. The area encompasses 206.8 square miles of land. Winter temperatures range from 14˚ F to 27˚ F; summer temperatures vary from 45˚ F to 65˚ F. The Ninilchik Emergency Services (NES) and the Alaska Division of Forestry provide fire protection to the Ninilchik area. The NES fire service area extends from milepost 144 to 119 on the Sterling Highway and along secondary roads, including Oil Well Road. They officially respond to wildfires located up to 1,000 feet off an established roadway (KPB, 2006h). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006h).

Commented [BP29]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Ninilchik	**Total Score:** 49	**Rating:** Moderate
Town: Ninilchik		
Land Area (*mi.²*): 206.8		
Population Density (people/*mi.²*)$_1$: 4.1		
Home Density (housing units/ *mi.²*)$_2$: 7.1		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 101.7
Percent: 49.1%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
2.6%	5.8%	1.0%	1.6%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1, GR2	GS1, GS2	SH2, SH5	TU2, TU3, TU5	TL2, TL3

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 98%	0-0.5 (mi.): 0%
4-8 (ft):47%	0.5-1.0 (mi.): 1%
8-12 (ft): 1%	1.0-1.5 (mi.): 1%
>12 (ft): 0%	>1.5 (mi.): 98%

Fire Department Statistics: Western Emergency Services (formerly Anchor Point)

Communities Served: **Anchor Point, Ninilchik, Nikolaesvk, Happy Valley**

Fulltime Firefighters: 10 On-call Firefighters: 0 Volunteer Firefighters: 38

Water Tender:			Wildland Engines	
Type 1:	1-3	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	1-3	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	1-3	Type 6: 1-3	1-3	1-3
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	8			
Portable Pumps:	4			

Recent Fires within the polygon:

- Caribou Hills, 2007
- Crooked Creek, 1996
- Oilwell Road, 1989

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Ninilchik Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: timber with grass or shrub understory
- Defensible space: moderate
- Building construction: metal and composite roofs dominant
- Slope: 9% or less
- Water source: hydrants

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- History of fire occurrence: high

Suggested Mitigation Focus Area

Areas of Concern

- State land east of Forties along transmission line (Ninilchik Area CWPP, 2006).
- Clear rights-of-way along roadways (Ninilchik Area CWPP, 2006).
- State Park hazard fuel reduction. Create defensible space/safe zones at state park facilities (Ninilchik Area CWPP, 2006).
- The residential area north of the Ninilchik River (Ninilchik Area CWPP, 2006).
- Marion Street near Oil Well Road and Oil Well Road up to Holly (Ninilchik Area CWPP, 2006).
- Remove dead trees from along gas pipeline ROW, between the highway and the pipeline (Ninilchik Area CWPP, 2006).
- MP 120, Marathon gas pad (Ninilchik Area CWPP, 2006).
- Fuel break between the Crooked Creek Fire area running southeast to tie into fire-resistant alpine areas (Ninilchik Area CWPP, 2006).
- Nikolaevsk, North Fork area (Anchor Point), and Oilwell Road area (Ninilchik).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Need to improve access
- Some roads do not meet Borough standards
- Old Sterling Highway and New Sterling Highway have created confusion in dispatch issues due to road names. Name differentiation and clarification is needed.
- Educate the public on emergency evacuation routes, procedures, including CAN system, and shelters are needed (Ninilchik Area CWPP, 2006).
- Develop water supply system in Ninilchik to provide guaranteed water supply for firefighting and community sustainability (Ninilchik Area CWPP, 2006).
- Set up slash disposal sites. Brush chipped or incinerated by KPB equipment (Ninilchik Area CWPP, 2006).
- Create buffers and defensible space around areas of cultural value.
- Explore the potential for a Ninilchik Traditional Council fire crew. Would require training and equipment purchases.
- Integrate fire planning into existing land management plans.
- Continue to look for opportunities to combine hazardous fuels mitigation with moose habitat improvements.
- Utilize CIRI non-profits to be a conduit for outreach to native communities.

Fire Department Concerns:

- N/A

Commented [BP30]: John Marsh or Core Team member - could you please verify this information about the water supply in Ninilchik. Has this already been achieved?



Figure D.26. Example of minimal yard maintenance contributing to hazardous fuels and poor defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

POINT POSSESSION POLYGON SUMMARY STATISTICS

Community Description

Point Possession is located on the Kenai Peninsula, 35 miles north of the City of Kenai. It lies at approximately 60.89279° north latitude and -150.62071° west longitude. Nikiski is in the Kenai Recording District. The area encompasses 40.9 square miles of land. Winter temperatures range from -10˚ F to 35˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. The Nikiski Fire Department (NFD) and Alaska Division of Forestry provide fire protection to Point Possession area residents. (KPB, 2006g). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006g).

Commented [BP31]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Point Possession (Gray Cliffs)	**Total Score:** 73	**Rating:** High
Town: Point Possession		
Land Area (*mi.²*): 40.9		
Population Density (people/*mi.²*)$_1$: 0.0		
Home Density (housing units/ *mi.²*)$_2$: 4.7		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 28.8
Percent: 68.7%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
0.9%	2.9%	0.0%	0.4%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GS1		SH5	TU2, TU4, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 31%	0-0.5 (mi.): 0%
4-8 (ft): 11%	0.5-1.0 (mi.): 0%
8-12 (ft): 43%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Nikiski Fire Department					
Communities Served: **Nikiski*, Beluga, Tyonek**					
Fulltime Firefighters: 25		On-call Firefighters: 0		Volunteer Firefighters: 30	
Water Tender:			Wildland Engines		
Type 1:	4-7	Total Number:	4WD/AWD:	Brush Breaker:	
Type 2:	0	Type 3: ----	0	0	
Type 3:	0	Type 4: ----	0	0	
Structure Engines:		Type 5: ----	0	0	
Type 1:	4-7	Type 6: 1-3	1-3	0	
Type 2:	0	Type 7: ----	0	0	
Port-A-Tanks:	10				
Portable Pumps:	0				
Recent Fires within the polygon:					
- Swanson River, 1969					
Fire Management Options:					
Critical Protection around urban areas: **30%**		Full Protection around WUI: **50%**			

* Nikiski is also supported by the Kenai National Wildlife Refuge via mutual aid agreement.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Nikiski/Salamatof Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: more deciduous and coastal vegetation (birch), lower fire danger
- Previous fire history: low, not within polygon but on adjacent land
- Topography: flat but cliffs
- Severe weather potential: low

Negative Attributes (High Scores)

- Ingress and egress: one road in and out, unsurfaced
- Ingress and egress: extremely limited turnaround space
- Defensible space: limited
- Separation of adjacent structures: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- Water: none; need to shuttle water, which is slow due to road conditions
- Fire protection: none; Nikiski serves the area
- Potential development and expansion of WUI

Suggested Mitigation Focus Area

Areas of Concern

- Rapid expansion of WUI
- Extremely limited road access
- Existing structures with poor defensible space
- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park, and KNWR.
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening and safe debris disposal.
- Determine alternative evacuation routes
- Carry out road improvements. Create turnarounds and passing spaces.
- The Borough and Nikiski Fire should clear some parcels north of Nikiski to serve as a staging area for fire resources, equipment, water for Captain Cook area and Gray Cliffs.
- Increase ROW width and roadside clearing
- Support vulnerable populations who are not able to do necessary mitigation work
- Identify and publicize potential shelter locations (Nikiski/Salamatof CWPP, 2006).
- Develop community evacuation plans (Nikiski/Salamatof CWPP, 2006).
- Develop a public notification system (Nikiski/Salamatof CWPP, 2006).
- Develop alternative telephone system (Nikiski/Salamatof CWPP, 2006).
- Consider community wide evacuation drills (Nikiski/Salamatof CWPP, 2006).
- Define and provide education on “shelter in place” vs evacuation (Nikiski/Salamatof CWPP, 2006).
- Educate new residents on fire prevention and escape routes/facilities (Nikiski/Salamatof CWPP, 2006).
- Educate school children on fire prevention and safety (Nikiski/Salamatof CWPP, 2006).
- Identify and engage absentee landowners in fuel mitigation on land yet to be developed (Nikiski/Salamatof CWPP, 2006).
- Utilize a range of forums for public education (Nikiski/Salamatof CWPP, 2006).
- Develop a list of water resources (Nikiski/Salamatof CWPP, 2006).
- Look into options for emergency power outages- generators (Nikiski/Salamatof CWPP, 2006).

Fire Department Concerns:

- Increased response capacity- additional fire fighters needed to address growing WUI
- Increase response times- road improvements
- Facilitate safe access- wider roads and turnarounds
- Create a fire cache for equipment and water storage tanks
- Have GPS, GIS and computer mapping available on all fire trucks (Nikiski/Salamatof CWPP, 2006).

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

PORT GRAHAM POLYGON SUMMARY STATISTICS

Community Description

The village of Port Graham is located close to the southern tip of the Kenai Peninsula facing Port Graham Bay, an arm of Cook Inlet. The location is approximately 24 miles southwest of Homer and is accessible by plane or boat. It is located 4 miles from Nanwalek, which is accessible by foot trail, plane, or boat. Seldovia, the nearest service center, is 7.5 miles away. The Port Graham Volunteer Fire Department accompanied by local community resources provides fire response for the community. Fire equipment is located at a maintained and heated public safety building in the Community. Secondary fire response resources are located 25 miles away in Homer with a four person Alaska Division of Forestry fire crew. This crew historically responds via local hire helicopter or marine vessels. Soldotna State Forestry has a dedicated helicopter fire crew based in Soldotna (TAC, 2008b). Additional information about community background and demographics can be found in the community CWPP (TAC, 2008b).

Commented [BP32]: Core Team, this information was taken from the 2008 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

The Bureau of Indian Affairs has trust responsibility to manage native allotment lands on behalf of their owners. The majority of the land in Port Graham is designated as Native Allotment. Chugachmiut, a non-profit Native consortium, works as an agent for the Native landowners both Native allotment owners and Trust townsite lot owners associated with Nanwalek and Port Graham, Alaska.

Community Polygon Summary
(Desktop analysis only)

Community Polygon Name: Port Graham **Total Score:** 93 **Rating:** High

Town: Port Graham

Land Area (*mi.²*): 6.4

Population Density (people/*mi.²*)$_1$: 26.1

Home Density (housing units/ *mi.²*)$_2$: 16.9

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 1.5

Percent: 23.4%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
2.2%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
				TL1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 99%	0-0.5 (mi.): 0%
4-8 (ft): 5%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 0%

Fire Department Statistics: Port Graham Volunteer Fire Department

Communities Served: Port Graham

Fulltime Firefighters: 0 On-call Firefighters: 0 Volunteer Firefighters: 6

Water Tender:			Wildland Engines		
Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:	
Type 2:	0	Type 3: ----	0	0	
Type 3:	0	Type 4: ----	0	0	
Structure Engines:		Type 5: ----	0	0	
Type 1:	0	Type 6: ----	0	0	
Type 2:	0	Type 7: 1	1	0	
Port-A-Tanks:	0				
Portable Pumps:	4				

The Department can also use the Village Council 10,000-gal water tank and the bay.

Recent Fires within the polygon: NA

Fire Management Options:

Critical Protection around urban areas: **0%**	Full Protection around WUI: **23%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2008 Port Graham Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

(No 1144 assessments completed during 2021 CWPP update. Desktop analysis only)

Positive Attributes (Low Scores)

- Vegetation type: more humid forest cover
- Building construction: metal and composite roofs dominant
- Fire History: low
- Values at risk: lower density

Negative Attributes (High Scores)

- Ingress and egress: Bad. Access by air and sea
- Separation of adjacent structures: minimal
- Defensible space: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern

- Organized fire response is limited (Port Graham CWPP, 2008).
- Low fire risk (Port Graham CWPP, 2008).
- Limited fire mitigation around homes (Port Graham CWPP, 2008).
- Poor access and slow response times (Port Graham CWPP, 2008).
- Tribal headquarters, clinic, and mush building (serves as a safe community gathering place in the event of a tsunami)
- Port Graham Corporation Fishing Cannery stores 100,000+ gallons of fuel and gasoline and serves as a source of backup generation for Port Graham and Nanwalek when there is a power outage. (Homer Electric Association must travel to Port Graham to restore power in the event of a power outage, meaning additional time is needed to respond. In the interim the community relies on the backup generation as the primary source of power.)
- Dock is important infrastructure especially for small boats

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Procure additional wildland fire equipment for the community (Port Graham CWPP, 2008).
- Procure a 4WD brush ATV for fast initial attack (Port Graham CWPP, 2008).
- Require wildland and structural fire refreshers annually (Port Graham CWPP, 2008).
- Port Graham Central Village need additional hydrants (Port Graham CWPP, 2008).
- Inventory all homes for smoke detectors and fire extinguishers (Port Graham CWPP, 2008).
- Conduct Firewise assessments and home assessments to identify mitigation needs (Port Graham CWPP, 2008).
- Provide fire (structure and wildland) protection training to community members (Port Graham CWPP, 2008).
- Provide school curriculum to students on wildfire prevention and mitigation (Port Graham CWPP, 2008).
- Increase public awareness through mail campaign (Port Graham CWPP, 2008).
- Sign mutual aid agreement with all South Kachemak communities for fire response (Port Graham CWPP, 2008).
- Provide for an annual project list of fuel reduction priorities in the WUI (Port Graham CWPP, 2008).
- Maintain clearance around airport, remove slash (Port Graham CWPP, 2008).
- Need to create a map to identify the location transmission/distribution line between Port Graham and Nanwalek and work with HEA to identify any needed upgrades to the line and/or vegetation management actions needed to enhance fire resilience and protection. There is a trail that is not maintained regularly that may be used to access the lines, but the trail is not accessible by vehicle.
- Consider enhancing ROW for the transmission line to serve as a fuel break recreational trail.
- Look for opportunities to incorporate new development (airport and road) with enhancements for fire protection and fire response.
- Assess fire mitigation needs for cabins and infrastructure protection along road to Rocky and Windy Bay. Protect area for subsistence hunting.
- Make improvements to the road to Windy and Rocky Bay.
- Build firefighting resources and capabilities for wildland fire. Procure wildland fire equipment and PPE and identify location and resources to build appropriate storage. Provide optional training for residents in basic wildland fire fighting.
- Initiate a public education campaign to inform residents of the threat of wildfire and focus efforts on encouraging defensible space practices around properties and values at risk, and preparedness and evacuation.
- Identify location(s) for evacuation shelter and safety zones and provide messaging to the community on those locations.
- Identify evacuation routes and develop maintenance schedule to ensure they remain safe routes for residents to utilize.

Fire Department Concerns:

- Fire department is 100% volunteer and are focused on structural fires, not wildland fire.
- Significant equipment needs

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

PRIMROSE POLYGON SUMMARY STATISTICS

Community Description

Primrose is located on the Kenai Peninsula within the Moose Pass area. Primrose is an unincorporated community located approximately 26 miles north of Seward. Winter temperatures range from 4 degrees F to 27 on average. Some winters it has reached 20 below. Summer temperatures vary from 45 to 65 degrees. Annual precipitation ranges from 20 inches at the south end of the valley to 24 inches at the north end. The Moose Pass Volunteer Fire Company and the United States Forest Service provide initial attack fire protection to Primrose area residents. Operations are based out of the fire station located at 1 Depot Road in Moose Pass (KPB, 2006c). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006c).

Commented [BP33]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Primrose	**Total Score:** 60	**Rating:** Moderate
Town: Primrose		
Land Area (*mi.²*): 33.9		
Population Density (people/*mi.²*)$_1$: 2.0		
Home Density (housing units/ *mi.²*)$_2$: 1.5		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 7.2
Percent: 20.1%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
1.2%	0.0%	0.0%	0.0%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU1	TL1, TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 80%	0-0.5 (mi.): 0%
4-8 (ft): 2%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 100%

Fire Department Statistics: Moose Pass Fire				
Communities Served: **Moose Pass*, Crown Point*, Primrose***				
Fulltime Firefighters: 0	On-call Firefighters: 4		Volunteer Firefighters: 5	
Water Tender: 1			Wildland Engines	
Type 1: ---		Total Number:	4WD/AWD:	Brush Breaker:
Type 2: ---		Type 3: ----	0	0
Type 3: ---		Type 4: ----	0	0
Structure Engines: 3		Type 5: ----	0	0
Type 1: ---		Type 6: ----	0	0
Type 2: ---		Type 7: ----	0	0
Port-A-Tanks: 2				
Portable Pumps: 2				
Recent Fires within the polygon: N/A				
Fire Management Options:				
Critical Protection around urban areas: **4%**	Full Protection around WUI: **18%**			

* Moose Pass, Crown Point, and Primrose are supported by the USFS via mutual aid agreement.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Moose Pass Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: good turnaround space
- Street signs: visible and reflective
- Previous fire history: low
- Topography: some moderate slope
- Severe weather potential: low
- Separation of adjacent structures: good, larger lots

Negative Attributes (High Scores)

- Ingress and egress: one road in and out; some areas unsurfaced
- Vegetation type: timber and understory high fire danger; spruce bark beetle mortality.
- Defensible space: limited
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- Water: none; need to shuttle water; could draft from lake
- Fire protection: none
- Values at risk: campsite and trails (potential ignition source)

Suggested Mitigation Focus Area

Areas of Concern

- Individual homeowner preparedness (Moose Pass Area CWPP, 2006).
- Lack of water system (Moose Pass Area CWPP, 2006).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale, target dead trees, create fuel breaks around campground.
- Manage campsite with outreach to users on fire mitigation and campfire safety.
- Protect Primrose campground and trails (Moose Pass Area CWPP, 2006).
- Develop water sources (Moose Pass Area CWPP, 2006).
- Seek funding for portable water storage (Moose Pass Area CWPP, 2006).
- Seek funding for brush truck with CAFS (Moose Pass Area CWPP, 2006).
- Seek additional USFS and DOF training opportunities (Moose Pass Area CWPP, 2006).
- Create equipment cache on north and south end of Moose Pass, Crown Point, Primrose area (Moose Pass Area CWPP, 2006).
- Create a pre-attack suppression plan with a focus on protection of cultural resources (Moose Pass Area CWPP, 2006).
- Expand CERT and Fire Corps program (Moose Pass Area CWPP, 2006).
- Encourage residents to develop a secondary water source (Moose Pass Area CWPP, 2006).
- Restrict motorized access into areas where hazardous fuels exist on public lands (Moose Pass Area CWPP, 2006).

Fire Department Concerns:

- Increased response capacity, education, fuel reduction, and ignition source management.
- Fuels Hazards
- Beetle kill throughout the interface both developed and undeveloped areas
- Goals, in order of importance:
  - Training
  - Hazardous fuels reduction
  - Ecological management



Figure D.27. USFS camp sites adjacent to the polygon could create ignition hazards under dry conditions.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

RIDGEWAY POLYGON SUMMARY STATISTICS

Community Description

Ridgeway is an unincorporated community located on the Sterling Highway on the Kenai Peninsula. It is adjacent to the cities of Kenai, Soldotna and Sterling. Ridgeway is in the Kenai Recording District. The area encompasses 16.4 square miles of land. Central Emergency Services, volunteer fire departments, and the Alaska Division of Forestry provide fire protection to Ridgeway residents (KPB, 2009b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2009b).

Commented [BP34]: Core Team, this information was taken from the 2009 CWPP. Can you please confirm if this is still accurate? If so, are there mutual aid agreements in place with volunteer departments?

Community Polygon Summary		
Community Polygon Name: Ridgeway	**Total Score:** 70	**Rating:** Moderate-High
Town: Ridgeway		
Land Area (*mi.²*): 16.4		
Population Density (people/*mi.²*)$_1$: 124.6		
Home Density (housing units/ *mi.²*)$_2$: 82.5		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 17.7
Percent: 100%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
1.9%	8.8%	10.9%	22.1%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
1.6		SH5	TU1, TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 71%	0-0.5 (mi.): 4%
4-8 (ft): 54%	0.5-1.0 (mi.): 12%
8-12 (ft): 1%	1.0-1.5 (mi.): 21%
>12 (ft): 0%	>1.5 (mi.): 62%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:		Total Number:	Wildland Engines 4WD/AWD:	Brush Breaker:
Type 1:	0			
Type 2:	4-7	Type 3: 1-3	1-3	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	0
Type 1:	8-10, 1-3 have 4WD	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Swanson River, 1969

Fire Management Options:

Critical Protection around urban areas: **78%**	Full Protection around WUI: **22%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2009 Soldotna Ridgeway Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: good turnaround space
- Street signs: visible and reflective
- Previous fire history: low
- Topography: some moderate slope
- Potential for severe weather potential: low
- Separation of adjacent structures: good, larger lots
- Water: hydrants
- Fire protection: Ridgeway Fire Dept in community

Negative Attributes (High Scores)

- Ingress and egress: one road in and out; some areas unsurfaced
- Vegetation type: timber and understory high fire danger; spruce bark beetle mortality
- Defensible space: limited
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern

- Beetle killed trees
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening, home ignition zone and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale (inter-agency), target dead beetle killed trees, create additional fuel breaks around community.
- Connect with Sterling fuel break
- Increase outreach to the community on the status and progress of the Sterling Fuel Break
- Support Firewise programs
- Provide solutions for debris removal- chipper, incinerator etc.
- Assess electric grid in subdivisions and need for electric generators
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Continue Firewise home assessment project (Soldotna Ridgeway Area CWPP, 2009).
- Develop a CWPP media action plan (Soldotna Ridgeway Area CWPP, 2009).
- Provide incentives for Firewise landscaping (Soldotna Ridgeway Area CWPP, 2009).
- Provide 100 ft buffers along main roads for safe evacuation (Soldotna Ridgeway Area CWPP, 2009).
- Provide additional wildland engine for CES (Soldotna Ridgeway Area CWPP, 2009).
- Implement an evacuation planning project for the CWPP area (Soldotna Ridgeway Area CWPP, 2009).
- Joint training and exercises for fire agencies and the public (Soldotna Ridgeway Area CWPP, 2009).

Fire Department Concerns:

- Need a maneuverable squad truck
- Concerned about reduction in VFA grant funding
- Need a training solution where agency trainers can come to community.
- Need additional funding to support training



Figure D.28. Example of heavy vegetation along roadways.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

SALAMATOF POLYGON SUMMARY STATISTICS

Community Description

Salamatof is on the Kenai Peninsula, on the east shore of Cook Inlet at the mouth of Salamatof Creek, 5.5 miles northwest of the City of Kenai. It lies at approximately 60.618890° north latitude and -151.3425° west longitude. Salamatof is in the Kenai Recording District. The area encompasses 8 square miles of land. Winter temperatures range from 4˚ F to 22˚ F; summer temperatures vary from 46˚ F to 65˚ F. Average annual precipitation is 20 inches. The Nikiski Fire Department (NFD) and Alaska Division of Forestry provide fire protection to Salamatof area residents. NFD firefighters are state-certified at the Firefighter I, II, or Fire Officer I levels (KPB, 2006g). Additional information about community background and demographics can be found in the community CWPP (KPB, 2006g).

Commented [BP35]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary		
Community Polygon Name: Salamatof	**Total Score:** 71	**Rating:** High
Town: Salamatof		
Land Area (*mi.²*): 8.0		
Population Density (people/*mi.²*)$_1$: 132.8		
Home Density (housing units/ *mi.²*)$_2$: 67.1		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 8.1
Percent: 94%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
5.9%	25.8%	15.8%	3.6%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU3, TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 91%	0-0.5 (mi.): 7%
4-8 (ft): 5%	0.5-1.0 (mi.): 17%
8-12 (ft): 3%	1.0-1.5 (mi.): 23%
>12 (ft): 0%	>1.5 (mi.): 52%

Fire Department Statistics: Nikiski Fire Department					
Communities Served: **Nikiski*, Beluga, Tyonek**					
Fulltime Firefighters: 25		On-call Firefighters: 0		Volunteer Firefighters: 30	
Water Tender:			Wildland Engines		
Type 1:	4-7	Total Number:	4WD/AWD:	Brush Breaker:	
Type 2:	0	Type 3: ----	0	0	
Type 3:	0	Type 4: ----	0	0	
Structure Engines:		Type 5: ----	0	0	
Type 1:	4-7	Type 6: 1-3	1-3	0	
Type 2:	0	Type 7: ----	0	0	
Port-A-Tanks:	10				
Portable Pumps:	0				
Recent Fires within the polygon: N/A					
Fire Management Options:					
Critical Protection around urban areas: **94%**		Full Protection around WUI: **6%**			

* USFWS lands within Nikiski are supported by the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Nikiski/Salamatof Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: timber understory is dominant.
- Building construction: metal and composite roofs dominant
- Slopes: less than 9%
- Water source: hydrants

Negative Attributes (High Scores)

- Building construction: combustible siding
- Defensible space: poor
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal

Suggested Mitigation Focus Area

Areas of Concern:

- Structures needing defensible space clearing and maintenance of fuel breaks, especially emergency shelters (Nikiski/Salamatof CWPP 2006).
- Lisburne/Pipeline is a very long road, and access problems will occur if traffic is backed up along Lisburne to Basteen. Improve section of Basteen (Nikiski/Salamatof CWPP 2006).
- The Grey Cliffs area is rapidly increasing in population and does not have road access (Nikiski/Salamatof CWPP 2006).
- Investigate access issues including turn-around and access areas for Puppy Dog Lake, Tauriainan Trail, Goode Lake, Beck Lake, Bishops Creek, and Northwoods subdivision at Bishop Creek Bar, Halibouty Road (Nikiski/Salamatof CWPP 2006).
- Empty/abandoned buildings and vehicles pose a fire/safety hazard and should be removed (Nikiski/Salamatof CWPP 2006).

- Captain Cook State Park mitigation and fuel reduction. Create defensible space/safe zones (Nikiski/Salamatof CWPP 2006).
- Include Cottonwood Lane and Admiralty Drive (Nikiski/Salamatof CWPP 2006).
- Empty/abandoned buildings and vehicles pose a fire/safety hazard and should be removed (Nikiski/Salamatof CWPP 2006).
- Have access to a chipper and air curtain incinerator for slash disposal (Nikiski/Salamatof CWPP 2006).
- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park, and KNWR.
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Industrial, commercial and residential values at risk and need to be protected
- Identify and implement (in conjunction with oil and gas operators) strategic fuels treatments around oil and gas infrastructure and Right of Ways throughout Kenai Gas Field areas.

Recommendations from Salamatof Native Association, Inc

- Salamatof Native Association, Inc (SNAI) and Cook Inlet Region, Inc, known as CIRI are partners working together to create the Sterling fuel break. SNAI may do a shaded fuel break instead of full clearance.
- Protect many cultural values at risk. Identify areas of cultural importance with broad buffers using the "known sites" database.
- Protect subsistence hunting
- Maintain and restore forest health
- Focus mitigation measures on values at risk.
- Work to address ongoing beetle infestation and removal of dead trees
  Combine fuel treatments with protection and enhancement of wildlife habitat, whenever possible.
- Inventory water availability for fire suppression resources and address deficiencies with placement of mobile units or improvements to water system infrastructure.
- Address problem of unauthorized access and potential for human ignitions resulting from access violations. Education and enforcement campaign to reduce unlawful access, tree cutting and trash dumping.
- Use appropriate channels within the native community to share educational messaging regarding fire prevention and education.
- Enhance coordination between the native corporation and fire departments on fire preparedness and fire planning.
- Use the newsletter, Raven Circle, to provide information to shareholders

Fire Department Concerns:

- There are no concerns from SNAI at this time. Communication with FMOs is very good.



Figure D.29. Example of the landscape in Salamatof.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

SELDOVIA POLYGON SUMMARY STATISTICS

Community Description

The area is primarily bordered on the north side by the southern shore of Kachemak Bay. The Seldovia area encompasses 18.4 square miles and includes the first-class city of Seldovia, Seldovia Village, Seldovia Bay, the Barabara Point area, the area along Jakolof Road towards Windy River, and McDonald Spit. Fire protection is provided to the area by Seldovia Fire & Rescue and the Barbara Heights fire department. These departments rely on volunteers and employ part time paid administrators (TAC, 2008c). Additional information about community background and demographics can be found in the community CWPP (TAC, 2008c).

Commented [BP36]: Core Team, this information was taken from the 2008 CWPP. Can you please confirm if this is still accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary
(Desktop analysis only)

Community Polygon Name: Seldovia **Total Score:** 95 **Rating:** High

Town: Seldovia

Land Area (*mi.²*): 18.4

Population Density (people/*mi.²*)$_1$: 16.3

Home Density (housing units/ *mi.²*)$_2$: 22.8

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 8.5

Percent: 43.0%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0.0%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
				TL1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 92%	0-0.5 (mi.): 3%
4-8 (ft): 21%	0.5-1.0 (mi.): 3%
8-12 (ft): 0%	1.0-1.5 (mi.):4%
>12 (ft): 0%	>1.5 (mi.): 90%

Fire Department Statistics: Seldovia Volunteer Fire and Rescue

Communities Served: Seldovia

Fulltime Firefighters: 0 | On-call Firefighters: 0 | Volunteer Firefighters: 12

Water Tender:			Wildland Engines	
Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	0	Type 6: ----	0	0
Type 2:	1	Type 7: ----	0	0
Port-A-Tanks:	2			
Portable Pumps:	3			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **33%**	Full Protection around WUI: **13%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2008 Seldovia Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

(No 1144 assessments completed during 2021 CWPP update. Desktop analysis only)

Positive Attributes (Low Scores)

- Vegetation type: more humid forest cover
- Building construction: metal and composite roofs dominant
- Fire History: low
- Values at risk: lower density

Negative Attributes (High Scores)

- Ingress and egress: Bad. Access by air and sea
- Topography: steep topography adjacent to community
- Separation of adjacent structures: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground

Suggested Mitigation Focus Area

Areas of Concern:

- Structures (residential and commercial) (Seldovia CWPP, 2006).
- Infrastructure (Seldovia CWPP, 2006).
- Cultural sites (Seldovia CWPP, 2006).
- Natural resource values (Seldovia CWPP, 2006).

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- The SVFD provides dispatch, EMS, and fire services. Of these, dispatch and EMS are most active, as they have low fire activity. The department is focused on maintaining current capabilities and equipment.

Fire Department Concerns:

- Construct a pond at Barabara Point fire station (Seldovia CWPP, 2006).
- Procure 2 water tender trucks to haul water (Seldovia CWPP, 2006).
- Acquire additional supplies for firefighting (Seldovia CWPP, 2006).

- Provide water tanks and equipment to stage each summer at McDonald Spit (Seldovia CWPP, 2006).
- Procure an additional ATV trailer and pump to fill foal units (Seldovia CWPP, 2006).
- Provide a program to distribute fire extinguishers and smoke detectors for residents (Seldovia CWPP, 2006).
- An incentive and retention program is necessary to keep volunteers active within the fire department (Seldovia CWPP, 2006).
- Present a mutual aid request to SOS for the use of their oil spill skiff for fire emergencies along the waterfront areas of the CWPP (Seldovia CWPP, 2006).
- Maintaining a reasonable capacity for a small community (Seldovia CWPP, 2006).
- Personal and knowledge retention; managing operational and administrative demands on personnel (Seldovia CWPP, 2006).
- Equipment upkeep (Seldovia CWPP, 2006).
- Effective utilization of and respect for scarce human capital and the competing life and community demands placed on volunteers (Seldovia CWPP, 2006).
- Reliance on key personnel who may be absent from the community during incidents (Seldovia CWPP, 2006).
- Communication difficulties (Seldovia CWPP, 2006).
- Difficulty evacuating EMS patients to definitive care at times (Seldovia CWPP, 2006).
- Managing community expectations (Seldovia CWPP, 2006).

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

SEWARD POINT POLYGON SUMMARY STATISTICS

Community Description

Seward is located on Resurrection Bay, on the Kenai Peninsula. It is bordered by Lowell Point to the southwest and by Bear Creek to the northeast. Seward encompasses an area of 14.3 square miles. Seward is situated at approximately 60.105627° north latitude and -149.442973 ° west longitude. Seward is in the Seward Recording District (ADNR 2021). Winter temperatures range from 4 degrees F to 27 on average. Some winters it has been 20 below. Summer temperatures vary from 45 to 65 degrees. Annual precipitation ranges from 20 inches at the south end of the valley to 24 inches at the north end. Seward Volunteer Fire Department and the Alaska Division of Forestry provide fire protection to Seward residents (City of Seward, Alaska, 2020).

Commented [BP37]: Core Team, can you please confirm if this is accurate? If so, is there a mutual aid agreement in place?

Community Polygon Summary

Community Polygon Name: Seward | **Total Score:** 67 | **Rating:** Moderate

Town: Seward

Land Area (*mi.²*): 14.3

Population Density (people/*mi.²*)$_1$: 123.6

Home Density (housing units/ *mi.²*)$_2$: 103.7

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 12.3

Percent: 57.3%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
3.2%	0.1%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TL1, TL2	TU1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 66%	0-0.5 (mi.): 4%
4-8 (ft): 2%	0.5-1.0 (mi.): 11%
8-12 (ft): 0%	1.0-1.5 (mi.): 16%
>12 (ft): 0%	>1.5 (mi.): 70%

Fire Department Statistics: Seward Volunteer Fire Department				
Communities Served: **City of Seward, by auto-aid Lowell Point and Bear Creek Fire service area**				
Fulltime Firefighters: 2	On-call Firefighters: 0	Volunteer Firefighters: 20		
Water Tender:			Wildland Engines	
Type 1: 0		Total Number:	4WD/AWD:	Brush Breaker:
Type 2: 0		Type 3: ----	0	0
Type 3: 0		Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1: 1-3 4WD		Type 6: 1-3	1-3	1-3
Type 2: 0		Type 7: ----	0	0
Port-A-Tanks: 2				
Portable Pumps: 3				
Recent Fires within the polygon: N/A				
Fire Management Options:				
Critical Protection around urban areas: **33%**	Full Protection around WUI: **21%**			

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2020 City of Seward and Qutekcak Native Tribe Alaska, Multi-Jurisdictional Hazard Mitigation Plan

* Bear Creek, Seward, and Lowell Point Fire Departments support each other's firefighting efforts through Automatic Aid Agreements.

* Mutual Aid: In other events outside of structure fires, Seward, Bear Creek, and Lowell Point can request the assistance of neighboring jurisdictions through mutual aid.

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Urban character with mixture of non-burnable fuels and good road network in town
- Vegetation type: more humid forest cover
- Previous fire history: low
- Potential for severe weather potential: low
- Building construction: metal and composite roofs dominant
- Water: hydrants
- Fire protection: station in community

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Topography: steep topography adjacent to community
- Separation of adjacent structures: minimal
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- High density of values at risk

Suggested Mitigation Focus Area

Areas of Concern:

- Heavy concentration of values at risk
- Evacuation concerns
- Concern that residents don't understand the risk
- Forest Acres subdivision and the base of Mt. Marathon.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document):

- Need fire weather reports specific to this portion of the Peninsula.
- Targeted and coordinated public outreach campaign focused on defensible space, structure hardening etc. Utilize community events. Repeat messaging.
- Develop home assessment program using an NFPA 1144 methodology or similar.
- Develop education campaign on evacuation.
- Install a Smokey Sign for Seward with accurate weather monitoring.
- Create alternative ingress/egress route for Seward (East End Road) (Currently they only have one ingress/egress).

Fire Department Concerns:

- Evacuation concerns.
- Need increased training options for volunteers (weekends etc.) and more focus on wildland training.
- Need to inventory wildland PPE and provide appropriate equipment for all volunteers and new recruits.



Figure D.30. Homes located along forested slopes in Seward are at the greatest risk within the Seward WUI.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

SOLDOTNA POLYGON SUMMARY STATISTICS

Community Description

Soldotna is located on the Kenai Peninsula, 150 highway miles south of Anchorage, at the junction of the Sterling and Kenai Spur Highways. It lies 10 miles inland from Cook Inlet, and borders the Kenai River. It lies at approximately 60.48 degrees north latitude and 151.05 degrees west longitude. Soldotna is in the Kenai Recording District. The area encompasses 6.1 square miles of land. Central Emergency Services, volunteer fire departments, and the Alaska Division of Forestry provide fire protection to Soldotna residents (KPB, 2009b). Additional information about community background and demographics can be found in the community CWPP (KPB, 2009b).

Community Polygon Summary

Community Polygon Name: Soldotna | **Total Score:** 51 | **Rating:** Moderate

Town: Soldotna

Land Area (*mi.²*): 6.1

Population Density (people/*mi.²*)₁: 596.7

Home Density (housing units/ *mi.²*)₂: 361.6

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 7.3

Percent: 100%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
7.5%	18.6%	14.0%	10.9%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
			TU5	

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 57%	0-0.5 (mi.): 10%
4-8 (ft): 40%	0.5-1.0 (mi.): 22%
8-12 (ft): 1%	1.0-1.5 (mi.): 27%
>12 (ft): 1%	>1.5 (mi.): 41%

Commented [GU38]: The land area number seems low. The City of Soldotna is 7.4 square miles in size. I believe the area of water (the Kenai River) is about 0.5 square miles within city limits. That would mean that the land area for the city would be approximately 6.9 square miles. My calculations are rough; used polygons on Arc Map to determine the approximate area of the Kenai River.

Commented [GU39]: Central Emergency Services is the primary fire protection service in the City. Am not aware of volunteer fire departments providing services? Perhaps they are available in the event of a large scale emergency??

Commented [BP40]: Core Team, this information was taken from the 2009 CWPP. Can you please confirm if this is still accurate? If so, are there mutual aid agreements in place with VFDs?

Commented [GU41R40]: CES would likely know whether there are any agreements with volunteer departments to provide assistance in the City of Soldotna.

Commented [GU42]: Again, I question the accuracy of this figure.

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 | On-call Firefighters: 0 | Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
Type 1:	0	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	4-7	Type 3: 1-3	1-3	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: 1-3	1-3	0
Type 1:	8-10, 1-3 have 4WD	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0

Port-A-Tanks: Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.

Portable Pumps: 5

Recent Fires within the polygon:

- Echo, 1969

Fire Management Options:

Critical Protection around urban areas: **100%**	Full Protection around WUI: **0%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2009 Soldotna Ridgway Area Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: more than one road in and out
- Ingress and egress: good turnaround space
- Street signs: visible and reflective
- Previous fire history: low
- Topography: minimal
- Vegetation type: timber and understory in some areas, but mixed with grass, urban fuels
- Severe weather potential: low
- Water: hydrants
- Fire protection: Soldotna Fire Dept in community

Negative Attributes (High Scores)

- Defensible space: limited in some areas
- Building construction: combustible siding
- Decking and fencing: combustible
- Utility placement: aboveground
- Separation of adjacent structures: limited, more urban mix with smaller lots sizes
- Heavy concentration of values at risk

Commented [GU43]: I see that the removal of beetle-killed trees is mentioned in the following mitigation focus area, but don't see it listed here. For the past several years the City has experienced a wide-spread bark beetle epidemic that has left most spruce trees above 6" DBH dead.

Commented [GU44]: There is no Soldotna Fire Dept. We rely on Central Emergency Services.

Suggested Mitigation Focus Area

Areas of Concern

- Values at risk
- Kasilof/Cohoe, Funny River, and Tustumena.

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase fire prevention and mitigation outreach to public, with a focus on defensible space, structure hardening, home ignition zone and safe debris disposal.
- Reduce heavy fuel loads on a landscape scale (inter-agency), target dead beetle killed trees, create additional fuel breaks around community.
- Increase outreach to the community on the status and progress of existing fuel treatment work
- Support Firewise programs
- Provide solutions for debris removal- chipper, incinerator etc.
- Implement aggressive fuel breaks around population centers
- Support/foster timber industry to allow mitigation efforts while providing market for treated fuels
- Pre-season fire planning to identify critical infrastructure where point protection should be applied
- Continue Firewise home assessment project (Soldotna Ridgeway Area CWPP, 2009).
- Develop a CWPP media action plan (Soldotna Ridgeway Area CWPP, 2009).
- Provide incentives for Firewise landscaping (Soldotna Ridgeway Area CWPP, 2009).
- Provide 100 ft buffers along main roads for safe evacuation (Soldotna Ridgeway Area CWPP, 2009).
- Provide additional wildland engine for CES (Soldotna Ridgeway Area CWPP, 2009).
- Implement an evacuation planning project for the CWPP area (Soldotna Ridgeway Area CWPP, 2009).
- Joint training and exercises for fire agencies and the public (Soldotna Ridgeway Area CWPP, 2009).

Fire Department Concerns:

- Need a maneuverable squad truck
- Concerned about reduction in VFA grant funding
- Need a training solution where agency trainers can come to community.
- Need additional funding to support training
- Upgrade radios
- Seek funding to purchase a boat

Commented [GU45]: I appreciate the mitigation suggestions. They support our recent efforts to obtain FEMA funding for wildfire mitigation (including bullet points 1-3, 5, and 8).



Figure D.31. Example of Soldotna homes located in heavy forested areas with poor defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

STERLING POLYGON SUMMARY STATISTICS

Community Description

Sterling is located on the Sterling Highway near the junction of the Moose and Kenai Rivers, 18 miles east of the City of Kenai. The Sterling area encompasses 77.1 square miles. It lies at approximately 60.53 degrees north latitude and 150.76 degrees west longitude. Sterling is in the Kenai Recording District. The Sterling Central Emergency Services station provides fire protection to Sterling residents (KPB, 2009c). Additional information about community background and demographics can be found in the community CWPP (KPB, 2009c).

Commented [BP46]: Core Team, this information was taken from the 2009 CWPP. Can you please confirm if this is still accurate?

Community Polygon Summary		
Community Polygon Name: Sterling	**Total Score:** 70	**Rating:** Moderate
Town: Sterling		
Land Area (*mi.²*): 77.1		
Population Density (people/*mi.²*)$_1$: 75.5		
Home Density (housing units/ *mi.²*)$_2$: 58.5		

Percent of Community Classified by Wildland Urban Interface (WUI) Types
Acres (*mi.²*): 62.4
Percent: 78.4%

Percent of Community by Modeled Wildfire Related Loss				
Low	Medium - Low	Medium	Medium – High	High
0.6%	10.4%	11.4%	18.9%	0.0%
Dominant Fuel Type				
Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1	GS1	SH5	TU1, TU3, TU5	TL3, TL6

Percent of Community by Modeled/Calculated Wildfire Risk Inputs	
Flame Length	Dist. From Fire Station
0-4 (ft): 56%	0-0.5 (mi.): 1%
4-8 (ft): 38%	0.5-1.0 (mi.): 5%
8-12 (ft): 8%	1.0-1.5 (mi.): 8%
>12 (ft): 1%	>1.5 (mi.): 87%

Fire Department Statistics: Central Emergency Services

Communities Served: **Soldotna, Ridgeway, Sterling*, Kasilof, Kalifornsky Beach, Cohoe, Clam Gulch, Funny River**

Fulltime Firefighters: 46 On-call Firefighters: 0 Volunteer Firefighters: ~ 20

Water Tender:			Wildland Engines	
		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0	Type 3: 1-3	1-3	0
Type 2:	4-7	Type 4: ----	0	0
Type 3:	0	Type 5: 1-3	1-3	0
Structure Engines:		Type 6: ----	0	0
Type 1:	8-10, 1-3 have 4WD	Type 7: ----	0	0
Type 2:	0			
Port-A-Tanks:	Only within the road system, Forestry often asks that tanks be left on-scene, which creates a shortage for additional responses.			
Portable Pumps:	5			

Recent Fires within the polygon:

- Card Street, 2015
- Funny River, 2014
- Kenai, 1947

Fire Management Options:

Critical Protection around urban areas: **68%**	Full Protection around WUI: **12%**

* USFWS lands within Sterling are also supported by the Kenai National Wildlife Refuge.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2009 Sterling Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Ingress and egress: main highway paved
- Street signs: visible and reflective
- Vegetation type: timber with grass or shrub understory.
- Building construction: metal and composite roofs dominant
- Slope: 10% to 20%
- Water source: hydrants

Negative Attributes (High Scores)

- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Defensible space: poor
- History of fire occurrence: high
- Severe fire weather potential
- Only one fire station in the area, and some of the outlying areas are more than 5 miles away

Suggested Mitigation Focus Area

Areas of Concern:

- Kasilof/Cohoe, Funny River, and Tustumena.
- Sterling, Nikiski, and Kenai

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Many standing dead bark beetle trees and need to be removed
- Morgan Landing State Park and Industrial values at risk to be protected
- Homes around river are surrounded by riparian fuels and need fuel reduction
- Potential for new growth and development. New roads have been developed, but homes not built yet. Opportunity to plan with the goal of reducing wildfire risk.
- Continue to maintain and expand Strategic Fuel Break (about 200 – 350 feet wide) including Western Extension of Sterling (Ridgeway) and Nikiski to Grey Cliffs. Maintenance already completed includes mastication to keep grass to a minimum.
- Outreach to the public about progress on the fuel break is requested by members of the public.
- Education about risk is needed.
- Support Firewise programs
- Remove hazardous fuels along Swansong Road
- Provide turnouts on the Sterling Highway and all major roads to reduce congestion in an emergency (Sterling CWPP, 2009).
- Develop project to seek funding for State Park Recreation Site(s) hazard fuels removal (Sterling CWPP, 2009).
- Develop public access program on borough, state, and federal lands. Provide for a streamlined permitting process that targets hazard fuels removal and utilization (fuel-wood cutting) (Sterling CWPP, 2009).
- Develop Sterling area road fuels reduction projects to improve access during fire situations (Sterling CWPP, 2009).
- Identify slash disposal (woodlot) sites and firewood cutting areas (Sterling CWPP, 2009).
- Identify opportunities for underground utilities to reduce ignitions (Sterling CWPP, 2009).
- Widen utility Right of Ways for use as fire breaks. Correct easement mapping errors (Sterling CWPP, 2009).
- Identify High Hazards on absentee landowner's property and coordinate woody debris disposal (Sterling CWPP, 2009).

Fire Department Concerns:

- Fuel hazards, beetle kill throughout the interface both in developed areas as well as open areas.
- Goals (in order of importance): Training, hazardous fuels reduction, ecological management



Figure D.32. Example of road conditions (narrow and unsurfaced) with limited defensible space.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

SUNRISE POLYGON SUMMARY STATISTICS

Community Description

Sunrise is located 7 miles southeast of Hope, at the mouth of Sixmile Creek, on the south shore of the Turnagain Arm of Cook Inlet. The community lies on the Hope Highway, northwest of the Seward Highway in the Kenai Peninsula Borough. It lies at approximately 60.889720° North Latitude and -149.42111° West Longitude. Sunrise is in the Seward Recording District. The area encompasses 12.9 sq. miles of land. Winter temperatures range from 14 to 27; summer temperatures vary from 45 to 65. Average annual precipitation is 20 inches. Fire protection is provided to the Sunrise area by the Hope-Sunrise Volunteer Fire Department (HSVFD). Other fire agencies, for example, USFS, Moose Pass Volunteer Fire Department, Girdwood Fire Department are at a minimum 45 minutes to one hour away. The HSVFD and the Forest Service have a joint cooperative agreement in place (E&E, 2006b). Additional information about community background and demographics can be found in the community CWPP (E&E, 2006b).

Commented [BP47]: Core Team, this information was taken from the 2006 CWPP. Can you please confirm if this is still accurate?

Community Polygon Summary

Community Polygon Name: Sunrise	**Total Score:** 98	**Rating:** High

Town: Sunrise

Land Area (*mi.²*): 12.9

Population Density (people/*mi.²*)$_1$: 0.9

Home Density (housing units/ *mi.²*)$_2$: 2.0

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 6.1

Percent: 46.6%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
3.7%	0.0%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
				TL1

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 99%	0-0.5 (mi.): 0%
4-8 (ft): 1%	0.5-1.0 (mi.): 0%
8-12 (ft): 0%	1.0-1.5 (mi.): 0%
>12 (ft): 0%	>1.5 (mi.): 0%

Fire Department Statistics: Hope-Sunrise Volunteer Fire Department

Communities Served:

Fulltime Firefighters: 0 | On-call Firefighters: 2 | Volunteer Firefighters: 7

Water Tender: 1 | Wildland Engines 1

		Total Number:	4WD/AWD:	Brush Breaker:
Type 1:	0			
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	0	Type 6: ----	0	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	0			
Portable Pumps:	2 float pumps			

Recent Fires within the polygon: N/A

Fire Management Options:

Critical Protection around urban areas: **9%**	Full Protection around WUI: **36%**

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan
- 2006 Hope-Sunrise-Summit Lake Community Wildfire Protection Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Street signs: visible and reflective
- Vegetation type: timber litter and hardwood mixture, moving into shrub at higher elevation
- Slope: less than 9%
- Building construction: metal and composite roofs dominant
- Water source: hydrants

Negative Attributes (High Scores)

- Ingress and egress: one road in and out
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Separation of adjacent structures: minimal
- Defensible space: poor
- Topographic features: steep terrain and potential for channeling of winds

Suggested Mitigation Focus Area

Areas of Concern:

- N/A

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Need a lumber market and processing to support increased fuel treatments
- Clear powerline right-of-way to the maximum extent possible as it parallels Hope Highway, coordinate with Chugach Electric, DOT, and USFS (Hope-Sunrise-Summit Lake CWPP, 2006).

Fire Department Concerns:

- Increase firefighting training
- Purchase chipper for green waste disposal

- Increasing population, new tracts of land have been developed and sold. Fire department does not have a good road map of where everyone lives, nor up-to-date records on new tracts of land.
- No street numbers on new homes
- Many homes do not have defensible space
- Community doesn't have fire break zones
- Need to improve and expand working relationship to increase training opportunities and work with other departments throughout the peninsula
- Coordinating resources and equipment throughout the peninsula. (Fire department has trucks they can loan).
- Fire Department needs an administrator and is currently seeking funding.



Figure D.33. Example of the landscape in Sunrise.

KENAI PENINSULA BOROUGH WILDLAND URBAN INTERFACE COMMUNITIES

TYONEK POLYGON SUMMARY STATISTICS

Community Description

Tyonek Point is located on the Kenai Peninsula, across from Point Possession. It is bordered by Beluga to the northeast and encompasses an area of 66.8 square miles. Tyonek Point is situated at approximately 61.068580° north latitude and -151.224956° west longitude. Tyonek Point is in the Anchorage Recording District (ADNR, 2021). Winter temperatures range from -10˚ F to 35˚ F; summer temperatures vary from 45˚ F to 65˚ F. Average annual precipitation is 24 inches. Tyonek Volunteer Fire Department and the Nikiski Fire Service provide fire protection to Tyonek residents (KPB, 2021b).

Commented [EG48]: Charlie or Nathan - would either of you have a photo related to fire risk from Tyonek that we could insert here?

Commented [EG49]: Charlie or Nathan - we could include the stats for the Tyonek Volunteer Fire Department here. Do you think that would add benefit?

Community Polygon Summary
(Desktop analysis only)

Community Polygon Name: Tyonek | **Total Score:** 105 | **Rating:** High

Town: Tyonek

Land Area (*mi.²*): 66.8

Population Density (people/*mi.²*)$_1$: 2.6

Home Density (housing units/ *mi.²*)$_2$: 1.4

Percent of Community Classified by Wildland Urban Interface (WUI) Types

Acres (*mi.²*): 17.5

Percent: 25.4%

Percent of Community by Modeled Wildfire Related Loss

Low	Medium - Low	Medium	Medium – High	High
0.2%	0.4%	0.0%	0.0%	0.0%

Dominant Fuel Type

Grass	Grass/Shrub	Shrub	Timber Understory	Timber Litter
GR1 GR5	GS1 GS2 GS3	SH2	TU2, TU3, TU5	TL2

Percent of Community by Modeled/Calculated Wildfire Risk Inputs

Flame Length	Dist. From Fire Station
0-4 (ft): 93%	0-0.5 (mi.): 1%
4-8 (ft): 10%	0.5-1.0 (mi.): 2%
8-12 (ft): 0%	1.0-1.5 (mi.): 3%
>12 (ft): 0%	>1.5 (mi.): 93%

Fire Department Statistics: Nikiski Fire Department

Communities Served: **Nikiski, Beluga*, Tyonek**

Fulltime Firefighters: 25 | On-call Firefighters: 0 | Volunteer Firefighters: 30

Water Tender:			Wildland Engines	
Type 1:	4-7	Total Number:	4WD/AWD:	Brush Breaker:
Type 2:	0	Type 3: ----	0	0
Type 3:	0	Type 4: ----	0	0
Structure Engines:		Type 5: ----	0	0
Type 1:	4-7	Type 6: 1-3	1-3	0
Type 2:	0	Type 7: ----	0	0
Port-A-Tanks:	10			
Portable Pumps:	0			

Recent Fires within the polygon:

- Tyonek, 2014

Fire Management Options:

Critical Protection around urban areas: **0%**	Full Protection around WUI: **25%**

* The Tyonek Volunteer Fire Department provides fire response support.

Current Fire and Fuel Management Programs and Plans

- 2018 ALAH Action Plan
- 2019 Kenai Peninsula Borough Hazard Mitigation Plan

Community Polygon NFPA 1144 Survey Summary

Positive Attributes (Low Scores)

- Values at risk: Low population density
- Separation of adjacent structures: good
- Slope: area has minimal slope
- Street signs: visible and reflective
- Building construction: metal and composite roofs dominant

Negative Attributes (High Scores)

- Ingress and egress: Very inaccessible. Sea and air access only
- Building construction: combustible siding
- Utility placement: aboveground
- Decking and fencing: combustible
- Vegetation type: timber understory- flammable
- Fire response from Nikiski

Suggested Mitigation Focus Area

Areas of Concern:

- Island Lake Area, Holt-Lamplight Area, Captain Cook State Park, and KNWR.
- Village of Tyonek
- Fish camps along the coast
- Historical sites along the coast
- Church and school are used as emergency shelters
- Timber camp
- 2nd Lake (primary source of drinking water)

Summary of Mitigation Needs (for details, see Recommendation Matrices in main document)

- Increase defensible space around values at risk and safety shelters including the garden, historic church, school, tribal center, historical homesteads, non-government recognized historical sites, timber camp, historical sites along the coast, and archeological sites in Shirleyville.
- Maintain significant defensible space around the fuel station and plan for periodic maintenance..
- Implement understory thinning and overall fuel reduction in areas determined to be at risk of intense fire behavior as determined by the risk assessment.
- Relocate wood piles to 100+ feet away from structures and install a fire break with a 10-foot buffer around the wood pile.
- Increase fuel free buffers along roads to prevent fire jumping the road. Remove or prune alder trees that impede on the roadways.
- Implement a backup evacuation route to prevent the Tyonek fire evacuation situation.
- Partner with logging companies to harvest and sell beetle kill wood or look for opportunities to utilize as fuel wood.
- Implement regular wildland fire training events for local volunteer fire responders.
- Increase defensible space and road access – install fuel breaks and response vehicle turn-outs along narrow roads.
- Install firebreaks around all above ground utility tanks with a 15-foot buffer.
- Distribute wildfire education resources in regard to home hardening, defensible space, structural ignitability, and how to shelter in place if you will not evacuate.
- Consider the use of prescribed fire (where appropriate) to maintain grassland areas.
- Implement fuel breaks in strategic locations to slow fire spread, for example in areas perpendicular to prevailing winds on the edge of the community.
- Need wider fuel breaks at the lakes closer to village to provide more effective fire mitigation.
- Host firefighter recruitment events.

Fire Department Concerns:

- Need volunteers for local fire department
- Need training to respond to wildfire and to do prescribed burns
- Many homes have diesel fuel tanks connected to them

REFERENCES

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APPENDIX D:

Community Descriptions and Hazard Ratings

Commented [EG1]: Core Team, we will add in the community assessments here for the final version, but we are keeping them separate for the review to maintain document stability.

SWCA DRAFT

SWCA
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APPENDIX E:

NFPA 1144 Form

SVVCA DRAFT

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SWCA Wildfire Risk Assessment		
Community		**Notes:**
Surveyor		
Survey Date/Time		

Means of Access	
Ingress and Egress	
2 or more roads in and out score | 0	
1 road in and out | 7	
Road Width	
> 24 ft | 0	
> 20 ft < 24 ft | 2	
< 20 ft | 4	
Road Conditions	
Surfaced road, grade < 5% | 0	
Surfaced road, grade > 5% | 2	
Non-surfaced road, grade < 5% | 2	
Non-surfaced road, grade > 5% | 5	
Other than all season | 7	
Fire Access	
< 300 ft with turnaround | 0	
> 300 ft with turnaround | 2	
< 300 ft with no turnaround | 4	
> 300 ft with no turnaround | 5	
Street Signs	
Present – reflective | 0	
Present – non-reflective | 2	
Not present | 5	
Notes:	

Vegetation (Fuel Models)	
Predominant Vegetation	
Primary Predominant Vegetation	
Non-Burnable (NB) Score | 2	
Grass (GR) Score | 5	
Grass-Shrub (GS) Score | 10	
Shrub (SH) Score | 15	
Timber-Understory (TU) Score | 20	
Timber-Litter (TL) Score | 25	
Slash-Blow (TU) Score | 30	

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Notes:	
Defensible Space	
> 100 ft around structure | 1	
> 70 ft < 100 ft around structure | 3	
> 30 ft < 70 ft around structure | 10	
< 30 ft around structure | 25	
Topography Within 300 ft of Structures	
Slope	
< 9% | 1	
10% to 20% | 4	
21% to 30% | 7	
31% to 40% | 8	
>41% | 10	
Additional Rating Factors (rate all that apply)	
Topographic features | 1-5	
History of high fire occurrence | 1-5	
Severe fire weather potential | 1-5	
Separation of adjacent structures | 1-5	
Notes:	
Roofing Assembly	
Roofing	
Class A - metal roof, clay/concrete tiles, slate, asphalt shingles | 0	
Class B - pressure treated composite shakes and shingles | 3	
Class C - untreated wood shingle, plywood, particle board | 15	
Unrated - Extremely poor roofing conditions | 25	
Notes:	
Building Construction	
Siding Materials (predominant)	
Non-combustible (brick/concrete) | 5	
Fire Resistive (stucco/adobe) | 10	
Combustible (wood or vinyl) | 12	
Deck and fencing (predominant)	
No deck or fence/non-combustible | 0	
Combustible deck and fence | 5	

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Building Set-Back	
> 30 ft to slope | 1	
< 30 ft to slope | 5	
Notes:	
Available Fire Protection	
Water Sources	
Water Source? | yes/no	
Water Source Type | hydrant, water tank, other	
Other Water Source	
Water Source Score | Hydrant = 1 Water Tank = 3	
Organized Response	
Station < 5 mi from community | 1	
Station > 5 mi from community | 3	
Notes:	
Placement of Gas and Electric Utilities	
Both underground | 0	
One above, one below | 3	
Both above ground | 5	
Values at Risk Observations	
Forest Health Observations	
Land Use Observations	
Misc Observations	

Total Score:	

Hazard Rating Scale	**<40 Low**	**>40 Moderate**	**>70 High**	**>112 Extreme**

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