E. NEW BUSINESS

1. Trout View Subdivision; KPB File 2022-127

Kenai Peninsula Borough Planning Department

Vicinity Map

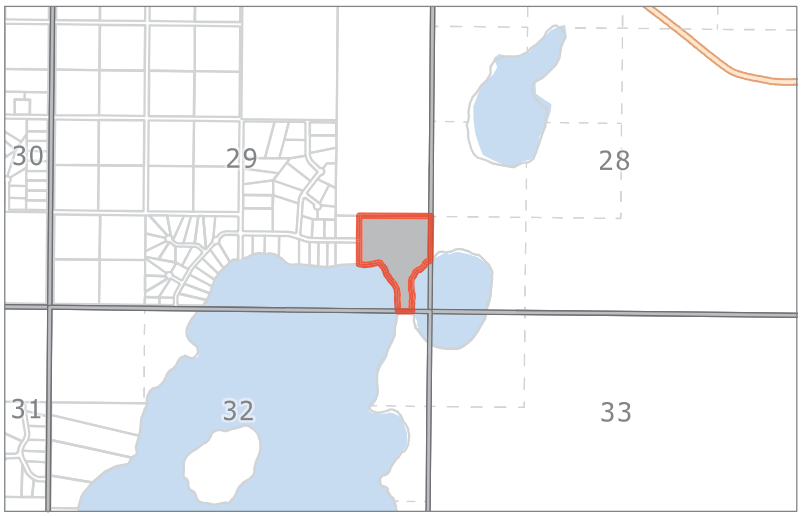
KPB File 2022-127

T 05N R 08W SEC 29

Funny River

8/26/2022

0 500 1,000 Feet



Kenai Peninsula Borough Planning Department

Aerial View

KPB 2022-127
8/26/2022

N

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE), HEREBY CERTIFY THAT I AM, (WE ARE) THE OWNER(S) OF THE REAL PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAN OF SUBDIVISION AND BY MY (OUR) FREE CONSENT DEDICATE ALL RIGHTS-OF-WAY AND PUBLIC AREAS TO PUBLIC USE AND GRANT ALL EASEMENTS TO THE USE SHOWN.

OWNER

ALASKA MENTAL HEALTH TRUST LAND OFFICE
2600 CORDOVA ST., SUITE 201
ANCHORAGE, AK 99503

AUTHORIZED OFFICAL SIGNATURE _____ DATE _____

TITLE _____ PRINTED NAME _____

NOTARY'S ACKNOWLEDGEMENT

FOR: _____

ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____ 2021.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

CERTIFICATE OF ACCEPTANCE

THE UNDERSIGNED OFFICIAL IDENTIFIED BY NAME AND TITLE IS AUTHORIZED TO ACCEPT AND HEREBY ACCEPTS ON BEHALF OF _____ 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: _____

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.

AUTHORIZED OFFICAL SIGNATURE _____ DATE _____

TITLE _____ PRINTED NAME _____

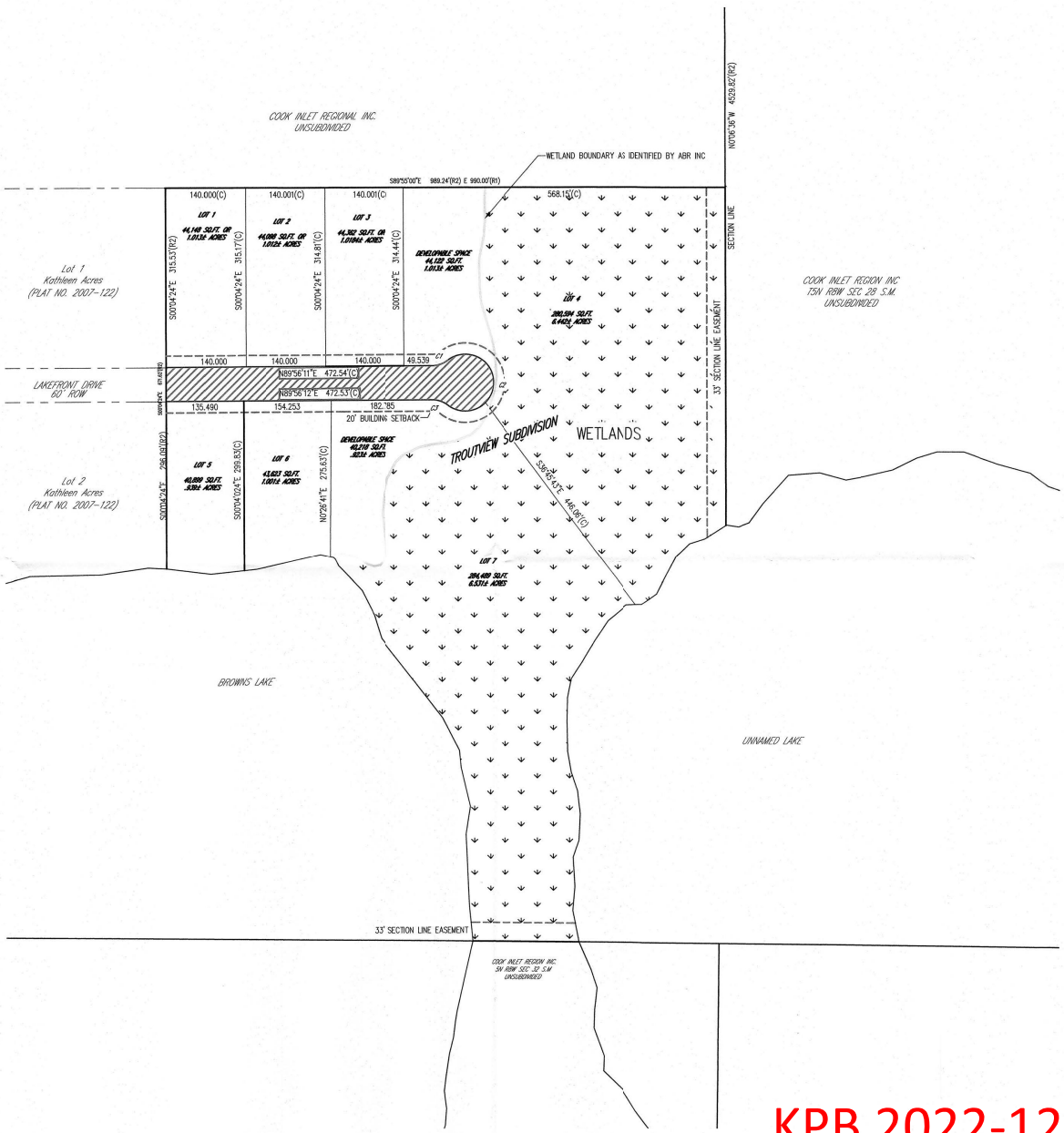
PLAT APPROVAL

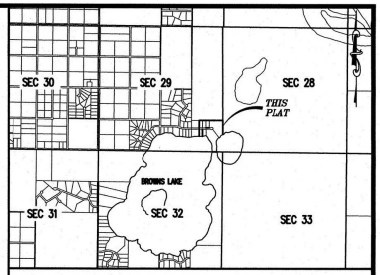
THIS PLAT WAS APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AT THE MEETING OF _____.

KENAI PENINSULA BOROUGH

AUTHORIZED OFFICAL SIGNATURE _____

CURVE TABLE					
	RADIUS	LENGTH	CHORD	DELTA	CHORD BEARING
C1	45.00'	28.23'	27.77'	35°56'20"	N 67°41'06"E
C2	50.00'	219.70'	81.03'	251°45'09"	S 0°34'48"E
C3	45.00'	28.23'	27.77'	35°56'20"	N 67°48'42"W





NOTES:

1. THIS IS A PRELIMINARY PLAT, PARCEL DIMENSIONS ARE PER RECORD PLATS. NO FIELD SURVEY HAS BEEN COMPLETED.
2. STREET RIGHT-OF-WAY WIDTHS SHOWN TO THE NEAREST FOOT REPRESENT ACTUAL DIMENSIONS TO THE NEAREST HUNDREDTH OF A FOOT (E.G. 30'=30.00').
3. RIGHT-OF-WAY DEDICATED THIS PLAT:
   A. AN EXTENSION OF THE EXISTING ROW OF WAY FOR LAKEFRONT DRIVE INTO THE EXISTING GOVERNMENT LOT 5

LEGEND

(R1) RECORD INFORMATION PER BLM PLAT T5N, R8W, S.M. AK

(R2) RECORD INFORMATION PER PLAT 2007-122

LOT LINED

EASEMENT

ADJACENT PROPERTY BOUNDARY

PROPOSED PARCEL BOUNDARY

ROW DEDICATED

WETLANDS

SURVEYOR'S CERTIFICATE

I, TAYLOR MAXWELL MOORE, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PLAT OF TROUT VIEW SUBDIVISION, LOTS 1 THROUGH 7, IS A TRUE AND CORRECT REPRESENTATION OF LANDS ACTUALLY SURVEYED AND THAT THE DISTANCES AND BEARINGS ARE SHOWN CORRECTLY AND THAT ALL PERMANENT EXTERIOR CONTROL MONUMENTS, ALL OTHER MONUMENTS, AND LOT CORNERS HAVE BEEN SET AND STAKED, OR IF FINAL COMPLETION IS ASSURED BY SUBDIVISION AGREEMENT, THEY WILL BE SET AS SPECIFIED IN SAID SUBDIVISION AGREEMENT. LOT CORNERS TO BE SET BY N/A. MONUMENTS TO BE SET BY N/A.

STATE OF ALASKA
49TH
Taylor Maxwell Moore
LS-14444
REGISTERED PROFESSIONAL LAND SURVEYOR

PRELIMINARY

Plat of:

TROUT VIEW SUBDIVISION

A SUBDIVISION OF:
GOVERNMENT LOT 5 IN SECTION 29, TOWNSHIP 5 NORTH, RANGE 8 WEST, SEWARD MERIDIAN, KENAI RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

CONTAINING 19.13 ACRES MORE OR LESS

LOCATED WITHIN: SECTION 29, TOWNSHIP 5 NORTH, RANGE 8 WEST, S.M., ALASKA,

KUNA ENGINEERING

4300 B STREET, Suite 605, Anchorage, Alaska 99503
Tele: (907) 339.6566 WWW.KUNAENG.COM

Prepared by:
KUNA Engineering
4300 B street,
Anchorage AK, 99503

Certificate of Authorization No.	
Checked: TMM	GRID: XXXX
PN:165.030321	Field Book: N/A
Date: July 11, 2022	Case No. XXXX

KPB 2022-127

AGENDA ITEM E. NEW BUSINESS

ITEM 1 – TROUT VIEW SUBDIVISION

KPB File No.	2022-127
Plat Committee Meeting:	April 24, 2023
Applicant / Owner:	Alaska Mental Health Trust Authority of Anchorage, AK
Surveyor:	Taylor Moore / Kuna Engineering
General Location:	Browns Lake Road, Funny River, Funny River APC

Parent Parcel No.:	066-321-34
Legal Description:	Government Lot 5 in Section 29, Township 5 North, Range 8 West
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

STAFF REPORT

Specific Request / Scope of Subdivision: This is an exception request for a preliminary plat that was previously granted conditional approval by the Kenai Peninsula Borough Plat Committee at the meeting of September 26, 2022. Approval or denial of this request will not void or change the outcome nor the date of the conditional approval.

EXCEPTIONS REQUESTED:

KPB 20.40.010 – Wastewater disposal

Surveyor's Discussion: The exception requested is for code 20.40.010 requiring a soils report on lots 1-7 of the Trout View Subdivision to become compliant with code 20.60.190. We request this exception with evidence below offered:

Surveyor's Findings:

1. Each lot, excluding wetland area for Lots 3 & 4, maintain at least 20,000 feet of continuous developable land, not including right of ways or easements. A copy of current development of plat will be provided with this exception for visual.
2. A wetland delineation report was provided by ABR Inc. while this is not a soils report, it is believed to provide proper data that details soil in the area. KPB has a copy of wetlands delineation report, however, a copy will be provided with this exception.
3. When walking lots during monumentation survey, it was found that vegetation is consistent across subdivision lots and neighboring subdivision "Kathleen Acres", indicating similar soil composition.
4. Neighboring subdivision "Kathleen Acres" has a record soils report in KPB database indicating wastewater systems.

Staff's Findings:

5. KPB Code 20.40.010 requires:
   A. All lots within a proposed subdivision in the Kenai Peninsula Borough must meet the following applicable standards of this chapter for wastewater disposal.
   B. This chapter is not applicable to a subdivision proposed under 43 U.S.C. 1613(c) before subdividing, platting or disposition under that act. A person proposing to subdivide land after transfer under that act must comply with the provisions of this chapter.
   C. Subdivision plans for a no-water carried method of wastewater disposal must conform to the provisions of KPB 20.40.080.
   D. Subdivision plans with a holding tank method of wastewater disposal are prohibited.

6. Per the supplied wetlands delineation report, water table appeared to rise across the developed area of the subdivision.
7. Per the soils report for Kathleen Acres, water table was located at 12 feet depth.
8. Per the wetland delineation report, water was located near 15 and 19 inches at the eastern edge of the development area of the plat at holes 6 and 8.
9. Setback from a lake is 100' from an absorption field.
10. Setback from a well is 100' from an absorption field.
11. Soils report is an indicator of subsoil conditions.

If the exception is denied, a soils analysis and report will be required for review and approval and an engineer will need to sign the plat.

Staff reviewed the exception request and recommends granting denial based on findings 5-11.

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;

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;

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.

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

RECOMMENDATION:

STAFF RECOMMENDS:

- **REVIEW THE EXCPETION REQUESTED FOR THE CONDITIONALLY APPROVED PRELIMINARY PLAT, 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

WETLAND DELINEATION AND PROPOSED JURISDICTIONAL DETERMINATION FOR PROPOSED LAKEFRONT DRIVE EXTENSION AND SUBDIVISION, KENAI PENINSULA BOROUGH, ALASKA

Draft Report

Prepared for

Kuna Engineering
4300 B Street, Suite 605
Anchorage, AK 99503

Prepared by

ABR, Inc.—Environmental Research & Services
P.O. Box 240268
Anchorage, AK 99524

July 2021

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INTRODUCTION

Kuna Engineering (Kuna), on behalf of the Alaska Mental Health Trust Authority (AMHTA) requested that ABR, Inc.—Environmental Research & Services (ABR) perform a fine-scale wetland delineation on a portion of parcel number 06632134 in the Kenai Peninsula Borough near Sterling, Alaska. The goal of the project is to design the extension of Lakefront Drive and the housing subdivision so that all construction takes place on non-jurisdictional uplands within the parcel. The project is in the design phase and seeks to completely avoid impacts to wetlands on the property by planning around a fine-scale wetland boundary, to be delineated in this study based on field survey data and satellite photo-interpretation.

Existing, but coarse-scale, wetlands mapping for the parcel (Gracz 2017) indicates that the higher elevation western portion of the parcel is uplands and the lower elevation eastern portion of the parcel is wetlands. In this study, field efforts were focused on documenting the boundary between wetlands and uplands wthin the study area using paired plots. This delineation is suitable for supporting wetland permitting under Section 404 of the Clean Water Act (CWA) and includes an assessment of the proposed jurisdictional status of wetlands and waters identified at the site.

STUDY AREA

The study area comprises the northwestern portion of parcel number 06632134 (Figure 1), located near Sterling, Alaska within the Kenai Peninsula Borough (KPB). The area mapped for wetlands (10.5 acres) is bounded by Browns Lake to the south, privately owned parcels to the west, a Cook Inlet Native Corporation, Inc. (CIRI) owned parcel to the north, and the remainder of parcel number 06632134 to the east (KPB 2020). The study area is centered at latitude 60.4905 and longitude -150.7102 (NAD83 projection), within Section 29 of Range 8W, in Township 5N, Seward Meridian.

The parcel is undeveloped and dominated by mature spruce forest. The western and central portions of the study area are mapped as non-wetlands by Gracz (2017); soils in this area are mapped as Naptowne silt loam, 4 to 8 percent slopes, by the USDA NRCS (2021). Naptown silt loam is described as a non-hydric soil with small inclusions of hydric soils in depressions and till plains. Throughtout the eastern portion of the study area, Gracz (2017) maps a combination of kettle and drainage wetlands, and the USDA NRCS (2021) maps a combination of the hydric soils Kalifonsky silt loam, 0 to 4 percent slopes and Starichkof peat, 0 to 4 percent slopes.

METHODS

DATA SOURCES

The following data sources were used to facilitate the wetland field survey and mapping efforts:

- High-resolution satellite imagery (WorldView02, 0.5-meter resolution, acquired 25 June 2019).
- Interferometric Synthetic Aperture Radar (IFSAR) digital elevation model (DEM) (USGS 2019a), 5-meter resolution
- Gracz (2017) wetland ecosystems map
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping (USFWS 2021); mapping for the Kenai B-2 quadrangle was conducted at a scale of 1:120,000 using imagery from July 1977.
- National Hydrography Dataset (NHD) lines and polygons (USGS 2019b).
- Web Soil Survey database (USDA NRCS 2021).

FIELD SURVEY

During the field survey, we sampled a set of wetland determination plots representative of the wetland and upland photo-signatures visible on the satellite imagery for the study area. Wetland determination plots were sampled following the U.S. Army Corps of Engineers (USACE) 3-parameter approach for defining wetlands (Environmental Laboratory 1987) and the methodology described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (USACE 2007). At each wetland determination plot, we recorded the USACE-required data to determine the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. The absolute cover of each vascular plant species within a 10-m radius at each plot was visually estimated and the presence of hydrophytic vegetation was determined using the Dominance Test (ratio of wetland versus upland dominant plants) and/or the Prevalence Index (weighted average of all species present) using the wetland indicator status per the 2018 National Wetland Plant List v.3.4: Alaska (USACE 2018). Plot dimensions were modified to linear oblong areas when sampling along small drainages so as to properly characterize the plant communities in those areas. Photographs of the sample plot area, the ground surface and vegetation present, and the soil profile from the soil pit were taken at each plot, and GPS location coordinates were also recorded. In addition to wetland determination plots, we also sampled map verification plots, at which a subset of wetland data were collected to verify the wetland or upland status for photo-signatures that had been previously sampled with full wetland determination plots. All field data were recorded on customized, ABR-prepared apps, running on Android tablet computers. Navigation at the site was done using ArcGIS

Collector (accessed through ArcGIS online), which allowed real-time depictions of plot locations in the field over the same satellite imagery used in the wetland mapping. Upon completion of field work, the data were uploaded to a wetland-specific relational database maintained on ABR servers, and were subjected to a set of sequential data QA/QC procedures to ensure their accuracy before being used to prepare the wetland map for the project. The ABR wetland database facilitates preparation of the required wetland data forms for each wetland determination plot following USACE guidelines (USACE 2007). Wetland data forms and representative photos are included in Appendices A and B.

WETLAND CLASSIFICATION AND MAPPING

Wetland boundaries were identified in the field and were then delineated on-screen using ArcGIS software overlaid on the imagery for the parcel study area. As noted above, the primary imagery used for mapping was high-resolution (0.5-meter pixel resolution) satellite imagery obtained 25 June 2019 and available as part of ESRI's World Imagery basemap.

Wetland boundaries were identified using the field ground-reference data collected for this project in combination with the interpretation of satellite photo-signatures and the assessment of ancillary GIS data layers (see Data Sources above). Wetland types were mapped at a scale of 1:1,000 and each mapped polygon was assigned a wetland type using NWI notation (FGDC 2013), which is the approach typically used by the U.S. Fish and Wildlife Service's NWI program (Dahl et al. 2015). Each mapped polygon was also assigned a hydrogeomorphic class (USDA NRCS 2008).

ESTABLISHING JURISDICTIONAL STATUS

Wetlands and waters within the study area were assessed to determine if they met the definition of a water of the U.S., subject to jurisdiction under Section 404 of the CWA, and/or a navigable water of the U.S., subject to jurisdiction under Section 10 of the Rivers and Harbors Act. The Navigable Waters Protection Rule (NWPR, Clean Water Act 33 CFR Part 328), which recently came into effect, clarifies the scope of jurisdictional waters of the U.S. in light of 3 U.S. Supreme Court cases: *U.S. v. Riverside Bayview Homes* (Bayview), *Solid Waste Agency of Northern Cook County v. U.S.* (SWANCC), and *Rapanos v. U.S.* (Rapanos).

Under the new NWPR, jurisdiction is applied to 4 categories of waters of the U.S.: (a)(1) the territorial seas and traditional navigable waters (TNW)s; (a)(2) perennial and intermittent tributaries to those waters; (a)(3) certain lakes, ponds, and impoundments; and (a)(4) adjacent wetlands as defined by 33 CFR Parts 328 and 120—Definition of Waters of the United States. The new NWPR also defines 12 categories non-jurisdictional waters, (b)(1) through (b)(12), which are exempt from regulation under Section 404 of the Clean Water Act.

To classify wetlands and waters within the study area into jurisdictional or non-jurisdictional categories and to establish connectivity to TNWs, the EPA Training and Implementation Materials were also consulted (EPA 2020). TNWs are defined as "all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide" [33 C.F.R. Section 328 3(a)]. In this study, the USACE navigable waters list (USACE 2021) was used to determine navigability.

RESULTS AND DISCUSSION

FIELD SURVEYS AND HYDROLOGICAL CONDITIONS

Field surveys were conducted 11 June 2021 by Wendy Davis and Sue Ives of ABR. Standard USACE 3-parameter wetland determinations were completed at 10 field plots; 5 were classified as uplands and 5 were classified as wetlands (Figure 2, Appendix A). In addition, a map verification plot was completed at 1 location (Figure 2, Appendix B). GPS accuracy ranged from 1 to 4 meters, with a median accuracy of 1 meter. Characteristics of each mapped wetland and water are listed in Appendix C, including the NWI code, HGM class, jurisdictional status, size (acres), and centroid latitude and longitude of each map polygon.

The meteorological station nearest to the study area with both long-term averages and daily precipitation values for the current season is the Kenai Airport station located approximately 19 miles from the study area (see Arguez et al. [2012] and Menne et al. [2012]). Compared to long-term averages for the Kenai Airport, April 2021 was cooler and drier than normal (Table 1). While May and June had temperatures closer to normal, precipitation remained well below normal.

To place the hydrological conditions in the study area at the time of sampling in early June 2021 in context, we performed a precipitation analysis similar to the USACE's Antecedent Precipitation Tool (APT), which involves summarizing precipitation data from the nearest meteorological stations and filling any missing records with data from the next nearest station. Current-year 30-day rolling precipitation sums were compared with 30 years of 30-day rolling precipitation sums at the 30th and 70th percentiles, which are interpreted as normal conditions by the Navigable Waters Protection Rule (Figure 3). As noted above, the nearest station to the study area with both long-term and current-year precipitation data is the Kenai Airport, and this station provides 99% of the data for the APT with the remaining data coming from the meteorological station Soldotna 5SSW. Figure 3 suggests that conditions were drier than normal during the field visit on 11 June 2021. Because all wetland plots had both hydric soil indicators and multiple primary indicators of wetland hydrology, and all upland plots consistently lacked both hydric soil

indicators and wetland hydrology indicators, drier than normal conditions are not believed to have influenced the results of the field survey.

WETLAND CLASSIFICATION AND MAPPING

WATERS

Lacustrine Littoral Semipermanently Flooded Nonpersistent Emergent (L2EM2F) waters were documented along the southern edge of the study area, in the littoral zone of Browns Lake (Figure 2). Encompassing 0.1 acres (1.1% of the study area, Table 2), L2EM2F waters are characterized by the wetland determination plot lf_09 (see Appendix A); these waters are dominated by the herb *Menyanthes trifoliata* (buck-bean, OBL) on a floating mat of *Sphagnum* mosses. At the time of sampling, the top of the floating *Sphagnum* mat was level with the surface of the water, and the plot met the primary wetland hydrology indicators High Water Table (A2) and Saturation (A3), and the secondary wetland hydrology indicators Geomorphic Position (D2) and FAC-Neutral Test (D5). Soils were assumed to be hydric based on the lacustrine fringe landscape position and the floating mat of *Sphagnum* mosses.

WETLANDS

Palustrine Seasonally Saturated Broad-leaved/Needle-leaved Evergreen Scrub-Shrub (PSS3/4B) wetlands were documented throughout the eastern half of the study area (Figure 2). Encompassing 2.6 acres (24.4% of the study area, Table 2), PSS3/4B wetlands are characterized by the wetland determination plots lf_02, lf_04, lf_07, and lf_10 (Appendix A), and the map verification plot lf_05 (Appendix B). The PSS3/4B wetlands in the study area are dominated by *Picea mariana* (black spruce, FACW) trees and saplings; the shrubs *Rhododendron groenlandicum* (rusty Labrador tea, FAC), *Empetrum nigrum* (black crowberry, FAC), *Vaccinium uliginosum* (alpine blueberry, FAC), and *V. vitis-idaea* (northern mountain cranberry, FAC); and the herbs *Equisetum arvense* (field horsetail, FAC) and *Rubus chamaemorus* (cloudberry, FACW). The PSS3/4B wetlands typically had thick surface organic layers, meeting hydric soil indicators Histosol or Histel (A1) and/or Histic Epipedon (A2). Soils were saturated at or near the surface, with all plots in PSS3/4B wetlands meeting the wetland hydrology indicators High Water Table (A2) and Saturation (A3).

UPLANDS

The remaining 7.8 acres (74.5%) of the study area were mapped as Uplands (non-wetland, U; Figure 2). Uplands in the study area are undeveloped black spruce woodlands and open to closed-canopy black spruce forests on level to gently sloping terrain. As characterized by plots lf_01, lf_03, lf_06, lf_08, and lf_11 (Appendx A), vegetation in these Uplands is dominated by

P. mariana trees and saplings; and *Linnaea borealis* (American twinflower, FACU), *R. groenlandicum* (FAC), and *V. vitis-idaea* (FAC) shrubs. A sparse herbaceous component is present at all upland plots, never exceeding a total of 5% cover. Because of this, no herbaceous species were considered dominant per USACE (2007) guidelines. Upland soils generally matched the typical profile for a Naptowne silt loam, with shallow surface organics and thin, leached (E) and deposition (B) horizons above silt loam, and very gravelly, fine sandy loams beginning around 20 inches below the ground surface. No hydric soil indicators were observed, and only the secondary wetland hydrology indicator FAC-Neutral Test (D5) was observed.

JURISDICTIONAL STATUS

The study area is in the Outlet Funny River subwatershed (HUC 190203021704, USGS 2019b). The nearest TNW to the study area is the Kenai River (Figure 1), which is navigable for its entire length (USACE 2021) and is located 2.1 straight-line miles from the study area. Study area wetlands abut Browns Lake (Figure 1). Both USGS topographic maps and NHD data (USGS 2019b) identify an unnamed perennial stream beginning at an outlet on the southern shore of Browns Lake, leading through an extensive peatland complex to the south and eventually draining into Funny River. This unnamed stream is not visible in the satellite imagery until about 0.8 river mile upstream of its confluence with Funny River, but where the channel is not visible, extensive wetlands are mapped both by Gracz (2017) and NWI (2021). Thus, the study area wetlands connect to Funny River, a tributary to the Kenai River, through a combination of surface water connections (Browns Lake and the unnamed tributary to Funny River) and wetlands abutting these waters. Because of these connections, all study area wetlands and waters are proposed to be jurisdictional category (a)(4) wetlands adjacent to Traditional Navigable Waters.

SUMMARY OF FINDINGS

The findings of this study confirm the presence of wetlands in the eastern portion of the study area as previously mapped by Gracz (2017), but refine the boundary location through a series of paired plots. Wetlands within the study area connect to the Kenai River, a TNW, through a combination of surface water connections (Browns Lake, unnamed tributary to Funny River, and Funny River) and wetlands abutting these waters. Because of these connections, we believe that wetlands in the study area are jurisdictional as category (a)(4) wetlands adjacent to Traditional Navigable Waters. This report and wetlands mapping is sufficient to obtain an Approved Jurisdictional Determination from the USACE, which will formally establish the jurisdictional wetland boundaries on the property.

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Table 1. Monthly mean (April 1–May 26, 2021) and long-term normal (1991–2020) values for air temperature (°C) and total monthly precipitation (mm) for the Anchorage Forecast Office weather station, Anchorage, AK (station id USC00500275).

	Temperature (°C)			Precipitation (mm)			
Month	1991–2020	2021	Difference from Normal	1991–2020	2021	% of Normal	n
April	2.1	0.1	-2.0	13.2	2.5	18.7	28
May	7.5	7.2	-0.3	20.1	13.8	68.7	31
June	10.3	10.3	-0.1	15.0	4.8	32.2	16

Table 2. Areal extent (acres and percent of study area) of waters, wetlands, and uplands in the Lakefront Drive, Wasilla, Alaska, 2021.

NWI_Code	NWI Descriptions	Area (Acres)	% of Study Area
Waters			
L2EM2F	Lacustrine Littoral Semipermanently Flooded Nonpersistent Emergent	0.1	1.1
	Total Waters:	0.1	1.1
Wetlands			
PSS3/4B	Palustrine Seasonally Saturated Broad-leaved/Needle-leaved Evergreen Scrub-Shrub	2.6	24.4
	Total Wetlands	2.6	24.4
Uplands			
U	Upland	7.8	74.5
	Total Uplands	7.8	74.5
Grand Total		10.5	100.0

Study Area

Parcels[1]

NHD Streams[2]

Background image accessed from ESRI Online: World-View02, June 25, 2019 with a 0.5 m spatial resolution ; Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Copyright © 2013 National Geographic Society, i-cubed mxd, 24 Jun 2021

[1] Parcel boundaries from the Kenai Peninsula Borough Accessed Sept 8, 2020 at: https://www.kpb.us/gis-dept/kpb-data-downloads/cadastre

[2] U.S. Geological Survey, 2019, National Hydrography Dataset (ver. USGS National Hydrography Dataset High Resolution (NHD) for Hydrologic Unit (HU) 10 – City of Anchorage-Frontal Cook Inlet (1902040108), accessed August 14, 2019 at URL https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products

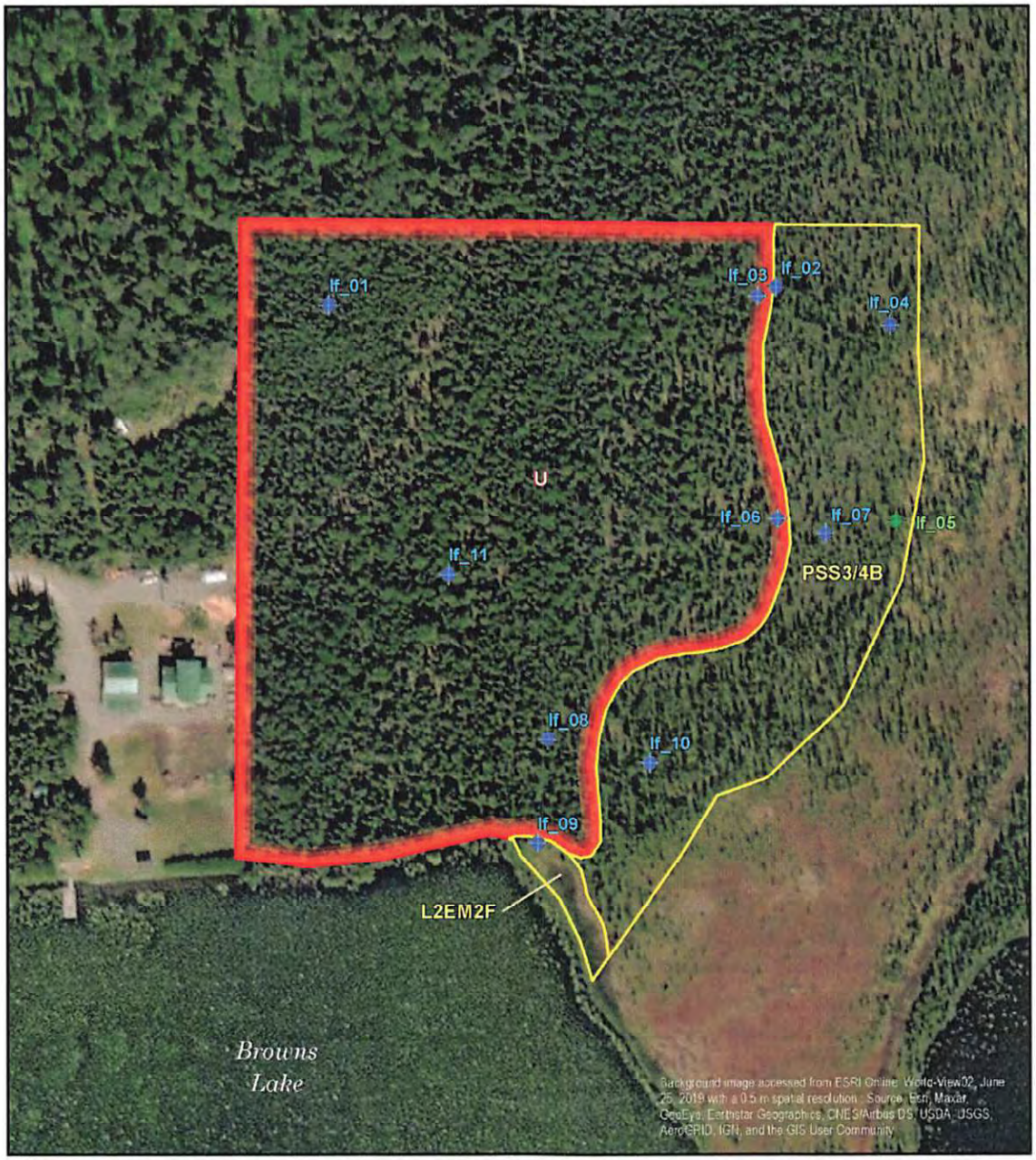
0 100 200 300 400 Meters

0 500 1,000 1,500 Feet

Figure 1.
Lakefront Drive Wetlands Study Area, Alaska, 2021.
(Centroid: -150.7102, 60.4905)

map prepared by:
ABR, Inc. — Environmental Research & Services

project proponent:
Kuna Engineering



NWI Code[1]	NWI Description
Waters	
L2EM2F	Lacustrine Littoral Semipermanently Flooded Nonpersistent Emergent
Wetlands	
PSS3/4B	Palustrine Seasonally Saturated Broad-leaved/Needle-leaved Evergreen Scrub-Shrub
Uplands	
U	Upland

[1] National Wetland Inventory (NWI) nomenclature based on FGDC 2013.

Wetland
Upland
Map Verification Plot
Wetland Determination Plot

0 10 20 30 40 Meters
0 50 100 150 Feet

Figure 2.
Wetlands and Waters of the Lakefront Drive Wetlands Study Area, Alaska, 2021.

map prepared by:
ABR, Inc. — Environmental Research & Services

23 June 2021 | Fig2_Lakefront_Wetlands_21-254.mxd

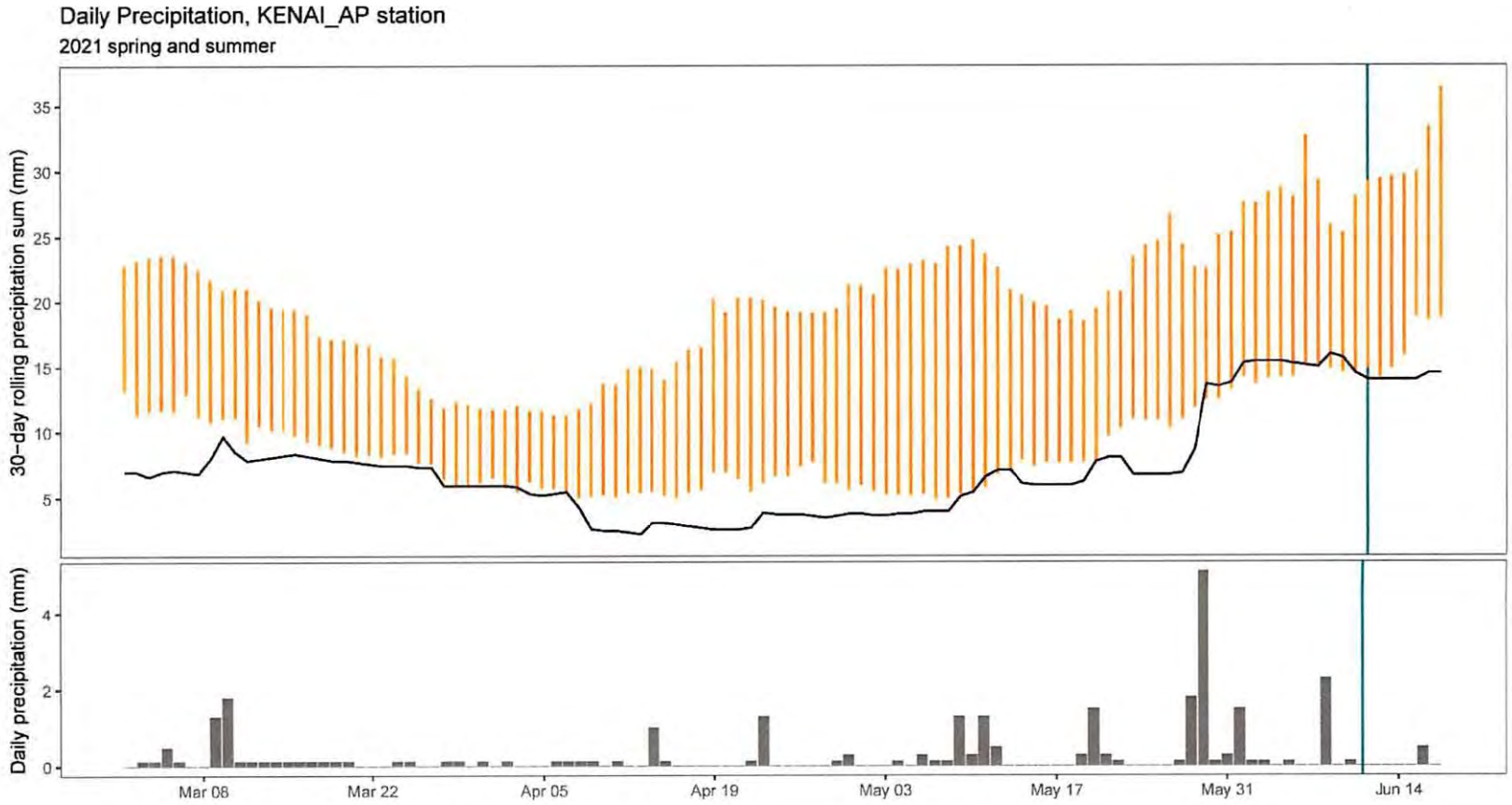


Figure 3. Antecedent Precipitation for the Lakefront Drive wetlands study area, Alaska, 2021.

Appendix A. Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands Borough/City: Sterling Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering Sampling Point: lf_01
Investigator(s): SLI, WAD Landform (hillside, terrace, hummocks, etc.): Undifferentiated Slope
Local relief (concave, convex, none): ____ Slope: 8.7 % / 5.0 ° Elevation: 351
Subregion: Cook Inlet Lowlands Lat.: 60.4912 Long.: -150.7115 Datum: WGS84
Soil Map Unit Name: ____ NWI classification: U
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks: Upper corner of property, closed black spruce.

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	75.0	✓	FACW
	Total Cover:	75.0		
	50% of total cover: 37.5		20% of total cover: 15.0	
	Sapling/Shrub Stratum			
1.	Vaccinium vitis-idaea	10.0	✓	FAC
2.	Linnaea borealis	5.0	✓	FACU
3.	Betula kenaica	2.0		FACU
	Total Cover:	17.0		
	50% of total cover: 8.5		20% of total cover: 3.4	
	Herb Stratum			
1.	Cornus suecica	1.0		FAC
	Total Cover:	1.0		
	50% of total cover: 0.5		20% of total cover: 0.2	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	75.0	× 2 =	150.0
FAC Species	11.0	× 3 =	33.0
FACU Species	7.0	× 4 =	28.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	93.0	(A)	211.0 (B)

Prevalence Index = B/A = 2.269

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	0.0
% Bare Ground	0.0
Total Cover of Bryophytes	85.0

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: Closed black spruce forest

SOIL

Sampling Point: lf_01

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-5	/	100	/		A		hemic		
5-8	2.5y 5/2	100	/		A		silt loam		
8-9	10yr 3/6	100	/		A		silt loam		
9-20	2.5y 4/4	100	/		A		silt loam		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes ___ No ✓

Remarks: Incipient spodosol, no hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches):

Water Table Present? Yes ___ No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches):

Wetland Hydrology Present? Yes ___ No ✓

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: No hydrology indicators

Sampling Point: lf_01
NWI classification: U

Hydric Soil Indicators: None
Wetland Hydrology Indicators: None

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands | Borough/City: Sterling | Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering | Sampling Point: lf_02
Investigator(s): WAD, SLI | Landform (hillside, terrace, hummocks, etc.): Toeslope
Local relief (concave, convex, none): none | Slope: 1.7 % / 1.0 ° | Elevation: 333
Subregion: Cook Inlet Lowlands | Lat.: 60.4912 | Long.: -150.7089 | Datum: WGS84
Soil Map Unit Name: | NWI classification: PSS3/4B
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Close to wetland/upland boundary, toeslope landscape position

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	20.0	✓	FACW
	Total Cover:	20.0		
	50% of total cover: 10.0		20% of total cover: 4.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	55.0	✓	FAC
2.	Vaccinium vitis-idaea	45.0	✓	FAC
3.	Picea mariana	10.0	___	FACW
4.	Salix pulchra	10.0	___	FACW
5.	Vaccinium uliginosum	2.0	___	FAC
	Total Cover:	122.0		
	50% of total cover: 61.0		20% of total cover: 24.4	
	Herb Stratum			
1.	Rubus chamaemorus	2.0	___	FACW
2.	Equisetum arvense	1.0	___	FAC
	Total Cover:	3.0		
	50% of total cover: 1.5		20% of total cover: 0.6	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across all Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	42.0	× 2 =	84.0
FAC Species	103.0	× 3 =	309.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	145.0 (A)		393.0 (B)

Prevalence Index = B/A = 2.710

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	35.0
% Bare Ground	___
Total Cover of Bryophytes	75.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Sphagnum appearing

SOIL

Sampling Point: lf_02

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-2	/	100	/		A		peat		
2-10	/	100	/		A		mucky peat		
10-16	/	100	/		A		sapric	ext. cobbly	Subrounded coarse gravels to cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ✓ Histosol or Histel (A1)
- ✓ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes ✓ No ___

Remarks: Dug soil pit in micro low

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✓ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	___	No	✓	Depth (inches):
Water Table Present?	Yes	✓	No	___	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No ___

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks:

Sampling Point: lf_02
NWI classification: PSS3/4B

Hydric Soil Indicators: Histic Epipedon (A2), Histosol or Histel (A1)
Wetland Hydrology Indicators: Saturation (A3), High Water Table (A2), FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands Borough/City: Sterling Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering Sampling Point: lf_03
Investigator(s): SLI, WAD Landform (hillside, terrace, hummocks, etc.): Toeslope
Local relief (concave, convex, none): none Slope: 1.7 % / 1.0 ° Elevation: 325
Subregion: Cook Inlet Lowlands Lat.: 60.4912 Long.: -150.7090 Datum: WGS84
Soil Map Unit Name: NWI classification: U
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	

Remarks: Transitional site slightly upslope of wetland at lf_02. Salpul no longer present

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	5.0	___	FACW
	Total Cover:	5.0		
	50% of total cover: 2.5		20% of total cover: 1.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	75.0	✓	FAC
2.	Vaccinium vitis-idaea	30.0	✓	FAC
3.	Picea mariana	20.0	___	FACW
4.	Vaccinium uliginosum	5.0	___	FAC
5.	Empetrum nigrum	3.0	___	FAC
6.	Salix pulchra	1.0	___	FACW
	Total Cover:	134.0		
	50% of total cover: 67.0		20% of total cover: 26.8	
	Herb Stratum			
1.	Orthilia secunda	1.0	___	FACU
2.	Equisetum arvense	1.0	___	FAC
	Total Cover:	2.0		
	50% of total cover: 1.0		20% of total cover: 0.4	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	26.0	× 2 =	52.0
FAC Species	114.0	× 3 =	342.0
FACU Species	1.0	× 4 =	4.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	141.0 (A)		398.0 (B)

Prevalence Index = B/A = 2.823

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)
% Cover of Wetland Bryophytes (Where applicable) 0.0
% Bare Ground 0.0
Total Cover of Bryophytes 40.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Mix of shrub and tree sized picmar, salpul mostly drops out of species list, no sphagnum

SOIL

Sampling Point: lf_03

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-4	/	100	/		A		fibric		
4-10	10yr 3/3	100	/		A		loam	v. cobbly	Subangular coarse gravels to cobbles
10-19	2.5y 4/2	100	/		A		fine sandy loam	ext. cobbly	Subangular coarse gravels to cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes ___ No ✓

Remarks: Soil pit dug in a micro low, no hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches):	
Water Table Present?	Yes ___	No ✓	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):	

Wetland Hydrology Present? Yes ___ No ✓

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: Saturated layer at 14 to 16 inches underlain by a drier layer suggestive of percolating water from precip, no restrictive layer observed.

Sampling Point: lf_03
NWI classification: U

Hydric Soil Indicators: None
Wetland Hydrology Indicators: None

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands | Borough/City: Sterling | Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering | Sampling Point: lf_04
Investigator(s): SLI, WAD | Landform (hillside, terrace, hummocks, etc.):
Local relief (concave, convex, none): convex | Slope: 0.0 % / 0.0 ° | Elevation: 313
Subregion: Cook Inlet Lowlands | Lat.: 60.4911 | Long.: -150.7083 | Datum: WGS84
Soil Map Unit Name: | NWI classification: PSS3/4B
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Plot located on outer boundary of mapping area, slightly raised convex feature

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	5.0	___	FACW
	Total Cover:	5.0		
	50% of total cover: 2.5		20% of total cover: 1.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	40.0	✓	FAC
2.	Vaccinium uliginosum	30.0	✓	FAC
3.	Picea mariana	20.0	___	FACW
4.	Vaccinium vitis-idaea	15.0	___	FAC
5.	Empetrum nigrum	5.0	___	FAC
6.	Betula glandulosa	2.0	___	FAC
	Total Cover:	112.0		
	50% of total cover: 56.0		20% of total cover: 22.4	
	Herb Stratum			
1.	Rubus chamaemorus	5.0	___	FACW
	Total Cover:	5.0		
	50% of total cover: 2.5		20% of total cover: 1.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	30.0	× 2 =	60.0
FAC Species	92.0	× 3 =	276.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	122.0 (A)		336.0 (B)

Prevalence Index = B/A = 2.754

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	35.0
% Bare Ground	0.0
Total Cover of Bryophytes	45.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Fewer willows but significant sphagnum cover

SOIL

Sampling Point: lf_04

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-3	/	100	/		A		peat		
3-10	/	100	/		A		mucky peat		
10-16	/	100	/		A		muck	ext. cobbly	Subangular cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ✓ Histosol or Histel (A1)
- ✓ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	___	No	✓	Depth (inches):
Water Table Present?	Yes	✓	No	___	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): 3

Wetland Hydrology Present? Yes ✓ No ___

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks:

Sampling Point: lf_04
NWI classification: PSS3/4B

Hydric Soil Indicators: Histosol or Histel (A1), Histic Epipedon (A2)
Wetland Hydrology Indicators: Saturation (A3), High Water Table (A2)

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands | Borough/City: Sterling | Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering | Sampling Point: lf_06
Investigator(s): SLI, WAD | Landform (hillside, terrace, hummocks, etc.): Undifferentiated Slope
Local relief (concave, convex, none): none | Slope: 3.5 % / 2.0 ° | Elevation: 319
Subregion: Cook Inlet Lowlands | Lat.: 60.4906 | Long.: -150.7089 | Datum: WGS84
Soil Map Unit Name: | NWI classification: U
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	

Remarks: Transitional plot at base of slope, some upland species recruitment, no sphagnum

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	5.0		FACW
	Total Cover:	5.0		
	50% of total cover: 2.5		20% of total cover: 1.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	45.0	✓	FAC
2.	Vaccinium vitis-idaea	25.0	✓	FAC
3.	Picea mariana	15.0		FACW
4.	Vaccinium uliginosum	5.0		FAC
5.	Salix scouleriana	2.0		FAC
6.	Betula kenaica	1.0		FACU
7.	Populus tremuloides	1.0		FACU
	Total Cover:	94.0		
	50% of total cover: 47.0		20% of total cover: 18.8	
	Herb Stratum			
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	20.0	× 2 =	40.0
FAC Species	77.0	× 3 =	231.0
FACU Species	2.0	× 4 =	8.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	99.0 (A)		279.0 (B)

Prevalence Index = B/A = 2.818

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	0.0
% Bare Ground	0.0
Total Cover of Bryophytes	45.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Poptre sapling recruit

SOIL

Sampling Point: lf_06

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-5		/	100	/		A		hemic		
5-7	10yr	3/4	100	/		A		loam		
7-8	Variegated	/	100	/		A		sand		
8-15	5y	5/2	100	/		A		sandy clay loam	v. gravelly	Nodules, subangular gravels to cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes ___ No ✓

Remarks: No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches):

Water Table Present? Yes ___ No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches):

Wetland Hydrology Present? Yes ___ No ✓

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: Saturated layer at the top of the mineral layer (5 inches) weeping water into pit but underlaying layers are dry with no restrictive layer suggesting precip driven feature

Sampling Point: lf_06
NWI classification: U

Hydric Soil Indicators: None
Wetland Hydrology Indicators: None

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands Borough/City: Sterling Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering Sampling Point: lf_07
Investigator(s): WAD, SLI Landform (hillside, terrace, hummocks, etc.): Toeslope
Local relief (concave, convex, none): none Slope: 1.7 % / 1.0 ° Elevation: 323
Subregion: Cook Inlet Lowlands Lat.: 60.4905 Long.: -150.7086 Datum: WGS84
Soil Map Unit Name: NWI classification: PSS3/4B
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✓
Are Vegetation ___, Soil ✓, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Paired plot with 06 exactly on boundary based on problematic soils.

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	5.0	___	FACW
	Total Cover:	5.0		
	50% of total cover: 2.5		20% of total cover: 1.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	55.0	✓	FAC
2.	Empetrum nigrum	45.0	✓	FAC
3.	Picea mariana	20.0	___	FACW
4.	Vaccinium vitis-idaea	10.0	___	FAC
5.	Vaccinium uliginosum	5.0	___	FAC
	Total Cover:	135.0		
	50% of total cover: 67.5		20% of total cover: 27.0	
	Herb Stratum			
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	25.0	× 2 =	50.0
FAC Species	115.0	× 3 =	345.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	140.0 (A)		395.0 (B)

Prevalence Index = B/A = 2.821

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	25.0
% Bare Ground	0.0
Total Cover of Bryophytes	50.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Significant sphagnum cover

SOIL

Sampling Point: lf_07

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-3	/	100	/		A		peat		
3-6	/	100	/		A		mucky peat		
6-9	/	100	/		A		muck		Frozen
9-16	2.5y 3/3	100	/		A		silt loam	gravelly	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ✓ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Seasonal Frost

Depth (inches): 6

Hydric Soil Present? Yes ✓ No ___

Remarks: Ice rich frost layer at organic mineral interface. Frozen from 6 to 9. Soils do not meet low chroma criteria for histic epipedon or any other hydric soil indicator, negative rxn to alpha, alpha-dipyridol. Site has very strong hydro and veg indictors. Assume that pit was dug exactly on the wetland boundary.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches):		
Water Table Present?	Yes ✓	No ___	Depth (inches):	9	
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches):	9	

Wetland Hydrology Present? Yes ✓ No ___

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: seasonal frost from 6-9, but don't believe it's persistent enough or widespread enough to meet the intent of D3.

Sampling Point: lf_07
NWI classification: PSS3/4B

Hydric Soil Indicators: Other (explain in remarks)
Wetland Hydrology Indicators: High Water Table (A2), Saturation (A3)

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands | Borough/City: Sterling | Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering | Sampling Point: lf_08
Investigator(s): SLI, WAD | Landform (hillside, terrace, hummocks, etc.): Toeslope
Local relief (concave, convex, none): none | Slope: 0.0 % / 0.0 ° | Elevation: 328
Subregion: Cook Inlet Lowlands | Lat.: 60.4899 | Long.: -150.7102 | Datum: WGS84
Soil Map Unit Name: | NWI classification: U
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	

Remarks: Black spruce forest at border of the lake, lack of clear vegetation boundary, ambiguous photo signature

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	10.0	✓	FACW
	Total Cover:	10.0		
	50% of total cover: 5.0		20% of total cover: 2.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	30.0	✓	FAC
2.	Vaccinium vitis-idaea	25.0	✓	FAC
3.	Picea mariana	15.0		FACW
4.	Empetrum nigrum	5.0		FAC
5.	Salix bebbiana	2.0		FAC
	Total Cover:	77.0		
	50% of total cover: 38.5		20% of total cover: 15.4	
	Herb Stratum			
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across all Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	25.0	× 2 =	50.0
FAC Species	62.0	× 3 =	186.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	87.0	(A)	236.0 (B)

Prevalence Index = B/A = 2.713

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)
% Cover of Wetland Bryophytes (Where applicable) 35.0
% Bare Ground 0.0
Total Cover of Bryophytes 65.0
Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Dense picmar forest, small sphagnum patches

SOIL

Sampling Point: If_08

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-3	___ / ___	100	___ / ___	___	A	___	fibric	___	
3-7	___ / ___	100	___ / ___	___	A	___	hemic	___	
7-16	2.5y 4/3	70	10yr 3/6	30	C	PL	loam	___	
16-20	5y 4/2	25	2.5y 4/4	5	C	PL	fine sandy loam	gravelly	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: None
Depth (inches):

Hydric Soil Present? Yes ___ No ✓

Remarks: No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
✓ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches):
Water Table Present? Yes ___ No ✓ Depth (inches):
Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 19

Wetland Hydrology Present? Yes ___ No ✓

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: No primary indacators saturated below 12

Sampling Point: lf_08
NWI classification: U

Hydric Soil Indicators: None
Wetland Hydrology Indicators: FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands | Borough/City: Sterling | Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering | Sampling Point: lf_09
Investigator(s): WAD | Landform (hillside, terrace, hummocks, etc.): Lake Margins
Local relief (concave, convex, none): none | Slope: 0.0 % / 0.0 ° | Elevation: 305
Subregion: Cook Inlet Lowlands | Lat.: 60.4896 | Long.: -150.7103 | Datum: WGS84
Soil Map Unit Name: | NWI classification: L2EM2F
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Lacustrine fringe buckbean-sphagnum floating mat.

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	
	Sapling/Shrub Stratum			
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	
	Herb Stratum			
1.	Menyanthes trifoliata	55.0	✓	OBL
2.	Carex aquatilis	10.0		OBL
3.	Eriophorum scheuchzeri	5.0		OBL
4.	Carex magellanica	5.0		OBL
	Total Cover:	75.0		
	50% of total cover: 37.5		20% of total cover: 15.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 1 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	75.0	× 1 =	75.0
FACW Species	0.0	× 2 =	0.0
FAC Species	0.0	× 3 =	0.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	75.0 (A)		75.0 (B)

Prevalence Index = B/A = 1.000

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	4x8m
% Cover of Wetland Bryophytes (Where applicable)	95.0
% Bare Ground	10.0
Total Cover of Bryophytes	95.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Floating sphagnum mat

SOIL

Sampling Point: lf_09

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ✓ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: No Data

Depth (inches):

Hydric Soil Present? Yes ✓ No ___

Remarks: Assume histosol based on sphagnum cover and lacustrine fringe landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✓ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	___	No	✓	Depth (inches): 0
Water Table Present?	Yes	✓	No	___	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No ___

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: Lacustrine fringe, water at surface.

Sampling Point: lf_09
NWI classification: L2EM2F

Hydric Soil Indicators: Other (explain in remarks)
Wetland Hydrology Indicators: FAC-Neutral Test (D5), Geomorphic Position (D2), Saturation (A3), High Water Table (A2)

NO LANDSCAPE PHOTO TAKEN

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands Borough/City: Sterling Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering Sampling Point: lf_10
Investigator(s): SLI, WAD Landform (hillside, terrace, hummocks, etc.): Toeslope
Local relief (concave, convex, none): Slope: 1.7 % / 1.0 ° Elevation: 326
Subregion: Cook Inlet Lowlands Lat.: 60.4898 Long.: -150.7096 Datum: WGS84
Soil Map Unit Name: NWI classification: PSS3/4B
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Paired plot with 08.

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	10.0	✓	FACW
	Total Cover:	10.0		
	50% of total cover: 5.0		20% of total cover: 2.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	25.0	✓	FAC
2.	Picea mariana	20.0	✓	FACW
3.	Vaccinium vitis-idaea	8.0		FAC
4.	Empetrum nigrum	5.0		FAC
5.	Salix pulchra	1.0		FACW
	Total Cover:	59.0		
	50% of total cover: 29.5		20% of total cover: 11.8	
	Herb Stratum			
1.	Rubus chamaemorus	5.0	✓	FACW
2.	Equisetum arvense	2.0	✓	FAC
	Total Cover:	7.0		
	50% of total cover: 3.5		20% of total cover: 1.4	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across all Strata: 5 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	36.0	× 2 =	72.0
FAC Species	40.0	× 3 =	120.0
FACU Species	0.0	× 4 =	0.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	76.0	(A)	192.0 (B)

Prevalence Index = B/A = 2.526

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)
% Cover of Wetland Bryophytes (Where applicable) 75.0
% Bare Ground 0.0
Total Cover of Bryophytes 80.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Paired plot with of 08. Significant sphag cover

SOIL

Sampling Point: lf_10

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-4	/	100	/		A		peat		
4-11	/	100	/		A		mucky peat		
11-17	/	100	/		A		muck		Cobbles at 17in

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ✓ Histosol or Histel (A1)
- ✓ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches): 0.0

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✓ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	___	No	✓	Depth (inches):
Water Table Present?	Yes	✓	No	___	Depth (inches): 7
Saturation Present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): 4

Wetland Hydrology Present? Yes ✓ No ___

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks:

Sampling Point: lf_10
NWI classification: PSS3/4B

Hydric Soil Indicators: Histosol or Histel (A1), Histic Epipedon (A2)
Wetland Hydrology Indicators: FAC-Neutral Test (D5), Saturation (A3), High Water Table (A2)

WETLAND DETERMINATION DATA FORM - ALASKA REGION

Project/Site: Lakefront Drive Wetlands Borough/City: Sterling Sampling Date: 2021-06-11
Applicant/Owner: Kuna Engineering Sampling Point: lf_11
Investigator(s): SLI, WAD Landform (hillside, terrace, hummocks, etc.): Undifferentiated Slope
Local relief (concave, convex, none): convex Slope: 3.5 % / 2.0 ° Elevation: 353
Subregion: Cook Inlet Lowlands Lat.: 60.4904 Long.: -150.7108 Datum: WGS84
Soil Map Unit Name: NWI classification: U
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	

Remarks: Confirmation of previously mapped uplands

VEGETATION - Use scientific names of plants. List all species in the plot.

	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.	Picea mariana	65.0	✓	FACW
2.	Betula neoalaskana	10.0		FACU
	Total Cover:	75.0		
	50% of total cover: 37.5		20% of total cover: 15.0	
	Sapling/Shrub Stratum			
1.	Rhododendron groenlandicum	30.0	✓	FAC
2.	Vaccinium vitis-idaea	10.0	✓	FAC
	Total Cover:	40.0		
	50% of total cover: 20.0		20% of total cover: 8.0	
	Herb Stratum			
	Total Cover:	0.0		
	50% of total cover: 0.0		20% of total cover: 0.0	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across all Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL Species	0.0	× 1 =	0.0
FACW Species	65.0	× 2 =	130.0
FAC Species	40.0	× 3 =	120.0
FACU Species	10.0	× 4 =	40.0
UPL Species	0.0	× 5 =	0.0
Column Totals:	115.0 (A)		290.0 (B)

Prevalence Index = B/A = 2.522

Hydrophytic Vegetation Indicators:
✓ Dominance Test is > 50%
✓ Prevalence Index is ≤ 3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1] Indicators or hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Plot size (radius, or length × width)	10m radius
% Cover of Wetland Bryophytes (Where applicable)	0.0
% Bare Ground	10.0
Total Cover of Bryophytes	35.0

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: Other cover = leaf litter. Mature black spruce forest with birch

SOIL

Sampling Point: If_11

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Mod	Remarks
0-5	/	100	/		A		hemic		
5-15	10yr 3/2	100	/		A		fine sandy loam		
15-20	5y 3/2	100	/		A		fine sandy loam		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, A=Absent [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator or hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes ___ No ✓

Remarks: No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✓ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches):

Water Table Present? Yes ___ No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches):

Wetland Hydrology Present? Yes ___ No ✓

Recorded Data (stream gauge, monitor well, aerial photo, previous inspection) if available:

Remarks: No hydrology indicators observed

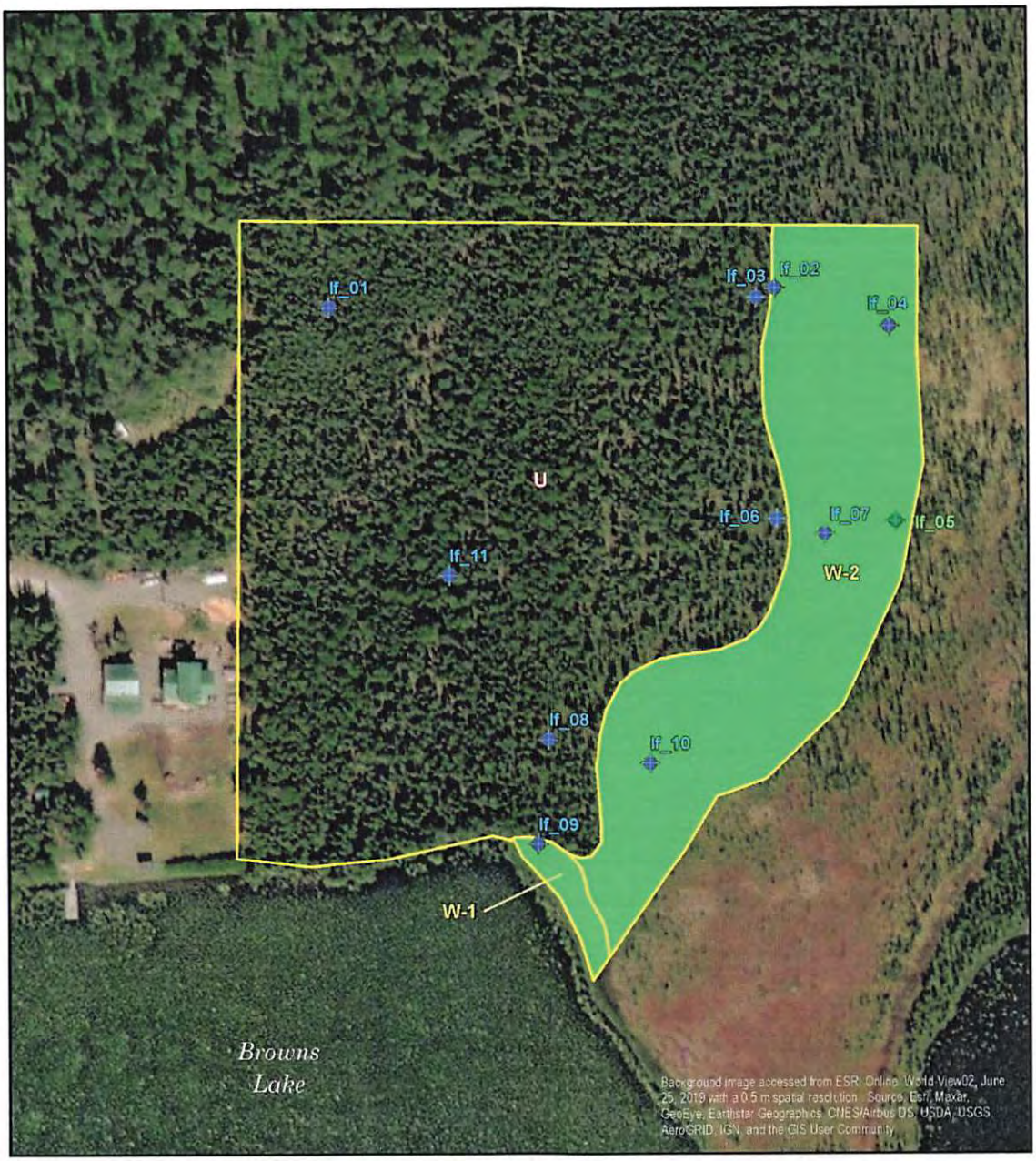
Sampling Point: lf_11
NWI classification: U

Hydric Soil Indicators: None
Wetland Hydrology Indicators: FAC-Neutral Test (D5)

Appendix B. Map Verification Plots

Sampling Point: lf_05
Site: Lakefront Drive Wetlands
Date: 2021-06-11
NWI classification: PSS4B
Viereck code: Black Spruce Woodland
Species: *Picea mariana, Vaccinium uliginosum, Vaccinium vitis-idaea, Salix pulchra, Rhododendron groenlandicum*
Notes: Located on outer boundary of mapping area within previously mapped wetlands. Significant sphagnum cover and saturation at surface.

Appendix C. Characteristics of wetlands and waters mapped in the Lakefront Drive wetlands study area, Alaska, 2021



Proposed Jurisdictional Category[1]

- (a)(4) wetlands adjacent to jurisdictional waters
- Non-jurisdictional (uplands)
- W-2 Mapped Wetlands and Waters[2]

- Map Verification Plot
- Wetland Determination Plot

0 10 20 30 40 Meters

0 50 100 150 Feet

[1] Jurisdiction under the Navigable Waters Protection Rule is applied to four categories of waters of the U.S.: (a)(1) the territorial seas and traditional navigable waters; (a)(2) perennial and intermittent tributaries to those waters; (a)(3) certain lakes, ponds, and impoundments; and (a)(4) adjacent wetlands, as defined by 33 CFR Parts 328 and 120—Definition of Waters of the United States. The USACE is responsible for the final jurisdictional determinations.

[2] The mapped wetlands and waters are displayed with an identification number per mapped polygon, which can be used to view each polygon's associated attributes in Table C-1.

Appendix C. Figure C-1. Characteristics of Wetlands and Waters Mapped in the Lakefront Drive Wetlands Study Area, Alaska, 2021.

map prepared by:
ABR, Inc. — Environmental Research & Services

23 June 2021 | AppC_Lakefront_Wetlands_21-254.mxd

Table C1. Characteristics of wetlands and waters mapped in the Lakefront Drive wetlands study area, Alaska, 2021.

Wetland Number	NWI Code[a]	HGM Class[b]	Vegetation Class[c]	Proposed Jurisdictional Category	Area (acres)	Longitude (WGS84)	Latitude (WGS84)	Longitude (NAD83)	Latitude (NAD83)
W-1	L2EM2F	Lacustrine Fringe	Fresh Herb Marsh	(a)(4) Wetlands adjacent to jurisdictional waters	0.1	-150.7101	60.4895	-150.7101	60.4895
W-2	PSS3/4B	Slope	Black Spruce Woodland	(a)(4) Wetlands adjacent to jurisdictional waters	2.6	-150.7089	60.4904	-150.7089	60.4904

[a] National Wetland Inventory (NWI) code derived from FGDC (2013)

[b] Hydrogeomorphic (HGM) class derived from Brinson (1993)

[c] Vegetation class from Viereck et al. (1992)

Northern Test Lab
Analytical, Environmental, Geotechnical, Construction Materials Testing
35186 Spur Highway Soldotna, Alaska (907)262-4624 262-5777(fax)

8/11/2006 Kathleen Acres Subdivision
KPB File 2006-114
This is copy for subdivision file
This is original for soil report file
Large working map - (Yes) No

SOILS REPORT

Date: 1 August 2006 06156

To: Cliff Baker, Integrity Surveys

Copy: KPB Planning

From: Henry Knackstedt, Project Engineer HK

Subject: Kathleen Acres Subdivision, Soils Investigation
SE ¼ Section 29, T5N, R8W S.M.
2 pp + Attachments

On July 14, 2006 we performed a soils investigation to determine suitability of Kathleen Acres Subdivision for onsite wastewater systems. The proposed subdivision consists of two lots containing 1.956 and 2.583 acres. Based on our observation of nearby excavations and cut banks, soils are typically gravelly in the likely locations for wastewater systems, and are suitable for conventional wastewater systems.

The subdivision is bounded by North Shore Ridge Subdivision to the west, Brown's Lake to the south, and unsubdivided property to the north and east. The property is within the SE ¼ Section 29, T5N, R8W S.M., near Sterling, Alaska.

The proposed subdivision is generally sloping down toward Brown's Lake and is vegetated mostly with spruce and birch trees. Lot 1 has a gravel pad with well and septic system and Lot 2 has a residence with well and septic system. The well locations shown on the Working Map are approximate. The Working Map shows the 100' setback from the surface water for wastewater systems. No other development was observed.

According to the USDA *Soil Survey of Kenai-Kasilof Area, Alaska*, soils are Soldatna silt loam, moderately sloping (7-12%). "The Soldatna series consists of well-drained soils developed in a moderately deep to deep mantle of wind-laid, silty material over a thick deposit of gravelly sand or coarse sand." The soils observed by us appeared consistent with the USDA description.

Based on the soils investigation, each lot has at least 20,000 sf available for on-site wastewater systems and other residential development. We recommend that the developer of each lot carefully consider locations of existing and future on-lot and nearby wells and septic systems prior to construction. Wastewater treatment and disposal systems must be at least 100' from any private wells, 150' from Class C wells, and 200' from Class A and B wells. For other than single family or duplex dwellings, ADEC or a qualified engineer should be consulted to determine water supply and wastewater treatment and disposal system requirements.

This investigation was performed according to NTL standard procedures to evaluate subdivision soil conditions. This report was prepared solely for Jerry Herring and Integrity Surveys to present the findings of our investigation to the Kenai Peninsula Borough for Kathleen Acres Subdivision regarding suitability for on-site wastewater disposal, and is provided based on our knowledge of the area and information collected during our investigation. Information from others and considered in this report is believed to be reliable, but no responsibility is assumed for accuracy. Any use of this report or conclusions drawn by third parties is at their own risk.

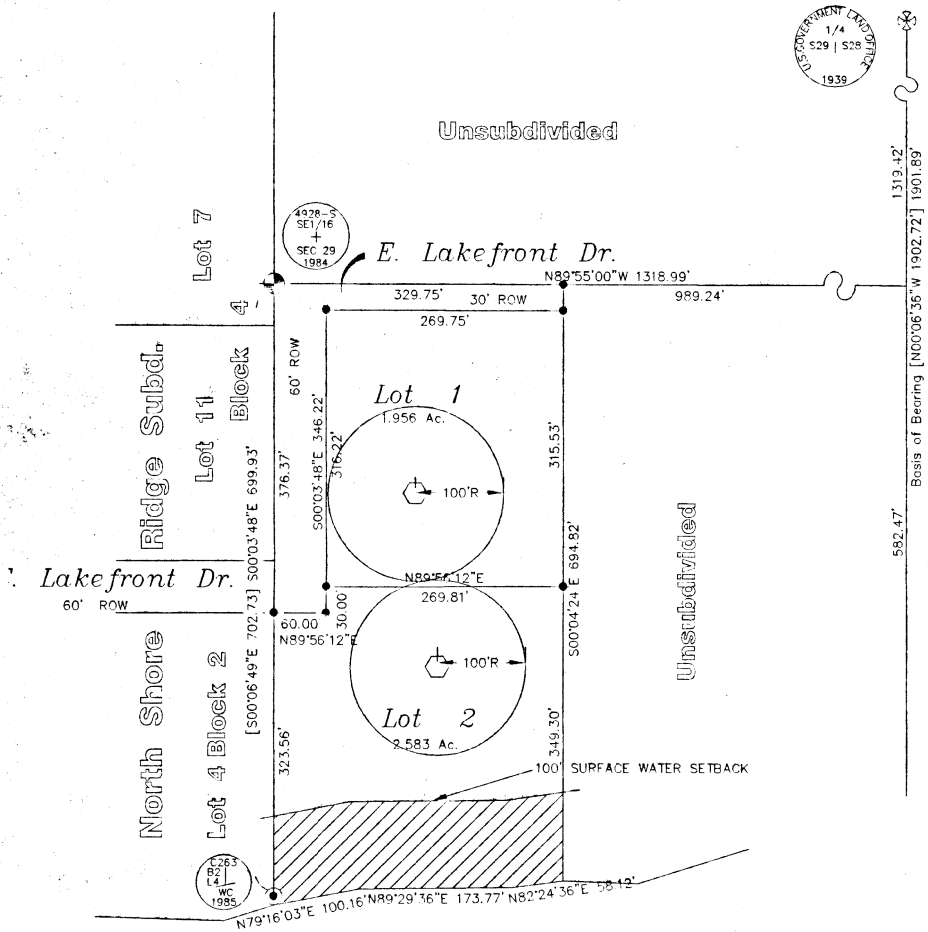
This report is based upon the application of scientific principles and professional judgement to certain facts with resultant subjective interpretations based on facts currently available within the limits of existing information, scope of work, budget and schedule. Conclusions and recommendations stated herein are intended as guidance and not necessarily a firm course of action, unless explicitly stated. If more definitive conclusions are desired than are warranted by currently available facts, additional investigation is recommended.

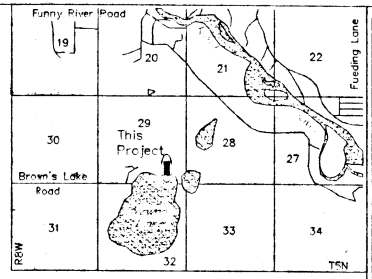
NTL makes no warranties as to merchantability or fitness for a particular purpose. Due to the variable nature of site soils and geology, the limited investigation, and the lack of a complete record of previous site activities, subsurface conditions may vary from the information presented. If conditions are found to differ significantly from those described in this report, please contact us. Please call if you have any questions.

End of Report Text

Attachment
Working Map

F:\HENRY\SUBDIVIS\Kathleen.wpd





VICINITY MAP

SCALE: 1" = 1 MILE

N

8/11/2006 Kathleen Acres Subdivision
KPB File 2006-114
This is copy for subdivision file
This is original for soil report file
Large working map (Yes) No

LEGEND:

- 2-1/2" Brass Cap BLM Monument
- 3-1/4" Alum. Cap Monument
- Monument
- 2-1/2" Alum. Cap
- 5/8" Rebar
- Witness Corner Meander Corner 5/8" Rebar
- WELL

N

WORKING MAP

SCALE: 1" = 100'

NOTES:

1) Proposed land uses are recreational, residential, agricultural, and commercial.
2) 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.
3) Front 10 ft. of the building setback adjacent to rights-of-way is also 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.
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.
5) The natural meanders of the line of Mean High Water or Ordinary High Water forms the true bounds of the subdivision. The approximate line of Mean High Water or Ordinary High Water, as shown, is for computations only. The TRUE property corners being on the extension of the side lot lines and their intersection with the natural meanders.
6) SURVEY PROVIDED BY INTEGRITY SURVEYS

WORKING MAP

KATHLEEN ACRES

Northern Test Lab
35188 SPUR HWY. SOLDOTNA, ALASKA
(907) 262-4624

DATE	AUG 06
DRAWN	AR
CHECKED	HR
FILE NAME	WRKMP
PROJ NO.	06156

SHEET 1 of 1

RECEIVED
Date Received
FEB 20 2018
ADEC
Kenai Area Office

State of Alaska
Department of Environmental Conservation
Documentation of Construction

Processed by: DEP
Date: 5/10/18
SEPTS Key #:

Part I. General Information

Legal Description	KN2007122 KATHLEEN HOMES Lot 2	PAN or Tax ID#: 06630136
Street Address	32215 Lakefront Drive	City (or nearest community):
Coordinates	Latitude:	Longitude: Datum: <select one>
Installer Name, Email, & Phone #	Jerry Holly - dirtdude@gci.net Hyexcavating.com	907-262-5175

Part II. Wastewater Disposal System

Facility Served: ☒ Private Residence - # of buildings: 2 ☐ Multi-family - # of Units: **Total # Bedrooms:** 5
☐ Small Commercial Facility (< 500 gpd) *show design flow calculations in Comments section below* **Total Design Flow (gpd):** NA

☐ **New System** ☒ **Repair/Replace Existing** *(state new components installed and decommissioning/inspection results of existing components):*
Replaced Entire System from clear out at building. New: Service line, TANK, Absorb

System Installed By: ☑ Certified Installer ☐ Approved Homeowner ☐ Registered Engineer/Supervision or Inspection by Registered Engineer
Notification Date: 9-29-17
Date Installed: 9-30-17

Septic Tank	Capacity (gal): 2000	# of Compartments: 2	Material: Steel	Manufacturer: Ace Tank
Lift Station	Manufacturer: Orenco	Pump (make/model): Orenco PF200511-20	Alarms: ☒ Yes ☐ No	
Type of Field	☐ Deep Trench ☐ Shallow Trench ☐ Leach Pit ☒ Bed ☐ 5-Wide			
Soils – Visual and Perc Test	Classification:	Application Rate (sq. ft./bedroom):	Percolation Rate (min/inch):	
	Attach percolation test results or other soils report sealed by registered professional engineer as applicable.			
Soil Absorption System Details	Length (ft): 40'	Width (ft): 24'	Rock Depth: 1'	Effective Area (sq ft): 1008
	Rock Grade: 3/4-1½"	Graveless Media: # Units: NA	Unit Area: NA	Manufacturer: NA

Freeze Protection	Septic Tank	Absorption Area	Sewer Lines
Soil Cover (feet)	6'	2'	6'
Insulation (inches)	2"	2"	2"

Cleanout Pipes: # Cleanout(s): 3 # Septic Tank Vents: 2 # Leach Field Monitor Tubes: 3

Vertical Separation Distance from Bottom of Soil Absorption System to: Groundwater 7' Impermeable Soils over 6'

Horizontal Separation Distances (measured from nearest edge to nearest edge)	list distances to all nearest:	Private Well	Public Well	Waterline	Surface Water	Property Line
	Septic Tank	145+	NA	45+	140+	35'
	Soil Absorption System	125+	NA	45+	125'	41'
	Lift Station	145+	NA	45+	125'	35'
	Sewer Line(s)	137+	NA	40+		

Registered Professional Engineer Seal

Horizontal Separation Distance from Soil Absorption System to Slope exceeding 25%: NA

Comments/Criteria used to size commercial facility *(state type of facility, # people, gpd/person, etc.):*

I certify that the information provided in Parts I, II, III and IV is correct:

Signature Jerry Holly **Printed Name** Jerry Holly

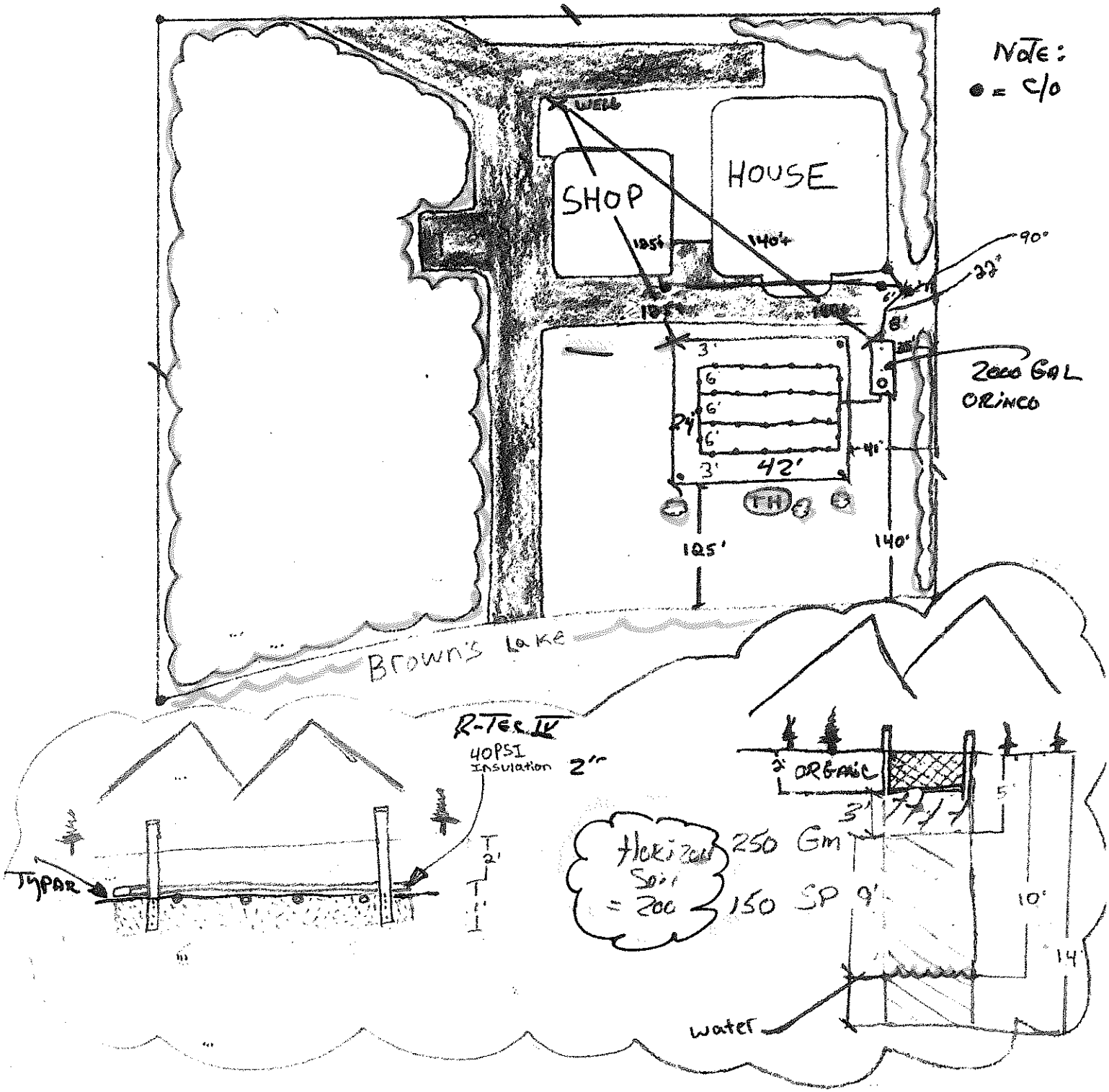
Title or Certification No. 2015-23-1057 **Date** 11-30-17

NOTE: Certified Installers or Approved Homeowners must sign and date. Professional Engineers must seal, sign, and date.

Client Worksheet

CLIENT: Jerry Herring
PROJECT Lift Station
LOCATION Browns Lake
COMP BY JH | DATE 9-30-17 | SHEET OF

Specialty Excavating
Box 365
Soldotna, Alaska 99669
(907) 262-5175



Central Alaska

32215 Lakefront Dr., Soldotna, Alaska 99669, Phone (907) 260-5311, Fax (907) 260-5312, Email jherring@akengineer.com

December 7, 2017

Specialty Excavating
P.O. Box 365
Soldotna, AK 99669
Email: Jerry Holly dirtdude@specialtyexcavating.com

Subject: KN2007122, Kathleen Acres Lot 2 Percolation Test Results

A percolation test was completed on the subject property for the original septic system installation. The test was completed and documented by me on July 18, 1996. The new system absorption bed installed by Specialty Excavating is using the same Horizontal soils visually graded to be Silty Gravel (GM) and Poorly Graded Gravel (SP) below that. Percolation rate was measured to be 15 minutes/inch. Table in Article 5.4, Division 20, requires an application rate of 190 square foot per bedroom, or a minimum bed size of 950 sf for the 5 bedroom system. The bed designed and installed for this application is 24'x42' for a total of 1,008 square feet and was found to be installed professionally.

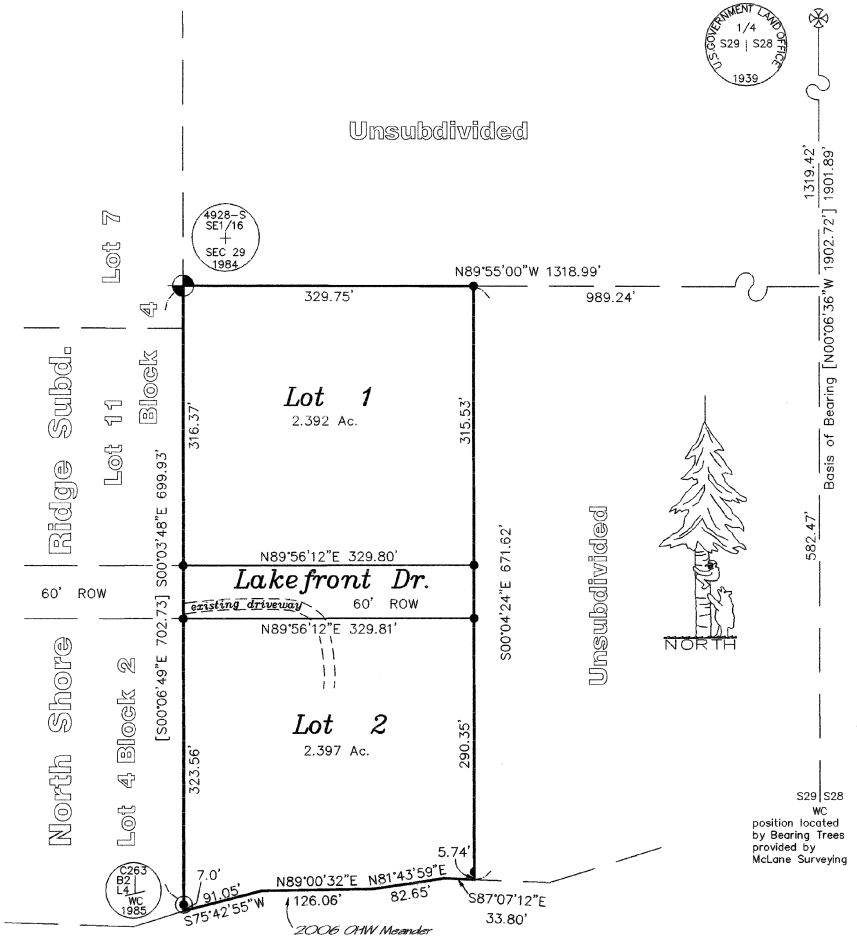
Prepared by

Jerry P. Herring, PE

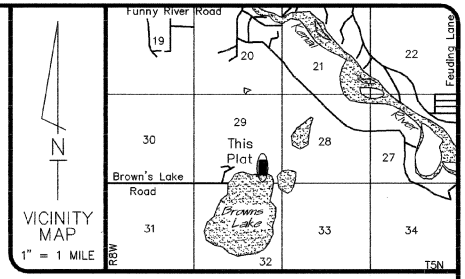
NOTES:

1) Proposed land uses are recreational, residential, agricultural, and commercial.
2) 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.
3) Front 10 ft. of the building setback adjacent to rights–of–way is also 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.
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.
5) The natural meanders of the line of Mean High Water or Ordinary High Water forms the true bounds of the subdivision. The approximate line of Mean High Water or Ordinary High Water, as shown, is for computations only. The TRUE property corners being on the extension of the side lot lines and their intersection with the natural meanders.
6) An exception was granted to Subdivision Ordinance KPB 20.20.030 by the Plat Committee August 28, 2006.
7) 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 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 Alaska, and the design must be approved by the Alaska Dept. of Environmental Conservation.

M Taurianen — Engineer | 3380-E — License # | 12 Oct 07 — Date



Brown's Lake



CERTIFICATE of OWNERSHIP and DEDICATION

WE HEREBY CERTIFY THAT WE AM THE OWNER(S) 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 PUBLIC AREAS TO PUBLIC USE AND GRANT ALL EASEMENTS TO THE USE SHOWN.

Jerry P. Herring — Kathleen A. Herring

32266 E. Lakefront Dr.
Soldotna, Alaska 99669

NOTARY'S ACKNOWLEDGMENT

SUBSCRIBED AND SWORN BEFORE ME THIS 11th DAY OF October, 2007 FOR Jerry and Kathleen Herring

Jaynne Elliott
NOTARY PUBLIC FOR ALASKA
MY COMMISSION EXPIRES 5-19-11

OFFICIAL SEAL
STATE OF ALASKA
JALYNNE ELLIOTT
NOTARY PUBLIC
My Comm. Exp.: 5-19-11

PLAT APPROVAL

THIS PLAT WAS APPROVED BY THE KENAI PENINSULA BOROUGH PLANNING COMMISSION AT THE MEETING OF August 28, 2006

KENAI PENINSULA BOROUGH

AUTHORIZED OFFICIAL

LEGEND:

- 2–1/2" Brass Cap BLM Monument (fourd)
- 3–1/4" Alum. Cap Monument (found)
- 2–1/2" Alum. Cap (found)
- 5/8" Rebar (set)
- Witness Corner Meander Corner 5/8" Rebar (set)
- [ ] Record Datum – North Shore Ridge Subdivision, Plat # 86–14 KRD

STATE OF ALASKA 49TH
CLIFFORD E. BAKER
No. LS–5152
Date 11 Oct 07
REGISTERED PROFESSIONAL LAND SURVEYOR

2007-122
RECORDED 20
Kenai REC. DIST.
DATE: 12-4 2007
TIME: 9:18 A.M
REQUESTED BY:
INTEGRITY SURVEYS
8195 KENAI SPUR HWY
KENAI, ALASKA 99611

SURVEYOR'S CERTIFICATE

I hereby certify that; I am properly registered and licensed to practice land surveying in the State of Alaska, this plat represents a survey made by me or under my direct supervision, the monuments shown hereon actually exist as described, and all dimensions and other details are correct to the normal standards of practice of land surveyors in the State of Alaska.

KPB FILE No. 2006–114

Kathleen Acres

A subdivision of Government Lot 4

Located within the SE1/4 SE1/4 Section 29, T5N, R8W, S.M., Kenai Recording District, Kenai Peninsula Borough, Alaska.

Containing 5.243 Acres

Integrity Surveys
8195 Kenai Spur Hwy Kenai, Alaska 99611–8902
SURVEYORS PHONE – (907) 283–9047 FAX – (907) 283–9071 PLANNERS

JOB NO:	26059	DRAWN:	27 September, 2006 CB
SURVEYED:	June – Sept 2006	SCALE:	1 = 100'
FIELD BK:	2006–6, Pg. 18	DISK:	Kathleen Acres

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

Yes	4	Brantley, Gillham, Slaughter, Staggs
No	0	

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

Yes	4	Brantley, Gillham, Slaughter, Staggs
No	0	

ITEM E2 – TROUT VIEW SUBDIVISION

KPB File No.	2022-127
Plat Committee Meeting:	September 26, 2022
Applicant / Owner:	Alaska Mental Health Trust Authority of Anchorage, AK
Surveyor:	Taylor Moore / Kuna Engineering
General Location:	Browns Lake Road, Funny River, Funny River APC

Parent Parcel No.:	066-321-34
Legal Description:	Government Lot 5 in Section 29, Township 5 North, Range 8 West
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

Staff report was given by Platting Manager Vince Piagentini.

Chair Gillham opened the item for public comment.

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

Jerry Herring; 32215 Lakefront Drive, Soldotna, AK 99669: Mr. Herring is a neighboring landowner and spoke in opposition to this plat. He stated that the exception request should not be allowed and that the petitioner should be required to follow code. He does not want Lakefront Drive extended.

Taylor Moore, Kuna Engineering; 4300 B Street, Suite 605, Anchorage, AK 99503: Mr. Moore stated that it is not possible to punch Lakefront Drive all the way through to the section line easement on the east side of the property. There are wetlands that prohibit that from happening. He also noted that the area to the east is already served by another road.

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

MOTION: Commissioner Brantley moved, seconded by Commissioner Slaughter, to grant preliminary approval to Trout View Subdivision, based on staff recommendations and compliance to borough code.

EXCEPTION REQUEST MOTION: Commissioner Brantley moved, seconded by Commissioner Slaughter to grant exception request to KPB 20.30.100 – Cul-de-sacs and KPB 20.30.170 – Block Length Requirements, citing findings 1, 2, 5-7, 9 & 11-13 in support of standards one, two and three.

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

Yes	4	Brantley, Gillham, Slaughter, Staggs
No	0	

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

Yes	4	Brantley, Gillham, Slaughter, Staggs
No	0	

ITEM E3 - GRANROSS GROVE 2022 REPLAT

KPB File No.	2022-134
Plat Committee Meeting:	September 26, 2022
Applicant / Owner:	Kent Baumgardner of Anchor Point AK
Surveyor:	Christopher Mullikin / Mullikin Surveys
General Location:	Ester Avenue, Anchor Point / Anchor Point APC

Parent Parcel No.:	165-510-44, 165-510-45
Legal Description:	Lots 31 & 32 Granross Grove Unit 1
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	Onsite / City

Grouped Plat – Passed Under Consent Agenda

ITEM E4 - HESKETH SOUTHWEST

KPB File No.	2022-135
Plat Committee Meeting:	September 26, 2022
Applicant / Owner:	Bradley Kloeckl of Homer, AK
Surveyor:	Christopher Mullikin / Mullikin Surveys
General Location:	Remote, Hesketh Island

Parent Parcel No.:	191-010-54
Legal Description:	Lot 5 of Hesketh Island Adventure
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

Staff report was given by Platting Manager Vince Piagentini.

Chair Gillham opened the item for public comment.

Christopher Mullikin, Mullikin Surveys; P.O. Box 1023, Homer, AK 99603: Mr. Mullikin was the surveyor on this project and made himself available for questions.

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

MOTION: Commissioner Slaughter moved, seconded by Commissioner Staggs, to grant preliminary approval to Hesketh Southwest, 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	4	Brantley, Gillham, Slaughter, Staggs
No	0	

AGENDA ITEM E. NEW BUSINESS

ITEM 2 – TROUT VIEW SUBDIVISION

KPB File No.	2022-127
Plat Committee Meeting:	September 26, 2022
Applicant / Owner:	Alaska Mental Health Trust Authority of Anchorage, AK
Surveyor:	Taylor Moore / Kuna Engineering
General Location:	Browns Lake Road, Funny River, Funny River APC

Parent Parcel No.:	066-321-34
Legal Description:	Government Lot 5 in Section 29, Township 5 North, Range 8 West
Assessing Use:	Residential
Zoning:	Rural Unrestricted
Water / Wastewater	On site

STAFF REPORT

Specific Request / Scope of Subdivision: The proposed plat will subdivide a 19 acre parcel into seven lots. The lots will range in size from .939 acres to 6.531 acres. A 60 foot wide right-of-way is proposed for dedication.

Location and Legal Access (existing and proposed): The preliminary plat is located at the end of Lakefront Drive, a 60 foot wide borough maintained right-of-way that is located at the end of state maintained Browns Lake Road. There are various routes, some constructed and some not, to get the Browns Lake Road. All routes are from state maintained Funny River Road near miles 14-17. There are section line easements running along the south and eastern boundary.

All proposed lots will have access from the proposed continuation of Lakefront Drive. The road is proposed to be a cul-de-sac due to the wetlands within the eastern and southern portions of the subdivision. The southern section line easement only provides an access from lake to lake or from lake to US Fish and Wildlife property located to the south. Additional rights-of-way dedication and section line easements are present around the western, southern, and eastern sides of Browns Lake to provide access to the federal owned lands. South of those section line easements and dedications is the Kenai National Wildlife Refuge.

Exceptions to cul-de-sac length and block length have been requested.

A trail appears to be in use from the section line easement to the north and between the two lakes to the federal lands. Staff could not find any documentation for easements in that area. If any are known they must be noted on the final plat.

Staff is not recommending a dedication atop the section line easements due to the locations and wetlands. The easements still exist and can be used for public access.

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

Site Investigation: The preliminary plat borders Browns Lake and an unnamed lake. The eastern portion of the subdivision contains low wet areas. The owners had a wetland delineation and proposed jurisdictional determination done for the property. ***Staff recommends*** *the wetlands remain on the final plat and a Corp of Engineer plat note be added.*

The area proposed for right-of-way dedication seems relatively flat with slight slopes. There does appear to be some steeper slopes present within proposed Lot 1 and Lot 2. ***Staff recommends*** *the steep slopes do not need to appear on the final plat unless it is proven to hinder development or limit wastewater disposal.*

The land appears to be vacant with no encroachment issues present with neighboring properties.

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
State of Alaska Fish and Game	No objections

Staff Analysis This is a proposed plat of a Government Lot into seven lots. All lots are proposed to have about the same useable area but two. The two east lots will contain more acreage due to the wetlands.

A soils report will be required and an engineer will sign the final plat. Due to the upland area of proposed Lot 4 and Lot 7, ***staff recommends*** *the uplands areas be included in the soils analysis.*

Per the State of Alaska Department of Environmental Conservation Onsite Wastewater System Installation Manuel dated January 27, 2016, a waste water collection system must be 100 feet from mean annual high water level of any lake. The soils report should take this into consideration and if requirements cannot be met, the lots within this preliminary plat may need to be reconfigured so that there is adequate spacing for wells, wastewater disposal systems and replacement systems.

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 meet on September 6, 2022. The following was provided to staff. “We would like to table the motion until we receive more information. We reject the exception request to plat number KPB 2022-127. Granting the request is detrimental to future public welfare and is not in support of KPB Code 20.50.010 section A3. The letter from Kuna dated July 11, 2022 does not provide sufficient justification for the exception.” Minutes are provided in the packet.

Utility Easements There are no previously platted utility easements and the certificate to plat did not note any recorded by document.

There are no utility easements noted on the plat. Per KPB 20.30.060(D), 10 foot utility easements are required along the dedicated rights-of-way. Homer Electric Association has requested the granted width of the easements be increased to provide a 15 foot wide utility easement. Staff will request the 15 foot as requested by a utility provider unless the owner/surveyor works with the utility provider and we are notified they are in agreement to a lesser width. ***Staff recommends*** *a depiction of the 15 foot utility easement and required plat notes be added.*

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	Provide a 15 foot utility easement adjoining the dedicated ROW.
ENSTAR	No comments or recommendations.
ACS	No objection
GCI	

KPB department / agency review:

Addressing	Reviewer: Haws, Derek Affected Addresses: None Existing Street Names are Correct: Yes List of Correct Street Names: LAKEFRONT 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: Code Compliance has received complaints that private lands and access to this lot be confined to the easement boundary
Planner	Reviewer: Raidmae, Ryan 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: Windsor, Heather Comments: No comment

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

STAFF RECOMMENDATIONS

CORRECTIONS / EDITS

It needs to be determined if the subdivision name has a space in the name. It appears to be shown on the plat as Trout View and Troutview. Please update and make it consistent.

The legend will need to be reviewed to make sure the correct labels are present for what is being depicted.
Make the legend stand out more.
Additional line styles may be required to meet all staff recommendations and requirements.

The final plat will only be required to contain the acreage for each lot. The square footage labels may be removed. The two lots with wetlands should have their overall acreage listed and the upland acreage listed instead of listing it as developable space.

Need to tie the subdivision to GLO monuments.

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 owner's information is required within the title block, this includes their mailing address.*
- *Update the spelling of "Kenai" in the recording district information.*
- *Provide within the title block or near it the KPB File number of 2022-127.*
- *Provide an aliquot location with the located within information, "SE1/4 SE1/4".*

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:** Verify the section line easements within and abutting the subdivision. KPB data indicates that they may be subject to 50 foot wide easements. Provide documentation to show if not 50 feet. Label all section lines as such if they are depicted even if outside the bounds of the subdivision and adjust the line style as the ones to the south appear to be proposed parcel boundary.*

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:** Shade the plat in fully so that it stands out better. Provide a few labels for the major roads in the area such as Browns Lake Road and Lake Road.*

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:** The borough usually uses hatching to depict right-of-way vacations. The right-of-way dedication does not require hatching, it must be located within the drawn subdivision boundary, labeled, and include "60 foot wide right-of-way dedicated by this 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 recommendation:** Ownership is not recommended for the final as ownership changes. On the final remove reference to CIRI. The lots north of the unnamed lake and east of the subdivision should be labeled as Government Lot 9 and Government Lot 8 north of it. The lot south of proposed Lot 7 should be labeled as Government Lot 1.*

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

Staff recommendation: *It would be recommended to adjust the lot numbering to try to avoid having Lot 1 bordering Lot 1 to the west. We try to avoid having same lot number designations next to each other even if from different subdivisions.*

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: *Stated was included but did not see with submittal. Some areas may be near the 20 percent grade in the northwest corner. Top and toe of bank need to be shown on the drawing.*

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: *They are providing a dedication that provides for continuation but ends with a cul-de-sac due to the wetlands. Due to lakes and wetlands, section line easements provide additional access.*

20.30.060. Easements-Requirements.

A. The planning commission may require easements it determines necessary for the benefit of the public. Such easements include, but are not limited to, lateral support (slope) easements, drainage easements for ditching or protection of a drainage, and utility easements. Required easements do not need to be for road purposes.

B. Upon submittal of a preliminary plat, the planning department shall provide a copy to public utility companies for their comments-and recommended design of utility easements. If the property is subject to existing natural gas or petroleum pipeline easements, a copy shall also be furnished to the appropriate company for comment.

C. The subdivider bears the responsibility for coordination with the utility companies during the design and development phases. When a subdivider and the utility company cannot agree on easements, the final plat will be taken to the planning commission for determination of easements.

D. Unless a utility company requests additional easements, the front ten feet adjoining rights-of-way shall be designated as a utility easement, graphically or by note. Within the boundaries of an incorporated city, the width and location of utility easements will be determined by the city and affected utility providers.
Staff recommendation*: The affected utility providers were emailed the subdivision plat public hearing notice as part of the routine notification process.* ***Grant utility easements requested by the utility providers.***

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: Soils reports will be required for all lots 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.*

20.60.040. 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:** The acceptance is in place and should include that it will be signed by the Kenai Peninsula Borough and include street names within the acceptance.*

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**: Verify that fonts are compliant and adjust a few to make sure all are clearly legible and no overstrikes. Comply with 20.60.070.*

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**: The lake meanders will be required and how they were measured or source provided. Some additional curve information will be required for the cul-de-sac bulb. Comply with 20.60.110.*

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: *The meanders define the boundary of two of the lots and are the boundary of this subdivision and should be indicated as such with the appropriate boundary line that stands out from other lot lines.*

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 natural meanders of ordinary high water is for area computations only, the true corners being on the extension of the sidelines and the intersection with the natural meanders.*
- *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.*
- *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.*
- *The front 10 feet adjoining rights-of-way is designated as a utility easement and is granted by this plat.*
- *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.*

Plat note 1 will be removed and note 3 is not required as the dedication should be easily depicted and labeled on the plat.

20.60.190. Certificates, statements, and signatures required.

Staff recommendation*:*

- *Update the certificate of ownership to be in the singular and on behalf of Alaska Mental Health Trust Authority. "I hereby certify that Alaska Mental Health Trust Authority is the owner of the real property shown and described hereon and that I hereby adopt this plan of subdivision on behalf of Alaska Mental Health Trust Authority..."*
- *Update the owner on the certificate of ownership information from Health Trust Land Office to Health Trust Authority.*
- *Update the year on the Notary's Acknowledgment.*
- *Update the surveyor's certificate as some information states N/A.*
- *Comply with 20.60.190.*

EXCEPTIONS REQUESTED:

KPB 20.30.100 – Cul-de-sacs and KPB 20.30.170 – Blocks-Length Requirements

Surveyor's Discussion: 20.30.100 - According to code a street with no outlet cannot extend more than 1000 feet. In the case of this platting action, the area to the east of the proposed cul-de-sac is wetland terrain that will be unsuitable for development, and the area to the east is already served by a road. We do not believe it will ultimately

serve the public interest add further dedication for a roadway to meet the specifications of code 20.30.100.

20.30.170 – No blocks are being created by this subdivision action. The boundaries of the parcel will not be altered.

Staff Discussion: Staff grouped the two exceptions as denial of approval of one will affect the other. The Plat Committee may discuss and take action on these separately by making two motions if desired.

KPB Code 20.30.100(A), states streets designed to permanently close shall be no more than 1,000 feet long. Staff measured the existing portion of Lakefront Drive to the last intersection, which is Trapline Lane. That distance is approximately 860 feet. The proposed plat will add an additional length of 575 feet to the end of the cul-de-sac.

KPB Code 20.30.0170, state that block shall be no less than 330 feet or more than 1,320 feet in length. The block is not fully closed due to lakes and the dedication of a cul-de-sac.

Surveyor's Findings:

1. East of the proposed cul-de-sac is wetland terrain unsuitable for development.
2. The area to the east is already served by a road.

Staff's Findings:

3. Code requires the length of permanently closed rights-of-way to be no longer than 1,000 feet.
4. The proposed dedication will create a permanently closed right-of-way that will be approximately 1,435 feet in length.
5. The entire eastern portion contains wetlands.
6. The owner provided a wetland delineation report to support their claim that it is unsuitable terrain.
7. There are section line easements along the eastern side that can still be used to access the small unnamed lake.
8. The property to the south and southeast of the subdivision is owned by US Fish and Wildlife.
9. The US Fish and Wildlife property is about 689 acres that has dedications and section line easements for access.
10. The property to the north, east, and northeast is owned by Cook Inlet Regional Inc.
11. The bordering Cook Inlet Regional Inc. lands are about 690 acres with abutting road dedications, section line easements, and borough maintained Salmon Run Drive providing access.
12. Browns Lake limits the ability to get dedicated roads to provide a closed block.
13. If the dedication is required to be a through dedication to the section line easements to the east, the block would still not comply with length requirements.

If the exceptions are denied, the cul-de-sac will need to be a through dedication that will bring the block closer to compliance or a northern dedication be granted that will be extended by neighboring lots with future subdivisions and will shorten the length of the cul-de-sac to bring it into compliance.

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, 2, 5-7, 9, and 11-13 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, 2, 5-7, 9, and 11-13 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, 2, 5-7, 9, and 11-13 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

Kenai Peninsula Borough Planning Department

Aerial View

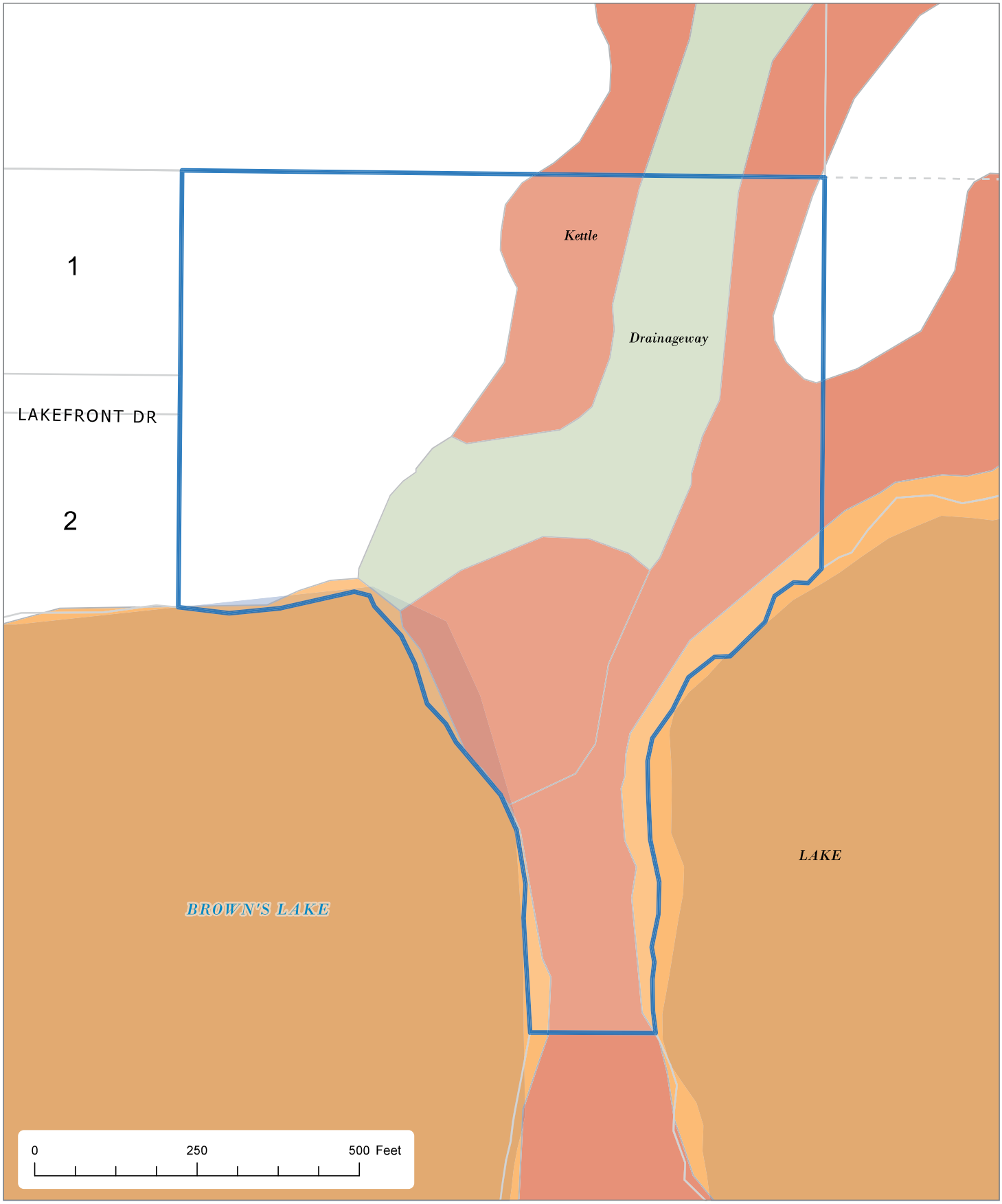
KPB 2022-127
8/26/2022

Kenai Peninsula Borough Planning Department

Wetlands

KPB File 2022-127

8/26/2022



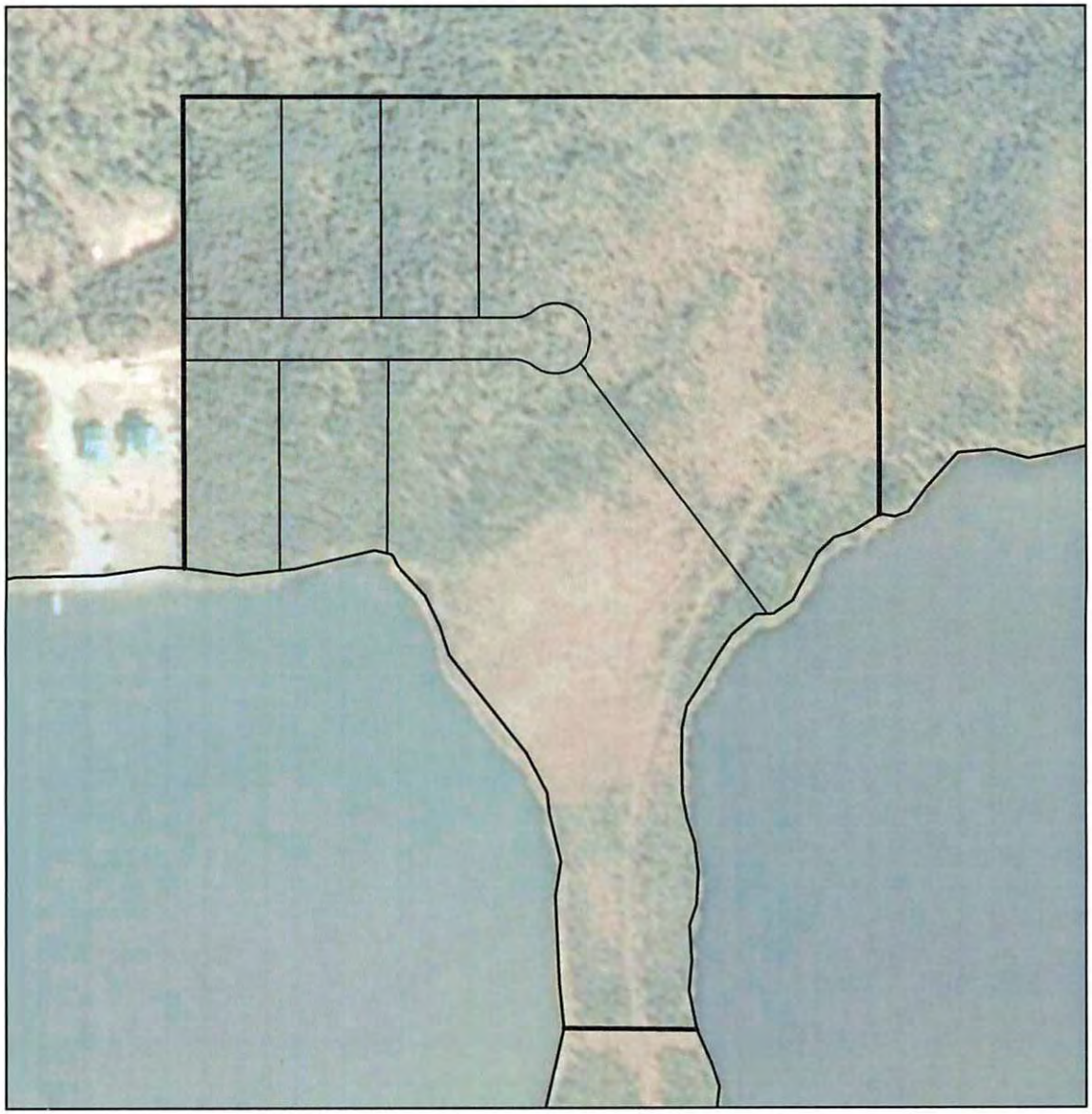
Kenai Peninsula Borough Planning Department

Aerial with 5-foot Contours

KPB File 2022-127

8/26/2022

N



NTS

Note:
1. Imagery is from Kenai Peninsula Borough GIS Information Systems

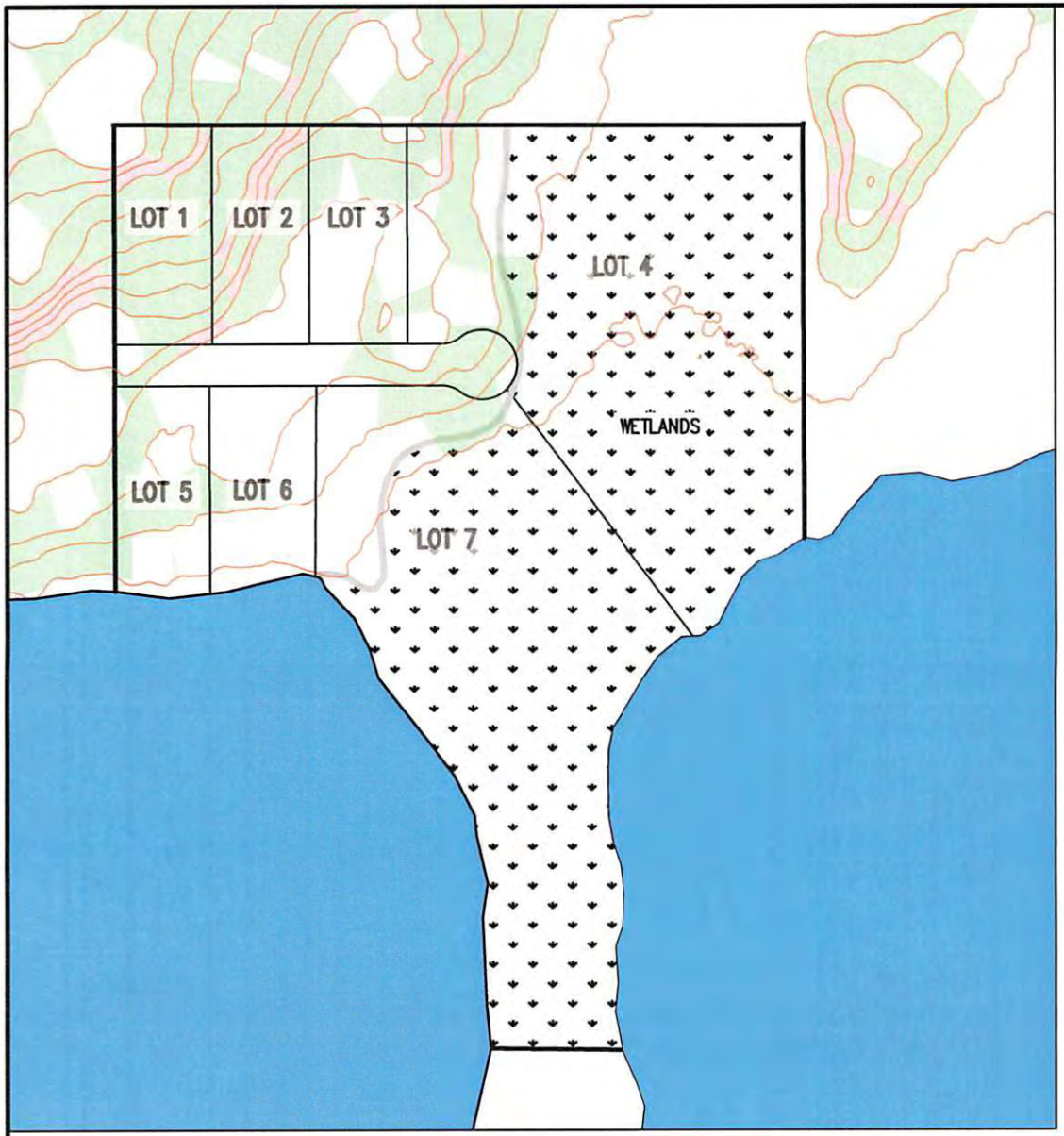
Prepared by:

Kuna Engineering, LLC
3111 C St Ste 300
Anchorage, AK 99503

PROJECT/ TITLE	AERIAL MAP TROUTVIEW SUBDIVISION LOTS 1-7		
PROJ. NO.	DRAWING NO.	REV.	
165.030321	N/A	N/A	
DRN	CHK	DATE	SHT.
SLI	TMM	July/15/2022	2

KUNA ENGINEERING

4300 B STREET, Suite 605, Anchorage, Alaska 99503
Tele: (907) 339.6566 WWW.KUNAENG.COM



NTS

Note:

1. Contour Data is from Kenai Peninsula Borough GIS Information Systems
2. Wetland Delineation performed by ABR Inc June 2021

LEGEND

LOT LINE TO BE ADDED

PROPOSED PARCEL BOUNDARY

WATER

GRADE 6-20%

GRADE 20% AND ABOVE

WETLANDS

Prepared by:

Kuna Engineering, LLC
3111 C St Ste 300
Anchorage, AK 99503

PROJECT/ TITLE	TOPOGRAPHY MAP TROUTVIEW SUBDIVISION LOTS 1-7		
PROJ. NO. 165.030321	DRAWING NO. N/A	REV. N/A	
DRN BWS	CHK TMM	DATE July/15/2022	SHT. 3

KUNA ENGINEERING

4300 B STREET, Suite 605, Anchorage, Alaska 99503
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Funny River Advisory Planning Commission

September 6, 2022 Agenda

A. **Call to Order (Invocation, Pledge)**
Don Fritz 7:07pm

B. Roll Call
Don F. Jerry, Jim, kevin, Julie and Glenda (Mike masters not present)

C. Approval of Unapproved minutes August 4, 2022
Don 1st, Julie 2nd, all approve

D. Approval of Agenda
Don 1st, Julie 2nd, all approve

E. Public Comment(5 minute limit)
None

F. Welcome our new commissioner
Glenda Radzinsky

G. Report

a. Fire station update *Sept 8th Roy Browning will attend the FRCA meeting and give an update on the FR fire station. October 1st the FR fire station will be staffed and fully operational.*

b. Post officeFR
Jim called 13 times to Tim Bruno Post Office Operations USPS, with no return calls. Still attempting to setup a follow up meeting on more specifics.

c. FR Survey results
Online survey is officially closed and the data was compiled as an excel document. The document was sent to all the commissioners to review the data and work on how to present the metrics from it. Julie said there are still 36 to 40 paper surveys that have yet to be added to the excel data table. It was also determined that the data needs to be closely examined for duplicates before proceeding further.

d. Transfer stastation
Jerry is sending out a rough draft of an ordinace that would penalize individuals or companies that don't follow the rules of the transfer

station. Tabled until next meeting once all members can review and make edits.

H. New Business

a. Plat review

We would like to table the motion until we receive more information. We reject the exception request to platt number KPB 2022-127. Granting the request is detrimental to future public welfare and is not in support of KPB code 20.50.010 section A3. The letter from Kuna dated July 11, 2022 does not provide sufficient justification for the exception.

I. Adjournment

Julie 1st, Jerry 2nd All approve 8:28pm