Perfect...thanks!

From: John BennettSent: Monday, December 21, 2015 1:03 PMTo: Len StorySubject: RE: Onvia Guide 21, Issue 239: 1 matches and updates

Len, sorry about the long windedness. Hopefully you will find some useful language below for your letter. JohnB

The complexity of any survey can be estimated by the number of known compliance standards associated with the effort along with number of unknown elements that may not become apparent until the project is underway. The ATS No. 1700 survey instructions indicate that elements of 17 prior surveys ranging back to 1938 may be involved. The final plat will require review and approval by both the City & Borough of Juneau along with the Department of Natural Resources (DNR) to ensure compliance with their platting and monumentation standards. The project requires that the surveyor be knowledgeable of monument reestablishment procedures according to the BLM Manual of Surveying Instructions, National Geodetic Survey control survey standards, title research to identify adjoining upland properties, and methods for determining the mean high tide line compliant with National Ocean Service and DNR standards. The unknowns generally represent the greater burden in estimating the time and resources required to complete the survey to professional and contract standards. First is the requirement to locate the natural mean high tide where the existing line may have been altered due to fill. In those situations the natural mean high tide line shall be reestablished by researching prior surveys, aerial photography and historical documentation. This task is indefinite with regard the level of research required and availability resources necessary to support a finding of the mean high tide line location. In addition, the survey requires the recovery of monuments controlling adjoining property lines in an area where many may be lost due to human activity. While this survey may seem insignificant with respect to the size of the parcels, the compliance requirements and unknown elements will make for a complex assignment that could challenge even the most experienced professionals.

John F. Bennett, PLS, SR/WA Senior Land Surveyor – Right of Way Services R&M CONSULTANTS, INC. | 212 Front Street, Ste. 150 | Fairbanks, Alaska 99701 907.458.4304 direct | 907.687.3412 mobile

Facebook | LinkedIn | rmconsult.com

Innovating Today for Alaska's Tomorrow

From: Len Story
Sent: Monday, December 21, 2015 9:45 AM
To: John Bennett
Subject: FW: Onvia Guide 21, Issue 239: 1 matches and updates

Hi John,

If you have time, could you provide a paragraph explaining the complexity of this project and the expertise required to perform it. I'm putting a letter together to send to the Port Engineer to help explain the benefits of using QBS.

Thanks,

Len



REQUEST FOR QUOTE

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932)

Contract No. DH16-011

Date of Issue: December 10, 2015

Issued by: Carl Uchytil, P,E Port Director

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932)

RFQ DH16-011

SERVICES REQUESTED: The City and Borough of Juneau (CBJ) Docks and Harbors requests proposals from qualified firms to provide professional surveying services to perform survey and platting of tide and submerged lands (ATS-1700/ADL-107932). Surveyor must be licensed in the State of Alaska.

DOCUMENTS: Request for Quote (RFQ) documents may be obtained from the CBJ Port Director's Office, 76 Egan Drive, Juneau, AK 99801, telephone (907) 586-0292. Documents Docks found on the and Harbors may also be web site at http://www.juneau.org/harbors/proposed regulations.php. It is advisable to sign up for the plan holders list with the Port Director's office in order to be notified of addenda that may be issued for this RFQ.

QUESTIONS REGARDING THIS RFQ: Gary Gillette, Port Engineer, is the sole point of contact for all issues pertaining to this procurement (phone 907-586-0398, fax 907-586-0295, <u>gary.gillette@juneau.org</u>).

SCOPE AND INTENT: This Request for Quote is intended to result in the procurement of professional survey services in accordance with these contract documents. The City and Borough of Juneau's (City's) procurement policy is that Request for Quotes shall not exceed \$50,000.00.

DEADLINE FOR QUOTES: Quotes and required Specifications will be <u>received until 2:00</u> <u>p.m., Alaska Time on January 12, 2016</u>, or such later time as announced by addendum to plan holders at any time prior to the deadline. Late quotes will <u>not</u> be accepted and will be returned. Fax quotes to the attention of Teena Larson at 907-586-0282. Emailed quotes will be accepted if they are emailed to <u>teena.larson@juneau.org</u>, received and printed prior to the deadline stated above. It is strongly recommended that Bidders call (907) 586-0295 to confirm receipt of faxed or emailed quotes.

Quote documents delivered in person or by courier service shall be delivered to:

PHYSICAL LOCATION:

City and Borough of Juneau Docks and Harbors, Port Director's Office 76 Egan Drive, Second Floor Juneau, AK 99801 The Port Director's Office phone number is 907-586-0292, and fax number 907-586-0295.

Proposal documents delivered by the U.S. Postal Service must be mailed to:

MAILING ADDRESS:

City and Borough of Juneau Docks and Harbors, Port Director's Office 155 South Seward Street Juneau, AK 99801

Note: Mailing/delivery times to Alaska may take longer than other areas of the U.S.

TABLE OF CONTENTS

BIDDING AND CONTRACT REQUIREMENTS

Table of Contents	4
Information to Bidders	5
Bid and Signature Page	10
Bid Schedule	11

ATTACHMENT A

State of Alaska Survey Instructions		12	2
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INFORMATION TO BIDDERS

- 1. <u>Equal Employment Opportunity</u>: The City is an affirmative action purchaser and encourages small and disadvantaged businesses to submit bids.
- 2. <u>Examination of Quote Documents</u>: Each bidder shall thoroughly examine and be familiar with all the bid documents contained herein and any addenda to those documents. The submission of a Quote shall constitute an acknowledgment that the bidder has thoroughly examined and is familiar with the Request for Quote (RFQ) documents. The failure or neglect of a bidder to receive or examine any of the Quote documents shall in no way relieve that bidder from any obligations with respect to that bidder's proposal, or to the contract. Misinterpretation or a claimed lack of knowledge concerning the Quote will not serve as a basis for a claim for additional compensation.
- 3. <u>Interpretation of Quote Documents</u>: Comments, questions, and requests for interpretation must be made in writing and received by Gary Gillette, Port Engineer, 907-586-0398, at least twenty-four (24) hours prior to the Quote deadline date. If required, amendments to the Quote documents will be in the form of an addendum and, when issued, will be sent as promptly as is practical to all parties listed on the Plan Holders List. All such addenda shall become part of the contract.
- 4. <u>Qualification of Bidders</u>: Each bidder shall be skilled and regularly engaged in the general class or type of work called for under the contract. Surveyor of record shall hold a current professional license in the State of Alaska and provide the Port Director a copy of such prior to execution of a contract for this work. If requested by the Port Director, the low bidder shall submit resumes, documentation or information explaining, illustrating, or demonstrating the experience of the firm and its key personnel assigned to this contract.
- 5. <u>Specifications</u>: Specifications for this RFQ are contained in the State of Alaska Survey Instructions contained in Attachment A of this quote document.
- 6. <u>Preparation of Quotes</u>: Quotes must be submitted on the Quote form provided, or copies thereof, and be completed in all respects as required by the Quote documents. Quotes must include signature of authorized representative to bind the company.

All quotes must be regular in every respect and no alterations shall be made to the bid form. Quotes that contain omissions or irregularities of any kind may be rejected. If erasures or changes appear on the forms, each must be initialed by the authorized representative signing the bid.

- **7.** <u>Firm Offer</u>: Unless otherwise specified in the RFQ, for the purpose of award, offers made in accordance with this RFQ must be irrevocable for a period of ninety (90) calendar days from the date of bid opening.
- 8. <u>Quote Submittal:</u> Quotes may be submitted via fax, e-mail, hand delivered, courier, or US Postal Service as indicated in the Request for Quote. Bidders' use of a facsimile machine or e-mail shall be at bidders' sole risk. The Port Director's Office will attempt to keep fax and e-mail communications in working order but will not be responsible for bids that are late due to

mechanical or electronic failures. Bidders are therefore strongly encouraged to confirm receipt of their bid with the Port Director's Office prior to deadline.

- 9. <u>Bid Preparation Costs</u>: Except as ordered by a court of competent jurisdiction, the City is not liable for any cost incurred by the bidder in bid preparation.
- **10.** <u>Quote Prices</u>: Unless otherwise specified in the RFQ, bid prices shall include everything necessary for the fulfillment of the contract, including, but not limited to, furnishing all materials, equipment and labor, except as may be provided otherwise in the Quote documents. Price bid must be in U.S. funds.
- 11. <u>Collusion Among Bidders</u>: Collusion by and between bidders will disqualify all bidders involved in the act of collusion and may result in those bidders being disqualified from future bidding.
- **12.** <u>Default</u>: In case of default by the Bidder, for any reason whatsoever, the City may procure the goods or services from another source and hold the Bidder responsible for any resulting excess cost and may seek other remedies under law or equity.
- **13.** <u>Modification of Quote</u>: Any bidder may modify a bid in person, or by facsimile (907-586-4530) at any time prior to the deadline, provided that such modification is received by the Engineering Contracts Division prior to the deadline. The modification must clearly name the RFQ project. The City will not be responsible for its failure to receive a facsimile modification whether such failure is caused by transmission line problems, facsimile device problems, operator error, or otherwise.
- 14. <u>Addenda</u>: Each bidder shall acknowledge receipt of all addenda issued in the space provided in the Quote document. Failure to acknowledge all addenda may result in the bid being rejected as non-responsive. It shall be the bidder's responsibility to inquire about addenda issued.
- **15.** <u>Postponement of Opening</u>: Quotes will be received until the deadline stated in the bid document, or such later time as the Port Director may announce by facsimile transmission or other writing or electronic notice sent to planholders at any time prior to the deadline. The City reserves the right to postpone the deadline at any time prior to the time originally scheduled.
- 16. <u>Facsimile Disclaimer</u>: It is the responsibility of the bidder to respond in a timely manner. Bidders' use of a facsimile machine shall be at bidders' sole risk. The Port Director's Office will attempt to keep the facsimile in good working order but will not be responsible for bids that are late due to mechanical failure, a busy facsimile machine, or any other cause arising from bidders' use of a facsimile machine, even if bidder submits a transmission report or provides other confirmation indicating that the bidder transmitted a bid before the deadline. Bidders are therefore strongly encouraged to confirm receipt of their bid with the Port Director's Office prior to deadline.
- **17.** <u>Continuing Obligation of Bidder</u>: Not withstanding the expiration date of a contract resulting from this RFQ, the bidder is obligated to fulfill its responsibilities until warranty, guarantee, maintenance and parts availability requirements have completely expired.

- **18.** <u>Contract Extensions</u>: Unless otherwise specified in the RFQ, the City and successful bidder agree: (1) that any holding over of the contract excluding any exercised renewal options, will be considered as a month-to-month extension, and all other terms and conditions shall remain in full force and effect, and (2) to provide written notice to the other party of the intent to cancel such month-to-month extension.
- **19.** <u>Vendor Name Change:</u> Should the vendor's business name change, or should the business be sold, transferred to, or assumed by a second party, written notification of the change should be provided to the Port Director, by all vendor parties involved, no later than 30 calendar days from the date of change. Written notification should state the type of change, reason for change, and the Federal Employer Identification Number of all vendor parties involved, and legal documentation verifying the change. Failure to provide notification of the aforementioned change(s) within 30 calendar days of the change, may be grounds for purchase order cancellation without further cause.

Additional documentation concerning the assignment of payments and acceptance of assigned payments may be required from the assignor and assignee.

- **20.** <u>Rejection of Quotes</u>: The City/Borough reserves the right to reject any or all bids and to determine which bid, if any, should be accepted in the best interest of the City/Borough. The City/Borough reserves the right to waive any Informality in a quote.
- 21. <u>Purchase Order & Award Documents</u>: The City's purchase order and the Notice of Award/Notice to Proceed, issued by the Port Director, are the only documents that may be used to place orders against any contract(s) resulting from this RFQ.
- **22.** <u>Assignment of Contract</u>: Any contract resulting from this RFQ may not be assigned in whole or in part without the prior written consent of the City's Engineering Department.
- 23. <u>Award:</u> The award will be made to the lowest, responsive, responsible bidder meeting all specifications, based on **Total Bid.**
- **24.** <u>Billing Instructions</u>: Except as specifically allowed under the RFQ, invoices must be billed to the Port Director's Office, CBJ Docks and Harbors, 155 S. Seward Street, Juneau, Alaska 99801. Questions concerning payment should be addressed to the Port Director's Office.
- **25.** <u>Payment</u>: Payment will be authorized by the Port Engineer upon review of receipt of invoice detailing the work performed during the billing period and after relevant conditions of the RFQ have been met.
- 26. <u>Bidder's Preferences:</u> If you have any questions, contact the Port Director's Office.

Local Bidders Preference: A Juneau bidder will receive a 5% bidder preference if its bid is not more than five percent higher than the lowest responsive nonresident bidder.

<u>Bidders With Disabilities</u>: Bidders certified as disabled by a State or Federal procurement program will receive a 10 % bidder preference if its bid is not more than ten percent higher than the lowest responsive non-disabled bidder.

The Purchasing Code is available from CBJ Docks and Harbors or online at <u>www.Juneau.org/law/code/purchasing</u>. All appropriate certificates must accompany this RFQ.

- **27.** <u>Juneau Business Sales And Personal Property Tax</u>: Vendors/merchants conducting business within the City are required by law to register with, and periodically report to, the City for sales and property taxes. Vendors/Merchants must be in good standing with the City prior to award, and prior to any contract renewal and in any event no later than five business days following notification by the City of intent to award or renew. Good standing means: all amounts owed to the City are paid in full, including Confession of Judgments; and vendor/merchant is current in reporting (sales tax filings, business personal property declarations). Failure to meet these requirements, if so subject, shall be cause for rejection of your bid and/or contract renewal. To determine if your business is in good standing, or for further information, contact the City Finance Department's Sales Tax Division, at (907) 586-5265, concerning sales tax and/or Treasury Division, at (907) 586-5268, concerning business personal property tax.
- **28. Indemnification Agreement:** Bidder agrees to defend, indemnify, and hold harmless City, its employees, volunteers, Bidders, and insurers, with respect to any action, claim or lawsuit arising out of this contract, without limitation as to the amount of fees, and without limitation as to any damages resulting from settlement, judgment, or verdict, and includes the award of any attorneys' fees even if in excess of Alaska Civil Rule 82, but only to the extent such action, claim, or lawsuit is caused or alleged to have been caused by Bidder's negligence. "Bidder" includes the Bidder's employees, its agents, and its subcontractors. The Bidder shall not be required to indemnify City for a claim of, or liability for, the independent negligence of City. "Independent negligence" is negligence other than in the City's selection, administration, monitoring, or controlling of the Bidder and in approving or accepting the Bidder's work. If there is a claim of, or liability for, the joint negligent error or omission of the City and Bidder, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. City shall notify Bidder in a timely manner of the need for indemnification, but such notice is not a condition precedent to Bidder's obligations and may be waived where the Bidder has actual notice.
- 29. Insurance Requirements. Bidder has secured and agrees to keep and maintain in full force and effect, at its own expense, the insurance approved by CBJ Risk Management as outlined in Appendix C. All insurance required under this contract shall name the CBJ as an additional insured, except with respect to any required Professional Liability or Workers Compensation policies. At least 30 days prior to the cancellation, non-renewal or reduction in the amount of coverage, Contractor shall provide written notice to the CBJ's Risk Management. The Contractor's insurance shall be primary and any insurance maintained by the CBJ shall be non-contributory. If the Contractor maintains higher limits than shown below, the CBJ shall be entitled to coverage for the higher limits maintained by the Contractor. Failure of CBJ to demand such certificate or other evidence of full compliance with these insurance requirements or failure of CBJ to identify a deficiency from evidence that is provided shall not be construed as a waiver of the obligation of the Contractor to maintain the insurance required by this contract. The Consultant must provide certification of proper insurance coverage or binder to the City and Borough of Juneau. Failure of the City to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of the obligation of the Contractor to maintain the insurance

required by this contract. Should any of the below described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Proof of the following insurance is required before award:

Commercial General Liability Insurance. The Consultant must maintain Commercial General Liability Insurance in an amount it deems reasonably sufficient to cover any suit that may be brought against the Consultant. This amount must be at least one million dollars (\$1,000,000.00) per occurrence, and two million dollars (\$2,000,000.00) aggregate. The City will be named as an additional insured on this policy for work performed for the City.

Professional Liability Insurance. The Consultant must maintain Professional Liability Insurance in an amount not less than one million dollars (\$1,000,000.00) aggregate to protect the Consultant from any claims or damages for any error, omission, or negligent act of the Consultant, the Consultant's firm and employees. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract.

Workers Compensation Insurance. The Consultant must maintain Workers Compensation Insurance to protect the Consultant from any claims or damages for any personal injury or death, which may arise from services performed under this contract. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract. The Consultant must notify the City as well as the State Division of Workers Compensation immediately when changes in the Consultant's business operation affect the Consultant's insurance status. Statutory limits apply to Workers Compensation Insurance. The policy must include employer's liability coverage of one hundred thousand dollars (\$100,000.00) per injury, and five hundred thousand dollars (\$500,000.00) policy limits. If the Consultant is exempt from Alaska Statutory Requirements, the Consultant will provide written confirmation of this status in order for the City to waive this requirement. The policy shall be endorsed to waive subrogation rights against the City.

Comprehensive Automobile Liability Insurance. The coverage shall include all owned, hired, and non-owned vehicles to a one million dollar (\$1,000,000.00) combined single limit coverage. The City will be named as an additional insured on this policy for work performed for the City.

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932)

RFQ DH16-011

BID AND SIGNATURE PAGE

<u>Give number and date of each Addenda above.</u> Failure to acknowledge receipt of all Addenda may cause the Bid to be non-responsive and may cause its rejection.

Addenda No.	Date Issued	Addenda No.		Date Issued
Dated:		Bidder:		
			(Compa	ny Name)
		D: "		
		Ву:	(Signatu	
			July latu	ii <i>c)</i>
		Duinte d New		

Dated:	
	(Company Name)
	Ву:
	(Signature)
	Printed Name:
	Title:
Telephone No.:	Address:
	(Street or P.O. Box)
Fax No.:	
	(City/State and Zip Code)

TO BE CONSIDERED, ALL BIDDERS MUST COMPLETE AND INCLUDE THE FOLLOWING AT THE TIME OF THE BID OPENING:

- > Signed Bid and Signature Page, (includes Addenda receipt statement)
- Completed Bid Schedule

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932) RFQ DH16-011

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932)

RFQ DH16-011

BID SCHEDULE

Bid Schedule for providing professional surveying services to perform survey and platting of tide and submerged lands (ATS-1700/ADL-107932), in accordance with these RFQ Documents.

BASE BID - Furnish all labor, equipment, and materials for providing professional surveying services to perform survey and platting of tide and submerged lands (ATS-1700/ADL-107932) and perform all WORK as described in these RFQ Documents.

Professional Survey Services for Survey and Platting of Tide and Submerged Lands (ATS-1700/ADL-107932)

RFQ DH16-011

ATTACHMENT A

• State of Alaska Survey Instructions for ATS1700/ADL107932





Department of Natural Resources

Division of Mining, Land & Water Surveys Section

> 550 West 7th Avenue, Suite 650 Anchorage, Alaska 99501-3576 Main: 907.269.8523 TDD: 907.269.8411 Fax: 907.269.8914

May 12, 2014

Gary Gillette, Port Engineer City and Borough of Juneau Docks and Harbors 155 S. Seward Street Juneau, Alaska 99801

File: ATS No. 1700 Subj: Survey Instructions ADL No. 107932

Dear Mr. Gillette:

Enclosed are the Special Survey Instructions for the survey and platting of approximately 3.34 acres of tide and submerged land for conveyance to the City and Borough of Juneau, Statter Harbor, ATS No. 1700 / ADL No. 107932. These instructions will be good for two years from the date of approval. The applicant is being notified of the issuance of the instructions by a copy of this letter.

A waiver of any portion of the field survey requirements of the Survey Instructions must be requested and approved prior to completion of the fieldwork. A waiver of any portion of the platting requirements must be requested and approved prior to the submittal of the preliminary plat.

This survey is subject to review and approval by the City and Borough of Juneau Platting Authority. It is the responsibility of the surveyor to obtain this approval. In the event any Platting Authority requirement significantly changes the scope of this survey, contact this office for Supplemental Instructions.

If you have any questions concerning these instructions, please feel free to contact me at 451-2758.

Sincerely,

Love

G. Larry King, PLS, SR/WA, CFedS Statewide Platting Supervisor

Enclosures: Special Survey Instructions Plan of Survey

cc: Lee Cole, SERO, DMLW Natural Resource Tech II: Ronda Wilson ADL No. 107932 Survey Tracking & Monitoring, Case Type: 316, Subtype: 0046

> "To responsibly develop Alaska's resources by making them available for maximum use and benefit consistent with the public interest."

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND & WATER CADASTRAL SURVEY UNIT 550 W 7TH AVE., SUITE No. 650 ANCHORAGE, ALASKA 99501-3576

SPECIAL SURVEY INSTRUCTIONS

ALASKA TIDELAND SURVEY NO. 1700

Authority: 11 AAC 53, Survey and Platting Requirements

These instructions provide for the survey and platting of 2 parcels encompassing approximately 4.6 acres of tide and submerged lands within Protracted Sections 22 and 23, Township 40 South, Range 65 East, Copper River Meridian, near Juneau, Alaska. The purpose of this survey is to facilitate the conveyance of tide and submerged lands in accordance with AS 38.05.825, pursuant to the Final Finding and Decision for ADL No. 107932, approved September 25, 2013.

In the execution of the survey included under ATS No. 1700, the surveyor is authorized and directed to perform the survey of ADL No. 107932, as set out in these instructions, the State of Alaska's Survey and Platting Regulations, and such supplemental instructions as may be issued during the progress of work.

LIMIT AND CHARACTER OF WORK

The survey is limited to the establishment and monumentation of the boundaries as shown on the Plan of Survey for ATS No. 1700 / ADL No. 107932, the location of all improvements within the parcel, and the preparation of the survey plat. In the event that any needed BLM or GLO survey corner is missing or has been destroyed, it shall be reestablished per the appropriate <u>BLM Manual of Surveying Instructions</u>.

HISTORY OF SURVEYS

U.S. Survey No. 2391 was surveyed by F.W. Williamson, Cadastral Engineer, in 1938 and the plat was accepted by GLO on April 20, 1940. The plat was recorded on April 20, 1940 as Plat No. 1940-4, Juneau Recording District.

Supplemental Plat of U.S. Survey No. 2391 showing Lots 1 through 6 was accepted May 5, 1961.

U.S. Survey No. 2664 was surveyed by Leonard M. Berlin, Cadastral Engineer, in 1946 and the plat was accepted by BLM on July 7, 1948.

U.S. Survey No. 3819 was surveyed by Clifford L. McKay, Cadastral Surveyor, in 1960 and the plat was accepted by BLM on April 17, 1962.

ATS No. 16 was surveyed by Toner & Nordling Registered Engineers in 1960 and the plat was recorded on May 23, 1961 as Plat No. 289, Juneau Recording District.

ATS No. 1118 was surveyed by D. S. Miller Civil Engineering, in 1986 and the plat was filed on April 28, 1986 as Plat No. 86-35, Juneau Recording District.

ATS No. 1324 was surveyed by D. S. Miller Civil Engineering, in 1986 and the plat was filed on May 14, 1986 as Plat No. 86-40, Juneau Recording District.

ATS No. 756 was surveyed by B. A. Campbell in 1968 and the plat was recorded on January 11, 2001 as Plat No. 2001-2, Juneau Recording District.

ATS No. 121 was surveyed by Louis D. Rainery Consulting Engineer in 1961 and the plat was recorded on January 11, 2001 as Plat No. 2001-3, Juneau Recording District.

ATS No. 33 was surveyed by Toner & Nordling Registered Engineers in 1961 and the plat was recorded on January 11, 2001 as Plat No. 2001-6, Juneau Recording District.

ATS No. 1362 was surveyed by D. S. Miller Civil Engineering in 1988 and the plat was recorded on April 8, 1991 as Plat No. 91-15, Juneau Recording District.

ADL No. 51648, Right of Way Permit was issued by the Department of Natural Resources, Division of Lands, on October 14, 1970. A First Amendment was issued August 20, 1973. A copy of each is enclosed.

The following plats were filed/recorded in the Juneau Recording District:

Woodacres Subdivision was filed as Plat D-40.

Auke Bay Towers Condos, a subdivision of Lots 8, 9, 10, & 12 was recorded on March 13, 1970 as Plat No. 581.

Boundary Line Adjustment Plat of Lots 2A & 3A, U.S. Survey No. 2664 was surveyed by Douglas Finley Land Surveying in 2002 and the plat was recorded on December 12, 2002 as Plat No. 2003-15.

Boundary Line Adjustment Plat of Lots 3B & 3C, U.S. Survey No. 2664 & ATS 16 was surveyed by Douglas Finley Land Surveying in 2003 and the plat was recorded on June 4, 2003 as Plat No. 2003-15.

Partial Right of Way Vacation of Unnamed Street to Lat 8A & 12A within Woodacres Subdivision was surveyed by R&M Engineering, Inc. in 2006 and the plat was recorded on December 8, 2006 as Plat No. 2006-70.

METHOD OF SURVEY PROCEDURE

This survey shall be executed by a Professional Land Surveyor registered to practice in the State of Alaska.

It is the surveyor's responsibility to insure research is complete.

The survey and plat of ATS No. 1700 shall substantially conform to 11 AAC 53, these Survey Instructions, the Final Finding and Decision approved September 25, 2013, the City and Borough of Juneau Statter Harbor Improvements Tidelands Application Update Concept & Master Plan dated September 18, 2012 and the enclosed Plan of Survey.

Two tracts shall be created by this survey.

Tract A shall be those tide and submerged lands as described in the enclosed document entitled "Legal Description for the City and Borough of Juneau Docks and Harbors, Juneau, Alaska" prepared January 22, 2013.

Platted boundary lines of ATS No. 1362 located within Tract A, ATS No. 1700, shall be vacated.

The landward boundary of Tract A, ATS No. 1700 shall be coincident with the littoral boundaries of Lots 4 and 5 of U.S. Survey No. 2664 and the natural mean high water line of Statter Harbor. The surveyor shall be cautious when determining the existing mean high water line to make sure that it is the natural line, and not an artificial one created by fill material.

The natural mean high water line coincident with the northeasterly boundary of Tract A, ATS No. 1700 may have been altered due to fill. The natural mean high water line shall be reestablished through the means of research of previous surveys, aerial photography and historical research to determine the best evidence of the natural mean high water line location prior to placement of fill. Meander Corners 1, 2, and 3 of Tract A, ATS No. 1700 shall be established at the last natural mean high water line prior to placement of fill, based on the best available evidence. The toe of fill shall be located and depicted on the plat. The existing natural mean high water line shall be meandered and shown to a distance of approximately 400 feet beyond the bounds of this survey. The tidal datum used shall be shown on the plat.

Tract B shall be the replat of ATS No. 1362, excluding those tide and submerged lands located within the above described Tract A.

The landward boundary of Tract B, ATS No. 1700 shall be coincident with the littoral boundary of Lot 10 of Woodacres Subdivision and the natural mean high water line of Statter Harbor. The surveyor shall be cautious when determining the existing mean high water line to make sure that it is the natural line, and not an artificial one created by fill material.

The natural mean high water line coincident with the northerly boundary of Tract B, ATS No. 1700 may have been altered due to fill. The natural mean high water line shall be reestablished through the means of research of previous surveys, aerial photography and historical research to determine the best evidence of the natural mean high water line location prior to placement of fill. Meander Corners 1, 2, and 3 of Tract B, ATS No. 1700 shall be established at the last natural mean high water line prior to placement of fill, based on the best available evidence. The toe of fill shall be located and depicted on the plat. The existing natural mean high water line shall be meandered and shown to a distance of approximately 400 feet beyond the bounds of this survey.

All improvements within ATS No. 1700 shall be as-built and depicted on the plat with ties to the parcel boundary.

Field ties shall be made to all monuments which control the parcel sidelines. These ties and monumentation shall be shown on the plat. Monumentation shall be recovered and tied as necessary to properly proportion record meander lines. Sufficient field measurements shall be made to show the relationship between this tidelands parcel and existing monumented boundaries of contiguous upland parcels. ATS No.'s 16, 121, 756 and 1118 shall be retraced sufficiently to ensure they are not encroached upon.

A table shall be shown on the plat showing:

Ties from a minimum of two primary monuments, preferably MC3, Tract A and C1, Tract B to Corners 5 and 6, Tract A, and Corners 4, 5, 6 and 7, Tract B. The ties shall be oriented to yield a strong geometric figure for the purpose of reestablishing Corners 5 and 6, Tract A, and Corners 4, 5, 6 and 7, Tract B, ATS No. 1700.

The Basis of Bearing shall be between any two recovered monuments for which there is a record bearing; preferably the longest line of record or alternately the Basis of Bearing may be determined using high precision GPS survey procedures. The Basis of Bearing must be clearly noted on the plat. The Datum must also be noted, including the conversion method information.

Geographic coordinates (NAD 1927 and NAD 1983) are required to be shown at the monumented Meander Corner #1, Tract A. The Basis of Coordinates shall be derived from a field tie to a NGS survey monument established by GPS or conventional methods, or from a tie to one of the monuments of an approved survey having record values. The Basis of Coordinates must be clearly noted on the plat.

Geographic coordinates may also be derived from survey-grade GPS observations if sufficient to process through OPUS. Observations shall be on a primary monument, set or recovered, which

shall be shown on the plat with ties to the survey. Documentation accompanying the first plat submittal must include recordable copies of the "NGS OPUS Solution Report," and a completed "GPS Station Observation Log." The NGS Opus Solution Report shall show a minimum of 120 minutes of static positioning data logged, with 240 minutes recommended.

For additional information regarding OPUS and the NGS OPUS Solution Report, see <<u>http://www.ngs.noaa.gov/OPUS/Using_OPUS.html</u>>. GPS Station Observation Log forms are available in pdf format at <<u>http://www.ngs.noaa.gov/PROJECTS/NGSforms/obslog.pdf</u>>.

Control monuments on record with the National Geodetic Survey (NGS) may be researched on-line at <<u>http://www.ngs.noaa.gov/products_services.shtml#DataSheets</u>>.

If GPS technology is used, it shall conform to the "Geometric Accuracy Standards and Specifications for Using Relative Positioning Techniques," Version 5.0, May 1988, reprinted with corrections, August 1, 1989. Copies of this document are available on-line at <<u>http://www.ngs.noaa.gov/FGCS/tech_pub/GeomGeod.pdf</u>>.

No marking of any kind shall be added to recovered monuments.

Reservation to ATS No. 1700:

A 50' public access easement centered on the driven way from the upland boundary to the existing mean high water line shall be reserved on this plat in accordance with AS 38.05.127. The easement shall be graphically depicted and labeled on the plat.

A 50' public access easement coincident with and 50' seaward of the existing mean high water line shall be reserved on this plat in accordance with AS 38.05.127. The easement shall be graphically depicted and labeled on the plat.

ATS No. 1700 is subject to:

ADL No. 51648, a 20 foot Sewer Easement platted under ATS No. 1362. The easement shall be annotated with ties to the Tract boundaries and labeled on the plat.

The surveyor shall research the public record sufficiently to show on the plat the current legal identifiers of contiguous upland parcels.

It is the surveyor's responsibility to obtain the upland owner's permission prior to setting any monuments.

All significant improvements and encroachments within this survey shall be field located and shown on the plat.

TECHNICAL SURVEY REQUIREMENTS

All lines surveyed and retraced by this survey shall be surveyed with a minimum accuracy of 1:5000. The surveyor must employ closed-traverse methodology or other field survey procedures which self-check the survey and justify the claim of achieving the required degree of accuracy, with the actual field closure reflected in the field notes. Legible, annotated copies of all field notes and computations, a sketch showing traverse point relationships, as well as good photographs or legible rubbings of monuments recovered and established, <u>must</u> accompany the first plat submittal. All GPS data; including raw data files, adjustment files, final coordinate file, and OPUS solutions shall be submitted in a <u>digital format only</u>, no hard copies please. OPUS solution sheets must also accompany the first plat submittal.

Previously existing monuments and accessories found in a disturbed condition must be returned to the original position and condition as nearly as possible or replaced so as to perpetuate the position.

A primary monument must consist of a minimum two inch diameter metal pipe, at least 30 inches long, with a minimum four-inch flange at the bottom. A minimum two-and-one-half inch diameter metal cap must be permanently attached at the top. If both the cap and the pipe are of non-ferrous metal, then additives with magnetic qualities must be permanently attached at both the top and bottom of the monument. Every primary monument cap must be permanently stamped with the survey designation across the top, the corner identification in the center, and the surveyor's registration number and the year set on the bottom. This data must be oriented so that it may be read when the reader is facing north.

Except where otherwise required in these Survey Instructions and the Plan of Survey, tideland survey parcels shall be monumented with a minimum of four primary monuments. Except where otherwise herein indicated, there shall be one monument required on each exterior meander corner and a witness corner monument on the upland extension of each seaward sideline, defining the sideline. If existing monuments fit these criteria they may be used instead of new ones.

If the point for a primary monument is in a place that would be impractical to monument because of natural obstacles such as water bodies, a witness corner must be set. The witness distances must be shown on the survey plat from the true corner position to the monument as set. Except where otherwise required in these Survey Instructions and the Plan of Survey, witness corners must be set on a survey property line and at a distance considered reasonable and practical from the true corner point. Witness corners must comply with the standards for primary monuments. If it is impractical to set a primary monument due to surface or shallow subsurface rock, one of the following may be substituted, with monument accessories as required: (a) a cap grouted into firm rock; or (b), a durable tablet containing a minimum of 1,000 cubic inches of concrete and a cap marking the actual corner point.

All primary monuments must be referenced to three bearing trees or objects, if available, using methods that will secure a closure error no greater than 1:2000. Reference monuments must be set if no trees or other suitable objects exist within 100 feet.

- (1) If bearing trees or objects are used, they must be located as nearly as possible at equal angles, and may not be farther away than 100 feet from the monument. The distance to trees or objects must be measured at waist height, and in the case of trees, measured to the center of the tree, with distances reduced to horizontal equivalent. The surveyor shall have the option of marking the bearing trees with non-ferrous metal tags of at least nine square inches in size facing the monument and clearly and permanently marked with the bearing, distance, and corner nomenclature, or of scribing the trees as per applicable Articles of the <u>BLM Manual of Surveying Instructions, 2009</u>. Reference monuments must be set if no trees or other suitable objects exist within 100 feet.
- (2) If reference monuments are necessary, two monuments meeting the requirements for secondary monuments, must be used. These monuments must be placed on a property line or at right angles to the monument within the property being surveyed, and may not be further than 100 feet from the monument being referenced. In addition, they must be marked with the nomenclature and distance to the monument being referenced.
- (3) In addition to the accessories required above, witness posts of the minimum size of a nominal two-by-four, or fiberglass reinforced Carsonite witness posts, six feet in length with four feet protruding above ground, are required for all primary monuments. They shall be set at right angles to the line and no farther than one foot from the monument.

Secondary monuments must consist of at least a five-eighth inch metal rod, three feet long, with a one-and-one-half inch cap attached at the top.

All property corners must be numbered on the monuments and designated on the plat in a consecutive, preferably clockwise, direction.

Any additional survey or monumentation requirements of the City and Borough of Juneau Platting Authority must also be conformed to.

PLAT REQUIREMENTS

The surveyor shall construct the plats in accordance with the following:

- (1) The plat must be of archive quality biaxially oriented polyester film that does not exceed 32 x 36 inches. Margins shall be 1½ inch on the left and ½ inch on the top, right and bottom.
- (2) Use the standard DNR legend, an example of which is available on the DNR Survey Unit webpage at <<u>http://www.dnr.state.ak.us/mlw/survey/</u>>.
- (3) All sheets must have the official division title block, border configuration and standard legend.

- (4) All line work on the plat must be in the appropriate black drafting ink.
- (5) All lettering on the plat must be in the appropriate black drafting ink and be accomplished with mechanical lettering equipment.
- (6) All line work and lettering must be of professional quality and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion. In order for all plats to microfilm properly, all lettering must be minimum size 80 Leroy ®, or equivalent, with No. 100 recommended. Size 80 lettering must be uppercase.
- (7) When more than one sheet is required, an index sheet must be added showing the entire parcel, with the sheets in numerical order, and each sheet showing the sheet number and total number. When more than one sheet is submitted, only the last need have the approval certificates, but all sheets must be the same size.
- (8) The plat must be in an appropriate engineering scale of one inch representing a multiple of 100 feet.
- (9) Details, as necessary, must be shown at an appropriate indicated scale.
- (10) The plat must have a vicinity map in the upper right hand corner. The map shall be at least four inches on each side with a scale of one inch representing one mile, showing sections, townships and ranges, boundaries such as national forest or municipal boundaries, and other prominent physical or natural features such as roads, lakes, or rivers. The source of the base map must also be indicated.
- (11) Nomenclature of the survey need appear in the title block only, unless the division specifically states otherwise.
- (12) The basis of bearings must be indicated. Bearings shown must be true bearings as orientated to the basis of bearing, and distances must be in the foot unit reduced to the true horizontal equivalent.
- (13) Bearings and distances must be shown within the accuracy commensurate with the class of survey being represented. Boundary line distances must be shown from monument to monument.
- (14) In compliance with PL 94-168, entitled "Metric Conversion Act 1975," a metric bar scale shall be shown on the plat, positioned directly above the title block. A corresponding foot scale shall be shown and similarly placed, and have a unit scale which is identical to that used in the drawing on the survey portion of the plat. Two equations shall be shown: 1 meter = 3.280833 U.S. survey feet, and 1 U.S. Acre = 0.4047 hectare.

- (15) The date of plat preparation and standard north arrow must be shown on the plat. A recent magnetic declination must be shown below the north arrow with a date and source. The current declination may be computed utilizing the N.O.A.A. National Geophysical Data Center website at <<u>http://ngdc.noaa.gov/seg/geomag/declination.shtml</u>>.
- (16) Certificates must be shown substantially as follows, with the headings capitalized and underlined:

CERTIFICATE OF OWNERSHIP AND DEDICATION

I, the undersigned, hereby certify that I am the Director, Division of Mining, Land and Water and that the State of Alaska is the owner of ATS No. 1700, as shown hereon. I hereby approve this survey and plat for the State of Alaska, and dedicate for public or private use as noted, all easements, public utility areas, and rights-of-way as shown and described hereon.

Dated ______ (Signature in black ink)_____ Director, Division of Mining, Land & Water

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn to before me this	day of	,
20 .		

By_____.

Notary Public for Alaska My Commission Expires _____

APPLICANT CERTIFICATE

(Use the singular or plural as applicable.)

(I/We), the undersigned, hereby certify that (I am/we are) the applicant(s) as shown hereon. (I/We) hereby approve this survey and plat.

ADL No. 107932, Tract A

(Signature in black ink) Applicant's Name or Authorized Official and Title

Date

NOTARY'S ACKNOWLEDGEMENT

Tech on 'dnr-atwfs1':\- New\ATS\ATS 1700 Statter Harbor - S22,T40S,R65E,CRM\SI's

Subscribed and sworn to before me this day of 20 .

By Applicant's/Official's name to be handwritten in by Notary

Notary Public for Alaska My Commission Expires _____

SURVEYOR'S CERTIFICATE

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

Date (date) Registration Number (number)

(Surveyor's Seal)

(Signature in black ink) Registered Land Surveyor

PLAT APPROVAL

(Appropriate Platting Authority Certificate)

TAX CERTIFICATE

(Appropriate Taxing Authority Certificate)

- (17)Any approval or any other certificates or notes that may be required by the City and Borough of Juneau Platting Authority shall be drafted on the plat.
- (18) The following notes will be required on the plat:
 - This survey was accomplished in accordance with AS 38.05.825 and ATS SI No. a. 1700.
 - b. All bearings shown are true bearings as oriented to the Basis of Bearings and distances shown are reduced to horizontal field distances.

- c. The error of closure of this survey does not exceed 1:5000.
- d. (For plats based on GPS)

BASIS OF BEARING

The Basis of Bearing on this plat was determined by a high precision GPS survey, using (*brand and model*) receivers, differentially corrected and processed using (*name of software*), Version _______ software.

COORDINATES

The coordinates used were constrained to the National Spatial Reference System (NSRS) using CORS Station ______.

- e. The natural meanders of the line of mean high water (MHW) form the true bounds of ATS No. 1700. The approximate line of MHW, as shown, is for area computations only, with the true corners being on the extension of the side lines and their intersection with the natural meanders.
- f. A note shall be placed on the plat stating either:

Mean high tide was determined by time coordinated tidal observations on <u>month</u> <u>day year</u> as extrapolated from the NOAA Publication for the predictions of high and low waters for (year).

or

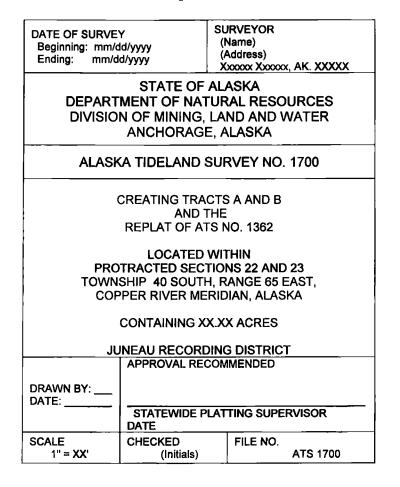
Mean high tide was determined from ______ tidal bench mark on month day year from data supplied by NOAA.

g. The tidal datum information used shall be shown on the plat in a manner similar to the following:

Tidal Station Name Lat/Long		
MHHW	X.XX'	
MHW	X.XX'	
MLW	X.XX'	
MLLW	X.XX'	

(19) Both record and found bearings and distances shall be shown on the plat. In the event there are two sets of record data that of the latest plat of record will be shown with the plat nomenclature indicated. If record lines are not retraced or resurveyed but are used to compute closure, record monumentation along these lines must also be indicated.

- (20) The exact marks on all monuments recovered and set must be shown on the plat with data pertaining to bearing trees and/or monument accessories established.
- (21) All easements and rights-of-way shall be shown graphically on the plat in lieu of a "note" whenever possible to do so. This requirement applies to all easements and rights-of-way including those to and along public water bodies and shore lands.
- (22) The plat shall show the upland land status, record survey lines, and an indication of whether or not the adjacent tidelands are occupied or unoccupied. If adjacent tidelands are occupied, the tideland survey number(s) must be depicted. Indicate all water body names adjacent to the survey.
- (23) The current Division of Mining, Land and Water title block shall be placed in the lower right-hand corner of each sheet of the plat, and labeled as follows:



PLAT REVIEW PROCESS

Upon completion of the field survey and prior to submittal of the plat to a borough or municipal platting authority (if applicable), two blueline copies of the plat shall be submitted, with the

applicable fee, to the Department of Natural Resources for review. A copy of the final platting board conditions of approval or meeting minutes, and filing fees, will be required with submittal of the final plat.

Legible, annotated copies of all field notes and computations, a sketch showing traverse point relationships, and photographs or legible rubbings of monuments recovered and established <u>must</u> accompany the first plat submittal. For plats where the basis of coordinates is derived from GPS observations and not from monuments of record, recordable copies of the "NGS OPUS Solution Report" and "GPS Station Observation Log" must accompany plat submittal.

The Checked box shall be initialed by hand, by the surveyor, prior to submittal of the preliminary plats for review.

In accordance with 11 AAC 05.010(a)(13), plat review fees are \$200 for the first parcel or tract, and \$50 for each additional parcel or tract, with the second review at no charge. Third review and each additional review fees are \$300 each for the first parcel or tract per plat, and \$100 for each additional parcel or tract per plat. Please remit a check or money order payable to the Department of Natural Resources along with the first plat submittal, and if necessary the third and each additional submittal.

FINAL MYLAR PLAT SUBMITTAL

Along with the final plat mylar, a *dxf (drawing exchange format) or *dwg (AutoCAD drawing format) file in standard media electronic format (CD, or DVD) shall be submitted. In lieu of a disk, the surveyor may make the drawing available through a FTP site on the internet or by e-mail attachment.

The submitted drawing shall contain a special layer named "DNR". The following specifications apply only to the "DNR" layer; other layers need not be altered. The "DNR" layer must be in model space and not paper space when the submitted drawing is opened in AutoCAD. The "DNR" layer shall show the surveyed lines, interior lot/tract lines as well as the exterior boundary, the tie to the basis of bearing and the tie to the basis of coordinates. The basis of coordinates shall be labeled with its name/identifier, geographic coordinate values and datum. All parcels must close with lines having clean snapped intersections, with no overshoots or undershoots; snapped lines that close are preferred over polygons. On the "DNR" layer, do not include extraneous text (area, title block, bearings or distances, details, etc) other than the labels for the basis of bearing and the basis of coordinates.

The plat filing fee is \$20.00 for the first sheet and \$5.00 for each additional sheet.

MODIFICATION OF INSTRUCTIONS

Should conditions arise appearing to require additional instructions or interpretation of these instructions, or which make these instructions inoperable, a report shall be submitted promptly to the Survey Section Chief describing the situation and making recommendations for its resolution.

In the event that the survey is not completed, these instructions will become void at 5:00 p.m., AST, two years from the date of approval. Survey Instructions may only be extended once after their original issuance. A written request for an extension with justification and applicable fee is required.

Prepared by: Pat Green

Pat Green Land Surveyor I

Approved by: CFedS

G. Larry King, PLS, SR/WA, FedS Statewide Platting Supervisor

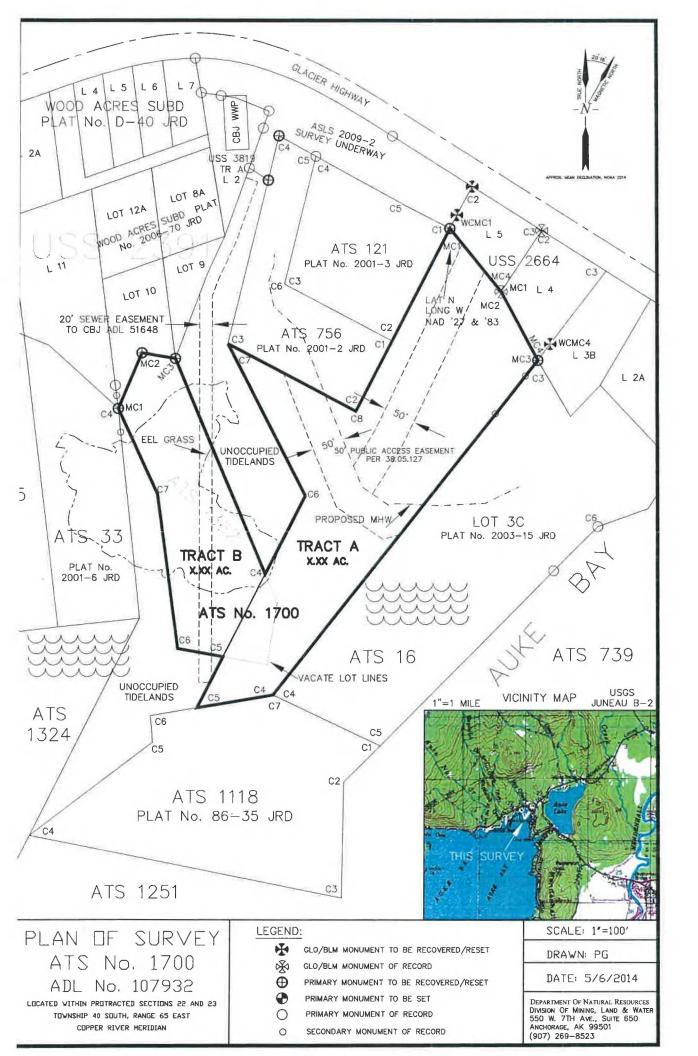
Date: 5/12/14

GLK: PG: pg

Enclosures:

Plan of Survey Preliminary Decision Final Finding and Decision Legal Description Document ADL No. 51648, Right of Way Permit, and First Amendment to ADL 51648 Alaska Tideland Surveys

cc: Lee Cole, SERO, DML&W Survey Tracking & Monitoring: ADL No. 107932 (Case Type 316, Subtype 0046)



ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND AND WATER SOUTHEAST REGIONAL OFFICE

Final Finding and Decision ADL 107932

Tide and Submerged Land Conveyance to the City and Borough of Juneau at Statter Harbor in Auke Bay In Accordance with AS 38.05.825

This Final Finding and Decision, and all attachments hereto, supplement the Preliminary Decision dated August 5, 2013, and comprise the record of decision for this tide and submerged land conveyance under AS 38.05.825.

A Summary of Agency and Public Comments:

- There was one agency comment and it is summarized in Attachment 1.
- There was one public comment and it is summarized in Attachment 1.

There are no modifications to the Preliminary Decision.

The documents and decision referenced above have been fully reviewed and considered. The casefile has been found to be complete and the requirements of all applicable statutes have been satisfied. It is the finding of the Commissioner of the Department of Natural Resources that it is in the best interest of the State to proceed with this conveyance under the authority of AS 38.05.825.

David L. Kelley Southeast Regional Manager

9-25-2013

Date

A person affected by this decision who provided timely written comment or public hearing testimony on this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be by October 16, 2013, and may be mailed or delivered to Daniel S. Sullivan, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561; faxed to 1-907-269-8918; or sent by electronic mail to *dnr. appeals@alaska.gov*. If no appeal is filed by that date, this decision goes into effect as a final order and decision on October 29, 2013. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 is attached hereto as Attachment 2.

Attachment 1, Summary of Agency and Public Comments and Response Attachment 2, Appeal References

FINAL FINDING AND DECISION ADL 107932 Attachment 1 Summary of Comments and Responses

Agency Comment:

There was one agency comment from the Alaska State Historic Preservation Office, Office of History and Archaeology (SHPO). SHPO commented that there are no known or previously recorded cultural resources in the immediate area to be conveyed. SHPO stated that it would appreciate being contacted and is willing to offer technical assistance or recommendations on avoiding or minimizing impacts if previously unidentified resources are discovered at the Statter Harbor parcel in the future.

DMLW's Response:

Once the Final Finding and Decision becomes the final administrative order,¹ management of the 3.34 acre parcel of submerged and tidelands within Statter Harbor will transfer to the City and Borough of Juneau (CBJ) subject to the terms of the Preliminary Decision and FFD. CBJ will receive a copy of the FFD and all attachments, including this Attachment 1 which documents SHPO's offer of assistance and recommendations if at some future date previously unidentified cultural resources are discovered.

Public Comment:

There was one public comment. It was submitted on August 20, 2013, by the Douglas Indian Association Tribal Government (DIA) and states in relevant part that DIA "has determined that this project is located near known sites of historic, traditional or cultural importance to DIA." The letter also states that DIA believes that: "this project may have areas of potential effect or interest to the Tribe. Should anything of possible significance to the Tribe come to light or be disturbed," DIA requests immediate notification.

DMLW's Response:

Once the FFD becomes the final administrative order, management of the 3.34 acre parcel of submerged and tidelands within Statter Harbor will transfer to the City and Borough of Juneau (CBJ) subject to the terms of the PD and FFD. CBJ will receive a copy of the FFD and all attachments, including this Attachment 1 which serves as notice to CBJ of the comment and expectation expressed by the DIA.

¹ On the 31st day after the signing of a final finding and decision to convey state owned land, the decision becomes the final administrative order provided an appeal of the decision is not received by the DNR Commissioner's Office on or before the end of 20th day of the appeal period.

Final Finding and Decision ADL 107932 Attachment 2 Appeal References

Alaska Statute (AS) 38.05.035

(i) A person who is eligible to file an administrative appeal or a request for reconsideration, as appropriate, under this subsection and who is aggrieved by the final written finding of the director entered under (e)(5) or (6) of this section may, within 20 days after the issuance of the final written finding, file an administrative appeal or request reconsideration of the decision by the commissioner. A person is eligible to file an administrative appeal or a request for reconsideration if the person

(1) meaningfully participated in the process set out in this chapter for receipt of public comment by

(A) submitting written comment during the period for receipt of public comment; or

(B) presenting oral testimony at a public hearing, if a public hearing was held; and

(2) is affected by the final written finding.

(j) An administrative appeal or a request for reconsideration submitted under (I) of this section must specify the written finding complained of and the specific basis upon which it is challenged. The commissioner shall grant or deny the administrative appeal or reconsideration request within 30 days after issuance of the final written finding. Failure of the commissioner to act on the request for reconsideration within this period is a denial of the request for reconsideration and a final administrative decision for purposes of appeal to the superior court.

Alaska Administrative Code (AAC) - 11 AAC 02. Appeals

11 AAC 02.010. APPLICABILITY AND ELIGIBILITY. (a) This chapter sets out the administrative review procedure available to a person affected by a decision of the department. If a statute or a provision of this title prescribes a different procedure with respect to a particular decision, that procedure must be followed when it conflicts with this chapter.

(b) Unless a statute does not permit an appeal, an applicant is eligible to appeal or request reconsideration of the department's decision on the application. An applicant is eligible to participate in any appeal or request for reconsideration filed by any other eligible party.

(c) If a statute restricts eligibility to appeal or request reconsideration of a decision to those who have provided timely written comment or public hearing testimony on the decision, the department will give notice of that eligibility restriction as part of its public notice announcing the opportunity to comment.

(d) If the department gives public notice and allows a public comment period of at least 30 days on a proposed action, and if no statute requires opportunity for public comment, the department may restrict eligibility to appeal or request reconsideration to those who have provided timely written comment or public hearing testimony on the proposed action by including notice of the restriction as part of its public notice announcing the opportunity to comment.

(e) An eligible person affected by a decision of the department that the commissioner did not sign or cosign may appeal the decision to the commissioner within the period set by 11 AAC 02.040.

(f) An eligible person affected by a decision of the department that the commissioner signed or cosigned may request the commissioner's reconsideration within the period set by 11 AAC 02.040.

(g) A person may not both appeal and request reconsideration of a decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

11 AAC 02.015. COMBINED DECISIONS. (a) When the department issues a combined decision that is both a final disposal decision under AS 38.05.035(e) and any other decision, including a disposal decision combined with a land use plan decision, or a disposal decision to grant certain applications combined with a decision to deny others, the appeal process set out for a disposal decision in AS 38.05.035(i) - (m) and this chapter applies to the combined decision.

(b) A decision of the department may include a statement that a final consistency determination under AS 46.40 (Alaska Coastal Management Program) has been rendered in conjunction with the decision. A person may not, under this chapter, appeal or request reconsideration of the final consistency determination, including a requirement necessary solely to ensure the activity is consistent with the Alaska coastal management program as approved under AS 46.40. (Eff. 9/19/2001, Register 159)

11 AAC 02.020. FINALITY OF A DECISION FOR PURPOSES OF APPEAL TO COURT. (a) Unless otherwise provided in a statute or a provision of this title, an eligible person must first either appeal or request reconsideration of a decision in accordance with this chapter before appealing a decision to superior court.

(b) The commissioner's decision on appeal is the final administrative order and decision of the department for purposes of appeal to the superior court.

(c) The commissioner may order or deny a request for reconsideration within 30 calendar days after issuance of the decision, as determined under 11 AAC 02.040(c)—(e). If the commissioner takes no action during the 30-day period, the request for reconsideration is considered denied. Denial of a request for reconsideration is the final administrative order and decision of the department for purposes of appeal to the superior court.

(d) If the commissioner timely orders reconsideration of the decision, the commissioner may affirm the decision, issue a new or modified decision, or remand the matter to the director for further proceedings. The commissioner's decision, other than a remand decision, is the final administrative order and decision of the department for purposes of appeal to the superior court. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

11 AAC 02.030. FILING AN APPEAL OR REQUEST FOR RECONSIDERATION. (a) An appeal or request for reconsideration under this chapter must

- (1) be in writing;
- (2) be filed by personal service, mail, fax, or electronic mail;

(3) be signed by the appellant or the appellant's attorney, unless filed by electronic mail; an appeal or request for reconsideration filed by electronic mail must state the name of the person appealing or requesting reconsideration and a single point of contact to which any notice or decision concerning the appeal or request for reconsideration is to be sent;

- (4) be correctly addressed;
- (5) be timely filed in accordance with 11 AAC 02.040;
- (6) specify the case reference number used by the department, if any;
- (7) specify the decision being appealed or for which reconsideration is being requested;
- (8) specify the basis upon which the decision is challenged;
- (9) specify any material facts disputed by the appellant;
- (10) specify the remedy requested by the appellant;

(11) state the address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed; an appellant may also provide a telephone number where the appellant can be reached during the day or an electronic mail address; an appeal or request for reconsideration filed electronically must state a single address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed;

(12) identify any other affected agreement, contract, lease, permit, or application by case reference number, if any; and

(13) include a request for an oral hearing, if desired; in the appeal or request for reconsideration, the appellant may include a request for any special procedures to be used at the hearing; the appeal or request for reconsideration must describe the factual issues to be considered at the hearing.

(b) At the time an appeal is filed, and up until the deadline set out in 11 AAC 02.040(a) to file the appeal, an appellant may submit additional written material in support of the appeal, including evidence or legal argument.

(c) If public notice announcing a comment period of at least 30 days was given before the decision, an appellant may not submit additional written material after the deadline for filing the appeal, unless the appeal meets the requirement of (a) of this section and includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

- (1) comments already received from the appellant and others;
- (2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an

extension;

- (4) the length of the extension requested;
- (5) the potential effect of delay if an extension is granted.

(d) If public notice announcing a comment period of at least 30 days was not given before the decision, an appellant may submit additional written material after the deadline for filing the appeal, if the appeal meets the requirements of (a) of this section and includes a notice of intent to file the additional written material. The department must receive the additional written material within 20 days after the deadline for filing the appeal, unless the appeal also includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

- (1) comments already received from the appellant and others;
- (2) whether the additional material is likely to affect the outcome of the appeal;
- (3) whether the additional material could reasonably have been submitted without an

extension;

- (4) the length of the extension requested;
- (5) the potential effect of delay if an extension is granted.

(e) At the time a request for reconsideration is filed, and up until the deadline to file a request for reconsideration, an appellant may submit additional written material in support of the request for reconsideration, including evidence or legal argument. No additional written material may be submitted after the deadline for filing the request for reconsideration.

(f) If the decision is one described in 11 AAC 02.060(c), an appellant who believes a stay of the decision is justified may ask for a stay as part of the appeal or request for reconsideration. The appellant must include an argument as to why the public interest requires a stay. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Editor's note: The address for an appeal or request for reconsideration by personal service and by mail is: Department of Natural Resources, Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561. The number for an appeal or request for reconsideration by fax is: 1-907-269-8918. The electronic mailing address for an appeal or request for reconsideration by electronic mail is: dnr_appeals@dnr.state.ak.us

11 AAC 02.040. TIMELY FILING; ISSUANCE OF DECISION. (a) To be timely filed, an appeal or request for reconsideration must be received by the commissioner's office within 20 calendar days after issuance of the decision, as determined under (c) or (d) of this section, unless another period is

set by statute, regulation, or existing contract. If the 20th day falls on a day when the department is officially closed, the appeal or request for reconsideration must be filed by the next working day.

(b) An appeal or request for reconsideration will not be accepted if it is not timely filed.

(c) If the appellant is a person to whom the department delivers a decision by personal service or by certified mail, return receipt requested, issuance occurs when the addressee or the addressee's agent signs for the decision. If the addressee or the addressee's agent neglects or refuses to sign for the certified mail, or if the address that the addressee provided to the department is not correct, issuance by certified mail occurs when the decision is deposited

in a United States general or branch post office, enclosed in a postage-paid wrapper or envelope, addressed to the person's current address of record with the department, or to the address specified by the appellant under 11 AAC 02.030(a)(11).

(d) If the appellant is a person to whom the department did not deliver a decision by personal service or certified mail, issuance occurs

(1) when the department gives public notice of the decision; or

(2) if no public notice is given, when the decision is signed; however, the department may state in the decision a later date of issuance and the corresponding due date for any appeal or request for reconsideration.

(e) The date of issuance constitutes delivery or mailing for purposes of a reconsideration request under AS 44.37.011(d) or AS 44.62.540(a). (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

11 AAC 02.050. HEARINGS. (a) The department will, in its discretion, hold a hearing when questions of fact must be resolved.

(b) The hearing procedure will be determined by the department on a case-by-case basis. As provided in 11 AAC 02.030(a)(13), any request for special procedures must be included with the request for a hearing.

(c) In a hearing held under this section

(1) formal rules of evidence need not apply; and

(2) the hearing will be recorded, and may be transcribed at the request and expense of the party requesting the transcript. (Eff. 11/7/90, Register 116)

11 AAC 02.060. STAYS; EXCEPTIONS. (a) Except as provided in (c) and (d) of this section, timely appealing or requesting reconsideration of a decision in accordance with this chapter stays the decision during the commissioner's consideration of the appeal or request for reconsideration. If the commissioner determines that the public interest requires removal of the stay, the commissioner will remove the stay and allow all or part of the decision to take effect

on the date set in the decision or a date set by the commissioner.

(b) Repealed 9/19/2001.

(c) Unless otherwise provided, in a statute or a provision of this title, a decision takes effect immediately if it is a decision to

(1) issue a permit, that is revocable at will;

(2) approve surface operations for a disposal that has already occurred or a property right that has already vested; or

(3) administer an issued oil and gas lease or license, or an oil and gas unit agreement.

(d) Timely appealing or requesting reconsideration of a decision described in (c) of this section does not automatically stay the decision. However, the commissioner will impose a stay, on the commissioner's own motion or at the request of an appellant, if the commissioner determines that the public interest requires it.

(e) A decision takes effect immediately if no party is eligible to appeal or request reconsideration and the commissioner waives the commissioner's right to review or reconsider the decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159) 11 AAC 02.070. WAIVER OF PROCEDURAL VIOLATIONS. The commissioner may, to the extent allowed by applicable law, waive a requirement of this chapter if the public interest or the interests of justice so require. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

11 AAC 02.080. DEFINITIONS. Repealed. (Eff. 11/7/90, Register 116; repealed 9/19/2001, Register 159)

11 AAC 02.900. DEFINITIONS. In this chapter,

(1) "appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign;

(2) "appellant" means a person who files an appeal or a request for reconsideration.

(3) "commissioner" means the commissioner of natural resources;

(4) "decision" means a written discretionary or factual determination by the department specifying the details of the action to be allowed or taken;

(5) "department" means, depending of the particular context in which the term is used, the Department of Natural Resources, the commissioner, the director of a division within the Department of Natural Resources, or an authorized employee of the Department of Natural Resources;

(6) "request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

LEGAL DESCRIPTION FOR THE CITY AND BOROUGH OF JUNEAU DOCKS AND HARBORS JUNEAU, ALASKA

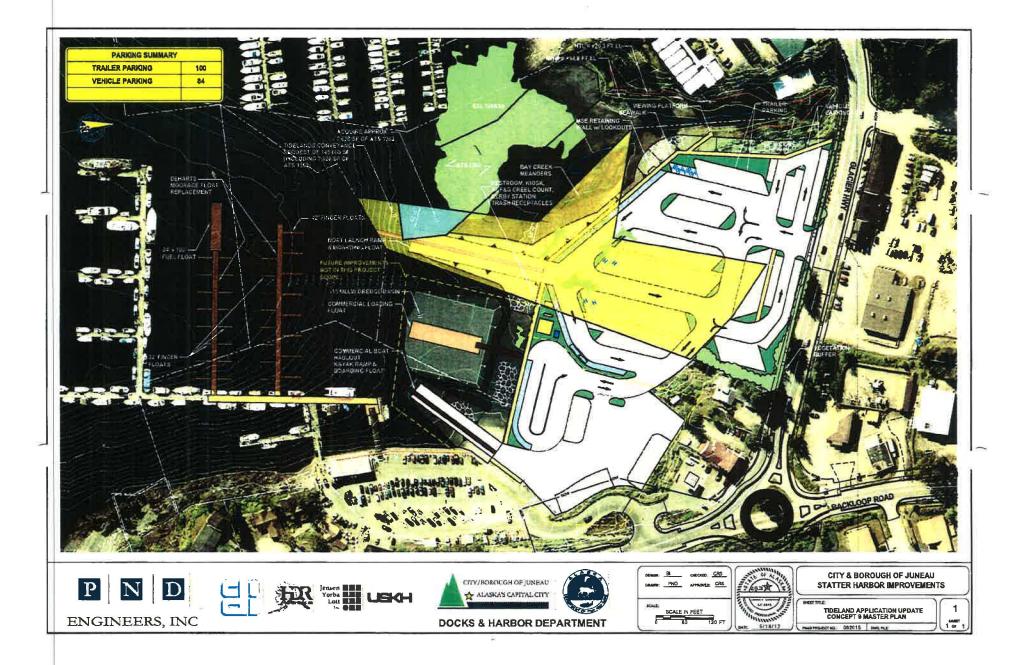
The following description was prepared by PND Engineers, Inc. on January 22, 2013 at the request of the City and Borough of Juneau for the purpose of describing a conveyance parcel.

CONVEYANCE PARCEL DESCRIPTION

The following conveyance parcel is located within Sections 22 & 23, Township 40 South, Range 65 East of the Copper River Meridian and within the City and Borough of Juneau, Alaska and is more particularly described as follows:

Commencing at the southwestern corner of ATS 756, as shown on the official plat as recorded as Plat 2001-2 in the Juneau Recording District, State of Alaska on January 11, 2001, from which the southeast corner of ATS 756 bears South 62° 15' 00" East a distance of 231.43 feet thus being the Basis of Bearing for this legal description. Said southwestern corner of ATS 756 is the True Point of Beginning for this description.

Thence South 62° 15' 00" East along the south boundary of ATS 756 a distance of 231.43 feet to the southeast corner; thence North 27° 45' 00" East along the east boundaries of ATS 756 and ATS 121 a distance of 325.00 feet to the southwest corner of lot 5, USS 2664; thence South 39° 05' 00" East along the boundary of said lot 5 to the common corner of lots 4 & 5, USS 2664 a distance of 130.02 feet; thence South 27° 26' 00" East along the boundary of said lot 4 to the common corner of ATS 16 and said lot 4 a distance of 124.08 feet; thence South 38° 02' 00" West along the boundary of ATS 16 to a common angle point with ATS 1118 a distance of 670.00 feet; thence South 78° 32' 37" West along the boundary of ATS 1118 to an point of intersection with ATS 1362 between corners 5 and 6, a distance of 84.48 feet; thence continuing along the previous bearing to a point of intersection with the boundary line between corners 3 and 4 of said ATS 1362, a distance of 153.05 feet, thence North 25° 41' 42" East to angle point a distance of 139.66 feet; thence North 26° 58' 25" West a distance of 273.50 feet to the **True Point of Beginning**, containing 3.34 acres, more or less and all according to the attached **Exhibit A**.



ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND AND WATER SOUTHEAST REGIONAL OFFICE

Preliminary Decision ADL 107932

AS 38.05.035(e)

Proposed Tide and Submerged Land Conveyance to the City and Borough of Juneau at Statter Harbor in Auke Bay In Accordance with AS 38.05.825

PROPOSED ACTION:

The Alaska Department of Natural Resources, Division of Mining, Land and Water, Southeast Region (DMLW), proposes to convey a parcel containing approximately 3.34 acres of State tide and submerged lands to the City and Borough of Juneau (CBJ) within its municipal boundaries, pursuant to AS 38.05.825. The parcel conveyance will be used for the purpose of constructing and operating a two-lane boat launch ramp and associated upland parking under CBJ's management of the Statter Harbor docks and harbor. The ramp and parking are expansions to the existing loading facility and will be for public use.¹

The public is invited to comment on this Preliminary Decision to convey tidelands to CB.I for the expansion of the existing loading facility. Please see the Public Notice section on page 10 for details on the submission of comments, comment deadlines, preservation of appeal rights, and related requirements.

SCOPE OF DECISION:

The scope of administrative review for this proposed conveyance is limited to the decision to convey title of the tidelands from the State of Alaska to CBJ under AS 38.05.825. It does not take into account any future development, the effects of such development, or other issues that may occur after the parcel is transferred.

ADMINISTRATIVE AUTHORITY:

The applicable authority for the proposed conveyance of State tide and submerged lands includes Alaska Statutes AS 38.05.035(e), AS 38.05.825, AS 38.05.127, AS 38.04.065, and the Alaska Administrative Code 11 AAC 51. The 1956 Alaska Constitution Article VIII, Natural Resources, is also incorporated.

The DMLW Director is authorized by AS 38.05.035(a) (6) to act on behalf of the State in this matter. The Director has delegated to the Regional Manager the authority to approve proposed and final decisions under AS 38.05.035(e).

ADMINISTRATIVE RECORD:

Preliminary Decision

¹ See Attachment A for the Statter Harbor project's design plan.

DMLW tideland conveyance file ADL 107932, and by reference the Alaska Department of Fish and Game's Anadromous Stream Catalogue, and the Juneau State Land Plan.

DESCRIPTION:

Location:

The unsurveyed parcel comprising approximately 3.34 acres is located within the Copper River Meridian, S1/2, NE1/4, and N1/2, SE ¼ of Section 22 of Township 40 South, Range 65 East, USGS Quad Map B2, Latitude 58.384°N, Longitude 134.647°W, and includes tidelands previously surveyed as ATS 758² at Statter Harbor and a portion of tidelands previously surveyed as ATS 1362³, in Auke Bay, approximately 12 miles north of Juneau, Alaska.⁴

Municipality: City and Borough of Juneau Native Corporation: Scalaska Corporation Tribal Contact: Central Council Tlingit and Haida Indians of Alaska, Douglas Indian Association

Water Bodies:

The parcel is located in Statter Harbor in Auke Bay, and is a navigable body of water. There is one anadromous fish stream, Bay Creek, that flows into Auke Bay. Bay Creek has been catalogued in the Alaska Anadromous Waters Catalog by the Alaska Department of Fish and Game (ADFG) as stream no. 111-50-10390, noting the presence of pink salmon and coho salmon. The requested conveyance includes state owned land below ordinary high water, including land within the Bay Creek intertidal zone.

Title:

<u>Acquisition Authority:</u> The State of Alaska received title to the affected tide and submerged lands under the Submerged Lands Act of 1953, and the Alaska Statehood Act, Public law 85-508, the Submerged Lands Act, Public law 31, and under the Doctrine of Equal Footing upon entry of the state into the Union.⁵

<u>Title Restrictions</u>: Pursuant to AS 38.05.825, a municipality receiving land under the statute, including CBJ, may lease the land but may not sell it; title to and management authority for the conveyed land reverts to the State upon dissolution of the municipality; and the municipality takes management authority and title to the tide and submerged lands subject to the rights of the public under the Public Trust Doctrine.

Reservations: A conveyance of land to CBJ will be subject to the following:

1. Valid existing rights, including reservations, easements, and exceptions in the U.S. Patent or other State or federal conveyance, and in acts authorizing the issue thereof; easements, rights-of-way, covenants, conditions, reservations, notes on the plat, and restrictions of record, if any;

Preliminary Decision

² ATS 758 was issued under ADL 37123 and pertained to a lease which was canceled in July 1974.

³ ATS 1362 was issued under ADL 103825 and the survey was filed in 1991; it pertained to a now defunct real estate project. ⁴ See Attachment A.

⁵ Title Report RPT 4244, DMLW Realty Services, 1/30/2013.

- 2. Reservation of public access easements under AS 38.05.127.6
- 3. Reservation of Mineral Estate: As required by AS 38.05.125, the State expressly saves, excepts and reserves out of the grant those resources specified by statute. These include, but are not limited to, all oils, gases, coal, ores, minerals, fissionable materials, geothermal resources, and fossils of every name, kind or description, including the right to explore the same.

Background:

Since 2001, CBJ has acquired approximately 253 acres of tide and submerged lands from the Division in accordance with AS 38.05.825. On September 9, 2009, CBJ applied for the conveyance of 160 acres of State tide and submerged lands in Statter Harbor in Auke Bay for construction and operation of a recreational launch ramp facility. Auke Bay is a large open bay approximately twelve miles north of downtown Juneau, and it supports a wide variety of public, private, commercial, and institutional developments. Auke Bay is the site of heavy recreational and commercial boating use, a public and two private marinas and a public boat launch ramp. Auke Bay is also the source of salt water research conducted at the National Marine Fisheries Service (NMFS) laboratory and University of Alaska research facilities. The area has high scenic value and provides habitat for aquatic wildlife. Constraints include the congested road bordering the bay and inadequate upland space for vehicle parking related to the marinas and launch ramp.⁷

CBJ has been working to expand the launch ramp for several years. Currently commercial boats, recreational motorboats, and kayaks share a deteriorated two-lane boat launch in a congested area, which creates unsafe conditions and results in waiting times. The Statter Harbor project was approved by majority vote in two municipal election ballots in 2005 and 2007. In September 2012, CBJ provided DMLW with an updated development plan significantly reducing the amount of acreage needed for the Statter Harbor project from 160 acres to approximately 3.34 acres (see Attachment A). Construction is anticipated to begin April 2014 and be completed by July 2015. The project has state, federal and CBJ funding. The U.S. Department of Interior, Fish and Wildlife Service issued a Finding of No Significant Impact in December 2012, the Corps of Engineers issued a permit in September 2012⁸, and the Alaska Department of Environmental Conservation issued a State Water Quality Certification on August 15, 2012. Finally, CBJ has obtained a permit from the Alaska Department of Fish and Game issued on January 16, 2013.⁹

The Statter Harbor project has environmental consequences. Fill placement would eliminate approximately. 4.1 acres of estuarine habitat, including .11 acres of eelgrass heds and .95 acres of mud flats.¹⁰ Felgrass has been identified as important habitat for other fish, including juvenile salmon and Pacific herring.¹¹ The fill

⁶ A public utility easement with CBJ was issued on August 20, 1972, establishing a 20 foot right of way on the tidelands adjacent to Tract A, Lot 2, U.S. survey 3819 (ADL 51648). If conveyed, this easement is no longer necessary as it pertains to the conveyed parcel.

⁷ Juneau State Land Plan, 3-73 through 3-74. The JSLP is available online:

http://dnr.alaska.gov/mjw/planning/areaplans/juncan/pdf/.

POA-2008-782.

⁹ Fish Habitat Permit FH13-I-0001.

¹⁹ See The U.S. Department of Interior, Fish and Wildlife Service issued a Finding of No Significant Impact, December 2012, pp.5-7.

¹¹ See The U.S. Department of Interior, Fish and Wildlife Service issued a Finding of No Significant Impact, December 2012, pp.5-7; see also NOAA Technical Memorandum NMFS-AFSC-182, Eelgrass Habitat and Faunal Assemblages in the City and Borough of Juneau, Alaska (March 2008).

footprint would extend into a relatively small portion of Bay Creek's existing channel complex. The project will install an armored slope and marine seawall minimizing the project's impact on Bay Creek. According to DOI's Finding, the project will have little if any impact effect on intertidal spawning of Bay Creek Salmon and post-development will have no impact on anadromous fish populations in the harbor.¹²

A cultural Resources Report was prepared in May 2009 for CBJ and assessed the impact of the project on any important cultural resources near and in Auke Bay.¹³ The thirty-six page report concluded that the project would cause no effect on historic properties in the area.

Planning and Classification:

AS 38.05.825(a)(5) requires that land to be conveyed must be either "classified for waterfront development or for another use that is consistent or compatible with the use proposed by the municipality, or the proposed use of the land is consistent or compatible with a land use plan adopted by the municipality or the department."

The proposed development currently is compatible with the Juneau State Land Plan (JSLP) since the parcel is classified "Wd," Waterfront Development. The 2003 JSLP provides the classifications, parcel designations and management intent of the parcel. The Statter Harbor project parcel is within Unit 3e14 in the JSLP and the unit is described as follows:

Unit 3e14: Head of Auke Bay, Designated Ha, Hv, Sh, Wd with one beach access point.¹⁴ Auke Bay supports a wide range of uses for its size. This site currently provides salmon sport fishing; herring spawning and overwintering; boat harbor; anchorage; marinas; public and private docks. Because of the many uses, authorizations in this area should take into a consideration the high values of the area for public institutions, commercial uses-both marine and others, public use, and habitat and research values. This area should be managed to support activities consistent with uses allowed within the JCMP Special Waterfront Areas, ensure continued research use of the bay, and allow expanded boat harbor facilities. The bay should be managed for commercial uses and, in special cases, for mixed uses including residential and recreation. Fill may be authorized consistent with the Juneau Coastal Management Plan. Uses should be water-dependent and water-related. Because there is little public access to the tidelands from the CBJ-owned uplands.

Consistent with the JSLP intent for Unit 3c14, the expansion of the harbor facilities would promote marine commercial use and public use. Finally, CBJ's zoning district as set forth in its Comprehensive Plan classifies the Statter Harbor parcel as Waterfront Commercial (Wc). The Juneau Comprehensive Plan defines Waterfront Commercial in part as: "Land to be used for water-dependent commercial uses such as marinas/boat harbors, marine vessel and equipment sales and repair services, convenience goods and

Preliminary Decision

¹² See The U.S. Department of Interior, Fish and Wildlife Service issued a Finding of No Significant Impact, December 2012, pp. 6-8.

¹³Statter Harbor Improvements Project Cultural Resources Report, May 29, 2009, HDR Alaska, Inc.

¹⁴ Designations: "Ha" is Habit; "Hv" is Fish and Wildlife Harvest; "Sh" is Shoreline Use; and "Wd" is Waterfront Development. See JSLP 3-5 through 3-6 for complete definitions.

services for commercial and sport fishing, marine recreation and marine tourism activities."¹³ The Statter Harbor development plan is consistent with this goal.

Access, including access to and along public waters:

Statter Harbor's parking lot and boat launch facility are on the Juneau road system and open to the general public. The proposed land transfer and land use would occur in Auke Bay which is navigable water per 11 AAC 51.035. Pursuant to AS 38.05.825, the conveyance and associated development project cannot unreasonably interfere with public access and CBJ must provide reasonable access to public waters and tidelands. The parcel may be accessed from the water by boat, by adjacent State-owned tidelands to the north, or by the existing paved road known as Glacier Highway. Also, AS 38.05.128 maintains that use and free passage of navigable waters shall not be obstructed with certain special exceptions.

In addition, before a disposal of State land, 11 AAC 51.045 and AS 38.05.127 require a determination by DMLW regarding the reservation of specific public access easements to and along these waters. In the final decision on this proposed land transfer, DMLW will determine whether this disposal of State interest will reserve a public access easement pursuant to AS 38.05.127(a)(2) seaward of mean high water (MHW) along CBJ's fill for the cargo staging and private parking area. Pursuant to 11 AAC 51.045, DMLW will consider comments and evidence provided by the Alaska Department of Fish and Game (ADF&G), other agencies, the public and CBJ during the public notice and review period in making this determination. DMLW intends to determine, based on comments and supporting information, whether the casement is necessary to ensure public access, or whether regulating or limiting public access is necessary for other beneficial uses or public purposes, such as public safety or security.

However, unless comments and other information submitted to DMLW provide justifiable and convincing evidence to the contrary, DMLW intends to reserve a platted 50 foot public access easement "to" mean high water through the project's parking lot and "along" the project's fill area, seaward of MHW.

Hazardous Materials and Potential Contamination:

It is DMLW's management responsibility to protect the overall public interest if there is a reasonable expectation that a hazardous condition, or hazardous, toxic or radiological material or contamination from such material exist or is known to exist on the land proposed for disposal. No hazardous material or contamination from hazardous material is known to exist on the land proposed for conveyance. Environmental risk associated with this proposed conveyance should be minimal.¹⁶

Survey and Appraisal:

The parcel has not been surveyed. An Alaska Tideland Survey (ATS) will be required at CBJ's expense prior to issuance of a State tideland patent. There is an existing survey, ATS 1362, which relates back to a now-defunct project from the 1980s. CBJ's current development plan extends into a portion of ATS 1362. If a final decision is issued conveying the tidelands parcel to CBJ, ATS 1362 will be re-platted. A new ASL would be issued with two Tracts, Tract A and Tract B. Tract A will be comprised of the CBJ

Preliminary Decision

¹⁵ Juneau Comprehensive Plan (revised 2008), p. 187.

¹⁶ See also Alaska Department of Environmental Conservation, State Water Quality Certification, August 15, 2012.

project, including that portion of ATS 1362 within the new boundary. Tract B would be the remainder parcel of the old ATS 1362. Appraisal is not required for an AS 38.05.825 conveyance as the land is conveyed without charge.¹⁷

Public Notice and Comment and Agency Review:

State agency review for this conveyance decision will be conducted concurrently during the public review for this Preliminary Decision. CBJ has obtained the following current permits and approvals: the ADF&G Fish Habitat Permit (FH13-I-0001); the U.S. Department of the Interior, Fish and Wildlife Service's Finding of No Significant Impact; the Department of the Army Permit (POA-2008-782); and the Alaska Department of Environmental Conservation (DEC) Certificate of Reasonable Assurance. Regarding further review, the agencies to be contacted by DMLW will include ADF&G; DEC; the Department of Transportation and Public Facilities (DOT&PF); and the State Historic Preservation Office (SHPQ). See the final page for details regarding the public notice process and preservation of appeal rights.

DISCUSSION AND ALTERNATIVES:

Compliance with Qualifications under AS 38.05.825:

Unless it is found that the public interest in retaining State ownership clearly outweighs CBJ's interest, AS 38.05.825 (a) requires DMLW to convey to CBJ tide and submerged lands that are occupied or suitable for occupation and development when requested by CBJ providing that:

- the land is within or contiguous to the boundaries of CBJ;
- the use would not unreasonably interfere with navigation or public access;
- CBJ has applied for conveyance;
- the land is not subject to a shore fisheries lease under AS 38.05.082;
- the land is classified for waterfront development or for another use consistent or compatible with a land use plan adopted by CBJ; and
- the land
 - o is required for the accomplishment of a public or private development approved by CBJ; or
 - o is the subject of a lease from the State to CBJ; or
 - o has not been approved for lease to CBJ.

In addressing each of the above statutory qualifications under AS 38.05.825(a), DMLW determines the following:

<u>Public Interest</u>- From its analysis thus far, it appears to DMLW that conveying the Statter Harbor parcel to CBJ would accommodate development of municipal facilities for public use. To-date, DMLW has not received any comments from the public or agencies concerning the State's public interest in retaining the requested parcel. At this time, DMLW believes that there are no other overriding State interests. Adjacent land owners include CBJ, James Debart, Neil Taylor, and the State of Alaska. Following the public review

¹⁷ There is an existing ATS, ATS 758, within the parcel which was never recorded as a plat. ATS 758 will not be identified as a separate tract.

and comment period, DMLW will conclude as to whether or not the public interest in retaining the land in State ownership outweighs CBJ's interest in owning and managing the land.

Location- The land is within CBJ.

<u>Navigation</u>. The proposed development for this land transfer would not unreasonably interfere with navigation and in fact would enhance it. CBJ has obtained its permit from the U.S. Army Corps of Engineers.

<u>Public Access</u>. The proposed land use would not unreasonably interfere with public access (see the section above discussing access for further discussion regarding public access).

Application- CBJ submitted an original application for conveyance of this parcel on September 9, 2009.

Shore Fisheries Leasing- The land is not subject to any shore fisheries leases.

Land Classification- As discussed above, the existing land designation and classification in the JSLP for Unit 3e14 is consistent with intent of the Statter Harbor project.

<u>Municipal Approval of Development</u>- The land is required for the accomplishment of a public development project and was approved by majority vote in two municipal election ballots in 2005 and 2007. On June 27, 2013, CBJ's Planning Commission approved the Conditional Use Permit requested by CBJ Docks and Harbors to conduct the project.¹⁸

Alternatives considered:

- 1. Approve the proposed conveyance. CBJ has the ability to manage the land and the public launch ramp. The project is of local, public interest and the development is needed to accommodate high demand by boat and kayak users in Statter Harbor. The project would provide economic development to the State.
- 2. Deny the proposed conveyance. DMLW would continue to manage the parcel and CBJ would need to acquire authorization for development of the site under a lease from DMLW or CBJ would need to alter its development plants to exclude the requested parcel of tidelands.

<u>Preferred Alternative</u>: Alternative No. 1 is the preferred alternative and supports the economic development of CBJ and the State. Under AS 38.05.825, no direct economic benefit is realized by the State, but further development of this parcel will serve the needs of the community of Juneau. Facilitating community development activities in Juneau indirectly provides economic benefit to the State by encouraging settlement and related economic activity. Additionally, CBJ has obtained the requisite permits and has taken steps to minimize adverse marine habitat impacts, and the project meets the intent of the JSLP. DMLW believes that the parcel complies with the requirements of AS 38.05.825. Unless public and agency review demonstrates that the parcel or portions of the parcel do not qualify for conveyance

Proliminary Decision

¹⁸ Because the parcel is required for a public development project, the alternative requirements set forth in the statute pertaining to a lease do not apply here. See AS 38.05.825(a)(6)(A) & (B),

under AS 38.05.825, or that the public interest in retaining the parcel clearly outweighs the municipality's interest in retaining the parcels, DMLW intends to convey the requested Statter Harbor parcel to CBJ subject to completion of an ATS.

RECOMMENDATIONS:

DMLW recommends conveyance of land described herein to CBJ subject to the following conditions:

- 1. Pursuant to AS 38.05.825(c), land management authority shall be granted upon the effective date of the Final Finding and Decision unless an appeal is appropriately filed. If an appeal is appropriately filed, the decision is stayed pending the outcome of the appeal(s).
- 2. The conveyance shall be subject to valid existing rights, all required easements and the following conditions: (1) CBJ may lease the conveyed parcel but not sell it; (2) title to and management authority for the parcel conveyed under this authority reverts to the State upon dissolution of the municipality; and (3) CBJ takes management authority and title to the tide and submerged lands subject to the rights of the public under the Public Trust Doctrine.
- 3. State patent will not be issued until completion of the required ATS for the parcel. ATS 1362 will be replatted. A new ASL will be issued with two Tracts, Tract A and Tract B. Tract A will be comprised of the CBJ project, including that portion of ATS 1362 within the new boundary. Tract B would be the remainder parcel of the old ATS 1362. Tract A will be conveyed to CBJ.
- 4. Survey costs shall be borne by CBJ.
- 5. Pursuant to AS 38.05.125 the mineral estate shall not be conveyed to CBJ.
- 6. Pursuant to AS 38.05.127, the parcel shall be subject to a public access easement, fifty feet in width, along the mean high water line and an easement through the project leading to the mean high water line.

Following the public and agency review for this Preliminary Decision, DMLW will issue a Final Finding and Decision which will incorporate changes justified by comments during the agency and public review process. Those interested in how this issue is decided should submit written comments regarding this issue and read the final decision that follows. DMLW will provide notice of the final decision and appeal rights to only those persons who submit written comments during the public notice and review period.

Prepared by:

and the state of the

Anne L. Johnson Natural Resource Manager

Date

The preliminary decision presented above has been reviewed and considered. I find that the recommended action may be in the State's best interest and is hereby approved to proceed to public notice.

1 mari - Section ___ David L. Kelley

David L. Kelley Southeast Regional Manager

_____ Date

PUBLIC NOTICE, FINAL DECISION AND APPEAL PROCESS:

In accordance with the provisions of AS 38.05.945, public notice seeking comments on this preliminary decision will be given to CBJ, adjacent landowners, Southeast Conservation Council, Seaalaska Corporation, Kootznoowoo, Inc., Goldbelt, Inc., Douglas Indian Association, and the Aukquan Traditional Council. Additionally, both post offices located near Auke Bay will be requested to post the notice, and it will be available on the Internet at the Alaska Online Public Notice System website, which can be accessed at <u>www.state.ak.us</u> (click on "Notices" at the top of the page).

The public is invited to comment on this preliminary decision. Comments must be received in writing by the DNR Division of Mining, Land and Water by mail at 400 Willoughby Avenue, P.O. Box 111020, Juneau, AK 99811-1020, by fax at 907-465-3886, or by electronic mail at <u>anne.johnson1@alaska.gov</u> by September 5, 2013 in order to ensure consideration. Please include your mailing address and telephone contact. In order to establish appeal rights regarding this decision, you are required by law to meaningfully participate in the decision process by commenting in writing on the decision prior to the comment deadline. Following this deadline, all timely written comments will be considered, and DNR may modify this decision based on public comments received.

If DNR determines that public comments in response to this notice of the preliminary decision indicate the need for significant changes to the decision, additional public notice will be given. If no significant changes are required, the preliminary decision, after any necessary minor changes, will be issued as a final decision. A copy of the final decision, along with instructions on filing an appeal, will be sent to all persons who comment on the preliminary decision. Persons who do not submit written comments during the comment period will have no legal right to appeal the final decision.



ATTACHMENT 3 - REVISED LAUNCH RAMP PLAN

ATTACHMENT A

Form No. DL 72 (Rev. June 1969)

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF LANDS

ADL No. 51648

RIGHT-OF-WAY PERMIT

THIS AGREEMENT made and entered into this 24th day of July 19 70, by and between the STATE OF ALASKA, acting by and through the Department of Natural Resources, Division of Lands, hereinafter referred to as the grantor and <u>E. L. McNabb, Jr.</u> hereinafter referred to as the permittee.

WITNESSETH, that in accordance with the provisions of Sec. 38.05.330, A.S. and the rules and regulations promulgated thereunder, the permittee having filed an application for a right-of-way for: <u>sewage treatment plant effluent line</u>.

with the Division of Lands together with a map showing the definite location thereon of the line of right-of-way which the permittee has adopted and agrees to be the specific and definite location of the aforesaid right-of-way, and

WHEREAS, it is understood and agreed by the permittee herein that, as a condition to the granting of the right-of-way applied for, the land covered by said right-of-way shall be used for no purpose other than the location, construction, operation and maintenance of the said right-of-way over and across the following described State lands, to wit:

As shown and described on the survey plat attached hereto and made a part hereof and identified as TRWP No. 17.

running <u>657</u> feet in length and/or containing <u>0.308</u> acres, more or less and shall extend a width of <u>20</u> feet.

TO HAVE AND TO HOLD the same until the above described land shall no longer be used for the above-mentioned purpose and subject to conditions and reservations elsewhere set forth herein.

The sketch map revealing the right-of-way granted herein shall be attached hereto and made a part hereof.

In the event that the right-of-way herein granted shall in any manner conflict with or overlap a previously granted right-of-way the permittee herein shall use this right-of-way in such a manner as not to interfere with the peaceful use and enjoyment of the previously issued right-of-way and no improvements shall be constructed by the permittee herein upon the overlapping area unless the consent therefor has first been obtained from the permittee under the pre-existing right-of-way.

The permittee in the exercise of the rights and privileges granted by this

indenture shall comply with all regulations now in effect or as hereafter a lished by the Division of Lands and all other Federal, State or municipal regulations or ordinances applicable to the area herein granted.

Upon abandonment, termination, revocation or cancellation of this indenture, the permittee shall within 90 days remove all structures and improvements from the area herein granted, except those owned by the grantor, and shall restore the area to the same or similar condition as the same was upon the issuance of this permit. Should the permittee fail or refuse to remove said structures or improvements, within the time allotted, they shall revert to and become the property of the grantor. However, the permittee shall not be relieved of the cost of the removal of the structures, improvements and/or the cost of restoring the area. Provided further, however, that the grantor, in his discretion, may alter or modify the requirements contained in this provision if it is to the best interest of Alaska to do so.

The permittee shall utilize the lands herein granted consistent with the purposes of the proposed use, as revealed by the application therefor, and shall maintain the premises in a neat and orderly manner and shall adopt and apply such safety measures as shall be necessary, proper and prudent with respect to the use to which the land is subjected.

The permittee shall take all reasonable precaution to prevent and suppress brush and forest fires. No material shall be disposed of by burning in open fire during the closed season unless a permit therefor has first been obtained from the agency empowered by law to issue such permits.

Prior to any construction or development that will use, divert, obstruct, pollute or utilize any of the waters of the State, the permittee shall first obtain approval therefor from the Commissioner of the Department of Fish and Game and file an image copy thereof with the grantor.

Any lands included in this permit which are sold under a contract to purchase shall be subject to this permit. Upon issuance of title to the purchaser, this permit shall remain in effect until its date of expiration.

In case the necessity for the right-of-way shall no longer exist, or the permittee should abandon or fail to use the same, then this permit shall terminate.

The State of Alaska shall be forever wholly absolved from any liability for damages which might result to the permittee herein on account of this permit having been cancelled, forfeited, or terminated prior to the expiration of the full time for which it was issued.

NOW THEREFOR, in accordance with the provisions of Sec. 38.05.330, A.S. and the rules and regulations promulgated thereunder and in accordance with the conditions heretofore set forth or attached hereto and made a part hereof, the permittee herein is hereby authorized to locate, construct, operate and maintain said right-of-way over and across the lands herein described.

. IN WITNESS WHEREOF, the said grantor has caused these presents to be signed in duplicate and the permittee herein has hereunto affixed his signature on the day and year first above written.

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES By: Chief, KHNHYKHHNIGH Water Resources Section Division of Lands

Permittee

UNITED STATES OF AMERICA) State of Alaska) ^{58.}

This is to certify that on the <u>14th</u> day of <u>Active</u> 19 70, before me, the undersigned Notary Public, personally appeared <u>Decry Dreeded</u> <u>Nation</u> known to me and known by me to be the <u>Chief Water Reduced</u> of the Division of Lands of the Department of Natural Resources, and acknowledged to me that he executed the foregoing instrument for and on behalf of said State, freely and voluntarily for the use and purposes therein set forth.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Satricia, Lee (Idenbritt Notary Public in and for the State of Alaska

My commission expires May 6, 1974

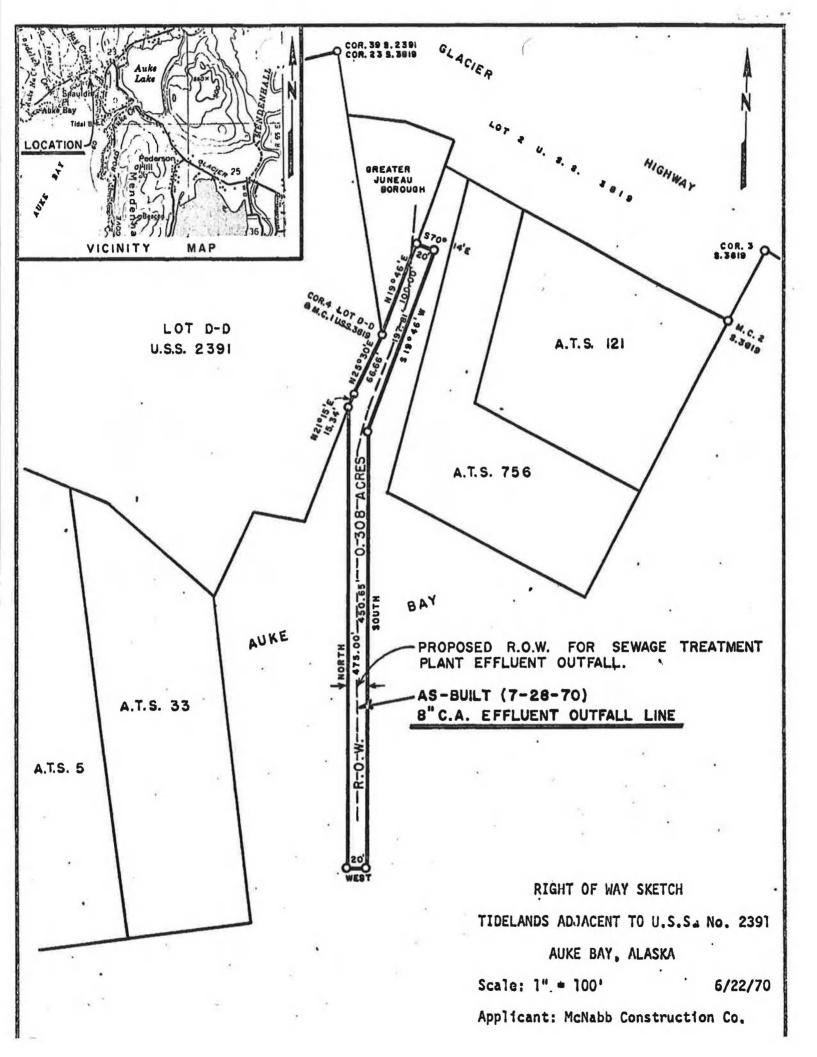
UNITED STATES OF AMERICA) State of Alaska) ⁵⁵

This is to certify that on this get day of <u>Sintemplan</u>, 19 70, before me, the undersigned Notary Public, personally appeared <u>C. Y. Mc Nacki-</u> to me personally known to be one of the persons described in and who executed the within instrument and the said <u>C. Y. Mc Nacki-</u> acknowledged to me that he signed and executed the same freely and voluntarily for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Mailin Onrur Notary Public in and for the State

Notary Public in and for the State of Alaska My commission expires <u>10-17-71</u>



FIRST AMENDMENT to that certain Right-of-Way Permit serialized ADL 51648 for the construction, operation and maintenance of a sewage treatment plant effluent line located within protracted Section 22, Township 40S, Range 65E, Copper River Meridian, is hereby amended to read:

- FROM: "The undersigned E. L. McNabb, Jr. residing at Juneau, Alaska"
- TO: "The undersigned City and Borough of Juneau residing at 155 S. Seward, Juneau, Alaska 99801"

The aforementioned relinquishment from E. L. McNabb, Jr. to the City and Borough of Juneau is attached hereto and made a part hereof.

and FROM: "Right of Way 20 feet in width and 657 feet in length"

> "Right of Way 20 feet in width and 807 feet in length" TO:

The aforementioned increase in the length of right-of-way is described on the plat attached hereto and made a part hereof.

All other terms and conditions of the Contract will remain as This Amendment is attached to and made a part of ADL 51648 this written. date.

DATE: August 20, 1973

PERMITTEE:

502 and 2 2

and Borough of Juneau

GRANTOR: State of Alaska

Dean J. Nation, Chief

Water Resources Section

UNITED STATES OF AMERICA State of Alaska

THIS IS TO CERTIFY that on this 20th day of <u>August</u>, 1973, before me, the undersigned, a Notary Public in and for Alaska duly commissioned and sworn, personally appeared <u>Monald I Ushu</u>, <u>Manager</u>, (Name) (Title)

City and Borough of Juneau, to me personally known to be the person described in and who executed the within instrument and acknowledged to me that he signed and executed the same freely and voluntarily for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Ratucia Kiap Notary Public in and for the State of Alaska

My Commission expires: 4-19-75

Alaska Tideland Surveys

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"Who, What, When, Where, How, Why"

A Paper Presented at the

37th Annual Alaska Surveying and Mapping Conference



By

Gerald Jennings, P.L.S., and Joe Kemmerer, P.L.S.

February, 2002

State of Alaska Department of Natural Resources Division of Mining, Land and Water, Technical and Data Management 550 West 7th Ave, Suite 650 Anchorage, Alaska 99501-3576 (907) 269-8523 Fax (907) 269-8914 .

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ABSTRACT

Alaska Tideland Surveys – the 5 w's. Surveys of tideland parcels are unique in several ways. Typically all corners are monumented with witness corners. DNR is usually the fee owner of the parcel, and the landward boundary is usually the mean high water line. Frequently, the line is fixed and limiting, because of avulsion, or placement of fill. This paper will briefly discuss how an applicant applies for a tideland lease or conveyance and how to conduct the survey and obtain state approval. Presenter: Gerald Jennings

The Department of Natural Resources, Division of Mining, Land and Water, Technical and Data Management staff dealing with Alaska Tideland Surveys:

Gerald Jennings, P.L.S., Statewide Platting Supervisor

Joe Kemmerer, P.L.S., Coastal Boundary.

William (Bill) Brown, P.L.S., Riparian Specialist

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Alaska Tideland Surveys

Introduction – who what why?

Title to most of the tide and submerged lands surrounding Alaska was vested in the State of Alaska under the Submerged Lands Act of May 22, 1953. Most of those lands remain in state ownership and in most cases, the state will lease, but retain fee title. As a surveyor, you will be contacted about Alaska Tideland Surveys (ATS) by a public or private party who desires to lease or acquire tidelands for various reasons such as construction of docks, bridges, harbors, log transfer facilities, etc.

Another situation in which you may need to conduct an ATS is to facilitate conveyance of tide and submerged lands to local communities under AS 38.05.820 or .825.

What are tidelands? The DNR Fact Sheet Titled: Tide & submerged Land Ownership (appendix A) discusses tideland ownership and what are tide and submerged lands. Tidelands are those lands between the mean high and the mean low tide lines. State owned submerged lands are located seaward of the mean low tide line and extending out three nautical miles. A definition of tidelands is also found in AS 38.05.965.

Why are tideland surveys required? For lease or patent, it is required under AS 38.04.045(b) "Before the issuance of a long-term lease under AS 38.05.070 or of a patent for state land, an official cadastral survey shall be accomplished, unless a comparable, approved survey exists that has been conducted by the federal Bureau of Land Management."

When? The Application Process

Your client calls up and tells you that they need a survey. They want to build a dock and the state's telling them that they need a survey. You respond, "I'll be glad to help. At what step is your application at DNR?". Sometimes applicants go for the survey too early. If you call the survey unit, we will ask for the ADL number, and we will check for a final decision. If the decision hasn't been done yet, it is usually too early to get survey instructions, but not always. Occasionally, we will issue instructions based on an approved preliminary decision, but rarely before any decision is issued. We will need verification from the division's adjudicator for instructions to go out before the final decision.

How To Conduct A Tideland Survey -- Field Procedures

Before beginning the field survey, obtain survey instructions from DNR -see below.

Monumentation: For the "normal" ATS survey you will set four monuments, two on the upland extension of each sideline. Typically, the upland owner is the tideland applicant, however if not, you need to obtain permission for setting monuments on the uplands.

Monuments are to meet the standards for primary monuments (11AAC53.), which includes a requirement for setting accessories. However, we will entertain requests to waive accessories in areas of dense monumentation.

<u>Monument Marking</u>: There has been some confusion on this subject over the years. The confusion is the marking of the two witness corners which are set on a sideline's upland extension. Occasionally a survey will show one of the two monuments marked as a witness corner to the nearest true corner, with the second monument as witnessing the seaward corner. This works, but is not preferred. What doesn't work, is sometimes a survey shows both WC monuments as witnessing the same corner, with no differentiation of markings on the two witness monuments. If one is lost, it is difficult to determine which is remaining.

The preferred marking is to label the witness corners as we 1 and we 2 to the nearest true meander corner. This way, lining up the two monuments will give the lay person an approximation of the ATS survey parcel's sideline as it crosses the water. But if the true location became critical, it would be determined by grant boundary adjustment between the true meander corners on the opposite sidelines of the survey. This is because the two witness corners are typically set too close together to be dependable as an extension seaward.

<u>How to determine the landward boundary</u>: Often, there are two lines which need to be compared, the existing line of mean high water (MHW), and the record line as per the adjacent upland survey.

The approximate location of the true mean high water line is determined by the use of National Geodetic Survey tidal bench marks (or any other bench marks that have been determined from that source), and the MHW datum for the immediate body of water. Ref: 11AAC53.120(1). If no such bench marks exist within one mile, then tidal observations may be taken and used in conjunction with official tide tables for the immediate body of water. A note shall be placed on the plat stating either:

Mean high tide was determined by time coordinated tidal observations on $\underline{mth} \underline{day}$ yr as extrapolated from the NOAA Publication for the predictions of high and low waters for (year).

or

Mean high tide was determined from ______ tidal bench mark on <u>mth day yr</u> from data supplied by NOAA. Bench Mark Elev.:

So, how exactly is this done in the field? Typically, you will set a temporary bench mark near the project and run levels from NGS bench mark or if there is no bench mark within one mile, you take time coordinated tide readings. See appendices B, C and D; "DETERMINING MEAN HIGH TIDE WHERE AN NGS BENCH MARK EXISTS" and "DETERMINING MEAN HIGH TIDE IN AREAS WHERE NO NGS BENCH



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LATINEL

MARKS EXIST". The published MHW elevation for a particular body of water can be found on NOS Nautical Charts, NOS Tidal Bench Mark Data Sheets, or from the predicted tide tables.

To determine the meander line of record, it is necessary to tie monumentation from the record survey. You tie the nearest monument of the record survey in each direction, and using grant boundary adjustment procedures, fit the record meanders between the recovered monuments.

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Once you've established the two lines, what do you do with them? This will ordinarily be addressed in the survey instructions. State regulations 11AAC53.120 set the guidelines for whether to set the upland boundary at the one line or the other.

In cases where it is determined that there has been an avulsive event, such as fill placed, or uplift (or subsidence), etc, the best evidence of the last location of the MHW prior to the event is used to set the line as a fixed and limiting boundary. This is usually the last survey of record, although sometimes aerial photography, surveys not of record or other evidence may be used.

A 50 foot public access easement is required by AS 38.05.127 and 11AAC51.045. Unless the easement is specifically waived in the final decision, it is required to be shown on the plat. The easement is along the <u>existing</u> mean high water line. There has been confusion on this in the past as the easement is to follow the existing MHW, not necessarily the landward boundary of the survey, which sometimes follows the record MHW line instead.

Note that the public access easement is applied 50 feet seaward and 50 upland of the existing MHW on uplands owned by the state. Thus, those surveys which because of fill, extend upland of the existing MHW, will have the easement applied both directions.

Other Issues

Apportionment of tidelands: In cases of negotiated leases, the applicant's tideland parcel is limited to tidelands adjacent to his upland parcel. Depending on the configuration of the shore, the surveyor may not be able to simply extend the upland boundary seaward, but should typically extend at the angle which bisects the shoreline meander. The surveyor must be aware of the adjacent upland owner's rights to the tidelands.

How does accretion and erosion to the upland parcel's affect the tidelands parcel? Where the landward boundary is ambulatory, the seaward boundary is fixed. Thus accretion to uplands, "erodes" away the tidelands parcel. Over time, a tideland parcel can disappear. On the other hand, erosion of the upland parcel, increases the size of the tideland parcel.

Where Do You Get Survey Instructions?

You have received a final decision, and you would like to get the lands surveyed, how do you get started? Send a request for survey instructions to DNR's Land Survey Unit. The request should include the ADL number, a description of the lands which you want to have surveyed at this time, and the \$225 fee. It is preferable that you only request for lands that you actually plan to survey, as they have a two year expiration, after which they would have to be extended or completely reissued depending on how much things have changed.

Gerald Jennings, Statewide Platting Supervisor Department of Natural Resources Div. Of Mining, Land and Water Technical & Data Management 550 W 7th Ave, suite 650 Anchorage, Alaska 99501-3576

Email: <u>Gerald_Jennings@dnr.state.ak.us</u> Phone: 907-269-8516 Fax: 907-269-8914

Depending on our workload, it may take a couple of months to get the instructions prepared. When the field work is complete, submit the project to DNR surveys for review. The review fee is \$200 for the first tract, plus \$50 per additional parcel.

If within a city or borough that exercises platting authority, you will need to go through the platting board for approval of the survey. When the survey meets DNR and local approval, the final plat will be signed by various parties and submitted for recording. The recording fee is \$20 for sheet 1, plus \$5 per additional sheet.

These fees are set out in 11 AAC 05.010 (a)(13) survey and platting.

(13) survey and platting

(A) issuance or amendment of survey instructions, \$50 for a remote recreational cabin site lease, replat, or right-of-way vacation, and \$225 for any other type of survey;

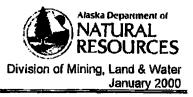
(B) plat review under AS 38.04.045,

(i) first review of first parcel or tract per plat, \$200, and \$50 for each additional parcel or tract per plat, with the second review at no charge;

(ii) third and each additional review of first parcel or tract per plat, \$300 each, and \$100 for each additional parcel or tract per plat;

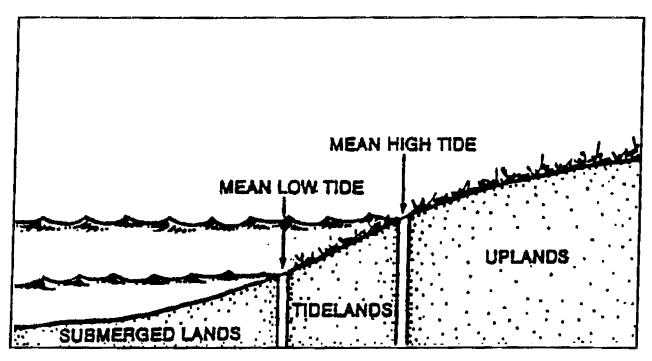
Fact Sheet

Title: Tide & Submerged Land Ownership



What are "tide and submerged" lands?

Tidelands include the land between mean (average) high and mean low tide. Submerged lands are seaward of mean low tide to three miles offshore. The tide and submerged lands include all land between the mean high tide line and three miles offshore of the mean low tideline.



Who owns tide and submerged lands in Alaska?

The State of Alaska owns most of the tide and submerged lands along its coastline. The submerged Lands Act of May 22, 1953 states that all lands permanently or periodically covered by tidal waters up to, but not above, the line of mean high tide and seaward to a line three geographical miles distant from the coast mean low tideline is owned by the state.

Can the state sell or lease its tide and submerged land?

As a general rule, the State cannot sell tide and submerged land. However, certain cities and individuals or corporations may acquire title to tide and submerged land occupied or developed on or before January 3, 1959, the date Alaska was admitted to the union. There are several programs under which a lease of state tidelands may be acquired.

Can I use state tide and submerged lands, even if the state doesn't own the uplands?

Yes, you can use state tide and submerged land, even if the uplands are not owned by the state. However, you must remember that you only have the right to use the land from mean high water seaward. You are also expected to respect the upland owner's rights and treat the land with care.

Does the federal government own tidelands adjacent to its conservation units, such as National Parks?

The question has been raised that the United States may own tidelands adjacent to certain federal withdrawals that exist prior to statehood. However, that question was answered on June 8, 1987 when the U.S. Supreme Court issued its decision in <u>Utah v. United States</u>. This decision established that federal land withdrawals made prior to statehood did not include land under navigable waters.

In that decision, the Supreme Court affirmed the longstanding policy that the federal government holds land under navigable waters for the ultimate benefit of a future state. In order for this not to be the case, congress would have to specifically include the land and clearly state that it intended that the state would not have title to it.

Tide and submerged lands were not included in any pre-statehood federal withdrawals within Alaska and there is no indication that Congress intended to take away the State of Alaska's title. The state therefore received title to all the tide and submerged lands at statehood.

Additionally, in the Alaska National Interest Lands Conservation Act, Congress did not take away the state's power to regulate state-owned submerged lands within or adjacent to federal Conservation System Units in Alaska. Many provisions in ANILCA recognize and respect the state's authority over state-owned land.

Where the uplands are within federal conservation units, the state has cooperated with federal land managers wherever possible. As a result, some special use restrictions may apply. Sometimes this cooperation is formally set out in a memorandum of understanding that discusses management issues and how they will be resolved.

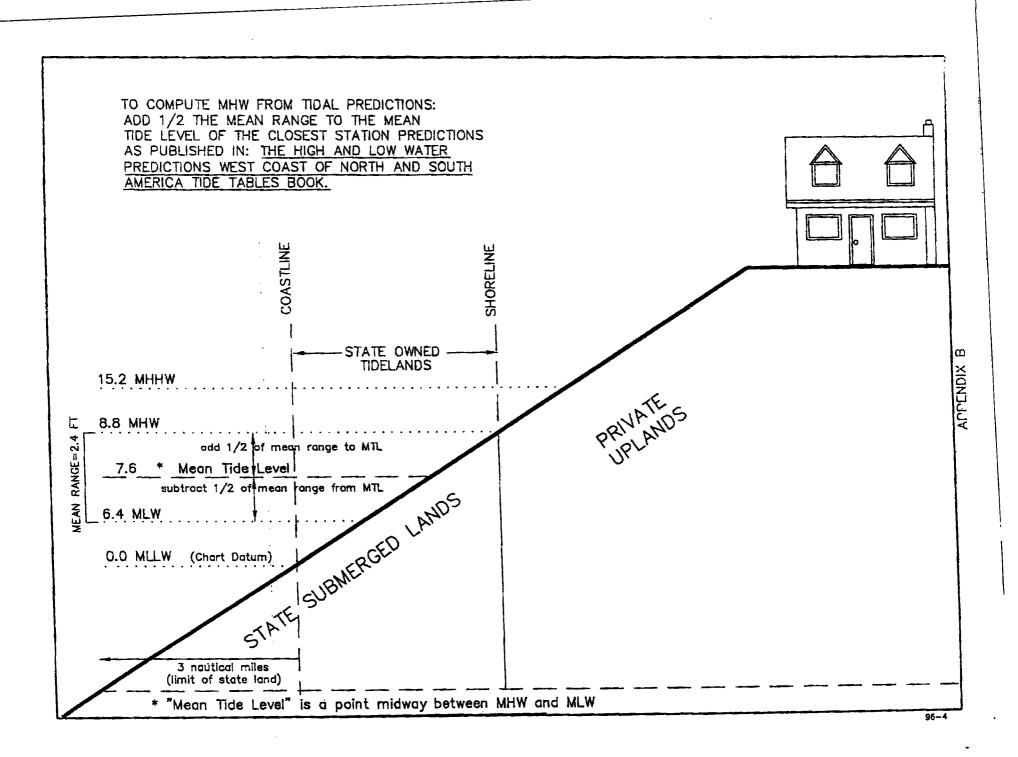
For additional information contact:

Department of Natural Resources Division of Mining, Land & Water

> Southcentral Regional Office 550 West 7th Avenue, Suite 900-C Anchorage, AK 99501 Phone: 907-269-8503

Southeast Regional Office 400 Willoughby Avenue, 4th Floor Juneau, AK 99801 Phone: 907-465-3400

Northern Regional Office 3700 Airport Way Fairbanks, AK 99709 Phone: 907-451-2700



DETERMINING MEAN HIGH TIDE WHERE AN NGS BENCH MARK EXISTS

- 1. NOAA Primary Control Stations and related benchmark data can be obtained at <u>http://co-ops.nos.noaa.gov/bench.html</u> or the State of Alaska/ DNR at (907) 269-8521. *Example: Juneau*.
- 2. Using a level and rod, run differential levels from one of the Control Station bench marks to the project location.
- 3. Establish a point on each sideline of the ATS survey at the mean high water elevation. Measure the witness distance from these points to the witness monuments.
- 4. When the tide level reaches this elevation, field survey the meanders within the project.

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http://co-ops.nos.noaa.gov/benchmarks/y452210.html

Published Bench Mark Sheet for 9452210

U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Ocean Service

Page 1 of 8

Station ID:	9452210	PUBLICATION DATE:	11/02/1999
Name:	JUNEAU, GASTINEAU CHANNEL, STEPHENS	Pass	
	ALASKA	,	
NOAA Chart:	17315	Latitude:	58ø 17.9' N
USGS Quad:	JUNEAU B-2	Longitude: 1	134ø 24.9' W

To reach the tidal bench marks from the main Juneau Post Office main entrance at 9th and D Streets, proceed SW one block to Glacier Avenue, turn left onto Glacier Avenue and proceed 0.2 km (0.1 mi), bear left at the Y intersection onto Willoughby Avenue and follow it 0.3 km (0.2 mi) to Whittier Street, turn right onto Whittier Street and proceed 0.4 km (0.3 mi) (across Egan Drive) to the U.S. Coast Guard Pier. The bench marks are in the general vicinity. Turn right (SW) from the main Coast Guard pier and proceed 73.15 m (240.0 ft) to the tide house.

TIDAL BENCH MARKS

PRIMARY BENCH MARK STAMPING:

DESIGNATION:	945 2210 TIDAL 8
ALIAS:	8 1922

MONUMENTATION:	Tidal Station disk	VM#:	1188
AGENCY:	U.S. Coast & Geodetic Survey (USC&GS)	PID:	
SETTING CLASSIFICATION:	Building wall		

The primary bench mark is an unstamped disk set vertically in the SE corner of the Goldstein Emporium Building on the west side of Seward Street between Front and Second Streets, 5.18 m (17.0 ft) south of the entrance to Miss Scarlett's

1 of 14

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U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Ocean Service

Page 6 of 8

Station ID:9452210PUBLICATION DATE:11/02/1999Name:JUNEAU, GASTINEAU CHANNEL, STEPHENS PASS
ALASKAALASKANOAA Chart:17315Latitude:58ø 17.9' NUSGS Quad:JUNEAU B-2Longitude:134ø 24.9' W

TIDAL DATUMS

Tidal datums at JUNEAU, GASTINEAU CHANNEL, STEPHENS PASS based on:

LENGTH OF SERIES: 5 YEARS TIME PERIOD: January 1994 - December 1998 TIDAL EPOCH: 1960-1978 CONTROL TIDE STATION:

Appendix C

Published Bench Mark Sheet for 9452210

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Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

HIGHEST OBSERVED WATER LEVEL (11/02/1948)	=	7.395
MEAN HIGHER HIGH WATER (MHHW)	1	4.962
MEAN HIGH WATER (MHW)	=	4.675
MEAN SEA LEVEL (MSL)	=	2.615
MEAN TIDE LEVEL (MTL)	=	2.580
MEAN LOW WATER (MLW)	Ŧ	0.485
MEAN LOWER LOW WATER (MLLW)	=	0.000
LOWEST OBSERVED WATER LEVEL (01/01/1991)	=	-1. 6 63

Bench Mark Elevation Information	In METER	S above:
Stamping or Designation	MLLW	MHW
945 2210 TIDAL 8	11.836	7.161
12 1945	18.203	13.528
2210 C 1982	8.960	4.285
2210 D 1984	10.844	6.169
2210 E 1984	10.343	5.668
2210 G 1984	10.340	5.665
945 2210 TIDAL 9	9.714	5.039
BM WG-91 1994 ELEVATION 29.26	9.156	4.481
2210 J 1997	9.737	5.062
2210 H 1997	9.990	5.315

Appendix C

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DETERMINING MEAN HIGH TIDE IN AREAS WHERE NO NGS BENCH MARKS EXIST

- 1. In NOAA Tide Tables 2002, NOS High and Low Water Predictions or on the internet at: http://co- ops.nos.noaa.gov/tpred2.html#AK look up high tides and times for nearest Tide Station in Table 1. Example: Juneau June 12, 2002.
 - A. Tide predictions in the NOAA Tide Predictions book are in <u>Alaska</u> <u>Standard Time</u>.
- 2. Look up nearest Place in Table 2. Example: Cannery Cove, Phybus Bay.
- Add or subtract (or multiply by ratio factor) local correction factor to time of high tide in Table 1 to find predicted time of Local High Tide. *Example:* 17:57-00:08 = 17:49.
- 4. Using a level and rod observe the rising tide from ½ hour before to ½ hour after predicted time of high tide taking a minimum of six observations on the rod. Mean the observations and using the level and rod locate the mean elevation on the beach and mark with a temporary bench. This is the approximate High Tide for this location on this day at this time (AM or PM).
- 5. Apply local Height difference from Table 2 to High Tide at the nearest Tide Station in Table 1. This will be the approximate elevation of the point marked in step 4. *Example:* $13.0' \times 0.90' = 11.7'$.
- 6. Find the Mean High Tide for this location by looking up the Local Mean Range in Table 2. Divide this number by 2. Add the result to the local mean Tide Level also found in Table 2. *Example:* 12.24'/2 = 6.12' 6.12' + 7.60' = 13.72.'
- 7. Locate the Mean High Tide Line on the beach by subtracting or adding to the elevation of the marked point. In this case you would move the rod upland from the water line to the point of elevation 13.72 feet.

Appendix D

C: JVINDOWS\TEMP\Determining Mean High Tide.doc 2/11/02

Tide Tables 2002

HIGH AND LOW WATER PREDICTIONS

NORTH AND

All redies Unalitered and Unabridged West Coast of

SOUTH ANTERICA

INCLUDING THE HAWAHAN ISLANDS AND THE ALASKAN SUPPLEMENT

nternational Marine

Formerly published by the National Ocean Service, NOS, division of the National Oceanic and Atmospheric Administration, NOAA.

Accepted by the U.S. Coast Guard

TABLE 1.—DAILY TIDE PREDICTIONS Juneau, Alaska, 2001

Times and Heights of High and Low Waters

April				oril				[May						June								
	Time		ight		Time	He	ight	<u>├</u> ──	Time	He	ight		Time	H	eight		Time		ight		Time		oigh1
1 Su Ø	h m 0544 1247 1924	# 14.4 1.5 11.8	439 46 360	16 M	h m 0107 0704 1404 2059	# 6.7 12.1 3.2 11.7	204 369 98 357	1 TU	h m 0100 0702 1348 2029	ñ 5.4 13.7 1.0 13.8	em 165 418 30 421	16 w	h m 0147 0734 1409 2053	n 6.0 11.8 3.2 12.9	cm 183 360 98 393	1 F	h m 0320 0928 1526 2150	h 1.9 13.8 1.8 16.6	cm 58 421 49 506	16 Sa	h m 0301 0900 1456 2119	() 3.3 11.8 3.8 14.7	cm 101 360 116 448
2 M	0101 0710 1413 2054	6.0 13.9 1.3 12.5	183 424 40 381	17 Tu	0237 0832 1513 2157	6.3 12.1 2.9 12.6	192 369 88 384	2 w	0229 0830 1459 2132	4.5 13.9 0.7 15.0	137 424 21 457	17 Th	0256 0849 1 507 2140	4.9 12.0 3.0 13.8	149 366 91 421	2 Sa	0418 1033 1620 2238	0.3 14.3 1.7 17.3	9 436 52 527	17 Su	0353 1002 1549 2203	1.8 12.5 3.6 15.7	55 381 110 479
3 Tu	0238 0842 1527	5.4 14.3 0.4 14.0	165. 436 12 427	18 W	0343 0942 1606 2240	5.2 12.8 2.2 13.7	158 390 67 418	3 Th	0340 0945 1558 2224	2.7 14.6 0.3 16.3	82 445 9 497	18 F	0350 0951 1555 2219	3.5 12.7 2.7 14.8	107 387 82 451	3 Su	0507 1128 1708 2321	-1.0 14.9 1.8 17.8	30 454 55 543	18 M	0440 1056 1637 2246	0.2 13.3 3.3 16.6	6 405 101 506
4 w	2203 0354 0959 1626 2255	3.7 15.4 0.7 15.6	113 469 -21 475	19 Th	0431 1035 1647 2314	3.7 13.7 1.5 14.7	113 418 46 48	4 F	0436 1047 1649 2309	0.8 15.6 0,1 17.5	24 475 3 533	19 Sa	0434 1042 1837 2254	1.9 13.5 2.3 15.8	58 411 70 482	4 M	0551 12 16 1752	-2,0 15.4 1.9	61 469 58	19 Tu	0524 1145 1723 2328	-1.3 14.2 3.0 17.5	-40 433 91 533
5 Th	0452 1100 1716	1.7 16.8 -1.7	52 506 -52 521	20 F	0510 1118 1723 2344	2.2 14.6 1.0 15.7	87 445 30 479	5 Sa	0524 1140 1734 2350	-0.9 16.4 -0.2 18.4	-27 500 8 561	20 Su	0514 1126 1716 2328	0.4 14,4 2.0 16,7	12 439 61 509	5 Tu O	0001 0631 1300 1833	18.0 2.6 15.6 2.2	549 79 475 67	20 W	0807 1231 1808	-2.8 15.0 2.8	79 457 79
6 F	2339 0541 1152 1800	17.1 0.2 17.8 2.2	-6 536 -67	21 Sa	0546 1156 1757	0.8 15.4 0.6	24 469 18	6 Su	0608 1227 1816	-2.2 16.8 -0.1	-67 512 -3	21 M	0552 1208 1754	-1.1 15.1 1.8	-34 460 55	6 W	0040 0710 1341 1913	17.9 2.8 15.5 2.6	546 -85 472 79	21 Th	0011 0650 1316 1853	18.2 -3.6 15.7 2.3	555 110 479 70
7 Sa O	0020 0625 1239 1841	18.4 1.7 18.2 2.2	561 -52 555 -67	22 Su	0012 0621 1232 1829	16,6 0,5 15,9 0,4	506 -15 485 12	7 M 0	0028 0649 1311 1855	18.8 3.0 16.9 	573 -91 515 12	22 Tu	0001 0629 1248 1832	17.5 2.2 15.6 1.8	533 -87 475 65	7 Th	0118 0748 1421 1952	17.8 ~2.5 15.2 3.0	536 76 463 91	22 F	0056 0734 1402 1938	18.7 -4.2 16.1 2.2	570 -128 491 67
8 ອນ	0057 0707 1324 1921	19.1 2.7 18.2 1.7	582 82 555 52	23 M	0040 0655 1308 1901	17.2 -1.5 16.2 0.6	524 46 494 18	8 Tu	0105 0728 1353 1934	18.6 3.2 16.5 1.1	573 -98 506 34	23 w	0036 0708 1329 1911	18.1 -3.1 15.9 1.9	552 -94 485 58	8 F	0153 0825 1500 2030	17.0 2.0 14.8 9.6	518 61 451 110	23 Sa	0142 0819 1448 2026	18.7 -4.2 16.2 .2.2	570 -128 494 .67
9 M	0134 0748 1407 1959	19,3 -3,1 17,7 -0,8	588 94 539 24	24 Tu	0109 0729 1344 1935	17.7 -2.2 16.2 0.9	539 -67 494 27	9 w	0140 0806 1434 2012	18.9 2.0 15.9 2.0	558 88 485 61	24 Th	0113 0748 1412 1951	18.3 3.5 15.8 2.2	558 107 482 67	9 Sa	0229 0903 1541 2111	16.3 1.3 14.3 4.2	497 4 0 436 128	24 Su	0230 0905 1536 2118	18,3 -3.7 16,2 2,4	558 -113 494 73
10 Tu		18.9 2.8 16.8 0,5	576 85 512 15	25 w	0140 0806 1422 2010	17.9 2.5 15.9 1.6	546 76 485 49	10 Th	0218 0845 1516 2050	17.5 2.1 15.1 3.1	533 -64 480 94	25 F	0153 0831 1457 2035	18,2 -3.4 15.6 2.8	555 ~104 475 85	10 Su	0307 0942 1623 2154	15.4 0.4 13.7 4.8	469 -12 418 146	25 M	0322 0954 1827 2215	17.4 -2.8 16.0 2.7	530 -85 488 82
11 w	0246 0908 1532 2115	18.0 -2.0 15.5 1.9	549 61 472 58	26 Th	0213 0845 1503 2047	17.7 -2.3 15.3 2.4	539 70 466 73	11 F	0252 0925 1559 2131	16.6 1.1 14.1 	503 34 430 128	26 Sa	0237 0917 1547 2124	17.7 -2.9 15.2 3.4	539 -88 463 104	11 M	0348 1024 1708 2244	14.4 0.6 13.3 5.3	430 18 405 162	26 Tu	1721	16.2 -1.5 15:9 2.9	494 46 485 88
12 Th		16.9 0.8 14.1 3.5	515 24 430 107	27 F	0251 0928 1550 2130	17.3 1.8 14,5 3.4	527 55 442 104	12 Sa	0330 1007 1648 2217	15.3 0,1 13.2 5.2	466 3 402 158	27 Su	0327 1008 1642 2222	16.9 -2.0 14.7 4.0	515 -61 448 122	12 Tu	1757 2343	13.4 1.6 13.0 5.5	408 49 396 168	27 w	1818	-11.9 -0.1 15.8	<u>454</u> _3 182
13 F	0401 1036 1710 2242	15.5 0.6 12.8 5.0	472 18 390 152	28 Sa	0334 1018	16.5 1.0 13.7 4.5	503 30 418 137	13 _{Su}	1056	14.1 1.3 12.4 6.0	430 40 378 183	28 M	1744 2331	15.8 -0.9 14.4 4.5	482 -87 439- 137	13 W	0530 1202 1849	2.5	381 76 399	20 Th	1244 1918	2.9 13.6 1.3 15.8	88 415 40 482
14 Sa	0446 1131 1816 2342	14.1 2,0 11,7 6,2	430 61 357 189	29 Su	0427 1118 1754 2331	15.4 0.0 13.1 5.3	469 0 399 162	14 M	1134	13.0 2.4 12.1	396 73 369	29 Tu O	0532 1209 1850	14.6 0.1 14.5	445 3 442	14 Th	1259	5.3 11.8 3.2 13.4	162 360 98 408	F	0145 0751 1349 2018	2.4 12.9 2.4 15.9	73 393 73 485
15 Su 0	0544 1242 1938	12.8 2.9	390 88 344	30 M		14.4 0.8 13.0	439 24 396	15 Tu	0026 0615 1301 1955	6.4 12.1 3.0 12.3	195 369 91 375	30 W	1318	4.3 13.7 0.9 15.0	131 418 27 457	15 F	1359	4.6 11.6 3.6 14.0	140 354 110 427	30 Sa	0256 0909 1454 2116	1.5 12.8 3.1 16.2	46 390 94 494
												31 Th	0211 0813 1425 2056	3.3 13.5 1.4 15.8	101 411 43 482								

Time meridian 135° W. 6000 is midnight. 1200 is noon. Heights are reforred to mean lower low water which is the chart dolum of soundings.

Appendix D

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TABLE 2 - TIDAL DIFFERENCES AND OTHER CONSTANTS

		POS	ITION	Tu	DIFFER	ENCES Hei	ght		GES	Mean
NO.	PLACE	Lalilude	Longilude	High Water	Low Water	High Water	Low Water	Mean	Diumal	Tide Løvel
	ALASKA Neares Passage to Davidson Intet-cont. Time meridian, 135° W	North	West	hm	n m on Sitki	fl a, p.128	fi	ħ	łt	- H -
1613 1615 1617 1619 1621 1623	Davidson Intel-cont. El Capitan Island Cyrus Cova, Sea Otter Sound Marble Passaga Marble Pland Hotarook, Kosciusko Island Edna Bay	55° 56' 55° 55' 55° 57' 56° 00' 56° 02' 55° 57'	133° 20' 133° 24' 133° 26' 133" 26' 133° 30' 133° 30' 133° 40'	-0 11 -0 16 -0 14 -0 19 -0 10 -0 20	0 10 0 12 0 09 0 15 0 06 0 08	+0.8 +1.1 +1.0 +0.8 +0.9 +0.9	-0.1 0.0 0.0 -0.1 -0.1 0.0	8.7 8.8 8.7 8.6 8.7 8.6	10.8 10.9 10.9 10,7 10.8 10.8	5.6 5.8 5.8 5.6 5.6 5.7
1625	Sumner Strait	55° 54'	134" 07'	-0 16	-0 17	+0.8	0.0 -0.1	8.5 9.2	10.7 11.4	5.6 5.9
1627 1627 1631 1633 1635 1635 1637 1639 1641 1643 1645 1645	Pole Anchorage, Kosclusko Island Port McAritur, Kuku Island Kell Bay, Alfleck Canal, Kutu Island Point SL Albans Shakan Bay Entrance Shakan Strait, Kosclusko Island El Capitan Passage Port Beauclarc, Kutu Island Port Protection, Prince of Wales Island. Reid Bay	55° 57' 56° 04' 56° 09' 56° 09' 56° 08' 56° 08' 56° 08' 56° 04' 56° 17' 56° 19' 56° 23' 56° 23'	133" 49' 134" 07' 134" 08' 133" 58' 133" 58' 133" 28' 133" 28' 133" 28' 133" 57' 133" 53' 133" 53' 133" 48'	-0 22 -0 11 +0 01 -0 17 -0 13 -0 09 -0 05 -0 14 -0 13 -0 11 -0 19	-022 -007 +0013 -012 -010 +002 -012 -012 -012 -012 -012 -012 -012 -	+1.4 +0.6 +1.3 +1.8 +1.9 +1.9 +1.9 +1.9 +2.5 5 +2.5	-0.1 0.0 0.0 -0.1 -0.1 -0.1 0.0 0.0	8.4 9.0 9.1 9.5 9.7 8.7 9.7 10.1 10.2 10.3	10.6 11.2 11.3 11.7 11.7 10.8 11.9 12.4 12.4 12.6	559 559 589 582 582 582 582 582 582 582 582 582 582
		ļ				kan, p.120		100	مىد	7.0
1649 1651 1653 1855 1657 1659 1681 1663	Red Bay, Prince of Wales Island Level Islands Butterworth Island, Duncen Canal Duncen Canal, Kupreanof Island Griet Island, Duncen Canal Castle Island, Duncen Canal St.John Harbor, Zarembo Island Greye Island	56° 18' 56° 28' 58° 32' 56° 34' 56° 37' 58° 39' 58° 26' 58° 31'	133° 19' 133° 06' 133° 04' 133° 04' 133° 03' 133° 03' 133° 09' 132° 57' 132° 33'	+0 03 +0 03 -0 04 +0 15 +0 15 +0 27 +0 09 +0 06	+0 07 +0 04 +0 03 +0 18 +0 12 +0 12 +0 12 +0 05 +0 04	-0.8 -0.4 0.0 +0.2 +0.1 +0.1 +0.7 +0.2	0.0 0.0 -0.1 -0.1 -0.2 -0.2 0.0	12.2 12.6 13.0 12.9 13.2 13.2 12.5 13.2	14.6 15.0 15.2 15.2 15.5 14.8 15.6	7.6 7.8 8.0 7.8 8.0 7.6 8.0 7.6 8.1
1003	Wrangeli Narrows									
1665 1667 1669 1671	Point Lockwood, Woewodski Island Finger Point, Undenburg Peninsula Anchor Point Petersburg	56° 33' 56° 41' 56° 38' 56° 49'	132°58' 132°57' 132°56' 132°57'	+0 20 +0 29 +0 20 +0 09	+0 15 +0 41 +0 35 +0 26	+0.2 +1.2 +0.6 +0.3	+0.1 0.0 0.0 -0.1	13.1 14.2 13.6 13.4	15.7 16.7 16.0 15.7	6.1 8,6 8,3 6,1
	Koku Strail			.0.00	.n 09	2.8	-0.1	10.3	12.5	6.6
1873 1675 1677 1679 1681 1683 1685 1685	Monte Carlo Island Seclusion Harbor, Kulu Island Back Island The Sumarsit Entrance Island Port Camden, Kulu Island Harnilton Bay, Kupreenof Island Kake	56° 32' 56° 33' 56° 41' 56° 49' 56° 49' 56° 49' 56° 55' 56° 58'	133° 46' 133° 52' 133° 43' 133° 44' 133° 44' 133° 47' 133° 55' 133° 50' 133° 56'	+0 02 +0 05 +0 08 +0 31 +0 22 +0 03 +0 03 +0 05	+0 03 +0 02 +0 31 +0 37 +0 31 +0 04 +0 04 +0 12	-3.0 -1.6 +0.3 -0.7 -1.5 -1.6 -1.4	-0.2 -0.1 +0.1 0.0 0.0 0.0 -0.1	10.2 11.5 13.2 12.3 11.5 11.4 11.7	12.3 13.8 15.7 14.7 13.9 13.8 14.0	6.4 7.1 8.2 7.8 7.2 7.2 7.3
	Frederick Sound]				∎u, p.124		105	18 1	8.3
1689 1691 1693 1695 1697 1699 1701 1703 1705 1707	Dry Strait Cosmos Point Ideal Cove, Mitkof Island Laconte Bay Brown Cove Thomas Bay Portage Bay, Kupreanof letand Cleveland Passage, Whitney Island Cleveland Passage, Whitney Island The Brothers Pybus Bay, Admirally Island	56° 37' 56° 39.8' 56° 40' 56° 47.3' 58° 53' 57° 00' 57° 00' 57° 13' 57° 18' 57° 18.4'	132° 34' 132° 37.0' 132° 38' 132° 30.1' 132° 48' 132° 47' 133° 19' 133° 19' 133° 30' 133° 47.8' 134° 08.0'	-0 18 -0 05 -0 09 -0 14 +0 07 -0 19 -0 01 -0 08 +0 03 -0 08	-0 03 -0 05 +0 05 +0 03 -0 10 +0 07 -0 15 +0 03 -0 02 -0 08	0.2 '0.98 -0.2 '0.98 -0.3 -0.3 -0.7 -1.2 '0.91 -1.9 *0.90	0.0 *0.99 -0.99 -0.1 -0.1 0.0 -0.1 *0.94 -0.1 *0.94	13.47 13.5 13.42 13.5 13.0 13.0 12.6 12.40 11.9 12.24	16,1 16,00 16,1 15,94 15,8 15,4 15,5 15,0 14,74 14,3 14,63	8,43 8,28 8,28 8,2 8,0 8,1 7,8 7,68 7,68 7,4 7,60
1709 1711 1713	Cannery Cove, Pybus Bay	57* 10*	134* 17.2*	-0 19 -0 06	-0 04	-1.9 -0,87 -0.84	*0.92 *0.91	11.79 11.44	14.10	7.35 7.16
1715 1715 1717	Herring Bay	57° 06.8' 56° 54.2'	134° 22.8' 134° 18.2'	-0 08 -0 12	0 07 -0 15	0.84	10.96	11.34	13.67	7.18
	Slephans Passage	}	1000 000	0.01	-0 17	-0.8	-0.1	13.0	15.4	8.0
1719 1721 1723 1725 1725 1727 1729 1731 1733 1735	Port Houghton, Robert Islands Hobart Bay Good Island, Gambier Bay Windham Bay Rasp Ledge, Seymour Canal Windfall Harbor, Seymour Canal Holkham Bay, Wood Spit Sawyor Island, Tracy Arm Port Snettisham, Point Styleman Port Snettisham, Crib Point	57" 18' 57" 24' 57" 29' 57" 33' 57" 41' 57" 52' 57" 52.7' 57" 58' 58" 05.7"	133° 28' 133° 25' 133° 54' 133° 30' 134° 02' 134° 16' 133° 135' 133° 11.4' 133° 53' 133° 44.3'	-0 21 -0 06 -0 03 +0 00 +0 04 +0 03 +0 02 -0 12 -0 03	-0 17 +0 03 +0 04 0 00 +0 05 +0 18 +0 06 +0 06 -0 08	-0.0 -1.1 -1.4 -0.7 -0.2 -0.8 0.97 -0.4 0 98	-0.1 -0.1 -0.1 +0.1 +0.1 -0.1 *1.01 -0.1 *0.97	12.7 12.4 12.7 12.9 13.5 13.0 13.32 13.4	15.1 14.8 15.1 15.6 16.0 15.4 15.83 15.8 15.8	7.8 7.7 7.8 8.2 8.3 8.0 8.25 8.2 8.2 8.2 8.2
1737	Pon Sneuisnam, Und Pomi	L	Append							

Endnotes can be found at the end of table 2.

Appendix D

- Possession Sound, Port Susan, Skagit Bay area
- Rosario Strait

select a different state

Return to CO-OPS Home Page

ALASKA

- Dixon Entrance and Portland Canal
- Revillagigedo Channel and Tongass Narrows
- Behm Canal
- Clarence Strait
- Cordova Bay and Dali Island
- Meares Passage to Davidson Inlet
- Sumner Strait and Wrangell Narrows
- Keku Strait, Fredrick Sound, Stephens Passage
- Lynn Canal and Chatham Strait
- · Baranof Island, Salisbury Sound, Chichagof Island
- · Cross Sound and Icy Strait
- Gulf of Alaska
- Prince William Sound
- Kenai Peninsula and Cook Inlet
- Kodiak and Afgonak Islands
- Alaska Peninsula
- Aleutian Islands
 - Unimak and Unalaska Islands
 - · Umnak, Yunaska, Atka Islands
 - Adak, Kanaga, Tanaga, Rat and Attu Islands
- Bristol Bay
- Kusokwim Bay and Bering Sea
- · Norton Sound, Bering Strait, and Arctic Ocean

select a different state

Return to CO-OPS Home Page

Pacific Islands

- Marianas Islands
- · Caroline, Marcus and Wake Islands
- Marshall Islands
- · Gilbert Islands and North Pacific Detached Islands

Appendix D

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Petersburg		+0 09	+0 26	+0.3	-0.1
	المحافة والمتحيين الموجوفاتين متصحا الماج جاجا والمحتا المرجح المراج				

Keku Strait

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	Time Diff. Hgt. Diff.
Station	High Low High Low
Monte Carlo Island	+0 02 +0 03 -2.8 -0.1
Seclusion Harbor, Kuiu Island	+0 05 +0 02 -3.0 -0.2
Beck Island	+0 08 +0 31 -1.6 -0.1
The Summit	+0 31 +0 37 +0.3 +0.1
Entrance Island	+0 22 +0 31 -0.7 0.0
Port Camden, Kuiu Island	+0 03 +0 04 -1.5 0.0
Hamilton Bay, Kupreanof Island	+0 03 +0 04 -1.6 0.0
Kake	+0 05 +0 12 -1.4 -0.1

Frederick Sound

	Time	Diff	:. Hgt	. Diff.
Station	High	Lo	w High	Low
Dry Strait -0	18 -	0 03	-0.2	0.0
Cosmos Point -0	05 -	0 05	*0.98	*0.99
Ideal Cove, Mitkof Island -0	09 -	0 05	-0.2	0.0
Leconte Bay 0	00 +	0 03	*0.98	*0,99
Brown Cove -0	14 -	0 10	-0.3	-0.1
Thomas Bay +0	07 +	0 07	-0.8	-0.1
Portage Bay, Kupreanof Island -0	19 -	0 15	-0.7	0.0
Cleveland Passage, Whitney Island -0	01 +	0 03	-1.2	-0.1
The Brothers -0	06 ~	0 03	*0.91	*0.94
-0 Cannery Cove, Pybus Bay -0	08 -	0 06	*0. 90	*0.94
Eliza Harbor, Liesnoi Island -0	19 -	0 19	-1.9	-0.1
Eliza Harbor, Admiralty Island -0	06 -	0 04	*0.97	*0.92
Herring Bay -0	08 -	0 07	*0.84	*0.91
Saginaw Bay, Kuiu Island -0	12 -	0 15	*0.84	*0.96

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Stephens Passage

			Ti	.me D	iff.	Hgt	. Diff.
Station			Hig	h	Low	High	Low
Port Houghton, Robert Islands		-0	21	-0	17	-0.8	-0.1
Hobart Bay		-0	06	+0	03	-1.1	-0.1
Good Island, Gambier Bay		-0	03	+0	04	-1.4	~0.1
Windham Bay		0	00	0	00	-1.1	-0.1
Rasp Ledge, Seymour Canal		+0	06	+0	05	-0.7	+0.1
Windfall Harbor, Seymour Canal		+0	14	+0	18	-0.2	0.0
Holkham Bay, Wood Spit		+0	03	+0	06	-0.8	~0.1
Sawyer Island, Tracy Arm		+0	62	+0	06	*0.97	*1.01
Port Snettisham, Point Styleman		-0	12	-0	06	-0.4	-0.1
Port Snettisham, Crib Point		-0	03	-0	03	*0.98	*0.9 7
Taku Harbor		-0	03	-0	04	*0.97	+1.00
Greely Point, Taku Inlet		-0	01	-0	04	~0.б	-0.1
Taku Point, Taku Inlet		+0	14	+0	13	+0,4	0.0
JUNEAU	Appendix D		5				

19	Su	1238am		5.6	635 a m		13,8	124pm		0.9	806pm		13
20	м	202am	L	5.2	75 8a m	H	13.4	235pm	L	1.2	912pm	H	14
21	Tu	324am	L	3.9	922am	H	13.5	341.pm	L	1.2	1010pm	H	15
22	W	430am	L	2.0	1036am (H	14.2	440pm	L	1.0	1101pm	н	16
23	Th	526am	L	-0.1	1139a m (H	15.1	533pm	Ľ,	0.8	1148pm	н	18
24	F	616am	L	-1,9	1235pm 🗆	H	15.9	621pm	L	0.7			
25	Sa	1232am	н	18.9	702am 3	L	-3.3	125pm	H	16.4	707pm	Ľ.	0
26	Su	115am	н	19.3	746am 🗄	L	-4.0	213pm	H	16. 6	751pm	L	1
27	м	157am	H	19.2	829am 1	L	-4.1	259pm	H	16.4	834pm	L	1
28	Tu	239am	H	18.7	912am 1	L,	-3.6	345pm	H	15.8	918pm	L	2
29	W	321am	H	17,8	956am 1	L I	-2.6	432pm	Ħ	15.1	1003pm	L	3
30	Th	404am (H	16.6	1040a m 1	L	-1.4	521pm	H	14.3	1051pm	L	4
31	F	450am	H	15.2	1128am 1		-0.1	613pm		13.6	1145pm	L	5
Tree		311-0			and a state of the second second second	22							

Juneau, Alaska

Tide Predictions (High and Low Waters) NOAA, National Ocean Service June, 2002

Daylight Saving Time

Day	Time	Ht.	Time	Ht.	Time	Ht.	Time	H
1 Sa	541am H	13,9	1219pm L	1.2	710pm H	13.1		
2 Su	1249am L	5.7	641am H	12.7	117pm L	2.3	809pm H	13
ЗМ	203am L	5,6	752 am H	11.9	219pm L	3.0	906pm H	13
4 Tu	314am L	4.9	907 am H	11.7	319pm L	3.5	956pm H	13
5 W	414am L	3.8	1015 an H	11.9	413pm L	3.6	1040pm H	14
6 Th	503am L	2.4	1114am H	12.4	500pm L	3.6	1119pm H	15
7 F	546am L	1.1	1203pm H	13.1	543pm L	3.5	1155pm H	15
8 Sa	625am L	-0,1	1246рт Н	13.7	623pm L	3.4		
9 Su	1230аж Н	16.4	702am L	-1.2	126рт Н	14.3	701pm L	3
10 M	105am H	16.9	739am L	-2.0	205pm H	14.7	739pm L	
11 T u	140am H	17. 3	817am L	-2.5	244pm H	14.9	. 817pm L	3
12 W	217an H	17.4	856am L	-2.8	324рт Н	14.9	857pm L	3
13 Th	256am H	17.3	937am L	-2.7	407pm H	14.9	940pm L	з
14 F	339am H	16.9	1020am L	-2.3	452pm H	14.8	1028pm L	З
15 Sa	427am H	16.2	1107am L	-1.6	542pm H	14.7	1124pm L	4
16 Su	522am H	15.3	1159am L	-0.6	636pm H	14.8		
17 M	1229am L	4.1	627am H	14.2	1256pm L	0.4	733рт Н	15
18 Tu	143am L	3.6	7 41am H	13.4	159pm L	1.3	832pm H	15
19 W	259am L	2.6	901am H	13.0	304pm L	2.0	931pm H	16
20 Th	407am L	1.1	1019am H	13.3	407pm L	2.4	1027pm H	16
21 F	507am L	-0.4	1127am H	13.9	506pm L	2.6	1120pm H	17
2 2 Sa	600am L	-1.8	1226pm H	14.6	600pm L	2.6		
23 Su	1209am H	10,1	648am L	-2.8	118pm H	15.2	649pm L	2
24 M	1256am H	18.3	733am L	-3.3	206рт Н	15.5	736pm L	2
25 Tu	141am H	18.3	816an L	-3.4	251pm H	15.6	820pm L	2
26 W	223am H	17.9	858am L	-3.1	333pm H	15.5	903pm L	з
27 Th	305am H	17.3	938am L	-2.4	415pm H	15.2	946pm L	3
28 F	346am H	16.4	1018am L	-1.5	456pm H	14.8	1030pm L	Э
29 Sa	428am H	15,4	1058am L	-0.4	538pm H	14.3	1116pm L	4
30 Su	512am H	14.3	1139am L	0.7	621pm H	13.9		
			ti i i na star star st		 To RETURNING THE DUTING 			

Juneau, Alaska

Tide Predictions (High and Low Waters) NOAA, National Ocean Service

Daylight Saving Time

Day	Time	Ht.	Time	Ht.	Time	Ht.	Time	н۱
1 M 2 Tu	1208am L 107am L	4.6 4.7	601am н 657am н Аррепd	12.1	122 3pm L 112pm L		706рт Н 754рт Н	

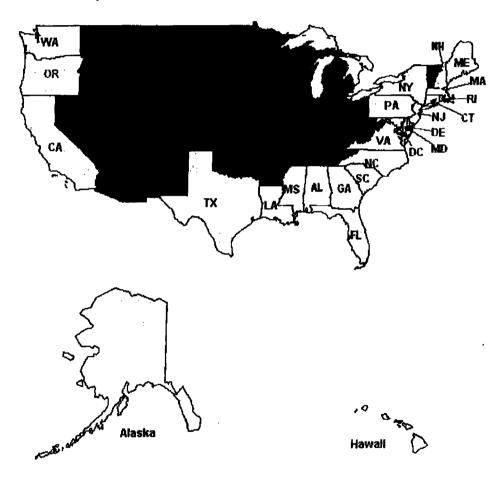
July, 2002

NOAA, tidal bench marks, benchmarks, geodetic leveling, datums



PUBLISHED BENCHMARK SHEETS

Below is a map of states and geographical areas where CO-OPS maintains Published Benchmark Sheets. Specific stations are listed within each area.

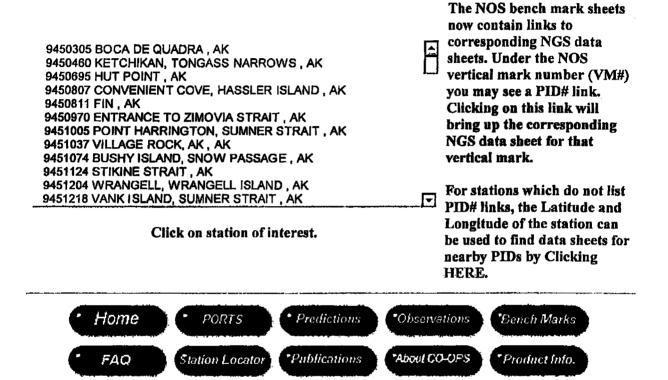


Non U.S. Bench Marks

Appendix C



Alaska Bench Marks





Fact Sheet

Title: Accretion, Reliction & Quiet Title Action



What is Accretion / Reliction?

Sometimes a land survey involving coastal or shoreline areas will show that there is now more upland area than what was shown on the original survey. The extra land may be the result of fill material deposited by man or the result of natural processes. The act of fill fixes the boundary at the historical location and negates any future claim to subsequent accretion. Accretion is the gradual and imperceptible addition of land to a parcel by the natural deposition of water bome sediments. It is the slow increase in one's land occurring grain by grain. Reliction, which is the uncovering of submerged land by the recession of water, is legally treated as accretion even though the process is different. In 1982, the Alaska Supreme Court ruled in Honsinger v. State of Alaska that glaclo-isostatic uplift is a form of reliction and therefore subject to common-law doctrine of accretion. The court also stated "accretion and reliction, although physically different processes. are subject to the same rule regarding title, i.e., benefit inures to shoreline owner."

What is the legal significance of accretions? Land abutting navigable water (see state policy on navigability fact sheet) has riparian rights. Riparian rights are - (1) rights to the water itself or its use and (2) rights incident to the land that may include ownership of, or use of the bed, or rights to acquire additional land formed by water action (accretions). One of the most valuable of these rights is continuing access to the water. By common law, accretions belong to the owner of the uplands to which the accretion attached in order that a riparian owner may retain his riparian rights. Riparian boundaries are ambulatory boundaries, in that they move as the water moves, under the legal principal that a riparian owner should not be denied the right to have free access to the water. However ownership of accretions is held under a cloud of title because the owner cannot show how clear or marketable title was acquired. The State of Alaska as the owner of the abutting submerged lands could possibly have an adverse claim. For example, the state asserts ownership of tide and submerged land that has been artificially filled below the mean high water line of tidal water or the ordinary high water mark of non-tidal water bodies.

What is a cloud on title?

A cloud on title is a claim or encumbrance on title to land that, if valid, will affect the owner's title and prevent him from fully enjoying all the rights and benefits of land ownership. Clouded title is title that is subject to an adverse claim of ownership because there is no patent, deed or other written transfer that clearly establishes ownership. Transfer of title may also be an issue.

How is the cloud on title removed?

A cloud on title is cleared up by going through a process known as a Quiet Title Action in which the claimant petitions the Alaska Superior Court to make a judicial determination to establish ownership and ascertain the boundary in accordance with AS 09.45.010 and AS 09.45.020.

What is a Quiet Title Action?

A quiet title action is a legal process that removes an adverse claim or cloud on the title of property to establish ownership in accordance with AS 09.45.010. Action to quiet title. This is usually a friendly lawsuit, handled by the attorney for the plaintiff and the attorney for the defendants, not requiring a jury trial. The State of Alaska as owner of the beds of navigable water is always named as a defendant along with any party in the chain of tille. Sometimes adjacent landowners are also named as defendants. Generally, the lawsuit consists of the attorneys for the parties negotiating resolution of the claim based on historical information. Upon reaching agreement, the judge for the Superior Court issues an order resolving the issue in favor of the plaintiff. Final resolution is when the court issues a Clerk's Deed or Deed of the Clerk of the Court to the plaintiff awarding good or marketable title. The plaintiff is required to _____ provide a survey done by a registered land surveyor and a plat that has been approved by the local platting authority. In the unorganized borough DNR is the platting authority.

How does the Quiet Title process work? Generally speaking, the process is as follows:

- Plaintiff has a surveyor prepare an exhibit identifying the area being claimed.
- Plaintiff's attorney files a Complaint For Quilet Title in Superior Court.

- Court issues a Summons to Defendant, State of Alaska, requiring that the state file an answer to the complaint within 40 days.
- The Attorney General's Office (AGO) and DNR'S Survey Unit investigate the claim. The investigation includes a review of some or all of the following: Title documents, record survey plats, historical data, navigability determinations and aerial photography. An on-site field inspection may also be performed.
- Survey Unit makes recommendation requiring certain stipulations to AGO.
- The AGO files an answer containing the stipulations with the court.
- Court issues a Stipulation For Entry Of Judgment that has been agreed to by the parties.
- Plaintiffs surveyor surveys and plats the claim in accordance with the stipulations and DNR'S surveying and platting requirements 11 AAC 53.
- A Certificate to Ptat or Litigation Report, prepared by a title company, is required to be submitted when the plat is submitted for DNR review.
- After approval by DNR and the platting authority the plat is filed in the Recorder's Office.
- Plaintiff's attorney serves upon the State of Alaska, Attorney General' Office, a proposed Findings of Fact and Conclusions of Law, a proposed Final Judgment, and a proposed Glerk's Deed.
- Upon the state's review and approval, plaintiff's attorney files the above documents with the court.
- The Clerk of the Court issues a Clerk's Deed, based on the recorded plat, quieting title in favor of the plaintiff.

How long does the process take?

The time frame is dependant upon the actions or lack of action by the plaintiff, the plaintiff's attorney and surveyor, the local platting authority, and the court system. By law, the state has 40 days to respond to a complaint for quiet title once it has been filed with the court unless the state's attorney files for an extension. It should be expected that the entire process will take a minimum of six months even if it is pursued agreessively.

Why go through the process?

The purpose of going through the process is to remove the cloud and acquire clear marketable title that is free from encumbrance or limitation. Frequently, the quiet title process is driven by a financial institution that will not loan money on property unless the title is clear. Title companies often will not issue a title insurance policy that insures against a cloud on title. The title policy will clie the cloud as an exception to the policy. The Clerk's Deed will clear up the title and satisfy their concerns. Name: Amy Puerner Date: 11 November 2002 Class: GIS369 Subject: Published Article Review Journal: Hydro International, July/August 2001, Vol. 5 No. 5 Article: *Where is the Shoreline*? Author: Dr. Bruce Parker, Chief Coast Survey Development Laboratory,

National Ocean Service, NOAA

This article delves into the challenges of determining shoreline location. The United States uses the Mean High Water (MHW) vertical datum to define shoreline. The problem in showing the MHW line on maps is stated by Parker: "How does one measure the shoreline so that every point really does represent 'the horizontal position of the land-water interface when the water level is at a height equal to MHW at that point'?"

Photogrammetry has traditionally been used in shoreline mapping; the key factor in accurate photos lies in the timing of the photography. But knowing when the waterline is at the MHW mark for each point over a portion of the shoreline is difficult to predict, given the dynamic nature of the tides, randomly spaced tidal gauges, and weather patterns. It's easy to see how the shoreline delineation can change depending on when the measurements are made, who is making the measurements and final shoreline determination methodology.

Along with the MHW line, the Mean Lower Low Water (MLLW) line is also a critical datum to depict. MLLW is the reference datum used on nautical charts, and is used to determine territorial seas. Aside from having a bit of a data "void" between the two datums, combining data from a nautical chart to a USGS topographic map is a challenge. USGS data is generally referenced to the NAD27 datum, depending on the product, but NOAA data is referenced to the NAD83 datum. Local and state agencies have their own standards, so from the start of a project including shoreline data, a datum transformation is usually required.

NOAA has developed a datum transformation tool, called VDatum to assist in combining data from different sources into one datum. By having a seamless Digital Elevation Model (DEM) the various datums can be depicted using various models in a GIS. To complement and complete the shoreline data, airborne LIDAR technology has been adopted. LIDAR data is collected when the water level is at the lowest can create a high accuracy elevation model of the shoreline. Other technologies being used are SHOALS (Scanning Hydrographic Operational Airborne Laser Survey) and LADS (Laser Airborne Depth Sounder).

With the integration of data from different sources using the VDatum tool, land management and development analysis along the shoreline will be easier to monitor. Having access to the software (and hardware) and the knowledge to use the programs correctly would be a boost to a GIS technician's or regional planner's resume.