

**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. 1672

Authority: 11 AAC 53, Survey and Platting Requirements

These instructions provide for the survey and platting of approximately 220 acres of tide and submerged lands within Sections 32 and 33, Township 26 South, Range 22 West, and Sections 4 and 5, Township 27 South, Range 22 West, Seward Meridian, Alaska. The purpose of this survey is to facilitate the conveyance of title in accordance with AS 38.05.825, pursuant to the Final Finding and Decision approved November 16, 2006.

In the execution of the survey included under **ATS No. 1672**, the surveyor is authorized and directed to perform the survey of **ADL No. 206501**, as set forth in these instructions. The surveyor will be guided by the State of Alaska's Survey and Platting Regulations, the provisions of the following Special Survey Instructions, and such supplemental instructions deemed necessary during the progress of work.

LIMIT AND CHARACTER OF WORK

The survey is limited to the establishment and monumentation of boundaries as shown on the Plan of Survey for **ATS 1672 / ADL 206501**, 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 BLM Manual of Surveying Instructions, 1973.

HISTORY OF SURVEYS

The USRS for T. 26 S., R. 22 W., Seward Meridian, was completed by Fredrick W. Ward, Cadastral Surveyor, in 1973 and the plat was accepted by BLM on January 9, 1980.

The USRS for T. 27 S., R. 22 W., Seward Meridian, was completed by Fredrick W. Ward, Cadastral Surveyor, in 1973 and the plat was accepted by BLM on January 9, 1980.

The USRS for T. 27 S., R. 22 W., Seward Meridian, Supplemental Plat, was based upon the USRS for T. 27 S., R. 22 W., Seward Meridian, and was accepted by BLM on January 9, 1980. This Supplemental Plat was accepted September 11, 1991.

USS 1736 was completed by Fred Dahlquist, Cadastral Surveyor, in 1927 and the plat was accepted by GLO October 29, 1929.

USS 2005 was completed by Floyd G. Bettis, Cadastral Surveyor, in 1931 and the plat was accepted by GLO July 10, 1933.

USS 5509 was completed by Hobart B. Hyatt, Cadastral Surveyor, in 1968 and the plat was accepted by BLM June 13, 1969.

USS 5509, Supplemental Plat, was based upon the plat of USS 5509, accepted by BLM June 13, 1969 and the State of Alaska Port Lions Alaska Subdivision Plat, sheets 1-3, File Nos. 57-65A, 57-65B and 57-65C, accepted by BLM on January 22, 1965 and filed with the Kodiak Recording District on November 22, 1965 as Plat No. 65-12. This supplemental Plat was accepted July 25, 1994.

ATS 664 was completed by Barr and Associates in 1969 and the plat was filed in the Kodiak Recording District on September 29, 1969 as Plat No. 69-8.

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

Port Lions, Alaska Subdivision, Plat No. 65-12, filed, November 22, 1965

First Addition, Port Lions, Alaska Subdivision, Plat No. 68-1, filed, January 19, 1968.

Alaska Land Survey, Wakefield Fisheries, Plat No. 68-11, filed October 11, 1968.

METHOD OF SURVEY PROCEDURE

This survey shall be executed by a licensed land surveyor registered to practice in the State of Alaska.

The survey and plat of ATS 1672 shall substantially conform to the Final Finding and Decision approved November 16, 2006 and the enclosed Plan of Survey.

The boundary of ATS 1672 shall be based upon the property description found on page 2 of the Preliminary Finding and Decision.

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.

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

The Basis of Bearing shall be between any two recovered monuments for which there is a record bearing, preferably the longest line of record.

Geographic coordinates (NAD 1927 and NAD 1983) are required to be shown at WCMC 1 of ATS 1672. 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 plat of USS 5509 shows geographic coordinates of record at Meander Corner 1.

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 <http://www.ngs.noaa.gov/OPUS/Using_OPUS.html>. GPS Station Observation Log forms are available in pdf format at <<http://www.ngs.noaa.gov/PROJECTS/NGSforms/obslog.pdf>>.

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

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 http://www.ngs.noaa.gov/FGCS/tech_pub/GeomGeod.pdf .

The landward boundary of this survey shall be along the natural mean high water line. This line shall be established pursuant to 11 AAC 53.120(1). The surveyor shall be cautious when determining the existing mean high water line to ensure that it is the natural line, and not an artificial one created by fill material. 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 extents of each tract. The tidal datum used shall be shown on the plat.

ATS 1672 is subject to:

A 50' Public Access Easement seaward of the mean high water line in accordance with AS 38.05.127. This easement shall be graphically depicted on the plat and labeled as such.

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

TECHNICAL SURVEY REQUIREMENTS

The lines surveyed and retraced by this survey shall have a closing error no greater than 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, and good photographs or legible rubbings of monuments recovered and established, must 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. Additional accessory specifications are as follows:

- (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 Articles 4-85, 4-87 and 4-88 of the BLM Manual of Surveying Instructions, 1973. 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 Kodiak Island Borough Platting Authority must also be conformed to.

PLAT REQUIREMENTS

The plats shall be constructed by the surveyor in accordance with the following:

- (1) The base sheets must be of good quality mylar at least three mils thick, and be one of three standard sizes: 18" x 24", 24" x 36" or 31½" x 34". There are no exceptions to the standard size requirement.
- (2) Use the standard DNR legend, an example of which is available on the DNR Survey Unit webpage at <<http://www.dnr.state.ak.us/mlw/survey/>>.
- (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.
- (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 of at least 4x4 inches with a scale of one inch representing one mile in the upper right hand corner, 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.
- (16) 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 <http://ngdc.noaa.gov/seg/geomag/declination.shtml>.
- (17) 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. 1672, 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 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. 206501

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

Date

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn 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)

- (18) Any approval or any other certificates or notes that may be required by the Kodiak Island Borough Platting Authority shall be drafted on the plat.
- (19) The upland land status, record survey lines, and an indication of whether or not the adjacent tidelands are occupied or unoccupied must be shown. If adjacent tidelands are occupied, the tideland survey number(s) must be depicted. Indicate all water body names adjacent to this survey.
- (20) The following notes will be required on the plat:
 - a. This survey was accomplished in accordance with AS 38.05.825 and ATS SI No. 1672.
 - 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 for this survey is not greater than 1:5000.
 - d. (For plats where the basis of bearing is derived solely from GPS observations, and not from monuments of record.) The Basis of Bearing on

this plat was determined by a high precision (*brand and model*) GPS survey, differentially corrected and processed with (*name and version*) software.

- e. The natural meanders of the line of mean high water form the true bounds of ATS 1672. 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 month day year 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'

- (21) Both record and found bearings and distances shall be shown on the plat. In the event there are two sets of record data, the data from the latest plat of record shall be shown with the appropriate nomenclature. If record lines are not retraced or resurveyed but are used to compute closure, record monumentation along these lines must also be indicated.
- (22) 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.
- (23) 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.

- (24) 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:

DATE OF SURVEY Beginning: mm/dd/yyyy Ending: mm/dd/yyyy		SURVEYOR (Name) (Address) XXXXXX XXXXXX, AK. XXXXX	
STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND AND WATER ANCHORAGE, ALASKA			
ALASKA TIDELAND SURVEY NO. 1672			
LOCATED WITHIN PROTRACTED SECTIONS 32 AND 33 TOWNSHIP 26 SOUTH, RANGE 22 WEST AND PROTRACTED SECTIONS 4 AND 5 TOWNSHIP 27 SOUTH, RANGE 22 WEST SEWARD MERIDIAN, ALASKA CONTAINING XX.XX ACRES KODIAK RECORDING DISTRICT			
DRAWN BY: ____ DATE: ____		APPROVAL RECOMMENDED STATEWIDE PLATTING SUPERVISOR DATE	
SCALE 1" = XX'	CHECKED (Initials)	FILE NO. ATS 1672	

- (25) The sections and townships shown in the sample title block shall be modified as necessary, according to the surveyor's field location of parcel boundaries with respect to protracted or surveyed sections and townships.

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 blue-line 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 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 must 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.

Plat review fees are \$200 for the first parcel or tract, and \$50 for each additional parcel or tract, in accordance with 11 AAC 05.010(a)(13). Please remit a check or money order payable to the Department of Natural Resources along with the first plat 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 (3 1/2" floppy, 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 shall show only the boundary surveyed, the tie to the basis of bearing, and the tie to the basis of coordinates. The drawing must show true geographic coordinates (text, values and datum) for an existing reference or control monument. Polygons must close and have no undershoots or overshoots, with the parcel boundary having clean snapped intersections. On the DNR layer, only the survey boundary and ties to control are to be shown; no text, area, title block, annotation, symbols, bearings or distances, leaders, details, etcetera, are to be included.

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 Statewide Platting Supervisor 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:


Patrick Green
Land Surveyor I

Approved by: William S. Braum
for Gerald Jennings,
Statewide Platting Supervisor

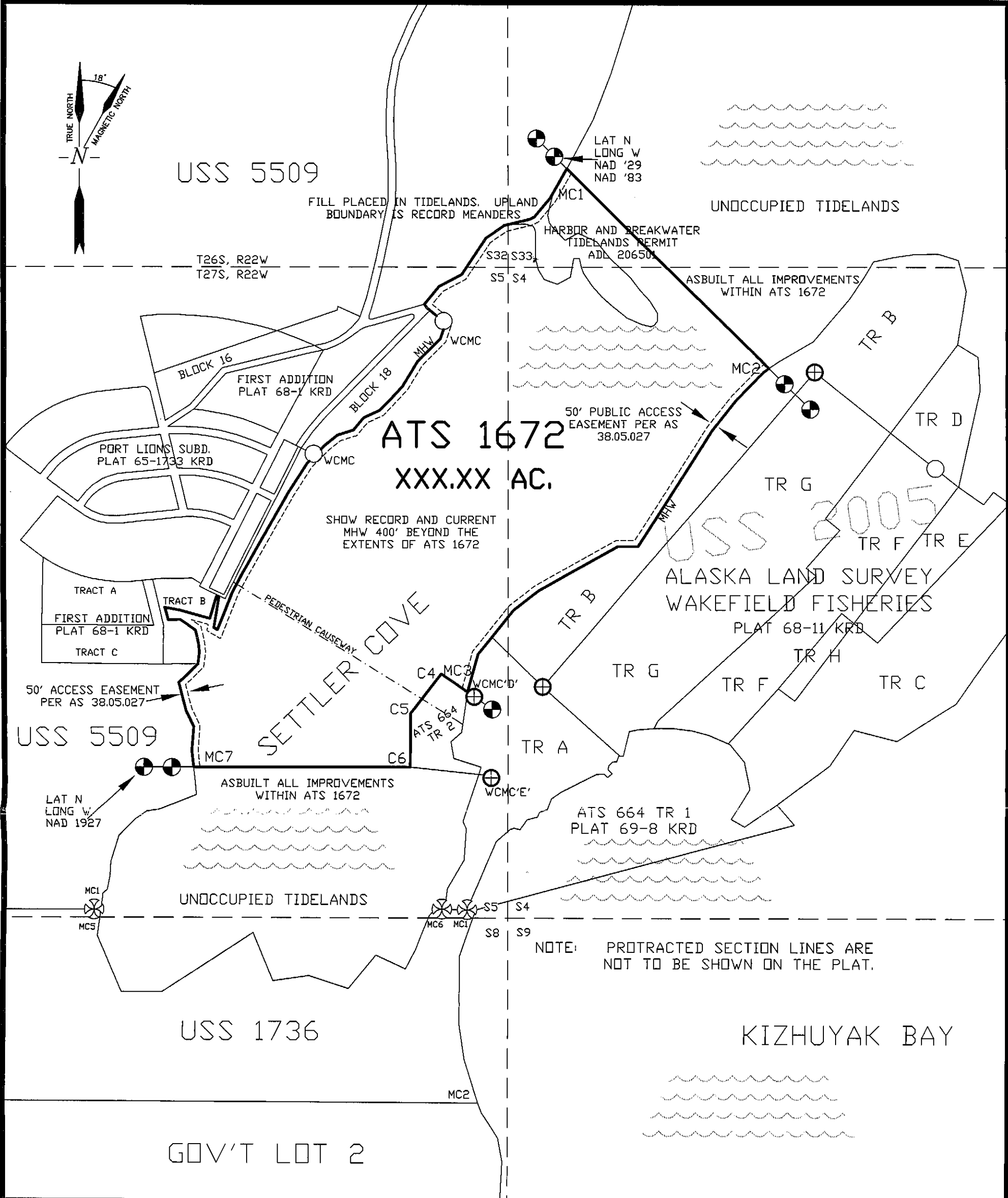
Date: 3-5-68

GDJ: JPG: jpg

Enclosures:

Plan of Survey
Preliminary Finding and Decision
Final Finding and Decision
Alaska Tideland Surveys

cc: Mike Mitchell, SCRO, DML&W, ADL 206501
Survey Tracking & Monitoring: (Case Type 316, Subtype 316)



PLAN OF SURVEY
ATS 1672
ADL 206501
LOCATED WITHIN
PROTRACTED SECTIONS 32 AND 33
TOWNSHIP 26 SOUTH, RANGE 22 WEST
AND
PROTRACTED SECTIONS 4 AND 5
TOWNSHIP 27 SOUTH, RANGE 22 WEST
SEWARD MERIDIAN, ALASKA

LEGEND:

- ⊗ GLO/BLM MONUMENT OF RECORD
- ⊕ PRIMARY MONUMENT TO BE SET
- ⊕ PRIMARY MONUMENT TO BE RECOVERED/RESET
- PRIMARY MONUMENT OF RECORD

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LANDS & WATER
550 W. 7TH AVE., SUITE 650
ANCHORAGE, AK 99501
(907) 269-8523

SCALE: 1" = 800'
DRAWN: PG
DATE: 3/5/2008

ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

FINAL FINDING AND DECISION UNDER AS 38.05.035(e)
CONVEYANCE OF TIDE AND SUBMERGED LAND UNDER AS 38.05.825

CITY OF PORT LIONS
ADL 206501

This final finding and decision is intended to complement and update the preliminary finding and decision for this action dated October 5, 2006.

Action: This final finding and decision finds that it is in the best interest of the state to convey 220 acres, more or less, of tide and submerged land to the City of Port Lions, Alaska.

Authority: This action is authorized pursuant to: AS 38.05.825; AS 38.05.035(e).

Administrative Record: Department of Natural Resources case file ADL 206501 comprises the administrative record used as the basis for this decision.

Public Notice and Discussion: Public notice announcing the preliminary finding and decision and soliciting comments was published in the Kodiak Daily Mirror and Anchorage Daily News; posted at the US Post Office in the cities of Port Lions and Kodiak; and posted on the State's web page under *Online Public Notice*. Notice was sent to the U.S. Army Corps of Engineers – Alaska District; Alaska Dept. of Transportation and Public Facilities – Central Region; Kodiak Island Borough; City of Port Lions; Koniag, Inc.; Port Lions Traditional Tribal Council; Afognak Native Corporation; and to owners of adjoining uplands.

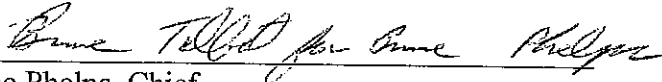
No comments were received.

Final Finding and Decision: The City of Port Lions qualifies for this conveyance under AS 38.05.825. The purpose of the conveyance is to provide land for development of the city's small boat harbor and support the general economic infrastructure development of the city and the borough.

This final finding and decision complements and updates the preliminary finding and decision dated October 5, 2006. This conveyance is subject to those stipulations contained in the preliminary finding and decision. Public notice has been accomplished in accordance with AS 38.05.945. The subject tidelands will be surveyed by the Alaska Dept. of Transportation and Public Facilities; survey is required before a tideland patent will be issued to the City of Port Lions.

The finding presented above has been reviewed and considered. The case file has been found to be complete and the requirements of all applicable statutes have been met. It is the finding of the Chief, Resource Assessment and Development Section, Division of Mining, Land and Water that

it is in the best interest of the state to proceed with this conveyance under authority of AS 38.05.825 and AS 38.05.035(e). Management authority will transfer to the City of Port Lions when this decision goes into effect (see Appeal Provision).


Bruce Phelps, Chief
Resource Assessment and Development Section

Date 11/16/06

Appeal Provision: 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 received by **December 6, 2006** and may be mailed or delivered to Michael Menge, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to dnr_appeals@dnr.state.ak.us. If no appeal is filed by that date, this decision goes into effect as a final order and decision on **December 18, 2006**. 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 may be obtained from any regional information office of the Department of Natural Resources.

STATE OF ALASKA

FRANK J. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND AND WATER

RESOURCE ASSESSMENT
& DEVELOPMENT SECTION
550 W. 7th Avenue, Suite 1050
Anchorage, Alaska 99501-3579

PHONE (907) 269-8531
FAX (907) 269-8915

October 5, 2006

Mayor Marvin Bartleson, Sr.
City of Port Lions
PO Box 110
Port Lions, AK 99550

Re: Public Notice pursuant to AS 38.05.945 for a decision to transfer state tidelands to the City of Port Lions, ADL 206501.

Dear Mayor Bartleson:

The purpose of this letter is to provide notice to the City of Port Lions in accordance with AS 38.05.945(c)(1). Enclosed is a copy of the public notice and a copy of the preliminary finding and decision under AS 38.05.035(e) for your review. Comments must be received in writing by the Division of Mining, Land and Water, Resource Assessment and Development Section, Attention: Mike Mitchell, 550 W. 7th Avenue, Suite 1050, Anchorage, AK 99501-3579, on or before 5 p.m., November 8, 2006.

Following the comment deadline, all written responses will be considered and the decision may be modified to incorporate public comments. If no significant change is required, the preliminary finding and decision will become the final decision of the Department of Natural Resources without further notice. The final decision will set out the applicable process for appealing the decision. A copy of the final decision document will be available at the address above and will be sent to any person who comments on the preliminary finding and decision. Only those persons who comment during the public comment period will be eligible to file an administrative appeal of the final decision.

The city is entitled by AS 38.05.946 to hold a public hearing on this action. Should you feel that a hearing is necessary, you may hold one within 30 days after receipt of this notice. If a hearing is held, please notify me at least five working days before the hearing's scheduled date and a commissioner's representative will attend.

Please contact me at 269-8531 or mikemi@dnr.state.ak.us if you have any questions concerning this action.

Sincerely,



Mike Mitchell
Adjudicator

Enclosures

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

PUBLIC NOTICE UNDER AS 38.05.945
ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

PRELIMINARY FINDING AND DECISION UNDER AS 38.05.035(e)
CONVEYANCE OF TIDE AND SUBMERGED LAND UNDER AS 38.05.825

CITY OF PORT LIONS
ADL 206501

The Division of Mining, Land and Water proposes to convey to the City of Port Lions 220 acres, more or less, of tide and submerged land situated in Settler Cove on Kizhuyak Bay, Kodiak Island. These tidelands contain the city's small boat harbor and pedestrian causeway. Alaska Statute 38.05.825 provides for conveyance to municipalities of tidelands that are occupied or suitable for occupation and development.

The public is invited to comment on the decision to transfer ownership of this state land to the City of Port Lions. A copy of the Preliminary Finding and Decision document is available from our web site at <http://www.dnr.state.ak.us/mlw/muni/index.htm>. You may request a copy from the Division of Mining, Land and Water, Resource Assessment and Development Section, Attention: Mike Mitchell, 550 W 7th Avenue, Suite 1050, Anchorage, AK 99501-3579; telephone 1-907-269-8531; fax 1-907-269-8915; or e-mail mikemi@dnr.state.ak.us. Comments must be received in writing or e-mail by the Division at the above address **on or before 5:00 p.m., November 8, 2006** in order to ensure consideration.

Following the comment deadline, all written responses will be considered and this decision may be modified to incorporate public comments. Only persons who comment during the public comment period will be eligible to file an administrative appeal of the final finding and decision. A copy of the final decision will be sent to any person who comments on the preliminary decision. The final decision will include appeal instructions. If you have any questions concerning this proposed decision please contact Mike Mitchell at 1-907-269-8531 or e-mail: mikemi@dnr.state.ak.us.

The Department of Natural Resources is prepared to accommodate individuals with disabilities by providing auxiliary aids or services when requested. Individuals with audio impairments who wish to respond to this decision by telephone may call the department's Public Information Center in Anchorage between the hours of 11:00 a.m. and 5:00 p.m., M-F, at TDD# 1-907-269-8411.

The right is reserved to waive technical defects in this document.

/s/ Ginger Gallus, NRM, RADS Pub: 10/9/06

ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

PRELIMINARY FINDING AND DECISION UNDER AS 38.05.035(e)
CONVEYANCE OF TIDE AND SUBMERGED LAND UNDER AS 38.05.825

CITY OF PORT LIONS
ADL 206501

Proposed Action

The City of Port Lions on Kodiak Island has applied for certain tide and submerged lands in Settler Cove pursuant to AS 38.05.825. The purpose of this proposed conveyance is to provide land for development of the city's small boat harbor and support the general economic infrastructure development of the city and the Kodiak Island Borough.

The public is invited to comment on this proposed decision. See the public notice section at the end of this decision for details on commenting on this action.

Authority

This action is authorized pursuant to AS 38.05.035(e) and AS 38.05.825. Authority to execute this decision has been delegated to the State's Municipal Entitlement Project Manager.

Administrative Record

Department of Natural Resources case file ADL 206501 comprises the administrative record used for this decision.

Scope of Decision

The scope of administrative review, under AS 38.05.035(e)(1-2), for this land transfer to the City of Port Lions is limited to the decision to transfer title from the state to the city. The scope of this review does not take into account any future development or the effects of such, other than that discussed below, which may occur after transfer of these tidelands to the city.

Discussion

Location

1. Geographic: This selection is located in Settler Cove on Kizhuyak Bay, Kodiak Island, approximately 20 miles west northwest of the City of Kodiak.
2. Borough/Municipality: Kodiak Island Borough
3. Native Regional Corporation: Koniag, Inc.
4. Native Village Corporation: Afognak Native Corporation
5. Native Tribal Council: Port Lions Traditional Tribal Council

6. Coastal District: Kodiak
7. USGS Topographic Map: Kodiak D-3 1:63,360 scale.
8. Legal Description:

A parcel of tide and submerged land in Settler Cove situated in Sections 32 and 33, Township 26 South, Range 22 West and Sections 4 and 5, Township 27 South, Range 22 West, Seward Meridian, Alaska, more particularly described as follows:

Beginning at a point on the westerly shore of Settler Cove, said point lying on the Mean High Water line 700 feet northerly of the intersection of the Mean High Water line and the projected centerline of the existing (2006) small boat harbor main breakwater, said point being the TRUE POINT OF BEGINNING; thence southeasterly parallel to said centerline of the small boat harbor main breakwater to a point on the Mean High Water line on the easterly shore of Settler Cove; thence southwesterly along the Mean High Water line to Meander Corner "D" of Tidelands Tract 2, ATS 664; thence in a counterclockwise direction along the seaward bounds of Tidelands Tract 2, ATS 664, to the southwesterly most corner of said Tidelands Tract 2; thence West to a point on the Mean High Water line on the westerly shore of Settler Cove; thence northeasterly along the Mean High Water line to the TRUE POINT OF BEGINNING.

Said parcel containing 220 acres, more or less.

9. Attachments: Project Map; Vicinity Map.

Title

1. The State acquired title to the land under the Submerged Land Act of 1953 (P.L. 31, 83rd Congress, First Session; 67 Stat. 29).

Note: The tide and submerged land here proposed for conveyance to the City of Port Lions is situated within the boundaries of the Alaska Maritime National Wildlife Refuge. Public Law 96-487 (Alaska National Interest Lands Conservation Act)(ANILCA) Section 303, established the Alaska Maritime National Wildlife Refuge. PL 96-487 gives the Federal government management authority over the fish, fowl and mammals within the Refuge, as well as those other interests outlined in subsection (1)(B) of the Act. It is the State's position that the tidelands proposed for conveyance are owned by the State. PL 96-487 does not retain or grant title to the tide and submerged lands adjacent to Kodiak Island.

2. Restrictions/Reservations: This conveyance will be subject to any restrictions, reservations or exceptions in Section 6(m) of the Alaska Statehood Act and the Submerged Lands Act of 1953.
3. Third Party Interest: The existing rubblemound breakwaters in the small boat harbor at Port Lions were constructed on state owned tidelands by the U.S. Army Corps of Engineers (USACE) under its authority under the right of federal navigational servitude. These breakwaters are considered by both the State and USACE to be owned by USACE.

Ownership of the breakwaters will not be affected by conveyance of the tideland to the city. There are no other known third party interests situated in or on the subject tidelands. Notice to owners of uplands that adjoin the tidelands proposed for conveyance will be provided pursuant AS 38.05.945(b)(3)(C).

Background

The City of Port Lions, incorporated in 1966, was founded by displaced residents of the Village of Afognak after the village was partially destroyed by a tsunami following the Great Alaskan Earthquake of March 27, 1964. The population of the city in year 2005 was estimated by the state to be 220 residents. The City is situated on Settler Cove, a small embayment of Kizhuyak Bay, Kodiak Island. The City is within the Kodiak Island Borough.

The Port Lions small boat harbor was constructed by USACE between 1981 and 1983. The harbor consists of two rubblemound breakwaters, vessel mooring floats and three outer floating breakwaters. The original 1981 breakwater was severely damaged by a storm shortly after its construction and had to be rebuilt. The mooring floats and breakwater floats have accumulated storm damage over the years since constructed and consequently the available year-round moorage has been reduced from approximately 124 vessels to 35.

Planning and Classification

Port Lions Comprehensive Development Plan

The Port Lions Comprehensive Development Plan (November 1997) identifies two city approved capital improvement projects that directly involve the use of state owned tidelands in Settler Cove: improvement of the existing small boat harbor and construction of a future Dry Dock facility.

The current harbor improvement project at Port Lions is a joint effort of USACE and the Alaska Department of Transportation and Public Facilities (ADOTPF). This project is approximately 2 years away from construction and 6 years from completion. The project will include construction of a new rubblemound breakwater, extension of two existing breakwaters, repair or replacement of existing moorage floats in the harbor basin and replacement of existing outer floating breakwaters. (The state's portion of the costs of this project has been funded.)

The city's comprehensive plan identifies construction of a Dry Dock Facility (boat haul-out, repair and storage facility) as a city approved project. This project would be located in the area of the small boat harbor. As described in the comprehensive plan, this project will require the use of state owned tidelands. The current status of this project is unknown.

Additionally, the comprehensive plan references a 2,175-foot long pedestrian causeway that traverses Settler Cove, running from the city center to the Peregrebni Peninsula. This pedestrian causeway is located approximately 3,000 feet south of the small boat harbor. This structure is identified in the Transportation chapter of the comprehensive plan as a component of the Port Lions Road System (p.31). According to RAPIDS*, \$75,000 was expended on Dock/Causeway repair in 1992. This was a legislative grant administered by the Dept. of Commerce, Community and Economic Development (DCED). (*RAPIDS is the on-line database for the capital projects

and grants history of rural communities maintained by DCED's Division of Community Advocacy.)

While there is no anticipated project involving this causeway identified in the city's comprehensive plan, it is reasonable to expect that in the future it will be necessary to repair, upgrade or replace portions or all of this structure and that such activity would entail use of tidelands that are (currently) state owned.

(Information on the history of the Port Lions small boat harbor and the current harbor project is from the following sources: Navigation Improvements Draft Feasibility Report and Environmental Assessment, Port Lions, Alaska (July 2005; Department of the Army, U.S. Army Engineer District, Alaska); Port Lions Comprehensive Development Plan (November 1997; Kodiak Island Borough Community Development Dept.); and ADOTPF Central Region Ports and Harbors Division personnel.)

DNR Kodiak Island Area Plan

The tidelands proposed for conveyance include the small boat harbor and the pedestrian causeway, both of which are located in plan subunit KT-04B, classified *Settlement*. Management intent for this subunit is to accommodate marine structures and facilities necessary for the community of Port Lions. The proposed action is consistent with both the plan designation and management intent and allows for conveyance of these tidelands to the City of Port Lions.

Coastal Zone Consistency

A tideland conveyance under AS 38.05.825 is a land disposal to a municipality for a use or activity approved by the municipality. This type of land disposal is listed on the List of Expedited Consistency Reviews and State Authorizations Subject to the ACMP under the section termed A List - Categorically Consistent Determinations (Office of Project Management and Permitting, May 26, 2004). Such a disposal is a land action considered to be categorically consistent with the Alaska Coastal Zone Management Program. (A project consistency review is not required.)

Navigable and Public Waters

The waters of Settler Cove are navigable and public.

Public Access

Access to the City of Port Lions is by plane or boat. The harbor site can be accessed by boat or local road.

A public access easement 50 feet in width will be reserved seaward of the Mean High Water line of any waterbody affected by tidal action.

Mineral Entry

No mineral closing order has been requested or is proposed at this time.

Environmental Risk

It is DNR's management responsibility to protect the overall public interest if there is a reasonable expectation that hazardous contamination exists on land being disposed of. No hazardous material or contamination from hazardous material is known to exist on the subject tide and submerged land. Environmental risk associated with this proposed conveyance should be minimal.

Survey and Appraisal

The subject tideland is unsurveyed and a survey will be required before issuance of a tidelands deed. The Alaska Department of Transportation and Public Services has been funded in its FY2008 budget for survey of the subject tideland in conjunction with the harbor improvement and breakwater construction project at Port Lions.

The land will be conveyed to the City of Port Lions at no cost and, therefore, appraisal is not necessary.

Agency Review

The Alaska Department of Transportation and Public Facilities, the Alaska Department of Fish and Game, and the Kodiak Island Borough commented on this proposed tideland conveyance.

ADOTPF, Statewide Design & Engineering Services Division comment: The Department of Transportation and Public Facilities supports this conveyance of tidelands to the City of Port Lions. It is anticipated that ownership of the small boat harbor facilities will be transferred to the city and that the city will then be responsible for maintenance of the facilities.

ADF&G, Sport Fish Division comment: This proposed conveyance will not affect management of the fisheries in Settler Cove. However, the Department of Fish and Game recommends that the tidelands south of the pedestrian causeway within state area plan sub-unit KT-04A, designated Public Recreation and Tourism, be retained in state ownership: the state management intent for this sub-unit is to protect estuarine wet lands, anadromous streams and sensitive wildlife (water fowl); and there is no identified development project in this area.

DNR response: Sub-unit KT-04A was, at the (initial) agency review step in the conveyance process, included in this proposed conveyance to Port Lions. This area (KT-04A) has been removed from the proposed conveyance and will be retained in state ownership.

Kodiak Island Borough, Community Development Department comment: The Kodiak Island Borough supports this conveyance of tidelands to the City of Port Lions. The proposed transfer of tidelands is consistent with borough regulations, the Kodiak Island Borough Coastal Management Program and the Port Lions Comprehensive Development Plan. The Kodiak Island Borough generally supports the concept of local control over port and harbor facilities as a means to responsive and efficient harbor facility management.

(Note: The preceding comments are contained in the Project Consistency Review prepared by the Kodiak Island Borough, Community Development Department, Coastal Management

Program for this proposed tideland conveyance and submitted to the DNR Office of Project Management and Permitting, Alaska Coastal Management Program; a copy of which was provided to this office. While the consistency review is quite thorough and supports the conveyance, it should be noted that a conveyance of land by the state to a municipality under AS 38.05.825 does not require an ACMP consistency review (see p. 4, Coastal Zone Consistency).

Alternatives

1. Deny the city's request based on a finding that the public interest in retaining ownership of the tidelands outweighs the city's interest in obtaining the tidelands. The city has a substantial interest in obtaining these tidelands to support the (current) marine related projects identified in the city's comprehensive plan and for use as a land base upon which to build the local economy. Denial would adversely affect the community's development plans and economic growth.
2. Approve the city's request based on a determination that the proposed conveyance meets the purpose and requirements of AS 38.05.825. The purpose of the statute is to provide to municipalities tideland that is occupied or suitable for occupation and development and that is required for the accomplishment of a public or private development approved by the municipality. This proposed conveyance meets the purpose and requirements of the statute.

Recommendation


The preferred alternative is No. 2. It is recommended that this action proceed to public notice and that the subject tidelands be conveyed to the City of Port Lions, subject to the following stipulations:

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.
2. Reservation of mineral estate pursuant to AS 38.05.125.
3. Reversion of title upon dissolution of the municipality pursuant to AS 38.05.825(d).
4. A perpetual public access easement, 50 feet wide, seaward of the Mean High Water line along any waterbody affected by tidal action.
5. Grantee takes title to the tidelands subject to any restrictions, reservations or exceptions in Section 6(m) of the Alaska Statehood Act and the Submerged Lands Act of 1953.
6. Grantee takes title to the tidelands subject to the rights of the public under the Public Trust Doctrine.
7. Management authority transfers to the City of Port Lions at the time the final finding and decision to convey becomes effective.

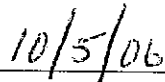
Preliminary Finding and Decision

The facts of this case, presented above, have been reviewed and considered. The case file has been found to be complete. I find that the proposed action may be in the state's best interest and it is hereby approved to proceed to public notice.

Following the comment deadline, all written responses will be considered and this decision may be modified to incorporate public comments. Only persons who comment during the public comment period will be eligible to file an administrative appeal of the final finding and decision. A copy of the final decision will be sent to any person who comments on the preliminary decision. The final decision will include appeal instructions.



Ginger Gallus, Manager
Municipal Entitlement Project



Date

Public Notice, Decision and Appeal Procedure

A public notice, announcing the preliminary finding and decision and soliciting comments, will be published in the Kodiak Daily Mirror and the Anchorage Daily News per AS 38.05.945(b)(3). The Postmaster in Kodiak and Port Lions will be requested to post the public notice per AS 38.05.945(b)(3)(B). Notice will be sent to the City of Port Lions and the Kodiak Island Borough pursuant to AS 38.05.945(c)(1). Notice will be sent to U.S. Army Corps of Engineers - Alaska District, Alaska Department of Transportation and Public Facilities - Central Region, and to adjacent upland owners pursuant to AS 38.05.945(b)(3)(C). Courtesy notice will be sent to the Port Lions Traditional Tribal Council, Afognak Native Corporation and Koniag, Inc. Public notice on the Internet will be posted on the State's web page at <http://www.state.ak.us>, under *Online Public Notice*.

A copy of the Preliminary Finding and Decision document is available from the Division of Mining, Land and Water, Resource Assessment and Development Section (RADS), Attention: Mike Mitchell, 550 W 7th Avenue, Suite 1050, Anchorage, AK 99501-3579; telephone 1-907-269-8531; fax 1-907-269-8915; email mikemi@dnr.state.ak.us. The public is invited to comment on the decision to transfer ownership of state tideland to the City of Port Lions. Comments must be received in writing by the Division of Mining, Land and Water at the above address **on or before 5:00 p.m., November 8, 2006** in order to ensure consideration. Following the comment deadline, all written responses will be considered and this decision may be modified to incorporate public comments. Only persons who comment during the public comment period will be eligible to file an administrative appeal of the final finding and decision. A copy of the final decision will be sent to any person who comments on the preliminary decision. The final decision will include appeal instructions. If you have any questions concerning this proposed action, please contact Mike Mitchell at (907) 269-8531 or e-mail: mikemi@dnr.state.ak.us.

The Department of Natural Resources is prepared to accommodate individuals with disabilities by providing auxiliary aids or services when requested. Individuals with audio impairments who wish to respond to this decision by telephone may call the department's Public Information Center in Anchorage between the hours of 11:00 a.m. and 5:00 p.m., M-F, at TDD# 1-907-269-8411.

The right is reserved to waive technical defects in this document.

Attachments: Project Map; Vicinity Map.

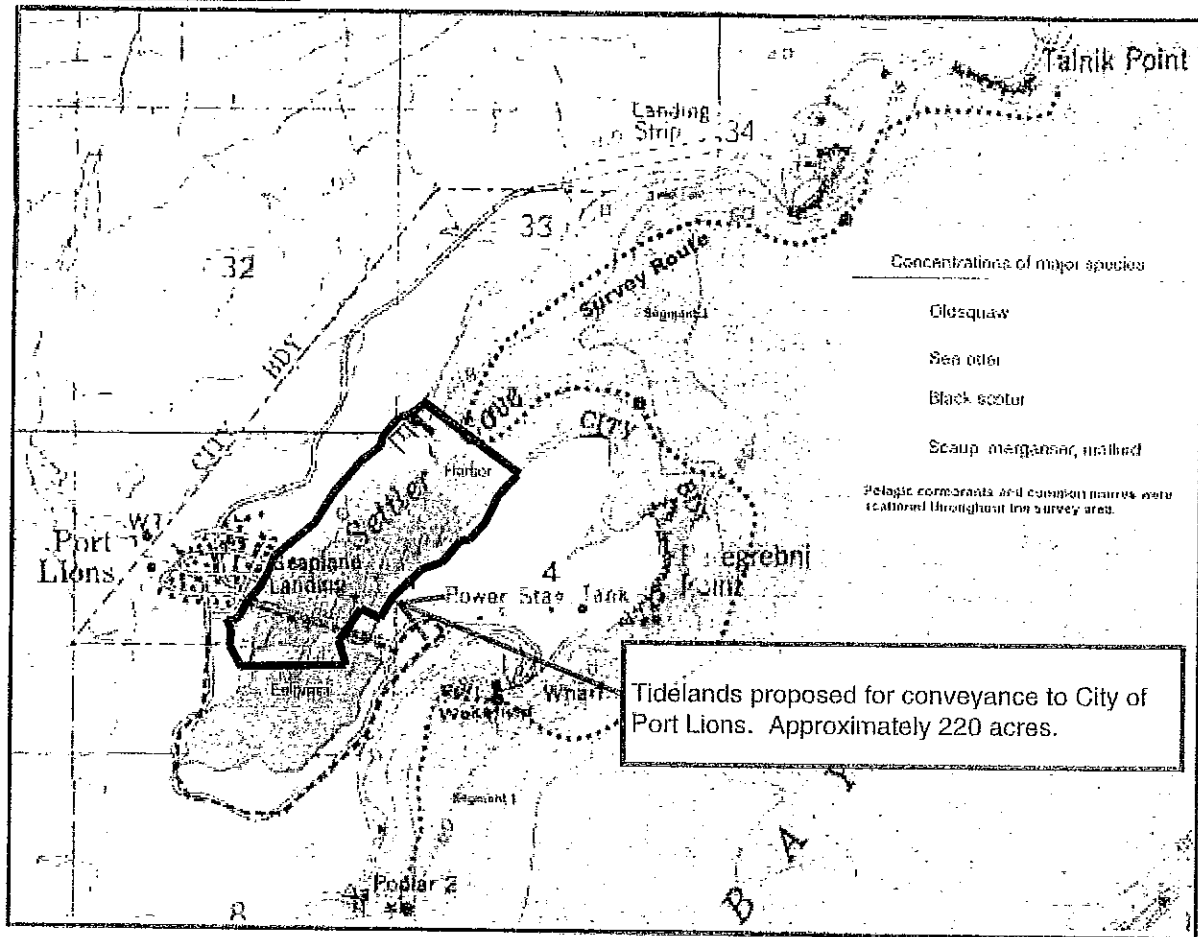


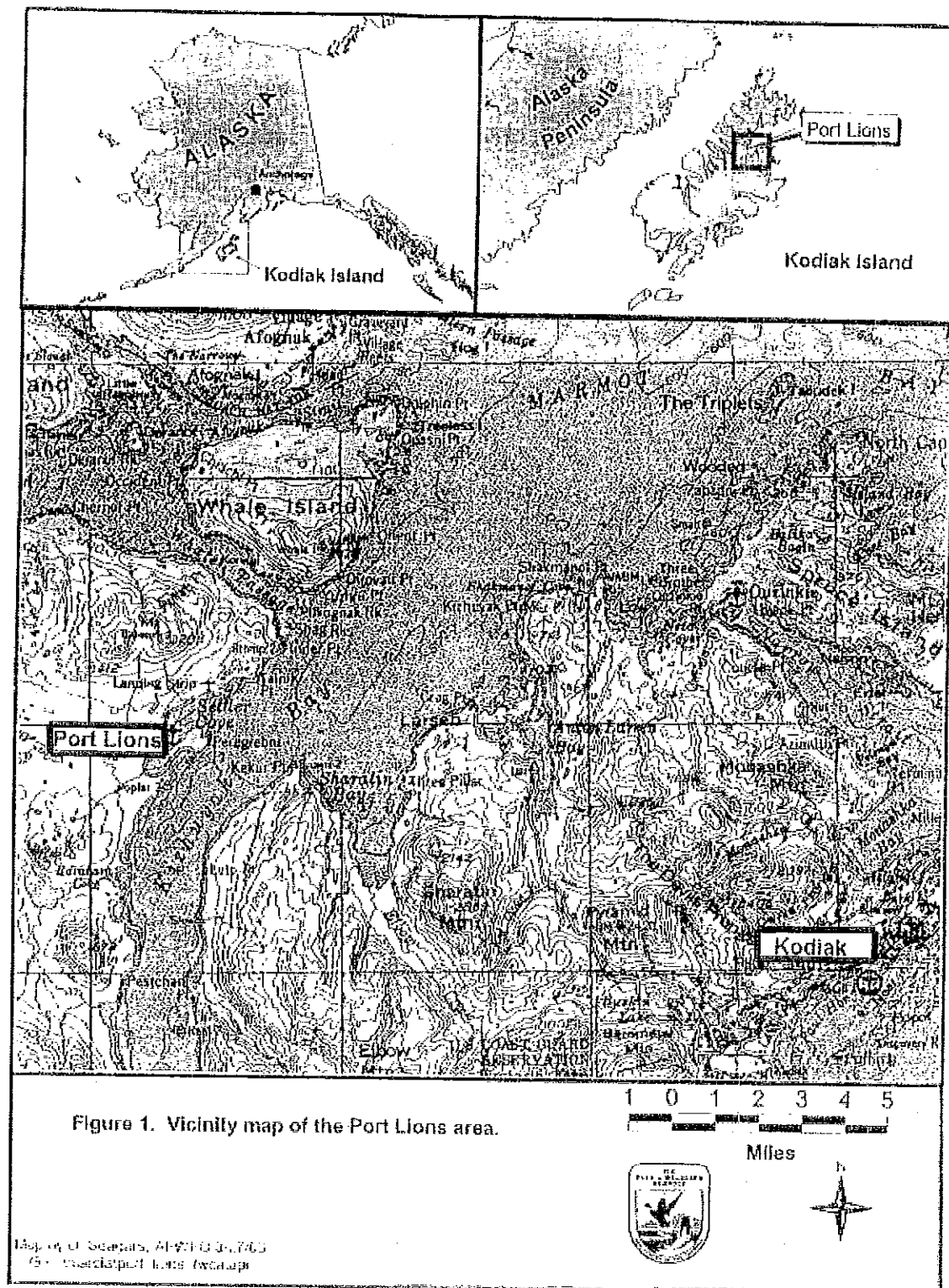
Figure 12. Survey route (Poplar 2 to Talnik Point) during January 7, 2002 Steller's eider survey of Port Lions, Alaska.

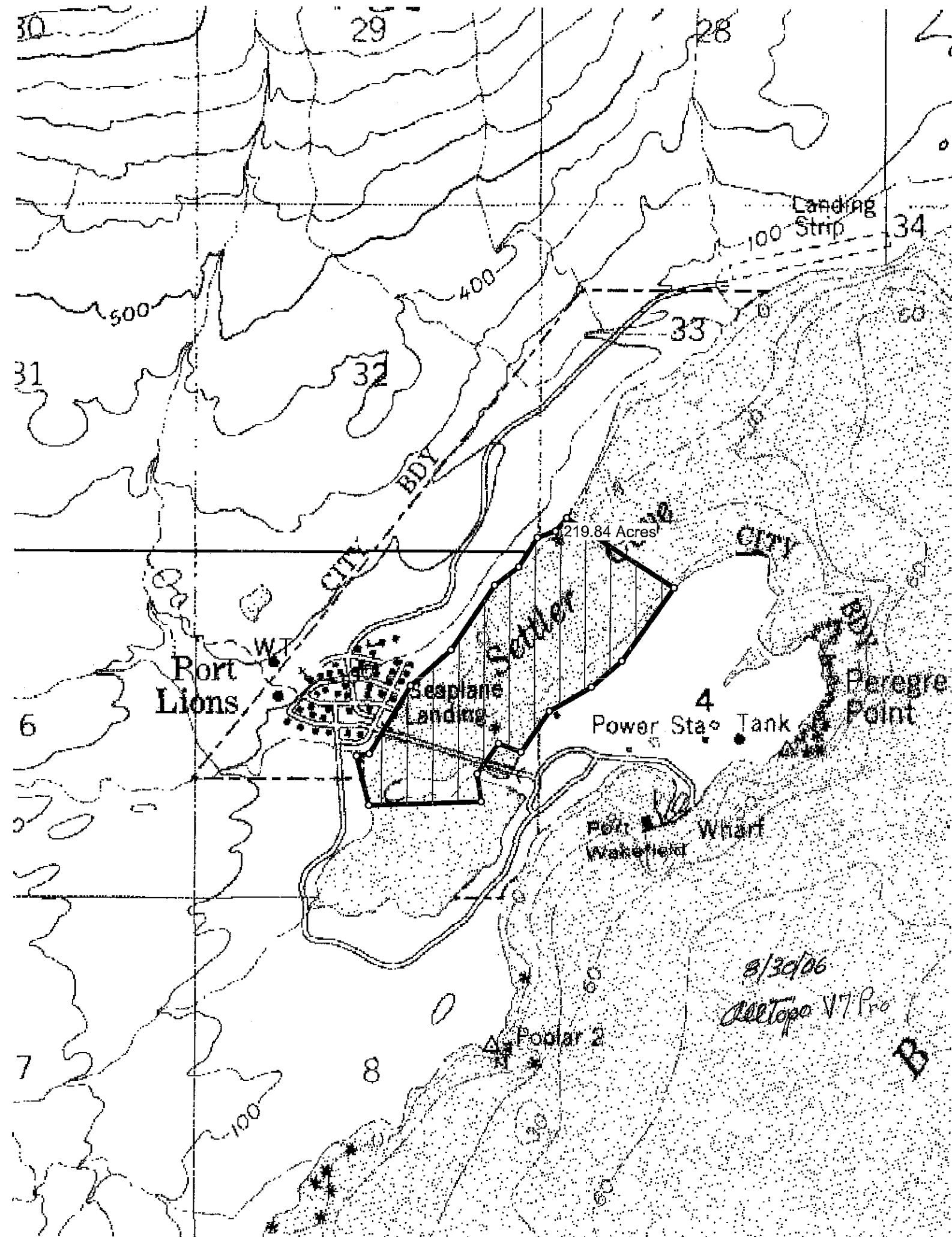
Note: Concentrations of major species are also shown.

Base Map Source: Navigation Improvements, Draft Feasibility Report and Environmental Assessment, Port Lions, Alaska, July 2005.
Department of the Army, U.S. Army Engineer District, Alaska, P.O. Box 898, Anchorage, Alaska 99506-0898

Figure 1. Vicinity map of the Port Lions area.

Base Map Source: Navigation Improvements Draft Feasibility Report and Environmental Assessment, Port Lions, Alaska, July 2005, Department of the Army, U.S. Army Engineer District, Alaska, P.O. Box 898, Anchorage, Alaska 99506-0898





Alaska Tideland Surveys

“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

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

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.

Monument Marking: 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 wc 1 and wc 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.

How to determine the landward boundary: 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 mth 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 mth day yr 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

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.

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 existing 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: Gerald_Jennings@dnr.state.ak.us
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



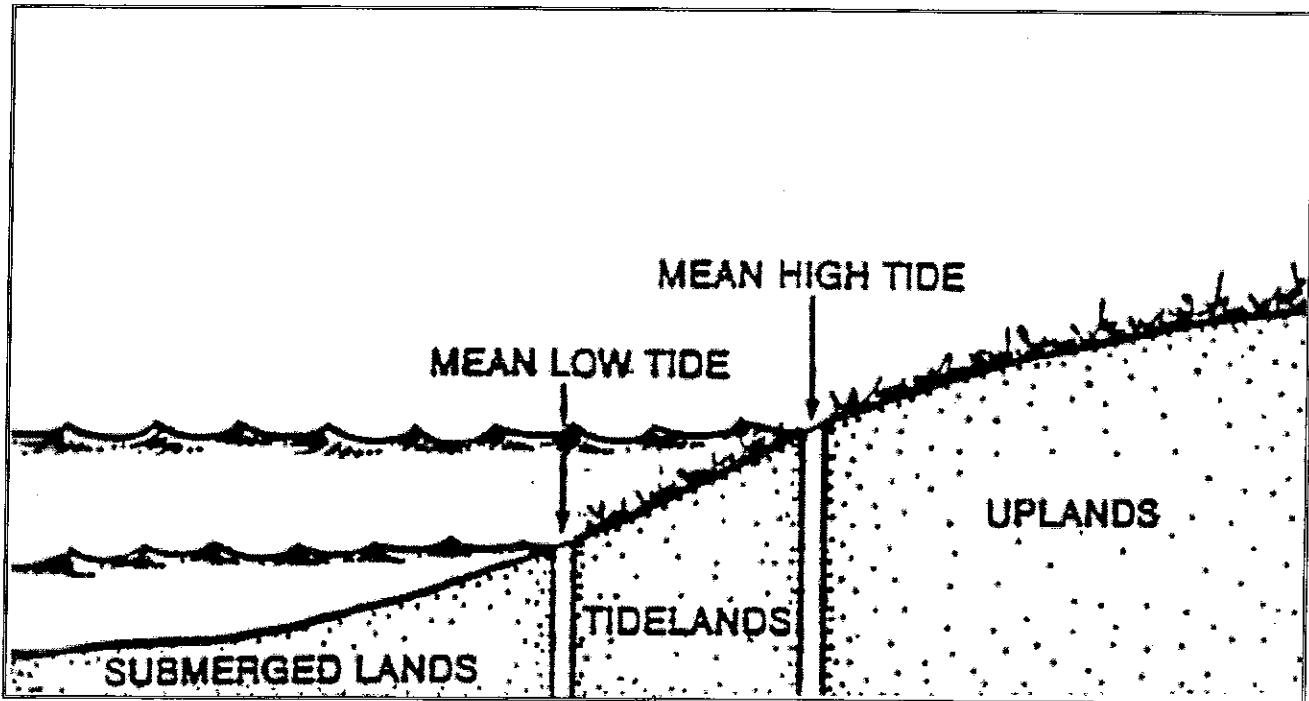
Alaska Department of
**NATURAL
RESOURCES**

Division of Mining, Land & Water
January 2000

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 Utah v. United States. 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:

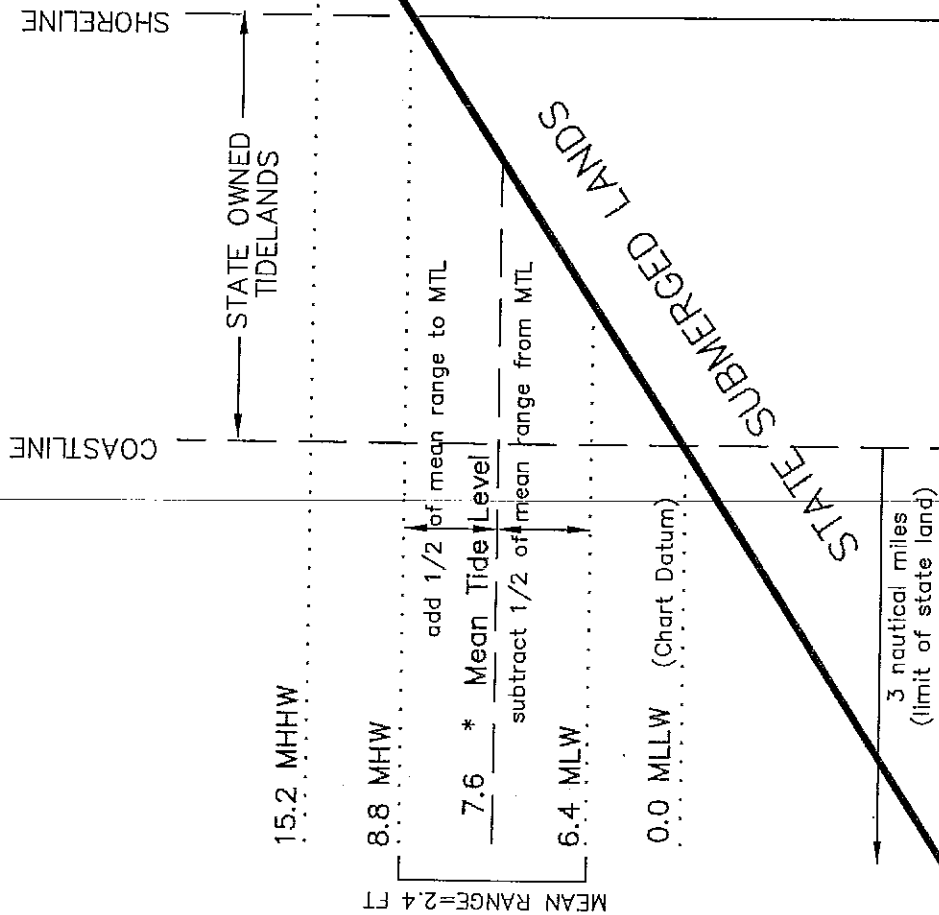
Department of Natural Resources
Division of Mining, Land & Water

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

TO COMPUTE MHW FROM TIDAL PREDICTIONS:
 ADD 1/2 THE MEAN RANGE TO THE MEAN
 TIDE LEVEL OF THE CLOSEST STATION PREDICTIONS
 AS PUBLISHED IN: THE HIGH AND LOW WATER
 PREDICTIONS WEST COAST OF NORTH AND SOUTH
 AMERICA TIDE TABLES BOOK.



* "Mean Tide Level" is a point midway between MHW and MLW

DETERMINING MEAN HIGH TIDE WHERE AN NGS BENCH MARK EXISTS

1. NOAA Primary Control Stations and related benchmark data can be obtained at <http://co-ops.nos.noaa.gov/bench.html> 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.

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

Page 1 of 8

Station ID: 9452210

Name:

JUNEAU, GASTINEAU CHANNEL,
ALASKA

NOAA Chart: 17315

USGS Quad: JUNEAU B-2

PUBLICATION DATE: 11/02/1999
STEPHENS PASSLatitude: 58° 17.9' N
Longitude: 134° 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.

T I D A L B E N C H M A R K S

PRIMARY BENCH MARK STAMPING:

DESIGNATION: 945 2210 TIDAL 8
ALIAS: 8 1922

MONUMENTATION:

AGENCY:

SETTING CLASSIFICATION:

Tidal Station disk VM#: 1188
U.S. Coast & Geodetic Survey (USC&GS) PID:
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

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

Page 6 of 8

Station ID: 9452210

Name:

JUNEAU, GASTINEAU CHANNEL,
ALASKA

NOAA Chart: 17315

USGS Quad: JUNEAU B-2

PUBLICATION DATE: 11/02/1999

STEPHENS PASS

Latitude: 58° 17.9' N

Longitude: 134° 24.9' W

T I D A L D A T U M S

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

LENGTH OF SERIES:

TIME PERIOD:

TIDAL EPOCH:

CONTROL TIDE STATION:

5 YEARS

January 1994 - December 1998

1960-1978

Appendix C

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)	=	4.962
MEAN HIGH WATER (MHW)	=	4.675
MEAN SEA LEVEL (MSL)	=	2.615
MEAN TIDE LEVEL (MTL)	=	2.580
MEAN LOW WATER (MLW)	=	0.485
MEAN LOWER LOW WATER (MLLW)	=	0.000
LOWEST OBSERVED WATER LEVEL (01/01/1991)	=	-1.663

Bench Mark Elevation Information

In METERS 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

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 Alaska Standard Time.
2. Look up nearest Place in Table 2. *Example: Cannery Cove, Phybus Bay.*
3. 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' x 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.

Tide Tables 2002

HIGH AND LOW WATER PREDICTIONS

All Tables Unaltered and Unabridged

WEST COAST OF NORTH AND SOUTH AMERICA

INCLUDING THE HAWAIIAN ISLANDS
AND THE ALASKAN SUPPLEMENT



International Marine

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

Accepted by the U.S. Coast Guard

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

125

Times and Heights of High and Low Waters

April			May			June		
Time	Height		Time	Height		Time	Height	
1 Su	0544 14.4 439 1247 1.5 46 1924 11.8 360		16 M	0107 6.7 204 0704 12.1 369 1404 3.2 98 2059 11.7 357		1 Su	0301 3.3 101 0900 11.8 360 1456 3.8 116 2119 14.7 448	
2 M	0101 6.0 183 0710 13.9 424 1413 1.3 40 2054 12.5 381		17 Tu	0237 6.3 192 0832 12.1 369 1513 2.9 88 2157 12.6 384		2 Sa	0418 0.3 9 1033 14.3 436 1620 1.7 52 2238 17.3 527	
3 Tu	0238 5.4 165 0842 14.3 436 1527 0.4 12 2203 14.0 427		18 W	0343 5.2 158 0942 12.8 390 1606 2.2 67 2240 13.7 418		3 Su	0507 -1.0 -30 1128 14.9 454 1708 1.8 55 2321 17.8 543	
4 W	0354 3.7 113 0959 15.4 469 1626 -0.7 -21 2255 15.6 475		19 Th	0431 3.7 113 1035 13.7 418 1647 1.5 46 2314 14.7 448		4 M	0551 -2.0 -61 1216 15.4 469 1752 1.9 58	
5 Th	0452 1.7 52 1100 16.6 506 1716 -1.7 -52 2339 17.1 521		20 F	0510 2.2 67 1118 14.6 445 1723 1.0 30 2344 15.7 479		5 Tu	0601 18.0 549 0631 -2.6 -79 1300 15.6 475 1833 2.2 67	
6 F	0541 -0.2 -6 1152 17.6 536 1800 -2.2 -67		21 Sa	0546 0.8 24 1158 15.4 469 1757 0.6 18		6 W	0040 17.9 546 0710 -2.8 -85 1341 15.5 472 1913 2.6 79	
7 Sa	0020 18.4 561 0625 -1.7 -52 1239 18.2 555 1841 -2.2 -67		22 Su	0012 16.6 506 0621 -0.5 -15 1232 15.9 485 1829 0.4 12		7 Th	0116 17.6 536 0748 -2.5 -76 1421 15.2 463 1952 3.0 91	
8 Su	0057 19.1 582 0707 -2.7 -82 1324 18.2 555 1921 -1.7 -52		23 M	0040 17.2 524 0655 -1.5 -46 1308 16.2 494 1901 0.6 18		8 F	0153 17.0 518 0825 -2.0 -61 1500 14.8 451 2030 3.6 110	
9 M	0134 19.3 588 0748 -3.1 -94 1407 17.7 539 1959 -0.8 -24		24 Tu	0109 17.7 539 0729 -2.2 -67 1344 16.2 494 1935 0.9 27		9 Sa	0229 16.3 497 0903 -1.3 -40 1541 14.3 436 2111 4.2 128	
10 Tu	0210 18.9 576 0828 -2.8 -85 1449 16.8 512 2037 0.5 15		25 W	0140 17.9 546 0806 -2.5 -76 1422 15.9 485 2010 1.6 49		10 Su	0307 15.4 469 0942 -0.4 -12 1623 13.7 418 2154 4.8 146	
11 W	0246 18.0 549 0908 -2.0 -61 1532 15.5 472 2115 1.9 58		26 Th	0213 17.7 539 0845 -2.3 -70 1503 15.3 466 2047 2.4 73		11 M	0348 14.4 439 1024 0.6 18 1708 13.3 405 2244 5.3 162	
12 Th	0322 16.9 515 0950 -0.8 -24 1618 14.1 430 2155 3.5 107		27 F	0251 17.3 527 0928 -1.8 -55 1550 14.5 442 2130 3.4 104		12 Tu	0434 13.4 408 1110 1.6 49 1757 13.0 396 2343 5.5 168	
13 F	0401 15.5 472 1036 0.6 18 1710 12.8 390 2242 5.0 152		28 Sa	0334 16.5 503 1018 -1.0 -30 1646 13.7 418 2223 4.5 137		13 W	0530 12.5 381 1202 2.5 76 1849 13.1 399	
14 Sa	0446 14.1 430 1131 2.0 61 1816 11.7 357 2342 6.2 189		29 Su	0427 15.4 469 1118 0.0 0 1754 13.1 399 2331 5.3 162		14 Th	0051 5.3 162 0636 11.8 360 1259 3.2 98 1941 13.4 408	
15 Su	0544 12.8 390 1242 2.9 88 1938 11.3 344		30 M	0536 14.4 439 1229 0.8 24 1912 13.0 396		15 F	0200 4.6 140 0749 11.6 354 1359 3.6 110 2032 14.0 427	
			31 Tu	0026 6.4 195 0615 12.1 389 1301 3.0 91 1955 12.3 375				
						31 Th	0211 3.3 101 0813 13.5 411 1425 1.4 43 2056 15.8 482	

Time meridian 135° W. 0000 is midnight. 1200 is noon.
Heights are referred to mean lower low water which is the chart datum of soundings.

Appendix D

TABLE 2 - TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA	North	West	h m	h m	ft	ft	ft	ft	
	Meares Passage to Davidson Inlet-cont.									
	Time meridian, 135° W									
	Davidson Inlet-cont.									
1613	El Capitan Island	55° 56'	133° 20'	-0 11	-0 10	+0.9	-0.1	8.7	10.8	5.6
1615	Cyrus Cove, Sea Otter Sound	55° 55'	133° 24'	-0 16	-0 12	+1.1	0.0	8.8	10.9	5.8
1617	Marble Passage	55° 57'	133° 26'	-0 14	-0 09	+1.0	0.0	8.7	10.9	5.8
1619	Marble Island	56° 00'	133° 28'	-0 19	-0 15	+0.8	-0.1	8.6	10.7	5.6
1621	Holbrook, Kosciusko Island	56° 02'	133° 30'	-0 10	-0 06	+0.9	-0.1	8.7	10.8	5.6
1623	Edna Bay	55° 57'	133° 40'	-0 20	-0 08	+0.9	0.0	8.6	10.8	5.7
	Sumner Strait									
1625	Coronation Island	55° 54'	134° 07'	-0 16	-0 17	+0.8	0.0	8.5	10.7	5.6
1627	Pole Anchorage, Kosciusko Island	55° 57'	133° 49'	-0 22	-0 22	+1.4	-0.1	9.2	11.4	5.9
1629	Port McArthur, Kuiu Island	56° 04'	134° 07'	-0 11	-0 07	+0.6	-0.1	8.4	10.6	5.5
1631	Kell Bay, Affleck Canal, Kuiu Island	56° 09'	134° 08'	+0 01	+0 01	+1.3	0.0	9.0	11.2	5.9
1633	Point St. Albans	56° 05'	133° 58'	-0 17	-0 13	+1.4	0.0	9.1	11.3	5.9
1635	Shakan Bay Entrance	56° 08'	133° 37'	-0 13	-0 12	+1.8	0.0	9.5	11.7	6.2
1637	Shakan Strait, Kosciusko Island	56° 08'	133° 28'	-0 09	-0 10	+1.9	-0.1	9.7	11.7	6.2
1639	El Capitan Passage	56° 04'	133° 19'	-0 05	+0 02	+0.9	-0.1	8.7	10.8	5.6
1641	Port Beaulieu, Kuiu Island	56° 17'	133° 57'	-0 14	-0 12	+1.9	-0.1	9.7	11.9	6.2
1643	Port Protection, Prince of Wales Island	56° 19'	133° 36'	-0 13	-0 11	+2.4	0.0	10.1	12.4	6.4
1645	Reid Bay	56° 23'	133° 53'	-0 11	-0 19	+2.5	0.0	10.2	12.4	6.5
1647	Sumner Island	56° 25'	133° 48'	-0 19	-0 12	+2.6	0.0	10.3	12.6	6.6
	on Ketchikan, p.120									
1649	Red Bay, Prince of Wales Island	56° 18'	133° 19'	+0 03	+0 07	-0.8	0.0	12.2	14.6	7.6
1651	Level Islands	56° 28'	133° 06'	+0 03	+0 04	-0.4	0.0	12.6	15.0	7.8
1653	Butterworth Island, Duncan Canal	56° 32'	133° 04'	-0 04	+0 03	0.0	0.0	13.0	15.3	8.0
1655	Duncan Canal, Kupreanof Island	56° 34'	133° 04'	+0 15	+0 16	-0.2	-0.1	12.9	15.2	7.8
1657	Grief Island, Duncan Canal	56° 37'	133° 03'	+0 15	+0 12	+0.1	-0.1	13.2	15.4	8.0
1659	Castle Islands, Duncan Canal	56° 39'	133° 09'	+0 27	+0 12	+0.1	-0.1	13.2	15.5	8.0
1661	St. John Harbor, Zarembo Island	56° 26'	132° 57'	+0 09	+0 05	-0.7	-0.2	12.5	14.6	7.6
1663	Greys Island	56° 31'	132° 33'	+0 06	+0 04	+0.2	0.0	13.2	15.6	8.1
	Wrangell Narrows									
1665	Point Lockwood, Woewodski Island	56° 33'	132° 58'	+0 20	+0 15	+0.2	+0.1	13.1	15.7	8.1
1667	Finger Point, Lindenburg Peninsula	56° 41'	132° 57'	+0 29	+0 41	+1.2	0.0	14.2	16.7	8.6
1669	Anchor Point	56° 38'	132° 56'	+0 20	+0 35	+0.6	0.0	13.6	16.0	8.3
1671	Petersburg	56° 49'	132° 57'	+0 09	+0 26	+0.3	-0.1	13.4	15.7	8.1
	Keku Strait									
1673	Monte Carlo Island	56° 32'	133° 46'	+0 02	+0 03	-2.8	-0.1	10.3	12.5	6.6
1675	Seclusion Harbor, Kuiu Island	56° 33'	133° 52'	+0 05	+0 02	-3.0	-0.2	10.2	12.3	6.4
1677	Beck Island	56° 39'	133° 43'	+0 08	+0 31	-1.6	-0.1	11.5	13.8	7.1
1679	The Summit	56° 41'	133° 44'	+0 31	+0 37	+0.3	+0.1	13.2	15.7	8.2
1681	Entrance Island	56° 49'	133° 47'	+0 22	+0 31	-0.7	0.0	12.3	14.7	7.6
1683	Port Camden, Kuiu Island	56° 44'	133° 55'	+0 03	+0 04	-1.5	0.0	11.5	13.9	7.2
1685	Hamilton Bay, Kupreanof Island	56° 55'	133° 50'	+0 03	+0 04	-1.6	0.0	11.4	13.8	7.2
1687	Kake	56° 58'	133° 56'	+0 05	+0 12	-1.4	-0.1	11.7	14.0	7.3
	Frederick Sound									
	on Juneau, p.124									
1689	Dry Strait	56° 37'	132° 34'	-0 18	-0 03	-0.2	0.0	13.5	16.1	8.3
1691	Cosmos Point	56° 39.8'	132° 37.0'	-0 05	-0 05	*0.98	*0.99	13.47	16.00	8.43
1693	Ideal Cove, Milkof Island	56° 40'	132° 38'	-0 09	-0 05	-0.2	0.0	13.5	16.1	8.3
1695	Leconte Bay	56° 47.3'	132° 30.1'	0 00	+0 03	*0.98	*0.99	13.42	15.94	8.28
1697	Brown Cove	56° 53'	132° 48'	-0 14	-0 10	-0.3	-0.1	13.5	15.8	8.2
1699	Thomas Bay	57° 00'	132° 47'	+0 07	+0 07	-0.8	-0.1	13.0	15.4	8.0
1701	Portage Bay, Kupreanof Island	57° 00'	133° 19'	-0 19	-0 15	-0.7	0.0	13.0	15.5	8.1
1703	Cleveland Passage, Whitney Island	57° 13'	133° 30'	-0 01	+0 03	-1.2	-0.1	12.6	15.0	7.8
1705	The Brothers	57° 17.7'	133° 47.8'	-0 06	-0 03	*0.91	*0.94	12.40	14.74	7.68
1707	Pybus Bay, Admiralty Island	57° 18'	134° 08'	+0 03	-0 02	-1.9	-0.1	11.9	14.3	7.4
1709	Cannery Cove, Pybus Bay	57° 18.4'	134° 08.0'	-0 08	-0 06	*0.90	*0.94	12.24	14.83	7.60
1711	Eliza Harbor, Liesnoi Island	57° 10'	134° 17'	-0 19	-0 19	-1.9	-0.1	11.9	14.3	7.4
1713	Eliza Harbor, Admiralty Island	57° 11.3'	134° 17.2'	-0 06	-0 04	*0.87	*0.92	11.79	14.10	7.35
1715	Herring Bay	57° 06.8'	134° 22.8'	-0 08	-0 07	*0.84	*0.91	11.44	13.70	7.16
1717	Saginaw Bay, Kuiu Island	56° 54.2'	134° 18.2'	-0 12	-0 15	*0.84	*0.96	11.34	13.67	7.18
	Stephens Passage									
1719	Port Houghton, Robert Islands	57° 18'	133° 28'	-0 21	-0 17	-0.8	-0.1	13.0	15.4	8.0
1721	Hobart Bay	57° 24'	133° 25'	-0 06	+0 03	-1.1	-0.1	12.7	15.1	7.8
1723	Good Island, Gambier Bay	57° 29'	133° 54'	-0 03	+0 04	-1.4	-0.1	12.4	14.8	7.7
1725	Windham Bay	57° 33'	133° 30'	0 00	0 00	-1.1	-0.1	12.7	15.1	7.8
1727	Rasp Ledge, Seymour Canal	57° 41'	134° 02'	+0 06	+0 05	-0.7	+0.1	12.9	15.6	8.2
1729	Windfall Harbor, Seymour Canal	57° 52'	134° 16'	+0 14	+0 18	-0.2	0.0	13.5	16.0	8.3
1731	Holkham Bay, Wood Spit	57° 43'	133° 35'	+0 03	+0 06	-0.8	-0.1	13.0	15.4	8.0
1733	Sawyer Island, Tracy Arm	57° 52.7'	133° 11.4'	+0 02	+0 06	*0.97	*1.01	13.32	15.83	8.25
1735	Port Snettisham, Point Styleman	57° 58'	133° 53'	-0 12	-0 06	-0.4	-0.1	13.4	15.8	8.2
1737	Port Snettisham, Crib Point	58° 05.7'	133° 44.3'	-0 03	-0 03	*0.98	*0.97	13.40	15.86	8.23

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 Dall 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

Petersburg

+0 09 +0 26 +0.3 -0.1

Keku Strait

Station	Time Diff.		Hgt. Diff.	
	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

Station	Time Diff.		Hgt. Diff.	
	High	Low	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
→ 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	*0.87	*0.92
Herring Bay	-0 08	-0 07	*0.84	*0.91
Saginaw Bay, Kuiu Island	-0 12	-0 15	*0.84	*0.96

Stephens Passage

Station	Time Diff.		Hgt. Diff.	
	High	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 02	+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	*0.97
Taku Harbor	-0 03	-0 04	*0.97	*1.00
Greely Point, Taku Inlet	-0 01	-0 04	-0.6	-0.1
Taku Point, Taku Inlet	+0 14	+0 13	+0.4	0.0
JUNEAU				

Daily predictions

Appendix D

19 Su	1238am L	5.6	635am H	13.8	124pm L	0.9	806pm H	13
20 M	202am L	5.2	758am H	13.4	235pm L	1.2	912pm H	14
21 Tu	324am L	3.9	922am H	13.5	341pm L	1.2	1010pm H	15
22 W	430am L	2.0	1036am H	14.2	440pm L	1.0	1101pm H	16
23 Th	526am L	-0.1	1139am H	15.1	533pm L	0.8	1148pm H	18
24 F	616am L	-1.9	1235pm H	15.9	621pm L	0.7		
25 Sa	1232am H	18.9	702am L	-3.3	125pm H	16.4	707pm L	0
26 Su	115am H	19.3	746am L	-4.0	213pm H	16.6	751pm L	1
27 M	157am H	19.2	829am L	-4.1	259pm H	16.4	834pm L	1
28 Tu	239am H	18.7	912am L	-3.6	345pm H	15.8	918pm L	2
29 W	321am H	17.8	956am L	-2.6	432pm H	15.1	1003pm L	3
30 Th	404am H	16.6	1040am L	-1.4	521pm H	14.3	1051pm L	4
31 F	450am H	15.2	1128am L	-0.1	613pm H	13.6	1145pm L	5

Juneau, Alaska

Tide Predictions (High and Low Waters)

June, 2002

NOAA, National Ocean Service

Daylight Saving Time

Day	Time	Ht.	Time	Ht.	Time	Ht.	Time	Ht.
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
3 M	203am L	5.6	752am H	11.9	219pm L	3.0	906pm H	13
4 Tu	314am L	4.9	907am H	11.7	319pm L	3.5	956pm H	13
5 W	414am L	3.8	1015am 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	1246pm H	13.7	623pm L	3.4		
9 Su	1230am H	16.4	702am L	-1.2	126pm H	14.3	701pm L	3
10 M	105am H	16.9	739am L	-2.0	205pm H	14.7	739pm L	3
11 Tu	140am H	17.3	817am L	-2.5	244pm H	14.9	817pm L	3
12 W	217am H	17.4	856am L	-2.8	324pm H	14.9	857pm L	3
13 Th	256am H	17.3	937am L	-2.7	407pm H	14.9	940pm L	3
14 F	339am H	16.9	1020am L	-2.3	452pm H	14.8	1028pm L	3
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	733pm H	15
18 Tu	143am L	3.6	741am 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
22 Sa	600am L	-1.8	1226pm H	14.6	600pm L	2.6		
23 Su	1209am H	18.1	648am L	-2.8	118pm H	15.2	649pm L	2
24 M	1256am H	18.3	733am L	-3.3	206pm H	15.5	736pm L	2
25 Tu	141am H	18.3	816am 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	3
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	3
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		

Juneau, Alaska

Tide Predictions (High and Low Waters)

July, 2002

NOAA, National Ocean Service

Daylight Saving Time

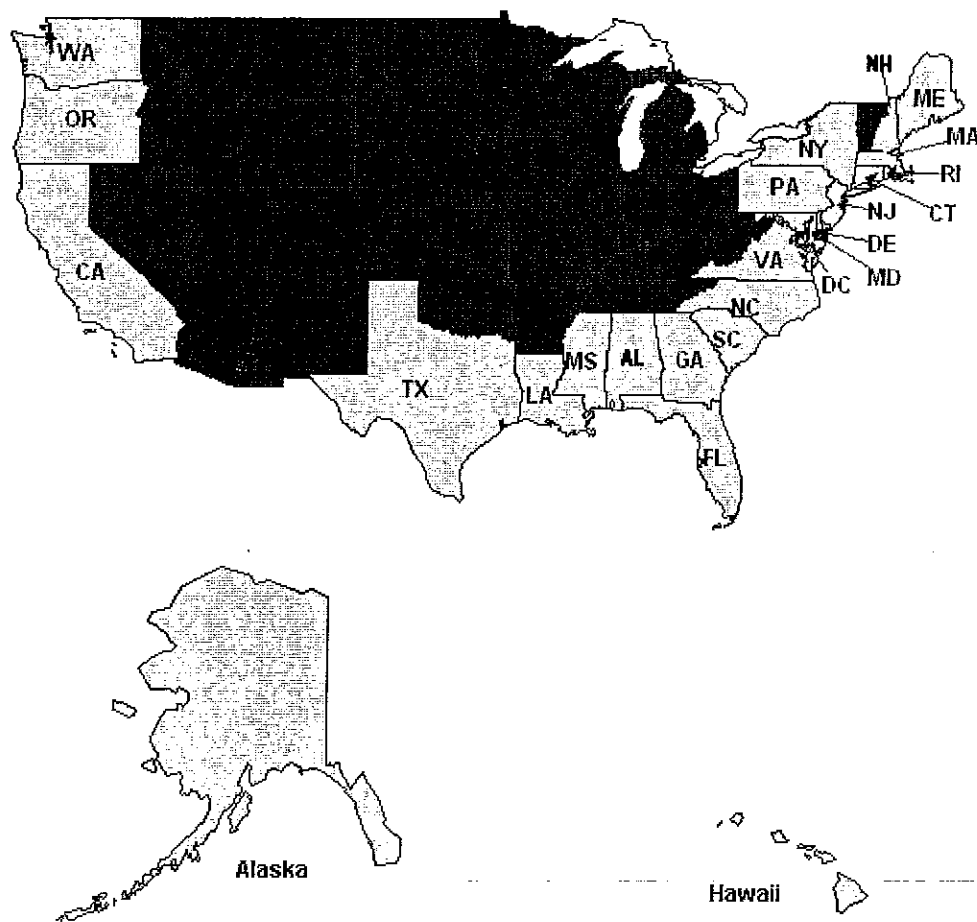
Day	Time	Ht.	Time	Ht.	Time	Ht.	Time	Ht.
1 M	1208am L	4.6	601am H	13.1	1223pm L	1.9	706pm H	13
2 Tu	107am L	4.7	657am H	12.1	112pm L	3.1	754pm H	13

Appendix D



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



Alaska Bench Marks

9450305 BOCA DE QUADRA , AK
9450460 KETCHIKAN, TONGASS NARROWS , AK
9450695 HUT POINT , AK
9450807 CONVENIENT COVE, HASSLER ISLAND , AK
9450811 FIN , AK
9450970 ENTRANCE TO ZIMOVIA STRAIT , AK
9451005 POINT HARRINGTON, SUMNER STRAIT , AK
9451037 VILLAGE ROCK, AK , AK
9451074 BUSHY ISLAND, SNOW PASSAGE , AK
9451124 STIKINE STRAIT , AK
9451204 WRANGELL, WRANGELL ISLAND , AK
9451218 VANK ISLAND, SUMNER STRAIT , AK

Click on station of interest.

The NOS bench mark sheets now contain links to corresponding NGS data sheets. Under the NOS vertical mark number (VM#) you may see a PID# link. Clicking on this link will bring up the corresponding NGS data sheet for that vertical mark.

For stations which do not list PID# links, the Latitude and Longitude of the station can be used to find data sheets for nearby PIDs by Clicking **HERE**.

[* Home](#)

[* PORTS](#)

[* Predictions](#)

[* Observations](#)

[* Bench Marks](#)

[* FAQ](#)

[Station Locator](#)

[* Publications](#)

[* About CO-OPS](#)

[* Product Info.](#)

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 borne 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 **glacio-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 title. 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 Quiet 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.
- Plaintiff's surveyor surveys and plats the claim in accordance with the stipulations and DNR's surveying and platting requirements 11 AAC 53.
- A Certificate to Plat 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 **Clerk'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 aggressively.

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 cite 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.