17.2.9

APPRAISAL OF

AKHIOK - KAGUYAK INCORPORATED LANDS

as of

June 27, 1994

in

The Kodiak National Wildlife Refuge,
Kodiak Island Borough

Prepared for

U.S. Fish and Wildlife Service
Akhiok-Kaguyak, Inc.

by

Larry K. Shorett, MAI

Shorett & Riely
Real Estate Appraisers & Consultants
121 Stewart Street, Suite 200
Seattle, Washington 98101

Ref. 4182R

BLISS & WILKENS
LAWYERS

P. O. BOX 201128 • ANCHORAGE, ALASKA 99520-1128
431 WEST 7th AVENUE, SUITE 202 • ANCHORAGE, ALASKA 99501-3583
TELEPHONE: (907) 276-2999 • FACSIMILE: (907) 276-2956

Ronald L. Bliss
James K. Wilkens
Alfred Clayton, Jr.

May 9, 1995

HAND-DELIVERED

Ms. Molly McCammon
Executive Director
Exxon Valdez Oil Spill
Trustee Council
645 G Street, Suite 401
Anchorage, AK 99501

Re: Akhiok-Kaguyak, Inc.
Our File No. 438-1

Dear Molly:

We understand you are going to produce information requested by the "Daily News" relating to the appraisals of AKI's lands. We also understand that Walt Ebell, on behalf of both AKI and Old Harbor, will be sending you the latest version of the Old Harbor appraisal and correspondence relating to our critique of the Black-Smith appraisal.

Enclosed is a copy of Mr. Shorett's final appraisal of the AKI lands. We request that this final appraisal be included in the documents and information to be produced to the "Daily News."

Thank you for your assistance. If you have any questions, please call me.

Regards,

BLISS & WILKENS

for James K. Wilkens

JKW:cl
438-1\McCammon.2

Enclosure

cc: Mr. Ralph L. Eluska, w/o enc.
C. Walter Ebell, Esq., w/o enc.

17.2.9

SHORETT & RIELY

REAL ESTATE APPRAISERS & CONSULTANTS

121 STEWART STREET, SUITE 200, SEATTLE, WASHINGTON 98101-1059

SEATTLE	(206) 441-4900
Seattle Facsimile	(206) 448-5509
ANCHORAGE	(907) 276-1851
SAN JOSE	(408) 453-2533

October 20, 1994

Mr. Glenn Elison
Deputy Assistant Regional Director/Negotiator
U.S. Fish and Wildlife Service
1011 East Tudor Road
Anchorage, Alaska 99503

RE: Appraisal of Akhiok-Kaguyak, Inc. Land

Dear Mr. Elison:

Transmitted with this letter is my appraisal of Akhiok-Kaguyak Incorporated (AKI) lands located within the Kodiak National Wildlife Refuge. This land is fully described in the attached report. As directed, a separate value for each of the twelve tracts delineated in the proposed division of AKI lands is estimated. In addition, tracts AKI07A and AKI07B are appraised in combination.

On August 15, 1994 I submitted to you for your consideration a draft appraisal report and am now providing you with the complete appraisal. Fair market value as estimated in the draft appraisal remains unchanged. In response to comments regarding the appraisal raised in two levels of review, textual material has been edited when appropriate.

This appraisal estimates the fair market value of the surface estate of AKI lands; subject to all exceptions, reservations and restrictions identified in the Interim Conveyance documents (including Section 22g of the Alaska Native Claims Settlement Act). AKI wishes to reserve a subsistence easement on all tracts and a value estimate with and without this reservation is provided.

The date of appraisal is June 27, 1994, and this is also the date of inspection. Site inspections by Paul E. Bottge and Larry K. Shorett, of Shorett & Riely, were completed in the company of Ralph Eluska, President of AKI. A representative for the government declined to accompany Shorett & Riely on these inspections.

This report has been prepared in conformance with the current Uniform Appraisal Standards for Federal Land Acquisitions and Uniform Standards of Professional Appraisal Practice, as formulated by the Appraisal Foundation. This appraisal has also been prepared in accordance with certain written appraisal instructions that are included in the Addendum of this report. As a result of my investigation and analysis, I have concluded that the fair market value of each parcel as identified by the US Fish & Wildlife Service is as follows:

Tract	Acres	Value W/O Easements	Value With Easements *
AKI01	5,230	$4,200,000	$4,095,000
AKI02	4,012	$2,800,000	$2,730,000
AKI03	12,620	$7,600,000	$7,410,000
AKI04A	21,034	$10,500,000	$10,237,500
AKI04B	17,701	$14,200,000	$13,845,000
AKI05	8,255	$5,800,000	$5,655,000
AKI06A	9,042	$8,200,000	$7,995,000
AKI06B	4,897	$4,900,000	$4,777,500
AKI06C	5,781	$5,200,000	$5,070,000
AKI07A	5,477	$3,300,000	$3,217,500
AKI07B	9,479	$5,700,000	$5,557,500
AKI07A & B	14,956	$9,000,000	$8,775,000
AK108	15,663	$15,600,000	$15,210,000

*2.5% easement discount.

The value estimated herein is the fair market value of the surface estate of the subject property. No attempt has been made to arrive at its "public interest value".

Paul E. Bottge provided significant assistance in the preparation of the first draft of this appraisal transmitted on August 15, 1994 and signed that report. Mr. Bottge is in Europe on a leave of absence and did not participate in the preparation of this final draft. I consulted with Douglas C. Brown, MAI, regarding appraisal concepts and highest and best use considerations. Mr. Brown has completed numerous appraisals involving property with similar unique wildlife and recreational uses.

Respectfully submitted,

Larry K. Shorett, MAI

cc: Akhiok-Kaguyak, Inc

PEB\klm/cmj
F:\wpfiles\4182R

Certification & Limiting Conditions

I certify that, to the best of my knowledge and belief:

1) I have no present interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

2) The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased, professional analyses, opinions, and conclusions.

3) The statements of fact contained in this report are true and correct.

4) My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

5) This appraisal report sets forth all of the limiting conditions (imposed by the terms of my assignment or by the undersigned) affecting the analyses, opinions and conclusions contained in this report.

6) This appraisal report has been made in conformity with and is subject to the requirements of the Code of Professional Ethics & Standards of Professional Conduct of the Appraisal Institute.

7) I have made a personal inspection of the property that is the subject of this report, unless otherwise stated in the Letter of Transmittal.

8) No one provided significant professional assistance to the person signing this report, unless otherwise stated in the Letter of Transmittal.

9) The appraiser has made no survey of the property and assumes no responsibility in connection with such matters. Any sketch or identified survey of the property included in this report, is only for the purpose of assisting the reader to visualize the property.

10) It is assumed that there are no hidden or inapparent conditions of the property, subsoil, or structures (including asbestos, soil contamination, or unknown environmental factors) that render it more or less valuable. No responsibility is assumed for such conditions or for arranging the studies that may be required to discover them.

Shoreline oiling occurred in this area as a result of the 1989 EXXON Valdez oil spill. State DNR data and other information complied by Veco, USF&W and other sources, indicate that oiling was generally light and often sporadic. Cleanup activities took place in 1989 and extended into 1990 in some locations. It is our understanding that oil no longer exists on the subject beaches, but we were not provided with evidence to support this contention. It is therefor an explicit assumption of this appraisal that no oil exists on any of the beaches. It is our further assumption that if oil does exist then cleanup, if any, will be deducted from our value estimate.

11) Responsible ownership and competent management are assumed.

12) No responsibility is assumed for the legal description or for matters including legal or title considerations.

13) The information identified in this report as being furnished by others is believed to be reliable, but no warranty is given for its accuracy.

14) The appraiser is not required to give testimony or attendance in court by reason of this appraisal unless arrangements have previously been made therefor.

15) The allocation of total value to land, buildings, or any fractional part or interest as shown in this report, is invalidated if used separately in conjunction with any other appraisal.

16) The appraiser hereby certifies that the appraisal assignment was not based on a requested minimum valuation, a specific valuation, or approval of a loan, and that the appraiser was competent and qualified to perform the appraisal assignment.

RESTRICTION UPON DISCLOSURE & USE:
Disclosure of the contents of this appraisal report is governed by the By-Laws & Regulations of the Appraisal Institute.

Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser or the firm with which (s)he is connected, or any reference to the Appraisal Institute or to the MAI designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media or any other public means of communication without the prior written consent and approval of the undersigned. No part of this report or any of the conclusions may be included in any offering statement, memorandum, prospectus or registration without the prior written consent of the appraiser.

_____
Signature of Appraiser

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ADDENDUM

SUMMARY OF FACTS AND CONCLUSIONS

SUMMARY OF FACTS AND CONCLUSIONS

Name of Project and Agency

This appraisal of Akhiok-Kaguuyak Incorporated (AKI) lands has been carried out in conjunction with the Exxon Valdez Oil Spill Habitat Protection and Acquisition Program. This appraisal has been procured by the land owners, AKI. This appraisal is part of the ongoing negotiations between the land owner and the Exxon Valdez Oil Spill Trustee Council which has prioritized the subject property for habitat protection in fulfillment of the Council's charge on behalf of the citizens of the state of Alaska and the United States. The lead government agency in these negotiations is the U.S. Fish and Wildlife Service.

Identification of Site

The U.S. Fish and Wildlife Service have completed a proposed division of 119,191 acres of AKI land into twelve tracts. Tracts range in size between 4,012 acres and 21,034 acres. For the most part, parcel boundaries conform to ecosystem and geographical features such as bays and drainage systems. Legal descriptions can be found in the Addendum.

Valuation Methodology

This appraisal is to provide an estimate of the "market value" of the subject parcels. Traditional appraisal techniques were used in the development of the value estimate. These techniques require the consideration of various factors that influence value. Value, in the context of real estate, is based on the perception of the demand for a property. Recent sales contribute to the perception of value. Property owners tend to rely on recent transactions involving properties with similar characteristics as the benchmark for establishing the value estimate for their own property.

Keeping the theory of market value in mind, I have used two sets of data from which to draw the information used to develop the value estimate for the subject property. The first method is based on the recent sale of relatively small tracts on Kodiak Island. These sales have all been to purchasers who acquired the parcels for wildlife-related uses. This appears to have been the highest and best use for these parcels and it is, in my opinion, the highest and best use for the subject parcels.

As an alternative approach, I have also used the recent sales of large tracts. These large tracts were purchased by various government agencies for the protection of wildlife habitat. As will be discussed later in this report, the large-tract sales were fully negotiated transactions. There was no threat of condemnation. Condemnation of these lands is not allowed under the guidelines that were established under ANSCA.

It is generally accepted that unit prices vary. Higher prices are paid for small tracts and lower prices paid for large tracts of land. Without numerous recent sales of large tracts, it is difficult to measure the appropriate adjustment for size variations. If I had relied solely on the first data set, I would probably have arrived at a higher unit value estimate for the subject than finally concluded. The second data set (large tracts), while somewhat different from the subject parcels, justified a larger downward adjustment for size than might have otherwise been expected.

Highest and Best Use

Development of the estimate of the highest and best use of the subject property is critical in the estimate of the appropriate market value. The term "Highest and Best Use" is defined later in the report. The concept encompasses four tests: the use must be legally permissible, physically possible, financially feasible and result in maximum production for the land.

The land on Kodiak Island is varied and provides a multitude of uses. Legal constraints on the subject are limited primarily to Kodiak Island Borough zoning ordinances which permit highest and best uses discussed herein. 22(g) contains some use restrictions which, in my opinion, do not alter the variety of uses for the property discussed in this appraisal.

The tracts are large and the topography is favorable for many uses. The saltwater frontage is the most desirable; however, the uplands are not typically restricted by inhospitable slopes. In fact, much of the uplands are attractive for many eco-tourism uses and are important for conservation of fish and wildlife habitat. Financial returns are available from many potential uses of the land. A full discussion of the financial uses will be found later in the report. Maximum production is generally considered to be that use which results in the "immediate" financial return to the land. This is true for most development property. In an urban setting it is relatively easy to measure the financial benefits of the construction of a retail building against the construction of an office building. The financial success from the development of a residential subdivision on an agricultural tract of land should not be difficult to determine. Estimating maximum production for tracts such as the subject parcels that range in size from 1,875 to 8,568 acres is not easy. Clearly, traditional concepts of highest and best use that rely on quickly and easily measured financial returns cannot be as easily applied to large parcels. Large tracts require the analysis of uses that may extend over a period of years rather than short-term views. Maximum production may well take years to mature.

The way in which large tracts are used varies and encompasses recreation (hunting, fishing, etc.), eco-tourism, commercial/corporate retreats and resource development. These uses will be more fully discussed in the appraisal. Due to the size of the tracts, it is my opinion that the subject can and should be put to multiple uses to include all those mentioned above and other related uses. A diverse use of these tracts will, in my opinion, results in the maximum production from the land.

mentioned above and other related uses. A diverse use of these tracts will, in my opinion, results in the maximum production from the land.

Owner of Record

Subject lands are either titled lands or lands that have been interim conveyed or selected by AKI in accordance with ANSCA. AKI has prioritized the selection of its remaining entitlements in the refuge and these "prioritized selected" areas are considered part of the total acreage of conveyed tracts and are considered to have marketable title for the purposes of appraisal.

Property Rights Appraised

This appraisal estimates the fair market value of the surface estate of AKI conveyed and "prioritized selected" lands; subject to all exceptions, reservations, and restrictions identified in the Interim Conveyance documents (including Section 22g as set forth in ANSCA). AKI has entered into second party land use agreements on portions of their land and these leases are also considered in valuing the properties. AKI wishes to reserve a subsistence easement on all tracts and a value estimate with and without the reservation is estimated.

Appraisal Date

An inspection of AKI property was completed on June 27, 1994 by Paul E. Bottge and Larry K. Shorett. Mr. Shorett also conducted extensive inspections of this property in 1992 and 1993. Data collection, analyses, and report preparation was completed during the months of July and August. The effective date of the appraisal is the date of inspection, June 27, 1994.

Property Valuation

Tract	Acres	Value W/O Easements	Value With Easements *
AKI01	5,230	$4,200,000	$4,095,000
AKI02	4,012	$2,800,000	$2,730,000
AKI03	12,620	$7,600,000	$7,410,000
AKI04A	21,034	$10,500,000	$10,237,500
AKI04B	17,701	$14,200,000	$13,845,000
AKI05	8,255	$5,800,000	$5,655,000
AKI06A	9,042	$8,200,000	$7,995,000
AKI06B	4,897	$4,900,000	$4,777,500
AKI06C	5,781	$5,200,000	$5,070,000
AKI07A	5,477	$3,300,000	$3,217,500
AKI07B	9,479	$5,700,000	$5,557,500
AKI07A & B	14,956	$9,000,000	$8,775,000
AKI08	15,663	$15,600,000	$15,210,000

*2.5% easement discount.

INTRODUCTION

INTRODUCTION

Identity of Property

The U.S. Fish and Wildlife Service has proposed a division of the 119,191 acres of AKI land into 12 tracts. This land is contained in several contiguous and noncontiguous parcels located on the southern end of Kodiak Island within the Kodiak National Wildlife Refuge. Tracts range in size between 4,012 acres and 21,034 acres. For the most part, parcel boundaries conform to ecosystem and geographical features such as bays and drainage systems. The land has been selected by the Akhiok and Kaguyak Village corporations under ANSCA as being its traditional land. Traditional use by the Natives occurred primarily in the protected coves and bays (exhibiting rich intertidal areas) and alongside major salmon spawning streams. As might be expected, the majority of subject lands contains abundant and exceptionally productive fish and wildlife habitat.

Legal Description

The subject lands are legally described along aliquot parts of the Section, Township, Range system. Legal descriptions by tract, including interim conveyed and "prioritized selected" areas, are included in the Addendum.

Property Rights Appraised

This appraisal estimates the fair market value of the surface estate of AKI conveyed and "prioritized selected" lands, subject to all exceptions, reservations, and restrictions identified in the Interim Conveyance documents (including Section 22g as set forth in ANSCA). AKI has entered into second party land use agreements on portions of their land and these leases are also considered in valuing the properties. AKI wishes to reserve a subsistence easement on all tracts and a value estimate with and without the reservation is estimated. Certain issues of title continue to evolve as ANSCA 14(c) obligations are defined and still pending Native allotments are surveyed and conveyed. There are eight set net sites located on AKI conveyed lands currently contested under 14(c) provisions. Claims are being made for approximately 5 acres per site. AKI is generally willing to grant 8,000sf per site. Contested sites are a cloud on title until resolved. There is no precedence for a 5-acre settlement in a set net site case and settlement at 8,000sf per site is considered reasonable and assumed in this appraisal. A discrete adjustment is not made to total acreage as even on a cumulative basis these 14(c) contested areas are insignificant.

Purpose of Appraisal

The purpose of this appraisal is to estimate the fair market value of the fee simple interest in the subject surface estate. The term "market value" is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date, and the passing of title from seller to the buyer under conditions whereby:

a. the buyer and seller are typically motivated;

b. both parties are well informed or well advised, and acting in what they consider their own best interests;

c. a reasonable time is allowed for exposure in the open market;

d. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

e. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

Source: Office of the Comptroller of the Currency under 12 CFR, Part 34, Subpart C-Appraisals, 34.42 Definitions [f].

Function of Appraisal

The Exxon Valdez Oil Spill Trustee Council has developed a "12-Step Process For Appraisal/Appraisal Review/Approval" in conjunction with their Comprehensive Habitat Protection and Acquisition Program. This appraisal has been procured by the land owner (AKI) in accordance with the 12-Step Process. It is submitted to the lead negotiating agency review appraiser and the state and federal review appraisers for consideration and approval.

Soil Contamination

No environmental hazards were observed during the inspection of the property. The "Instructions to the Appraiser" directs that the tracts be appraised as if contaminate free. Before transfer of the property, the U.S. Fish and Wildlife Service will conduct a contaminates survey of the tracts and AKI will be responsible for cleanup, if necessary, of any contamination occurring after conveyance of the subject property to AKI.

Shoreline oiling occurred in this area as a result of the 1989 EXXON Valdez oil spill. State DNR data and other information complied by Veco, USF&W and other sources indicate

that oiling was generally light and often sporadic. Cleanup activities took place in 1989 and extended into 1990 in some locations. It is my understanding that oil no longer exists on the subject beaches, but I was not provided with evidence to support this contention. It is therefor an explicit assumption of this appraisal that no oil exists on any of the beaches. It is a further assumption that if oil does in fact exist then cleanup costs, if any, will be deducted from my value estimate.

Ownership History

Subject lands are either titled lands or lands that have been interim conveyed or selected by AKI in accordance with ANSCA. AKI has prioritized the selection of its remaining entitlement within the Kodiak National Wildlife Refuge and these "prioritized selected" areas are considered part of the total acreage to be appraised, and are considered to have marketable title for the purposes of appraisal. The property has not sold subsequent to selection by Akhiok and Kaguyak corporations under the terms of their ANSCA entitlement. Portions of these lands were involved in a Department of the Interior proposal to exchange approximately 891,000 acres of Native owned refuge inholdings for oil and gas interests in the coastal plain of ANWR. These negotiations culminated in a Comprehensive Exchange Agreement between AKI and the Department of Interior, signed in 1987. Although believed to be negotiated in good faith, the land exchanges were not consummated. The ANWR Exchange proposal will be discussed in greater detail in the Comparable Data section.

Competency Provision

Please see appraisers' experience data included in the Addendum for specific information regarding appraiser background and experience. Mr. Shorett has extensive experience in the valuation of remote land in the Alaska Gulf Coast region, including Kodiak Island. In 1993, Shorett & Riely, under the direction of Mr. Shorett, completed an appraisal of 1,310,765 acres of private property affected by the Exxon Valdez oil spill. This included 1,264,735 acres of Native Corporation holdings. Mr. Shorett is competent to complete this appraisal assignment. Mr. Bottge has worked under the supervision of Mr. Shorett.

SCOPE OF REPORT

SCOPE OF REPORT

The following is a summary overview of the sources of data incorporated into this appraisal report. The information is broken down by related appraisal section.

Alaska Regional Data

The Alaska Area Data section has been compiled from the 1994 Alaska Economic Analysis prepared by the Shorett & Riely Anchorage office. This is a socio-economic profile of Alaska and its major cities and economic base which is updated annually. A copy of this analysis has not been included in the appraisal report, but has been retained in my files. A second source of data is the 1994 Northwest Portrait, an annual publication of U.S. Bank Corp and the Northwest Policy Center.

Kodiak Area Data

Sources of information for the Kodiak area data include periodicals, government publications, and personal interviews. Noted periodicals are the Alaska Geographic Society's 1992 volume dedicated to Kodiak Island and the National Geographic Society's November 1993 article entitled "Alaska's Island Refuge." Population figures are taken from State and Federal census data. The Alaska Department of Fish and Game office was able to provide current information on the Kodiak shellfish fisheries and the commercial salmon fisheries. Two publications are cited; the 1994 internal publication, "An Overview of the Kodiak Management Area Commercial Salmon Fisheries", and the 1993 Annual Shellfish Status Report. Alan Austerman, the Executive Director of the Kodiak Island Convention and Visitor's Bureau, was helpful in providing travel and visitation trends.

Kodiak National Wildlife Refuge

Management of the Kodiak Wildlife Refuge is by the United States Fish and Wildlife Service. Information relating to the refuge resources and management policies has been obtained through interviews with refuge staff and USF&WS publications. Jay Bellinger, Refuge Manager, answered questions and discussed past and future policies. Three resource documents relating to the refuge are referenced: The Kodiak National Wildlife Refuge Comprehensive Conservation Plan and Environmental Impact Statement (1987), The Public Use Management Use Plan, An Environmental Assessment for Public Use Regulations (1993) and the Kodiak National Wildlife Refuge Land Protection Plan (1992).

Akhiok - Kaguyak Lands / Site Description

Issues of title, size, shoreline characteristics, topographical information, and habitat data are all important in accurately describing and characterizing subject lands.

AKI INSPECTIONS 07-27-94

All property viewed from the air. Additional inspections were made from the shoreline with water landings at the following locations:

LOCATION	LAT/LONG (GPS)	EVOS FUND SITE
Olga Lakes	Not Recorded (07-26-94)	AK I08
Upper Russian Harbor	Not Recorded (07-26-94)	AKI 104B
Dog Salmon Flats	57 07.33N 153 59.52W	AKI 106B
Horse Marine Lagoon	57 07.00N 153 58.71W	AKI 106C
SE Olga Bay	57 04.25N 154 05.96W	AKI 107A & AKI 107B
Anchor Cove	57 06.94N 154 05.96W	AKI 106A (1)
Kivak Bay	57 00.52N 153 40.10W	AKI 102
Kauignak Bay	57 03.51N 153 42.27W	AKI 101

(1) Portion of site on north side of Olga Bay at Cannery Cove inspected from the beach by L. K. Shorett in 1993.

Size: Legal descriptions with acreage figures are contained within the "Instructions to the Appraisers" provided by the Exxon Valdez Oil Spill Trustee Council. As a check on this data, subject properties have been plotted on a geographic information system (GIS) using the State of Alaska Department of Natural Resource shoreline data, and data digitized from DNR status plats, BLM master township plats and USGS maps provided by the BIA. The GIS was developed by Gambrell Urban Incorporated, Seattle, Washington, using ARC Info software by Environmental Systems Research Institute. Area figures obtained from the GIS generally confirm information provided by EVOS. Apparently, AKI has over-selected in parcel AKI04A by 516 acres and this has been adjusted accordingly. A 178-acre tract of land located in AKI06B is registered in the legal description as belonging to AKI, when in fact it is under other ownership. This has been adjusted for. Specific acreage adjustments to EVOS figures have not been made in contested or concluded 14(c) settlement cases. These cases are indicated on a parcel by parcel basis in the body of this report, but even on a cumulative basis the areas involved are considered insignificant.

Issues of title: Issues of title include easements, special exceptions, land use agreements, and other potential encumbrances. Interim Conveyance documents for Akhiok - Kaguyak lands have been reviewed specifically to identify reservations and easements. U.S. Government Reserved Easements identified in IC documents are mapped by the BLM. U.S. Government Reserved Easement information from IC documents and the BLM has been cross-referenced. Interim Conveyance documents also draw attention to the provisions of ANSCA, Section 22g. In addition to a review of this provision, I have obtained selected pages of Audubon v. Clark, regarding 22g, and a copy of the memorandum from the Regional Director to refuge managers discussing 22g. TransAlaska Title Company has produced a preliminary title report for AKI lands and this information has been reviewed. Forty-three special exceptions are noted, and these have been passed on to AKI legal council for comments. This information is contained within the Addendum. Permits and leases between AKI and second parties have been obtained from Ralph Eluska, President of AKI. Current land use agreements are specifically referenced on a parcel by parcel basis in the body of this report.

Physical Characteristics: Major attributes of each site (i.e. topography) were noted at the time of inspection. The scope of inspection included aerial, as well as shoreline landings as indicated on the facing page. General shoreline characteristics from DNR files have been incorporated into the GIS and provide a means of producing shoreline summary characteristics by front

footage. Topographical information at a scale of 1 to 250,000 is also on the GIS, generated from USGS elevation models. Detailed information relating to habitat, special shoreline and geographic features, and human use has been obtained from a variety of sources, and supplements the property inspections. These include The United State's Coast Pilot, published by NOAA. This publication includes channel descriptions and information on anchorages, prominent features, currents, and water levels. Although somewhat dated, the DNR has compiled a useful inventory of coastal areas which identifies sites (including certain subject tracts) with significant recreation, scenic, heritage, and wilderness attributes. This was completed as part of the Alaska Coastal Management Act in 1978. In 1985, the Kodiak Island Borough Community Development Department published the Kodiak Island Borough Coastal Sensitivity Study. This is a comprehensive shoreline study of Kodiak Island which maps commercial fishery areas, subsistence use areas, concentrated recreation areas, and also documents occurrences of onshore and offshore wildlife (i.e. salmon streams, seabird colonies, deer, and bear). Finally, the Exxon Valdez Oil Spill Trustee Council has completed an evaluation of subject lands in conjunction with their comprehensive habitat protection process. This document summarizes wildlife resources and services by parcel and excerpts are contained in the Addendum.

Market Data

Shorett & Riely has developed an extensive database of over 200 remote land sales in the Alaska Gulf Coast Region. Sources of comparable data include the Bureau of Indian Affairs, Kodiak Island Borough Assessor, Kenai Peninsula Borough Assessor, State of Alaska Department of Natural Resources, and appraisers, brokers, buyers and sellers. Comparisons utilized in this report have been confirmed by Shorett & Riely, specifically with parties knowledgeable with the sale. I have also inspected all comparisons that are reported in detail in this appraisal.

STRUCTURE OF REPORT

STRUCTURE OF REPORT

This report begins by providing a general economic and physical overview of the region in which the subject properties are located. This includes an Alaska area overview, a Kodiak Island regional description and background information relating to the Kodiak National Wildlife Refuge. This leads into a discussion of highest and best use. The highest and best use discussion provides an overview of subject property physical attributes as well as current and proposed uses. The Highest and Best use section goes on to discuss reasonable, probable and legal use of the land and weighs subdivision and small parcel disposition against the plottage characteristics found in large tracts of linked land.

The subject lands are valued by the direct sales comparison approach. Intuitively, it can be seen that the land also possesses income generating potential or economic values. The income generating potential includes the economic value of exploitable resources associated with the lands (AKI presently reports approximately $100,000 in annual income derived from land use leases and licenses). Less quantifiable economic values are subsistence resources (material needs obtained through subsistence need not be obtained by purchase), recreational values (recognizing the value of the land as a place where people go for recreational activity) and various other factors associated with the environment. Because the fair market value of land is determined in part by the perception of what can be done with the land, and because of the nature of certain economic values, a sales comparison approach is best suited for the valuation of AKI lands.

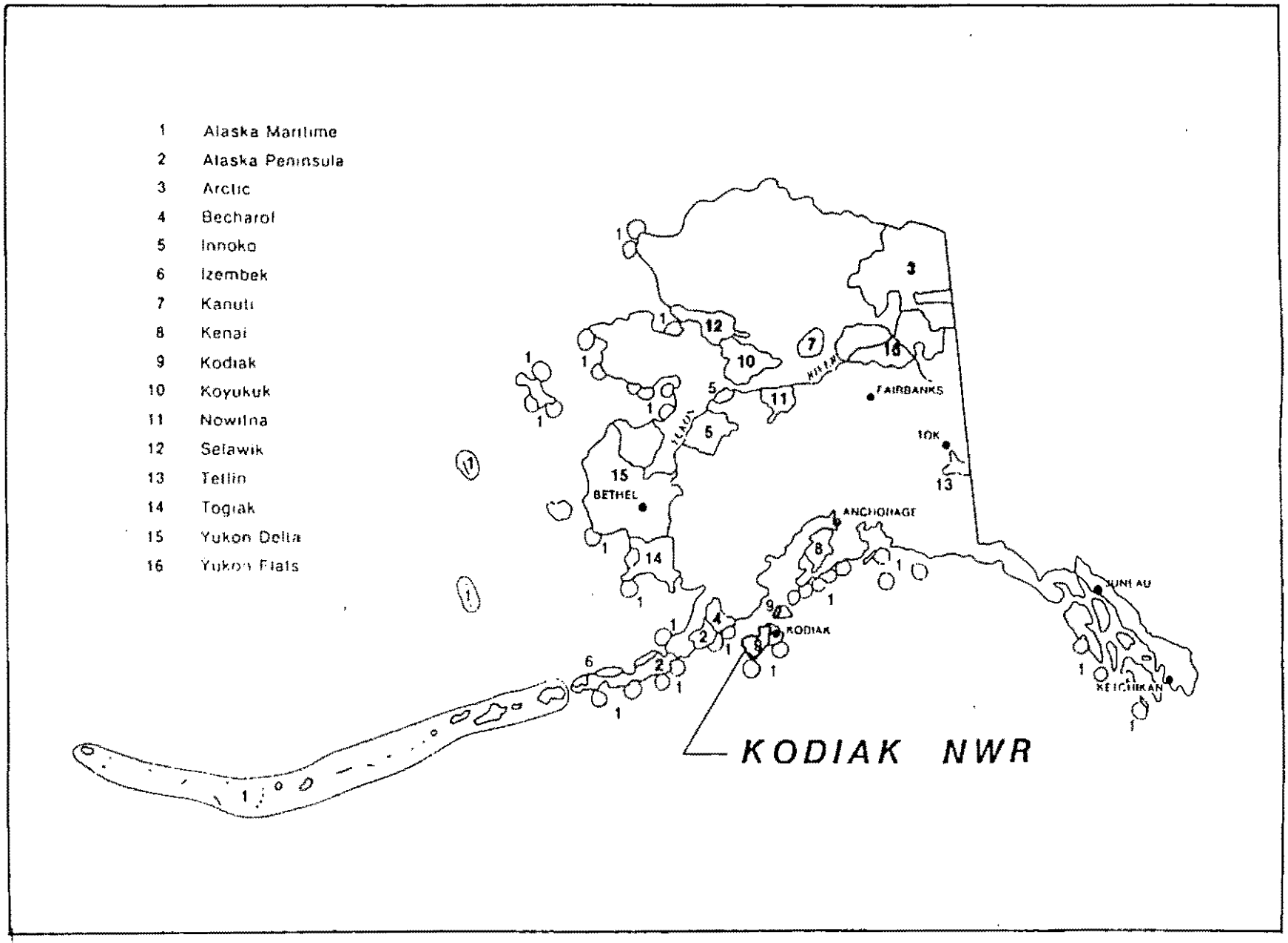
In conjunction with, and as an introduction to the sales comparison approach, a brief discussion of public agency participation in the real estate market is presented. This specifically addresses the propriety in using purchases by government agencies as comparative data. The sales comparison approach itself is broken down into four sections. The first section, entitled Comparative Data, provides an overview of the Kodiak remote land market and a detailed analysis of comparisons. Summary information for both comparisons is also presented in tabular form. The second section, Analysis of Data, draws from evidence presented in the Comparative Data section, and elsewhere, to reach conclusions on various market and appraisal issues. This includes a discussion on easements and land use leases, subsistence easements, Section 22g, size of parcel as it relates to price per unit, market conditions and merchantable timber. The third section is titled Value Conclusions. This section develops a four-tier classification and valuation system based on the Comparative Data section and other conclusions arrived at in the Analysis of Data section. The fourth step, is the implementation of the valuation model on a parcel by parcel basis. This work is completed on a parcel by parcel basis and is found following parcel identifications, maps, and photos in that portion of the report marked by parcel number.

The subject tracts have been analyzed on a section by section basis distinguishing between ocean fronting and non-ocean fronting sections. The value for an average southern Kodiak

ocean front section (640 acres) has been derived from the market and non ocean fronting acreage has been valued as a function, or percent, of the per acre value of ocean fronting sections. In as much as ocean frontage is both a key access characteristic as well as a key resource area, intrinsic in an analysis based on the proportion of ocean fronting areas to non ocean fronting areas is a comprehensive adjustment for these attributes. The benefit of normalizing an adjustment for the proportion of ocean front acreage is the isolation of any remaining variance . Variance related to extraordinary attributes can be expected to "fall out" and may be explained in a reconciliation of the land sales comparison approach and large site sales valuation approaches.

ALASKA AREA DATA

ALASKA WILDLIFE REFUGE SYSTEMS



ALASKA AREA DATA

Geographic Overview

With a total land area of 586,048 square miles, Alaska is one-fifth the size of the entire Lower 48 states. The distance from Ketchikan on the southeastern panhandle to Barrow on the northwest corner of the Arctic Slope is as great as from Florida to Minnesota. Despite the common notion of Alaska as one unbroken land of ice and snow, the regional climactic variations are dramatic. The maritime climate of the Aleutian Islands, which stretch a thousand miles across the North Pacific, is a world apart from the bitter cold winters and hot summers of the interior. There are six distinct regions that make up the state: Northern Alaska, the Interior, Southwest Alaska, Anchorage-Matsu, the Gulf Coast, and Southeastern Alaska. Each region has its own climate, geography, history, and industries.

Northern Alaska and the Interior

Northern Alaska lies above the Arctic Circle between the Brooks Range and the Arctic Sea Coast, bounded by the Canadian border on the east and the Seward Peninsula on the west. This area is known for the oil and gas reserves of Prudhoe Bay and the Coastal Plain of the Arctic National Wildlife Refuge. Interior Alaska is the region between the Brooks Range to the north and the Alaska Range to the south, encompassing an area of 166,000 square miles. The city of Fairbanks is the center of commerce.

Southwest Alaska

Southwest Alaska is the relatively remote region stretching from the Yukon-Kuskokwim Delta to the Alaska Peninsula and the Aleutian Chain. The Alaska Peninsula extends 550 miles southwest from Mount Iliamna on the west shore of Cook Inlet to its tip at False Pass. The Aleutian Island chain reaches another 1,100 miles towards Asia. Included in this region are Bethel, Dutch Harbor, Cold Bay and Dillingham. Fishing is the major industry for Southwest Alaska, including huge groundfish harvests in the Bering Sea, and the world's largest red salmon run in Bristol Bay. Strong growth in the groundfish industry caused this region to lead Alaska's job growth in 1991 and 1992, but a rush of investment has resulted in an over-capitalization of this industry.

Anchorage-Matsu

The Anchorage-Matsu area is at the head of Cook Inlet in South-central Alaska. This region curves 650 miles north and west along the coast of the Gulf of Alaska. This region has tremendous geographic variety with fertile river valleys, rugged mountain ranges, glaciers, forests and coastal waters rich in sea life. South-central Alaska includes Anchorage, the state's largest city, which serves as headquarters for oil, other resource

related businesses and government agencies and services. Anchorage is also a major retail shopping center for residents of the rural areas of the state.

The Gulf Coast

The Gulf Coast spans from Icy Bay on the Gulf of Alaska to the Kenai Peninsula. This region also includes Kodiak Island and the western shores of Cook Inlet. The mainstay of the economy in this area is the catching and processing of seafood, including salmon, bottomfish and crab. The salmon industry in Alaska faces growing competition from salmon farming in Norway, Chile and Canada and the impact of diminished salmon prices has been felt in many of the coastal communities of Southwest Alaska, the Gulf Coast and Southeastern Alaska. Tourism is a major growth industry in many parts of this area.

Southeastern Alaska

Southeastern Alaska is a moist, luxuriantly forested panhandle extending some 500 miles from Cape Yakutat on the Gulf of Alaska to Dixon Entrance south of Ketchikan. Southeast Alaska encompasses both the narrow strip of coast separate from the mainland and Canada by the Coast Mountains and the hundreds of islands that make up the Alexander Archipelago. Juneau is Southeast's largest city and the state capitol.

Economy

The industries which drive the state's economy vary region to region. Fishing and seafood processing are important in the coastal areas; tourism bolsters the economies of Southeast Alaska and Southcentral's railbelt. The military presence makes an important contribution to Anchorage, Fairbanks and a number of smaller communities like Galena and Adak. The regions, and the nations largest, US Coast Guard Base is on Kodiak Island. Timber, coal and gold mining are also important industries in their respective regions. However, since the late 1970's, the industry which has the strongest impact on the state is oil.

Alaska's economic health is closely tied to the price of North Slope crude oil. High oil prices in the early 1980's brought Alaska billions of dollars and tens of thousands of new jobs. Collapsing oil prices helped pitch the state into a recession in 1986. During 1992 Alaska experienced a sixth consecutive year of employment growth after the 1986/87 bust. Through mid-1993, Alaska employment continued to increase, but at a rate below that of the prior year. In 1994 it is projected that Alaska will remain in a slow growth mode. There is no upward pressure on oil prices and metal prices are moribund. Mining exploration will continue, as will construction of gas handling facilities. This is evident with the construction of the GHX-2 gas injection facility at Prudhoe Bay and there are hopes for additional activity in Cook Inlet, where ARCO is working to develop the Sunfish Field. Exploration is continuing on the North Slope, but drilling has revealed too small a field to justify development at Kuvlum. State capital spending is expected to surge from a

$750 million tax settlement with British Petroleum. The military downsizing, which the nation is currently going through, will result in cutbacks in 1994 at Fort Richardson in Anchorage and Fort Wainwright in Fairbanks. Defense spending is a higher fraction of Alaska's gross state product than any other state in the nation. Employment growth near 1.5% is projected for 1994 in the 1994 Northwest Portrait published by U.S. Bank and the Northwest Policy Center of the University of Washington.

Lands Management

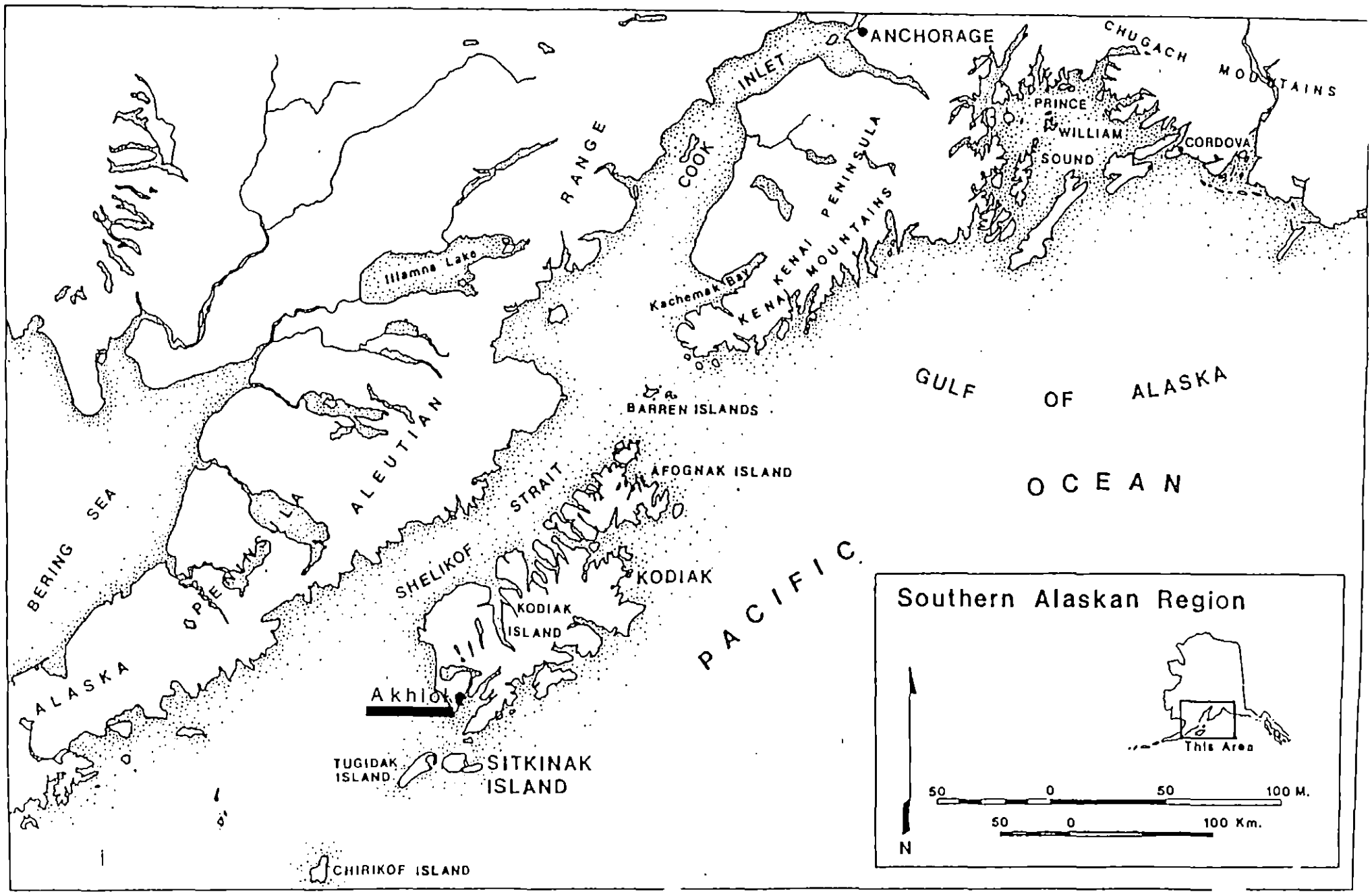
Alaska's economy has long been, and continues to be, resource based. Historically the Alaska economy has been a story of boom and bust. Alaska's lands are controlled primarily by federal policy. In late July, 1993, the State filed a suit seeking $29 billion from the federal government for violating the terms of the Statehood Act. The act gave the state 90% of the revenues from mineral leasing on federal lands, but since the act was passed, almost half the federal lands have been withdrawn from possible mineral leasing. The dilemma is best summarized in the August 28th-September 3rd 1993 issue of The Economist with the editor stating, "With only natural resources to sustain it, Alaska must be allowed to use them, but, as the guardian of some of the last truly wild places in the world, it also must recognize its role as steward." Obviously, in some cases, these objectives are mutually exclusive, but the debate underscores the fact that Alaska's environmental quality and its economic vitality are inextricably intertwined.

Conclusion

The level of economic activity in the state is closely tied to the fortunes of the oil industry, as was proven by the 1986 petroleum recession, grounding of the Exxon Valdez in 1989 and the Persian Gulf War in 1991. As of early 1994, the price of North Slope crude dropped to $10 to $11/barrel. This is near the price in 1986 which ignited a massive economic downturn. Local economists, however, do not expect negative economic impacts of the magnitude experienced in 1986 (at least not unilaterally) for several reasons. In 1993/1994, an estimated $750 million in state capitol construction projects will occur as a result of money made available by an oil tax settlement to the state. The second reason is diversification. Not all communities are dependent on oil. Timber, fishing and increasing tourism act to diversify local economies. Alaska, which in 1993 drew more than 1-million visitors for the first time, is on track for another record year in 1994. Overall, a "wait and see" attitude prevails through the state.

KODIAK AREA DATA

KODIAK AND VICINITY AREA MAP



KODIAK AREA DATA

Introduction

The Kodiak Archipelago, approximately 200 miles long and 100 miles wide, lies in the western portion of the Gulf of Alaska, separated from the Alaska Peninsula by the 25- to 30-mile-wide Shelikof Straits. The Kodiak Archipelago is comprised of a few large and many small islands, all of which are rugged and rise abruptly from the Continental Shelf. A geographic representation of the area is presented opposite. These islands, from the Baron Islands to the Trinity Islands, cover about 7,500 square miles of land and hundreds of miles of coast. The most concentrated population is in the City of Kodiak and the nearby Coast Guard Base, both located in the northeast segment of Kodiak Island. The subject lands represent significant remote holdings at the southern tip of Kodiak Island. The following discussion provides some background information on the Kodiak Archipelago region, and introduces factors relating to the islands which have a notable impact on the demand for, and value of, real estate.

Physical Setting

The Kodiak Archipelago is recognized as an extension of the Kenai Mountains on the Kenai Peninsula, scoured by glaciers 10,000 years ago. As such, most of the islands are mountainous. Kodiak Island has some rugged interior peaks that rise over 4,000 feet, but most of the peaks range between 3,000 and 4,000 feet. Local relief generally varies between 1,000 and 2,000 feet on Kodiak Island, with the exception of the southwestern portion which is characterized by broad valleys and coastal lowlands. The rugged coastline is intricately outlined by deep, narrow, glacial carved fjords, with branched arms and scattered inlets and bays as associated landscape features. The sea bluffs are generally rocky and steep, with gravel and sand beaches interspersed among the bluffs. While most of the coastline is rugged and fjord indented lagoons, gravel and sand beaches, estuaries, bays and marshes create a diverse coastline in localized areas. Freshwater lakes are common in the lowland areas and accompany stream valleys. Alpine lakes dot the interior mountainous country.

Vegetation

The Kodiak Region encompasses diverse vegetative types. The islands lie within a major vegetative transition between the coastal spruce forests of Southcentral and Southeast Alaska and the brushlands of the Aleutians. Extensive forests of Sitka spruce are found at the north end of the island group, which have been moving slowly southward at an overall rate of one mile per century. The woody vegetation found elsewhere in the Archipelago is comprised of birch, cottonwood, willow and alder. Fairly extensive stands of cottonwood are found at the head of most bays. An abundance of grasses are common along the coastline. Upland areas are either barren or covered with alpine tundra and dwarf

willows. The Southwestern portion of Kodiak Island is characterized by moist and wet tundra.

Aquatic Life

The marine waters surrounding the island are among the most productive in the North Pacific. The continental shelf surrounding the archipelago has supported major fisheries in king, Dungeness and tanner crab, shrimp, salmon, and a variety of bottomfish. Clams, sea urchins and snails are in abundance along much of the coastline. Sea lions, seals, sea otters and seabirds inhabit the entire coast of the archipelago, often in large concentrations. Many seabird colonies often contain more than 10,000 nesting birds. Sea otters, almost exterminated by the Russians, are again established on the north end of the region. A number of whales can be seen in the offshore waters, and although some Sperm whales pass through, the Harbor, Dahls, and Killer whales, as well as Porpoise, are more common. All five species of Pacific salmon (king, red, silver, pink and chum), inhabit the area's waters. Dolly Varden char are also present in almost all freshwater streams, while Steelhead trout are less widely distributed.

Terrestrial Wildlife

In discussing the wildlife, the famed Kodiak brown bear is first to come into mind. A wildlife refuge for the well being of an estimated 2,400 bears has been created. A few land mammals that naturally inhabit the area include the brown bear, red fox, land otter, weasel, and tundra mole. Those of which have been successfully introduced to the island include Roosevelt elk, Sitka blacktail deer, reindeer, mountain goat, Dall sheep, beaver, red squirrel, snowshoe hare. The deer and elk populations have increased to a point capable of sustaining significant hunting use. The Kodiak region supports a diversity and an abundance of fish and wildlife, viewed by many as one of the nation's richest.

Population of Cities

About 90% of the Kodiak Island Borough's 15,535 (1991) people are concentrated on Kodiak Island's northeast corner, along the road system: 7,229 people in the City of Kodiak, 2,129 on the U.S. Coast Guard Base, 115 in Chiniak, and 843 in the Bells Flat area of Women's Bay, and another 3,500 in the Spruce Cape and Monaska Bay areas. Another 1,000 or so people (mostly Natives) live in six villages around the edge of Kodiak Island and on Spruce Island. These villages are:

City	Location	Population
Ouzinke	West coast of Spruce Island off Narrow Strait	209
Port Lion	North coast of Kodiak Island on Settler's Cove	222
Old Harbor	Southeast coast of Kodiak Island on Sitkalidak Strait	284
Akhiok	South end of Kodiak Island on Alitak Bay	77
Karluk	West coast of Kodiak on Shelikof Strait	71
Larsen Bay	Southwest corner of Kodiak on the west shore of Uyak Bay	147

None of these villages are connected by roads to each other or to the main town of Kodiak, but all have regular air service. An additional 600 or so people live in logging camps and other remote communities, wilderness lodges and private cabins scattered about the islands. Sparse population is due, in part, to the ruggedness of terrain, historical land ownership, employment opportunities, and the fact that 80% of Kodiak Island falls within the boundaries of the Kodiak National Wildlife Refuge.

History

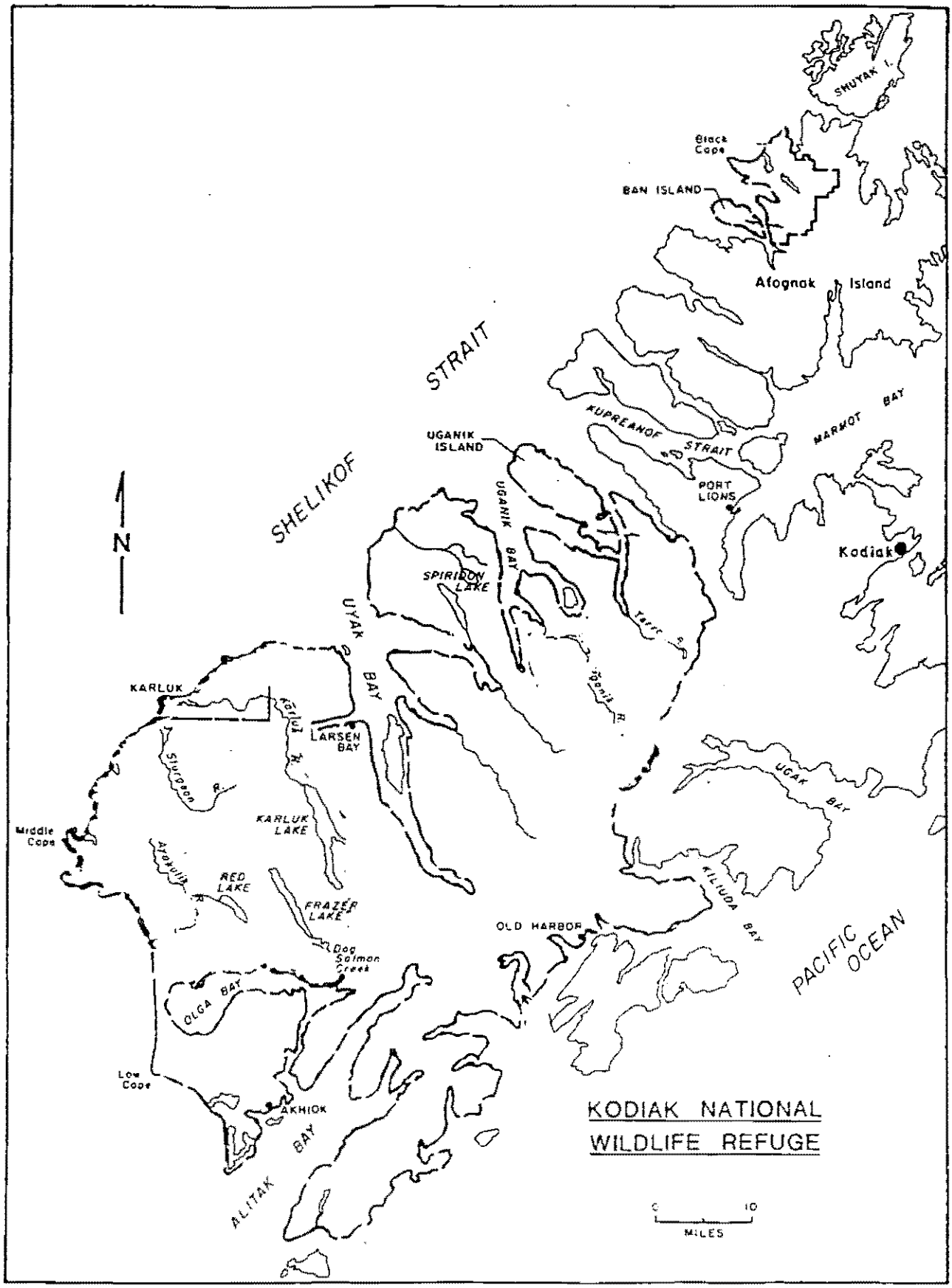
Prior to the establishment of Russian fur trading posts on the island in the late 1700's, the island supported a Native population estimated to be between 20,000 and 50,000 individuals. Native settlements were distributed throughout the islands, with main or winter villages concentrated in protective coves, having shallow and rich intertidal areas nearby. In the summer, people moved to salmon fishing camps alongside major salmon streams. The Kodiak coastline, which features many steep bluffs and cliffs, as well as numerous beach and intertidal areas, have always been and continue to be the focus of human activity. The ocean and coastal waterways provide the primary mode of transportation and the best means to access valuable marine resources. Subsequent to the decline of the Russian fur trade (due to over-hunting), commercial harvest of the marine ecosystem has included a variety of other species, including whales, salmon, shrimp, crab, and most recently, a focus on bottomfisheries. More often than not, commercial fisheries have run a cycle of boom and bust. While Kodiak fisheries remain some of the most productive in the world, certain species such as shrimp, crab and red salmon exist at only a fraction of their former levels.

Current Trends

In earlier times, numerous canneries operated around the island, including those on the Karluk River and Olga, Moser, Larsen and Afognak Bays. Today, commercial enterprise is focused in the City of Kodiak. Noted exceptions are the canneries at Larsen Bay and Uganik Bay and the Wards Cove Canneries at Alitak Bay and Port Bailey. In addition to fisheries, other past, current and potential economic activity includes forest products (Afognak Island), military (U.S. Coast Guard Base), tourism, and offshore oil exploration. Commercial and subsistence hunting and fishing are the main occupations of village and other remote inhabitants. Tourism has been increasing in economic importance for both the City of Kodiak and village inhabitants. In February 1993, the Kodiak Island Borough Assembly responded to the increasing demand for commercial lodges and cabins in the refuge (or adjacent to it) by simplifying its zoning laws by removing "conservation restrictions". Larsen Bay, Ouzinkie, Port Lions, Karluk and Old Harbor residents have provided some services to hunters and sport fishermen for several years, and increasing pressures on the popular Kenai Peninsula sport fisheries just out of Anchorage should further the trend.

KODIAK NATIONAL

WILDLIFE REFUGE



KODIAK NATIONAL WILDLIFE REFUGE MAP

KODIAK NATIONAL WILDLIFE REFUGE AREA DATA

History

Although the economy of Kodiak is primarily driven by fishing and the value-adding fish-processing industry, the Kodiak Island region may be best known nationally and internationally as home of the Kodiak brown bear. Although conservation measures and other restrictions were enacted in response to alarming declines in sea otter stocks (an international treaty finally banned hunting in 1911) and red salmon (although largely ineffective, the first regulations to protect salmon were enacted in 1896), it was the concern over the welfare of the brown bear in the 1930's (at the time government hunters were operating to reduce livestock losses) that was behind the establishment of the Kodiak National Wildlife Refuge in 1941. This act initially brought 1,975,000 acres of federally owned land under the management of the U.S. Fish & Wildlife Service, the goal of the refuge being to preserve the natural feeding and breeding range of the brown bear and other wildlife.

Description

The Kodiak National Wildlife Refuge encompasses most of Kodiak Island, all of Uganik and Ban Islands, and part of Afognak Island (see map opposite). The Kodiak Refuge is characterized by a large range of habitat in a relatively small geographical area. The diversity of resources, including land forms, habitat, fish and wildlife, is noteworthy even in Alaska. The refuge boasts some of the highest densities of brown bears, nesting bald eagles, and spawning salmon (species of special interest to many Americans) found anywhere in North America. The major lakes in the refuge are the Karluk, Red, and Frazer (within south central portions of the island), and Spiridon and Uganik Lakes in the north. The Ayakulik River is the longest river in the refuge, flowing about 40 miles and encompassing a drainage area, in combination with the Red River, of about 166 square miles. Other important drainages include the Karluk River and Dog Salmon Creek.

Alaska Native Claims and Settlement Act

The Alaska Native Claims Settlement Act of 1971 was enacted to settle the claims of Alaska Native populations to aboriginal title to traditional lands. There was no precedence for ANSCA, and it altered dramatically the status of Alaska Natives and the ownership status of large portions of the state's most valuable fish and wildlife habitat, not just in Kodiak, but throughout the state. In return for the extinguishment for the land claims, Alaska Natives received 40 million acres to be allocated among 214 Native village and 12 regional corporations. In Kodiak, Natives received rights to approximately 310,000 acres within the refuge, mostly around the villages of Akhiok, Karluk, Larsen Bay and Old Harbor. Native inholdings within the refuge pose certain dilemmas for refuge management. Section 22g of ANSCA was written in to help direct future growth and

REFUGE USE TRENDS

Table 1. Refuge visitation trends for selected public use activities, 1984 to 1993.

	Number of Visits									
Activity/Use	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991***	**1992**	**1993**
Deer Hunting	1386	1363	1375	1523	1661	1493	1246	N/A	1143	1136
Bear Hunting	220	338	322	335	364	350	380	N/A	234	209
Sport Fishing	1445	1675	2430	2740	1970	2045	2500	N/A	1404	2018
Photography	225	326	400	509	595	585	640	N/A	N/A	N/A
Visitor Center	2217	6707	7719	9748	8681	8989	8229	N/A	8500	8435

*New accounting methodologies indicated in 1991/1992

Table 2. Number of refuge special use permit applications for selected activities, 1984-1990

	Number of Permit Applications						
Activity/Use	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**
Big game guide-outfitting	15	15	14	15	16	15	16
Sport fish guiding							
permits issued	9	14	22	24	24	24	24
additional requests	--	--	--	13	17	18	21
Marine Transporter	--	1	4	4	6	N/A	N/A

Table 3. Number of clients reported by refuge based sport fishing guides, 1984-1990.

	Number of Clients Using Refuge						
Activity/Use	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**
Sport fish guiding (fishing clients)	395	402	622	597	873	1085	810

Source: U.S. Fish & Wildlife Public Use Management Plan

development on refuge inholdings. Although the law states that private inholdings must be used in a way compatible with the purposes of the refuge, the true legal meaning of this provision is unclear and untested in court. In the meantime, inholdings have created difficulties for the U.S. Fish & Wildlife in accessing, monitoring, and management of the refuge.

Alaska Lands Act

The passage of the Alaska National Interests Lands Conservation Act (ANILCA) in 1980, designated a 50,000-acre area on Afognak and Ban Islands as part of the refuge, and redesignated the purposes of the refuge. The purposes may be summarized as follows:

1. to conserve fish and wildlife populations in their natural diversity
2. to provide subsistence used by local residents
3. to ensure water quality and quantity within the refuge

While these refuge purposes do not include recreation, the legislative history of the Alaska Lands Act mentions the "tremendous" recreational opportunities of Alaskan refuges and encourages the Fish & Wildlife Service to allow recreational use under other authority such as the Refuge Recreation Act of 1962.

Refuge Use Trends

Projecting the public use trends of the Kodiak National Wildlife Refuge is a challenging task because of the decision by Native corporation landowners to forgo aggressive development of their lands. This decision was a response to the interest by the U.S. Fish & Wildlife Service in acquiring the Native lands, but only on the condition that they remain in their natural state and not subdivided into small parcels. Several indicators suggest the likelihood of a land rush in the refuge, if acquisitions of Native lands do not occur in the short term. The Native corporations are likely to pursue aggressive development.

* The Kodiak Island Convention and Visitors Bureau has reported a tripling of public inquiries about Kodiak as a travel destination since the airing of the National Geographic film about the Kodiak refuge's Native inholding dilemma. This film will be seen according to National Geographic by over one billion people in the United States and 80 other countries over the next ten years.

* The popularity of "bear viewing" among Alaska tourist suggests this as a growth industry for Native corporations who own salmon river habitat used by bears for summer feeding. The Kodiak refuge reports that bear viewing on the O'Malley River in the refuge jumped by 58% in the one year that refuge controls barring unsupervised public access were lifted.

* Sportfishing is intensifying on the refuge, showing a 150% increase in commercially guided "angler days". In 1990 there were 10 applicants on the sportfish guide waiting list kept by the Kodiak refuge. In 1993 there were 40 applicants on the sport fishing guide wait list.

* Deer hunting increased 280% from 1987 to 1992 using the latest refuge counting method, but the chart on the preceding page does not reflect this trend. The counting method was changed in 1991.

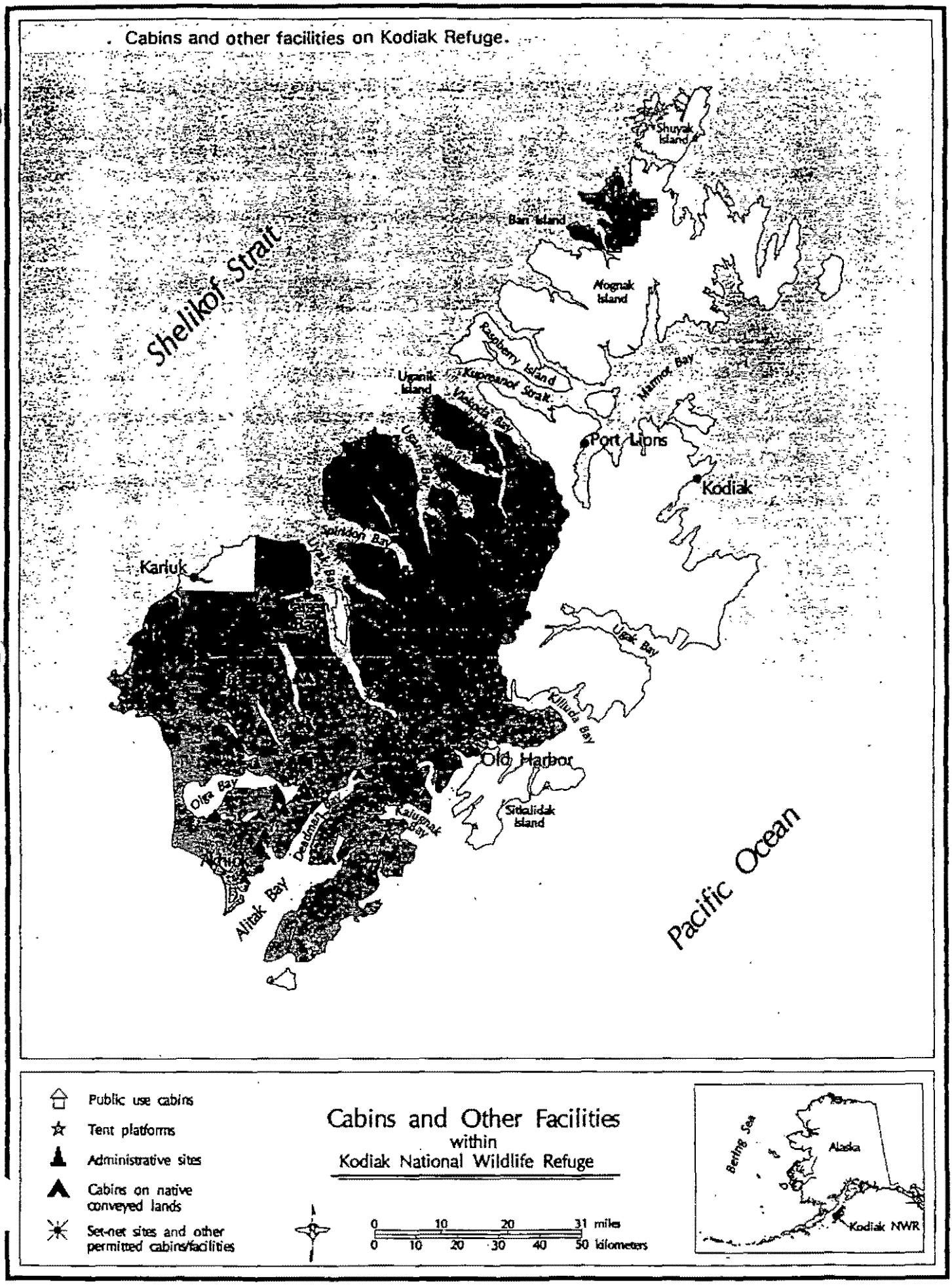
* In 1990 there were 7 "permitted" air taxi operators using the refuge. In 1993 there were 12.

* Ecotourism is the fastest growing market sector in tourism today, and Kodiak's high quality wildlife and historical and cultural attributes suggest dramatic increases in public use for these purposes.

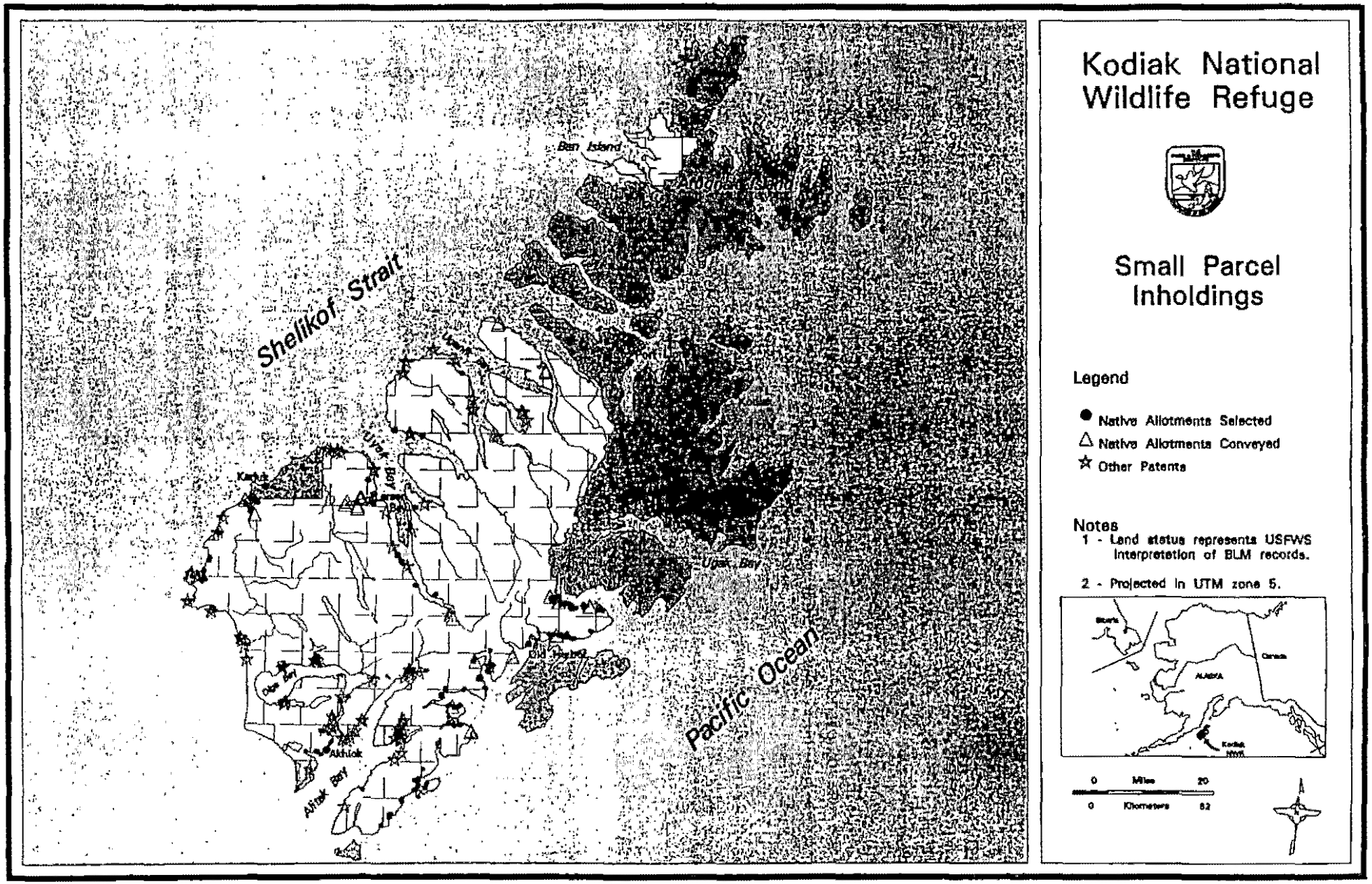
Use trends on the Kodiak National Wildlife Refuge were compiled for the October, 1993 U.S. Fish & Wildlife Service Public Use Management Plan. Selected tables from this report are reproduced on the page opposite for the years 1984 through 1990. Figures for 1991 were incomplete and in 1992, the U.S. Fish & Wildlife altered the accounting methodology, making it more difficult to assess the most recent use trends. The figures are helpful, however, and show relatively stable use patterns in deer and bear hunting activities and marked increases in sport fishing. The trends in bear hunting are not surprising as this activity is tightly controlled both through the number of permitted guides and the number of allowable kills. Deer hunting levels have decreased since 1988 primarily due to heavy winter kills, but are expected to rebound once deer populations increase. Sport fishing, both guided and unguided, is the most popular and fastest growing refuge activity. The first request for sport fishing guide permits were in 1982, and by 1987 a self-imposed limit of 24 operators was reached. The Public Use Management Plan predicts an overall 10% annual increase in refuge activities through 1995 (encompassing hunting, guided and unguided sport angling, rafting and wildlife viewing). The US Fish & Wildlife Service predicts that much of the increased use of refuge lands will derive from newly developed facilities on refuge inholdings. Most of these facilities are providing lodging for sport fishermen and deer hunters. Recent development includes lodges and cabins in Zachar Bay, Uyak Bay, Larsen Bay, the mouth of the Ayakulik River, Olga Bay, the mouth of Upper Station River, and in Three Saints Bay. Several of these developments are just getting started and a number of additional developments are proposed. Maps illustrating the locations of cabins and other facilities within the refuge, along with small parcel inholdings, can be found at the conclusion of this section. (This data is dated, but helpful in depicting concentrations of private inholdings and use within the refuge.)

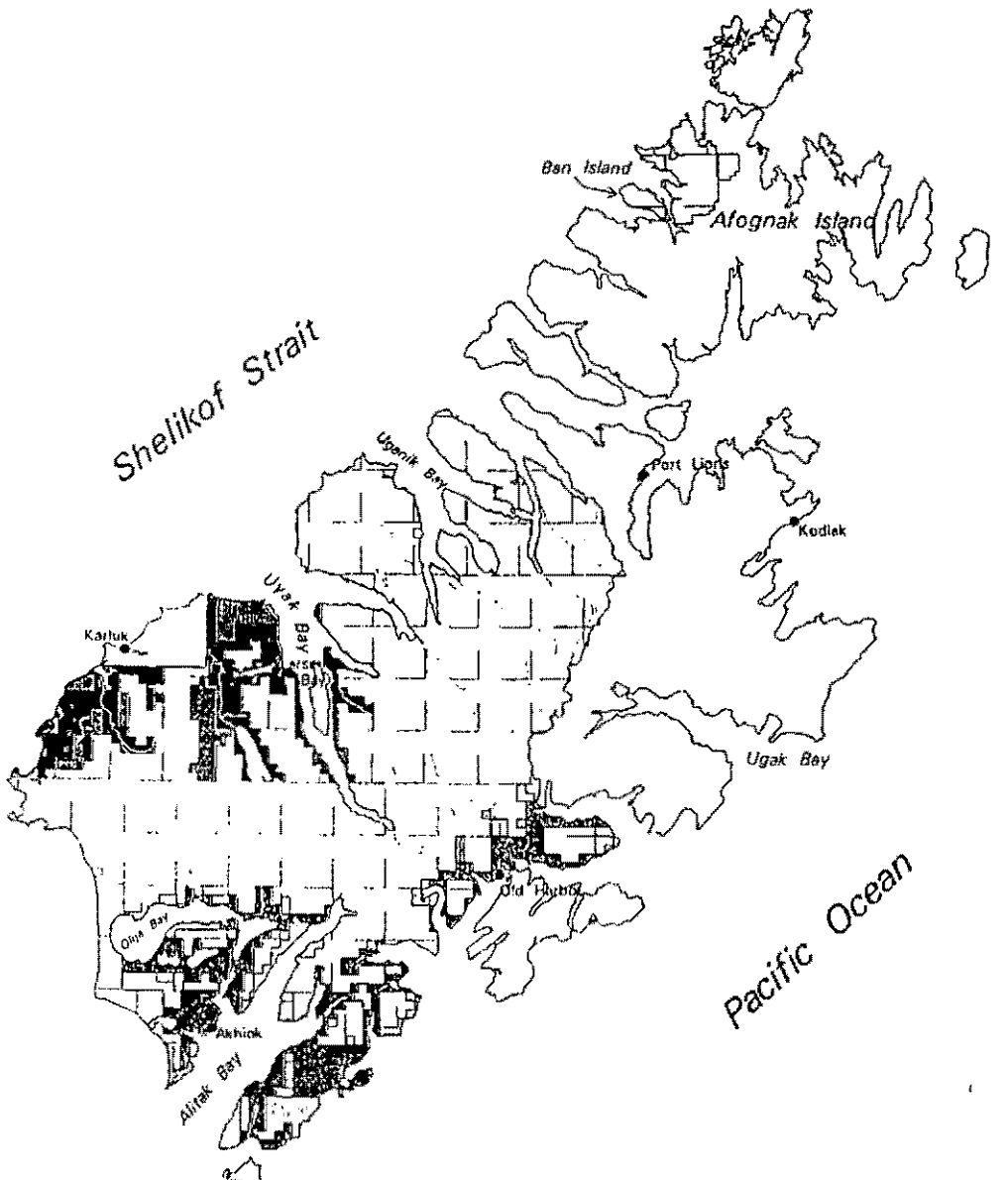
Conclusion

According to the USF&W Public Use Management Plan, a continued increase in levels of human activity on or adjacent to the Kodiak Refuge is inevitable. Public use, particularly sport fishing, has been increasing within the Kodiak Refuge boundary and likely will continue to increase. In the future, developments probably will occur on Native allotments, private patented lands and Native village corporation lands within the refuge boundary. Other developments, such as new commercial guiding facilities, hydroelectric facilities, oil and gas facilities, and administrative facilities, may be proposed. The most heavily impacted areas will be the most accessible coastal areas, rivers and lakes which provide suitable sites for the development of either permanent or temporary facilities. However, as the most accessible areas become more heavily used, some recreational and commercial users will pursue experiences in the more remote interior areas of the refuge which have traditionally received little or no public use due to difficulty of access. These are important considerations for the Service, as a balance of conservation, recreation and industry is sought. It is one impetus behind land protection and acquisition programs such as the one directed by the EVOS Trustee Council.


Cabins and other facilities on Kodiak Refuge.
Shelikof Strait
Shuyak Island
Afognak Island
Raspberry Island
Kupreanof Strait
Marmot Bay
Uganik Island
Uganik Bay
Uganik Passage
Spiridon Bay
Karluk
Karluk Lake
Port Lions
Kodiak
Ugak Bay
Kiliuda Bay
Old Harbor
Sitkalidak Island
Olga Bay
Deadman Bay
Kaiugnak Bay
Alitak Bay
Pacific Ocean
Public use cabins
Tent platforms
Administrative sites
Cabins on native conveyed lands
Set-net sites and other permitted cabins/facilities
Cabins and Other Facilities
within
Kodiak National Wildlife Refuge
0 10 20 31 miles
0 10 20 30 40 50 kilometers
Bering Sea
Alaska
Kodiak NWR

Small parcel inholdings on Kodiak Refuge.





Kodiak National Wildlife Refuge

Native Corporation Lands

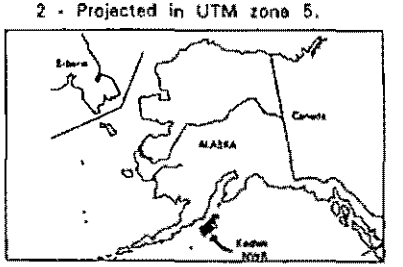
Legend

- Akhiok-Kaguyak (Conveyed)
- Akhiok-Kaguyak (Selected)
- Koniag (Conveyed)
- Koniag (Selected)
- Old Harbor (Conveyed)
- Old Harbor (Selected)

Notes

1 - Land status represents USFWS interpretation of BLM records.

2 - Projected in UTM zone 5.



0 Miles 20

0 Kilometers 32

HIGHEST AND BEST USE

HIGHEST AND BEST USE

Highest and Best Use is defined under UASFLA as:

> *Highest and best use: Fair market value is to be determined with reference to the property's "highest and best use" - that is, the highest and most profitable use for which the property is adaptable and needed or likely to be needed in the near future. Ordinarily, the highest and best use of property is the use to which it is being subjected at the time of taking.*

"Highest & Best Use" is defined by The Appraisal Institute as:

1) *The reasonable and probable use that supports the highest present value of vacant land or improved property, as defined, as of the date of the appraisal.*

2) *The reasonably probable and legal use of land or sites as though vacant, found to be physically possible, appropriately supported, financially feasible, and that results in the highest present land value.*

3) *The most profitable use.*

A sound understanding of highest and best use is very important to the appraisal process. The subject land tracts represent significant private inholdings within the boundaries of the Kodiak National Wildlife Refuge. The holdings have been segregated into seven tracts which range in size from 1,875 acres to 8,568 acres. Some are contiguous while others have sections carved out by small-parcel ownership. Most conform to geographic boundaries (such as bays or ridge lines) and represent those lands selected by the Native Village Corporation as being their traditional land. Traditional use by the Natives occurred primarily in the protected coves and bays, (exhibiting rich intertidal areas) and alongside major salmon spawning streams. As might be expected, the majority of the subject's land is considered valuable fish and wildlife habitat, having been selected on the basis of subsistence uses and the associated fish and wildlife attributes.

The nature of this type of real estate is that those lands most productive from a resource standpoint (particularly salmon) also tends to make them the most desirable for development and use in the form of sport fishing, fishing lodges, and home sites. Of course, there is an inherent conflict in this due to the degradation of wildlife and resources typically associated with human development. It can be seen that development situated to take advantage of natural resources and species tends, at least in the long run, to compromise those same resources and species. Human development, then, may lessen the quality of recreational and subsistence opportunities, as well as scenic and wildlife attributes. Equal or greater economic loss will result from human development along anadromous streams and rivers critical to the salmon industry.

The concept of highest and best use encompasses four tests: the use must be legally permissible, physically possible, financially feasible and result in maximum production for

the land. The following is a discussion of each of these elements as they apply to the subject property.

Legally Permissible

Within the Old Harbor Municipal boundary subject lands are zoned R1 - Single Family Residential District. This area extends two miles to the north, one and three quarters miles to the west and three and a half miles to the south of Old Harbor and includes all or portions of OLD02A, OLD03 and OLD04. (A map of this area and other zoning information can be found in the Addendum.) The 1989 Old Harbor Comprehensive Plan designates this area for habitat and resource protection. All other properties are zoned C - Conservation District - by the Kodiak Island Borough. Being within the boundaries of the refuge they are also subject to Section 22g as promulgated by ANSCA.

The single-family residential district (R1) is established as a land use district for small lot (7,200sf minimum lot size) single-family residential dwellings where public water and sewer services are available. Permitted uses include churches, greenhouses, parks and playgrounds. According to the Old Harbor Comprehensive Plan R1 areas outside of the actual townsite area are primarily used for subsistence hunting and fishing activities and the residents of the community have indicated that protection of subsistence resources is a high priority. These areas have been designated under the Comprehensive Plan as a Habitat and Resource Protection area. The zoning and habitat and resource protection designation are seen to be compatible with, and allows for, what has been the historic use patterns for these areas.

According to zoning ordinances, the Conservation zone is "established for the purpose of maintaining open space areas or providing for single-family residential (minimum lot size 5 acres) and limited commercial land uses". The permitted uses most applicable to the subject are: 1) commercial fishing activities and related structures; 2) commercial guiding activities and related structures (e.g. lodges containing provisions for no more than six clients); 3) parks; 4) recreational activities and 5) single-family dwellings/recreation cabins.

This zoning is seen to be compatible with, and allows for, what has been the historic use patterns for these types of properties. Lodge provisions for greater than six clients and airstrips are conditional uses, which, although potentially are time-consuming to pursue, are not categorically disallowed and are therefore reasonable long-range considerations.

The second land use consideration in the Highest and Best Use Analysis is Section 22g. This provision of ANSCA requires development of refuge inholdings to comply with refuge regulations. As an appraiser, I am not qualified to make a legal interpretation of the enforceability of 22g. The Fish & Wildlife Service has not drafted a code of refuge rules and regulations. The question to be asked is whether present interpretations and perceptions of Section 22g effectively diminish what could and would otherwise be done on this land without 22g. Citing a 1991 Regional Director memo, the government is on record

stating that, "while I cannot advise exactly what type of use and development can take place on 22g lands, it is obvious to us that a lot more can be done on 22g lands than we would or could allow on refuge lands". (The complete memo can be found in the Addendum).

Historical land use patterns in the refuge are relatively diverse and include a hydro electric project as well as a system of recreation cabins, guide cabins and commercial fishery sites. The Refuge provides for numerous recreational and subsistence opportunities. All this suggests that while Section 22g may exist as an additional regulatory layer on these lands, based on historical use on Refuge lands, as well as existing precedence for development on Section 22g lands, its impact on the subject's most probable highest and best uses is nominal. Under Section 22g, lodge development or airstrips (in fact an airstrip has been previously permitted on Section 22g lands) are not categorically ruled out, rather, similar to other lands subject to Conservation zoning, such developments promise to be time consuming and uncertain endeavors.

Physically Possible

The possible uses for this property, as described below, are numerous. These uses share the same common requirement of dependence upon natural ecological characteristics found in the area and physical characteristics appropriate for these uses. Shoreline length and characteristics, together with topographical features, river and stream locations, and other attributes are documented in this report. All of the uses set forth in this report are physically possible.

Financially Feasible

Typically, this section of an appraisal will illustrate, in some detail, the financial possibilities based on several potential uses of the land. However, in the case of the subject, development cannot be considered in the finite sense, but must be considered as general concepts with flexibility. The subject parcels will obviously have a variety of uses rather than a single use. The concepts and their viability have been discussed in earlier sections of this report. Private and government funded studies have reported on the financial benefits of the proper utilization of the natural ecological characteristic of the lands on Kodiak Island. These studies have stated and explored in-depth the following: commercial or organizational camps; corporate or institutional retreats; education or research centers; lodge and/or Inn developments; recreation potential -- fishing, hunting, water-related sports; personal retreats or preserves; public preserves or parks; recreation related residential; and resource development. These are, to varying degrees, all financially feasible developments. The size of the subject parcels will logically dictate that no single use will produce the maximum production of the land.

The transfer of land to native corporations began in the mid to late seventies and was mostly completed in the eighties. During and after the transfer of lands to the native

corporations, various government agencies encourage the corporations to keep their lands in their natural state. Some questionable attempts were made to legally discourage the development of the land. Although some development (airstrips and hunting lodges - cabins) has occurred, there has never been a concerted and genuine attempt to test the various development possibilities. Also, due to the development restrictions (perceived or legal), there is no clear market evidence of the financial viability of any of the potential use of the land. I gave consideration to the various studies for support of my interpretation of the highest and best use of the subject.

Maximally Productive

The maximum production will be returned to the land by the wise and planned development of the subject property with the appropriate balance achieved from the many uses previously stated. Equilibrium of uses must be sought in order to maximize production. Any rush to development will possibly result in the eventual destruction of the venerable features on the site which made the subject desirable. Maximum production will not be achieved by a rush to exploit the natural resources. Maximum production will only result from the balanced development of educational and research centers, corporate/institutional retreats, lodges and/or inn-type developments, public parks, resort/recreational-related residential development and fishing/hunting/water-related developments.

In my opinion, the land should be acquired for its overall development potential. This type of purchase is much the same as the purchase of large tracts that are ultimately developed as entire communities or for other uses. Over the years, original concepts and plans are generally altered to accommodate the emerging market demand. The subject property falls into a similar category. It is large enough for diverse uses. At this time, an overall plan may be developed recognizing that the ultimate plan for the land will be modified as the market demands change.

Conclusions

In my opinion, the highest and best use of the subject will be achieved by the development of a logical, flexible development plan that is designed to take full advantage of the ecological features of this unique property. Although there are no clear examples of this type of acquisition in the immediate area, there are many examples of this concept in other markets. The sales selected for consideration in this appraisal provide the most immediate examples of the market's perception of values on Kodiak Island. Small (relative) sales from the Island are used to establish the basis for value. Large, nearby tract sales are utilized to place these smaller transactions in the proper perspective.

PUBLIC MARKETS FOR HABITAT LAND

PUBLIC MARKETS FOR HABITAT LAND

Introduction

The basic dynamics of a market involves delivery to those people with money, those goods and services which they want. People may act individually or through organizations to satisfy their wants. Looking at environmental real estate transactions from this standpoint yields a readily recognizable market. The market is citizens (people) acquiring the environmental real estate they want through public agencies (i.e. tax money, or settlements, in the case of the Exxon Trustee Council), not for profit corporations (contributions), or directly (user fees, occasionally through fee simple acquisitions). To ignore highly comparable sales involving public agencies, and rely on sales of dissimilar properties bought for alternative uses in more traditional markets, ignores the most probable use of properties like the subject - conservation.

Propriety In Using Purchases By Government Agencies

Many of the acquiring agencies of habitat properties are state and federal agencies. An argument is sometimes advanced that purchases made by government agencies should not be used in the appraisal of property. The reasons given are that (1), the government has the power of condemnation, and even if not exercised, the potential to use condemnation influences prices paid, and (2), the price paid generally is the result of an appraisal, and thus does not involve the active negotiation between buyer and seller implicit in the definition of market value. The first argument flies in the face of the fact that public agencies rarely condemn conservation lands. In fact, many funding appropriations explicitly state that condemnation cannot be used to acquire property (the Alaska Lands Act actually prohibits condemnation of Native owned refuge inholdings). The second argument disregards the position of the seller. There are two sides to every transaction. Given that public agencies tend to negotiate rather than condemn, it follows (and is supported by activity in the market) that sellers are not compelled to accept the offers made by government agencies. In the case of the Kachemak Bay acquisition (see sale comparison No. 2), both the government and the seller rejected appraisals before agreeing on terms.

There are numerous case studies available to demonstrate the above points. Background information on the ANWR exchange provides strong testimony to this position. In these highly involved negotiations, the Fish and Wildlife Service had properties appraised solely based on traditional economic use values. The appraised values were considered unacceptable (too low) by the Native corporations and they in turn conducted their own land valuations. These were often considered as unacceptable (too high) by the government. Agreements on the value of lands offered in exchange was ultimately reached through a series of face to face negotiations. Far from an isolated incident, an intense

negotiation process (with offers, counter offers, and multiple appraisals) is evident in the Kachemak Bay, and Seal Bay/Tonki Cape sales (both to be discussed in the Comparative Data).

Conclusion and Summary

Habitat and natural preserve properties have an unusual set of characteristics, which complicate their valuation. Although the social and environmental benefits of habitat production are well recognized and documented, identification of specific economic benefits, particularly on a property specific basis, remains illusive. However, even while the specific economic benefits of habitat remains difficult to measure, the fact that demand exists for this type of real estate is clear. There are numerous private, state, and federal agencies involved in the acquisition of critical habitat and natural preserve areas on a day to day basis, both within the State of Alaska and nationally. There is demand for a specific type of real estate, which today are in increasingly short supply.

COMPARATIVE DATA

Summary of Land Sale Comparisons

No.	Location	Buyer/ Seller	Date	Analysis Price	Acres	$/Acre	Use
1	Sturgeon River	Cusack/ Waselie	7/7/92	$126,000	159.97	$788	Recreation
2	South end, Afognak Island	Aleneva/ Mullan	11/6/89[1]	$1,164,375	273.65	$4,255	Religious Community
3	Terror Bay	USF&W/ Helgason	7/23/91	$459,000	151.21	$3,042	Conservation
4	Dog Salmon	Cusack/ owner not known	Not closed	$360,000[2]	178.00	$2,000	Recreation
5	Ayakulik River	Conservation Fund/ Ayakulik Native Corp.	Not closed	$1,000,000[3]	574.88	$1,750	Conservation

[1] Closing date. Sale negotiated in 1988.

[2] Not closed as transation was not completed.

[3] Firm cash offer. Seller rejected.

COMPARATIVE DATA

Introduction

The Federal Government acquired title to Alaska in a purchase from Russia. After Alaska became a state, substantial holdings were conveyed by the Federal Government to the State of Alaska. In 1971, as a result of ANSCA, Alaska Natives received 40 million acres of land. Because of Alaska's vast physical size and climatic conditions, most of the population is concentrated in a few major cities. Because of the nature of the land, many of areas have been set aside as parks and refuges. For these reasons, the Federal Government, the State of Alaska, Native Corporations, and other public entities control most of the state's land and approximately 99% of all land in the Kodiak Island Borough. Native holdings can be seen as a unique, private ownership position in a state dominated by state and federal holdings.

Outside the urban areas the vast majority of the fee simple ownership (not including Native corporations) in Kodiak is comprised of land originally patented under the Soldier and Sailor Script Act at the turn of the century, and typically are 5 to 20-acre ocean front lots. In the 1980's many parcels, 5 acres or less, were staked as part of the state's policy of transferring state land into private ownership. The other major ownership category is in the form of Native Allotments, typically 120 to 160 acres, and generally found along the coastline. My research in the Kodiak remote land market finds that 10 to 20-acre waterfront homesites and recreation tracts may sell for between $3,000 to $5,000/acre (except in Uyak Bay where a merger between the village and regional corporation resulted in land distributions to shareholders and has contributed to oversupply) There tends to be significant discounts on non-ocean front parcels.

A total of 37 land sale comparisons are summarized at the conclusion of this section. The data are considered in the aggregate and are unadjusted for terms, market conditions or conditions of sale. Additional information relating to these sales is retained in my files and transactions have either been confirmed with actual participants or through public documents and secondary sources (ie the Kodiak Assessor or local appraisers). Five comparables are summarized on the page opposite and discussed in the following paragraphs. Maps and greater detail are included in the Addendum. The narrative section focuses on the parameters and the criteria under which the subject can be valued. The comparables include market activity involving acquisitions by both public and private entities. The data is particularly important due to the bearing that it has on the perception's of owners and potential sellers in this market. Knowing what was paid for Seal Bay/Tonki Cape and Kachemak Bay decidedly influence what potential sellers are willing to accept for their holdings, and therefore market value.

Land Sale Comparison Number 1: Sturgeon River

This is not a salt water fronting site. It is located approximately two and one-half miles inland from the salt water on the Sturgeon River. The site consists of generally low or rolling terrain and it is accessible via float plane landing on the river. The sales price is $788/acre.

Land Sale Comparison Number 2: South end, Afognak Island

Comparison number 2 is located on the south side of Afognak Island north of the north end of Kodiak Island. The property consisted of two native allotments which were acquired by a Russian Orthodox religious group for the development of a small community. The beach is rocky and dries at low water. The uplands are level to sloping with some stands of timber, although the purchasers will not permit logging. The total sale involved 273.65 acres for an average per-acre price of $4,255/acre. This is an older sale that was negotiated in 1988 and closed in 1989.

Land Sale Comparison Number 3: Terror Bay

Comparison number 3 is located on the westerly portion of Kodiak Island on Uganik Passage. The property was purchased by Fish & Wildlife who will manage the property as part of the Kodiak National Wildlife Refuge. It has been operated for many years as a bear camp. This 151.21-acre site sold for $3,042/acre.

Land Sale Comparison Number 4: Dog Salmon

Comparison number 4 is located one-quarter mile from the Dog Salmon River on Olga Bay near the south end of Kodiak Island. The Dog Salmon River is known for its large red salmon runs. A 1992 offer at $2,000/acre for this 178-acre parcel did not result in a sale (see complete details of this sale in the Addendum), but it nonetheless offers an indication of the buyer and seller's perception of market values for a site of this type.

Land Sale Comparison Number 5: Ayakulik River

Comparison number 5 is located on the Ayakulik River and also has salt water frontage. It is situated on the southwest end of Kodiak Island. The owners, the Ayakulik Native Corporation, received a firm all-cash offer from The Conservation Fund of $1,000,000, or $1,750/acre, for the 574.88-acre parcel. The offer was based upon an appraisal prepared by the author of this appraisal report. The sellers rejected the offer because they felt that the offering price was too low. The Ayakulik River is well known for its runs of trophy-sized king salmon, together with large runs of red and silver salmon.

Further analysis of this data follows.

Large Site Land Sale Comparables Characteristics Summary

Comp No.	1	2	3
Location	Seal Bay/Tonki Cape Afognak Island	Kachemak Bay Kenai Peninsula	Point Possession Kenai Peninsula
Date	Nov-93	Jun-93	Jul-92 Offer
Size	41,551	23,802	4,481
Price	$38,700,000	$20,000,000	$4,150,000
Price/Acre	$931	$840	$926
Property Rights Conveyed	Fee	Fee	Did Not Close Financing
Surface/Sub-Surface	Surface Only	Surface Only Analysis	Surface Only
Section 22g	No 22g	No 22g	22g
Other Easements	US Rsrvd Esmts/Public Use	US Rsrvd Esmts	Pipeline Esmt
Cash Equivalency	Cash	Cash	Cash
Conditions of Sale	Arms Length Negotiations	Arms Length Negotiations	Arms Length Negotiations
Market Conditions	Post Restoration Trust	Post Restoration Trust	Post Restoration Trust
Waterfrontage	Extensive Marine/Sea Cliffs	Tidal Flats/Sadie Cove Fjord	Beach Bluff/Numerous Lakes
Topography	Moderate Rolling & Ridge Line	Steep Glacial/Alluvial Plains	Gently Rolling/Level
Ecological Significance	Harbor Seal/Sea Lion Rookeries	Waterfowl/Local Salmon Streams	Moose Habitat
Adjacent Land Uses	Timber Mgmt/Dispersed Rec	Dispersed Rec/Subsistence	Concentrated Recreation

Large Site Land Sales Comparison Number 1: Seal Bay/Tonki Cape

Sales comparison number 1 is the most recent activity involving the Exxon Valdez Oil Spill Trustee Council. The Seal Bay/Tonki Cape site is located on Afognak Island, and closed in November of 1993. Seal Bay (17,167 acres) and Tonki Cape (24,384 acres) are actually two distinct sites. The former is gently rolling with contiguous stands of commercial timber, where the latter is characterized by a mountainous ridge, grading into level and rolling lands along the coast. Tonki Cape vegetation is a mosaic of Sitka spruce forests, grasslands, bogs, and tundra. The commercial value of timber at Tonki Cape is questionable. Both sides support key wildlife habitats, including extensive concentrations of harbor seal, sea lion, and seabird refuges. Seal Bay also has strong recreational attributes and offers opportunities for sport fishing, duck and elk hunting, and sea kayaking. The ruggedness of Tonki Cape precludes many recreational uses, but the isolated nature of the cape in conjunction with the marine and terrestrial wildlife promotes high wilderness attributes. The seller, Seal Bay Timber Co. (A Joint Venture of AKI and OlHNC), had made preparations to harvest the Seal Bay timber units, and the construction of forest development roads has occurred throughout the area, and some actual logging occurred. The acquisition was made possible through the Exxon Valdez Oil Spill Trustee's Council's Habitat Protection and Acquisition Program. The US Fish & Wildlife Service and other governmental agencies studied both sites and concluded that a preserve would provide excellent habitat for numerous local species and wildlife and that cutting the timber would significantly reduce the effectiveness of this habitat. The presence of timber is a significant consideration and will be discussed in greater detail in the Analysis of Data Section to follow. William Wallace, an independent real estate and timber appraiser, noted approximately 140 million board feet of merchantable timber on the Seal Bay site. The objectives of the purchaser, however, are also an important consideration. The site was not purchased for logging, but for the habitat attributes inherent in the land, including functioning drainage systems and standing trees. The timber and the habitat are clearly married to a singular use in this case, and critical to the use foreseen by the purchaser; that being a combination of subsistence use, habitat maintenance and utilization for recreational purposes. It is inappropriate to conclude that more effective habitat management is achievable through disposition of merchantable timber. The price paid in the Seal Bay/Tonki Cape transaction should be taken as its market value as habitat.

Large Site Land Sales Comparison Number 2: Kachemak Bay

Land sale comparison number 2 is the second recent acquisition involving the Oil Spill Trustee Council. The property encompasses nearly the entire southwest portion of Kachemak Bay State Park on the Kenai Peninsula south of Homer. The range in topography is considerable; from the alluvial plains and tidal flats along China Poot Bay and McKeon flats to the glacier scoured walls encircling Sadie Cove. Estuarine marine life and waterfowl are plentiful, and China Poot Bay is a major haul out for harbor seals. These park inholdings also provide noted services to recreational users. Activities include pleasure boating, sport fishing for silver, pink, and sockeye salmon, clam digging, kayaking

and hiking. Portions of the site also possess merchantable timber resources. The owner, Seldovia Native Association, sold timber rights on 4,538 acres to TTC, a subsidiary of Koncor Forest Products, in 1987. Permit applications for logging a total of 5,900 acres were pending in 1993.

Like many other large inholdings in Alaska's refuges, the China Poot Bay site has been the focus of several former acquisition and exchange efforts. For 15 years, DNR worked on various land exchange proposals. An exchange proposal in 1988 provided for appraisals to be conducted by both parties and the employment of a three-member appraisal review board. Final appraisals submitted to the DNR by SNA concluded values of $22,272,000 for 19,367 acres of park land, and $4,435,000 for the 4,435 acres of commercial viable forest land. The appraisals were rejected by the state. The state appraised the property at $12,575,000. This in turn was rejected by SNA. The review panel estimated the value to be between $11.6 million and $15.5 million, depending on different logging scenarios, or $17.8 million for the entire 23,802 acres. Legislation was introduced both in 1990 and 1991 to purchase the property for $20 million, including the subsurface rights owned by CIRI. Neither bill passed the senate. In 1993 the third acquisition bill was drawn up and this time passed with combined state funding and oil spill trustee funds for a total acquisition price of $22 million dollars. The acquisition price was allocated as follows:

SNA surface rights	23,802 acres	$15,500,000
TTC timber rights	4,435 acres	4,500,000
CIRI subsurface rights	20,000 acres	2,000,000
Total		$22,000,000

As was discussed in the prior comparison, the allocations between timber, subsurface rights and surface rights is probably academic in terms of habitat.

The history of the sale is noteworthy in that it provides a timeline to examine the entrance of the Restoration Trust into the habitat acquisition market. Unlimited funds are not available to conservation groups for habitat acquisition, but the Exxon Valdez oil spill settlement and creation of the so called Restoration Trust has infused into the market a large amount of money targeted for the acquisition and preservation of habitat lands. The first scheduled payments into this trust were in December of 1991. The first habitat acquisition was in 1993. The failure of the Kachemak Bay $20 million acquisition legislation to pass in 1990 and 1991 and subsequent approval of the $22 million 1993 bill (which combines state and oil spill trustee funds) suggests stable to improving market conditions.

Large Site Land Sales Comparison Number 3: Point Possession

Point Possession, sales comparison number 3, is located on the northern portion of the Kenai Peninsula about 15 airmiles from Anchorage. The 4,481-acre property is located within the 1.35 million acres designated for wilderness in the Kenai National Wildlife Refuge. The property is gently rolling and ranges from 100 to 250 feet in elevation. The

property is bordered on the north and east by 4.58 miles of ocean front (largely gullied bluff) and contains 36 lakes, most of them accessible by float plane. Surrounding the lakes are mature spruce and birch forest interspersed with areas of grass land, providing habitat for moose, bear, wolf, and a variety of bird life, including bald eagles. These refuge inholdings, controlled by a Native group corporation, like the subject's, represent the surface estate only and are subject to 22g. The Native shareholders have had the property listed for several years and report near sales in 1992 of $4,150,000 cash ($926/acre) and $4,500,000, seller terms ($1,004/acre). The property is presently listed at $4,400,000 on terms or $4,250,000 cash. The broker indicates a small but identifiable private market of individuals, corporations, and organizations as the buyer profile. Proposals have been for a wilderness resort, private hunting club, or executive retreat. As compared to many of the Kodiak sites, this site, due to its proximity to the population centers of Anchorage, possesses greater development potential. The threat of development is an important consideration in the demand for and the funding of habitat acquisitions. However, it must be measured against the importance, quality, and pristine nature of existing habitat. A right-of-way for a buried petroleum products pipeline traverses through a 3.25 acre section of the site and there is all terrain vehicle traffic around the beach at low tide and along the pipeline corridor. Although this is a significant wilderness parcel, adjacent uses act to somewhat degrade the wildlife attributes.

LAND SALE COMPARISONS

No	Location Legal	Buyer Seller	Date	Price	Acre	$/Acre	Use
100 Acres or Less							
1	Portage Bay USS 2069	Allen et al Trillium	30-Jun-89	$ 40,000	7.89	$5,070	Lodge
2	Alitak Bay USS 2068	USF&W Trillium	9-Oct-89	$ 36,950	7.39	$5,000	Add to Refuge
3	Head of Deadmans Bay USS 1855	Gustafson Trillium	3-May-88	$ 43,200	6.4	$6,750	Recreation
4	Head of Deadmans Bay USS 1858	Johnson Trillium	19-Apr-88	$ 60,000	9.12	$6,579	Lodge/Rec
5	Snug Harbor USS 50	Ellingson Trillium	24-Jan-89	$ 100,000	29.1	$3,436	Fish Site
6	Olga Bay USS 1890	Coyle Trillium	29-Sep-88	$ 65,000	10.96	$5,931	Fish Site
7	Olga Bay USS 1889	Burkholder Trillium	18-Apr-88	$ 100,000	19.3	$5,181	Fish site/Lodge
8	Olga Bay USS 1886	King Trillium	21-Jun-88	$ 105,000	32.35	$3,246	Fish site/Lodge
9	Olga Bay USS 174	Omlid Trillium	9-Mar-89	$ 100,000	19.61	$5,099	Fish Site
10	Olga Bay USS 299	USF&W AKI	Current Offer	$ 123,000	27.36	$4,496	Add to Refuge
11	Olga Bay USS 2072	USF&W AKI	Current Offer	$ 139,000	26.79	$5,189	Add to Refuge
12	Ugak Bay ASLS 75-33 Tract A	Siedler Shear	2-Apr-91	$ 18,750	3.9	$4,808	Recreation Cabin
13	Hidden Basin/Ugak Bay ASLS 80-61 T/L 1005	Nicholson Haughey	13-Dec-89	$ 35,000	4.82	$7,261	Lodge
14	Old Afognak Native Allotment 8125 L20	Old Believers Lutien	2-Feb-94	$ 180,000	59.98	$3,001	New Village
15	Old Afognak Native Allotment 5698 L15	Fisher Skinner	16-Oct-92	$ 31,579	39.96	$ 790	Recreation Cabin (5 acres usable)
More Than 100 acres							
16	Strugeon River USS 6724	Cusack Waselie	4-Jun-92	$ 126,000	159.97	$ 788	Fishing Lodge (Contended to be below Market)
17	Olga Bay S23, T35, R30	Cusack Wichers	1-Oct-92 (Did not Close)	$ 360,000	180	$2,000	Fishing Lodge
18	Narrow Strait S17,18, T25, R22	Old Believers Mullan	1-May-89	$1,194,375	272.73	$4,379	New Village
19	Uganik Passage/Terror Bay USS 7886	USF&W Helgason	1-Jun-91	$ 470,000	151.21	$3,108	Add to Refuge
20	Pillar Mtn USS 2539 L 15	City of Kodiak Natives of Kodiak	10-Jun-93	$ 70,000	160	$ 438	Watershed (Non-Ocean Front)
21	Salonie Creek USS 2539 L 9	Kodiak Borough Leisnoi Natives	1-Oct-91	$ 537,000	660	$ 814	Open Space (Non-Ocean Front)
22	Cannery Cove Native Allotment 7588	USF&W Eluska	Current Offer	$ 510,000	149.9	$3,402	Add to Refuge

No	Location Legal	Buyer Seller	Date	Price	Acre	$/Acre	Use
Village Island Sales (Ocean Front vs Non-Ocean Front)							
23	Village Islands Tract B-4	Horwath Clayton	30-Apr-92	$ 6,000	10	$ 600	Uplands Cabin
24	Village Islands Tract A-3&4	Sumner Clayton	11-Apr-92	$ 12,000	20	$ 600	Uplands Cabin
25	Village Islands Tract B-2	Burns Clayton	26-Oct-88	$ 40,000	10.29	$3,887	Waterfront Cabin
26	Village Islands Tract B-3	Touchton Clayton	15-Jan-91	$ 14,000	10	$1,400	Uplands Cabin
27	Village Islands Tract B-1	Beck Clayton	1-Aug-88	$ 40,000	10.63	$3,763	Waterfront Cabin

The Village Island sales are analyzed as part of an assessment of value trends in ocean versus non-ocean fronting real estate. This data would indicate discounts as great or greater than 70% on non-ocean fronting property as compared to ocean fronting property.

Uyak Bay (22g) vs Amook Island (Non-22g)							
28	Uyak Bay Parcel 3207	Klika Henson	15-Nov-93	$ 17,000	9	$1,889	Recreation Cabin (22g)
29	Uyak Bay Parcel 1902	Larue Katelnikoff	7-Feb-94	$ 15,000	10	$1,500	Recreation Cabin (22g)
30	Amook Island Parcel 1409	Penwarden Davis	16-Aug-93	$ 4,000	20	$ 200	Recreation Cabin (Non 22g)
31	Uyak Bay Parcel 2204	Penwarden Davis	16-Aug-93	$ 4,000	10	$ 400	Recreation Cabin (22g)
32	Amook Island Parcel 1802	Myers Katelnikoff	5-Jan-94	$ 2,000	10	$ 200	Recreation Cabin (Non 22g)

Amook Island is an island situated in Uyak Bay. Amook Island is not subject to 22g retrictions while other lands in Uyak Bay are. A matched pair analysis to identify impacts (if any) of 22g has been attempted, but any conclusions are clouded by distressed market conditions in the Uyak Bay area.

Other Dated Large Alaska Coastal & Waterfront Conservation Land Sales							
33	Lower Taziman Lake 180 miles SW of Anchorage	US Dept Int Bristol Bay Native	1988-91	$3,715,065	9,173	$ 405	Recreation Consrvtn Esmt
34	Kachemak Bay South of Homer	State of Ak Seldovia Natives	1-Jul-83	$3,303,500	3,578	$ 923	Add to State Park
35	Kachemak Bay South of Homer	State of Ak Seldovia Natives	10-May-85	$ 900,000	960	$ 938	Add to State Park
36	Goat Island & South Pass SE Alaska	USF&W Haida Corp	1-May-88	$9,000,000	4,750	$1,895	Conservation/ Recreation
37	St Paul & St George Islands Pribilof Islands	US Dept Int Tanadgusix Corp	2-Nov-84	$7,200,000	8,000	$ 900	Conservation/ Recreation

ANALYSIS OF DATA

ANALYSIS OF DATA

The comparative data presented in the previous section, focuses on transacted sales, listings, and near sales. The comparisons become the framework around which an understanding of value influencing factors can be discussed. Because of the narrow sampling of sufficiently similar properties, it is impractical to quantify adjustments attributable to specific variables, but the discussions to follow provide the foundation for understanding value trends in this market. Issues and variables discussed in the following paragraphs include title, Government Reserved Easements, subsistence easements, surface estates, Section 22g, size of parcel, market conditions, and merchantable timber.

Property Rights

Title

Market value is always predicated on the real property interest conveyed. The land status of many Alaska lands remains subject to change as issues of title evolve and resolve. The process of conveyance and the survey and settlement of Native land claims and patented lands is ongoing, and certain land claims, i.e., unrecorded Native allotments and contested 14(c) lands, remain at large. Practically speaking, most remaining issues are of relatively minor consequence. In an evaluation of large tracts, it would seem that comparable sales would likewise be effected. As part of AKI's obligations under 14(c) of ANSCA, certain property originally conveyed to OHNC has been reconveyed to second parties who qualify for ownership. OHNC retains a right of first refusal on many of these sites. Lots adjacent to the subject lands on which OHNC retains a right of first refusal are identified on a parcel by parcel basis in the Property Identification Section. These interests, although assignable, are not part of the real estate appraised.

Government Reserved Easements

Interim Conveyance documents outline numerous public access easements, both 25-foot wide linear easements and 1-acre staging areas. These easements are authorized by section 17(b) of ANSCA and are to be managed by the Fish and Wildlife Service. The Service is mandated to work cooperatively with the affected Native corporations and other interested parties, including the State of Alaska, to develop a management program, but to date a management system has not been enacted and easements remain unmarked. The purpose of these easements is to provide access from public lands across private lands to other public lands. They are destinational easements, meaning that, for instance, sport fishing is not allowed along these easements. In this sense 17(b) access easements have only marginal potential to encumber a land owner's ability to control and manage resources. Special adjustments in the large site sales comparison approach to value are

not necessary as these conditions are also generally common to comparisons. (I have requested, but not received from EVOS, Government Reserved Easement information for the Kachemak Bay site.)

Subsistence Easements

The subject lands are being appraised first without subsistence easements, and second, subject to subsistence easements. The subsistence easement to be valued is a party specific and property specific easement to be initiated in the event of a sale to the Department of the Interior and U.S. Fish & Wildlife Service. Because provisions for subsistence use are a primary tenet in ANILCA and in the management of Alaska refuge lands, retainment of a subsistence easement on land sold to the government for management under the refuge system might be considered a promise to keep your promise. Its substantive value is actually limited. First, the likelihood of subsistence use being dropped from the refuge mandate must be considered and certainly any move to do this would probably arouse significant public pressure. Second, it can be seen that against those circumstances which would be the most likely cause for calls to drop subsistence uses (i.e. adverse impacts on fish and wildlife populations), the subsistence easement has limited force. The subsistence easement does not prevent the Secretary of Interior from closing subsistence uses for reasons of public safety or in the name of assuring a continued viability of resources. Still, the subsistence easement does contain provisions which require the termination of all other consumptive or nonconsumptive activities first. Although it is difficult to quantify a value for this right, it is noted that a 2% discount for these rights was negotiated in the ANWR Proposal. Although I know of no quantitative evidence to support this conclusion, I would agree that the subsistence easement, under these circumstances, is a nominal property right which is probably best reflected as a percent of fee value, probably falling in a range between 0% and 5%. A 2.5% discount to fee value is utilized in the calculation of the encumbered property value in this appraisal.

Surface Estate / Subsurface Estate

A discussion of fee title with and without subsurface rights is relevant. The subject lands are surface estate only. Within the refuge inholding areas the US Government has retained the subsurface estates of lands conveyed to Native corporations under ANSCA. Outside of refuge areas the United States Congress allocated to the regional corporation the subsurface estate on conveyed Native lands. Unlike a federal mining claim, ANSCA subsurface rights are a discrete portion of the fee estate. Although not practically enforceable, technically, any removal of sand, gravel, rock or silt, requires the permission of the subsurface owner. The value of the subsurface estate is obviously influenced by the presence of commercially viable minerals. In cases where there is limited evidence of viable quantities of oil, gas, coal, sand or gravel, the subsurface estate typically represents a relatively nominal percent of the surface estate. In the case of the Kachemak Bay sale, the subsurface estate represents approximately 10% of the surface estate value. The

Uyak Bay (22g) vs Amook Island (Non-22g)

No	Location Legal	Buyer Seller	Date	Price	Acre	$/Acre	Use
1	Uyak Bay Parcel 3207	Klika Henson	15-Nov-93	$ 17,000	9	$1,889	Recreation Cabin (22g)
2	Uyak Bay Parcel 1902	Larue Katelnikoff	7-Feb-94	$ 15,000	10	$1,500	Recreation Cabin (22g)
3	Amook Island Parcel 1409	Penwarden Davis	16-Aug-93	$ 4,000	20	$ 200	Recreation Cabin (Non 22g)
4	Uyak Bay Parcel 2204	Penwarden Davis	16-Aug-93	$ 4,000	10	$ 400	Recreation Cabin (22g)
5	Amook Island Parcel 1802	Myers Katelnikoff	5-Jan-94	$ 2,000	10	$ 200	Recreation Cabin (Non 22g)

Amook Island is an island situated in Uyak Bay. Amook Island is not subject to 22g retrictions while other lands in Uyak Bay are. A matched pair analysis to identify impacts (if any) of 22g has been attempted, but any conclusions are clouded by distressed market conditions in the Uyak Bay area.

Kachemak Bay sale is analyzed to reflect the surface estate only. Other primary comparisons involve surface estates only.

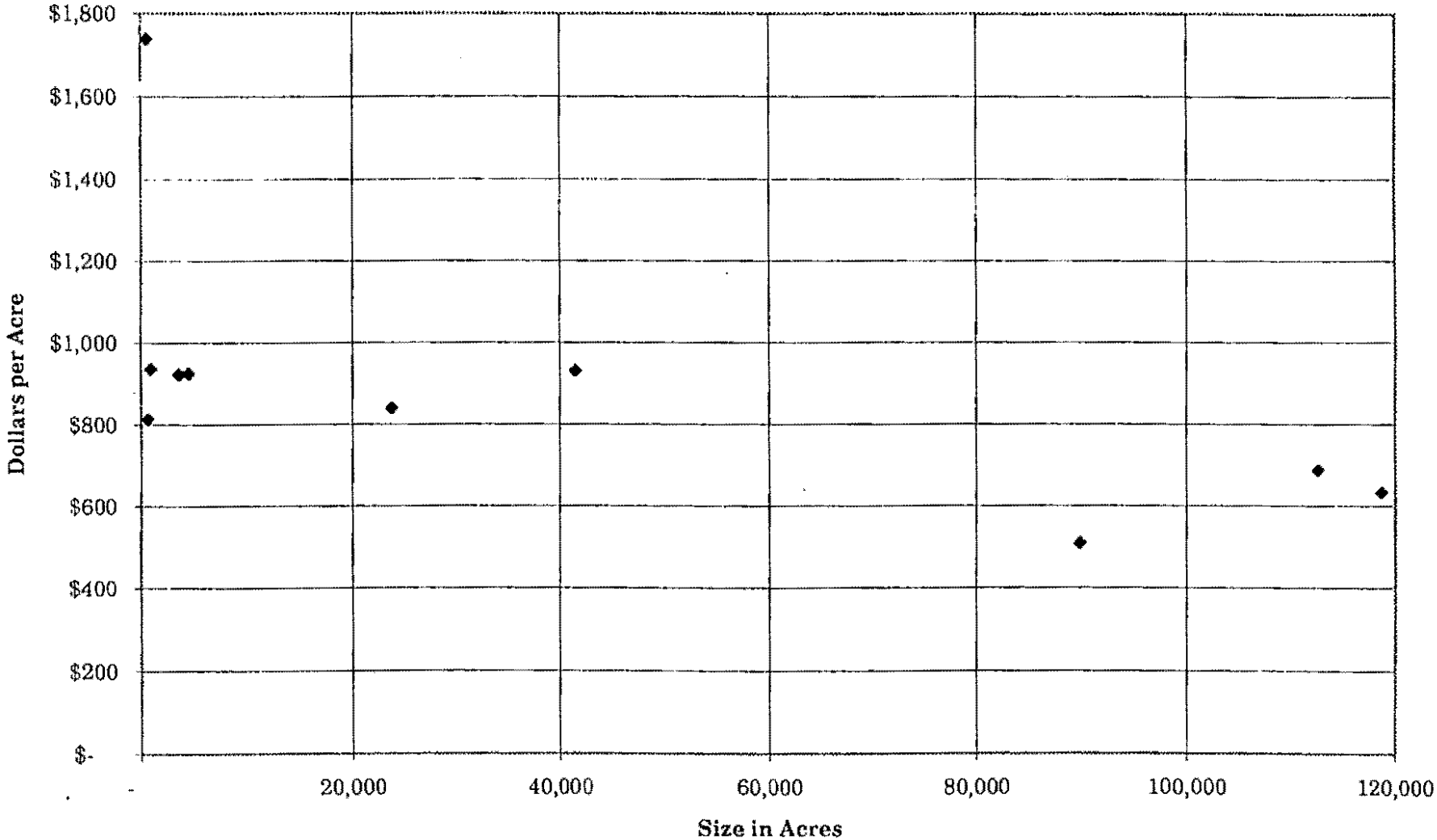
Section 22g

Those Native lands located within existing refuges pre ANILCA, according to Section 22g of ANSCA, are subject to the laws and regulations governing use and development of the effected refuge. The Kodiak Refuge has not formulated exactly what uses and developments are in compliance with refuge rules and regulations. In a 1991 U.S. Department of Interior memo to refuge managers the ability of the refuge to implement Section 22g was discussed. The goal of the Service, as outlined in this memo, is to work with land owners (rather than regulate them) to conserve fish and wildlife resources. The memo cites examples of a landfill and an airport that were approved, and a recreational development that was opposed. From a valuation standpoint, the question that needs to be answered is whether Section 22g precludes development of a site to its otherwise highest and best use. Current uses of the refuge lands include guide cabins and guide services, commercial fishing sites (set net sites with cabins), public use cabins, and other recreational opportunities. These are generally consistent with current and projected uses for the subject.

The impact of 22g on value would most directly be measured through a matched pair analysis of sites subject to 22g and sites not subject to 22g. However, because of other offsetting characteristics, it is generally difficult to isolate a single property trait. The most promising opportunity to conduct a matched pair analysis is in the Uyak Bay area where property on Amook Island is not subject to 22g and property immediately opposite on the Kodiak Island shores is. This data has been presented previously with other land sale comparisons in the Comparative Data Section and is summarized again on the page opposite. Of particular note are the two purchases by Penwarden on August 16, 1993, one a 20 acre site (non 22g) and one a 10 acre site (22g). Both were purchased for $4,000. Obviously on a $/acre basis a higher price was actually paid for the 22g land. However, this is not considered entirely conclusive one way or the other as the data is potentially skewed by distressed market conditions present in the neighborhood.

It is noted that in the 1987 ANWR Comprehensive Exchange Agreement that a 13% discount was used to reflect the impact of 22g restrictions. Supporting evidence for this conclusion is not found. In my opinion this is not an appropriate discount. Rather, it is concluded that values seen for large tract, high amenity lands are already sufficiently discounted to reflect real and perceived impacts of 22g. The valuation of a property under a highest and best use conclusion of conservation, subsistence and recreation implicitly recognizes that there is a limited demand for large scale development (the types of development most likely to contradict with refuge mandates). More intensive development, such as an airfield or resort, already falls to scrutiny under a myriad of other existing land use controls and regulatory agencies. This would include the Kodiak Island Borough, the Shorelines Management Act, The Army Corps of Engineers, and various other agencies

Size of Sales Analysis (More Than 500 Acres)



such as the U.S. Fish & Wildlife, and the State Department of Fish & Game. Development of an airfield, for example, regardless of Section 22g, would realistically require several years of predevelopment work and would inevitably face an uncertain approval. The marginal impact of Section 22g under these circumstances, where those more intensive types of development are already heavily regulated, is seen as nominal. The essence of this argument being that one more regulatory layer is of limited consequence. Those most probable uses for the subject are seen as generally consistent with refuge mandates, i.e., dispersed recreation and limited ancillary development. Higher and better uses, based on actual precedences such as the airstrip, and landfill, are not categorically ruled out under Section 22g, but are tenuous regardless of 22g. Neither market evidence nor valuation theory supports more than nominal discounts for 22g.

Size

It is quite common for a larger parcel of real estate to sell for less per square foot or per acre than a smaller one. In many real estate segments, this can be traced to supply and demand (less effective demand for large sites) and a diminishing marginal utility of additional acreage for most uses. There is also a relationship between size and price in this market. This is apparent in the market evidence which indicates (referencing comparisons), 20-acre sites selling for up to $5,000/acre, the 575-acre Ayakulik River site selling at $1,739/acre, and the 41,551/acre Seal Bay/Tonki Cape sale at $931/acre. The relationship between size and price, however, is not believed to be linear and is demonstrated on the page opposite with a graph based on primary and comparisons sized 500 acres or larger. Except for the dated and considerably larger ANWR exchange, no discernible difference is noted between properties greater than 1,000 acres.

Several reasons for this may be cited. First, larger parcels tend to have greater ecological integrity and contain more linked habitats and services than smaller ones. For the most part, the Oil Spill Restoration Team's analysis of large parcels focuses on parcels greater than 1,000 acres. Instead of exhibiting diminishing marginal utility, large habitat sites possess not only greater ecological integrity, they are typically more easily incorporated into existing conservation or habitat management systems. In addition, because of the difficulties and complexities often encountered in coordinating an exchange or acquisition in this marketplace (including surveys, appraisals, and legal work), it may be considered market savvy to focus on larger sites where administrative and closing costs can be maximized on a per acre basis. In the end, no size adjustment is noted for parcels over 1,000 acres.

Time

Concern and understanding of the environment continues to grow. Interest in preserving the environment is manifest in the passage of the Alaska Lands Act in 1980. In 1985, the Department of Interior was approached by the State of Alaska and a number of Native corporations and began negotiations in good faith for acquiring highly valued refuge

inholdings as part of the ANWR Exchange proposal. The culmination of these negotiations is a comprehensive exchange agreement signed in 1987. Although the sale did not transact, it demonstrates public interest in protecting these lands. Since that time, the Exxon Valdez ran aground, spilling millions of gallons of oil, and focusing the nations attention on the Prince William Sound area. In 1991, Exxon agreed to pay $900 million in damages, and in 1994, almost $600 million dollars remains available to fund restoration projects. Nationally, concern for the environment remains high, and appropriations made for critical habitats indicates a growing demand for environmental lands. Since 1989, there have been two transactions involving large tracts of habitat lands in the Alaska Gulf Coast region, Seal Bay/Tonki Cape at $931/acre and Kachemak Bay at $840/acre, both closing in 1993. The history of the Kachemak Bay sale is particularly interesting in that appropriation bills at $20 million dollars, including surface rights, failed in both 1990 and 1991 before passing in 1993, at $22 million dollars. National trends and recent sales data along with the infusion of Exxon's settlement funds support stable, if not increasing, market values for large tracts of remote habitat. The comparisons utilized, except for the ANWR negotiations, are considered timely.

Merchantable Timber

Conifer forests are an integral part of a woodland habitat. In sufficient quantities and densities, a conifer forest such as Sitka spruce is also an exploitable commercial resource. In such a cases, commodity production or logging is an alternative highest and best use to preservation of the natural habitat. A tract of land may support a higher fair market value when used as a source for timber than if devoted to a non-commodity use, such as a wildlife refuge. However, when a public agency or private interest acquires a tract of land for amenity use, that acquisition is a statement of opinion that amenity values exceed private commodity values.

Although comparisons made between two properties strictly based on the relative level of wildlife attributes, or fishing and hunting opportunities, may show no appreciable difference between an unforested and a forested site, a lesser level of competition between potential users can have immediate demand implications and indirectly affect values. Both the Seal Bay/Tonki Cape sale and Kachemak Bay sale involve portions of land with merchantable levels of timber. Beyond regard for the importance of these sites on an ecological scale, the wider range of alternative economic uses is apt to establish prices paid at $937 and $840/acre respectively, as an upper limit for otherwise similar unforested natural amenity land on Southern Kodiak Island. Although a property will not sell unless the seller perceives that the value meets or exceeds their market value expectations, this valuation methodology generally remains acceptable to sellers who realize that options on non-forested lands remain more limited.

ANWR Exchange

The ANWR Exchange proposal was massive in scope; a statewide proposal to exchange 891,000 acres of Native owned refuge inholdings for oil and gas interest on the Coastal Plain of the Arctic National Wildlife Refuge. The subject lands were included in this plan. The exchange proposals evolved over a several year period. Comprehensive exchange agreements was signed in 1987, but the deal was contingent on opening the ANWR area up to oil exploration, and this did not materialize. An added dimension to the ANWR proposals, outside of negotiations between the government and Alaska Native Corporations, involves option and contingency agreements entered into by Native corporations and various oil companies. These deals typically involved some sort of non-refundable option payment on the side of the oil company and a contingent agreement to purchase from the Native corporations the subsurface ANWR rights to be obtained from the government, as well as royalties on any oil and gas actually recovered. In the case of OHNC (for example) an agreement with Texaco to buy their selected ANWR tract was negotiated at the exchange value, less option payment, plus 14% royalties on oil production on the OHNC ANWR tract and one and a half percent royalties on all Texaco ANWR future production. Actual consideration to be received by the Native corporations in the ANWR proposal, therefore, does not necessarily directly correlate with the exchange values negotiated with the government. There were certain incentives for Native corporations to consummate an exchange with the government so as to initiate beneficial contingency agreements with the oil companies. Nonetheless, the background information and documented negotiations are valuable in their representation of market mechanisms for environmental lands like the subject.

Without the authority to condemn subject lands, negotiated, mutually agreed on values were a prerequisite to any deal. Appraisals failed to bring the two sides together and the negotiation process culminated in face to face negotiations between the Assistant Secretary to the Interior and each Native corporation. Negotiated values for AKI, Old Harbor and Koniag lands are presented on the facing page. The highest values (between $765/acre and $850/acre) are assigned to generally pristine areas with outstanding anadromous fishing opportunities, attracting anglers and bears alike. These are Karluk Lake and River (Koniag) Sturgeon River (Koniag), Olga Lake (AKI), Horse Marine Lagoon (AKI), and Olga Bay (AKI). These tend to be those lands most productive from a resource standpoint and many of these resources (particularly salmon) also tend to make them the most desirable for development (in the form of sport fishing and fishing lodges). Those lands valued least ($170/acre to $340/acre) are areas adjacent to significant development, or lack of site continuity due to extensive Native allotment inholdings. From a habitat orientation there is a big difference between pristine lands threatened by development, and lands where nearby existing uses already have degraded, or promise to degrade, the habitat hope to be protected. Most parcels are valued between $510/acre and $575/acre. The exchange was not completed and contingency agreements between Native corporations and oil companies represent an added dimension to this proposal. Therefore allocations between tracts may

be viewed as somewhat arbitrary, but are taken as good indications of buyer and seller perceptions.

VALUE CONCLUSIONS

VALUE CONCLUSIONS

Introduction

The subject of this appraisal is the identified holdings of AKI, located in the Kodiak National Wildlife Refuge on the southern tip of Kodiak Island. Market activity was discussed and analyzed in the Comparative Data section and additional analysis highlighting valuation issues (including title, easements, size and time) followed in the Analysis of Data section. The following conclusions are based on a review of market activity and the specific holdings of AKI. The section begins with a discussion of four defining value characteristics: waterfrontage/access, topography, ecological significance, and adjacent uses/location. These factors, along with previous discussions developed in the Analysis of Data section (i.e. merchantable timber) are then directly related to the comparisons. This information is used to develop a four tiered valuation classification system which can be applied to AKI lands.

Value Characteristics

Four characteristics are important in the valuation of the subject properties, including waterfrontage/access, topography, ecological significance, and adjacent uses/location.

Waterfrontage/Access

Waterfrontage tends to be directly related to both resource levels and potential for human use. In Kodiak and much of remote Alaska, water ways represent the transportation corridor and point of access for real estate. In areas without roads, ocean fronting tracts inherently have greater recreation, subsistence and development potential than non ocean fronting parcels. Ocean frontage in and of itself, however, does not guarantee the suitability of access or development as the type of beach front (wave-cut platforms, tidal flats, gravel beach) and quality of anchorage (exposed or protected) may either mitigate or enhance this feature. Alternatively, river frontage or lake frontage may be a substitute for ocean frontage, with typically the most advantageous combination being a navigable river mouth in a protected coastal area. Waterfrontage typically also has implications on resource attributes. Many of Kodiak's richest ecological systems are maritime and therefore accessible waterfrontage often brings together the best resources and opportunities for recreation and development. This would be the case for the Ayakulik River, and also portions of both Seal Bay and Kachemak Bay. In assessing waterfront characteristics, quantity, as measured by the ratio of front footage to acreage, tends to be important, but if it can be seen that there is an adequate number of access points, additional access points are of diminishing marginal utility.

Topography

Topographic patterns also tend to inter-relate with habitat qualities and development or recreation potential. Steeply sloping ground is neither typically ideal for habitat or development, although there are exceptions and this would include steeply sloped or cliff-like marine mammal rookery areas. Steep upland topography does not impede site utility if the shoreline has an adequate beach and a narrow strip of low lands adequate for the construction of a structure. Gently sloping, or rolling topography provides opportunities for both a wide range of habitat as well as generally meeting the requirements of most recreation and human use activity. However, like other attributes, this is tempered with the knowledge that topographic diversity is important for certain ecological purposes as well as recreational purposes. Dramatic topographic relief has recognized aesthetic qualities which add to certain recreational pursuits.

Ecological Significance

Ecological Significance is largely self explanatory. Both the Exxon Valdez Oil Spill Trustee Council "Large Parcel Valuation and Ranking" document and the US Fish & Wildlife Service's "Kodiak National Wildlife Refuge Land Protection Plan" identify priority habitats and species. Excerpts from these documents may be found in the Addendum. Areas of ecological significance may include significant concentrations of sea lions and harbor seals, intertidal areas, bear habitat, and anadromous fish streams. As many species are inter-related through the food chain, an important salmon stream is also often an important area for bears. At times, the ecological significant features also directly lends itself to active recreational pursuits, and certainly relates to subsistence use. Concentrations of salmon enhance recreation and subsistence potential. Ecologically significant areas are typically defined by overall species densities or the density of one particular significant species. On Kodiak Island productive streams supporting strong salmon runs are a defining ecologically significant trait.

Adjacent Uses/Location

An assessment of adjacent uses is two-fold. First, it addresses the pluses and minuses of proximity to other human use activities and population concentrations. This typically is a locationally relative characteristic. Because intense human use tends to degrade a natural resource base, there is an inherent conflict in the attempt to simultaneously forward conservation and human use goals. Nonetheless, a large tract of habitat land in closer proximity to a population center, and therefore more accessible to a greater number of potential human users, is of greater value than an otherwise comparable site in a more distance local. However, because of the tendency for human use to compromise the productivity of an ecosystem, most sites in more accessible locations have experienced, or risk experiencing, a diminished ecological productivity. Point Possession, just outside of Anchorage, benefits from a more centralized location and a larger associated user base, but this is off set in comparison to AKI lands by less "pristine" resources. The second item

relates primarily to adjacent uses and is an assessment of immediately adjacent land use trends. Regardless of relative proximity to population centers, active development on adjacent uses, or actual inholdings that break the continuity of a site, tend to compromise values. Site continuity and compatible uses are important for the purposes of initiating an effective and comprehensive land use program, regardless of public or private ownership.

Method of Valuation

Subject tracts have been analyzed on a section by section basis and sections fronting on the ocean have been differentiated from non-ocean fronting sections. A single per acre average value for a southeastern Kodiak oceanfront section has been derived from the market and upland acreage has been valued as a function, or a percent of the per acre value for ocean fronting sections. The premise for this approach and the underlying support for defining a relationship between ocean fronting and non-ocean fronting acreage is discussed below. The implementation of this technique on a parcel by parcel basis can be found in the Parcel Identification and valuation sections to follow. A reconciliation between the large site sales comparison approach and this analysis is also included in the following sections.

Underlying Assumptions

The market evidence presented in the sales comparison approach provides a sound basis for the valuation of OHNC lands. Through the analysis of this data, a classification system based on waterfrontage/access, topography, adjacent use/location, and ecological significance is developed and values are derived and assigned based on the pervasiveness of these characteristics as found on AKI land. Because of the dynamics of these characteristics, and a somewhat limited database of truly comparable properties, developing a reliable system of discrete dollar adjustments with which to capture the variance between the comparisons and subject tracts has not been possible. Final values arrived at in the Sales Comparison Approach section are largely based on appraisal interpretation of the extent, quality, and proportion of the four basic value characteristics identified above. While the large site sales comparison approach incorporates and assesses each of the four characteristics in arriving at a value, the premise of this alternative analysis, or check on reasonableness, while the section-by-section valuation is based primarily on waterfront characteristics. This method recognizes that if there is one defining characteristics between high value land and low value land in this market, it is related to the ratio of front footage to total acres. Inasmuch as waterfrontage is both a key access characteristic, as well as a key resource area (two of the four value characteristics) intrinsic in an analysis based on the proportion of ocean fronting acres to non-ocean fronting acres is a comprehensive adjustment for both of these factors. Through this single adjustment, a value may be obtained to compare with the value obtained in the large site sales comparison approach. It should be recognized that this technique is not necessarily designed to adjust for all potential variance in this market. Equally beneficial, and an added strength in normalizing an adjustment for the proportion of oceanfront acreage, is

Near Section Sales Comparison Analysis

No	Location	Zoning/ Estate	Acres	Water Frontage	Sale Date	Price	$/acre
1	Helgason Bear Camp/ Uganik Pass NW Kodiak Island	C (22g) less subsurface	151	9,430 ff	Jul-91	$460,000	$3,042.13
2	Old Believers "The Narrows" Site South Afognak Island	C (no 22g) less subsurface	274	10,067 ff	Nov-89	$1,164,375	$4,254.98
3	Ayakulik River/ Shelikoff Straight SW Kodiak Island	C (no 22g) less subsurface	575	2,210 ff	Aug-93 Offer	$1,000,000	$1,739.49
4	Dog Salmon Flats/ North Olga Bay South Kodiak	C (22g) less subsurface	180	3,250	Oct-92 Did not Close	$360,000	$2,000.00

the isolation of any remaining variance. In a comparison with the large site sales comparison approach, variance related to extraordinary locational attributes, resource attributes, and adjacent use or continuity will fall out and may be explained in a reconciliation of these two approaches.

Oceanfront to Non-oceanfront Adjustment

A review of property sales on or very near the ocean, versus sales of uplands away from the ocean reflects a trend of 25% to 30% of the oceanfront value. This trend is well supported by market activity in the Village Islands area of Uganik Bay, and is briefly summarized below.

Tract	Type	Date	Price	Acre	$/Acre
A3 & 4	Uplands	4/11/92	$12,000	20	$600
B2	Oceanfront	10/26/88	$40,000	10.29	$3,887
B3	Uplands	1/15/91	$14,000	10	$1,400
B1	Oceanfront	8/1/88	$40,000	10.63	$3,763

In this remote homesite subdivision, uplands or non-ocean fronting property is indicated at between 15% to 37% of oceanfront property.

Oceanfront Section Value

The final component of this model is a per/acre of value estimate for southern Kodiak waterfront sections. This may be estimated through an assessment of actual market activity involving section or near section sized parcels on Kodiak Island, primary comparisons presented previously, and an implementation of the oceanfront to non-oceanfront ratio on the historical price paid for the Seal Bay/Tonki Cape site.

Section or near section sales data is summarized opposite. Full comparison write-ups including maps and photos may be found in the Addendum. This data includes two northern Kodiak sales, the Old Believers and Helgason Bear Camp sites, which indicate per/acre values of $3,042 and $4,254, respectively. Southern Kodiak Island market data includes the Ayakulik River and Dog Salmon Flats sites at $1,739 and $2,000/acre respectively. Proximity to Kodiak City and its population concentrations are reasons for a downward adjustment to the Helgason and Old Believers sales. All four sales are analyzed with full knowledge of certain limitations inherent under a premise which proposes to employ this evidence to value significantly larger sites. Each of the comparisons is well under 1,000 acres and even if adjusted for all other property characteristics, there is a significant risk of overstating value if there is not an adequate accounting for size. It is helpful therefore, to also reference the Seal Bay/Tonki Cape and Kachemak Bay sales. Despite other differences such as merchantable timber and location, the Seal Bay/Tonki Cape and Kachemak Bay sales at $931/acre and $841/acre, respectfully, represent a

Seal Bay/Tonki Cape Section Analysis

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
21 S 16 W	19	6	6	
21 S 16 W	30	165	165	
21 S 16 W	31	127	127	
21 S 17 W	6	338	338	
21 S 17 W	7	475	475	
21 S 17 W	8	254	254	
21 S 17 W	17	258	258	
21 S 17 W	18	606		606
21 S 17 W	19	525	525	
21 S 17 W	20	41	41	
21 S 17 W	24	396	396	
21 S 17 W	25	640		640
21 S 17 W	26	154	154	
21 S 17 W	30	499	499	
21 S 17 W	31	291	291	
21 S 17 W	33	263	263	
21 S 17 W	35	334	334	
21 S 17 W	36	640		640
21 S 18 W	11	115	115	
21 S 18 W	12	619	619	
21 S 18 W	13	640		640
21 S 18 W	14	371	371	
21 S 18 W	15	115	115	
21 S 18 W	16	315	315	
21 S 18 W	17	427	427	
21 S 18 W	20	635	635	
21 S 18 W	21	529	529	
21 S 18 W	22	495	495	
21 S 18 W	23	640		640
21 S 18 W	24	640		640
21 S 18 W	25	640		640
21 S 18 W	26	640		640
21 S 18 W	27	640		640
21 S 18 W	28	640		640
21 S 18 W	29	640		640
21 S 18 W	31	611		611
21 S 18 W	32	640		640
21 S 18 W	33	640		640
21 S 18 W	34	640		640
21 S 18 W	35	640		640
21 S 18 W	36	640		640
21 S 19 W	35	640		640
21 S 19 W	36	640		640
22 S 16 W	6	146	146	
22 S 16 W	7	19	19	
22 S 16 W	18	174	174	
22 S 16 W	19	84	84	
22 S 16 W	31	13	13	
22 S 17 W	1	640	640	

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
22 S 17 W	2	564	564	
22 S 17 W	3	5	5	
22 S 17 W	4	578	578	
22 S 17 W	5	124	124	
22 S 17 W	8	400	400	
22 S 17 W	9	400	400	
22 S 17 W	11	640	640	
22 S 17 W	12	562	562	
22 S 17 W	13	640	640	
22 S 17 W	14	640		640
22 S 17 W	17	517	517	
22 S 17 W	19	24	24	
22 S 17 W	20	598	598	
22 S 17 W	23	640		640
22 S 17 W	24	582	582	
22 S 17 W	25	385	385	
22 S 17 W	26	640		640
22 S 17 W	27	640		640
22 S 17 W	28	640		640
22 S 17 W	29	640	640	
22 S 17 W	32	640		640
22 S 17 W	33	640		640
22 S 17 W	34	640		640
22 S 17 W	35	640		640
22 S 17 W	36	640	640	
23 S 17 W	1	256	256	
23 S 17 W	2	555	555	
23 S 17 W	3	608	608	
23 S 17 W	4	640		640
23 S 17 W	5	640		640
23 S 17 W	7	320		320
23 S 17 W	8	640		640
23 S 17 W	9	630	630	
23 S 17 W	10	120	120	
23 S 17 W	15	91	91	
23 S 17 W	16	488	488	
23 S 17 W	17	640		640
23 S 17 W	18	320		320
23 S 17 W	19	120		120
23 S 17 W	20	480		480
23 S 17 W	21	509	509	
23 S 17 W	22	14	14	
23 S 17 W	28	83	83	
23 S 17 W	29	215	215	
Totals		41,348	19,691	21,657

Valuation			
Description	Acres	$/acre	Total Value
Ocean Front	19,691	$1,470	$28,945,961
Non-Ocean Front	21,657	$441	$9,550,737
Totals	41,348	$931	$38,496,698

reasonable lower limit to a waterfront section per/acre value. These two latter sales, of course, reflect a blend of waterfront and non-waterfront components.

Given a fixed 30% relationship between non-oceanfront and oceanfront section values, a $/acre oceanfront section value can be derived from market comparisons and this is a compelling means of deriving size adjusted $/acre section values to supplement the market data discussed previously. Using Master Township Plat (MTP) maps obtained from the Bureau of Land Management, the Seal Bay/Tonki Cape site has been divided by sections into its oceanfront and non-oceanfront components. This is summarized on the facing page. Although acreage figures do not exactly match those indicated in the legal description (this is also apparent in completing this task for the subject) the results are effectively correct. The oceanfront section value which produces the actual blended $/acre value can be found through a basic iterative technique. This figure can be seen to be $1,470.

Conclusion

Based on available data, a $/acre oceanfront section value is estimated at $1,000. This is as much as a 100% to 200% size adjustment with regard to near section sales. It represents a slight premium over the blended unadjusted Seal Bay/Tonki Cape and Kachemak Bay sales. It is approximately $500/acre less then the disaggregated Seal Bay/Tonki Cape $/acre ocean front section value, which is reasonable given the previous analysis of this sale and the superior merchantable timber and location attributes.

Large Parcel Sales Comparisons

The comparisons presented previously are the basis for quantifying value trends and reconciling the above characteristics with other issues discussed in the Analysis of Data section (including merchantable timber). The recent Kachemak Bay sale represents a purchase of significant holdings on the Kenai Peninsula, south of Homer. This site is known to possess strong recreational and habitat linkages as well as limited stands of merchantable timber. In light of merchantable timber attributes and other characteristics, at $840/acre, this sale is considered to be superior to all but the most productive AKI holdings. The Seal Bay/Tonki Cape site had undergone preliminary preparations for commercial timber harvests (including logging road development), but the site still possess strong recreational and habitat linkages, as well as significant commercial timber. At $931/acre it is considered superior to all OHNC holdings. The Point Possession near sale and current listing does not possess particularly significant ecological resources, but this is compensated for with strong locational linkages to Anchorage and its population base. This, at $926/acre is also considered superior to all OHNC holdings. The near sale of the Ayakulik River, at $1,734/acre, suggests certain premiums for size and is a clearly superior section of land possessing the best of that ecosystem's ecological and recreational resources. Finally, the comprehensive exchange agreement signed in 1987 by OHNC and the

Department of Interior provides relative value data for OHNC land, similar to the currently proposed subdivision by the US Fish & Wildlife.

Value Trends

In the absence of merchantable timber it is clear that the market differentiates between high amenity resource lands and low amenity resources lands on the basis of such elements as waterfrontage, topography, ecological significance and adjacent uses. My observation indicates that four value tiers may be created and utilized in the valuation of OHNC holdings. For the purpose of appraisal, these are defined as Class "A", "B", "C", and "D".

Class "A" ($800 - $1,000/acre)

Class "A" lands demonstrate the highest levels of ecological significance and an enhanced potential for human use. These lands are typically characterized by one or more highly productive salmon streams. Complimenting this feature may be extensive intertidal areas and/or linkages with waterfowl habitat and bear habitat. Class "A" lands feature protected coastal areas or lakes with numerous usable beach points which maximize access potential for recreation and subsistence use. Continuity of site insures maximum control over resource management, and minimizes unwanted intrusions and developments. Small parcel inholdings are minimal.

Class "B" ($600 - $800/acre)

Class "B" lands are characterized by a high level of ecological significance and identifiable opportunities for human use. Typically this takes the form of one or more moderately productive salmon streams. Extensive intertidal areas and linkages with water fowl and bear habitat may be present. These areas generally contain a relatively high proportion of protected coastal areas or lakes providing at least several usable beach points suitable for recreation and subsistence users and moderate ancillary development. Continuity of the site ensures control over most key resource areas, but not all.

Class "C" ($400 to $600/acre)

Class "C" sites are typically less uniform than Class "A" and "B" sites. A Class "C" site may possess a high level of ecological significance, which is offset by difficult access and a particularly remote location, or possess habitat resources compromised by small parcel inholdings (i.e. at the mouth a key stream). Conversely, a Class "C" site might be well located with respect to recreational and subsistence users, but possess only average habitat (i.e. only marginally productive salmon streams). The proportion of uplands to front footage may differentiate a Class "C" site from a Class "B" site.

Class "D" (Less than $400 / acre)

A Class "D" site possesses a significant shortcoming that detracts from its utility for subsistence and recreation and typically it contains only marginal ecological significance. Typical would be an instance where extensive Native allotments comprise a significant portion of a site's waterfrontage. Other issues are adjacent development that is not consistent with and/or degrades the site's natural resources.

AKI01
KAIUGNAK BAY

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

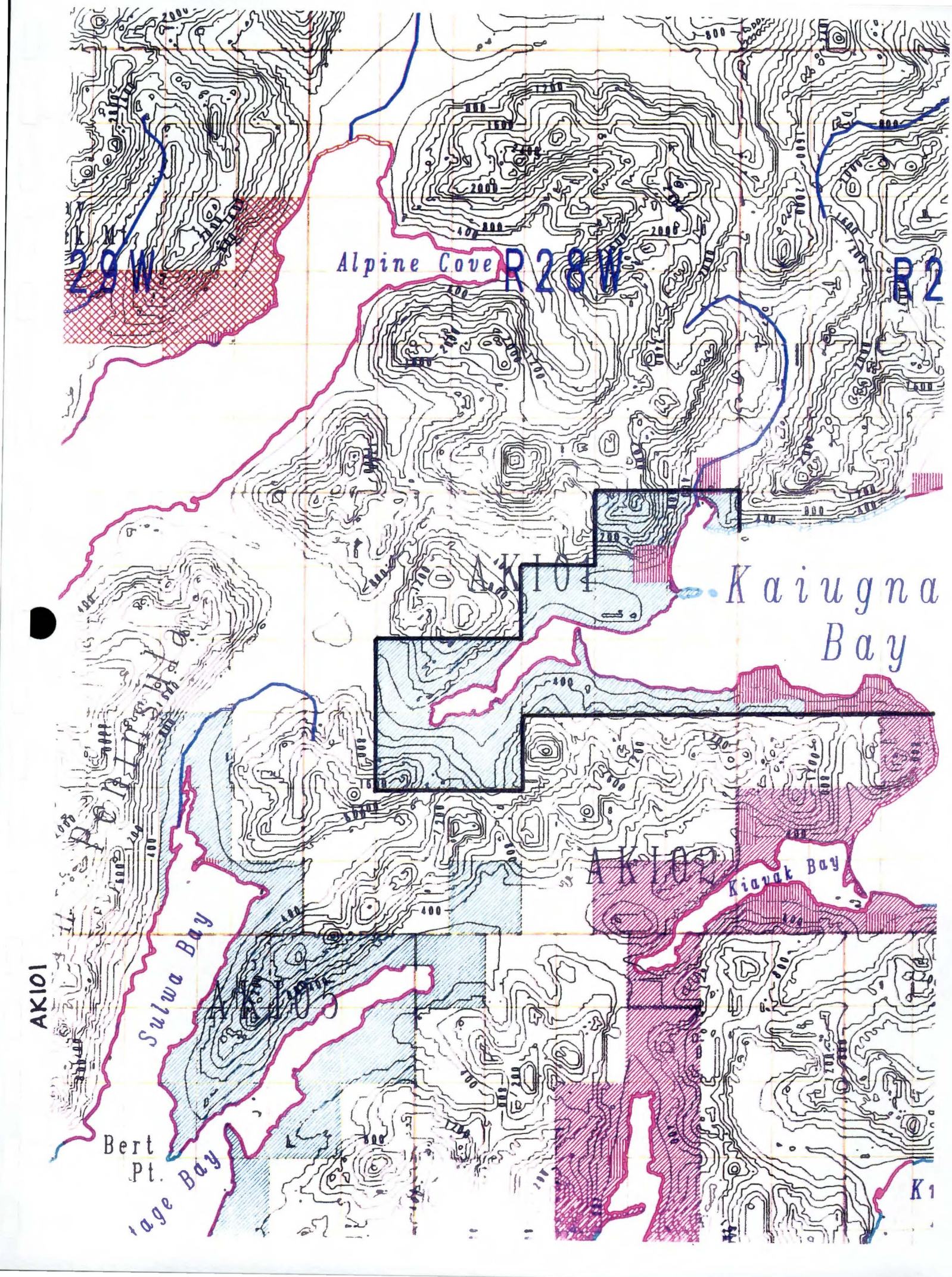
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


R28W
R28W
R2
Alpine Cove
AK104
Kaiugna
Bay
AK102
Kiavak Bay
AK105
Sulwa Bay
AK101
Bert
Pt.
K1

KAIUGNAK BAY

Kaiugnak Bay extends inland approximately six miles. The main western branch (seen above) terminates in a tidal lagoon. The view here is easterly out of Kaiugnak Bay, across a gravel spit that separates the upper bay from the lower bay. Boat access above the spit is best had at high water. The southern property line is found approximately one half mile inland, halfway up the slopes. Mountains shown here are approximately 2,000ft at their highest.

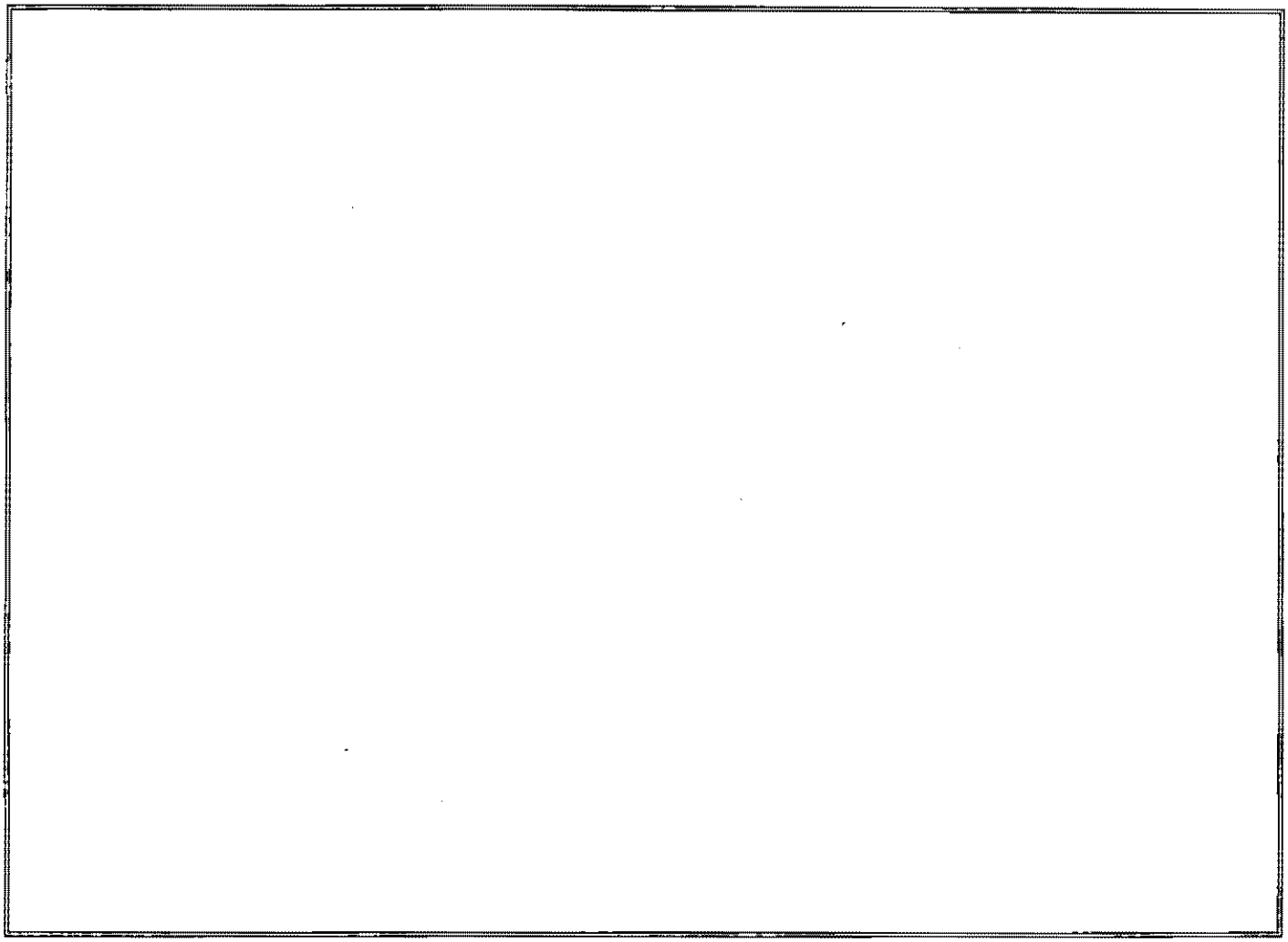
Photographer: Paul Bottge
Date: June 27, 1994

KAIUGNAK BAY

The above beach site is located on the gravel spit that separates upper and lower Kaiugnak Bay. This represents one of the better access points in the bay. In general, ocean frontage is comprised both of mixed sand and gravel and wave-cut platforms and points of access are adequate.

Photographer: Paul Bottge
Date: June 27, 1994

KAIUGNAK BAY



The above beach site is located on the gravel spit that separates upper and lower Kaiugnak Bay. This represents one of the better access points in the bay. In general, ocean frontage is comprised both of mixed sand and gravel and wave-cut platforms and points of access are adequate.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI01

IDENTIFICATION — **KAIUGNAK BAY**

Location

Kaiugnak Bay is located on the eastern shore of Kodiak Island at the southern entrance to Sitkalidak Strait. Kaiugnak Bay and Kiavak Bay, collectively known as Wide Bay, indent the western shore of the strait between Cape Kasiak and Cape Kiavak. By boat, Kaiugnak Bay is about 14 miles southwest of Old Harbor and 22 miles northeast of the abandoned village of Kaguyak.

SITE DESCRIPTION

General

Kaiugnak Bay extends inland approximately six miles. The bay's northwest branch terminates in a large water fall. The main western branch terminates in a tidal lagoon. AKI01 includes the northern and southern shorelines of Kaiugnak Bay as well as the area at the head of the main branch.

Size

5,230 acres

FF Waterfrontage

Shoreline Type	FF	%
Exposed Rocky Shores	2,668	4%
Exposed Wave-cut Platforms	3,862	5%
Mixed Sand and Gravel Beaches	31,392	43%
Sheltered Rocky Shores	35,648	48%
Total	73,570	100%

Front Foot/Acre

14.06

Access

Access to Kaiugnak Bay is by boat or float plane. Anchorage for all weather except east gales is provided in the southwest part of Kaiugnak Bay. The lagoon at the head of the main branch is only accessible by boat at high water.

Topography

Gently rolling to steep. The south side of the bay slopes moderately, climbing to elevations of between 1,000ft to 2,000ft. Three mountainous peaks frame the north side of the bay. Two valleys extend down between these mountains into the northwest branch of the bay, providing good upland access. A level gravel spit effectively separates the head of the main branch from the lower bay.

Shoreline Types

A gravel spit almost completely separates the main branch from lower Kaiugnak Bay. The lower half of the bay is bordered by an irregular coastline of gravel beaches and sea cliffs. There are some coarse grain sandy beaches found in the northwest branch of the

bay. The upper Kaiugnak Bay tidal lagoon is lined by sheltered sandy and gravel beaches.

Vegetation / Ground Cover

Alder brush and cottonwoods are predominate along most topographic features, including stream beds, ravines, and other sheltered depressions. Grasses dominate the spit and provide infill around trees and bushes.

Species

The bay receives use from brown bear in the spring. There are five moderately productive salmon streams supporting pink and coho populations. Extensive mussel beds and eelgrass are found in the interior lagoon and spit areas. There are seven documented bald eagle nest sites.

POSSESSORY INTERESTS

Leases

AKI01 is located within brown bear permit area 236. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $6,000 (Gus Lamoureux).

Easements

Interim Conveyance 934 identifies six government reserved easements: EIN 1 D9, EIN 1a D1, EIN 2 D9, EIN 2a D1, EIN 3C6 D9 and EIN 3a D1. There are also two access easements related to the Lamoureux estate.

Other

AKI has reconveyed a 7,590sf site to Gus Lamoureux per 14(c) obligations and retains a 99-year right of first refusal, which commenced July 23, 1993.

IMPROVEMENTS

Unimproved

USE

There is little evidence of human use. Gus Lamoureux runs a bear camp based off his property adjacent to the spit. Subsistence and recreational uses are pursued by residents of Old Harbor. There are three undeveloped, privately owned small parcels at the head of the northwest branch.

OIL SPILL TRUSTEE COUNCIL RATING

45 - medium

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI01

Discussion

AKI01 maximizes ocean frontage as it contours both sides of the head of Kaiugnak Bay. Total ocean frontage is measured at 73,570 lineal feet, or approximately 14 miles. Not surprisingly, there is a relatively high 14.06 ratio of front footage for each acre. Ocean frontage is important, as it is coastal area, rivers, and lakes that are typically most accessible for recreational and subsistence purposes, and also tend to possess the greater ecological diversity and productivity. Quality of ocean frontage is tempered by exposure and beach characteristics. Exposure is a measure of anchorage and access attributes. Although the entirety of the shoreline need not be ideally suited for access and beach landings, beaches and coves providing anchorage and access to boats and floatplanes are desirable. Kaiugnak Bay is protected from most weather, except east gales. Kaiugnak Bay is also favored with sheltered sand and gravel beaches, which comprise 91% of the shoreline. However, 43% of the protected beach area is found in an upper tidal lagoon area which is accessible only at high-water. This compromises accessibility to the upper bay somewhat, although the upper bay otherwise possesses favorable open beaches (generally low bank with moderately sloping uplands) and rich resource areas including several moderately productive salmon streams at the head of the bay. The lower bay possesses more convenient accessibility at low tides, although there is high-bank topography, particularly along the south shore. The northwest branch of Kaiugnak Bay contains dramatic topography with abruptly rising headlands and mountains, coupled with two sheltered coves and valleys. Unfortunately, two Native allotments carve out the most desirable sites at the juncture of anadromous fish streams and the ocean. The Kaiugnak Bay site is generally protected, and accessible with good resource attributes, although there are several Native allotments which compromise some key access points and resource areas.

Summary

Waterfrontage/Access:	**Above average:** High 14.06 front foot/acreage ratio, protected bay, upper bay access at high water only.
Topography:	**Average:** Gently rolling to steep slopes, adequate useable low bank beaches.
Adjacent Use/Location:	**Below average:** Little evidence of human use, Native allotments compromise northwest branch.
Ecological Significance:	**Above average:** Several moderately productive salmon streams. Extensive intertidal areas. Spring bear concentrations.

Conclusion

Class "A"	$800/acre times 5,230 acres equals $4,184,000

Alternative Valuation: AKI01

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
36S 27W	18	130		130
36S 28W	1	230	230	
36S 28W	2	640	640	
36S 28W	10	500	500	
36S 28W	11	382	382	
36S 28W	12	43	43	
36S 28W	13	240	240	
36S 28W	14	315	315	
36S 28W	15	490	490	
36S 28W	16	410	410	
36S 28W	17	610	610	
36S 28W	20	630	630	
36S 28W	21	640	640	
Totals		5,260	5,150	130

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	5,130	$1,000	$5,130,000
Non-Ocean Front	130	$300	$39,000
Totals	5,260	$983	$5,169,000

RECONCILIATION: AKI01

The large site sales comparison approach indicates a value of $800/acre or $4,184,000. The Land Sales Comparison Approach Valuation produces a figure of $5,169,000, based on $983/acre. This is 23% greater than the large site sales comparison approach. Although a 5% to 10% variance is not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Two extraordinary items are noted. First, although a generally well protected bay, access by boat to AKI01 requires travel along exposed portions of eastern Kodiak Island and the site is somewhat more removed from either Old Harbor or Akhiok Villages than is typical. Second, it should be borne in mind that the $1,000/acre value assigned to waterfront sections in the alternative analysis reflects a perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones, and overall shoreline values will converge at the central tendancy of $1,000/acre. The presence of Native allotments and other inholdings, which typically have been selected for their prime waterfront attributes, tends to negatively skew the actual central tendency of a parcel. Although AKI01 is largely contiguous, several key access points and resource areas are compromised by Native allotment inholdings. This explains the variance between the Land Sales Comparison Approach Valuation and direct capitalization approaches.

Final Value Estimate $4,200,000

AKI02
KIAVAK BAY

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

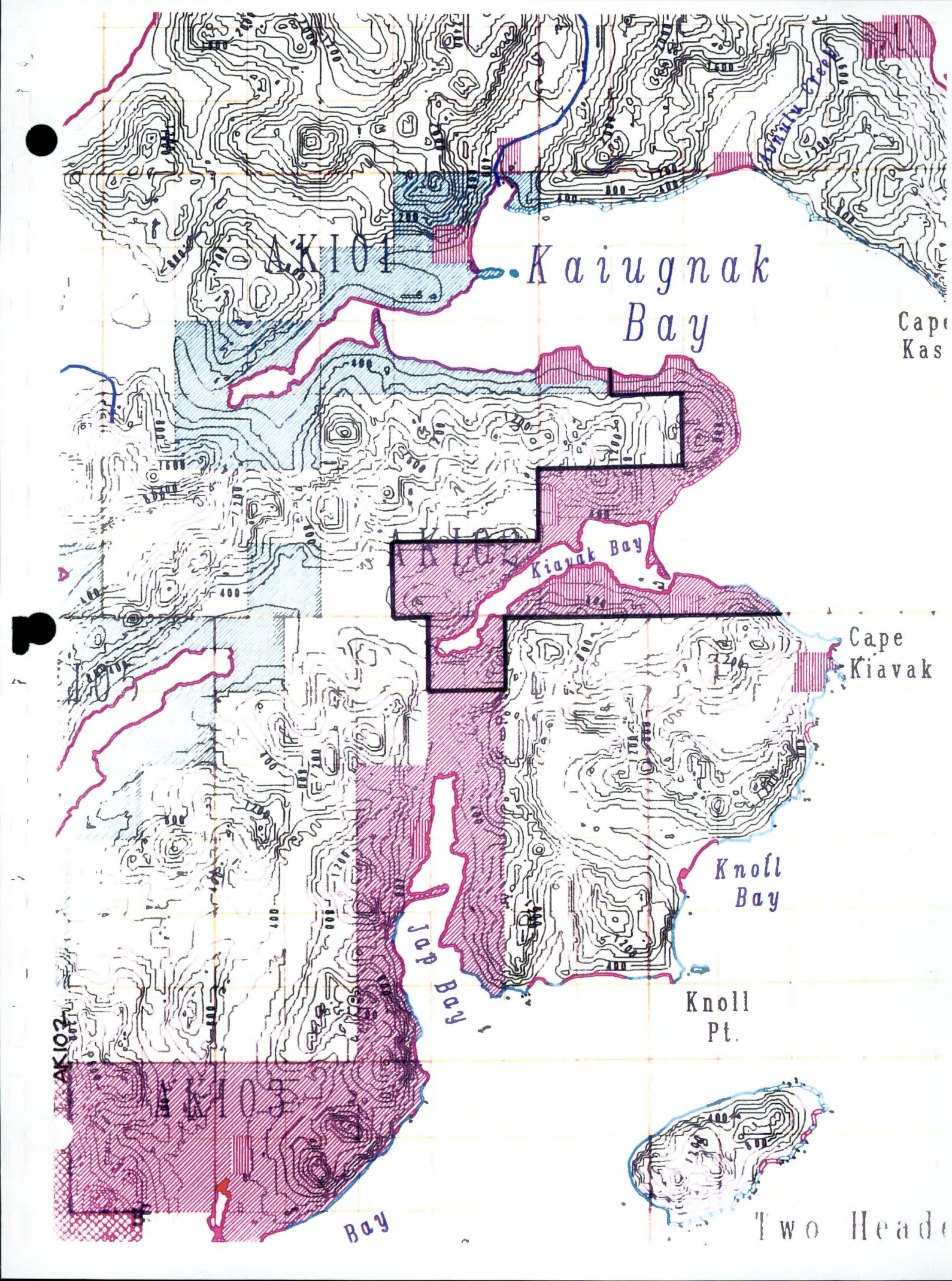
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK101
Kaiugnak Bay
Cape Kas
Kiavak Bay
AK102
Cape Kiavak
Knoll Bay
Jap Bay
Knoll Pt.
AK103
Bay
Two Heade

KIAVAK BAY

Kiavak Bay reaches approximately five miles inland. The easterly view above, captures the relatively broad valley found at the head of the bay and the moderately sloping valley walls. Not seen in the picture here is a gravel spit which almost entirely divides the upper and lower portions of the bay. Boat access to the rich intertidal areas pictured above (at high tide) is only had at high water.

Photographer: Paul Bottge
Date: June 27, 1994

KIAVAK BAY

AKI02 includes the northern and southern shoreline areas of Kiavak Bay and the headlands (partially visible at right) separating Kiavak Bay from Kaiugnak Bay. The headlands areas themselves rise abruptly from the ocean frontage. At left, almost completely traversing the bay, is a level gravel spit.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI02

IDENTIFICATION — KIAVAK BAY

Location

Kiavak Bay is located on the eastern shore of Kodiak Island at the southern entrance to Sitkalidak Strait. Kaiugnak Bay and Kiavak Bay, collectively known as Wide Bay, indent the western shore of the strait between Cape Kasiak and Cape Kiavak. By boat, Kiavak Bay is about 18 miles southwest of Old Harbor and 18 miles northeast of the abandoned village of Kaguyak.

SITE DESCRIPTION

General

Kiavak bay reaches approximately five miles inland. AKI02 includes the northern and southern shoreline areas of Kiavak Bay as well as an area at the head of the bay and the headlands area separating Kiavak Bay from-Kaiugnak Bay.

Size

4,012 acres

FF Waterfrontage

Shoreline Type	FF	%
Exposed Wave-cut Platforms	4,743	6%
Mixed Sand and Gravel Beaches	8,755	12%
Gravel, Cobble, Boulder Beaches	14,694	20%
Sheltered Rocky Shores	45,487	62%
Total	73,679	100%

Front Foot/Acre

18.36

Access

Access to Kiavak Bay is by boat or floatplane. Good anchorage is found beyond a gravel spit near the mouth of the bay. Access to the inner bay by boat can only be had at high water.

Topography

The topography is gently rolling to steep. A fairly broad valley is found at the head of the bay. The north side of upper Kiavak Bay rises steadily from sea level to a height of 900ft. A 1,400ft mountain separates the mouth of Kiavak Bay from Kaiugnak Bay to the north. The south side of the bay encompasses moderately sloping hillsides. Kiavak Bay itself is almost completely divided by a level gravel spit.

Shoreline Types

Three streams drain into the lower two thirds at the embayment, adding to the irregular shoreline features. The upper half of the bay is a tidal lagoon or estuary, lined by a mixture of sandy beaches, tide flats, and sea cliffs.

Vegetation / Ground Cover

The dominant low land vegetation is grasslands. Alder brush and cottonwoods are predominate along the streams and deltas. Eelgrass beds are found within the embayment.

Species

A high number of harbor seals concentrate around the gravel spit. Kiavak Bay serves as a wintering area for waterfowl. Brown bear utilize the bay in the spring time. Kiavak Bay and its near shore waters serve as a major intertidal spawning area for salmon. There are eight documented eagle nest sites.

POSSESSORY INTERESTS

Leases

AKI02 is located within brown bear permit area 237. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $8,000 (Andy Runyan).

Easements

Interim Conveyance 934 identifies four government reserved easements: EIN 4D9, EIN 4aD9, EIN 5 D9, EIN 5A D1.

Other

AKI has reconveyed a 7,590sf site to Andy Runyan per 14(c) obligations and retains a 99-year right of first refusal, which commenced July 23, 1993.

IMPROVEMENTS

Unimproved

USE

There is little evidence of human activity. A bear guide camp run by Andy Runyan has long been located in the bay. Subsistence and recreational activities are pursued here by the residents of Old Harbor. Apparently the U.S. Fish and Wildlife once suggested development of a campsite here, due to recreation and wilderness attributes found in the bay. Several Native allotments are found on the south shore, just inside the spit, breaking up the continuity of this shoreline. Except for Andy Runyan's guide cabin, there is no noted development on these parcels.

OIL SPILL TRUSTEE COUNCIL RATING

30 - low

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI02

Discussion

AKI02 maximizes ocean frontage as it contours both sides of the head of Kiavak Bay and the headlands between Kiavak and Kaiugnak Bay. Total ocean frontage is measured at 73,679 lineal feet, or approximately 14 miles. Not surprisingly, there is a very high 18.36 ratio of front footage for each total acre. Ocean frontage is important as it is coastal areas, rivers, and lakes that are typically the most accessible and also tend to possess the greater ecological diversity and productivity. The quality of ocean frontage is tempered by exposure and beach characteristics. Exposure is a measure of anchorage and access attributes. Protected beaches allow access by boats and floatplanes, and this is desirable from a recreational and subsistence standpoint. Kiavak Bay is protected from most weather except east gales. Kiavak Bay is favored with sheltered sand and gravel beaches, which together comprise 94% of the shoreline. However, 62% of the protected beach area is found in an upper tidal lagoon area which is boat accessible only at high water. This compromises the upper bay somewhat, although it otherwise possesses many favorable open beaches. A significant stretch of beach on the north shore of the upper bay is relatively steep high-bank, diminishing the utility of the specific beach area. The upper bay is also a highly productive intertidal resource area and there are several moderately productive salmon streams. Just inside the mouth of the bay, and outside the lagoon, there are two desirable beach areas with low bank uplands and convenient access. One of these is also the site of an anadromous salmon stream. Unfortunately, the actual juncture of the salmon stream and the shoreline falls within a Native allotment. The headlands between Kiavak Bay, and Kaiugnak Bay to the north, is steeply sloping and exposed. Overall, Kiavak Bay is a generally protected and accessible site with good resource attributes. Difficult terrain characterizes the outer bay.

Summary

Waterfrontage/Access:	**Above average:** High 18.36 front foot to acre ratio. Protected bay, upper bay access at high-water, adequate lower bay access points.
Topography:	**Average:** Gently sloping to steep, adequate low bank slopes interspersed among high-banks.
Adjacent Uses/Location:	**Below average:** Limited evidence of human use. Native allotment at one key stream point.
Ecological Significance:	**Average:** Extensive intertidal. Moderate to low salmon productivity. Spring concentrations of brown bear.

Conclusion

Class "B"	$700/acre times.4,012 acres equals- $2,880,400

Alternative Valuation: AKI02

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
36S 27W	16	130	130	
36S 27W	17	75		75
36S 27W	21	430	430	
36S 27W	28	15	15	
36S 27W	29	375	375	
36S 27W	30	513	513	
36S 27W	31	417		417
36S 27W	32	285	285	
36S 27W	33	290	290	
36S 27W	34	50	50	
36S 28W	35	640	640	
36S 28W	36	480	480	
37 S 28 W	3	535	535	
Totals		4,235	3,743	492

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	3,743	$1,000	$3,743,000
Non-Ocean Front	492	$300	$147,600
Totals	4,235	$919	$3,890,600

RECONCILIATION: AKI02

The large site sales comparison approach indicates a value of $700/acre or $2,808,400. The Land Sales Comparison Approach Valuation produces a figure of $3,890,600 based on $919/acre. This is 31% greater than the large site sales comparison approach. Although a 5% to 10% variance is not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Three extraordinary items are noted. First, although a generally well protected bay, access by boat to AKI02 requires travel along exposed portions of eastern Kodiak Island and the site is somewhat more removed from either Old Harbor or Akhiok Village than is typical. Second, access to 62% of the shoreline area is inhibited by a spit near the mouth of the bay. Third, it should be borne in mind that a $1,000 an acre value assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the central tendency. The presence of Native allotments and other inholdings which typically have been selected for their prime waterfront attributes, tends to negatively skew the actual central tendency of a parcel. Several key AKI02 access points and resource areas are compromised by Native allotment inholdings. This explains the variance between the Land Sales Comparison Approach Valuations and large site sales comparison approaches.

Final Value Estimate $2,800,000

AKI03
JAPANESE AND KAGUYAK BAY

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

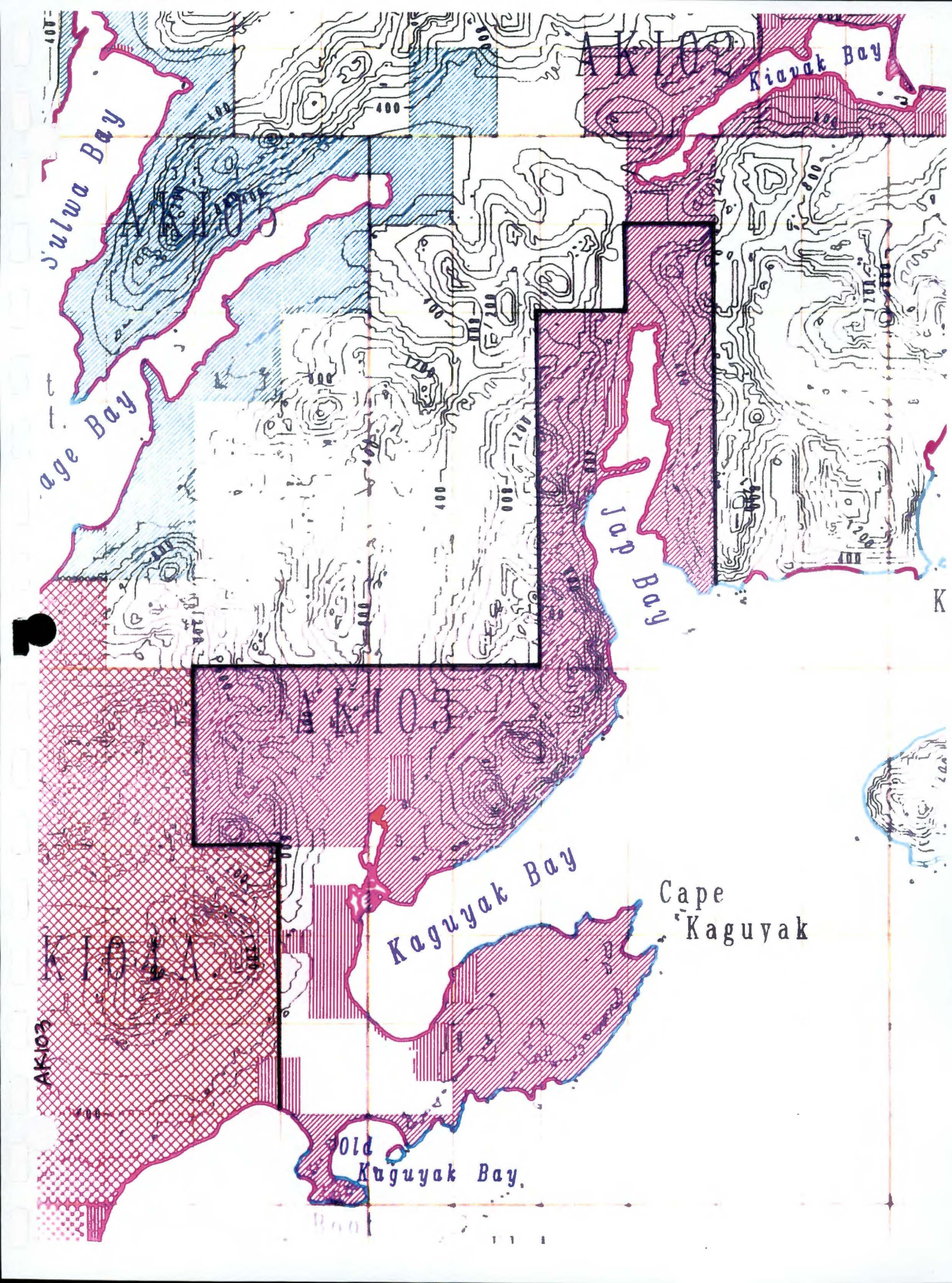
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK102
AK103
AK103
Kiavak Bay
Jap Bay
Kaguyak Bay
Cape
Kaguyak
Old
Kaguyak Bay
AK103

JAPANESE AND KAGUYAK BAYS

AKI03 extends approximately ten miles (north to south) from a point at the head of Japanese Bay (seen above) to Boot Point, just south of Kaguyak Bay. Japanese Bay opens to the south, and this photo looks northerly up the bay across a sea bird rookery in the foreground. In the distance, the gravel spit which separates upper Japanese Bay from Lower Japanese Bay can be seen. Good access and protection is found within the confines of Japanese Bay. The headlands extending between Japanese Bay and Kaguyak Bay (commencing at left) are generally "foul" terrain.

Photographer: Paul Bottge
Date: June 27, 1994

JAPANESE AND KAGUYAK BAYS

Unlike the mountainous terrain surrounding Japanese Bay, Kaguyak Bay (pictured here) is a gently undulating benchland. Frontage along the sweeping gravel beach in the foreground is not a part of the appraised parcel, but a part of the old Kaguyak Village site. At left, in the distance, this easterly view captures a portion of Two-Headed Island offshore.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI03

IDENTIFICATION — JAPANESE AND KAGUYAK BAYS

Location

Japanese and Kaguyak Bays are located on the east shore of the Aliulik Peninsula on the southern tip of Kodiak Island. Two Headed Island is located approximately two miles off shore. Old Harbor is approximately 32 miles to the northeast by boat.

SITE DESCRIPTION

General

AKI03 extends approximately ten miles (north to south) from a point at the head of Japanese Bay to Boot Point, just south of Kaguyak Bay. Japanese Bay itself opens to the south and reaches inland approximately three miles. Kaguyak Bay, four miles to the south of Japanese Bay, opens to the northeast. The continuity of the site is broken by the Old Kaguyak Village site (not to be appraised) located at the head of Kaguyak Bay. The village site separates lands on Cape Kaguyak from the main Aliulik Peninsula.

Size

12,620 acres

FF Waterfrontage

Shoreline Type	FF	%
Exposed Wave-cut Platforms	60,915	39%
Mixed Sand and Gravel Beaches	53,447	35%
Sheltered Rocky Shores	34,756	23%
Marshes	5,185	3%
Total	154,304	100%

Front Foot / Acre

12.23

Access

Access is by boat or floatplane. Japanese Bay consists of an inner and an outer bay. Good anchorage is found at the head of the outer bay. Access to the upper bay is via a narrow 190-yard channel. Much of the shoreline between Kaguyak Bay and Japanese Bay is "foul". Good anchorage from west and south winds is had at the head of Kaguyak Bay. Old Kaguyak Bay on the south side of Cape Kaguyak provides good anchorage in north weather.

Topography

The topography of the Aliulik Peninsula contains two distinct physiographic units. The north unit is mountainous, rising to 2,215sf, and the south unit is primarily a low (< 500ft) benchland. Japanese Bay is contained within the northern unit and Kaguyak Bay is in the southern unit. Although the head of Japanese Bay is marked by a low lying valley, the bay sides are mountainous, rising steeply to elevations of between 1,743ft and 1,955ft. The area between Japanese Bay

and Kaguyak Bay is also mountainous. Cape Kaguyak itself rises only 300 feet.

Shoreline Types

Shorelines at the mouth of Japanese Bay are generally rugged, wave-cut platforms. A gravel spit at the midpoint of Japanese Bay marks a transition to less severe rocky shorelines at the head of the bay. The shoreline of Cape Kaguyak and Boot Point are mostly steep bluffs and sea cliffs. Old Kaguyak Bay features a fine-sand beach. A marshy section of land just north of the Old Kaguyak reaches almost a mile inland.

Vegetation / Ground Cover

The vegetation of Japanese Bay includes alder and cottonwood at mid and low elevations, with upland zones tending towards meadows, low shrubs, and bare rock. The Kaguyak area is characterized as shrub tundra, and is intersected by numerous draws and drainages. Meadows, bogs, and shallow ponds occur throughout the lower unit.

Species

Moderately productive fish streams for pinks, coho, and chum are located at the head of both Japanese and Kaguyak Bays. Waterfowl summer use and over-wintering occurs in both bays. A sea bird rookery is located on a small islands at the mouth of Japanese Bay.

POSSESSORY INTERESTS

Leases

AKI03 is located within brown bear permit area 237. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $8,000 (Andy Runyan).

Easements

Interim Conveyance 934 identifies two government reserved easements, EIN 10D9, EIN10aD9.

IMPROVEMENTS

No existing improvements

USE

The 1964 tidal wave destroyed the Village of Kaguyak (pop 38). This village, formerly located at the head of Kaguyak Bay, has not been rebuilt. The village site is not part of the appraised property, but it is of note that this site is not subject to ANSCA's section 22g. AKI has proposed a recreation cabin and lodge for the Kaguyak Village site. Historical subsistence use of this area by the villagers of Kaguyak was high. Today there is only limited subsistence activity by both Old Harbor and Akhiok villages. There is little evidence of current use, but future use patterns may increase in conjunction with any new development in the Kaguyak Village Site.

OIL SPILL TRUSTEE COUNCIL RATING

30 - low

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI03

Discussion

AKI03 extends from the head of Japanese Bay, south along the shoreline to Cape Kaguyak. Extensive shoreline, 154,304 lineal feet, or 29 miles and a 12.23 front foot to acre ratio suggests good waterfront accessibility, but belies significant stretches of rugged and exposed coastline, particularly along the headlands between the two bays (which is mountainous, rising abruptly to almost 2,000ft) and along the perimeter of Cape Kaguyak itself. Exposed wave-cut platforms make for 39% of the shoreline. This has concentrated resources and uses in those areas which do allow for anchorage and beach access. Examples are found at the head of Japanese Bay, Kaguyak Bay, Old Kaguyak Bay, and at several smaller protected coves in and around Cape Kaguyak. Japanese Bay and Kaguyak Bay provide for numerous access points and protection from more extreme ocean influences. Kaguyak Bay itself formerly supported the village of Kaguyak, and this historical use is important in as much as Native villages are traditionally located to take advantage of high natural resource attributes and access attributes and these are desirable from a valuation standpoint as well. Although the village site itself is not subject to appraisal, areas in and around it, and containing significant salmon spawning habitat in Japanese Bay and Kaguyak Bay, are.

Summary

Waterfrontage/Access:	**Average:** Relatively 12.23 front foot to acre ratio. Compromised by significant portions of foul coastline, but several key access points.
Topography	**Average:** Mountainous to rolling benchland.
Adjacent Use/Location:	**Below average:** Eastern shores are quite remote. The Old Kaguyak Village site breaks site continuity.
Ecological Significance	**Average:** Intact ecosystem, moderately productive salmon streams, water fowl.

Conclusion

Class "C"	$600/acre times 12,620 acres equals $7,572,000

Alternative Valuation: AKI03

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
37 S 28 W	10	640	640	
37 S 28 W	15	490	490	
37 S 28 W	16	595	595	
37 S 28 W	21	540	540	
37 S 28 W	22	420	420	
37 S 28 W	27	430	430	
37 S 28 W	28	340	340	
37 S 28 W	33	490	490	
37 S 28 W	34	30	30	
38 S 28 W	4	480	480	
38 S 28 W	5	640		640
38 S 28 W	6	594		594
38 S 28 W	7	521	521	
38 S 28 W	8	560	560	
38 S 28 W	9	75	75	
38 S 28 W	15	15	15	
38 S 28 W	16	100	100	
38 S 28 W	17	55	55	
38 S 28 W	18	242	242	
38 S 28 W	19	39	39	
38 S 28 W	20	570	570	
38 S 28 W	21	575	575	
38 S 28 W	22	75	75	
38 S 28 W	28	240	240	
38 S 28 W	29	495	495	
38 S 28 W	30	0	0	
38 S 28 W	31	80	80	
38 S 28 W	32	5	5	
38 S 29 W	1	640		640
38 S 29 W	2	640		640
38 S 29 W	11	640		640
38 S 29 W	12	640	640	
38 S 29 W	36	249	249	
Totals		12,145	8,991	3,154

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	8,991	$1,000	$8,991,000
Non-Ocean Front	3,154	$300	$946,200
Totals	12,145	$818	$9,937,200

RECONCILIATION: AKI03

The large site sales comparison approach indicates a value of $600/acre or $7,572,000. The Land Sales Comparison Approach Valuation produces a figure of $9,937,200 based on $818/acre. This is 36% greater than the large site sales comparison approach. Although a 5% to 10% variance is not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Two extraordinary items are noted. First, the eastern shores of the Alulik Peninsula tend to be particularly remote and difficult to access. Second, it should be borne in mind that the $1,000/acre value assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the central tendency. The presence of Native allotments or other inholdings (in this case the Old Kaguyak Village site) which typically have been selected for their prime waterfront attributes, tend to negatively skew the actual central tendency of a parcel. Much of the shoreline between Japanese Bay and Cape Kaguyak is foul ground and while under other circumstances this would be tempered by the good access characteristics demonstrated at the Old Kaguyak site, this area is excluded from the valuation. This explains the variance between the Land Sales Comparison Approach Valuation and large site sales comparison approaches.

Final Value Estimate $7,600,000

AKI04A
MIDDLE ALIULIK PENINSULA

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

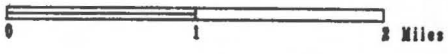
Administrative

- Township/Range Lines
- Section Lines

Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000



Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994

Shag
Bluff
AK104
AK104A
Kuguyak P
Old
Kuguyak Bay
Boot
Pt.
Fla
Is
Seven Rivers
AK104A

MIDDLE ALIULIK PENINSULA

Above is pictured a west to east view across the Aliulik Peninsula. The eastern shoreline in the foreground is remote and exposed. Many areas are tableland and terminate in vertical bluffs. Frontage on Alitak Bay on the western side of the Aliulik Peninsula (just visible in the distance) is better protected and affords greater access opportunities. The rolling topography of the Aliulik Peninsula is good documented bear habitat.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI04A

IDENTIFICATION — MIDDLE ALIULIK PENINSULA

Location

AKI04A is located on the Aliulik Peninsula. The peninsula is at the southern tip of Kodiak Island. The western shores of the peninsula front on Alitak Bay, and are approximately 12 miles due east of Akhiok Village. The eastern shores of the peninsula are remote and directly exposed to the Pacific Ocean.

SITE DESCRIPTION

General

The Aliulik Peninsula extends in a southwesterly direction. At its widest, the peninsula is eight miles across. The boundaries of AKI04A fall north and south, cutting diagonally across the peninsula. AKI04A measures approximately eleven miles in length and six miles in width.

Size

21,034 acres (516-acre adjustment)

FF Waterfrontage

Shoreline Type	FF	%
Exposed Wave-cut Platforms	5,188	9%
Mixed Sand and Gravel Beaches	51,700	91%
Total	56,888	100%

Front Foot/Acre

2.70

Access

Access to the Aliulik Peninsula is by boat or floatplane. Ocean swells and weather can limit opportunities to land along the eastern shore. The east coast of the Aliulik Peninsula, from Cape Kaguyak to Cape Trinity (the southwest extremity of Kodiak Island), is bordered by foul ground. This limits the opportunity for boat anchorage and beach access. The more protected waters on the Alitak Bay side of the peninsula afford greater access opportunities.

Topography

The topography of the Aliulik Peninsula contains two distinct physiographic units. The north unit is mountainous, rising to 2,215ft, and the south unit is primarily low (<500ft) benchland. AKI04A contains the southernmost peak (2,215ft high) on Kodiak Island. This detached mountain is regular in outline and forms a distinctive mark. From the mountain toward Cape Trinity is a long gradual slope.

Shoreline Types

The east coast of the Aliulik Peninsula, from Cape Kaguyak to Cape Trinity, is bordered by "foul" ground. Many areas are tableland and terminating in vertical bluffs. There are also steep bluffs to be found on the

west coast (including Shag Bluff). A sweeping sand and gravel beach is found just south of Portage Bay.

Vegetation / Ground Cover

The dominant vegetation is moist tundra. Wet depressions and grasses are found between the tundra hummocks. Numerous draws and drainages, meadows, bogs, and shallow ponds occur throughout the unit, but are predominate in the lower southern unit. Tall shrub cover (willow and alder) occur in isolated patches. Greater density is found in the mid elevations of the northern unit.

Species

The southeast shore of the Aliulik Peninsula is known as "Seven Rivers", and supports a highly productive pink salmon fishery. There is a high density of brown bear found on the peninsula. There are wintering areas for waterfowl on both the east and west shores of Aliulik.

POSSESSORY INTERESTS

Leases

AKI04A is located within brown bear permit area 237. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit was $8,000 (Andy Runyan).

Easements

None

IMPROVEMENTS

No significant improvements.

USE

The area is remote and access is difficult. Andy Runyan's Bear Guide Camp in Kiavak Bay is the base for well known bear hunting on the peninsula. There is a private cabin located on the broad beach just east of Portage Bay. With the destruction of Kaguyak Village, subsistence use has dropped considerably in this area.

OIL SPILL TRUSTEE COUNCIL RATING

65 - high

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI04A

Discussion

AKI04A represents a significant portion of the Aliulik Peninsula, an area known for its brown bear densities, and containing several productive salmon spawning streams. While the lower Aliulik Peninsula (AKI04B) possesses greater ecological diversity than the Middle Aliulik Peninsula, the eastern shorelines of AKI04A are part of the "Seven Rivers" area known for strong pink salmon runs. Overall, however, the eastern shores, are particularly remote, directly exposed to ocean influences, and much of the shoreline is comprised of "foul" high-bank topography. This tends to make access difficult. The western shores fronting on Alitak Bay are more accommodating. The overall front foot ratio to acres is a relatively low 2.70. This still represents over 10 miles of shoreline at 56,880 front feet. Once on shore, rolling topography and several broad valleys allow for good access to interior bear habitat. Several lakes, as large as a half-mile across, provide for additional uplands diversity. Overall wilderness attributes are high, and the ecosystem, generally remote and difficult to access, remains largely undisturbed. Unfortunately, key salmon streams and habitat, both on the west shore north of Shag Bluff, and on the east shore north of the east channel are under separate ownership, contained within Native allotments.

Summary

Waterfrontage/Access:	**Below average:** Low 2.70 front foot/acreage ratio. Eastern shore generally exposed, foul. Western shores mixed.
Topography:	**Above average:** Rolling topography, broad valleys. Good inland travel.
Adjacent Uses/Location:	**Below average:** Particularly remote eastern shores, Native allotments compromise several key stream points.
Ecological Significance:	**Average:** Important bear habitat, largely undisturbed, high wilderness attributes.

Conclusion

Class "C"	$ 500/acre times 21,034 acres equals $10,517,000

Alternative Valuation: AKI04A

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
37 S 29 W	31	48	48	
37 S 29 W	32	249	249	
37 S 29 W	33	600	600	
38 S 29 W	3	640		640
38 S 29 W	4	640		640
38 S 29 W	5	124	124	
38 S 29 W	6	574	574	
38 S 29 W	7	616		616
38 S 29 W	8	640		640
38 S 29 W	9	640		640
38 S 29 W	10	640		640
38 S 29 W	14	640		640
38 S 29 W	15	640		640
38 S 29 W	16	640		640
38 S 29 W	17	640		640
38 S 29 W	18	617		617
38 S 29 W	19	599		599
38 S 29 W	20	640		640
38 S 29 W	21	640		640
38 S 29 W	22	640		640
38 S 29 W	23	620		620
38 S 29 W	26	481	481	
38 S 29 W	27	640		640
38 S 29 W	28	640		640
38 S 29 W	29	640		640
38 S 29 W	30	620		620
38 S 29 W	31	622		622
38 S 29 W	32	620		620
38 S 29 W	33	600	600	
38 S 29 W	34	375	375	
38 S 29 W	35	40	40	
39S 29W	3	75	75	
39S 29W	4	565	565	
39S 29W	5	575		575
39S 29W	8	640	640	
39S 29W	9	440	440	
39S 29W	10	5	5	
39S 29W	16	40	40	
39S 29W	17	500	500	
39S 29W	18	626	626	
39S 29W	19	592	592	
39S 29W	20	10	10	
39S 29W	30	319	319	
Totals		21,392	6,903	14,489

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	6,903	$1,000	$6,903,000
Non-Ocean Front	14,489	$300	$4,346,700
Totals	21,392	$526	$11,249,700

RECONCILIATION: AKI04A

The large site sales comparison approach indicates a value of $500/acre or $10,517,000. The Land Sales Comparison Approach Valuation produces a figure of $11,249,700 based on $526/acre. This is 5% greater than the large site sales comparison approach. This is well within a 5% to 10% variance considered to be reasonable given the somewhat simplistic nature of the alternative analysis. The remote location and difficult access attributes of the eastern Alulik Peninsula are offset by more accommodating access points on Alitak Bay.

Final Value Estimate $10,500,000

AKI04B
LOWER ALIULIK PENINSULA
(Russian Harbor)

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

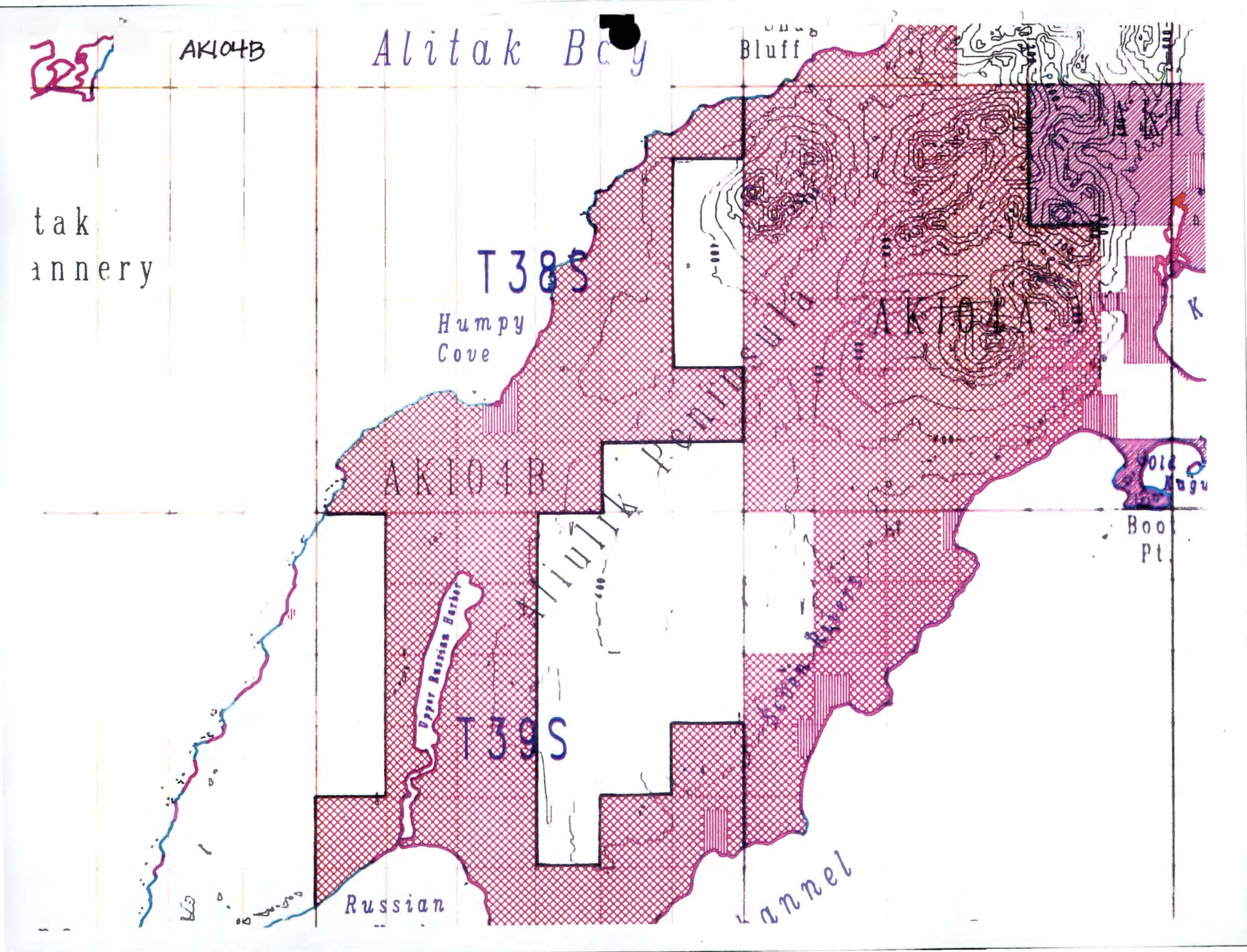
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK104B
Alitak Bay
Bluff
tak
annery
T38S
Humpy
Cove
AK101B
AK104A
Upper Russian Harbor
T39S
Russian
Boo
Pt

LOWER ALIULIK PENINSULA
(RUSSIAN HARBOR)

The above photo depicts a northern approach to the upper Russian Harbor estuary. This rich lake-fed estuary reaches inland approximately five miles, emptying into Russian Harbor on the eastern shores of the Aliulik Peninsula. AKI04B supports several important anadromous salmon streams including this estuary and lake system. Although remote, good beach access is found at Russian Harbor (on the eastern shorels of the peninsula) and Humpy Cove and Seaborg Bay on the western shores of the peninsula.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI04B

IDENTIFICATION

LOWER ALIULIK PENINSULA (RUSSIAN HARBOR)

Location

AKI04B is located on the Aliulik Peninsula. The peninsula is at the southern tip of Kodiak Island. The western shore of the peninsula, fronts on Alitak Bay, and is approximately 8 miles southeast of Akhiok Village. The eastern shores of the peninsula are remote and exposed.

SITE DESCRIPTION

General

The Aliulik Peninsula extends in a southwesterly direction. At its widest, the peninsula is eight miles across. The boundaries of AKI04B are irregular, but generally fall north and south, cutting diagonally across the peninsula. The parcel is approximately six miles wide and between six and eleven miles long. Russian Harbor (a lake-fed estuary reaching inland approximately five miles) is the primary feature on the southern shoreline. Humpy Cove and Seaborg Cove are notable features on Alitak Bay.

Size

17,701 acres

FF Waterfrontage

Shoreline Type	FF	%
Exposed Wave-cut Platforms	38,549	27%
Mixed Sand and Gravel Beaches	103,249	73%
Uncategorized	138	0%
Total	141,936	100%

Front Foot/Acre

8.02

Access

Access to the lower Aliulik Peninsula is by boat or floatplane. The upper Russian tideland estuary provides for good floatplane approaches. Aiaktalik Island and the Geese Islands, just off the southern tip of the peninsula, form a passage used by many local vessels. Russian Harbor, between Aiaktalik Island and Kodiak Island, is a temporary anchorage in moderate weather, but there is little shelter, and strong tide rips are frequent. It is difficult to make good courses through Russian Harbor due to currents and eddies. Humpy Cove and Seaborg Cove are good access points on the Alitak Bay side.

Topography

The lower Aliulik Peninsula is primarily low (<500ft) benchland. The topography is flat to gently rolling. The lower peninsula is a tableland terminating in sometimes vertical bluffs.

Shoreline Types

Upper Russian Harbor, a lake-fed estuary, has a diverse shoreline of bedrock, sand, boulders, and gravel. There are extensive intertidal areas. Distinct shoreline bluffs and sea cliffs characterize much of lower Aliulik Peninsula. There are few sheltered access points and the coast is generally classified as "foul" ground in the U.S. Coast Pilot.

Vegetation / Ground Cover

The country is treeless, and except for outcropping ledges of bare rock on various knolls, the land is covered by thick moss and grass. Numerous draws and drainages, meadows, bogs, and shallow ponds occur throughout the unit.

Species

Russian Harbor demonstrates the greatest ecological diversity in the area. The estuary supports a highly productive intertidal system. It is a feeding and wintering area for various waterfowl species. Russian Harbor, as well as Humpy Creek and Seaborg River (on the north shore), are highly productive salmon streams (pink, red, chum). Concomitantly, brown bear concentrate along the streams and lakes during the spring.

POSSESSORY INTERESTS

Leases

AKI04B is located within brown bear permit area 237. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit was $8,000 (Andy Runyan).

Easements

Interim Conveyance 934 indicates six U.S. Government reserved easements: EIN 16L EIN 16a C5, D1, EIN 33 C5, D1, EIN 33a C5, D1, EIN 34 D1, EIN 34aD1.

IMPROVEMENTS

No improvements of significance.

USE

The area is remote and access is difficult. Andy Runyan's Bear Guide Camp in Kiavak Bay is the base for well known bear hunting on the Peninsula. Before Kaguyak was abandoned after the 1964 earthquake, Russian Harbor was commonly visited by the residents of Kaguyak.

OIL SPILL TRUSTEE COUNCIL RATING

65 - high.

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI04B

Discussion

AKI04B represents a significant portion of the lower Aliulik Peninsula. This site is known for its bear habitat and several highly productive pink salmon streams, including Russian Harbor, Humpy River, and Seaboard River. The eastern shores are particularly remote, but Russian Harbor, (opposite Aiaktalik Island) provides suitable anchorage for boats and the Upper Russian Harbor estuary provides for good seaplane approaches and access. The western shores of the Aliulik Peninsula on Alitak Bay are comprised almost equally of wave-cut platforms and graveled beaches. There are several well protected access points in the general location of Humpy Cove and Seaborg Cove. Humpy Cove itself is the original site of Akhiok Village, now located across Alitak Bay. Subsistence use by AKI shareholders and Akhiok Villagers continues. The lower Aliulik Peninsula is a largely undisturbed, self contained, and highly productive ecosystem. There is one Native allotment which compromises continuity, strategically positioned at the mouth of the Humpy River. Overall, the site possesses significant ecologically resources and despite its removed location and sometimes extended foul weather conditions, access is not unduly difficult.

Summary

Waterfrontage/Access:	**Above average:** 8.02 front foot to acre ratio. Protected Russian Harbor estuary. Significant portions of exposed and foul eastern shore. Several key access points on Alitak Bay.
Topography:	**Average:** Moderately undulating benchland. Little diversity. Good inland travel.
Adjacent Uses/Location:	**Average:** Eastern shores remote, key Native allotment in Humpy Cove.
Ecological Significance:	**Excellent:** Extensive Russian Harbor intertidal, several important salmon streams, documented bear habitat.

Conclusion

Class "A"	$800/acre times 17,701 acres equals $14,160,800

Alternative Valuation: AKI04B

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
38 S 30 W	1	430	430	
38 S 30 W	2	75	75	
38 S 30 W	10	30	30	
38 S 30 W	11	545	545	
38 S 30 W	14	640	640	
38 S 30 W	15	260	260	
38 S 30 W	21	10	10	
38 S 30 W	22	515	515	
38 S 30 W	23	630		630
38 S 30 W	25	635		635
38 S 30 W	26	610		610
38 S 30 W	27	620	620	
38 S 30 W	28	255	255	
38 S 30 W	29	375	375	
38 S 30 W	30	55	55	
38 S 30 W	31	427	427	
38 S 30 W	32	640		640
38 S 30 W	33	640		640
38 S 30 W	34	635		635
39 S 30 W	4	625	625	
39 S 30 W	5	630	630	
39 S 30 W	8	455	455	
39 S 30 W	9	570	570	
39 S 30 W	16	640	640	
39 S 30 W	17	410	410	
39 S 30 W	20	510	510	
39 S 30 W	21	640		640
39 S 30 W	24	640	640	
39 S 30 W	25	385	385	
39 S 30 W	26	640	640	
39 S 30 W	28	635	635	
39 S 30 W	29	355	355	
39 S 30 W	30	584	584	
39 S 30 W	31	80	80	
39 S 30 W	33	425	425	
39 S 30 W	34	640	640	
39 S 30 W	35	550	550	
39 S 30 W	36	70	70	
40 S 30 W	2	10	10	
40 S 30 W	3	40	40	
40 S 30 W	4	35	35	
Totals		17,596	13,166	4,430

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	13,166	$1,000	$13,166,000
Non-Ocean Front	4,430	$300	$1,329,000
Totals	17,596	$824	$14,495,000

RECONCILIATION: AKI04B

The large site sales comparison approach indicates a value of $800/acre or $14,160,800. The Land Sales Comparison Approach Valuation produces a figure of $14,495,000 based on $824/acre. This is 3% greater than the large site sales comparison approach. This is well within a 5% to 10% variance considered to be reasonable given the somewhat simplistic nature of the alternative analysis. The remote location and difficult access attributes of the southern Aliulik Peninsula are offset by more accommodating access points on Alitak Bay.

Final Value Estimate $14,200,000

AKI05
SULUA/PORTAGE BAYS

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994

SULUA/PORTAGE BAYS

Portage Bay divides into two branches at its head. In this northeasterly view, Sulua Bay, the main west arm is at the left and the shorter east arm is pictured at the right. Bert Point separates the two properties. Somewhat obscured in the background are the mountains which frame the site. Except for the Bert Point Peninsula, AKI05 is largely confined to lower shoreline elevations and the head of the bay.

Photographer: Paul Bottge
Date: June 27, 1994

SULUA/PORTAGE BAYS

A moderately productive salmon stream feeds the head of the Portage Bay east arm. The east arm is, in fact, a shoal lagoon, and the gravel spit which has formed at the mouth is just visible in this picture. This diminishes boat accessibility to this otherwise rich habitat area. Unlike Sulua Bay, the continuity of the upper east arm is not broken by small parcel inholdings.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI05

IDENTIFICATION — SULUA/PORTAGE BAYS

Location

Portage and Sulua Bays sit between the Hepburn and Aliulik Peninsulas on southern Kodiak Island. Akhiok Village is located approximately 13 miles to the west, across Alitak Bay.

SITE DESCRIPTION

General

Portage Bay opens to the west into Alitak Bay. Sulua Bay, the main or west arm, extends 3.5 miles north from Bert Point. The east arm is shorter, and extends 2.5 miles northeasterly from Bert Point. AKI05 encompasses the shorelines surrounding the east branch of Portage Bay and the eastern shorelines and upper parts of Sulua Bay. It does not include shorelines along lower Sulua Bay on the Hepburn Peninsula.

Size

8,255 acres

FF Waterfrontage

Shoreline Type	FF	%
Exposed Wave-cut Platforms	2,744	2%
Mixed Sand and Gravel Beaches	28,212	24%
Sheltered Rocky Shores	87,700	74%
Total	118,656	100%

Front Foot/Acre

14.37

Access

Access to Portage and Sulua Bays is by boat or floatplane. The shores of Sulua Bay are precipitous, but there are numerous areas where boat landings can be had. The east arm of Portage Bay terminates in a shoal lagoon. Access by boat to the head of the bay can only be had at high water.

Topography

Both the Hepburn and upper Aliulik Peninsulas are mountainous, rising to elevations upwards of 2,000ft. Sulua and Portage Bays are divided by a small peninsula rising from Bert Point to a height of 1,800ft. Slopes rise steadily, but at moderate angles. Several streams enter the head of Sulua Bay across the flats.

Shoreline Types

The shores of Sulua Bay are precipitous, except at the head where a stream enters through the flats. The east arm of Portage Bay may be classified as a large shoal lagoon, and shorelines are a mix of sand and gravel beaches.

Vegetation/Ground Cover

Valley floors at the head of the bay support a mosaic of willows, luxuriant meadows, and small shrubs. Alder

brush is found in the draws and ravines at mid-elevations.

Species — There are seven documented streams supporting salmon (pink, coho, and chum) of moderate productivity. Waterfowl summer use and over-wintering occurs in both bays. There is a moderate density of brown bear occurrence.

POSSESSORY INTERESTS

Leases — Bert Point marks the boundary between brown bear permit areas 206 and 207. Gus Lamoureux permits for seasonal use in Sulua Bay (206), while Andy Runyan permits cover the east arm (207).

Easements — Interim Conveyance 934 indicates six U.S. Government reserved easements: EIN 6b D9, EIN 6c D1, EIN 7 C6, EIN 7aD1, EIN 12D9, EIN 12a C5, D9.

IMPROVEMENTS — No existing improvements noted.

USE — Sulua and Portage Bays are closed to commercial fisheries. The area receives active subsistence use from the village of Akhiok (marine mammals and deer). The area is generally considered remote, with little evidence of human use. AKI has proposed a recreation cabin at the head of Sulua Bay. There are two cabins on the north shore of Sulua Bay (not on AKI lands) used by fishermen. Recreational use may be expected to continue and grow.

OIL SPILL TRUSTEE COUNCIL RATING — 50 - medium

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI05

Discussion

AKI05 encompasses the shoreline surrounding the east branch of Portage Bay and the eastern shoreline and the head of Sulua Bay. It does not include the lower western shores of Sulua Bay. Total ocean frontage measures 118,656 front feet or 22 miles. The front foot to acre ratio is relatively high, at 14.37. 98% of the shoreline is comprised of mixed sand and gravel and sheltered rocky beaches. Much of Sulua Bay, however, is precipitous high-bank property. The east branch of Portage Bay is a shoal lagoon. Both of these traits tend to compromise the otherwise good access characteristics. Lagoon areas of east Portage Bay are a particularly productive intertidal area, and there are several documented anadromous fish streams which enter the lagoon. A moderately productive salmon stream also feeds the head of Sulua Bay. Although the Portage Bay area is considered relatively remote, several small homesites can be found along the western shore of Sulua Bay (not AKI property), and a total of nine small private parcels ranging in size between 5 acres to 20 acres are found in the vicinity. Perhaps more significant from a land use management standpoint, property boundaries do not extend down the west shoreline of Sulua Bay and this potentially disrupts the integrity of the ecosystem.

Summary

Waterfrontage/Access:	**Average:** High 14.37 front foot/acre ratio. High bank beaches compromise Sulua Bay access, Extensive shoal lagoon Upper Portage Bay.
Topography:	**Average:** Bays framed by mountainous terrain.
Adjacent Uses/Location:	**Below average:** Little evidence of human use, but a small parcel inholding in Sulua Bay. Ownership does not extend to the west shore of Sulua Bay.
Ecological Significance:	**Average:** Several moderately productive salmon streams, extensive intertidal.

Conclusion

Class "B"	$700/acre times 8,255 acres equals $5,778,500

Alternative Valuation: AKI05

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
36S 28W	33	640		640
36 S 29 W	23	630	630	
36 S 29 W	26	502	502	
36 S 29 W	35	52	52	
36 S 29 W	36	520	520	
37 S 28 W	6	555	555	
37 S 29 W	1	430	430	
37 S 29 W	2	625	625	
37 S 29 W	3	448	448	
37 S 29 W	9	169	169	
37 S 29 W	10	630	630	
37 S 29 W	11	315	315	
37 S 29 W	12	585	585	
37 S 29 W	14	530	530	
37 S 29 W	15	260	260	
37 S 29 W	16	159	159	
37 S 29 W	21	5	5	
37 S 29 W	22	385	385	
37 S 29 W	27	615	615	
37 S 29 W	28	157	157	
Totals		8,212	7,572	640

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	7,572	$1,000	$7,572,000
Non-Ocean Front	640	$300	$192,000
Totals	8,212	$945	$7,764,000

RECONCILIATION: AKI05

The large site sales comparison approach indicates a value of $700/acre or $5,778,500. The Land Sales Comparison Approach Valuation produces a figure of $7,764,000 based on $945/acre. This is 35% greater than the large site sales comparison approach. Although a 5% to 10% variance is not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Two extraordinary items are noted. First, although AKI05 is generally central to activity and Alitak Bay, access attributes to much of the east branch of Portage Bay are compromised by a shoal lagoon. Second, it should be borne in mind that the $1,000/acre valuation assigned to oceanfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the central tendency. The presence of Native allotments and other inholdings, which typically have been selected for their prime waterfront attributes, tends to negatively skew the actual central tendency of a parcel. There are five such inholdings along the northern and eastern shores of Sulua Bay and lower Portage Bay. Combined, these items explain the variance between the Land Sales Comparison Approach Valuation and large site sales comparison approaches.

Final Value Estimate $5,800,000

AKI06A
CANNERY COVE/SOUTH SHORE OLGA BAY

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

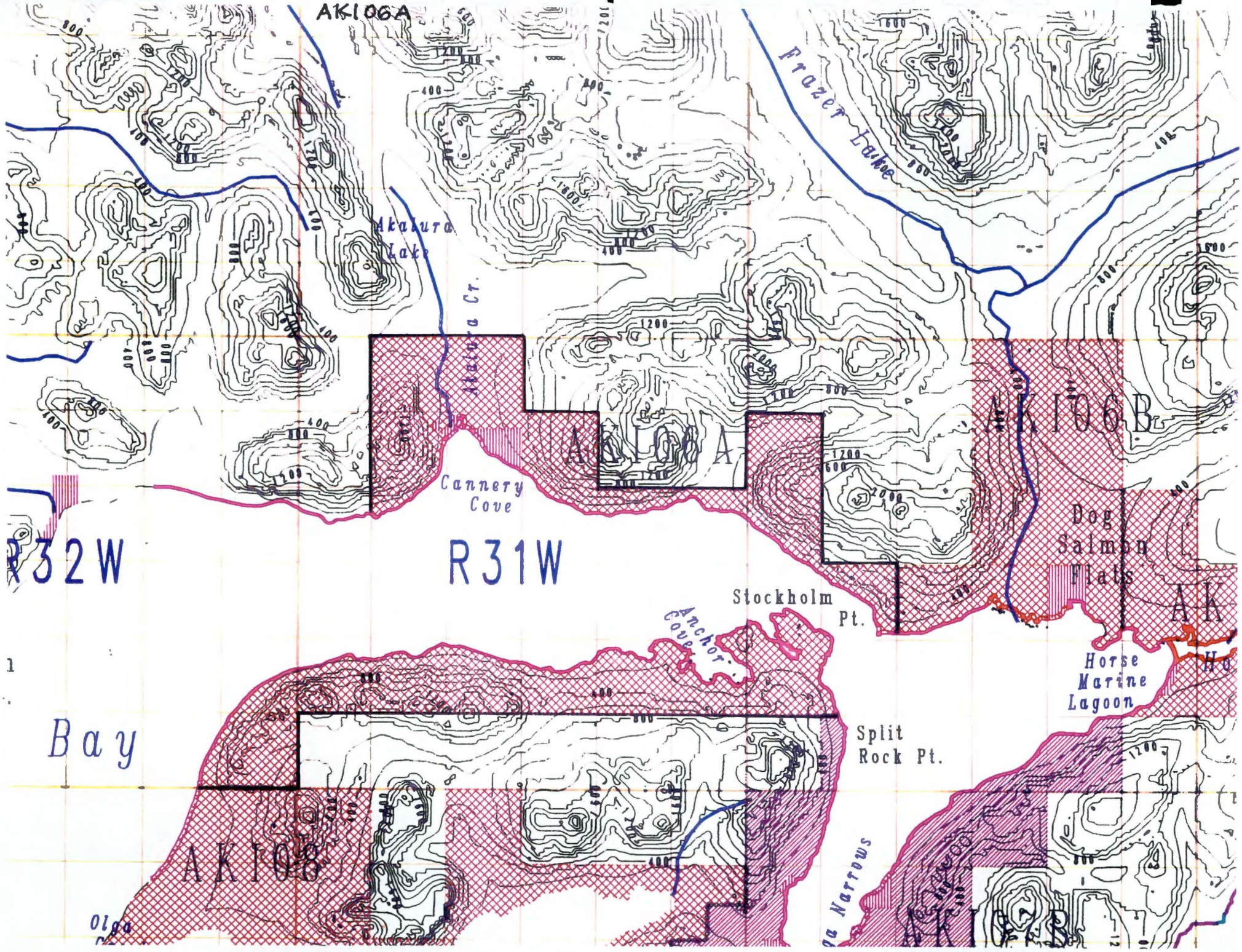
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK106A
Frazer Lake
Akalura Lake
Akalura Cr.
AK106A
Cannery Cove
AK106B
R32W
R31W
Dog Salmon Flats
Stockholm Pt.
Anchor Cove
Horse Marine Lagoon
Split Rock Pt.
Bay
AK108
Olga
AK106B

CANNERY COVE/SOUTH SHORE OLGA BAY

AKI06A contains 3,114 acres on the north shore of Olga Bay, and 2,804 acres on the south shore. Above is pictured the north shore of Olga Bay in the vicinity of Cannery Cove. This portion of AKI06A extends north from the shores of Olga Bay to the south shores of Akalura Lake (visible in the top of the frame). This lake and creek system supports a very productive salmon run. Small parcel inholdings at the mouth of Akalura Creek are problematic.

Photographer: Paul Bottge
Date: June 27, 1994

CANNERY COVE/SOUTH SHORE OLGA BAY

The above picture is a southeasterly view of Anchor Cove on the south shore of Olga Bay. Anchor Cove generally marks the eastern extent of AKI06A. Olga Bay is protected from extreme ocean influences and shoreline access and recreational opportunities are high, particularly so in Anchor Cove.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI06A

IDENTIFICATION — CANNERY COVE/SOUTH SHORE OLGA BAY

Location

Olga Bay is an irregularly shaped body of water, 17 miles long. The west end is separated from the ocean by a one mile strip of land. Cannery cove is approximately 20 miles north of Akhiok Village by boat, and 30 airmiles south of Karluk Village.

SITE DESCRIPTION

General

AKI06A contains 3,114 acres on the north shore of Olga Bay and 2,804 acres on the south shore. Northern portions are bounded by Olga Bay on the south, Akalura Lake on the north. It extends approximately six miles west to east from Cannery Cove to a point opposite Stockholm Point. The south Olga Bay shoreline parcel is a narrow one-mile strip extending approximately eight miles west to east from Stintz Bluff to Split Rock Point. Key features include Akalura Creek in Cannery Cove and Anchor Cove.

Size

9,042 acres

FF Waterfrontage

Shoreline Type	FF	%
Shattered Rocky Shores	121,139	97%
Gravel, Cobble, Boulder Beaches	3,763	3%
Total	124,902	100%

Front Foot/Acre

13.81

Access

Access to Olga Bay is by boat or floatplane. Akalura Lake is also floatplane accessible. Boat access is obtained via Alitak Bay through Moser Bay and the Olga Narrows. Anchorage can be found at several places along the shore. Excellent anchorage is found in Anchor Cove on the south Olga Bay shore parcel.

Topography

Both on the north and south shores of the bay the land tends to rise steadily (and in some places, abruptly) from the water to elevations of between 800 to 2,000ft. A notable exception is Cannery Cove, where Akalura Lake drains into Olga Bay through low-lying hills. A second drainage area is located halfway between Cannery Cove and Dog Salmon Flats. Anchor Cove and vicinity on the south Olga Bay shores is moderately sloped with rolling topography.

Shoreline Types

The shores of Olga Bay tend to be rocky. The bay has the appearance of a lake, and with a tidal rise and fall of only 1 to 2 feet at the old cannery, intertidal areas are minimal. In addition to Olga Bay, there is also

frontage on Akalura Lake, a large "T" shaped lake nestled among steep grassy mountains.

Vegetation / Ground Cover

Alder and cottonwood cover mid-elevation slopes in large patches, while the low-lying hills are covered by a mosaic of dry tundra and grass lands. There are a few individual spruce trees at Cannery Cove.

Species

Akalura Lake and Creek are well known for their excellent fishing and bear habitat. Sockeye, pink, and silver salmon are all known to spawn in these waters. Rainbow trout and Dolly Varden can be found in Akalura Lake. Waterfowl and sea birds over-winter at Cannery Cove, and there is also a guillemot rookery here. Bird and seal rookeries are found on the south shores of Olga Bay at Gertie Story Cove.

POSSESSORY INTERESTS

Leases

The State Department of Fish and Game lease a one-acre site at the outlet of Akalura Lake for the purposes of operating a fish weir. The lease is for three years, commencing May 1, 1994. Annual rent is $2,500.

The south portion of AKI06A is contained within the south Olga Lake's brown bear permit area 240. The north portion is in the Red Lake brown bear permit area. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. The license fee for the 1994 spring season for the South Olga Lake area was $4,000 (Sam Fejes).

Easements

Interim Conveyance 1572 identifies three government reserved easements EIN 3D9, EIN 5 C6, EIN 5aC6, Interim Conveyance 1544 identifies two government reserved easements: EIN 57C6, EIN 58 C6.

IMPROVEMENTS

The buildings and wharf of the former cannery remain preserved at the mouth of Akalura Creek. A portion of the cannery buildings is now used as a recreation cabin. Camp facilities associated with Fish and Game's fish weir site include a one-room cabin, sheds, and outhouse.

USE

There is a long history of use at Cannery Cove. A cannery was first developed in the late 1800s. Today, the area is a high use area for trophy bear hunters as well as recreationist. Recreational activities include camping and sport fishing. At one time, U.S. Fish and Wildlife proposed to construct a public use cabin and trails at Akalura Lake. Presently, portions of the cannery buildings are rented out for recreational use, and AKI has proposed to develop a full lodge at this site. The area is recognized both for its wilderness and recreational attributes. The cannery and Fish and Game's fish weir detract somewhat from these

wilderness attributes. Two small undeveloped private parcels are located on the eastern shore of Akalura Creek. U.S. Fish and Wildlife has targeted these sites for acquisition and inclusion in the refuge. The first is a 27.36-acre site appraised at $5,189/acre and the second, a 149.9-acre site appraised at $3,402/acre. Recreational use in this area should be expected to continue.

OIL SPILL TRUSTEE COUNCIL RATING

67.5 - high

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI06A

Discussion

AKI06A fronts exclusively on Olga Bay, a protected maritime environment with a highly productive resource base. Upper Olga Bay is protected from extreme ocean influences, making the bay suitable for most recreational and boating pursuits. Both Olga Bay and Akalura Lake are floatplane accessible. Beach access can be had at most points along the 23 miles of ocean frontage and two miles of lake frontage on Akalura Lake. Akalura Creek is a highly productive salmon stream and supports a significant sockeye salmon run, as well as other salmon species. Hunting for deer and bear is conducted in the area. This site is also part of the primary subsistence harvest area utilized by the residence of Akhiok. Although the level of human use in the area is notable, it remains primarily low impact. Permanent structures are noted in Cannery Cove where several historical cannery buildings are situated, and the Fish & Game operates a fish weir. Several private holdings are found in Cannery Cove and front on the mouth of Akalura Creek. A portion of the cannery building (owned by AKI, but not subject to appraisal) is rented out for recreational use. This is generally consistent with the highest and best use under a lands management program. More troublesome is the divided ownership found at the key resource point in Cannery Cove. Nonetheless, AKI06A possesses particularly strong resource and recreational attributes.

Summary

Waterfrontage/Access:	**Excellent:** High 13.75 front foot/acre ratio. Protected waters, good anchorage, extensive beach access.
Topography:	**Average:** Waterfront features framed by moderate mountainous terrain.
Adjacent Uses/Location:	**Below average:** Existing development at Cannery Cove, divided ownership on Akalura Creek. Active, but low impact, recreation and subsistence use area.
Ecological Significance:	**Excellent:** Akalura Creek is a highly productive salmon system. Spring brown bear use.

Conclusion

Class "A"	$900/acre times 9,042 acres equals $8,147,800

Alternative Valuation: AKI06A

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 30 W	7	624	624	
35 S 30 W	18	496	496	
35 S 30 W	19	140	140	
35 S 30 W	20	345	345	
35 S 31 W	4	595	595	
35 S 31 W	5	575	575	
35 S 31 W	8	602	602	
35 S 31 W	9	129	129	
35 S 31 W	10	625	625	
35 S 31 W	13	160	160	
35 S 31 W	14	200	200	
35 S 31 W	15	115	115	
35 S 31 W	17	115	115	
35 S 30 W	29	45	45	
35 S 30 W	30	604	604	
35 S 31 W	24	25	25	
35 S 31 W	25	415	415	
35 S 31 W	26	555	555	
35 S 31 W	27	390	390	
35 S 31 W	28	505	505	
35 S 31 W	29	495	495	
35 S 31 W	30	419	419	
35 S 32 W	25	175	175	
35 S 32 W	35	70	70	
35 S 32 W	36	625	625	
Totals		9,044	9,044	0

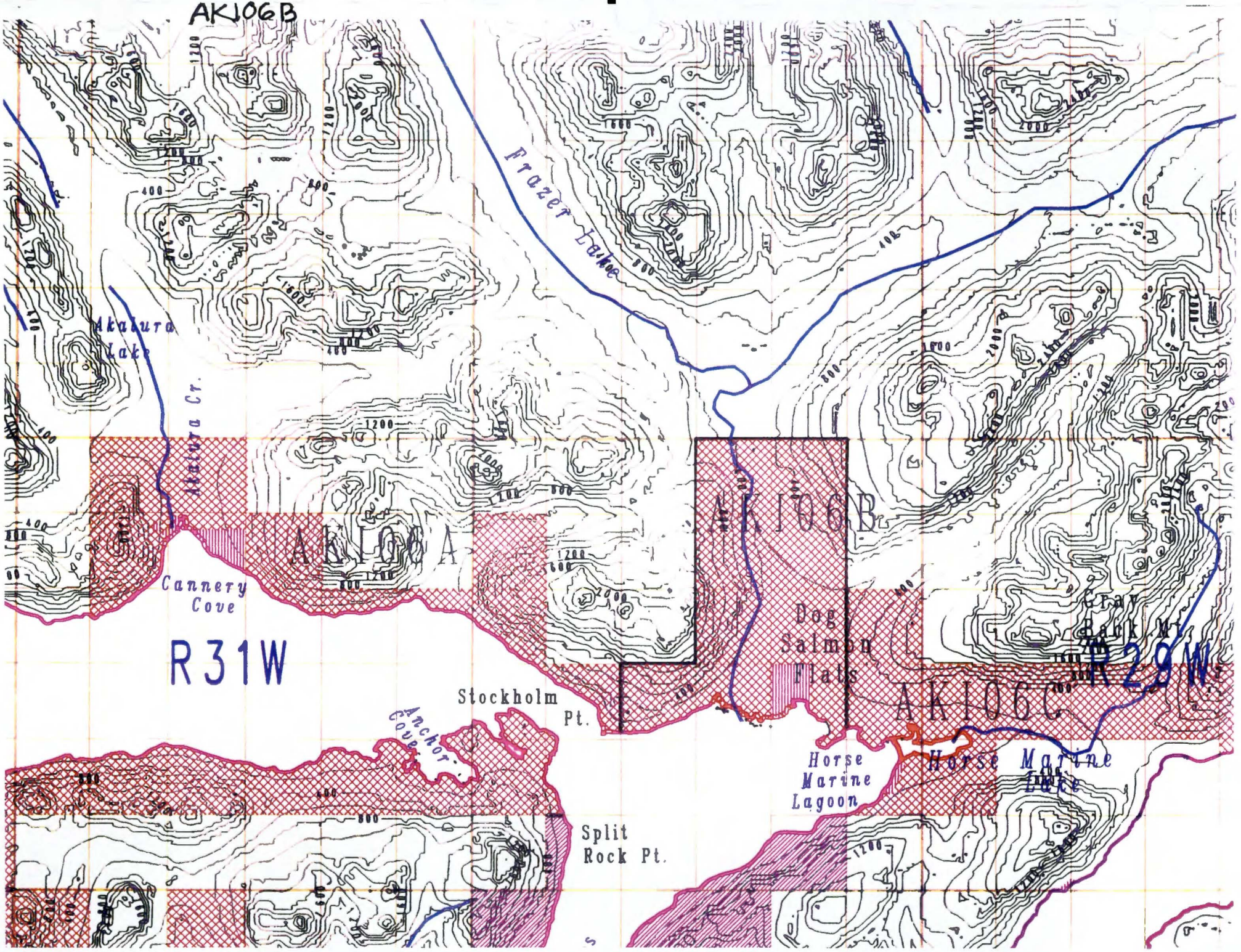
Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	9,044	$1,000	$9,044,000
Non-Ocean Front	0	$300	$0
Totals	9,044	$1,000	$9,044,000

RECONCILIATION: AKI06A

The large site sales comparison approach indicates a value of $900/acre or $8,137,800. The Land Sales Comparison Approach Valuation produces a figure of $9,044,000 based on $1,000/acre. This is 11% greater than the large site sales comparison approach. In this case the two approaches tend to be mutually supportive. Still a variance greater than 10% would indicate either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Although Akalura Creek supports a particularly productive salmon run, several key inholdings on this system compromise these attributes. The $1,000/acre valuation assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the central tendency. The presence of significant Native allotments and other inholdings negatively skew the actual central tendency of this parcel. These dynamics help explain the slight variance between the Land Sales Comparison Approach Valuation and large site sales comparison approach.

Final Value Estimate $8,200,000

AKI06B
DOG SALMON FLATS


AK106B
Frazer Lake
Akalura Lake
Akalura Cr.
AK106A
Cannery Cove
R31W
AK106B
Dog Salmon Flats
Gray Bank
R29W
AK106C
Stockholm Pt.
Anchor Cove
Horse Marine Lagoon
Horse Marine Lake
Split Rock Pt.

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994

DOG SALMON FLATS

Dog Salmon Creek flows southward from Frazer Lake into Olga Bay. Above is a northern view of the Dog Salmon Creek Valley. Dog Salmon Creek supports a highly productive salmon run and high springtime bear concentrations. Visible center left is Fish & Game's fish weir.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI06B

IDENTIFICATION — **DOG SALMON FLATS**

Location

Olga Bay is an irregularly shaped body of water, 17 miles long. The Dog Salmon Flats area is located on the north eastern shores of Olga Bay, approximately 8 miles directly above Olga Narrows. The shores of Frazer Lake are approximately 8 miles further inland. Akhiok Village is approximately 20 miles south by boat.

SITE DESCRIPTION

General

AKI06B extends approximately five miles along the northern shore of Olga Bay, and follows Dog Salmon Creek inland approximately three and a half miles. The shape may roughly be described as an upside down "T".

Size

4,897/acres (adjusted by 178 acres)

FF Waterfrontage

Shoreline Type	FF	%
Sheltered Rocky Shores	14,718	61%
Sheltered Tidal Flats	9,548	39%
Total	24,266	100%

Front Foot/Acre

4.78

Access

Access to Olga Bay is by boat or floatplane. Alluvial deposits at the mouth of Dog Salmon Creek make navigation of the various lower channels difficult, but not impossible. Shoreline access by small boat is possible at most other points in this area.

Topography

Frazer Lake (just inland of the site) is a long narrow lake, surrounded by mountains rising to between 2,500 and 2,900ft. The Dog Salmon River drains the lake, moving steadily through rolling hills, until about two miles from its terminus, where it slows and enters Dog Salmon Flats. The terrain west of Dog Salmon Flats rises abruptly up from Olga Bay to a height of 2,500ft.

Shoreline Types

The shorelines of Olga Lake tend to be rocky, however, Dog Salmon Flats is a braided river delta. Tidal flats extend approximately one-half mile out from the river's mouth into Olga Bay. There is a low lying spit to the east of the river's mouth.

Vegetation/Ground Cover

The Dog Salmon Valley floor is covered with alder thickets between which there are well developed sub-alpine meadows. The Dog Salmon Flats area becomes increasingly wet with bogs and marshlands as one

approaches Olga Bay. Tall grasses dominate the lower portions of the flats just above the tidal areas.

Species

Frazer Lake has been sited as one of the most productive salmon fisheries on Kodiak Island. Red, coho, king, pink, and chum salmon are all known to spawn in Dog Salmon River and Frazer Lake. High numbers of brown bear concentrate along the river during the salmon season, and migrate up the mountains for denning during the winter. Other mammals include beaver, muskrat, and red fox.

POSSESSORY INTERESTS

Leases

State Department of Fish and Game lease two 1-acre sites on Dog Salmon Flats for the purposes of operating a fish weir. The lease is for three years, commencing May 1, 1994. The lease rate is $5,000 annually.

AKI06B is located within brown bear permit area 239. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $2,000 (Nin Ridge Guides).

Easements

Interim Conveyance 135 indicates three government reserved easements EIN 6 C6, D9, L, EIN 6a C6, D9, L, EIN 6b, C6, D9, L.

IMPROVEMENTS

Fish and Game built a three-room cabin and bunkhouse on land leased from AKI.

USE

Recreation and tourism activities are high in this area, and include deer and bear hunting and sport fishing. There are two public use cabins located on Frazer Lake within the wildlife refuge. Sam Fejes operates a guide service and lodge on property to the east. There are two set net fishery sites just west of the river mouth. A site just east of the Dog Salmon River, owned by Jack Wicher, was formerly on the market, attracting interest from a Kodiak guiding company. A sale did not close. Apparently, U.S. Fish and Wildlife has made an offer in an attempt to add it to the refuge. Jack Wicher also reports interest from several guiding services. Passive and active recreational uses are expected to continue. The area also exists as one of the primary harvest areas for Akhiok villagers, including fish, deer, waterfowl, crab, and clam.

OIL SPILL TRUSTEE COUNCIL RATING

67.5 - high

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI06B

Discussion

AKI06B fronts exclusively on Olga Bay, a protected maritime environment with a highly productive resource base. The largely self-contained bay is protected from extreme ocean influences, making the bay well suited for most recreational boating pursuits and travel. AKI06B extends approximately 5 miles along the shores of Olga Bay and follows the Dog Salmon Creek inland approximately three and a half miles. Olga Bay is well suited for floatplane use, and shoreline access can be had at most points. The mouth of Dog Salmon Creek is accessible by small boat, although shallow. Dog Salmon Creek and the Frazer Lake drainage system is one of the most productive salmon systems on Kodiak Island. Recreational hunting for deer and bear is conducted in the area, as well as sport fishing. This site is part of AKI's primary subsistence harvest area. Although the level of human use in the area is notable, it remains primarily low impact. Two set-net sites are operated west of Dog Salmon Creek and there are guide services offered in the vicinity. These uses are generally in keeping with the implementation of a balanced program of recreational use and conservation. It is noted that there are four lots totaling 178 acres just east of Dog Salmon Creek under separate ownership. US Fish & Wildlife is negotiating to acquire this site. Although separate ownership near this key resource point compromises the site somewhat, this concern is outweighed by significant wilderness resource and use attributes.

Summary

Waterfrontage/Access:	**Excellent:** Moderate to low 4.78 front foot/acre ratio. Extensive frontage on Dog Salmon Creek. Beach access on either side of the creek delta.
Topography:	**Average:** Dominate topographic feature is Dog Salmon Flats, some wet areas.
Adjacent Uses/Location:	**Average:** Active, but low impact, recreation and subsistence use area. Two 14(c) contested set net sites, private parcel east of Dog Salmon Creek.
Ecological Significance:	**Excellent:** Dog Salmon Creek is part of a highly productive salmon system. Spring brown bear use.

Conclusion

Class "A"	$1,000/acre times 4,897 acres equals $4,897,000

Alternative Valuation: AKI06B

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 30 W	2	640		640
35 S 30 W	3	615		615
35 S 30 W	10	615		615
35 S 30 W	11	635		635
35 S 30 W	14	635	635	
35 S 30 W	15	437	437	
35 S 30 W	21	510	510	
35 S 30 W	22	350	350	
35 S 30 W	23	460	460	
Totals		4,897	2,392	2,505

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	2,392	$1,000	$2,392,000
Non-Ocean Front	2,505	$300	$751,500
Totals	4,897	$642	$3,143,500

RECONCILIATION: AKI06B

The large site sales comparison approach indicates a value of $1,000/acre or $4,897,000. The Land Sales Comparison Approach Valuation produces a figure of $3,143,000 based on $642/acre. This is 36% less than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. One particularly extraordinary item is noted in this case. The Dog Salmon River is one of the most productive salmon streams on Kodiak Island. Because the shoreline and uplands areas of AKI06B are concentrated around this stream, the alternative analysis, geared to the central tendency of the market significantly understates this site's value. This tends to explain the variance between the Land Sales Comparison Approach Valuation and the large site sales comparison approaches.

Final Value Estimate $4,900,000

AKI06C
HORSE MARINE LAGOON

AKI LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

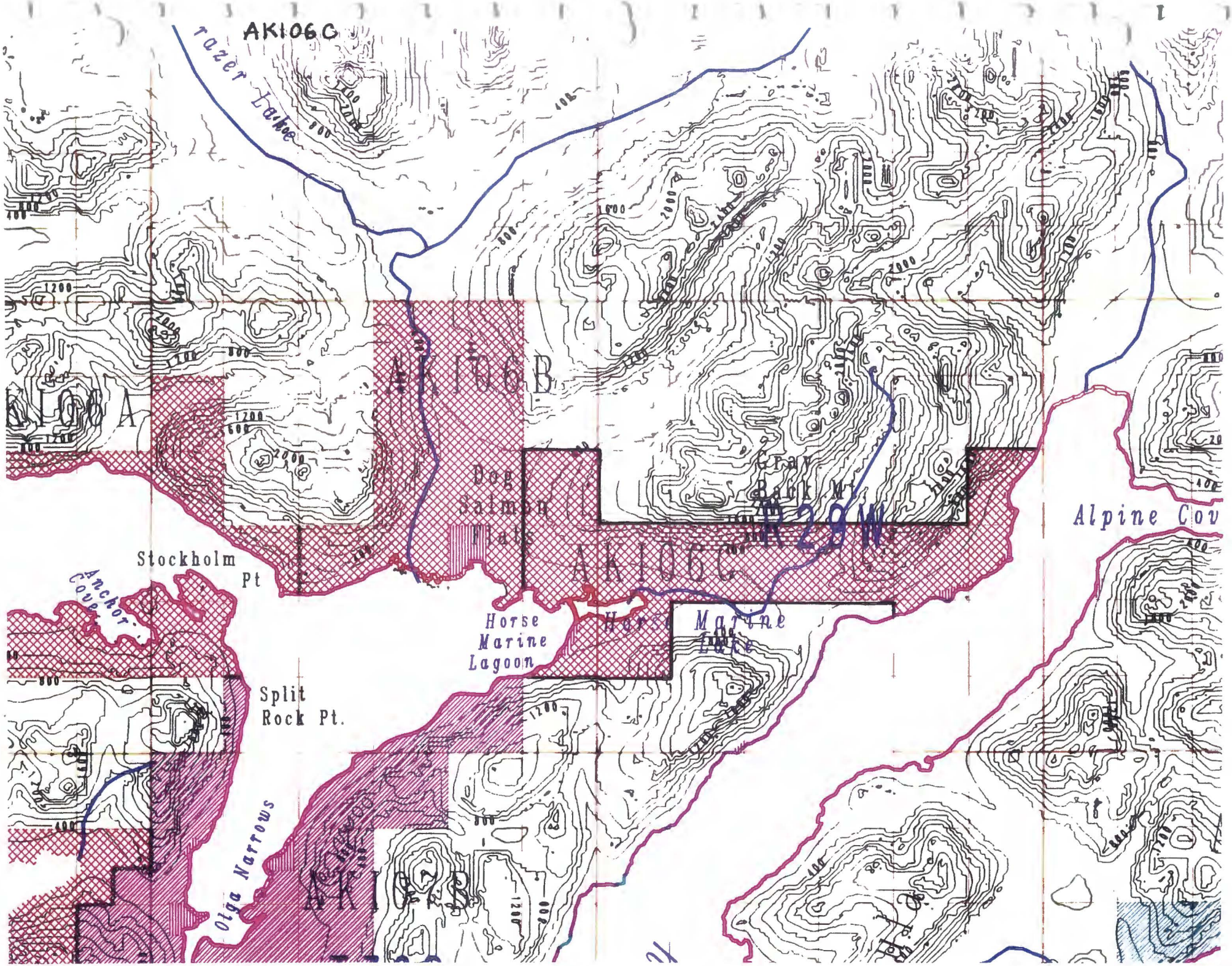
Streams are incomplete for the area at this time.

Scale 1:100,000

0 1 2 Miles

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK106C
Razer Lake
AK106A
AK106B
Dog Salmon Flats
Gray Bank Mt.
AK106C
Alpine Cov
Stockholm Pt
Anchor Cove
Horse Marine Lagoon
Horse Marine Lake
Split Rock Pt.
Olga Narrows
AK107B

HORSE MARINE LAGOON

AKI06C extends approximately six miles east to west across the Upper Moser Peninsula. This site generally contours the valley floor seen in the picture above. This is a westerly view from Deadman Bay across Horse Marine Lake toward Olga Bay. The Horse Marine Lake system enters into Horse Marine Lagoon and is a productive salmon drainage system.

Photographer: Paul Bottge
Date: June 27, 1994

HORSE MARINE LAGOON

The Olga Bay area in general, including AKI06C, is an active recreation use area and there are several small guide services and ancillary improvements. Sam Fejes operates a temporary guide service on AKI lands, and this is pictured above. This site is west of Horse Marine Lagoon in a protected bay.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI06C

IDENTIFICATION — HORSE MARINE LAGOON

Location

The Moser Peninsula separates Olga Bay (on the west) from Deadman Bay (on the east). Horse Marine Lagoon is located at the head of the Moser Peninsula at the south end of Kodiak Island. Akhiok village is approximately 16 miles to the southwest by boat.

SITE DESCRIPTION

General

AKI06C extends approximately six miles west to east across the top of the Moser Peninsula. The site is one to two miles wide. Ocean frontage is both on Olga Bay to the west (at Horse Marine Lagoon) and Deadman Bay to the east. Horse Marine Lake marks the approximate center point.

Size

5,781 acres

FF Waterfrontage

Shoreline Type	FF	%
Sheltered Rocky Shores	10,087	37%
Marshes	17,507	63%
Total	27,594	100%

Front Foot/Acre

4.77

Access

Access to AKI06C is by floatplane or boat. Floatplane landings are possible in Olga Bay, Horse Marine Lake, and Deadman Bay. Shoreline access by boat is available at most points in Olga Bay and Deadman Bay. Both areas are generally well protected.

Topography

The Moser Peninsula to the south rises abruptly from Horse Marine Lagoon to a height of 2,501ft. Grayback Mountain, immediately to the north of Horse Marine Lake, rises sharply to a height of 3,271ft. The Horse Marine Valley is a natural corridor between these two land forms. Elevations within the valley rise no more than 200ft above sea level.

Shoreline Types

A gravel spit marks the mouth of Horse Marine Lagoon. Shorelines on Olga Bay are generally characterized as shallow sloped, with rocky and cobbled, beaches. The upper lagoon is a sheltered marsh. Horse Marine Lake is irregular in shape with gravel beaches.

Vegetation/Ground Cover

Alder thickets and tall cottonwoods characterize much of the shoreline on the Olga Bay side. Marshes and bogs form the periphery of Horse Marine Lagoon. These areas are surrounded by alder and sub-alpine

meadows. A mosaic of alder and meadows are predominate in areas around Horse Marine Lake.

Species

Horse Marine Lagoon contains highly productive salmon spawning grounds. The lagoon is also an over-wintering site for Dolly Varden. There is high concentration of brown bear during spawning season. There is both a summer and winter presence of waterfowl.

POSSESSORY INTERESTS

Leases

Bernie Burkholder leases an 8,000sf site for a commercial set net fishery. The site is located south of Horse Marine Lagoon on Olga Bay. The lease terms are for three years, commencing January 1, 1993. The lease rate is $2,500 annually.

A portion of AKI06C is within the Dog Salmon River brown bear permit area 239, and a portion is in the Deadman Bay brown bear permit area 238. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for permit area 239 was $2,000 (Nin Ridge Guides).

Easements

Interim Conveyance 135 identifies one government reserved easement. EIN 44e H. Interim Conveyance 1544 identifies one government reserved easement: EIN 70a M, C5

IMPROVEMENTS

Bernie Burkholder's cabin is located on AKI land.

USE

This is a high recreation use area. At present, Sam Fejes operates a temporary guide service on AKI lands, just east of Horse Marine Lagoon, and Dave Jones owns and operates a lodge and guide service on a patented site just south of Horse Marine Lagoon. AKI has one existing recreational cabin in the Horse Marine area, and proposes building a second recreation cabin on Horse Marine Lake, and a third on Deadman Bay. There are two privately owned recreation cabins on small parcels on Deadman Bay. AKI proposes developing a lodge on Deadman Bay in the general vicinity of these cabins. In addition to recreational use, this area is a primary subsistence use area for Akhiok Village, including fish, deer, and waterfowl.

OIL SPILL TRUSTEE COUNCIL RATING

67.5 - high

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI06C

Discussion

AKI06C extends approximately six miles east to west across northern portions of the Moser Peninsula. There is marine frontage on Olga Bay to the west, and Deadman Bay to the east, totaling 27,594 front feet (5.2 miles). There are approximately two miles of fresh waterfrontage on Horse Marine Lake. Floatplane landings may be had on any of these three water bodies. Shoreline access on Olga Bay outside the lagoon is across sheltered rocky beaches. A marsh system and shoreline predominates within the lagoon. The lagoon is considered to be resource rich, but less accessible. Deadman Bay is a more remote location than Olga Bay, but shoreline access and anchorage within this bay is good. The boundaries of AKI06A generally contour a level to gently rolling valley that separates the mountainous terrain of southern Moser Peninsula from the Kodiak Island mainland. Significant resource attributes include several productive salmon streams that empty into Olga Bay and Horse Marine Lagoon, as well as extensive intertidal areas and brown bear habitat. Recreational use trends include two guided fishing and hunting services, one operator on AKI leased land, and the other on a private inholding. Subsistence use by AKI Shareholders is also high. Although human use is notable, particularly on the Olga Bay side of Horse Marine Lagoon, uses are generally in keeping with the implementation of a balanced recreation and conservation program. Little significant degradation has occurred. There is a strategic inholding on Olga Bay just outside of the lagoon which is the site of a guide service, and there are also several small parcel holdings in Deadman Bay, but the extent of resource attributes and generally good access qualities make this a valuable tract of resource land.

Summary

Waterfrontage/Access:	**Average:** Moderate to low 4.77 front foot/acre ratio. Olga Bay and Deadman Bay are protected waters, good boat and floatplane access.
Topography:	**Above average:** Site strategically contours the valley floor. Good inland travel.
Adjacent Uses/Location:	**Above average:** Active, but low impact recreation and subsistence use area. One significant inholding, several smaller ones.
Ecological Significance:	**Excellent:** Highly productive salmon streams, extensive intertidal areas, brown bear and deer habitat.

Conclusion

Class "A"	$900/acre times 5,781 acres equals $5,202,000

Alternative Valuation: AKI06C

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 29 W	13	404		404
35 S 29 W	19	607	607	
35 S 29 W	20	545		545
35 S 29 W	21	605		605
35 S 29 W	22	640		640
35 S 29 W	23	593	593	
35 S 29 W	24	206	206	
35 S 29 W	26	35	35	
35 S 29 W	27	190	190	
35 S 29 W	30	559	559	
35 S 30 W	13	640	640	
35 S 30 W	24	605	605	
35 S 30 W	25	270	270	
Totals		5,899	3,705	2,194

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	3,705	$1,000	$3,705,000
Non-Ocean Front	2,194	$300	$658,200
Totals	5,899	$740	$4,363,200

RECONCILIATION: AKI06C

The large site sales comparison approach indicates a value of $900/acre or $5,202,900. The Land Sales Comparison Approach Valuation produces a figure of $4,363,000 based on $740/acre. This is 18% less than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Two extraordinary items are noted. First, Horse Marine Lagoon and Horse Marine Lake represent highly productive salmon spawning grounds. Particularly significant resource attributes tend to be understated due to the central tendency built into the Land Sales Comparison Approach Valuation model. Second, Horse Marine Lake is both a rich resource area and floatplane accessible and surrounding upland areas are unduly discounted when a standard 30% factor is utilized to value these non-ocean fronting sections. This tends to explain the variance between the Land Sales Comparison Approach Valuation and the large site sales comparison approach.

Final Value Estimate $5,200,000

AKI07A
OLGA BAY NARROWS (WEST SHORE)

AKI LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

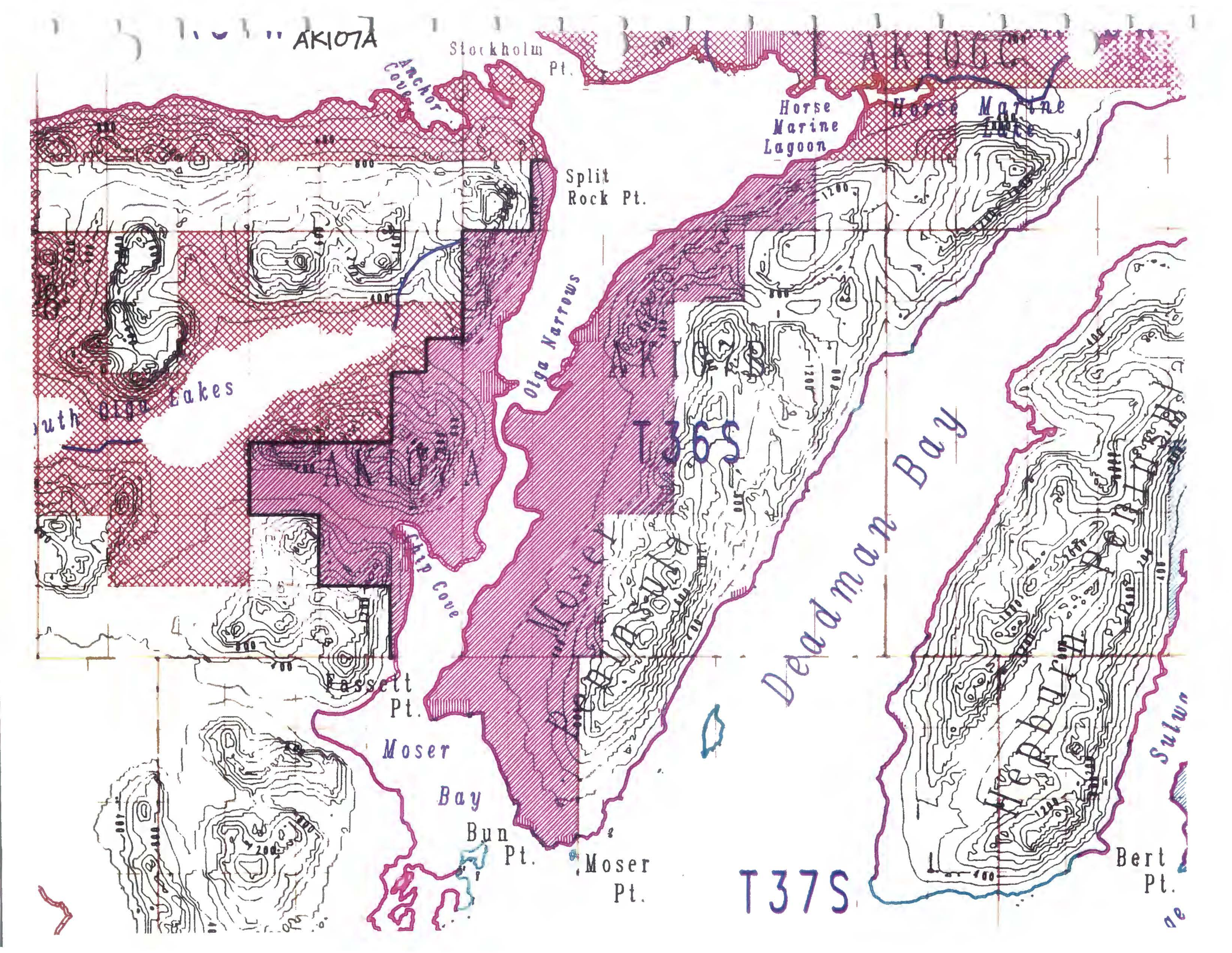
Streams are incomplete for the area at this time.

Scale 1:100,000

0 1 2 Miles

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


AK107A
Stockholm Pt.
Anchor Cove
Split Rock Pt.
Horse Marine Lagoon
Horse Marine Lake
AK106C
Olga Narrows
AK107B
T36S
AK107A
South Olga Lakes
Chip Cove
Fassett Pt.
Moser Bay
Bun Pt.
Moser Pt.
Moser Peninsula
Deadman Bay
Hepburn Peninsula
T37S
Bert Pt.

OLGA BAY NARROW (WEST SHORE)

AKI07A extends approximately seven miles north to south along the western shore of the Olga Narrows from Split Rock Point in lower Olga Bay to just below Chip Cove in Moser Bay. A commercial set net fishery has developed along the shoreline on small parcel inholdings, and cabin improvements are evident in the photo above. This picture was taken approximately one mile north of the Narrows and is a westerly view.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI07A

IDENTIFICATION — OLGA BAY NARROWS (WEST SHORE)

Location

The Olga Bay Narrows are located at the southern end of Kodiak Island. Olga Narrows connects Moser Bay with Olga Bay. The village of Akhiok is approximately eight miles to the south.

SITE DESCRIPTION

General

AKI07A extends approximately seven miles (north to south) along the western shore of the Olga Narrows from Split Rock Point in lower Olga Bay, to just below Chip Cove in upper Moser Bay. The site is typically less than one mile in width (east to west), although it extends three miles inland (towards Olga Lake) at a point just north of Chip Cove.

Size

5,477 acres

FF Waterfrontage

Shoreline Type	FF	%
Gravel, Cobble, Boulder Beaches	11,373	25%
Sheltered Rocky Shores	33,381	75%
Total	44,754	100%

Front Foot / Acre

8.17

Access

Access is by boat or float plane. Navigation of the Narrows is difficult without local knowledge. The current in the narrowest part of Olga Narrows attains an estimated velocity of 8 knots. The shoreline provides many opportunities to beach a boat.

Topography

Three mountainous peaks frame the shoreline. These peaks rise steadily from the shoreline and reach heights of 1,699ft, 1,890ft and 2,100ft, respectively. The mountains are separated by narrow valleys which provide corridors to the interior. The first valley is at Chip Cove, and the second is two miles north of Chip Cove. The valleys rise less than 200ft above sea level.

Shoreline Types

The shoreline along Olga Narrows tends to be a combination of gravel and cobble beaches, and rocky shores. Most frontage is convenient for shoreline access. There are several small lakes in the valley above Chip Cove with irregular shorelines.

Vegetation / Ground Cover

Vegetation is the sub-alpine valleys and lowlands are a combination of meadows, shrubs, and bog or marsh habitat. Mountainous areas contain patches of alder at

mid-elevations with a transition to low willow, bare soil, and rock at upper elevations.

Species

High tidal flows in the Olga Narrows produce local enrichment. There are extensive mussel beds in the narrows. An anadromous fish stream enters Chip Cove and supports coho and chum species. There is waterfowl summer use and over-wintering concentrated at areas just north of the Narrows.

POSSESSORY INTERESTS

Leases

AKI07A is located within brown bear permit area 240. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $4,000 (Sam Fejes).

Easements

Interim Conveyance 135 identifies two government reserved easement: EIN 42 C5, C6, DID9, EIN 42a C5, C6, D1, D9.

Other

The ownership status of several small commercial set net sites remains uncertain and contested under 14(c) provisions of ANILCA. Two of these sites are located in Chip Cove and one is south of Split Rock Point. Three 14(c) settlements have been concluded. These settlements include an AKI right of first refusal on subsequent sales of these sites.

IMPROVEMENTS

There are no improvements noted on AKI lands. Private development includes set net sites along Olga Narrows and the Moser Bay cannery in Chip Cove.

USE

This is a high use commercial set net fishing area. As many as eight set net sites may be in operation during summer months. The old Moser Bay Cannery is located in Chip Cove. This is also a high use subsistence area for the inhabitants of nearby Akhiok. Because of the numerous man made structures, wilderness attributes are considered low.

OIL SPILL TRUSTEE COUNCIL RATING

25 - low

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI07A

Discussion

AKI07A extends approximately eight miles along the western shores of the Olga Narrows. There is extensive ocean frontage comprised of sheltered gravel and rock beaches. Navigation of the narrows, however, is difficult without local knowledge and tidal currents attain speeds of 8 knots. More significant from a resource management perspective is the presence of a developed set-net fishery which has evolved along the shoreline. There are no less than eight set-net sites located either on private fee-owned land or contested 14(c) lands. The Moser Bay Cannery site is located in Chip Cove. Although AKI07A is situated on a rich marine resource area, featuring extensive intertidal flows between Moser and Olga Bays, multiple ownerships compromise control and management of the site under the highest and best use premise. Upland areas are of marginal ecological significance. There are two marginally productive salmon streams, both of which empty into Moser Bay across small parcel inholdings. Most of the uplands rise abruptly from the shoreline, although there is a noted exception and a small lake system just inland of Chip Cove.

Summary

Waterfrontage/Access:	**Above average:** Medium 8.17 front foot/acreage ratio. Sheltered beaches offset some by strong tidal currents.
Topography:	**Average:** Mountainous peaks divided by valleys. Low bank beaches.
Adjacent Uses/Location:	**Poor:** Commercial set net fishery area. Active transportation corridor between Akhiok and Olga Bay. Small parcel inholdings compromise site continuity.
Ecological Significance:	**Average:** Rich tidal flows and intertidal areas. Moderate to low productive salmon streams.

Conclusion

Class "C"	$600/acre times 5,477 acres equals $3,286,200

Alternative Valuation: AKI07A

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 30 W	32	155	155	
36 S 30 W	5	30	30	
36 S 30 W	6	607	607	
36 S 30 W	7	337	337	
36 S 30 W	18	220	220	
36 S 30 W	19	191	191	
36 S 30 W	30	115	115	
36 S 31 W	12	160		160
36 S 31 W	13	640		640
36 S 31 W	22	640		640
36 S 31 W	23	595	595	
36 S 31 W	24	640	640	
36 S 31 W	25	346	346	
36 S 31 W	26	635	635	
36 S 31 W	36	95	95	
Totals		5,406	3,966	1,440

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	3,966	$1,000	$3,965,500
Non-Ocean Front	1,440	$300	$432,000
Totals	5,406	$814	$4,397,500

RECONCILIATION: AKI07A

The large site sales comparison approach indicates a value of $600/acre or $3,286,200. The Land Sales Comparison Approach Valuation produces a figure of $4,397,500 based on $814/acre. This is 36% greater than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. The high level of indicated variance is directly related to the presence of Native allotments and other inholdings along the Olga Narrows and associated with the commercial set net fisheries. A $1,000/acre value assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments and overall values will converge at the central tendency. Most of the best waterfront locals are held under separate ownership and this significantly skews the actual central tendency of this parcel. The number and scope of private inholdings helps explain the significant variance between the Land Sales Comparison Approach Valuation and large site sales comparison approaches.

Final Value Estimate $3,300,000

AKI07B
OLGA BAY NARROWS (EAST SHORE)

AKI
LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

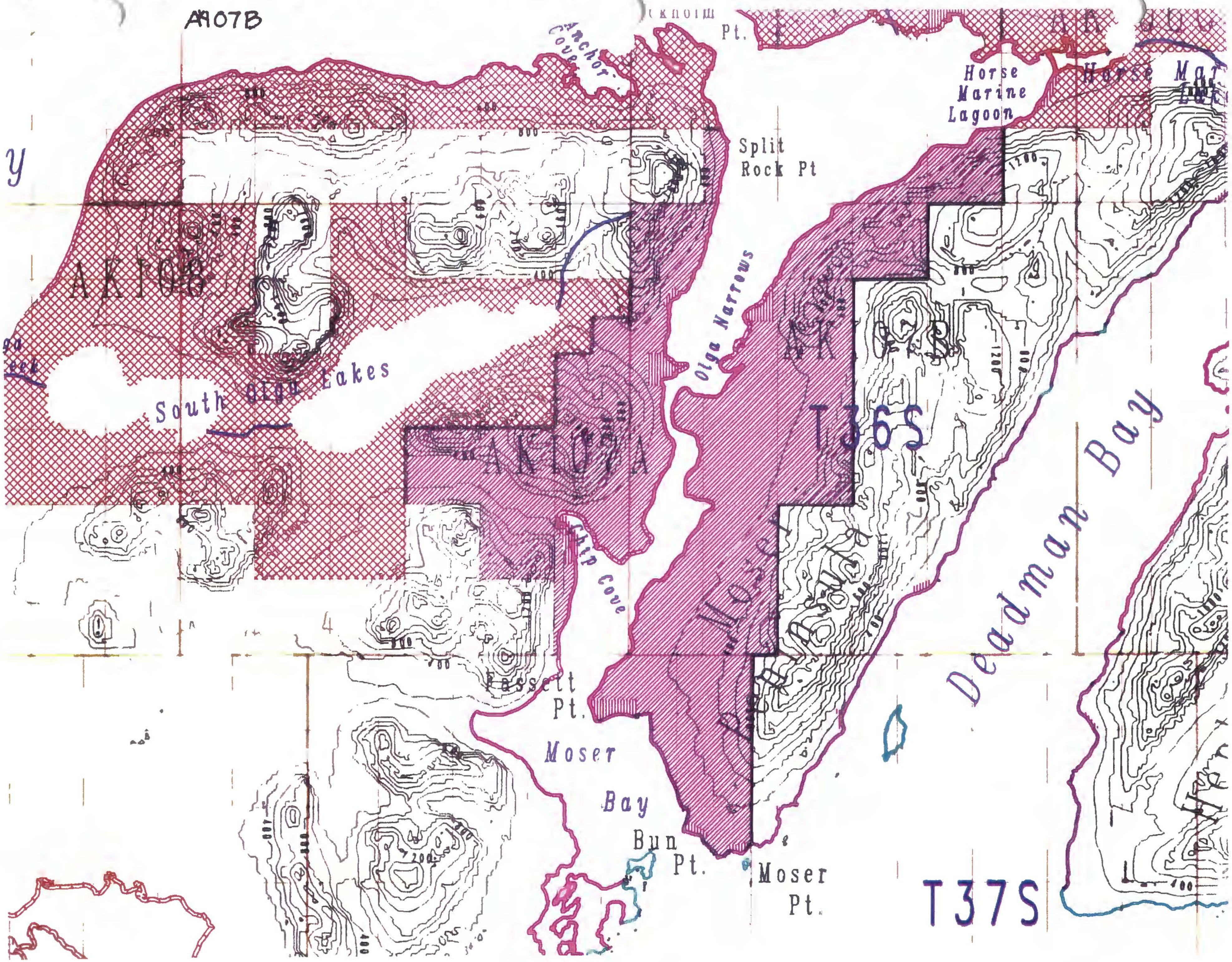
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


A107B
Anchor Cove
Pt.
Horse Marine Lagoon
Split Rock Pt
AK108
South Olga Lakes
Olga Narrows
AK107A
T36S
Deadman Bay
Chip Cove
Fassett Pt.
Moser Bay
Bun Pt.
Moser Pt.
T37S

OLGA BAY NARROWS (EAST SHORE)

AKI07B extends the length of the western side of the 11-mile Moser Peninsula, from just south of Horse Marine Lagoon to Moser Point. Moser Point is just out view to the right in the photo above. This photo looks northeasterly up the Moser Peninsula along the shoreline. An extensive commercial set net fishery has evolved along the shoreline, and one of nine set net sites is discernible in the lower right corner of the photo.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI07B

IDENTIFICATION — **OLGA BAY NARROWS (EAST SHORE)**

Location

The Olga Bay Narrows are located at the southern end of Kodiak Island. The Olga Narrows connects Moser Bay with Olga Bay. The village of Akhiok is located just south of Moser Bay.

SITE DESCRIPTION

General

AKI07B extends the length of the western side of the eleven-mile Moser Peninsula. The upper Moser Peninsula may be defined as the Horse Marine Lagoon area, and Moser Point marks the southern tip. The width from east to west ranges from less than one mile to over two miles.

Size

9,479 acres

FF Waterfrontage

Shoreline Type	FF	%
Mixed Sand and Gravel Beaches	12,052	16%
Gravel, Cobble, Boulder Beaches	4,240	5.5%
Sheltered Rocky Shores	58,739	78.5%
Total	75,031	100%

Front Foot/Acre

7.92

Access

Access is by boat or float plane. Navigation of the Narrows is difficult without local knowledge. The current in the narrowest part of Olga Narrows attains an estimated velocity of 8 knots. The shoreline provides many opportunities to beach a boat.

Topography

The Moser Peninsula is defined by a series of mountains rising to as high as 2,501ft in the north and 2,102ft in the south. The spine of the peninsula runs primarily down the east side. Much of the peninsula's western portions (particularly in the south) are level or undulating at elevations less than 200ft.

Shoreline Types

The shorelines along the Olga Narrows and into Olga and Moser Bays tend to consist of gravel and cobble beaches. There are numerous small bays and coves, and most waterfrontage is convenient for shoreline access.

Vegetation/Ground Cover

Low land areas contain a mosaic of tall shrubs, meadows, shrub hummocks and bog or marsh habitat. This describes much of the southern peninsula. Northwestern portions of the peninsula are a combination of lowland areas and mid-elevation slopes.

Mid-elevation slopes are vegetated by dense to widely-spaced patches of tall shrub (dominated by alder).

Species

High tidal flows in the Olga Narrows provide local enrichment. There are extensive mussel beds in the Narrows. There are several moderately productive salmon streams on the Moser Peninsula. There are several areas of concentrated waterfowl use along the shoreline.

POSSESSORY INTERESTS

Leases

AKI leases two commercial set net sites. The first is a three-year lease with Moser Bay Seafoods, commencing January 1, 1993 at $2,500 annually. The second is a three-year lease with Eric Goosen, commencing January 1, 1994 at $3,000 annually.

AKI07B is located within brown bear permit area 239. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $2,000 (Nin Ridge Guides).

Easements

Interim Conveyance 135 identifies four government reserved easements: EIN 29 D9, EIN 29a D9.

Other

The ownership status of two small commercial set net sites remains uncertain and contested under 14(c) provisions of ANILCA. Seven 14 (c) settlements have been concluded. These settlements include an AKI right of first refusal on subsequent sales of these sites.

IMPROVEMENTS

Improvements on AKI lands include cabins, storage areas and smoke houses, associated with two set net sites leased out.

USE

This is a high use commercial set net fishery area. As many as nine set net sites (most on private, small parcels) may be in operation during summer months. This is also a high use subsistence area for the inhabitants of nearby Akhiok. Because of the numerous man made structures, wilderness attributes are considered low.

OIL SPILL TRUSTEE COUNCIL RATING

25 - low.

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI07B

Discussion

AKI07B extends approximately 11 miles along the eastern shores of the Olga Narrows. Although there is extensive ocean frontage comprised of generally accessible sheltered gravel and rock beaches, navigation of the narrows is difficult without local knowledge and tidal currents obtains speeds of 8 knots. More significant from a resource management perspective is the presence of a set-net fishery which has evolved along the shoreline. There are no less than nine set-net sites located in the vicinity. Seven are either on private fee-owned land or contested 14(c) lands and two are on AKI leased land. Although AKI07B is situated on a rich marine resource area, and there are extensive intertidal flows between Moser and Olga Bays, multiple ownerships compromise control and the manageability of the site under the highest and best use premise. There also tends to be a high level of boat traffic emanating from Akhiok Village, which may impact certain animal species and wildlife attributes. Upland areas are mountainous in the north and generally low-lying to rolling in the south. There is moderate bear and deer habitat and moderate to low salmon stream productivity.

Summary

Waterfrontage/Access:	**Above average:** Medium 7.92 front foot/acre ratio. Sheltered beaches offset some by strong tidal currents.
Topography:	**Average:** Low bank beaches. Topographic profile transitions from mountainous to rolling bench land.
Adjacent Uses/Location:	**Poor:** Commercial set net fisheries area. Active transportation corridor between Akhiok and Olga Bay. Small parcel inholdings compromise site continuity.
Ecological Significance:	**Average:** Rich tidal flows and intertidal areas. Moderate to low productive salmon streams.

Conclusion

Class "C"	$600/acre times 9,479 acres equals $5,687,400

Alternative Valuation: AKI07B

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 30 W	33	5	5	
35 S 30 W	34	185	185	
35 S 30 W	35	550	550	
36 S 30 W	3	640	640	
36 S 30 W	4	440	440	
36 S 30 W	8	245	245	
36 S 30 W	9	640	640	
36 S 30 W	16	640		640
36 S 30 W	17	545	545	
36 S 30 W	18	220	220	
36 S 30 W	19	191	191	
36 S 30 W	20	635	635	
36 S 30 W	21	640		640
36 S 30 W	29	635	635	
36 S 30 W	30	118	118	
36 S 30 W	31	584	584	
36 S 30 W	32	640		640
37 S 31 W	1	640		640
37 S 31 W	2	490	490	
37 S 31 W	3	93	93	
37 S 31 W	11	95	95	
37 S 31 W	12	635	635	
37 S 31 W	13	223	223	
Totals		9,728	7,168	2,560

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	7,168	$1,000	$7,168,000
Non-Ocean Front	2,560	$300	$768,000
Totals	9,728	$816	$7,936,000

RECONCILIATION: AKI07B

The large site sales comparison approach indicates a value of $600/acre or $5,687,400. The Land Sales Comparison Approach Valuation produces a figure of $7,936,000 based on $816/acre. This is 36% greater than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. In this instance, the presence of a significant commercial set net fishery and numerous inholdings along Olga Bay, Olga Narrows, and Moser Bay represent extraordinary site attributes. The $1,000/acre of value assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the $1,000/acre central tendency. The presence of significant inholdings, which typically have been selected for their prime waterfront attributes, negatively skews the actual central tendency of this parcel. The number and scope of private inholdings helps explain the significant variance between the Land Sales Comparison Approach Valuation and the large site sales comparison approaches.

Final Value Estimate $5,700,000

AKI07A & B
OLGA BAY NARROWS

AKI

LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

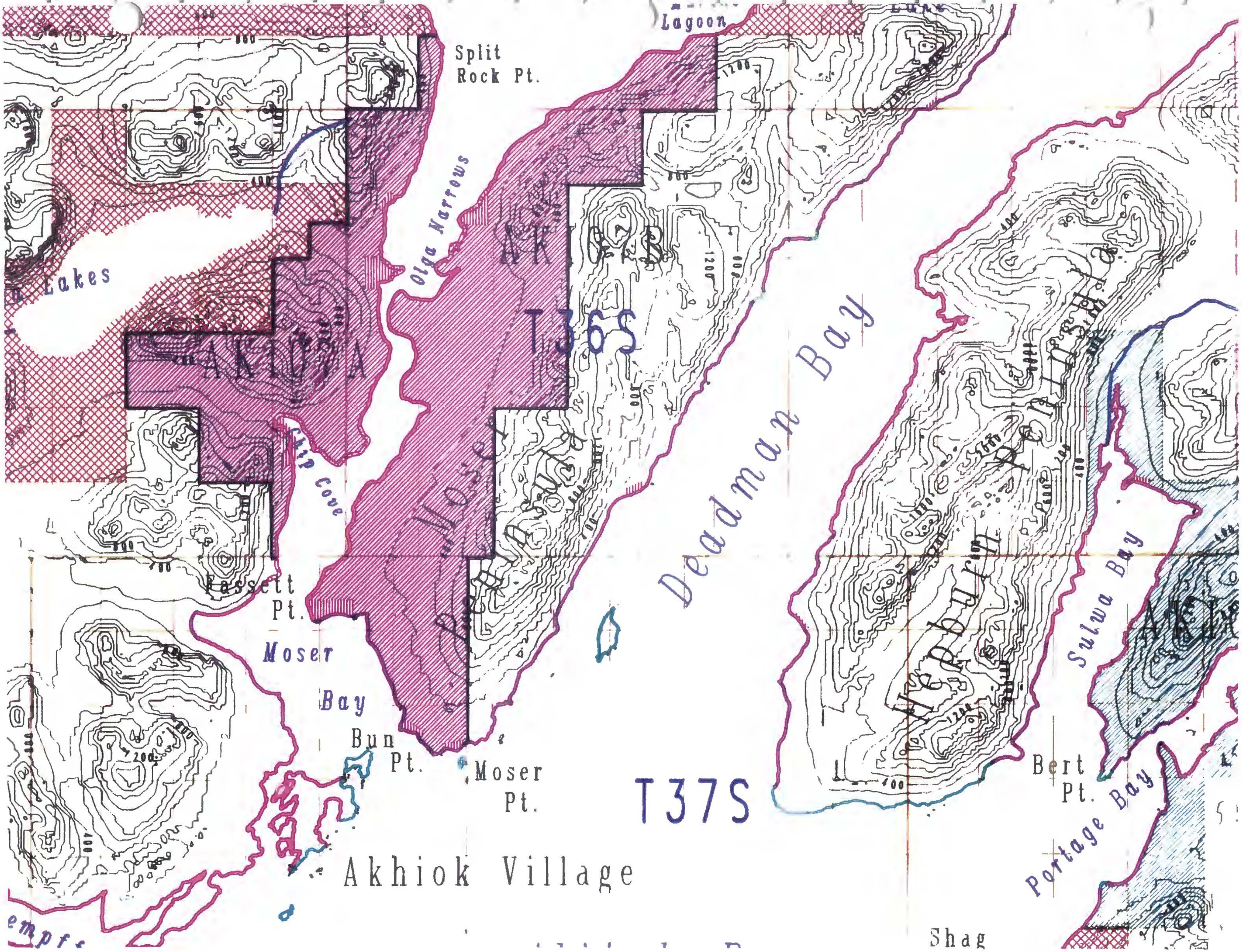
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


Lagoon
Split
Rock Pt.
Lakes
Olga Narrows
AKI 07B
T36S
AKI 07A
Chip Cove
Moser
Peninsula
Deadman Bay
Hepburn Peninsula
Sulwa Bay
Fassett
Pt.
Moser
Bay
Bun
Pt.
Moser
Pt.
T37S
Bert
Pt.
Portage Bay
Akhiok Village
Shag

OLGA BAY NARROWS

AKI07A and AKI07B are separated by the Olga Narrows. The Narrows themselves are found in the center of this picture and connect Olga Bay in the north with Moser Bay in the south. AKI07B is located on the left in this southwesterly aerial view. Portions of the commercial set net fishery and cabins which predominate in this area may be made out along the shoreline. AKI07A contours the mountain slopes and shorelines on the western side of the Olga Narrows (at right).

Photographer: Ralph Eluska
Date: June 29, 1994

PROPERTY IDENTIFICATION #AKI07A&B

IDENTIFICATION — **OLGA BAY NARROWS**

Location

The Olga Bay Narrows are located at the southern end of Kodiak Island. Olga Narrows connects Moser Bay with Olga Bay. The village of Akhiok is approximately eight miles to the south.

SITE DESCRIPTION

General

AKI07A extends approximately seven miles (north to south) along the western shore of the Olga Narrows from Split Rock Point in lower Olga Bay, to just below Chip Cove in upper Moser Bay. The site is typically less than one mile in width (east to west), although it extends three miles inland (towards Olga Lake) at a point just north of Chip Cove.

AKI07B extends the length of the western side of the eleven-mile Moser Peninsula. The upper Moser Peninsula may be defined as the Horse Marine Lagoon area, and Moser Point marks the southern tip. The width from east to west ranges from less than one mile to over two miles.

Size

14,956 acres

FF Waterfrontage

Shoreline Type	FF	%
Mixed Sand and Gravel Beaches	12.052	10%
Gravel, Cobble, Boulder Beaches	15,613	13%
Sheltered Rocky Shores	92,120	77%
Total	119,785	100%

Front Foot/Acre

8.01

Access

Access is by boat or float plane. Navigation of the Narrows is difficult without local knowledge. The current in the narrowest part of Olga Narrows attains an estimated velocity of 8 knots. The shoreline provides many opportunities to beach a boat.

Topography

Three mountainous peaks frame the western shoreline. These peaks rise steadily from the shoreline and reach heights of 1,699ft, 1,890ft and 2,100ft, respectively. The mountains are separated by narrow valleys which provide corridors to the interior. The first valley is at Chip Cove, and the second is two miles north of Chip Cove. The valleys rise less than 200ft above sea level. The Moser Peninsula defines the eastern shore and is characterized by a series of mountains rising to as high as 2,501ft in the north and 2,102ft in the south. The

spine of the peninsula runs primarily down the east side. Much of the peninsula's western portions (particularly in the south) are level or undulating at elevations less than 200ft.

Shoreline Types

The shoreline along Olga Narrows tends to be a combination of gravel and cobble beaches, and rocky shores. Most frontage is convenient for shoreline access. There are several small lakes in the valley above Chip Cove with irregular shorelines.

Vegetation / Ground Cover

Vegetation is the sub-alpine valleys and lowlands are a combination of meadows, shrubs, and bog or marsh habitat. Mountainous areas contain patches of alder at mid-elevations with a transition to low willow, bare soil, and rock at upper elevations.

Species

High tidal flows in the Olga Narrows produce local enrichment. There are extensive mussel beds in the narrows. An anadromous fish stream enters Chip Cove and supports coho and chum species. There is waterfowl summer use and over-wintering concentrated at areas just north of the Narrows.

POSSESSORY INTERESTS

Leases

AKI07A is located within brown bear permit area 240. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this permit area was $4,000 (Sam Fejes).

AKI07B is located within brown bear permit area 239. Land use licenses for guided brown bear hunts are issued on a seasonal basis for AKI. A license fee for the 1994 spring season for this permit area was $2,000 (Nin Ridge Guides).

AKI leases two commercial set net sites on AKI07B. The first is a three-year lease with Moser Bay Seafoods, commencing January 1, 1993 at $2,500 annually. The second is a three-year lease with Eric Goosen, commencing January 1, 1994 at $3,000 annually.

Easements

Interim Conveyance 135 identifies six government reserved easement: EIN 42 C5, C6, DID9, EIN 42a C5, C6, D1, D9, EIN 29 D9, EIN 29a D9.

Other

On AKI07A, the ownership status of several small commercial set net sites remains uncertain and contested under 14(c) provisions of ANILCA. Two of these sites are located in Chip Cove and one is south of Split Rock Point. Three 14(c) settlements have been concluded. On AKI07B, the ownership status of two small commercial set net sites remains uncertain and contested under 14(c) provisions of ANILCA. Seven

14(c) settlements have been concluded. All settlements include an AKI right of first refusal on subsequent sales of these sites.

IMPROVEMENTS

Private development includes set net sites along Olga Narrows and the Moser Bay cannery in Chip Cove. Improvements on AKI lands include cabins, storage areas, and smoke houses, associated with two set net sites leased out.

USE

This is a high use commercial set net fishing area. As many as eight set net sites may be in operation during summer months. The old Moser Bay Cannery is located in Chip Cove. This is also a high use subsistence area for the inhabitants of nearby Akhiok. Because of the numerous man made structures, wilderness attributes are considered low.

OIL SPILL TRUSTEE COUNCIL RATING

25 - low

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI07A&B

Discussion

AKI07A&B extends approximately eight miles along the western shores of the Olga Narrows and eleven miles along the eastern shores. There is extensive ocean frontage, comprised of sheltered gravel and rock beaches. Navigation of the narrows, however, is difficult without local knowledge and tidal currents attains speeds of 8 knots. More significant from a resource management perspective is the presence of a developed set-net fishery which has evolved along the shoreline. There are no less than seventeen set-net sites located either on private fee-owned land or contested 14(c) lands. The Moser Bay Cannery site is located in Chip Cove. Although AKI07A&B is situated on a rich marine resource area, featuring extensive intertidal flows between Moser and Olga Bays, multiple ownerships compromise control and management of the site under the highest and best premise. Upland areas are of marginal ecological significance. There also tends to be a high level of boat traffic emanating from Akhiok Village which may impact certain animal species and wildlife attributes.

Summary

Waterfrontage/Access:	**Above average:** Medium 8.01 front foot/acreage ratio. Sheltered beaches offset some by strong tidal currents.
Topography:	**Average:** Mountainous peaks divided by valleys. Low bank beaches.
Adjacent Uses/Location:	**Poor:** Commercial set net fishery area. Active transportation corridor between Akhiok and Olga Bay. Small parcel inholdings compromise site continuity.
Ecological Significance:	**Average:** Rich tidal flows and intertidal areas. Moderate to low productive salmon streams.

Conclusion

Class "C"	$600/acre times 14,956 acres equals $8,973,600

Alternative Valuation: AKI07A & B

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
35 S 30 W	33	5	5	
35 S 30 W	34	185	185	
35 S 30 W	35	550	550	
36 S 30 W	3	640	640	
36 S 30 W	4	440	440	
36 S 30 W	8	245	245	
36 S 30 W	9	640	640	
36 S 30 W	16	640		640
36 S 30 W	17	545	545	
36 S 30 W	18	220	220	
36 S 30 W	19	191	191	
36 S 30 W	20	635	635	
36 S 30 W	21	640		640
36 S 30 W	29	635	635	
36 S 30 W	30	118	118	
36 S 30 W	31	584	584	
36 S 30 W	32	640		640
37 S 31 W	1	640		640
37 S 31 W	2	490	490	
37 S 31 W	3	93	93	
37 S 31 W	11	95	95	
37 S 31 W	12	635	635	
37 S 31 W	13	223	223	
35 S 30 W	32	155	155	
36 S 30 W	5	30	30	
36 S 30 W	6	607	607	
36 S 30 W	7	337	337	
36 S 30 W	18	220	220	
36 S 30 W	19	191	191	
36 S 30 W	30	115	115	
36 S 31 W	12	160		160
36 S 31 W	13	640		640
36 S 31 W	22	640		640
36 S 31 W	23	595	595	
36 S 31 W	24	640	640	
36 S 31 W	25	346	346	
36 S 31 W	26	635	635	
36 S 31 W	36	95	95	
Totals		15,134	11,134	4,000

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	11,134	$1,000	$11,133,500
Non-Ocean Front	4,000	$300	$1,200,000
Totals	15,134	$815	$12,333,500

RECONCILIATION: AKI07A&B

The large site sales comparison approach indicates a value of $600/acre or $8,973,600. The Land Sales Comparison Approach Valuation produces a figure of $12,333,500 based on $815/acre. This is 36% greater than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. A developed set net fishery and numerous inholdings along this waterway represents extraordinary site attributes. A $1,000/acre value assigned to waterfront sections in the alternative analysis reflects the perceived central tendency of the market. The underlying assumption is that on average, good shoreline segments will offset poor ones and overall values will converge at the $1,000/acre central tendency. The numerous inholdings, which generally have been selected for their prime waterfront attributes, negatively skews the actual central tendency of this parcel. The number and scope of private inholdings helps explain the significant variance between the Land Sales Comparison Approach Valuation and the large site sales comparison approaches.

Final Value Estimate $9,000,000

AKI08
UPPER STATION LAKES

AKI

LAND

EVOS Habitat Rating

- High
- Moderate
- Low
- Small Parcels

Shore Type

- Marshes
- Sheltered Tidal Flats
- Sheltered Rocky Shores
- Gravel, Cobble, Boulder Beaches
- Mixed Sand and Gravel Beaches
- Exposed Tidal Flats
- Coarse-grained Sand Beaches
- Fine-grained Sand Beaches
- Exposed Wave-cut Platforms
- Exposed Rocky Shores
- Shoreline Not Categorized
- Streams

Administrative

- Township/Range Lines
- Section Lines

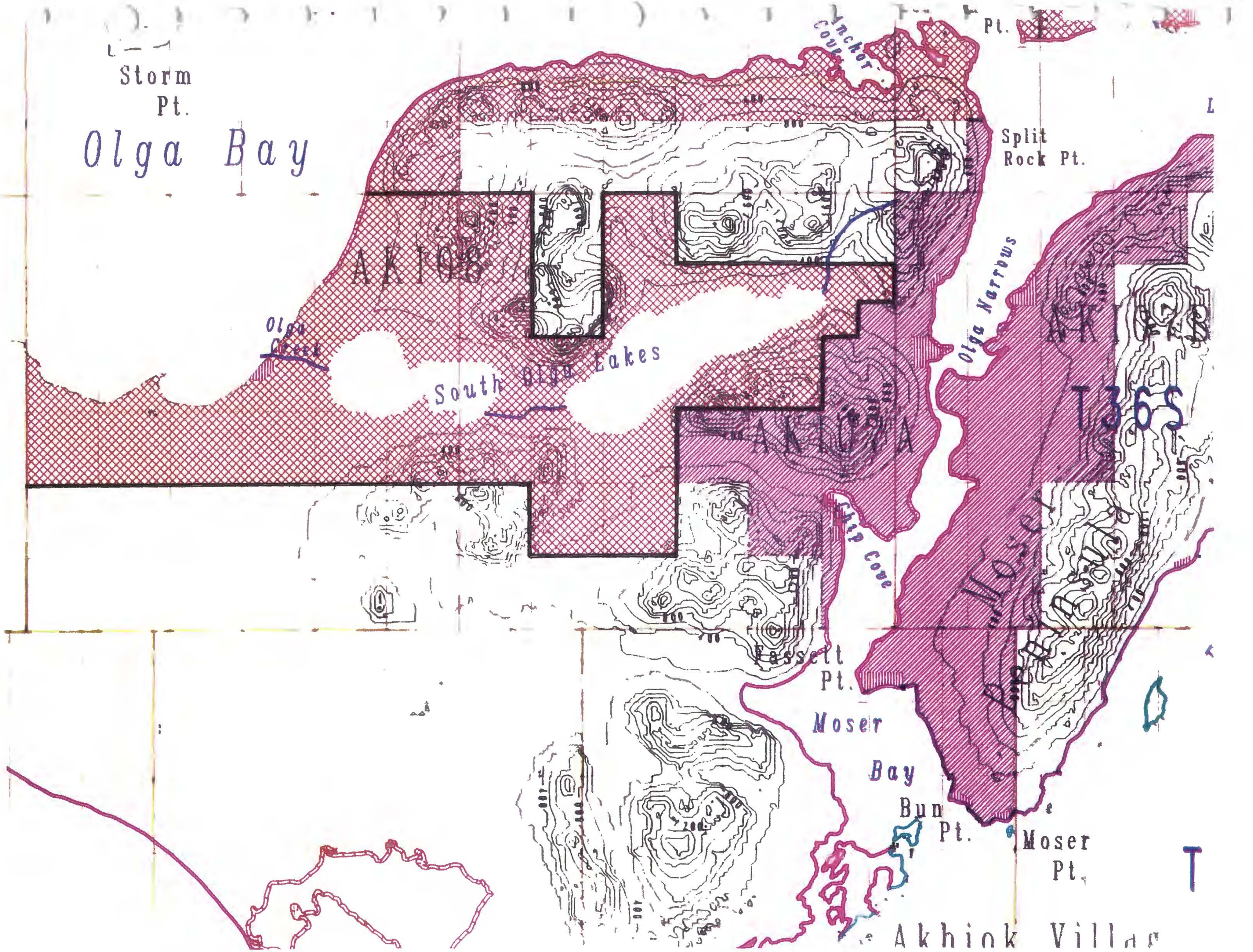
Shoreline types originated from the Environmental Sensitivity Index maps produced by the National Oceanographic and Atmospheric Administration (NOAA) and the Mineral Management Service prior to the Exxon Valdez oil spill.

Streams are incomplete for the area at this time.

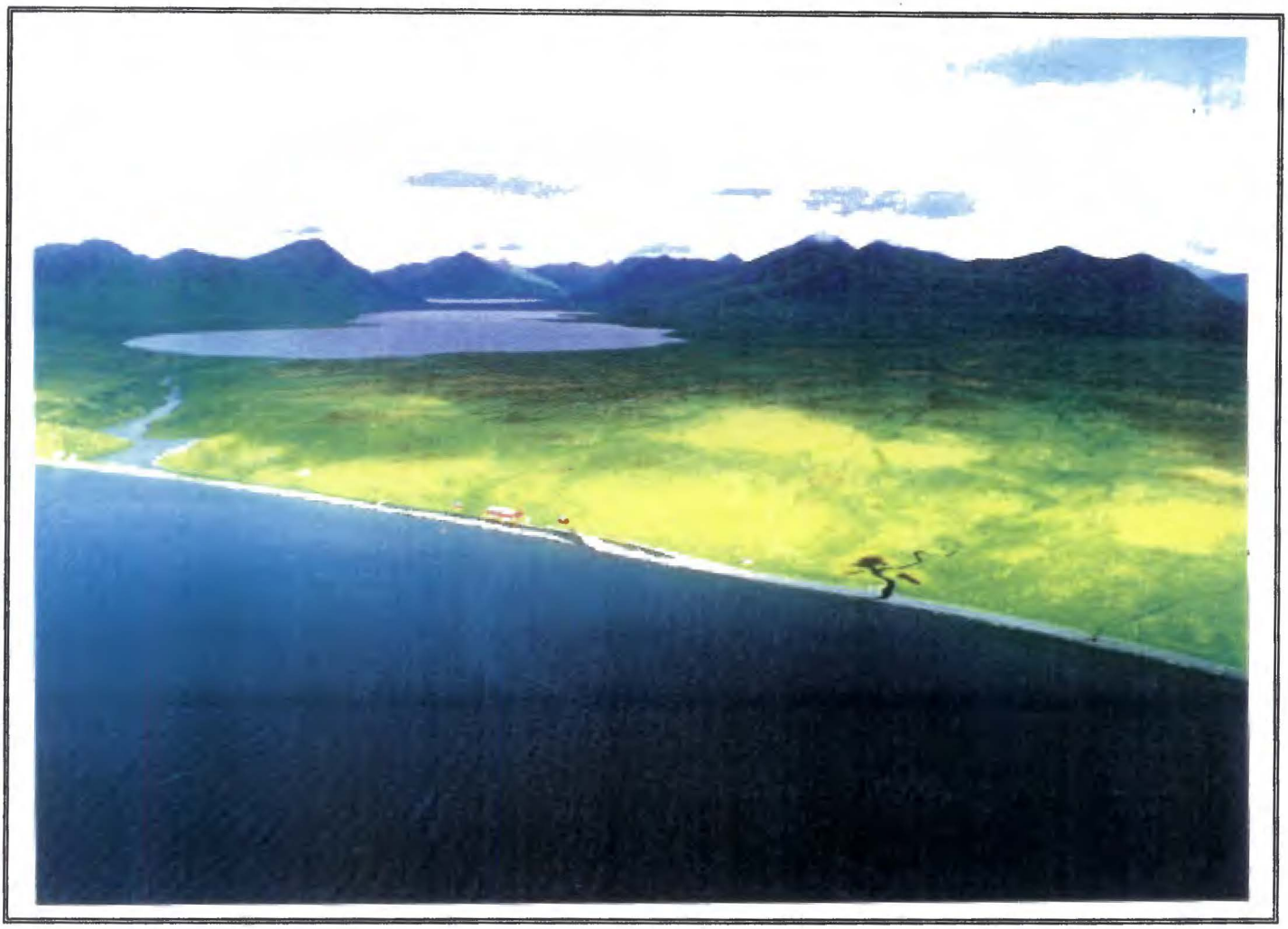
Scale 1:100,000

Map by Gambrell Urban GIS
for Shorett & Riely
Real Estate Appraisers & Consultants
Seattle Anchorage

August 4, 1994


Storm Pt.
Olga Bay
Olga Creek
South Olga Lakes
Anchor Cove
Pt.
Split Rock Pt.
Olga Narrows
T36S
Moser Peninsula
Chip Cove
Fassett Pt.
Moser Bay
Bun Pt.
Moser Pt.
Akhiok Villag
T

UPPER STATION LAKES



AKI08 extends approximately twelve miles west to east from the south shores of Olga Bay (seen in the foreground) across the Upper Station Lakes area. The contours of the western most lake are immediately visible, while the eastern lake is just visible in the above photo. AKI08 is generally level, but also includes portions of lower elevations in the surrounding mountains. The Upper Station Lakes and Olga Creek (visible at left) support significant salmon runs. Except for inholdings at the mouth of Olga Creek, the 15,663-acre site is a contiguous and productive ecosystem.

Photographer: Paul Bottge
Date: June 27, 1994

PROPERTY IDENTIFICATION #AKI08

IDENTIFICATION — UPPER STATION LAKES

Location

Upper Station Lakes are located at the southern end of Kodiak Island on a peninsula like area bounded by Olga Bay, Moser Bay, and the Pacific Ocean. The lakes are about five miles north of the Village of Akhiok.

SITE DESCRIPTION

General

AKI08 extends approximately twelve miles (west to east) from the south shores of Olga Bay across Upper Station Lakes, to a point approximately one mile inland of the Olga Narrows. The site is irregular in shape, but generally conforms to the area's drainage pattern.

Size

15,663

FF Waterfrontage

Shoreline Type	FF	%
Gravel, Cobble, Boulder beaches	7,263	21%
Uncategorized	27,655	79%
Total	34,915	100%

Front Foot / Acre

2.23

Access

Access to Olga Bay is either by float plane or boat. Olga Narrows connects Moser Bay with Olga Bay. Currents are strong and can be tricky through the Narrows. Olga Bay itself is well protected, and access to the shore is easily had. Access to Upper Station Lakes is by float plane or overland from Olga Bay.

Topography

Areas fronting on Olga Bay are low grassy bluffs rising from 10ft to 80ft. A small mountain range rising moderately to between 1,768ft to 2,410ft flanks on the north side of Upper Station Lakes. The lakes themselves are at an elevations less than 100ft. Two mountains flank the south side of the lakes, these rising to 1,749ft and 1,890ft, respectively. A low lying muskeg area separates these southern flanking mountains.

Shoreline Types

Much of Olga Bay contains a rocky shoreline, but the southwestern shoreline of Olga Bay contains sand, gravel, and cobble beaches. The shorelines of Upper Station Lakes are irregular in shape. The shoreline is made up of gravel beaches.

Vegetation / Ground Cover

Vegetation in this area is rich and varied. Alder thickets cover the mountainside to the south and are found in patches on level areas. Grasslands are interspersed and more extensive on the mountains to the north. Tundra heath, consisting almost exclusively

of crowberries, bearberries, lowbush cranberries and willow, predominates along the west end of the lakes.

Species

Upper Station Lakes are an excellent sockeye salmon fishery. Additionally, the lakes support steelhead, Dolly Varden, and rainbow trout. This area is equally noted for its prime brown bear habitat. Brown bear can be found in high numbers along the streams and lakes during the salmon season and denning in the uplands during the winter. South Olga Lakes also provide excellent waterfowl habitat for nesting, molting, and feeding. Other mammals common to the area include land otter, beaver, and muskrat. There is a high abundance of ptarmigan and red fox inhabiting this area.

POSSESSORY INTERESTS

Leases

A one-acre site on the south shore of eastern Upper Station Lakes is leased by Fejes Guide Service. The lease is for the construction and use of a hunting cabin. Lease terms are for eight years, commencing July 24, 1992. In return for construction of this cabin, the lessee is granted exclusive use of the cabin for spring and fall bear hunts. AKI reserves the right to license others to use the cabin during non-reserved periods. There is an option for a 10-year renewal at a daily use rate of $75/day.

Kodiak Regional Aquaculture Associate conducts a sockeye salmon egg take at Upper Station Lakes under a year-to-year land use license. The 1993 terms for August and September called for $3,500.

AKI08 is located within brown bear permit area 240. Land use licenses for guided brown bear hunts are issued on a seasonal basis by AKI. A license fee for the 1994 spring season for this area was $4,000 (Sam Fejes).

Easements

Interim Conveyance 135 identifies nine government reserved easements: EIN 20, D9, C6, L, EIN 22 D9, C6,L, EIN 23 D9,EIN 23a D9, EIN 24 D9, EIN 26 C6, D9, L, EIN 27 D9, EIN 39 C5, C6, D1, D9, EIN 42a C5, C6, D1, D9.

Other

IMPROVEMENTS

There are two recreation cabins on AKI lands. The Fejes cabin measures 12ft by 14ft.

USE

There is a significant number of bear hunters that use this area. Fejes Guide Service runs guided bear hunts out of a cabin on eastern Upper Station Lakes. While bear hunting is the primary recreational activity,

ptarmigan and duck hunting also occur. Other recreational activities include camping, hiking, and sport fishing. In addition to the Fejes cabin, there is a second recreation cabin on the western Upper Station Lake.

OIL SPILL TRUSTEE COUNCIL RATING

60 - high.

LARGE SITE SALES COMPARISON APPROACH VALUATION: AKI08

Discussion

AKI08 extends easterly from the south shore of Olga Bay to encompass the Upper Station Lakes area. Ocean frontage and Olga Bay is 34,915 front feet, or 6.6 miles, and consists of generally accessible sand, gravel and cobble beaches. Olga Bay is well protected from extreme ocean influences and is well suited for floatplane and boat use. In addition to Olga Bay frontage, there is extensive lake frontage on the Upper Station Lake system, totaling approximately 13 miles. The lakes are well suited for floatplane access. Overland access to the lakes is across generally level topography. Upper Station Lakes support significant salmon populations including a strong sockeye salmon run. The area also supports brown bear feeding and denning concentrations. There are two recreation cabins on the site and a lodge on Olga Creek, but, overall, existing human structures and private inholdings do very little to compromise high habitat attributes. The ecosystem is particularly productive and self-contained. There are good opportunities present to develop and sustain high quality conservation and recreational goals.

Summary

Waterfrontage/Access:	**Excellent:** Ocean frontage is minimal, but this does not recognize extensive useable lake frontage. Frontage is protected and accessible, typically low bank.
Topography:	**Above average:** Topographical features are moderate. Mountainous areas in the vicinity of the Upper Station Lakes are broken by broad valleys.
Adjacent Uses/Location:	**Above average:** Active, but typically low impact, recreation and subsistence use area. Two recreation cabins. Small parcel inholding on Olga Creek.
Ecological Significance:	**Excellent:** Highly productive salmon stream. Productive marine and fresh water lake ecosystems. Prime bear habitat.

Conclusion

Class "A"	$1,000/acre times 15,663 acres equals $15,663,000

Alternative Valuation: AKI08

Description				
Seward Meridian Township	Sec	Acreage Total	Ocean Front Acres	Non- Ocean Front Acres
36 S 31 W	4	640		640
36 S 31 W	6	632		632
36 S 31 W	7	633		633
36 S 31 W	9	475		475
36 S 31 W	10	240		240
36 S 31 W	11	340		340
36 S 31 W	12	515		515
36 S 31 W	14	640		640
36 S 31 W	15	420		420
36 S 31 W	16	45		45
36 S 31 W	17	475		475
36 S 31 W	18	410		410
36 S 31 W	19	541		541
36 S 31 W	20	580		580
36 S 31 W	21	550		550
36 S 31 W	28	640		640
36 S 31 W	29	565		565
36 S 32 W	1	640		640
36 S 32 W	2	195	195	
36 S 32 W	10	90	90	
36 S 32 W	11	580	580	
36 S 32 W	12	630		630
36 S 32 W	13	190	190	
36 S 32 W	14	170	170	
36 S 32 W	15	471	471	
36 S 32 W	16	105	105	
36 S 32 W	17	200	200	
36 S 32 W	18	285	285	
36 S 32 W	19	636	636	
36 S 32 W	20	640	640	
36 S 32 W	21	640	640	
36 S 32 W	22	640	640	
36 S 32 W	23	630		630
36 S 32 W	24	630		630
Totals		15,713	4,842	10,871

Valuation			
Description	Acres	Dollars per Acre	Total Value
Ocean Front	4,842	$1,000	$4,842,000
Non-Ocean Front	10,871	$300	$3,261,300
Totals	15,713	$516	$8,103,300

RECONCILIATION: AKI08

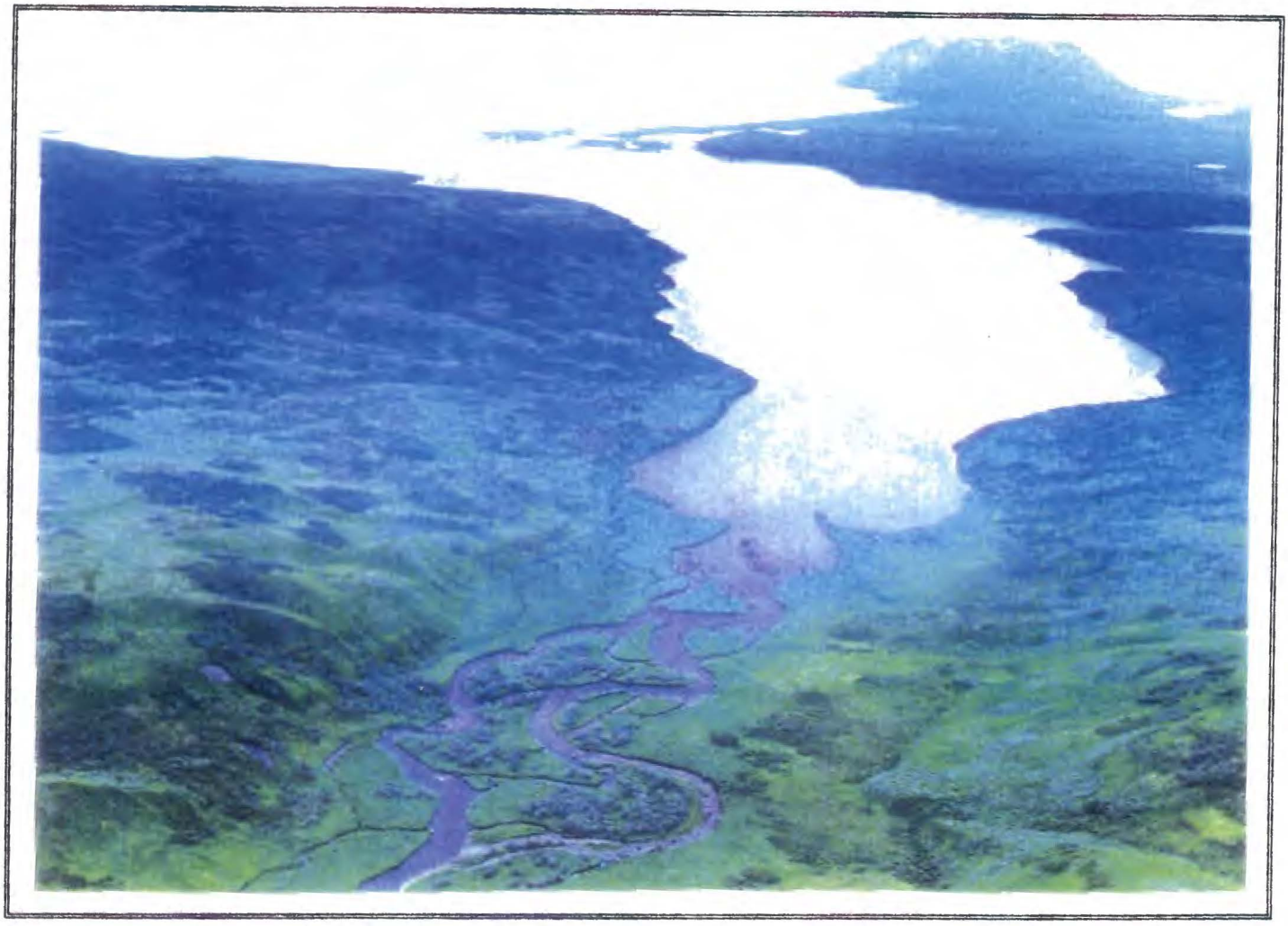
The large site sales comparison approach indicates a value of $1,000/acre or $15,663,000. The Land Sales Comparison Approach Valuation produces a figure of $8,103,300 based on $516/acre. This is 48% less than the large site sales comparison approach. Although a 5% to 10% variance in not necessarily unreasonable given the somewhat simplistic nature of the alternative analysis, variance greater than this indicates either the presence of certain atypical site specific attributes (as addressed in the discussion of the Land Sales Comparison Approach Valuation) or an under or overstatement of value via the large site sales comparison approach. Two extraordinary items are noted. First, AKI08 is a significant resource area, supporting one of Kodiak's most important salmon runs. Second, unlike most non-ocean fronting uplands, much of the AKI08 uplands area possesses fresh waterfrontage on the Upper Station Lakes system. These lakes contain upwards of 13 miles of shoreline, are well suited for floatplane access, and are a high recreation and subsistence use area. The central tendency built into the Land Sales Comparison Approach Valuation and the standard 30% adjustment factor for uplands unduly discounts site attributes unique to AKI08. Together, these items explain the significant variance between the Land Sales Comparison Approach Valuation and large site sales comparison approaches.

Final Value Estimate $15,600,000

LAND SALE COMPARISONS

LAND SALE COMPARISON NO. 1
STURGEON RIVER

STURGEON RIVER



The Sturgeon River enters into Shelifkof Strait approximately five miles south of Karluk on southeastern Kodiak Island. The site is located two and one-half miles up from the river's mouth. Alaska Outdoor Experiences acquired the site in an estate sale. The buyer considers the price paid to be below market.

Photographer: Paul Bottge
Date: June 26, 1994

LAND SALE COMPARISON No. 1
STURGEON RIVER

IDENTIFICATION Sturgeon River

Location Located approximately two and one-half miles up Sturgeon River from Shelikof Strait on the southwest side of Kodiak Island. The parcel is approximately five miles south of Karluk, and 70 miles west of Kodiak City.

Legal U.S. Survey So. 6724, located in Section 12, Township 31 South, Range 33 West, Seward Meridian, Alaska.

SALE DESCRIPTION

Seller Estate of David W. Waselie

Buyer Mike Cusack, Jr., Alaska Outdoor Experiences.

Sale Price $126,000

Property Rights Fee simple, surface estate only.

Financing $16,345 cash (13%), $109,655 on DOT to seller at 8% over 30 years. The seller preferred having monthly payments and the buyer considered the price a steal. It is unlikely that a lower price would have resulted for all cash.

Date June 7, 1992

Book / Page 115/018

Motivations This is an estate sale. The sale price was based upon a BIA appraisal. The buyer believes the property to be a tremendous value at this price and proposes a fishing lodge. Alternatively, he has offered it to the US Fish and Wildlife for $4,500/acre.

SITE DESCRIPTION

Size 159.97 acres

Topography The Sturgeon River helps drain the Kodiak refugium and associated glacial lakes. This site is typical of the rolling landscape that differentiates it from the rugged mountains in the rest of the refuge.

Access Access is possible by either floatplane or boat. Boat access is difficult on low tides, but the buyer indicates he can get a Beaver on floats into the property at low tide. He also plans on building an airstrip for wheel plane access.

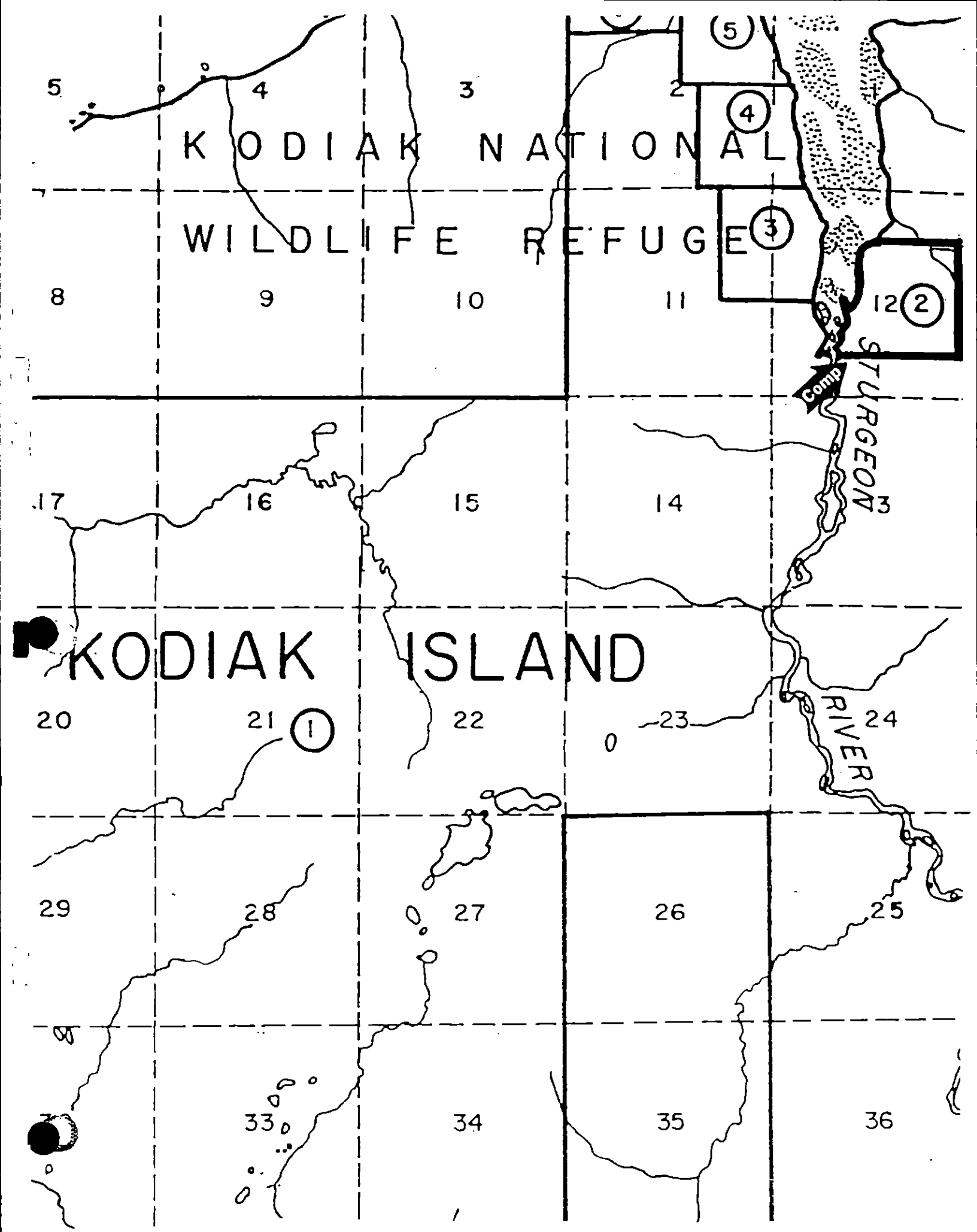
Vegetation and Soils	Foliage is typical of the area and consists of grasses, ferns, willow and alder thickets.
Species	Fishing and hunting is reportedly excellent. The Sturgeon River is used by pink, chum, coho, and steelhead for spawning and rearing. The fish in this river provides an early food source for high concentrations of both bald eagles and brown bear.
Waterfrontage	This parcel has approximately 3,000 front feet of fresh-water access on the right bank of the Sturgeon River.
Zoning	Conservation (no 22g)
Utilities	None
Existing Improvements	None
Current Use	Natural habitat, use by village.
Proposed Use	Recreation, fishing lodge.

ANALYSIS

Analysis Price	$126,000
Price/Acre	$788

CONFIRMATION

Name	Mike Cusack
Affiliation	Buyer - Alaska Outdoor Experiences
Telephone	907-277-3033
Appraiser	Paul Bottge
Date	July 9, 1994


KODIAK NATIONAL
WILDLIFE REFUGE
KODIAK ISLAND
STURGEON
RIVER
Comp
5
4
3
2
1
5
4
3
2
12
8
9
10
11
17
16
15
14
13
20
21
22
23
24
0
29
28
27
26
25
33
34
35
36

LAND SALE COMPARISON NO. 2
OLD BELIEVERS

OLD BELIEVERS

Northwestern veiw along "The Narrows" at the south end of Afognak Island. The Old Believers site is on the right. The site was purchased by a Russian Orthodox religious group for the development of a small community.

Photographer: Larry Shorett
Date: June 24, 1994

LAND SALE COMPARISON NO. 2
OLD BELIEVERS

IDENTIFICATION — Old Believers Site

Location — This site is located on the south end of Afognak Island on the north shore of "The Narrows", the entrance to Raspberry Strait. The parcel is just north of Little Raspberry Island, and 25 miles northwest of the City of Kodiak.

Legal — Tract A and B, sheet no. 2 of 2 sheets, Plat 89-8-RS, Sections 17 & 20, Township 25 South, Range 22 West, Seward Meridian, Kodiak Recording District.

SALE DESCRIPTION

Seller — Enola Mullan, Mike Mullan

Buyer — Aleneva Joint Ventures (Old Believers)

Property Rights — Fee estate

Sale Price

Tract A	$609,375
Tract B	$585,000
Total	$1,194,375

Financing — $200,000 down, 7% interest, $198,450/yr, 6.4 year term.

Date — November 6, 1989

Book/Page — 089/972 and 099/001

Motivations — The two Native allotments sold as a package. The tracts were purchased by a Russian Orthodox religious group for the development of a small community.

SITE DESCRIPTION

Size

Tract A	126.76 acres
Tract B	146.89 acres
Total	273.65 acres

Topography — Topography is rolling hillsides, sloping gently down to Raspberry Strait.

Access — The beach is narrow. Boat access and anchorage on and over tidal flats is poor.

Vegetation and Soils — Foliage includes scattered patches of large spruce trees and meadows. A BIA appraisal had allocated substantial marketable timber value; however, the marketability of existing timber was precluded by location and logistics and the parties involved reportedly did not allocate any timber value to the sale. An added deed restriction allows for only a limited harvest in support of residential uses during the financing period.

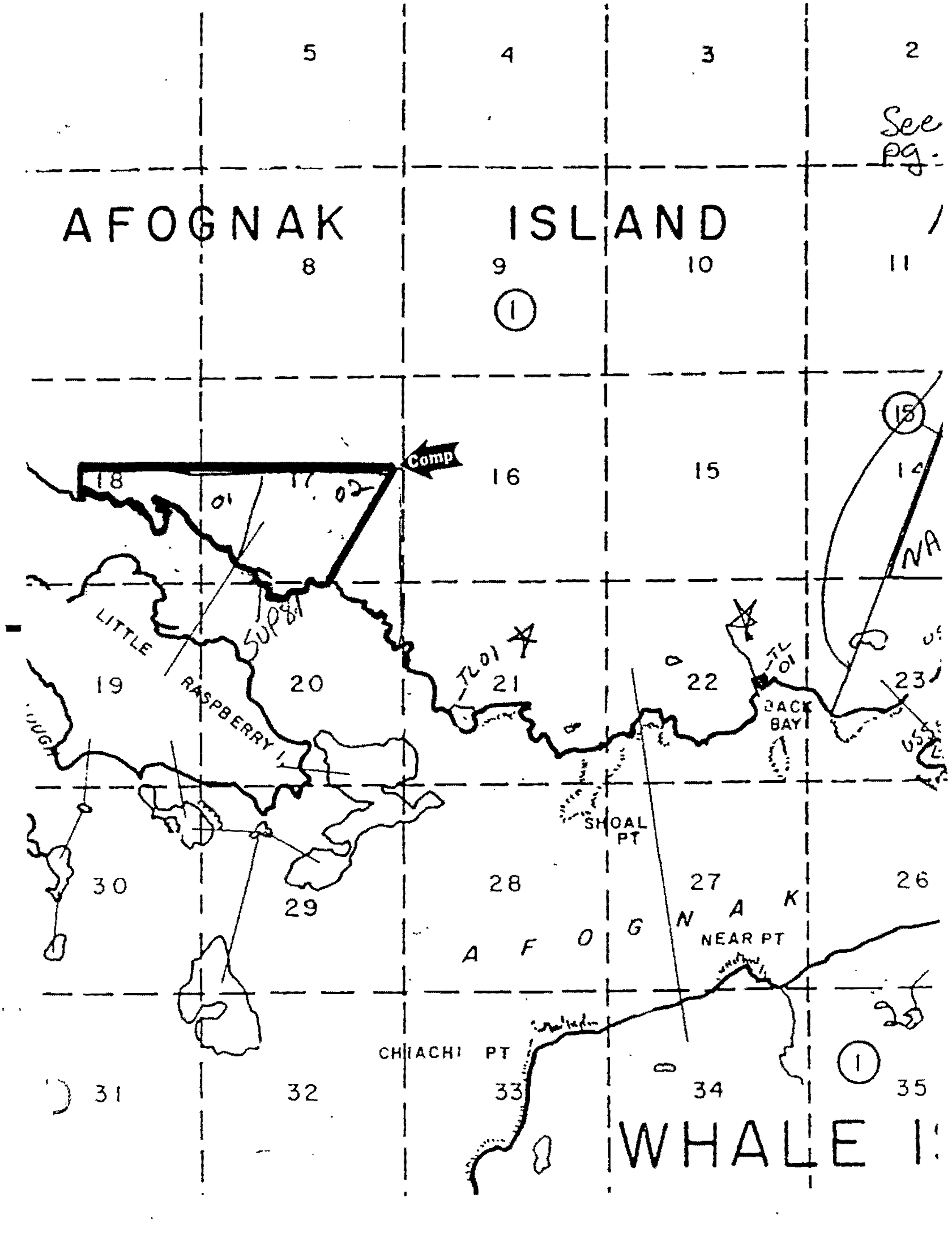
Species	Salmon and other marine mammals occupy the waters of Raspberry Strait. There are no anadromous fish streams present. The presence of black tail dear is noted on Little Raspberry Island.
Waterfrontage	There is 10,067 feet of marine frontage on "The Narrows".
Zoning	Conservation (No. 22g)
Utilities	None
Existing Improvements	The sale included homesite improvements
Current Use	Fish site valued at $30,000
Proposed Use	Old Believers community

ANALYSIS

Adjustment to Record Price	Improvements have been valued at $30,000 and are subtracted from the total sale price of $1,194,375.
Analysis Price	$1,164,375
Price / Acre	$4,255

CONFIRMATION

Name	Sharlene Sullivan
Affiliation	Associated Island Brokers
Telephone	907-486-2000
Appraiser	Andy Robinson
Date	May 27, 1992



5
4
3
2
See pg.
AFOGNAK ISLAND
8
9
10
11
1
15
Comp
18
17
01
02
16
15
14
NA
LITTLE RASPBERRY I.
SUP81
19
20
TL01
21
22
TL 01
23
JACK BAY
SHOAL PT
30
29
28
27
26
AFOGNAK
NEAR PT
CHIACHI PT
31
32
33
34
1
35
WHALE I

LAND SALE COMPARISON NO. 3
HELGASON BEAR CAMP

HELGASON BEAR CAMP

Southerly view down Uganik Passage, past the Helgason Bear Camp site. This narrow parcel affords 9,430 lineal feet of frontage. The old placer mine building is just visible at left in the photograph. The main homesite is just out of view to the right.

Photographer: Larry Shorett
Date: June 24, 1994

LAND SALE COMPARISON NO. 3
HELGASON BEAR CAMP

IDENTIFICATION — Helgason Bear Camp on Terror Bay

Location — Uganik Passage is located on the northwest side of Kodiak Island between the mainland and Uganik Island. The site is 25 miles due west of the City of Kodiak.

Legal — U.S. Survey No. 7886

SALE DESCRIPTION

Seller — Clara Helgason

Buyer — U.S. Fish & Wildlife Services

Sale Price — $470,000

Property Rights — Fee simple, less subsurface rights

Financing — Cash

Date — 7/23/91

Book / Page — 108/320

Motivations — The purchaser is Fish and Wildlife, who will manage it as part of the Kodiak National Wildlife Refuge.

SITE DESCRIPTION

Size — 151.21 acres

Topography — Topography is moderately steep sloping toward the bay with areas of rolling hills and adequate cabin sites interspersed. Rocky bluffs occur along much of the waterfrontage and vary in height from a few feet to 40 feet.

Access — Beaches are boulder strewn and narrow on the northern half of the property, resulting in inferior access to this uplands portion of the parcel. Beaches on the southern portion of the parcel provide better upland access, are wider and consist more of gravel and cobbles. At low tide, beaches are broad with widths up to approximately 145 feet. Boat mooring is considered less than average due to a northwesterly exposure to winds.

Vegetation and Soils — Foliage includes scattered birch, willow and typical Kodiak alder patches. There are many clearings containing wild rose, fireweed, wild celery, devils club and ferns.

Species — Uganik passage supports both commercial and subsistence harvest activities, including salmon and

waterfowl. An anadromous fish stream marks the property's southern border. The surrounding uplands support a high density of bears.

Waterfrontage This parcel affords approximately 9,430 feet of frontage on Uganik Passage with a configuration exploiting waterfrontage rather than depth.

Zoning Conservation (22g)

Utilities None

Existing Improvements Existing improvements include a former operating beach placer mine, four small cabins, outbuildings, and a main homesite. The sale price allocated $80,975 to improvements and $11,000 to personal property.

Current Use Former operating beach placer mine, homesite, and lodge.

Proposed Use Purchaser of this refuge in holding will allow USF&WS to manage it with the rest of the refuge.

ANALYSIS

Adjustment to Record Price The sale included improvements at $80,925 and personal property at $11,000. The only value from the purchaser's perspective is for the personal property, as the intent was to purchase the property for inclusion in the bear refugees.

Analysis Price $459,000

Price/Acre $3,042

CONFIRMATION

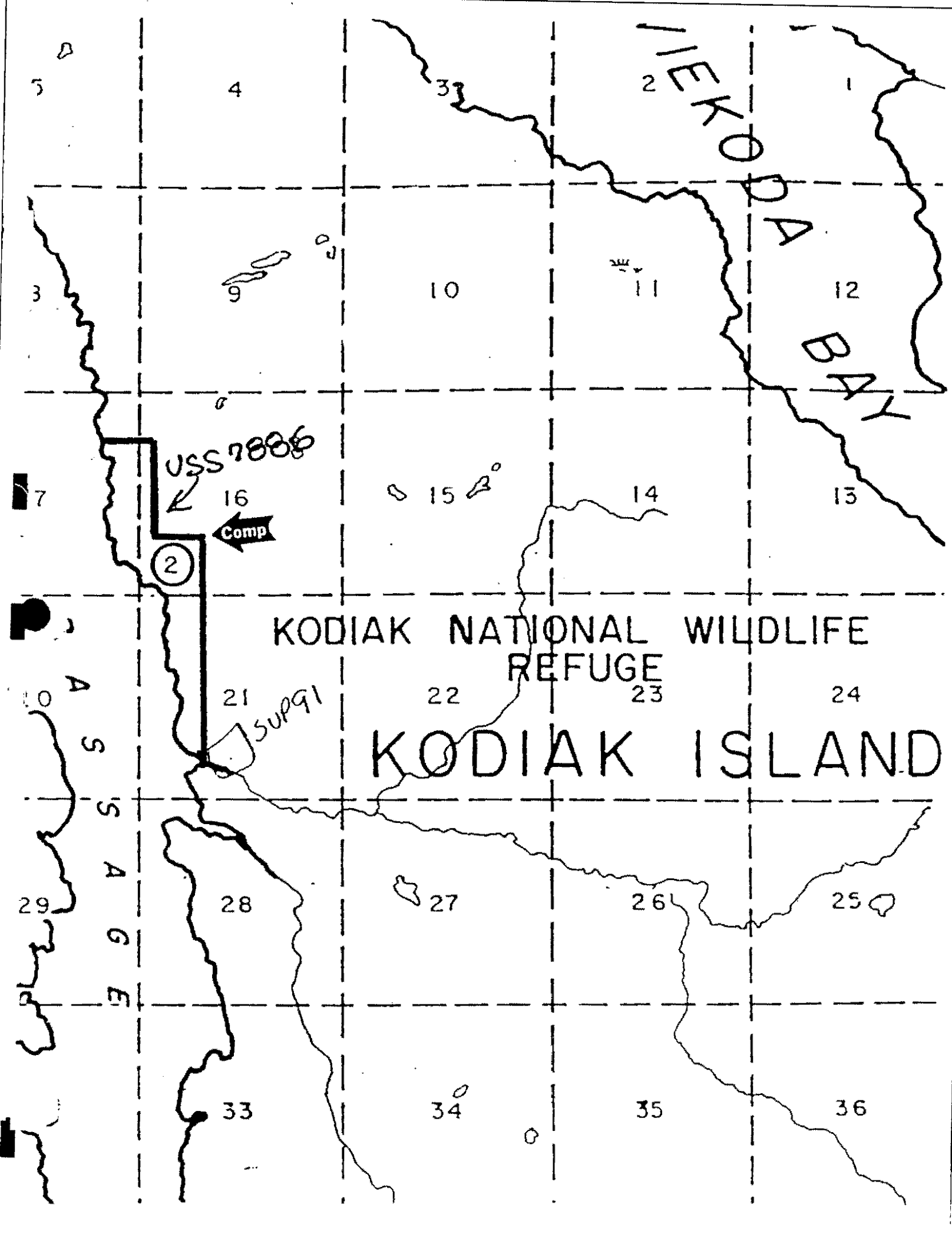
Name Bob Rice

Affiliation U.S. Fish and Wildlife

Telephone 907-786-3372

Appraiser Andy Robinson

Date May 22, 1992


IEKODA BAY
USS 7886
Comp
2
KODIAK NATIONAL WILDLIFE REFUGE
Supply
KODIAK ISLAND
ASSAGE
5
4
3
2
1
9
10
11
12
7
16
15
14
13
21
22
23
24
29
28
27
26
25
33
34
35
36

LAND SALE COMPARISON NO. 4
DOG SALMON CREEK

DOG SALMON CREEK

Jack Wichers' site just east of the Dog Salmon River is visible at right. The Dog Salmon River supports one of the better Kodiak Island salmon runs. The site has been on and off the market for several years with a near sale in 1992 and a current offer by the USF&WS.

Photographer: Paul Bottge
Date: June 27, 1994

LAND SALE COMPARISON NO.4
DOG SALMON CREEK

IDENTIFICATION Dog Salmon Creek

Location This parcel is located on the south end of Kodiak Island within Olga Bay and just east of the Dog Salmon River.

Legal West half, Section 23, Township 35 South, Range 30 West, Seward Meridian, Kodiak Recording District, Alaska.

SALE DESCRIPTION

History There was a pending sale in October of 1992, between the owner and Mike Cusack, owner of Alaska Outdoor Experiences, at $360,000 or $2,000/acre. This sale did not close as the potential purchaser acquired an alternative site on the Sturgeon River and did not have the resources to simultaneously close on two sites. The property went back on the market, listed with Associated Island Brokers and was subdivided into four tracts, approximately 38 acres each. The listing price started at $100,000 a tract, or $450,000 for all four. U.S. Fish and Wildlife has made an offer at an undisclosed price and the property has been taken off market again.

Property Right Fee simple surface estate only.

Financing According to the published listing, the sellers were offering terms at one-third cash down with the balance over 3-5 years at an interest rate of 10%.

Motivations Mike Cusack proposed a fishing and hunting lodge and guide service. The U.S. Fish and Wildlife will look to add the site to the Kodiak Wildlife Refuge.

SITE DESCRIPTION

Size 178 acres. Being legally described as a one-half section, the parcel should contain 320 acres, however, 142 acres are submerged under Olga Bay. The site has been subdivided into four tracts, measuring 48 acres, 38 acres, 40 acres, and 52 acres, respectively.

Topography The front portion of the parcel has typically well drained soils. The back portion, estimated at 30% - 40%, is poorly drained with several beaver ponds and small creeks.

Access Access is by boat via Akhiok Village and the Olga Narrows or by Floatplane. Olga Bay is well protected from extreme ocean influences. Beach access is over gravel beaches.

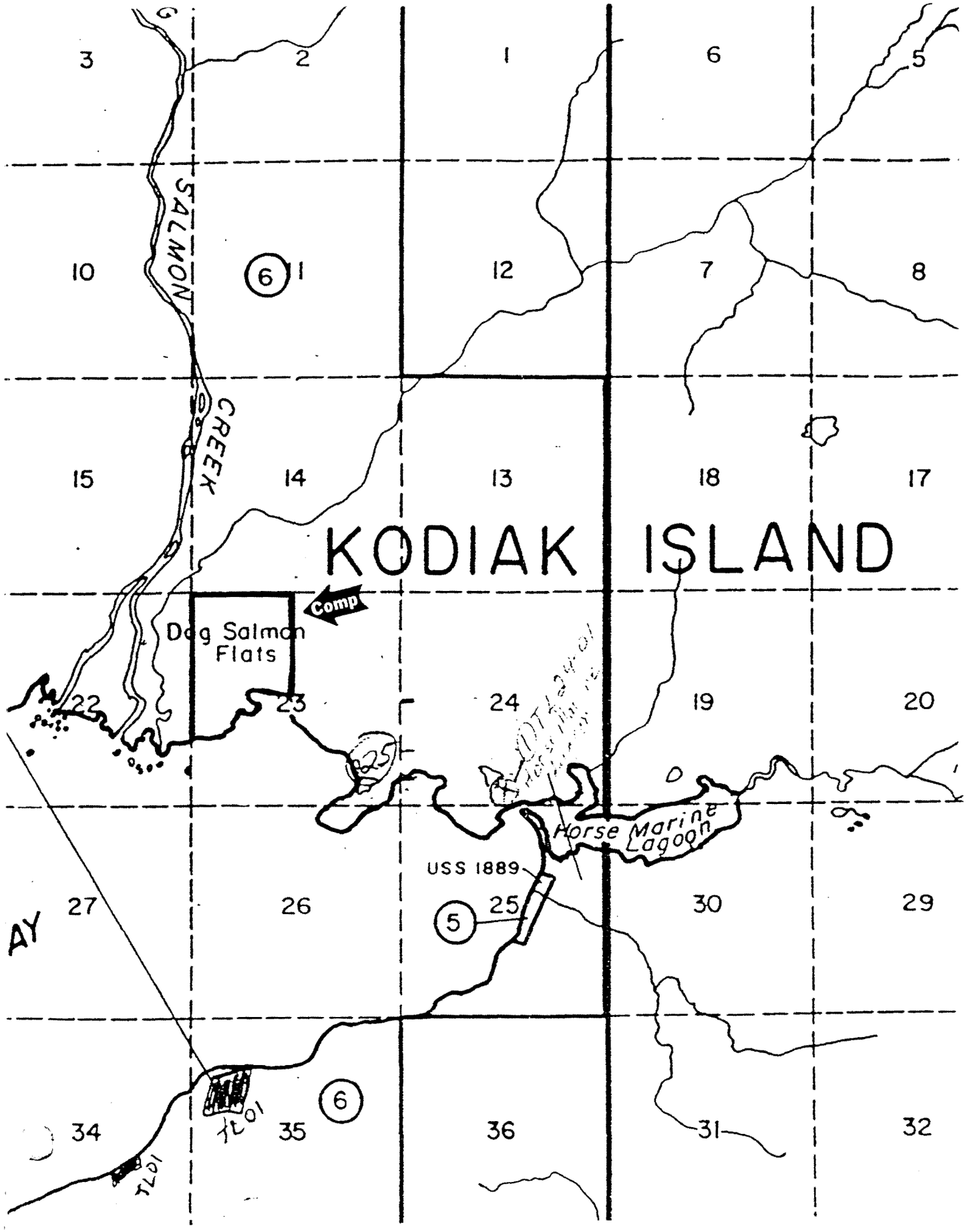
Vegetation and Soils	The front portion of the parcel has typically well drained soils and is forested with large cottonwoods. The back portion, estimated at 30% to 40%, is poorly drained with several beaver ponds and small creeks.
Species	The area has excellent fishing and hunting and the Dog Salmon River, one-quarter mile to the west, supports one of Kodiak's largest red salmon runs.
Waterfrontage	The parcel affords approximately 3,250 feet of frontage on Olga Bay. Beaches are sheltered rock shores. A small protected bay offers private anchorage and access
Zoning	Conservation (22g).
Utilities	None.
Existing Improvements	None.
Current Use	Undeveloped.
Proposed Use	Mike Cusack, with Alaska Outdoor Experiences, proposed a fishing and hunting lodge and guide service. The property was marketed as private fishing and hunting habitat. The US Fish and Wildlife proposes to add it to the Kodiak Wildlife Refuge.

ANALYSIS

A 1992 pending sale at $360,000 indicates a price per acre of $2,000. At a listing price of $450,000, the indicated price per acre is $2,222. The offer by the US Fish and Wildlife has not been disclosed.

CONFIRMATION

Name	Jack Wichers
Affiliation	Owner
Telephone	303-290-9555
Appraiser	Paul Bottge
Date	August 10, 1994


KODIAK ISLAND
SALMON
CREEK
Dog Salmon Flats
Comp
Horse Marine Lagoon
USS 1889
3
2
1
6
5
10
11
12
7
8
15
14
13
18
17
22
23
24
19
20
25
27
26
25
30
29
34
35
36
31
32
5
6
TL01
TL01