17.2.6

SUPPLEMENTARY VALUATION

of

SELDOVIA NATIVE ASSOCIATION

INHOLDINGS

KACHEMAK BAY STATE PARK,

ALASKA

November, 1989

by

MUNDY-DAY-BUNN

MEMORANDUM State of Alaska

Department of Natural Resources - Division of Land and Water Management

TO: Ron Swanson, Chief
Land and Resources

DATE: December 6, 1989

FILE NO:

TELEPHONE NO: 762-2680

THRU:

SUBJECT: Appraisal Review
Appraisal No. 2264-2
Supplementary
Valuation Seldovia
Native Association
Inholdings, Kachemak
Bay State Park,
Alaska

FROM: Dennis L. Lattery
Review Appraiser

I have had an opportunity to review a Supplementary report the Seldovia Native Association (SNA) has had prepared. This is apparently intended as a supplement to the original document, completed by Mundy & Associates, which was offered as an opinion of the value of the 19,367 acres of SNA land within Kachemak Bay State Park.

The supplemental report consists, essentially, of eleven pages of narrative analysis in which a more conventional sales comparison approach is utilized as the basis for arriving at a conclusion. This is as opposed to the averaging process applied to state and national "natural" land sales transactions, largely by computer application, which was utilized in the original document.

For purpose of brevity I have confined my comments to the new analysis presented on pages 41-51 of the report. The remainder of this narrative was extracted largly verbatum from the original document and, while that narrative contains a number of items upon which I would have comment, I will not duplicate at this time comments regarding those same items made in my review of the original report.

The supplement, from an appraisal review standpoint, is considerably preferable to the original report in that most of the thinking of the appraiser is presented in the analysis. While I have a number of questions concerning the report I am at least now able to determine what the appraiser did in most instances and what was used in support of adjustments.

The following are specific items in the report which concern me.

1. The appraiser has used an outdated definition of market value on page 3 of this report. The currently aceptable definition of market value is found in the 9th Edition of THE APPRAISAL OF REAL ESTATE.

2. Location (p. 42). This revewer recognizes but does not necessariy agree with the appraisers opinion that the purpose for which a property is acquired would be the overriding determinant of comparability. Utilization of a sales transaction is justified if the property can be shown to be "comparable" be it in Alaska or the Western United States.

3. Remoteness (p. 42). In the discussions of remoteness on page 42 it is not clear which two sales are ajusted for this factor. Where in the report was the adjustment made?

4. Comparable Sales Data - general comment. The utilization of sales deomonstrating price variations from $644.00 per acre (Sale No. 1) to $5495.00 per acre (Sale No. 2) logically indicates that the two extremes could not both be "comparable" to the subject. Nor is it reasonable to attempt to adjust such extremes to the subject.

5. Sale No. 1 (p. 42). Sale No. 1 differs from the subject in terms of size, access, location overall quality and due to the fact that it is an interior lot as opposed to the subject being, overall, a waterfront property. None of these items are addressed or adjusted for.

6. Sale No. 2 (p. 43). Sale No. 2 differs from the subject in terms of location, size, and overall quality. Inferior quality of access to the sale property appears to be overstated (it is located only several miles off the Kantishna Road, the main Denali Park access road). The total property consists of a number of individual patented mining claims (effectively subdivided) and no consideration is given to the subject being a waterfront property.

7. Sale No. 3 (p. 43). Sale No. 3 differs from the subject in terms of inferior access, date of sale, quality, location, size, and in being an interior parcel versus the subject being an overall waterfront property. Only

size was adjusted for. Date of sale (1978) would be a big factor here. Assuming the sale price reflected market value in 1978 the current value of this land, adjusted for time at historic Anchorage market rates, would be very high!

8. Sales No. 4 (p. 43). Sale No. 4 differs from the subject in terms of size, date of sale (1980), access and interior lot (vs. waterfront) status. Only time was adjusted for. The same comment regarding date of sale and what the current value of this property would be <u>if</u> adjusted for time as stated under Sale No. 3 would apply here.

9. Sales No. 5 and 6 (p. 43). Kenai Peninsula market data indicates a time adjustment may be appropriate for these sales (Circa 1983 and 1985). The appraiser indicates no difference attributed to time due a comparison of the two exchanges. Both exchanges occurred during a period of rising values which ended in 1985 with an abrupt crash in the Kenai (and generally statewide) real estate market. Recovery has not yet occurred. Adjusting these two transactions for time would be appropriate.

10. Sale No. 7. Sale No. 7 was an interior parcel as compared to the subject which fronts salt water. Logic fails at the appraisers data base regression analysis which purports to indicate no statistical support for a time adjustment of U.S. Forest Service and U.S.F.&W.S. purchases which occurred between 1980 and 1989! The 1982 date of sale was not adjusted for. The national market is irrelevant in supporting a time adjustment for Central Washington.

11. Sale No. 8. Sale No. 8 appears to have some unexplained circumstances (e.g., coastal zoning laws) which raise a question concerning useability of that transaction. It is unclear how the appraiser interpreted how this would indicate lack of necessity for a location adjustment to this sale. This was an interior parcel as opposed to the subject possessing waterfront.

12. Overall Approach - adjustments. In reviewing this report and especially noting the appraisers treatment of adjustments, this reviewer is impressed by the general broad brush approach used in the analysis. Adjustments are handled quickly in the narrative and mostly dismissed as unnecessary. Only three of the nine transactions examined here (Sales 2, 3, and 4) had any adjustment at all applied. Sales clearly (in my experience) requiring

time adjustments (Sales 3, 4, 5, and 7) had none applied and, on the basis of a brief recreational lot sale analysis, location adjustments to sales 7, 8, and 9 were considered unnecessary. In addition to the sales data, one notes that few particulars regarding the subject property itself are offered in this report. The subject is discussed more in broad area or even regional terms (e.g., fisheries, game resources, bird life, tourist attraction, etc.) but few specifics are provided about the subject itself (e.g. land classes, slopes, amount of fresh and saltwater frontage, etc.) for use in a more refined comparison analysis with the sales data. The brevity of support for adjustments is a major failing of the report.

In conclusion, I am not lead down a path to a logical and convincing conclusion by this report. I am sure the short timeframe allowed to prepare it did little to contribute to its thoroughness or to the appraisers ability to complete anything but a minimal amount of research and analysis prior to its being written. While I remain unconvinced at this point that the value is valid, for reasons I have stated above, I will reiterate that this supplement, at least, is reviewable. I remain adamant that sufficient Alaska sales data is available upon which to base a much more reliable valuation of the subject than data from the lower fourty-eight; data selected because the intended use is the overriding criteria for use of such sales.

I recommend that these comments be transmitted to SNA's appraiser for his consideration. I also recommend that we proceed with obtaining a second opinion of the value of these lands as provided by the exchange document.

cc: Dick Mylius

MUNDY-DAY-BUNN

(not a partnership)

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November 10, 1989

Mr. Fred Elvsaas
Seldovia Native Association
Drawer L
Seldovia, AK 99663

RE: Kachemak Bay State Park Inholdings

Dear Mr. Elvsaas:

Transmitted with this letter is our valuation of the surface estate of 19,367 acres of Seldovia Native Association's holdings located within the boundaries of Kachemak Bay State Park. These holdings are currently being proposed for exchange with the State Department of Natural Resources. The date of valuation is August 10, 1989.

The enclosed report is a supplementary appraisal to a previous appraisal of the same property submitted on September 14, 1989. This supplementary report uses a different methodology to derive a value conclusion than was used in the previously submitted report.

In performing this appraisal we have considered alternative uses for the property and have determined the most probable use to be natural land for preservation and management of its significant scenic, wilderness, recreational and wildlife resources. The valuation is based on the selling price per acre of similar types of properties acquired for similar purposes throughout Alaska and the United States. Nine comparable properties have been used and adjustments made to account for differences between them and the subject.

This valuation has been made in conformance with standards established by the American Institute of Real Estate Appraisers, a professional appraisal organization of which I am a member (MAI #5439), certified through September 1992.

The evidence we have analyzed suggests the most probable market value for the subject properties is $1,150 per acre. Thus, our opinion of the total value of the 19,367 acres being offered for exchange is $22,272,050.

It has been a pleasure working with you on this most interesting and challenging project. If you have any questions regarding this analysis, please feel free to call upon us.

Sincerely,

MUNDY-DAY-BUNN

Bill Mundy, Ph.D., CRE, MAI

BM:bgm

ASSUMPTIONS AND LIMITING CONDITIONS

That the analyst is not responsible for the accuracy of opinions furnished by others and contained in this report. Nor is he responsible for the reliability of government data utilized herein.

That compensation for research services is dependent only upon delivery of this report, and is not contingent upon estimates provided.

That this report considers nothing of legal character, and the analyst assumes no responsibility for matters of legal nature.

That no research has been done to determine the absence and presence of hazardous and toxic materials on the subject property. Research shows that contamination can have a significant effect on property value. Because an engineering analysis and value impact analysis regarding contamination is outside the scope of this assignment we render no value opinion on this issue.

That testimony or attendance in court is not required by reason of this analysis unless arrangements are previously made.

That information furnished by property owner, agent and management is correct as received.

That no part of this study may be used as a part of or referred to in a public or private stock offering.

This report is based on information which the author believes to be reliable. However, the information used reflects the author's personal opinion of market conditions and other factors which influence employment, population, commercial and residential real property markets and value. The use of such information is at the user's own risk.

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INTRODUCTION

The subject property is located within the boundaries of Kachemak Bay State Park. Kachemak Bay State Park and the adjoining Kachemak Bay State Wilderness Park are located at the southwestern end of the Kenai Peninsula between Cook Inlet and the Gulf of Alaska. The two parks, encompassing approximately 256,240 acres, were established by the Alaska State Legislature in 1970 for "the protection of the unique wildlife, recreational and scenic resources contained in those lands and waters."

As a means to protect the two parks respective values, the parks were established and managed under separate definitions of a "scenic park" and a "wilderness park." The legislation defines these respective units as follows:

> Scenic park defined: Relatively spacious areas of outstanding natural significance, where major values are in their natural geologic, faunal or floral characteristics, the purpose of which is directed primarily toward the preservation of its outstanding natural features and where development is minimal and only for the purpose of making the areas available for public enjoyment in a manner consistent with the preservation of natural values such as camping, picnicking, sightseeing, nature study, hiking, riding and related activities which include no major modification of the land, forests, or water development that are primarily of urban character. (AS 41.21 990)
>
> Wilderness park defined: An area whose predominant character is the result of the interplay of natural processes, large enough and so situated as to be unaffected, except in minor ways, by what takes place in the non-wilderness around it, a physical condition which activates the innermost emotions of the observer and where development of manmade objects will be strictly limited and depend entirely on good taste and judgment so that the wilderness values are not lost. (AS 41.21 990)

Containing approximately 175,000 acres and including about 79 miles of coastline, Kachemak Bay State Wilderness Park is the only unit in the Alaska State Park system that was legislatively designated as wilderness. Additionally, the tidelands and submerged lands of Kachemak Bay were designated as a state critical habitat area in 1974. Critical habitat areas are areas recognized as being complete biotic systems or well-defined areas necessary for wildlife nesting or spawning and are managed by the Alaska Department of Fish & Game.

Additionally, over 50 offshore islands, islets and rocks associated with the Kenai Peninsula and Cook Inlet region are within the boundaries of the Alaska Maritime National Wildlife Refuge (Maritime Refuge). Many of these closely abut the park and wilderness area. The Maritime Refuge was established in 1980 concurrently with the Alaska National Interest Lands Conservation Act (ANILCA) from 11 pre-existing refuges plus an additional half million acres of headlands, islands and rocks. The 4.9 million acre refuge stretches discontinuously from southeast Alaska to the Chukchi Sea, and was established to manage habitat vital to marine mammals, fishes and resident and migratory birds.

Proposed Exchange

In 1971, one year after the designation of Kachemak Bay State Park (KBSP), the United States Congress passed the Alaska Native Claims Settlement Act (ANCSA) which entitled Alaska Natives to receive land as settlement of aboriginal land claims. As part of its entitlement, the Seldovia Native Association (SNA) selected roughly 29,400 acres from within the boundaries of the

previously designated state park. These selections included key coastline and public use areas, and accounted for over one-third of the total KBSP area.

A Memorandum of Understanding between the state, SNA, the Kenai Peninsula Borough and Cook Inlet Region, Inc. (owners of subsurface estate) was first executed in May, 1979 as a means to resolve land disputes arising from Native selections in the park area. A primary component of this agreement was the parties' mutual commitment to exchange SNA selection lands within the park for comparably valued state lands elsewhere. The driving purpose for the land exchange was to consolidate state land holdings and create "land ownership patterns which [would] permit more effective administration of the State public domain."

To date, two land exchanges totaling 4,538 acres of SNA lands have been consummated. The details regarding these exchanges are discussed in the Valuation section of this report. Two other exchanges have been attempted, but have failed for various reasons.

In 1987 SNA sold the timber on 12,400 acres of its inholdings to Timber Trading Company (a subsidiary of Koncor Timber Company) with a contract which allowed the company to cut timber for a 12 year period beginning in May, 1987. It was subsequently determined by Timber Trading Company (TTC) that 4,435 of the 12,400 acres have commercial potential. The threat of timber harvesting within the park revived interest in a land exchange and has prompted renewed negotiations between the involved parties.

A Preliminary Exchange Agreement has been negotiated between the State of Alaska, SNA and TTC which contemplates the State of Alaska acquiring SNA's land and TTC's timber in exchange for state lands and timber rights as well as other compensation. The proposed exchange agreement involves a total of 23,802 acres of SNA lands, 19,367 acres of which are owned in fee simple interest and 4,435 acres on which the timber is owned by TTC.

It is our understanding that although the timber and the land are at present separately owned, the State of Alaska intends to consolidate these ownerships and place the land and timber acquired into the Kachemak Bay State Park, where they will be administered for their natural and scenic values.

Despite this intended consolidation, the Preliminary Exchange Agreement dictates that two separate appraisal reports be produced. The first report shall determine the value of the 4,435 acres of commercially viable forest land, valued as cut over land. The standing volume and market value of the TTC timber found on this acreage has previously been determined by a timber appraiser. The appraisal of the 4,435 acres of forest land has also been conducted by Mundy-Day-Bunn and is provided under separate cover. The second report, contained herein, shall determine the fair market value of the remaining 19,367 acres of SNA's inholdings.

In performing this appraisal, it is assumed that the two parcels will be acquired with their timber and all other natural resources intact. This assumption recognizes the historical and political context in which the exchange negotiations are taking place and the current condition of the adjacent 4,435 acres. It should be noted that the assumptions governing the appraisal of the 4,435 acres are inconsistent with this assumption.[1] The timberland report appraises the 4,435 acres as a split estate, valuing the timber resources and land base separately. This analysis is based on the 19,367 acres' contribution to an intact ecosystem.

[1]The appraisal of the 4,435 acres is based on a highest and best use as timber land, and is appriased as cut-over.

Purpose of the Research

The purpose of this appraisal is to establish the market value of the surface estate of 19,367 acres of non commercially viable timberland owned by Seldovia Native Association and currently being proposed for exchange with the State of Alaska. The intention of this appraisal is to provide a basis for determining an equal value exchange of lands between the two parties.

Date of Valuation

The date of valuation and our inspection of the property is August 10, 1989.

Definition of Rights Appraised

The property rights being appraised are limited to the surface state only. The subsurface estate of the subject property is owned by Cook Inlet Region, Inc.

Definition of Market Value

Market value is defined as:

> "The highest price in terms of money a property will bring in a competitive and open market under all conditions for acquisition to a fair sale, the buyer and seller each acting prudently, 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 a passing title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well-informed, or well advised, each acting in what he considers his own best interest.
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in cash, or its equivalent.
5. Financing, if any, is on terms generally available in the community at the specified date and typical for the property in its locale.
6. The price represents a normal consideration for the property sold, unaffected by special financing amounts and/or terms, services, fees, cost, or credit incurred in the transaction.

(Source: *The Appraisal of Real Estate*, American Institute of Real Estate Appraisers, Chicago, Illinois, 8th Edition, page 33)

Research Participants & Time Frame

This study was prepared for Seldovia Native Association under the supervision of Bill Mundy, Ph.D., CRE, MAI. Victoria Adams, M.A., Research Analyst, performed much of the analysis and writing of the report. Field research and data collection were performed by Victoria Adams and Linda Glover, M.B.A. Both Bill Mundy and Victoria Adams inspected the property that is the subject of this report, and Bill Mundy performed the final report review. Data was collected and

analyzed during July and August, 1989; the report was prepared between August 1, 1989 and September 15, 1989.

METHODOLOGY

Approach

A considerable body of evidence exists to demonstrate a significant market in the buying and selling of undeveloped land for the purposes of preserving its natural, scenic, wilderness or wildlife habitat character. One of the distinguishing characteristics of this market is that buyers are not motivated by what the land can maximally support in an economic sense. Rather, the buyer's motivation reflects the commitment of unique or increasingly scarce land resources for an infinite period of time for the total well-being of the public.

The concept of valuing natural land for non-economic purposes has been prominent in the assessment of wilderness land resources since the 1960's. It is a value which is attributed to lands which are undeveloped, unique in their scenic beauty or wealth and productivity of natural life forms; in addition, either the lands themselves or the life which they produce may be utilized by segments of the public for a variety of recreational purposes. Therefore, the lands do not have the traditional "economic" character. That is not today, nor in the future, would one expect to find these lands supporting income producing activities. When preserved for wildlife, wilderness or scenic purposes there is no prospect of selling the land for a residential or recreational subdivision, harvesting timber, or holding it for some other economic endeavor.

The concept of value for public use is closely related to that of option value. Option value has several related meanings, all of which are relevant in considering the value of scarce natural environments. In one sense, while actual visitors to the site benefit from its being preserved and opened to public access, non-users also benefit in that they have acquired the option to visit the site at a later date, or in the knowledge that their children will have the option to do so.

From the point of view of land and resource planners, it is the gain from having the option to preserve the resource in its present state or develop it later. This is a significant value; since the supply of these resources is limited, additional wilderness lands cannot be produced by man, and once they have been developed they cannot be returned to their natural state.

Finally, from the viewpoint of the seller it is the value, in addition to present economic value, which arises from retaining an option to a good or service for which future demand is uncertain. As natural wilderness areas are becoming increasingly scarce, their value to society is increasing. By selling now, the seller gives up the option to sell in the future and possibly realize a significantly higher price.

opportunity cost!

Though all of these considerations are relevant to economically developable lands, they are especially germane to the valuation of pristine natural areas and unique natural resources.

A number of cases have set a precedent for valuing natural land outside the context of an economically productive highest and best use. One of the most widely known of these is the Hells Canyon case. At issue was whether a hydroelectric power project which would degrade the scenic character of the canyon, as well as its richness as a natural habitat should be constructed. The controversy between developers and conservationists continued for over a decade, due largely to the difficulty inherent in attempting to assign a dollar value to the canyon in its undeveloped state to allow comparison with the estimated value of the proposed dam.

The dilemma was resolved by an analysis presented by John Krutilla in which he observed that it was not necessary to establish a value for the canyon, only to show that its value was greater than that of the dam. Although no measure of value was available for the canyon at that time, there was strong evidence that the rate of growth of its value could be expected to increase over time. Consequently, it was concluded that the initial or present value of the canyon could be very low and yet, due to the projected growth of the value over time, still be worth enough to make the preservation alternative economically superior to the development of the dam. In other words, the value of the option to retain the canyon in its original state in anticipation of its rapidly increasing scarcity and value in the future increased its present value substantially.

After the presentation of the analysis the case was soon resolved, resulting in the rejection of the proposed dam and the preservation of the canyon in its natural state. In this case it was determined that the option value made the value of the land when preserved as a wilderness resource higher than the value of that same land under the most highly valued development scenario (economic highest and best use).

A second precedent is provided by the Department of Interior's acquisition of some 8,000 acres of seabird cliff habitat within the Pribilof Islands chain in Alaska. The cliffs are known for supporting over 2.5 million birds. The land parcels involved were purchased in 1984 from two Alaskan Native corporations at a total price of $5,120,000. The purchase price was established by an act of Congress, and yields an average unit price of $640 per acre. A subsequent real estate appraisal made by the U.S. Fish & Wildlife Service determined the highest and best use of the property based on its economic utility to be for marginal homesites and reindeer grazing. This appraisal estimated the value of the lands to average about $83 per acre. The important precedent set in this case is that Congress recognized the property's importance as a unique natural and cultural resource and valued it accordingly.

Report Design

This analysis begins with a general overview of the lands being offered for exchange to include the subject's location, access, existing improvements and zoning. Following this a description of Kachemak Bay State Park's primary fish, wildlife, recreation and archaeological resources will be presented, identifying important habitat areas and providing population estimates and commercial values. Where possible, these resources will be discussed in respect to their presence on the subject lands. These sections provide a background understanding of the nature and quality of the lands being valued.

It should be noted that this description is relevant to the 4,435 timbered acres appraised under a separate cover. The reason for this is that the 4,435 acres are scattered throughout much of the northern section of the subject parcel (please refer to Figure 3 which shows the location of the 4,435 acres within the entire tract). The timbered acres are both non-contiguous and extremely irregular in shape and size, making an accurate delineation of boundaries nearly impossible. No legal description of the 4,435 acres has been produced due to the extreme difficulty in performing the necessary surveying. Though these timbered areas generally contain much of the total parcel's waterfront and lower elevations described in the following sections, the two parcels share many similar attributes. This is especially true in respect to wildlife habitats and watershed systems. For these reasons, the appraiser felt it appropriate and justified to consider the entire 23, 802 acre parcel in the following sections. Except where otherwise noted and designated, the term "subject lands" as used in the descriptive narrative refers to both the 4,435 acre and 19,367 acre parcels.[2]

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[2] It should be noted that if the highest and best use for the 19,367 acres was something other than natural land, say for recreational subdivision, for instance, then a separate description of the two parcels would be warranted. The

Based on this description, an analysis of the subject land's highest and best use is presented. This analysis considers all the potential ways to which the property could physically, legally, and profitably be put to use.

Finally the Valuation section presents an analysis of the fair market value of these lands based on its highest and best use. Comparable sales data is presented to determine a final value conclusion.

DESCRIPTION OF SUBJECT LANDS

Location

The 19,367 acres which are the subject of this report, combined with the 4,435 acres of timberland which are valued separately, encompass nearly the entire southwest portion of Kachemak Bay State Park on the Kenai Peninsula in southcentral Alaska (see Figure 1). The two properties combined form a fairly contiguous parcel which fronts China Poot Bay and Neptune Bay on the north and the eastern shore of Sadie Cove. A noncontiguous parcel is also included along Sadie Cove's western shoreline. The legal description for the lands offered for exchange are contained in Appendix A. It should be noted that no survey has been conducted to delineate the two properties, so that the legal description contained here includes both the 19,367 acres and the 4,435 acres of timberland.

Topography

The topography of the subject lands varies considerably from alluvial plains along China Poot and Neptune Bays to rugged mountainous terrain in the southern portion of the parcel. Two ridges extend through the property southeasterly from the northwest corner, roughly parallel with Sadie Cove. Elevation ranges from sea level to about 4,300 feet. The largest watershed is fed from the Wosnesenski Glacier through the middle section of the parcel into China Poot Bay. Stonehocker and Quiet Creeks are both fed by this drainage. In addition, there are numerous smaller lakes and drainages scattered throughout the property.

The subject lands have extensive waterfrontage with approximately eight miles of shoreline along China Poot and Neptune Bay, and approximately four miles of frontage on Sadie Cove.

Ownership

The surface estate of the subject 19,367 acres are owned by the Seldovia Native Association as part of their entitlement under ANCSA. SNA's holdings represent the largest private ownership within the Park's boundaries. The Kenai Area Division of the Alaska State Parks estimates that there are approximately 100 additional private parcels within the park's boundaries, mostly of five acres or less in size and located along the coast. According to the Kachemak Bay State Park Management Plan (1988), most of these parcels predate the establishment of the park and were acquired through State and Federal Disposal programs. All lands below mean high tide are owned by the State of Alaska.

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subject's inferior waterfront, topographical and access attributes would have greater relevance under a different highest and best use scenario.

Figure 1
Location Map

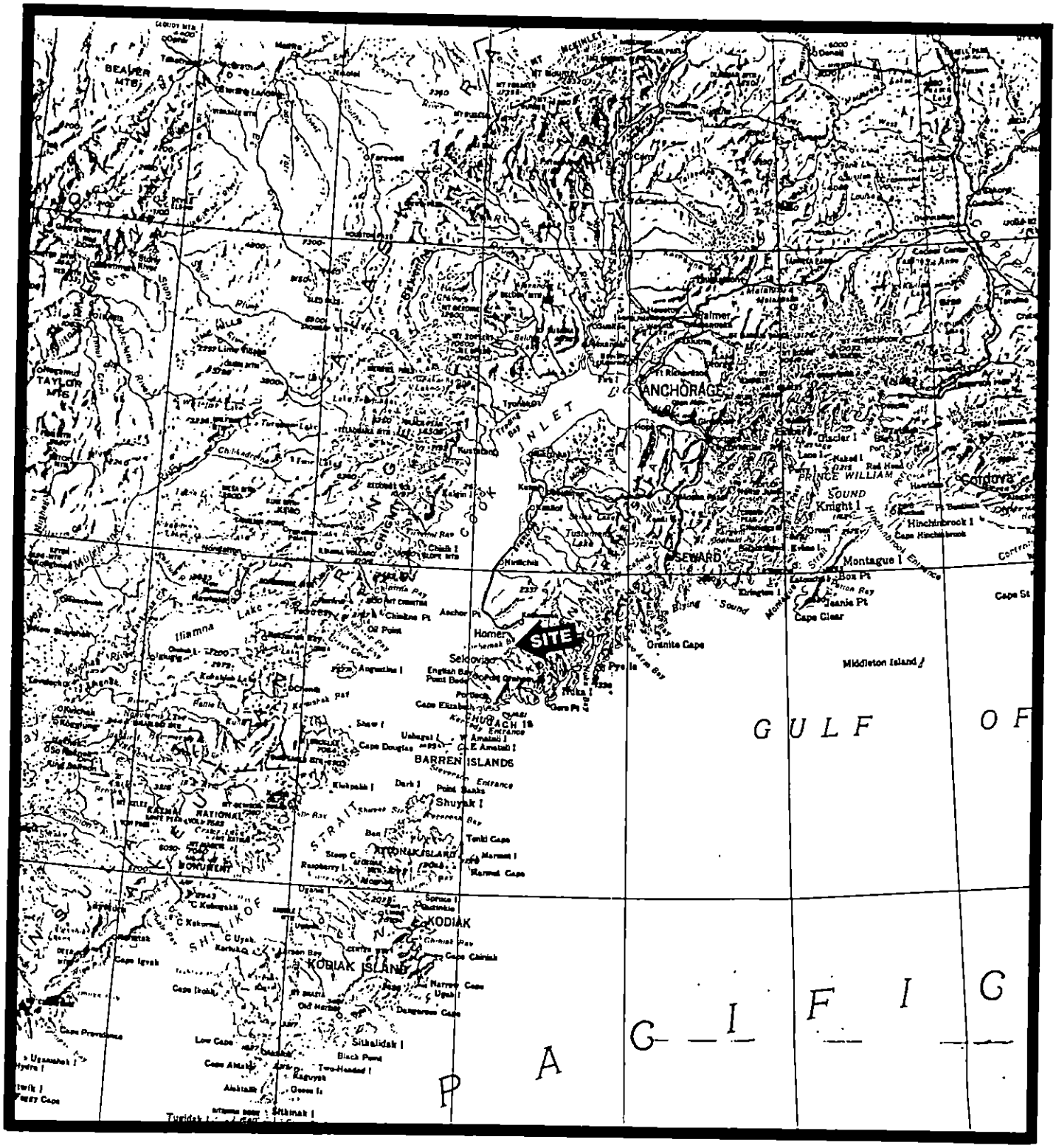


Figure 2 delineates SNA's holdings within the state park boundaries that are proposed for exchange. These holdings include both the 19,367 acres which are the subject of this report and the 4,435 acres of timberland which have been valued in a separate appraisal report. The figure also delineates parcels granted to the state under previous exchanges and ANCSA land selections relinquished by SNA as part of those previous exchanges. Figure 3 highlights the timbered acreage which is the subject of a separate appraisal. As noted above,The timbered acreage is discontiguously scattered throughout the subject parcel.

Access & Improvements

Access to the coastal portions of the subject property is via floatplane or boat. China Poot and Neptune Bays provide relatively safe moorage and landing areas with gently sloping shorelines. Sadie Cove, in contrast, has steeper coastlines with little to no beach areas. Access to the backland portion of the subject is by foot traffic only. There are currently no roads on, through, or adjacent to the subject property. Various hunting and hiking trails have been established over time, but have not been formally maintained.

There are no known improvements within the subject boundaries.

Easements & Encumbrances

A Homer Electric Association power line easement crosses the northern quarter of the property. The appraiser is not aware of any restrictive or other easements that would affect the value of the property.

Zoning

For the purpose of properly managing the resources within various state park units, all lands and waters within the state park system have been classified into land use zones. The majority of the subject property has been classified as Natural according to the Alaska State Park's scheme. According to the Kachemak Bay State Park Management Plan, the purpose and characteristics of a Natural zone is as follows:

> Natural zones are established to provide for moderate to low impact and dispersed forms of recreation and to act as buffers between recreational development and wilderness zones.
>
> These zones are relatively underdeveloped and undisturbed and are managed to maintain high scenic qualities and to provide visitors with opportunities for significant natural outdoor experiences. An area's natural landscape character is the dominant feature within this zone. Landscape modification may be allowed to enhance, maintain or protect the natural setting according to the unit management plan.

This classification was designed for park management purposes and does not restrict the use of SNA inholdings within the park boundaries.

Other restrictions apply to the tidal grounds of the subject property which, as mentioned, belong to the State. Any uses involving tidelands (running lines, mooring lines, docks, etc.) are subject to State approval and may even require permitting by the Corps of Engineers and Coast Guard.

Figure 3
Location of Commercially
Viable Forest Land
Within Subject Boundaries

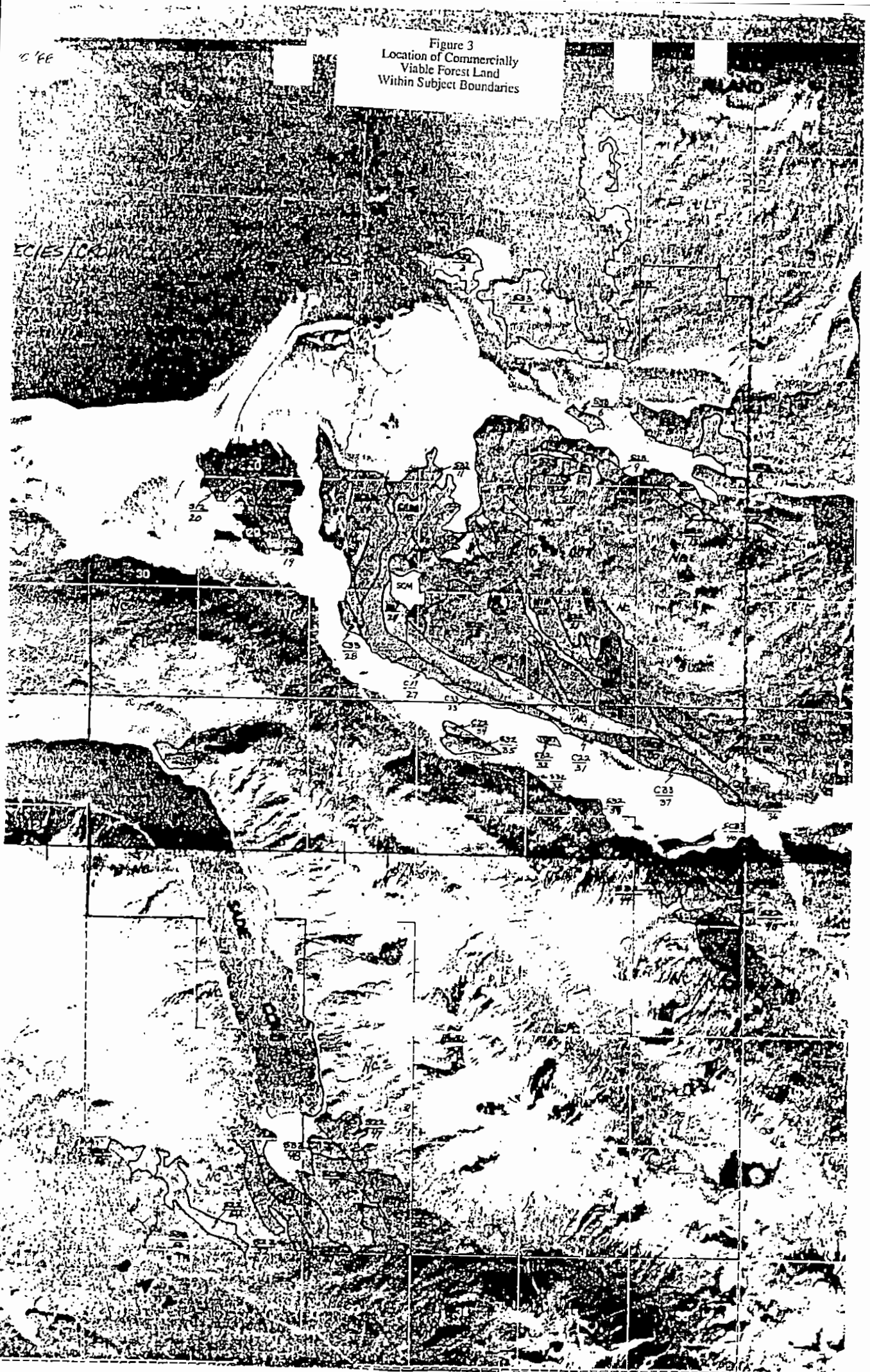
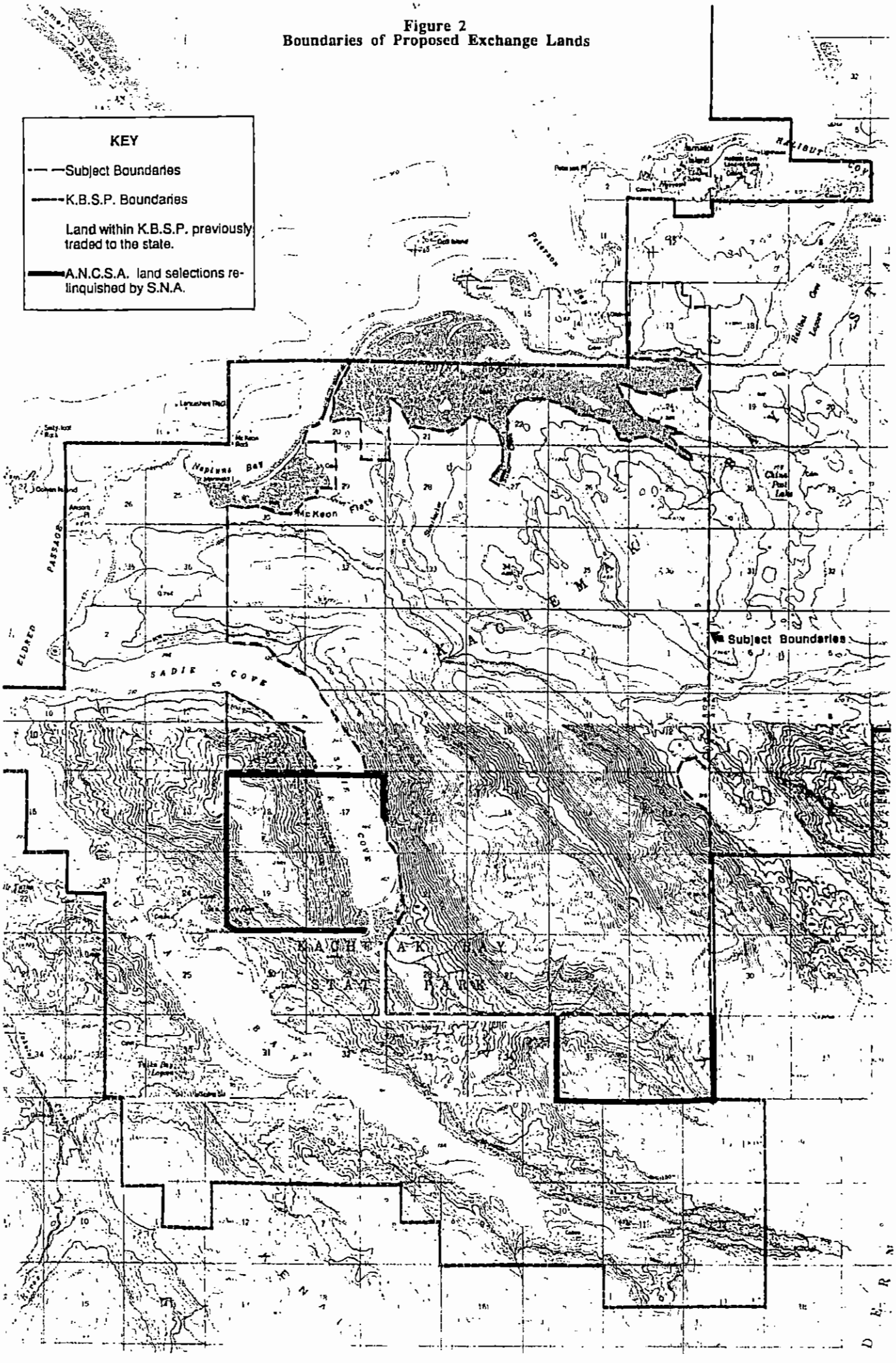


Figure 2
Boundaries of Proposed Exchange Lands



REGIONAL SETTING

The Kenai Peninsula is sometimes regarded as a "playground" for the populations of Anchorage and southcentral Alaska. The quality and variety of the region's scenic, recreational and wildlife resources attract visitors from all over the state and country, as well as having some international appeal. The vast majority of the Kenai Peninsula is in public ownership and is managed for multiple use, wildlife habitat, and public recreation. Adjacent to the Kachemak Bay State Park and Wilderness Park is the Kenai National Wildlife Refuge and Kenai Fjords National Park. Northeast of these units is the Chugach National Forest.

Major communities in the region include Kenai, Soldotna, Seward and Homer. Of these, Kenai/Soldotna is the largest and serves as the major government, retail and service center. Halibut Cove and Seldovia are smaller communities located in closer proximity to the subject lands.

The primary access point to Kachemak Bay State Park and the subject lands is from the City of Homer, located approximately 3.5 miles across Kachemak Bay from China Poot Bay. Homer was originally settled at the end of the spit in 1898 by the Alaska Gold Mining Company. When gold failed to be discovered, the town first boomed as a coal mining center. The town suffered a serious decline following the end of the coal trade only to later restructure its economy to one emphasizing farming and fishing. The greatest effect on Homer's growth occurred when the Sterling Highway, linking Homer and the rest of the Kenai Peninsula to Anchorage, was completed in the early 1950's. Homer's population grew at a rapid rate of nearly 7% annually during the 1970's and first half of the 1980's, and is expected to continue increasing at an annual rate of 5% or greater through 2000. Currently, the population of Homer is estimated to be over 4,000, with a population of the greater area of 11,000.

Fishing and government spending account for the largest sources of income to the Homer economy, though tourism represents a vital and growing sector. With a well-developed harbor, highway access and airport, Homer is also an important transportation and service center for the south Kenai Peninsula.

According to the Kachemak Bay State Park Management Plan, the City of Homer recognizes that tourism will play an ever increasing important role in the area's economy and that Kachemak Bay State Park is an important factor in the area's tourism industry. Numerous sightseeing tours, fishing boat and air charter services operate from Homer into Kachemak Bay and the subject lands. There is also regular ferry service to Halibut Cove and Seldovia, and tours of Gull Island.

NATURAL RESOURCES OF KACHEMAK BAY STATE PARK & SUBJECT LANDS

Six major ecosystem types are found within Kachemak Bay State Park, providing habitat for a wide variety of wildlife. These include marine, seashore and tidal marsh, forest, subalpine brush, alpine and freshwater. Each of these are found to some degree on the subject lands. The Kachemak Bay State Park Management Plan recognizes that the abundance and diversity of wildlife is one of the greatest assets and attractions to the park. Despite the importance of wildlife to the values of the park, wildlife distributions and populations have not been extensively studied. The following paragraphs describe, based on the limited information available, the wildlife resources found within the boundaries of Kachemak Bay State Park and Wilderness Park. Where possible, these resources will be discussed in respect to their presence on the subject lands.

In addition to wildlife, the park and the subject lands contain significant scenic, archaeological and recreational resources. These, too, are briefly described below. The subject's scenic resources are best illustrated by the photographs which follow this section (Figure 7).

Sources used in the descriptive portion of the report include the Alaska Division of Parks & Outdoor Recreation, Kenai Area Office; Alaska Department of Fish & Game; the Center for Alaska Coastal Studies; the U.S. Fish & Wildlife Service; and Seldovia Native Association. A full list of sources is cited in the Bibliography (Appendix F).

Wildlife Resources

Black Bear

Black bears are known to be relatively abundant and widely distributed on the Kenai Peninsula (Game Management Unit 7 and 15), with an average density of about one black bear per 1.5 square miles of suitable habitat in the Kachemak Bay State Park area.[3] Black bears are generally found in the lowland forest habitats, though they are known to seasonally use subalpine and alpine habitats. Major black bear populations are found where food and cover are plentiful, usually along salmon streams and in semi-open forest areas where fruit-bearing and herbaceous plants and shrubs are abundant. Winter denning usually occurs along hillsides and south facing slopes.

Black bear populations in Kachemak Bay State Park have not been censused; therefore, estimates of the number and composition of bears are not available. Assessments of the population have relied on the observations and experience of Alaska Department of Fish & Game personnel, local hunters and guides, and bear harvest data obtained from the State's mandatory sealing program.

Table 1 summarizes the black bear sport harvest from Game Management Unit (GMU) 15 between 1980 and 1987. GMU 15 covers an area much larger than the subject lands, encompassing nearly the entire western portion of the Kenai Peninsula (a map of GMU 15 is found in Appendix B). The reported sport harvest in this area in 1987 totalled 113 bears. This represents a 19% decrease over the eight year mean harvest and 21% lower than the previous year's harvest. 1985 shows a peak harvest of 245 bears. The table breaks down the harvest into the coastal zone. Subunit 15C, which encompasses the south side of Kachemak Bay from Bradley River to Gore Point, and into the coastal area between Halibut Cove and Jakolof Bay, which roughly corresponds to the subject lands. Though this area represents only an average of 4.5% of the annual black bear sport harvest for the whole of GMU is it represents a significant one-third share of the southern Kachemak Bay area. The coastal portion of sub-unit 15C is a traditional sport harvest area and has experienced some of the highest harvest increases over the last eight years.

[3] Source: Alaska Department of Fish & Game, personal correspondence, August, 1989.

Table 1
Black Bear Harvest, Game Management Unit #15 & 15C
1980-1987

Year	GMU 15 Total	Coastal Zone Subunit 15C	Halibut Cove Jakolof Bay	% of GMU Total	% of Subunit 15C
1980	162	7	4	2.5%	57.1%
1981	100	11	4	4.0%	36.4%
1982	81	11	3	3.7%	27.3%
1983	109	11	4	3.7%	36.4%
1984	155	23	6	3.9%	26.1%
1985	245	39	15	6.1%	38.5%
1986	143	19	8	5.6%	42.1%
1987	113	29	6	5.3%	20.7%
8 Year Total	1,108	150	50		
8 Year Average	139	19	6	4.5%	33.3%

Source: Alaska Department of Fish & Game, Game Division

Brown Bear

Though brown bear are known to occur throughout most of Alaska, the occurrence of brown bear is limited within Kachemak Bay State Park. According to the Division of State Parks, as well as the Alaska Department of Fish & Game, there have been few sightings of grizzly or brown bears and no recorded harvests.

Mountain Goats

Unlike bear, moose, and other mammal species, the Alaska Department of Fish & Game has conducted studies of the mountain goat population in the Kachemak Bay State Park area. The mountain goat inhabits the alpine areas of the park, spending most of the summer months in high alpine meadows and migrating down to at or below tree line during the winter. The most recent aerial surveys conducted in the areas delineated in Figure 4 identify the following numbers of goats in 1982 and 1984.

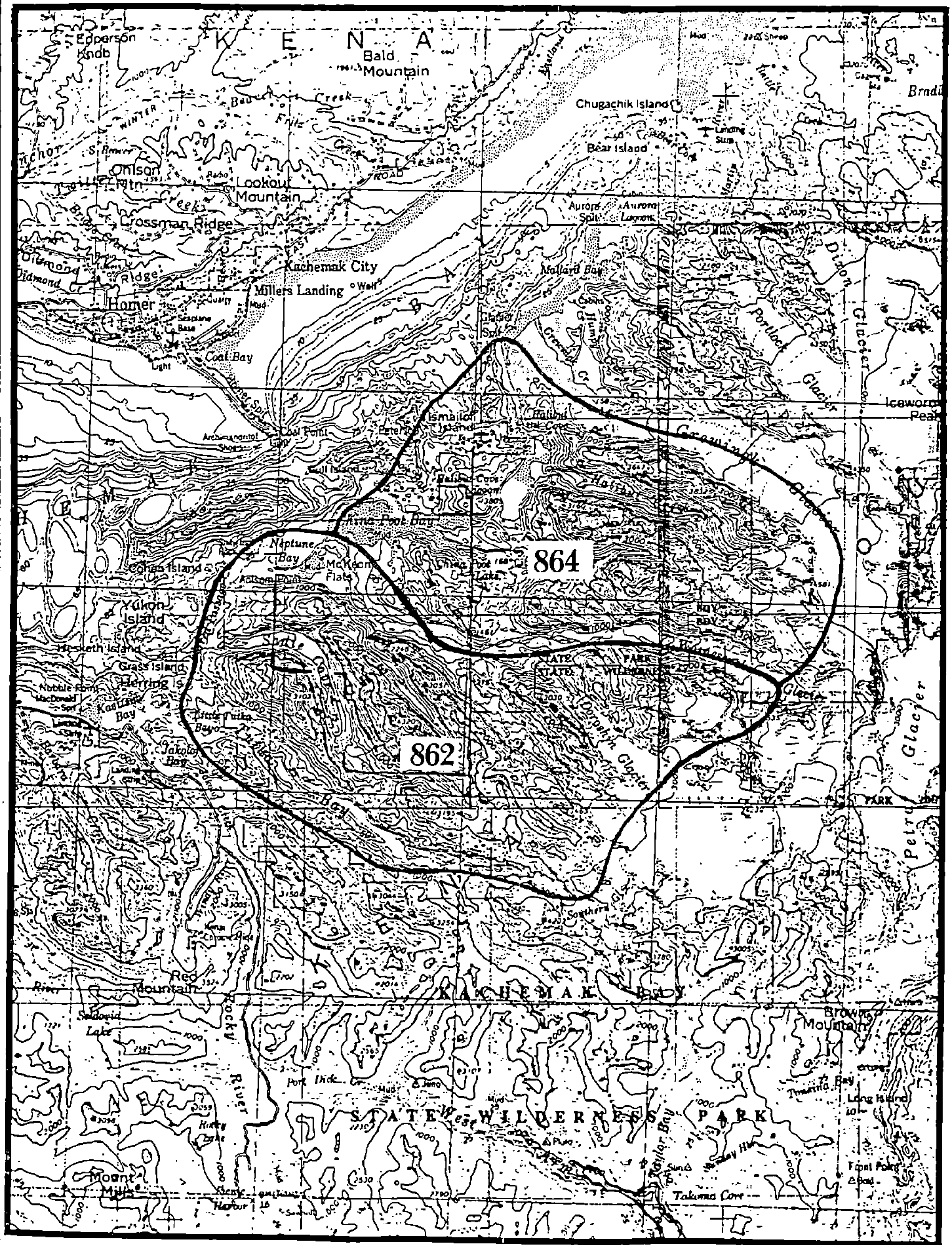
Table 2
Summary of Most Recent Mountain Goat Aerial Surveys
South Shore of Kachemak Bay, Kachemak Bay State Park

Count Area	Year	Adult	Kids	Total
861	1984	97	28	125
862	1982	64	24	88

Source: Alaska Department of Fish & Game

These surveys indicate healthy populations of mountain goats in the park. In respect to the subject lands, mountain goats frequent only the higher elevations of the more southerly boundaries and are not as common as in other alpine regions of the park.

Figure 4
Mountain Goat Census



Moose

According to the Alaska Department of Fish and Game, Kachemak Bay State Park and the subject lands provide only marginal habitat for moose. Whereas moose generally prefer younger forests, the subject lands contain mainly mature, coastal forests. Despite these habitat conditions, low densities of moose are known to exist in the Park, covering a broad range in the summer, and collecting in sea level riparian areas in the winter. The only population survey on record was conducted by the Alaska Department of Fish and Game during March, 1988 over McKeon Flats. Six adult moose and no calves were observed. According to Game Biologist Dave Holderman, the survey probably reflects 50% to 60% of the moose population in the drainage, providing an estimated herd size of 10 to 12 moose. According to the same source, McKeon Flats provides the best available habitat in that drainage system, and moose populations are assumed to decrease further south.

Other Land Mammals

Other land mammals that are known to habitat Kachemak Bay State Park and the subject lands include the river otter, mink, wolverine, coyote, red fox, wolf and lynx. Of these, the otter, mink, coyote and red fox are considered common, the wolverine and wolf are considered present but not common and the lynx are considered scarce.[4]

Marine Mammals

Marine mammal species that are known to occur in the Kachemak Bay area include the sea otter; beluga, humpback, mink, fin, gray, killer, and pilot whales; Pacific white-sided dolphin; harbor and Dall's porpoises; and harbor seals. Figure 5 shows the distribution of harbor seal, Stellar sea lion and sea otter habitat in the vicinity of the subject lands as of 1985. The map, redrawn from the Alaska Habitat Management Guide, reveals major seal habitat concentrations in Eldred Passage, China Poot Bay, and Halibut Cove. After near extinction, the sea otter has been making a slow but steady recovery throughout most of its former range in Alaska. Though inner Kachemak Bay is considered "unpopulated sea otter habitat" (habitat suited for but currently without established populations) by the Habitat Guide, otters are frequently seen along the coastal areas of the subject lands. The Alaska Maritime Natural Wildlife Refuge Comprehensive Conservation Plan and Environmental Impact Statement estimates that there are 2,500 to 3,500 sea otters along the Kenai Peninsula and Cook Inlet, including Kachemak Bay. The abundance of and opportunity to see sea lions, sea otters and whales is an increasing attraction of the subject lands. Seasonal charter and tour boats to rookeries and haul out sites are currently one of the most popular uses of the Gulf of Alaska unit of the Maritime Refuge, and local tourist operations from Homer attest to the gaining popularity of photographic and sightseeing expeditions.

Avian Resources

Kachemak Bay provides a wide range of avian habitat to include rocky cliffs, sheltered bays, tidal mudflats, and shallow water areas. The U.S. Fish & Wildlife estimates that about 2.5 million sea birds representing 23 species inhabit the gulf of Alaska unit of the Alaska Maritime NWR. In addition to these, many more species of water fowl, marsh and shore birds, raptors and passerine birds are found in the Kachemak Bay Area. A complete listing of these species, their residency and breeding status, and their relative occurrence during the year is provided in Appendix C. This

[4] Alaska Department of Fish & Game; personal communication with Ted Spraker, Regional Game Biologist, July, 1989.

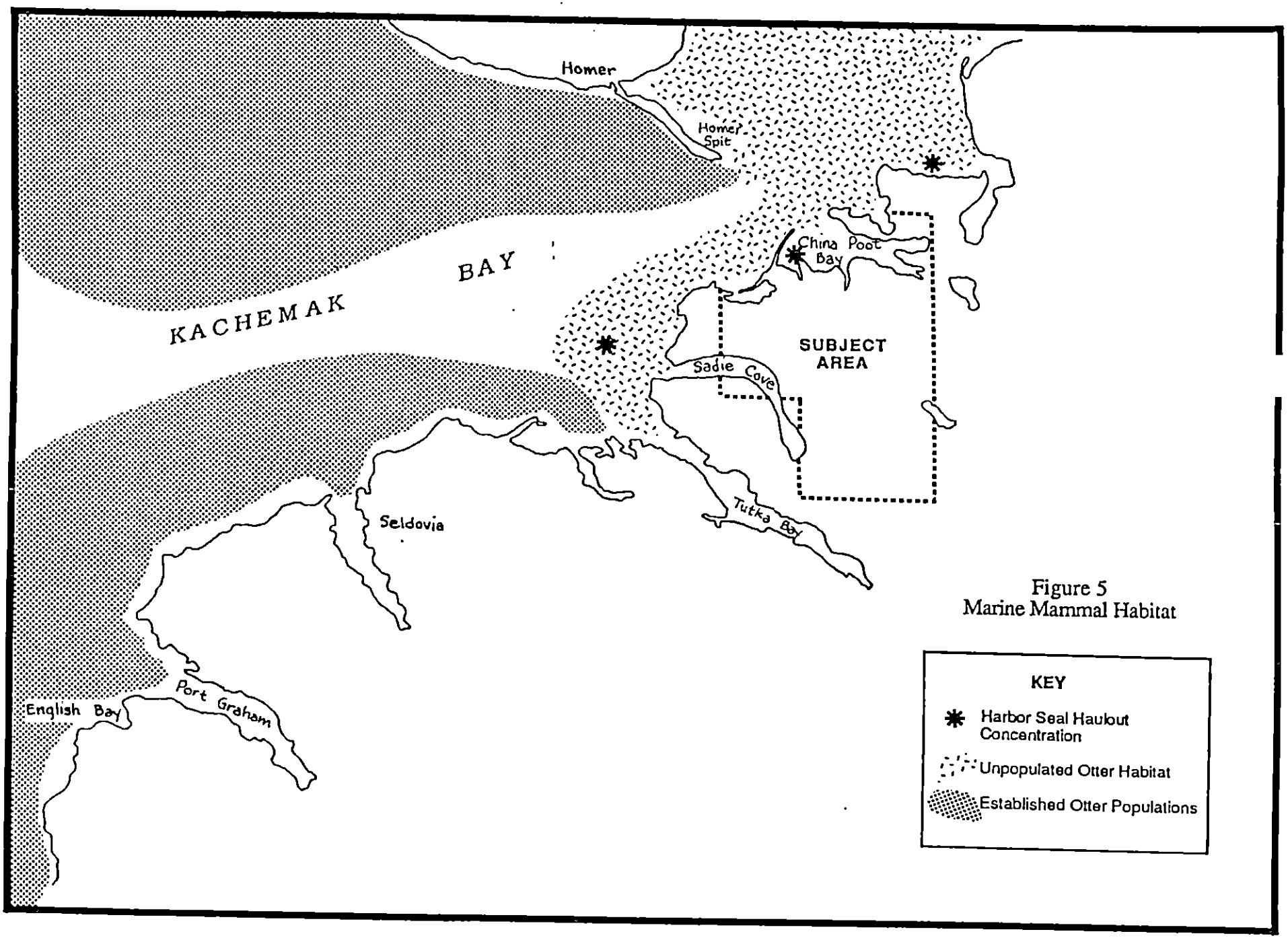


Figure 5
Marine Mammal Habitat

species list was compiled in May, 1989 by David Erickson of the Alaska Department of Fish & Game and covers the area of Point Pogibski to Anchor River. It contains 225 different bird species of which 114 are indicated as being either common or abundant during at least one season of the year.

Apart from this species compilation and general research conducted by the Alaska Maritime NWR, bird colonies in Kachemak Bay and in the Park have not been extensively studied. A 1978 Catalogue of Alaska Seabird Colonies compiled by the U.S. Fish & Wildlife Service identifies two notable seabird colonies in close proximity to the subject lands: Gull Island and Sixty-foot Rock. At the time of the survey, approximately 7,500 birds were estimated to inhabit Gull Island, consisting mainly of Black legged kittiwakes, common murres and tufted puffins. Sixty-foot Rock was estimated to support roughly 550 birds, primarily common murres.

Bald Eagle

Bald Eagles are common throughout Kachemak Bay State Park and the subject lands. Feeding and nesting habitats occur along the coastline and major estuaries. The eagles prefer to nest in large cottonwood stands, though they are also known to inhabit spruce forests similar to those found on the subject lands.

Figure 6 shows the locations of bald eagle nests in Kachemak Bay as surveyed by the U.S. Fish & Wildlife Service's Division of Raptor Management Studies. It should be noted that these data are five years old and indicate locations of nests and not necessarily distinct territories.[5] Another study conducted by Biosystems Analysis, Inc. as part of the Bradley Lake hydroelectric project impact research indicated that the number of nests observed by the U.S. Fish & Wildlife Service underestimates the number of nests currently established in Kachemak Bay. Though the impact study area did not include the region south of Glacier Spit, based on the extensive surveys conducted in the smaller study area, our source indicated that one could expect more nests than were observed in the 1984 U.S. Fish & Wildlife Service census.[6]

Despite differences in opinion over the actual number of nests and population it is generally accepted that the bald eagle population inhabiting the area inclusive of the subject land is both considerable and thriving.

The Center for Alaska Coastal Studies has conducted volunteer coastwalks along Kachemak Bay since 1982 as a means to gather baseline ecological data. The center is an educational and scientific non-profit organization whose goals are to increase awareness and knowledge of Kachemak Bay's marine ecosystem. The center was contacted for baseline data on the wildlife species observed along the coastlines corresponding to the subject lands. Information compiled over the last three years confirmed the occurrence of the species described above. Most notable was the sighting of bald eagles and bald eagle nests in the Neptune Bay area, which had the highest number of sightings in the whole coastwalk area, and the number and diversity of marine mammals observed in Sadie Cove.

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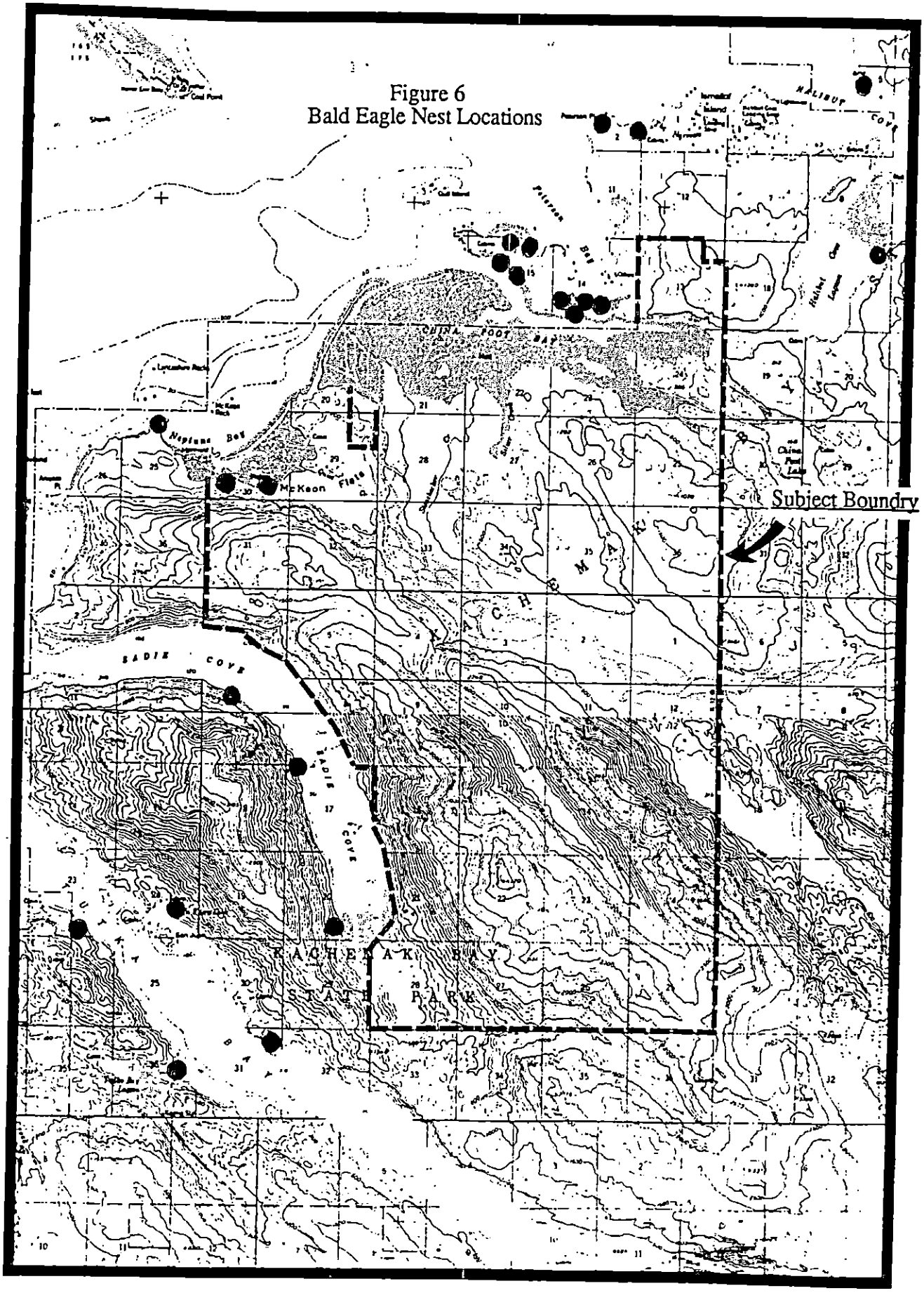
[5] According to Dave Roseneau of Biosystems Analysis, Inc., some nesting pairs may occupy one to four or five nests within close proximity to each other.

[6] Personal communication with Dave Roseneau, Biosystems Analysis, Inc, August, 1989.

Figure 6
Bald Eagle Nest Locations



Commercial & Sports Fisheries

The coastal and inland waters of Kachemak Bay provide habitat for a host of commercial and sport fisheries. Some of these fisheries are among the most productive and valuable in the Southcentral region of Alaska. Though the commercial aspects of the region's fisheries occurring beyond the subject's shoreline boundaries are emphasized in the following discussion, the importance of the inland stream and drainage for rearing and spawning cannot be overstated. The natural preservation of the Park's watersheds are considered vital to the health and continued survival of the salmon and freshwater species in the region. In turn, these fish provide sustenance for the bears, fox, otters, eagles, marine mammals and pelagic birds, and are a major link in the chain of Kachemak Bay State Park's ecosystem. Moreover they provide the livelihood for many of the human inhabitants in the region's communities and thousands more in canneries and packaging and processing industries. Salmon and halibut fishing is a favorite recreational pursuit on Kachemak Bay's coastal and inland waters and provide a significant subsistence resource. Likewise, the freshwater streams and lakes contain excellent recreation opportunity for wilderness fishing for Dolly Varden and rainbow trout.

Shellfish resources are also a vital component of the region's ecosystem. Their seafloor habitats are linked to adjacent land masses and are, therefore, inescapably affected by the uses to which the land is put. The nearshore waters off the subject lands provide important nursery habitat for many shellfish species, and the commercial viability of mariculture development in the Neptune and China Poot Bay is most likely excellent.

Pacific Salmon

All five species of Pacific Salmon are found in and have been harvested from the Cook Inlet Management Area. Table 3 summarizes the region's salmon catch and ex vessel value by species for the 30 year period 1959-1988 as reported by the Alaska Department of Fish & Game.

It can be seen that the pink salmon is the primary species accounting for 77% of the 30 year total harvest and an average annual value over $850,000. In addition to being the most abundant, the pink salmon is the smallest of the Pacific Salmon species, averaging only three to five pounds. The pink salmon spends two years in the ocean, traveling great distances before returning to spawn. Once it returns to fresh water, it usually travels only a short distance before spawning, sometimes even spawning in estuaries. There is a large pink salmon hatchery located in Tutka Bay just south of the subject's boundaries. Operated by the Alaska Department of Fish & Game, the hatchery has produced an average harvest of 435,000 pinks since 1978, with a peak year harvest of 1.03 million fish.

The Chum or dog salmon is the second largest commercial salmon species in the management unit in terms of harvest, accounting for nearly 13% of the unit's 30 year catch or 3.9 million fish. King (chinook), Sockeye (red), and Coho (silver) salmon are less abundant species, with an annual average combined harvest of 102,978 fish. These three species, however, have relatively greater value on the market and combined have averaged 35% of the annual ex vessel value for all commercial salmon. Though the number of Sockeye harvested is smaller than Chum (30 year average of 94,125 as compared to 130,008), its ex vessel value is considerably higher, with a 29 year average value of $585,000 as compared to $366,000.

Table 3
Lower Cook Inlet Salmon Catch by Species, 1959-1988

Year	Chinook	Sockeye	Silver	Pink	Chum	Total	Total Ex Vessel Value
1959	132	21,637	6,352	124,748	110,838	263,707	—
1960	27	24,726	2,692	611,647	116,082	755,174	$453,000
1961	41	22,776	1,619	303,377	55,593	383,406	$215,000
1962	60	25,286	7,727	2,248,341	179,259	2,460,673	$1,209,000
1963	96	15,121	6,736	203,616	138,510	364,079	$201,000
1964	91	20,654	9,460	1,055,417	323,335	1,408,957	$602,000
1965	10	14,002	862	115,598	28,076	158,548	$76,000
1966	62	15,333	5,411	579,240	129,062	729,108	$347,000
1967	176	29,044	2,726	375,488	85,445	492,879	$264,000
1968	64	95,242	4,883	585,441	75,134	760,764	$525,000
1969	64	122,796	623	202,444	61,203	387,130	$403,000
1970	106	20,898	4,696	716,212	242,427	984,339	$530,000
1971	73	22,234	4,561	392,871	148,602	568,341	$438,000
1972	88	57,897	2,234	28,663	75,543	164,425	$305,000
1973	145	29,136	2,101	307,403	115,513	454,298	$682,000
1974	183	27,428	6,514	50,601	19,210	103,936	$495,000
1975	142	28,142	6,211	1,063,338	21,646	1,119,479	$1,663,000
1976	450	58,159	3,216	136,445	50,822	249,092	$731,000
1977	217	101,597	1,798	1,293,932	145,789	1,543,333	$2,959,000
1978	1,747	156,404	6,529	352,561	73,518	590,759	$2,341,000
1979	1,238	64,417	12,393	2,990,929	218,490	3,287,467	$6,317,000
1980	424	69,442	14,505	889,703	73,492	1,047,566	$1,906,000
1981	1,086	110,255	10,776	3,279,183	336,093	3,737,393	$7,507,000
1982	1,066	131,320	46,892	551,589	198,185	929,052	$2,448,000
1983	873	187,645	11,219	927,607	192,319	1,319,663	$1,990,000
1984	713	270,756	17,271	698,276	93,804	1,080,820	$2,413,000
1985	1,043	278,694	10,327	1,229,717	30,638	1,550,419	$2,822,000
1986	796	234,861	18,852	1,408,293	82,688	1,745,490	$3,013,000
1987	1,179	248,848	14,354	201,429	157,018	622,828	$2,989,000
1988	1,694	319,008	7,946	921,296	321,911	1,571,855	$8,247,000
30 year total	14,086	2,823,758	251,486	23,845,405	3,900,245	30,834,980	$54,091,000
30 year average	470	94,125	8,383	794,847	130,008	1,007,773	$1,865,000
% of total	0.05	9.16	0.81	77.33	12.65	100.00	

Source: Alaska Dept. of Fish & Game

All five salmon species are known to inhabit the drainages associated with the subject lands. Pink salmon are common throughout many of the streams while there are notable Coho and Sockeye runs in Stonehocher and China Poot Creeks respectively. The Alaska Department of Fish & Game has been stocking China Poot Lake (Leisure Lake) with sockeye since 1980 and expects an annual production of 100,000 to 150,000 fish by this year.

As Table 3 reveals, the value of the Lower Cook Inlet region's salmon fishing is considerable. Using IBM computer runs provided by the Commercial Fisheries Division of the Alaska

Department of Fish & Game, an attempt has been made to estimate the number and value of salmon harvested in waters off of SNA lands. Geographic areas and statistical sub-areas are defined by the Department's Division of Commercial Fisheries for the management unit and roughly correspond to inland drainage systems used for spawning. For the purposes of this study, sub-area 241-15 and half of 241-16 were included in the analysis. The delineation of these areas and other sub-areas in the LCI Management Area are included in Appendix B. Harvest data, by statistical sub-area was obtained from the commercial fisheries division for the 11 year period 1978 through 1988. The sums of each of the five salmon species harvested in the statistical sub-areas adjacent to the subject lands are presented in Table 4. These figures are compared with catch totals for the L.C.I. Management Unit as a whole to derive a relative percentage of the total regional harvest. It should be noted that due to the inability to affirmatively associate a salmon caught in near or offshore waters with a particular spawning stream inland, the harvests and commercial values represent estimates of the subject land's relative share of the salmon fishery.

It can be estimated based on 11 years of harvest, for instance, that nearly 30% of the L.C.I. Management Unit's sockeye salmon harvest is caught in the inlets, bays and coastal zones surrounding S.N.A. lands. Similarly, over 18% of the region's total Pacific salmon harvests may partially be attributed to the spawning drainages located on these lands. Applying this percentage to the ex vessel values of salmon harvests from 1979 to 1988 provides the estimates of the value of the salmon fishery found in Table 5.

Using this methodology, the estimated portion of the ten year total ex vessel value for all salmon species which may roughly be attributed to the subject land is $7.16 million.

Shellfish

The Lower Cook Inlet commercial shellfish industry primarily consists of the king, tanner and Dungeness crap, shrimp and clam. Of this, the three crab fisheries dominate the market. Unlike the Pacific salmon, shellfish species are not anadromous and are therefore only indirectly related to the adjacent land areas. Whereas a connection may reasonably be made between a salmon caught in a given coastal zone and a particular inland spawning habitat, no such connection can be made with crab or shrimp harvests. Because access to the Lower Cook Inlet's shellfish fisheries is not restricted by localized points of origin, e.g., China Poot Bay or Halibut Cove, attributing any value of shellfish harvests to adjacent land areas is, therefore, tenuous. Despite this indirect relationship, the near and off-shore shellfish habitats constitute a vital part of the subject land's ecosystem and a brief discussion of their commercial importance has been included here.

Table 6 summarizes the catch (in pounds) and value of the three crab fisheries for the southern district of the Lower Cook Inlet Management Unit between 1978 and 1988, as compared to the Management Unit's total. The southern district covers a much larger area than can be reasonably attributed to the subject's shoreline, covering the area from Anchor Point to the north to Cape Elizabeth to the south (see Appendix B). Harvest data for these geographical levels, however, was not available for analysis. Rather than trying to attribute commercial values to the subject lands, then, the table has been presented here to reveal the relative importance of the southern district, of which the subject is an integral part, to the Lower Cook Inlet Management Unit as a whole. This importance is most evident in respect to the Dungeness crab: the southern district dominates the Management Unit's Dungeness crab fishery by providing an average of nearly 99% of that fishery's total harvest. The southern district accounts for over one-third of the king and tanner harvests as well.

Table 4
Salmon Catch by Statistical Area & Lower Cook Inlet Totals
1978 - 1988
(harvest in pounds)

1988	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	417,777	325,791	1,114	20,272	859	765,813
241-16	35,111	1,080,287	19,980	2,126	4,851	1,142,354
Subtotal	452,888	1,406,078	21,094	22,398	5,710	1,908,167
Region Total	1,524,715	2,795,729	3,033,596	25,901	70,825	7,450,766
% of Region	29.70%	50.29%	0.70%	86.47%	8.06%	25.61%

1987	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	364,140	102,470	451	10,191	915	478,167
241-16	44,901	97,710	14,046	5,300	1,920	163,876
Subtotal	409,041	200,180	14,497	15,491	2,835	642,043
Region Total	1,215,959	703,220	1,300,537	21,286	117,910	3,358,912
% of Region	33.64%	28.47%	1.11%	72.77%	2.40%	19.11%

1986	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	74,931	52,540	870	7,603	1,100	137,044
241-16	43,819	603,272	14,616	3,709	3,939	669,354
Subtotal	118,750	655,812	15,486	11,312	5,039	806,398
Region Total	1,012,725	4,810,575	667,351	16,413	162,041	6,669,105
% of Region	11.73%	13.63%	2.32%	68.92%	3.11%	12.09%

1985	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	285,399	18,970	199	8,340	2,666	315,574
241-16	40,115	779,965	11,815	8,192	5,487	845,574
Subtotal	325,514	798,935	12,014	16,532	8,153	1,161,148
Region Total	1,319,072	4,303,053	252,206	29,189	103,359	6,006,879
% of Region	24.68%	18.57%	4.76%	56.64%	7.89%	19.33%

1984	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	488,283	39,881	535	5,171	642	534,512
241-16	73,224	415,008	13,790	6,268	3,265	511,553
Subtotal	561,507	454,889	14,325	11,439	3,907	1,046,065
Region Total	1,259,594	2,460,438	823,366	20,524	147,816	4,711,738
% of Region	44.58%	18.49%	1.74%	55.73%	2.64%	22.20%

1983	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	350,702	58,455	2,388	8,504	689	420,738
241-16	96,198	890,124	38,529	4,832	5,287	1,034,969
Subtotal	446,900	948,579	40,917	13,336	5,976	1,455,707
Region Total	943,392	2,807,075	1,763,344	19,945	81,171	614,927
% of Region	47.37%	33.79%	2.32%	66.86%	7.36%	236.73%

Table 4 Continued

1982	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	7,642	3,594	53	9,954	126	21,369
241-16	47,702	277,604	32,654	4,477	6,413	368,849
Subtotal	55,344	281,198	32,707	14,431	6,539	390,218
Region Total	790,950	1,786,921	22,331	421,877	4,811,798	614,927
% of Region	7.00%	15.74%	146.46%	3.42%	0.14%	63.46%

1981	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	54,350	39,355	16	827	223	94,771
241-16	126,315	1,751,685	30,701	1,345	8,835	1,918,880
Subtotal	180,665	1,791,040	30,717	2,172	9,058	2,013,651
Region Total	668,705	12,223,887	2,748,007	7,898	91,464	15,739,961
% of Region	27.02%	14.65%	1.12%	27.49%	9.90%	12.79%

1980	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	52,484	15,453	75	484	873	69,369
241-16	38,157	469,281	6,305	3,254	8,851	525,847
Subtotal	90,641	484,734	6,380	3,738	9,724	595,216
Region Total	383,651	2,845,385	567,772	9,089	109,237	3,915,134
% of Region	23.63%	17.04%	1.12%	41.13%	8.90%	15.20%

1979	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	33,231	95,653	195	2,861	5,956	137,896
241-16	50,101	691,762	10,034	6,429	7,127	765,452
Subtotal	83,332	787,415	10,229	9,290	13,083	903,348
Region Total	410,700	10,341,274	1,812,216	23,240	105,943	12,693,373
% of Region	20.29%	7.61%	0.56%	39.97%	12.35%	7.12%

1978	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	96,778	94,906	115	3,703	4,009	199,511
241-16	359,482	291,461	9,539	11,638	2,207	674,325
Subtotal	456,260	386,367	9,654	15,341	6,216	873,836
Region Total	1,166,495	1,247,469	627,228	57,387	54,216	3,152,795
% of Region	39.11%	30.97%	1.54%	26.73%	11.46%	27.72%

11 year av.	Sockeye	Pink	Chum	Chinook	Coho	Total
241-15	202,338	77,006	546	7,083	1,642	288,615
241-16	86,829	668,014	18,364	5,233	5,289	783,730
Subtotal	289,167	745,020	18,911	12,316	6,931	1,072,345
Region Total	972,360	4,211,366	1,237,996	59,341	532,344	5,902,592
% of Region	29.74%	17.69%	1.53%	20.75%	1.30%	18.17%

Source: Alaska Department of Fish & Game, Commercial Fisheries Division, Summary Program
Mundy-Day-Bunn Associates

Table 5
Estimated Salmon Harvest & Value by Species
Attributed to Subject Property
1979 - 1988 Averages

	KING		SOCKEYE		COHO		PINK		CHUM		TOTAL	
	L.C.I. Total	20.75%	L.C.I. Total	29.74%	L.C.I. Total	1.30%	L.C.I. Total	17.69%	L.C.I. Total	1.53%	L.C.I. Total	
1979	$36,000	$7,470	$621,000	$184,685	$68,000	$884	$4,495,000	$795,166	$1,097,000	$16,784	$6,317,000	$1,004,989
1980	$12,000	$2,490	$336,000	$99,926	$64,000	$832	$1,196,000	$211,572	$298,000	$4,559	$1,906,000	$319,380
1981	$18,000	$3,735	$740,000	$220,076	$69,000	$897	$5,334,000	$943,585	$1,346,000	$20,594	$7,507,000	$1,188,886
1982	$28,000	$5,810	$827,000	$245,950	$367,000	$4,771	$406,000	$71,821	$820,000	$12,546	$2,448,000	$340,898
1983	$20,000	$4,150	$704,000	$209,370	$57,000	$741	$696,000	$123,122	$513,000	$7,849	$1,990,000	$345,232
1984	$23,000	$4,773	$1,393,000	$414,278	$120,000	$1,560	$635,000	$112,332	$242,000	$3,703	$2,413,000	$536,645
1985	$47,000	$9,753	$1,637,000	$486,844	$86,000	$1,118	$974,000	$172,301	$78,000	$1,193	$2,822,000	$671,208
1986	$21,000	$4,358	$1,414,000	$420,524	$132,000	$1,716	$1,245,000	$220,241	$201,000	$3,075	$3,013,000	$649,913
1987	$27,000	$5,603	$1,951,000	$580,227	$118,000	$1,534	$295,000	$52,186	$598,000	$9,149	$2,989,000	$648,699
1988	$32,000	$6,640	$3,583,000	$1,065,584	$127,000	$1,651	$1,957,000	$346,193	$2,548,000	$38,984	$8,247,000	$1,459,053
10 Year Total	$264,000	$54,780	$13,206,000	$3,927,464	$1,208,000	$15,704	$17,233,000	$3,048,518	$7,741,000	$118,437	$39,652,000	$7,164,903
10 Year Aver.	$26,400	$5,478	$1,320,600	$392,746	$120,800	$1,570	$1,723,300	$304,852	$774,100	$11,844	$3,965,200	$716,490

Source: Alaska Department Fish & Game, Commercial Fisheries Division, Lower Cook Inlet
Mundy Day Bunn Associates

Table 6
Crab Fishery Catch & Ex-Vessel Value
Southern District, Cook Inlet Management Area
1978 - 1988

	KING			DUNGENESS			TANNER		
Season	Catch (#)	Value *	% of total mgmt. area	Catch (#)	Value *	% of total mgmt. area	Catch (#)	Value *	% of total mgmt. area
1978	584,090	$671,704	34.67%	1,212,571	$594,160	99.74%	2,806,568	$1,192,791	52.11%
1979	664,388	$903,568	57.95%	2,130,963	$1,385,126	100.00%	2,323,420	$1,161,710	40.54%
1980	853,584	$746,886	63.33%	1,875,281	$1,218,933	100.00%	1,134,940	$595,844	22.39%
1981	508,670	$503,583	23.63%	1,850,977	$832,940	100.00%	1,047,630	$733,341	32.06%
1982	183,899	$308,950	11.79%	818,380	$572,866	99.94%	548,529	$652,750	23.25%
1983	closed	---	---	746,585	$821,244	99.89%	584,908	$818,871	19.75%
1984	closed	---	---	799,638	$1,079,511	99.93%	996,763	$1,156,245	35.42%
1985	closed	---	---	1,389,891	$1,667,869	99.11%	1,229,298	$1,684,138	40.65%
1986	closed	---	---	550,968	$539,949	97.71%	1,164,261	$1,816,247	44.27%
1987	closed	---	---	761,423	$951,779	97.22%	1,077,379	$2,531,841	44.02%
1988	closed	---	---	677,334	$677,334	94.17%	944,763	$2,210,745	61.38%
average:	558,926		38.27%	1,164,910		98.88%	1,259,860		37.80%

* Values are approximate based on average price per pound paid to fishermen.

Source: Alaska Department of Fish & Game, Shellfish Division, Southern Cook Inlet Region.
Mundy Day Bunn Associates

In respect to the subject lands, Sadie Cove provides productive habitat for both Dungeness and tanner crab. Like other areas in Alaska, the King crab season has been closed in the Lower Cook Inlet unit since the early part of the decade.

Shrimp

Table 7 summarizes the effort, harvest and approximate value of the Lower Cook Inlet shrimp fishery since the 1977-78 season. Similar to the crab fishery, harvest data was not available at a small enough geographic area to make meaningful associations to the subject land's boundaries. Though not as commercially important as either crab or salmon, combined trawl and pot shrimp harvests have generated an average ex vessel value of nearly $1 million per year over the last 12 seasons.

Other Commercial Fish Species

Other fish species that inhabit Kachemak Bay include Pacific Cod, Sablefish, rockfish, flatfish, halibut, herring, mussels and several species of clams. Though these species have commercial value to Alaska and the Lower Cook Inlet Region, their relative importance to the subject lands is most probably minimal. No determination of their commercial value has been attempted here, though their recreational value is noted below.

Sports Fisheries

The most popular sports fisheries in the Kenai Peninsula area consist of king, coho and sockeye salmon, Dolly Varden arctic char, steelhead, halibut and assorted shellfish. In respect to the saltwater fisheries, the popularity of halibut, in particular, has grown significantly over the last decade or so.

The number of sports fishermen in the Kenai Peninsula area increased nearly three-fold between 1984 and 1987 according to estimates derived from Alaska Department of Fish & Game annual postal surveys of sports anglers using Alaskan waters. Table 8 summarizes the annual reports from 1984 to 1981, breaking the sports fishing industry into four subcategories: freshwater dip net, saltwater boat, saltwater shoreline, and shellfish.

Saltwater shoreline fishing has experienced the most dramatic rise in popularity, with well over a 1000% increase in the number of anglers and nearly 450% increase in the number of fishing days. Freshwater dip net fishermen also increased a remarkable 440% over four years, with the number of angler days increasing by 350%. Only the recreational harvest of shellfish showed a slight decline (17%) in the number of fishing days, though it too showed an increase in the number of fishermen.

Kachemak Bay represents a vital share in the region's sports fishery. Though only 7% of the personal use dip net fishermen used the Kachemak Bay area in 1987, 71%, 51%, and 74% of the saltwater boat, saltwater shoreline, and shellfish anglers, respectively, fished in this area. According to the Homer District of the Alaska Department of Fish & Game, the freshwater streams on the subject lands, however, do not support significant sports fisheries. The most notable is China Poot Bay Creek where personal use dip net fishermen and anglers harvest approximately 2,000 to 3,000 sockeye salmon annually. China Poot Lake (just outside of the subject boundaries) was stocked with rainbow trout in the early 1950's, but is now a naturally self sustaining population. Dolly Varden are also naturally occurring, but do not constitute a large sports fishery in this area. There is extensive personal use of dungeness crab and various clam species in Neptune and China Poot Bays, and productive clam beds at the head of Sadie Cove.

Table 7
Shrimp Harvest & Value
Kachemak Bay Region, Cook Inlet Management Area
1978-1989

	TRAWL SHRIMP			POT SHRIMP		
Season	Number of Vessels	Catch (pounds)	Approx. Value*	Number of Vessels	Catch (pounds)	Approx. Value*
1977-78	7	5,037,946	$680,123	51	597,449	$358,469
1978-79	6	6,012,799	$992,112	41	170,314	$119,220
1979-80	7	5,797,427	$1,304,421	49	237,890	$190,312
1980-81	15	6,177,129	$1,822,253	30	313,359	$282,023
1981-82	23	4,995,499	$1,348,785	45	153,836	$138,452
1982-83	15	3,020,767	$845,815	40	155,622	$166,516
1983-84	10	525,508	$189,183	15	21,438	$26,798
1984-85	10	1,566,686	$364,000	22	76,105	unknown
1985-86	5	1,249,728	$187,500	25	72,097	$117,500
1986-87	3	504,206	$78,500	37	75,289	$100,000
1987-88	0	closed	closed	30	31,632	$48,000
1988-89	0	closed	closed	9	5,323	$9,750
average:	10	3,488,770	$781,269	33	159,196	$141,549

* Values are approximate based on average price per pound paid to fishermen.

Source: Alaska Department of Fish & Game, Shellfish Division,Southern Cook Inlet Region
Mundy Day Bunn Associates

Table 8
Kenai Peninsula Sports Fishery
1984 - 1987

	1984		1985		1986		1987		% Change 1984-1987	
	Anglers	Days Fished	Anglers	Days Fished	Anglers	Days Fished	Anglers	Days Fished	Anglers	Days Fished
Freshwater: *										
China Poot	703	1,271	398	468	993	1,927	1,016	1,016		
Kenai River							10,065	22,547		
Kasilof River	2,158	5,956	6,024	9,260	9,140	13,929	6,679	8,910		
Other			583	,919						
Total: **	2,860	7,227	7,005	10,647	10,016	15,856	15,513	32,473	442%	349%
Saltwater Boat:										
Kachemak Bay	21,849	63,390	45,102	56,771	40,091	62,307	61,098	88,063		
Anchor River			2,040	4,335	6,278	10,734	8,372	18,816		
Deep Creek	10,523	45,154	20,956	47,928	19,535	46,344	17,606	49,948		
Resurrection Bay	10,992	44,669	24,931	47,472	17,169	38,103	18,714	30,787		
Whiskey Gulch					2,832	6,651	3,847	10,105		
Other	3,114	14,557	2,358	4,541	3,153	7,972	4,834	6,431		
Total: **	40,131	167,770	85,034	161,047	70,284	172,111	85,969	204,150	114%	22%
Saltwater Shoreline:										
Kachemak Bay					4,759	7,461	7,818	11,367		
Resurrestion Bay					7,855	13,272	7,387	11,356		
Other	1,105	4,534			554	1,749	1,540	2,088		
Total: **	1,105	4,534	7,157	13,055	12,468	22,482	15,390	24,811	1293%	447%
Shellfish:										
Resurrection Bay	569	1,221			2,044	2,044				
Kachemak Bay	4,818	23,288	(no data)		10,861	21,668	9,942	19,028		
Kasilof-Anchor Pt.	12,647	29,880			32,149	32,507	22,870	25,427		
Other	734	2,040			204	1,066	1,938	2,443		
Total: **	17,490	56,429			42,632	57,285	30,965	46,898	77%	-17%
Grand Total:	61,586	235,960	99,196	184,749	135,400	267,734	147,837	308,332	140%	31%

* Personal use dipnet freshwater only
** Angler totals may not equal sum of sites due to some anglers fishing at more than one site.

Source: Alaska Department of Fish and Game, Sports Fish Division.
Mundy Day Bunn

Recreational Resources

Though hunting and fishing opportunities draw many visitors to Kachemak Bay State Park and the subject lands, non-consumptive recreational pursuits are a significant and growing use of the park lands. Examples of nonconsumptive recreational activities include hiking, boating, kayaking, wildlife observation and photography. Only sketchy and incomplete records of visitation to Kachemak Bay State Park have been compiled to reveal an average annual count of about 23,700 visitors over the last five years. The number of visitor use days, obtained from the state's Division of Parks and Outdoor Recreation is summarized in Table 9.

Another indication of the Park's popularity for recreational pursuits can be gleaned by the number and popularity of private scenic boat and air charters and guide trips operating out of Homer.

Table 9
Visitor Use Days/Kachemak Bay State Park

Month	1988	1987	1986	1985	1984
April	NCT	792	NCT	NCT	NCT
May	NCT	2,597	2,334	1,890	NCT
June	8,746	9,134	7,345	9,983	7,722
July	8,362	3,036	9,551	4,682	9,948
August	2,169	3,866	3,054	3,563	3,524
September		963	2,201	3,556	5,940
October		1,056	NCT	NCT	NCT
Total	19,277	21,444	24,485	23,674	27,134

Note: "NCT" indicates No Count Taken.
Source: Division of Parks & Outdoor Recreation, State of Alaska Department of Natural Resources

Archaeological Resources

According to the Kachemak Bay State Park Management Plan, there is archaeological evidence to indicate that the Kachemak Bay area was occupied by early Eskimo cultures as early as 790. Research on Chugachik Island (northeast of subject property) indicates native group occupation roughly 5,000 years ago. The Management Plan places a priority on the protection and management of cultural resources within the Park. Though Chugachik Island is known for containing significant archaeological resources, historical records suggest that there may be other such areas within Kachemak Bay State Park. No archaeological sites or artifacts have as yet been discovered on the subject lands.

Figure 7
Subject Photographs

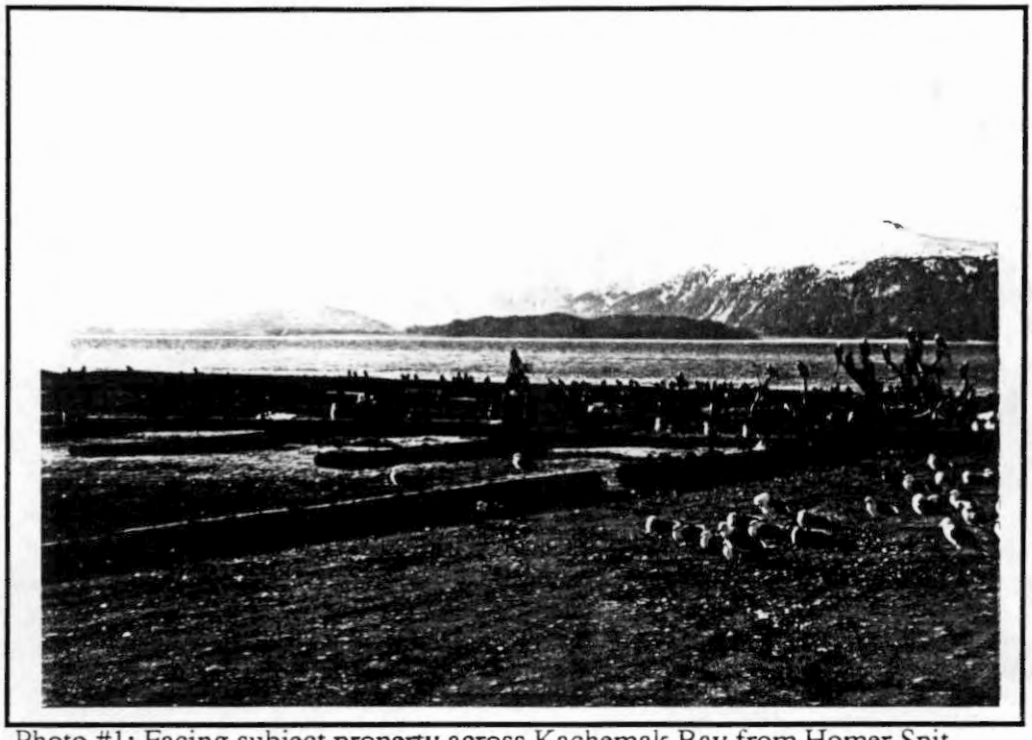


Photo #1: Facing subject property across Kachemak Bay from Homer Spit

Photo #2: China Poot Bay

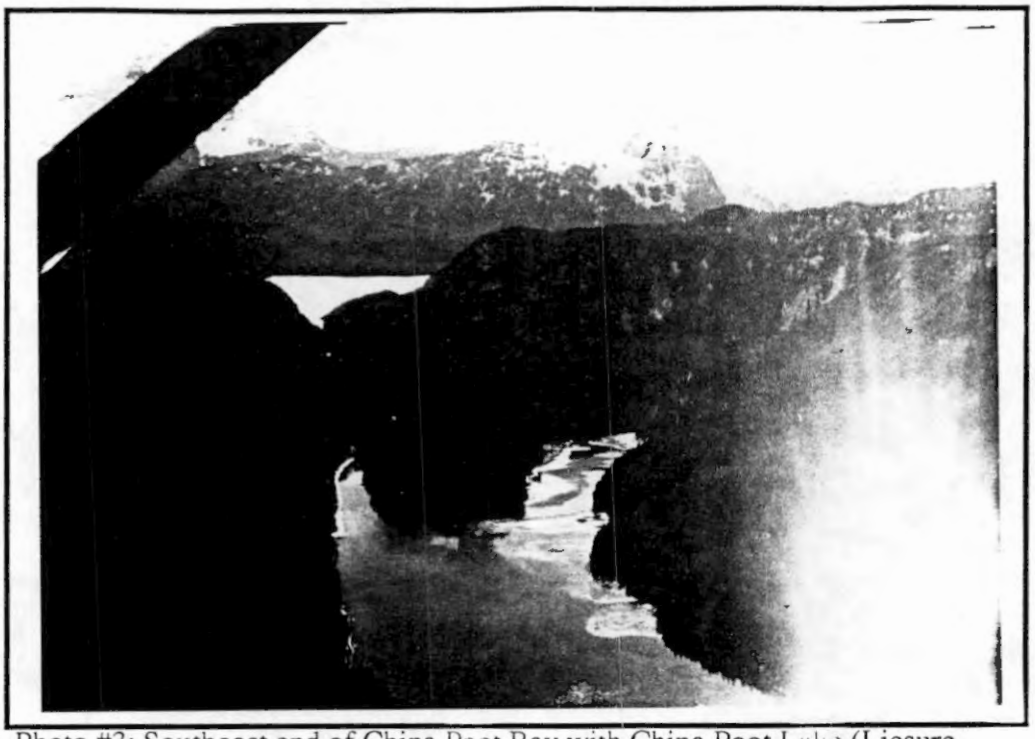


Photo #3: Southeast end of China Poot Bay with China Poot Lake (Liesure Lake) in background

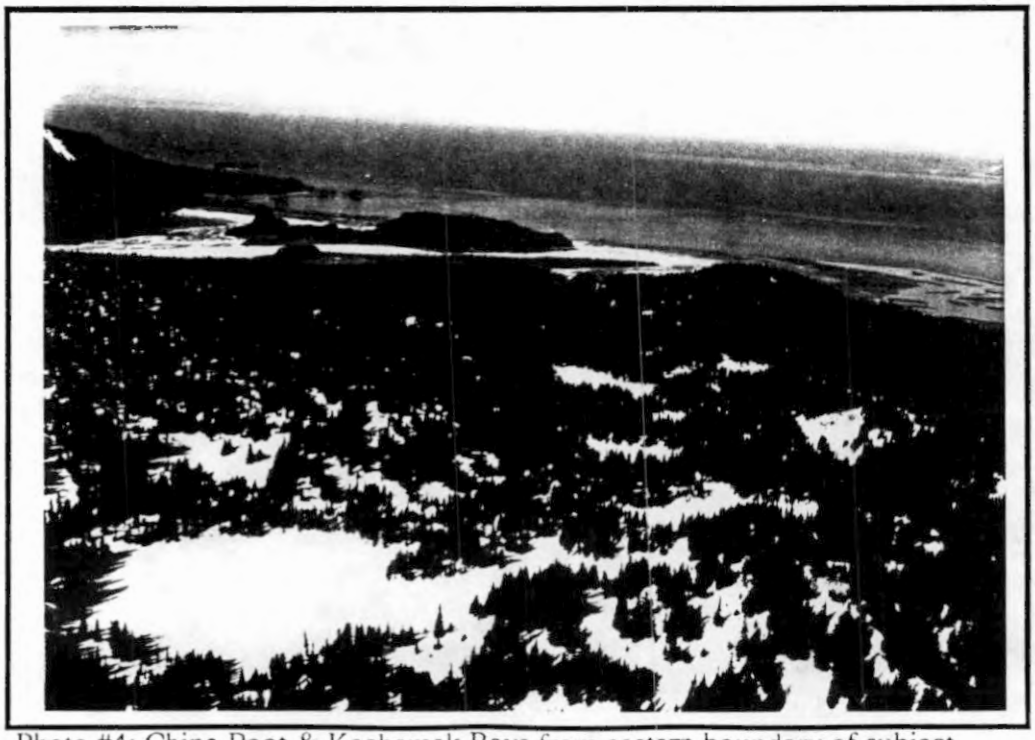


Photo #4: China Poot & Kachamak Bays from eastern boundary of subject property

Photo #5: Mountain ridges; camera facing southeasterly

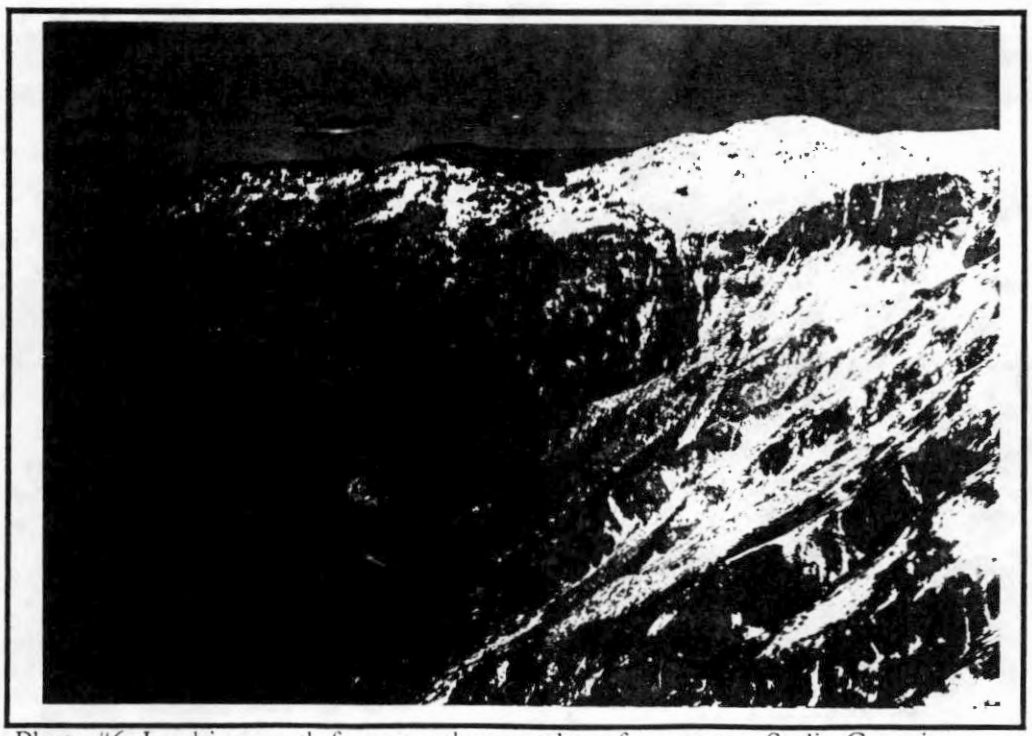


Photo #6: Looking north from southwest edge of property. Sadie Cove in foreground; Kachemak Bay in background

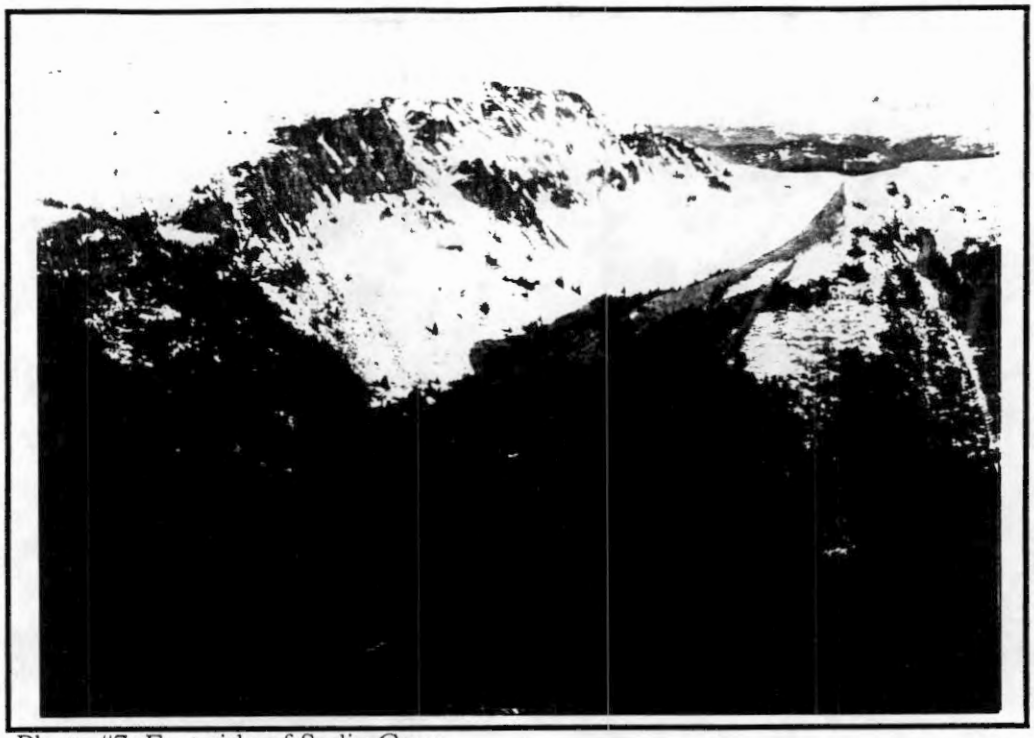


Photo #7: East side of Sadie Cove

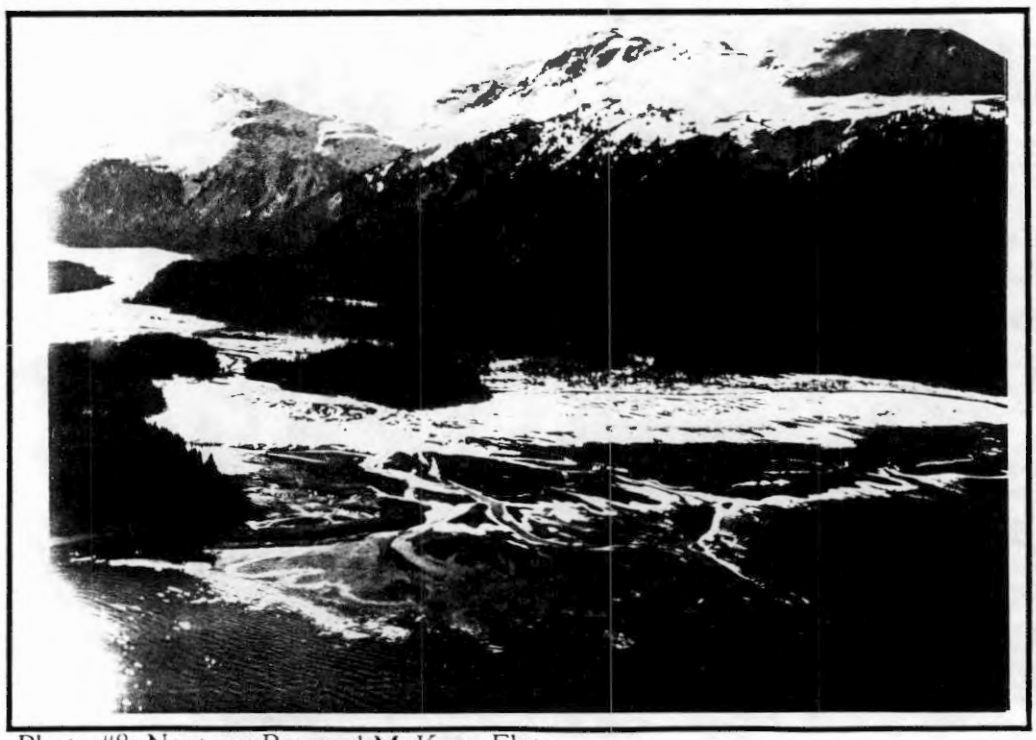
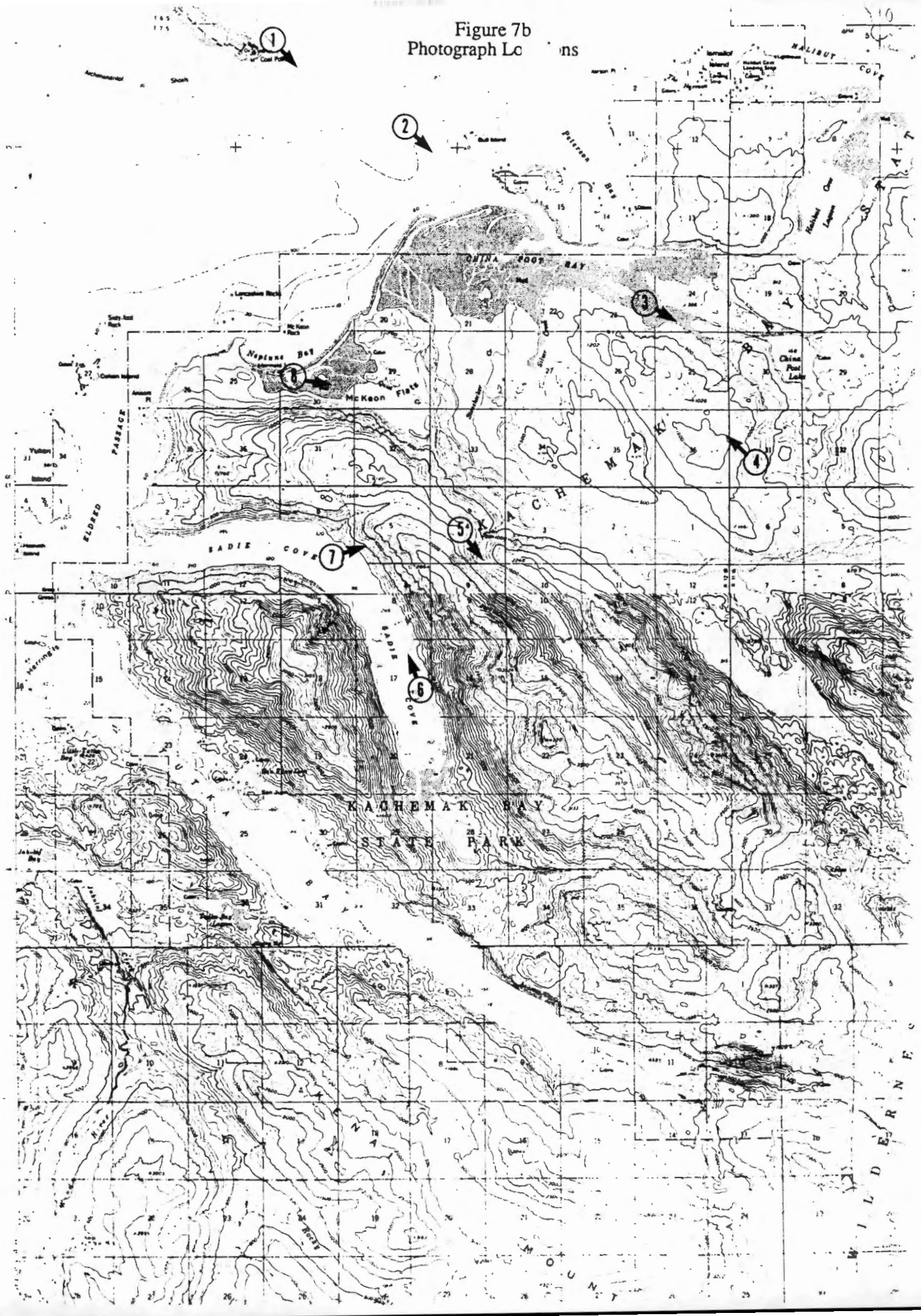


Photo #8: Neptune Bay and McKeon Flats

Figure 7b
Photograph Lo ns



HIGHEST AND BEST USE

The highest and best use is considered to be that reasonable and probable use which will result in the highest present value of a property. In *Real Estate Appraisal Terminology*, a handbook of appraisal terms sponsored by the American Institute of Real Estate Appraisers, and the Society of Real Estate Appraisers, highest and best use is defined as:

> "The reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible and which results in the highest land value ... it is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use. ... Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners."

The principle of highest and best use is the economic basis for well conceived land use decisions. As implied by the above definition, it maintains that land will tend to be developed in a manner which will result in the greatest possible overall economic return, subject only to the constraints of **physical possibility, legal permissibility** and both **economic and financial feasibility**. Also implied in this definition is that the use be appropriately supported within the context of the property's surrounding political, economic and physical environment.

The highest and best use of the site can be determined in two manners, from the qualitative standpoint and from the quantitative standpoint. The qualitative approach is based on the appraiser's judgment, and it is dependent on a sound reasoned logic. The quantitative approach is based on a careful highest and best use analysis comparing the land values supportable by alternative uses, the highest and best use being that use which maximizes the value of the site.

The previous sections have provided a description of the subject's physical base, natural resources and surrounding community and historical background which provide the context in which to determine the property's most probable and profitable use. With these factors in mind, several potential use scenarios for the subject property have been considered. These include:

1) timber harvest

2) recreational homesite development

3) commercial recreational development

4) mineral extraction

5) natural land

Each of these potential uses are summarized in respect to the four criteria outlined above (physical, legal, economic and financial feasibility) in Table 10. Alternative use scenarios and their resulting net present values are discussed in the following paragraphs.

Table 10
Potential Land Use Matrix

Potential Use	Physically Possible	Legally Permissable	Economically Feasible	Appropriately Supported	Estimated NPV
Timber Harvest	yes	yes	yes	no	$3.05 mil.
Recreational Homesites	yes	yes	questionable demand	moderate development	$7.05 mil.
Commercial Recreation	yes	yes	questionable demand	moderate development	$.76 mil.
Mineral Extraction	sand, gravel, rock only	shoreline permitting required	yes	no	$7.24 mil.
Natural Land	yes	yes	yes	yes	$25.18 mil.

Source: Mundy Day Bunn

Timber Harvest

As mentioned in the introductory sections of the report, in 1987 SNA sold the timber on 12,400 of the subject's total 23,802 acres. A subsequent timber cruise and appraisal contracted by TTC found 4,435 acres to have commercially viable timber resources for a total of 44,987 MBF.[7] At the time of the timber sale, SNA retained 1,825 acres of forested land in Township 7-South, Range 12 West. This acreage has not been cruised to determine commercial timber volumes. If, for the sake of illustration, we apply the volume density found on the TTC land to the retained SNA acreage, we come up with an estimated volume of 18,500 MBF on the 1,825 acres.

TTC's timber has been valued at $165/MBF by a third party appraiser. Again, for the sake of illustration, if this stumpage value is applied to the estimated volume, it results in a total value of the land based on timber harvest of $3,052,500. Based on an annual harvest of 15,000 MBF to 20,000 MBF, the resource could be depleted in one to two years. Discounting for present value has, therefore, not been applied.

Recreational Homesites

Much of the subject property possesses amenities which provide it with high recreation and commercial development potential. This potential is particularly good along relatively level ocean and river frontages and in scenic viewsheds. There is a recognized demand for recreational homesites with these amenities in the Kachemak Bay region.

For this scenario, the entire 23,800 acre parcel being proposed for exchange was divided into 40 acre 1/4 sections and those 1/4 sections having developable waterfrontage or in close proximity to were summed to estimate the number of acres having the potential for recreational homesite development. This method results in approximately 3,000 acres. Because of the difficulty in accurately identifying and subtracting out the 4,435 acres on which TTC owns timber and which are not the subject of this appraisal, this acreage has been included in this example. It should be noted, however, that if this were to be subtracted out, the remaining acreage amenable to development would be diminished significantly.

For the sake of illustration, we have assumed that 1,000 of the 3,000 acres could be subdivided into five acre lots and sell for $10,000 per acre ($50,000/lot). The remaining 2,000 could be subdivided into 20 acre lots and sell for $2,500 per acre (also $50,000/lot). Based on our research of recreational subdivision through southcentral Alaska, a developer can expect to incur approximately $1,000 per acre in surveying and development costs and an additional 15% of gross sales in marketing expenses. If we assume a fairly optimistic absorption rate of 20 small lots and ten larger lots per year, then the sell-out period would be ten years for the 3,000 acres. Using these assumptions and applying a discount rate of 10% and 4% inflation results in the net present value scenario presented in Table 11 of $7 million.

Commercial Recreation Development

The popularity of Kachemak Bay State Park for hunting, fishing, wildlife observation and study, and other forms of recreation indicate the demand for commercial facilities to support these activities. Hunting and fishing lodges represent a good example of such facilities. These are generally developed on larger acreages of anywhere between 15 to 50 to upwards of 500 to 1,000 acres depending on how much area the commercial operator wanted to have exclusive use of (if for instance, an operator desired to have a private hunting reserve as part of his operation, the necessary acreage would be much higher.)

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[7] See Appendix for appraisal cover sheet documenting volumes and stumpage values for the 4,435 acres.

Table 11
Net Present Value of Recreational Homesites
Sales Scenerio

Total Acreage:	small lots	large lots
Acres per lot:	5	20
Lots sold per year:	20	10
Acres sold per year:	100	200
Price per acre:	$10,000	$2,500
Gross annual sales:	$1,000,000	$500,000
-Development costs (@$1,000/acre)	($100,000)	($200,000)
-Marketing Costs (15% of gross sales)	($150,000)	($75,000)
Net Annual Sales	$750,000	$225,000
Net Annual Income (1989)	$975,000	
NPV (t=10; i=6.0%*)	$7,053,613	

* Discount rate= market rate of 10% less 4% inflation.
Source: Mundy Day Bunn

Table 12
N.P.V. of Commercial Recreation Development
Land Sales Scenerio

Acres per lot:	160
Lots sold per year:	1
Acres sold per year:	160
Price per acre:	$1,000
Gross annual sales:	$160,000
-Development costs (@$100/acre)	($16,000)
-Marketing Costs (15% of gross sales)	($24,000)
Net Annual Sales	$120,000
Net Annual Income (1989)	$120,000
NPV (t=10; i=6.0%*)	$760,738

* Discount rate= market rate of 10% less 4% inflation.
Source: Mundy Day Bunn

Similar to the process described for recreational homesites, we have assumed an optimistic scenario whereby 160 acre lots are sold for $1,000 per acre at a rate of one very year for a maximum of ten such sites for 10 years. Surveying, platting and marketing costs for the land would be considerably less expensive than for the higher density lots, perhaps in the range of $100 per acre and 10% of gross sales for marketing costs. Applying these assumptions yields a net present value of $760,700 as outlined in Table 12.

Mineral Resource Extraction

The subject's subsurface estate is owned by Cook Inlet Region, Inc. with a Memorandum of Understanding between them and SNA regarding management of gravel and rock resources. Apart from construction materials (sand, gravel, rock) the subject lands contain no known commercial quantities of mineral resources. Gravel, and rock extraction, however, is currently a commercially viable alternative for the China Poot and Neptune Bay areas. A quarry operated within Kachemak Bay State Park at the mouth of Sadie Cove until eight or ten years ago when the state was able to exploit an alternative site outside the park boundaries. SNA currently operates pits in Seldovia and Jakolof Bays producing a total of between 50,000 to 60,000 cubic yards per year. According to a source at SNA, the Homer area has depleted its commercial gravel resources and currently trucks in gravel from over 50 miles away. Demand for construction materials that can be barged in high volumes across Kachemak Bay is, therefore, likely to increase.

According to SNA, they are able to get $2.50/cubic yard in place[8] at the two sites they currently operate. These are small scale operations where the buyer incurs all costs of extraction and transportation. Large scale operations in China Poot Bay would require more developed extractive and barging facilities. If we assume that these facilities along with labor and administration expenses cost $1.50 per cubic yard, then net income would be $1.00 per cubic yard. Given an annual production rate of 1.0 million cubic yards for ten years at the same inflation and discount rates used in the previous scenarios, yields a net present value of $7.24 million.

Natural Land

The property's outstanding scenic vistas, extensive shoreline and watersheds, backcountry forests, abundant wildlife, numerous recreational opportunities, and generally pristine environmental quality are all characteristics that make it highly desirable for acquisition into the public domain. Indeed, the state's designation of this land as a scenic park and its consistent efforts to gain managerial control over it demonstrate its value from the public interest's standpoint. There is little doubt that the SNA inholdings are a vital part of Kachemak Bay State Park in respect to public access, views from Homer and Kachemak Bay, and the protection of significant resources on the surrounding land.

The preservation of the subject as natural land is both physically and legally possible while providing a use that is the most appropriate given the surrounding environment. In respect to economic feasibility, the following valuation analysis indicates that the subject property yields the highest net present value as natural land.

Conclusion

Given the locational and physical attributes of the subject property, several alternative uses have been examined in an effort to determine the most probable and profitable use of the property. These use alternatives have been compared to the four criteria implied in the definition of highest and best use and a net present value scenario has been estimated. The results of this analysis

[8] Buyer incurs all costs of extraction and transportation.

suggest that the highest and best use of the subject property is as natural land to be preserved and managed for its scenic, wildlife and recreational resources.

VALUATION ANALYSIS

The determination of natural land as the subject's highest and best use dictates the use of the sales comparison approach as the most appropriate method of valuation. Because natural environments cannot be recreated, the cost approach to value is not relevant in this instance. The income capitalization approach is also not relevant because the highest and best use as determined in the previous section does not produce income. The sales comparison approach relies on the principle of substitution which holds "that the value of a property tends to be set by the price that would be paid to acquire a substitute property of similar utility and desirability."[9] Inherent in this principal is that the properties being compared were acquired for similar purposes, and that the buyers shared similar motivations.

The sales comparison approach is the preferred appraisal method when there exists a sufficient number of comparable market transactions. As mentioned in the introduction, there is a significant market in the buying and selling of high amenity natural land for purposes of preserving its scenic, wilderness or wildlife habitat character, or for the purposes of providing public access to these amenities. This market primarily consists of public agencies (federal, state or municipal) and private environmental or conservation organizations involved in land acquisition, most notably the Nature Conservancy, The Trust for Public Land, and numerous smaller land trusts throughout the country.

Our search for comparable properties included all these sources of potentially relevant data. Acquisition summaries from national and regional offices of the U.S. Forest Service, National Park Service, and Fish & Wildlife Service were acquired to find purchases of wilderness, national recreation, scenic, and wildlife habitat areas. Various state offices of the Nature Conservancy and the Trust for Public Land were also contacted regarding large land acquisitions. In addition, over 40 private trusts and numerous appraisers throughout the country were contacted and interviewed. This research effort resulted in the compilation of several hundred sales of natural land intended for public use or habitat protection.

From this extensive database, the major criteria used for selecting properties to be used as comparables to the subject included:

1) **Purpose of Acquisition.** Only those properties which were purchased with the intention of enhancing or preserving the natural integrity and providing public enjoyment of the property were considered comparable. Properties which were acquired for development of anything other than the minimal improvements (or no improvements at all) necessary to enable public access were disregarded.

2) **Property Attributes.** It is recognized that the subject property has extraordinary scenic, scientific, wilderness and wildlife habitat characteristics, as well as the potential for providing a wealth of dispersed recreational experiences (e.g., hiking, kayaking, camping, hunting, etc.). Though a few of the comparable properties selected may not be similar to the subject in respect to their particular topographic features or habitat types, they possess one or all of these amenities. The appraiser considered those properties that were generally rugged in nature, and avoided those with extensive wetlands.

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[9] *The Appraisal of Real Estate*, AIREA, 9th Edition, 1987, p. 312.

3) **Location.** The search for comparable properties purchased in the public interest began in Alaska. All purchases and exchanges made by public agencies in Alaska known to the appraiser were considered. This included acquisitions made by the U.S. Fish & Wildlife Service, the National Park Service, the U.S. Forest Service, and the State Department of Natural Resources. The limited number of such transactions led the appraiser to extend the search to the Pacific Northwest Region. It is the appraiser's opinion that the purpose for which a property was acquired (e.g., for the public interest) is an overriding determinant of comparability, thereby justifying the extended search to locations outside of Alaska.[10] Recognizing the vast differences in ownership patterns, land values, and topography between the East and West Coasts, only sales west of the Rocky Mountains were considered in the final analysis. Even so, locational influences on value were considered in the analysis of non-Alaskan sales.

4) **Remoteness.** Though properties having limited to no road access were considered more comparable than those with superior access, remoteness was not used as a criteria to eliminate transactions from the pool of comparables. The majority of sales chosen and analyzed as comparables did not have vehicle access and could be considered remote. The two exceptions to this are discussed and adjusted accordingly.

5) **Size.** The search for comparables was limited to parcels over 100 acres with emphasis placed on those sales over 1,000 acres in size. The limited number of sales of this type and size range in Alaska was, again, a limiting factor.

6) **Sale Date.** 1980 was used as a cutoff date for most of the comparable properties. Once again, some of the Alaskan sales were the exception. In reviewing the National Park Service and State sponsored acquisitions in the state of Alaska, it was found that the majority occurred prior to 1980. Again, for the sake of locational comparison and completeness, some of these acquisitions were considered. When appropriate, time adjustments were made.

Comparable Sales Evidence

In accordance with these criteria, nine properties were chosen from the above mentioned database to represent comparable sales from the subject property. Information pertaining to the nine sales is summarized in Table 13 and in the following paragraphs.

Comparable No. 1 is located on the Upper Noatak River drainage, south of its confluence with Otkurah Creek, approximately 70 miles northeast of Bettles, Alaska. The 160± acre parcel was purchased by the National Park Service in June, 1988 for inclusion to the Gates of the Arctic National Park. The property was purchased for $108,000 which included a small wood frame cabin valued at $5,000. The $103,000 attributed to land yields a per acre value of $644.

The topography is mostly level with some gentle sloping. There is an approximate 40 acre lake on the site which provides the main access. There are three small drainageways running through the property leading to the lake.. The vegetation is natural grasses, low brush and berry bushes. The property is situated in a broad open valley offering spectacular views of the valley and Brooks Range.

[10] In respect to wildlife habitat, for instance, it is asserted that a desert habitat supporting an endangered lizard species is comparable to a forest habitat supporting a similarly endangered bird species. The fact that one may be located in Nevada and the other in Alaska is not as relevant as the motivation behind the acquisition, which in each instance is to protect the endangered species' habitat.

Comparable No. 2 is a 121 acre property located in the Kantishna Region of Denali National Park. It was purchased by the National Park Service in December, 1988 for $665,000 or $5,495 per acre. The property consists of three noncontiguous parcels consisting of two patented lode mining claims each. According to the seller and the NPS appraisal, the appraised value did not attribute any value to the subsurface estate. Two deeds of conveyance were involved in the sale—one for the surface estate and the second for the subsurface estate. The second deed of conveyance was considered a donation for which no value was assigned by the NPS in its purchase of the property. The topography contains steep slopes, though one of the parcels is located in a canyon. Elevations vary from 2,300 to 3,800 feet. There is some creek frontage on Eureka Creek. The property is in a very remote region of the park and can be accessed by a single lane four-wheel drive road 78 miles from a paved road, or by hiking in from a public air strip.

Comparable No. 3 is located in the Rabbit Creek Valley of Chugach State Park, approximately ten miles southeast of Anchorage. The 320 acre parcel was purchased by the State of Alaska Division of Parks in April, 1978 for $960,000, yielding a per acre value of $3,000.

The property is situated in the Chugach Mountains in a high alpine valley of about 2,500 feet elevation. Rabbit Creek flows through the center of the property. Vegetation consists of open patches of grass and moss interspersed with alder brush and occasional spruce. The property is well above the tree line and has excellent views in all directions, overlooking glacial cirques, the Alaska Range, and Cook Inlet. Access to the property is via a two-lane, unpaved locally maintained road which connects to a homestead trail. Four-wheel drive is necessary during winter months.

Comparable No. 4 is located in the Eagle River Valley of Chugach State Park, approximately 20 miles northeast of Anchorage. The 150 acre parcel was purchased by the Alaska Division of Parks from The Nature Conservancy in 1977, for $313,000. There is a homestead cabin and out building which were not considered to be of value in the transaction, yielding a per acre value of $2,087.

This is a remote parcel developed as a homestead with minimal road access. It sits on a north slope at the base of a steep mountain ridge, offering great privacy and little sunlight in a wilderness setting. Eagle River Road is inaccessible; it is only a mile away across the valley, but crossing Eagle River is impractical. The site is between the 500' and 900' elevation on the south side of Eagle River Valley, about 1,000 feet south of the riverbed. The average slope is 35% in the area where the river lies at the 350' elevation and adjacent ridges rise to 4,000 - 5,000 feet. Most of the site is wooded with deciduous trees, commonly birch and alder. The western half of the site was apparently cleared around 1960 to comply with homestead requirements. The property has a view of the Eagle River Valley and Eagle River itself, along with the mountains on the north side of the valley.

Comparable No. 5 and No. 6 are two previous exchanges of land in Kachemak Bay State Park involving the Seldovia Native Association and the State of Alaska. Under the terms of these exchanges, the state acquired 3,578 acres in 1983, and another 960 acres in 1985 for $923 per acre and $938 per acre respectively. The land parcels exchanged are adjacent to the subject property and have been identified in Figure 2 (see Introduction). Discussions with SNA revealed that the values had been negotiated and mutually agreed upon as representing the market value of the exchanged lands. Both these properties share many of the subject's attributes.

Comparable No. 7 is located in the Alpine Lakes Wilderness area of Washington. The transaction involved four parcels, totalling 22,457 acres. The four parcels were sold to the U.S. Forest Service in 1982. In 1981 the USFS contracted appraisal determined the value of a larger 23,400 acre tract which encompassed all of the subject acreage to be $17.5 million based on the parcel's harvestable timber ($740 per acre). A second appraisal contracted by the owners

determined a value of $37.0 million based on the property's highest and best use as wilderness. After long protracted negotiations involving Congress as well as the two parties, a settlement value of $28.98 million for the 22,456 acres was agreed upon, yielding a weighted average per acre value of $1,290 for the four parcels. Following the Alpine Lakes Wilderness bill, the land was sold to the federal government for inclusion to the wilderness area.

The topography is rather extreme with altitudes ranging from 2,000 feet at the highway to 8,500 feet at the peak of Cashmere Mountain, which provides spectacular panoramic views. Most of the property is covered with pine trees with various deciduous trees intermixed throughout. The ground covering is mostly bare or medium grasses. Several small mountain lakes can be found within the properties. These lakes feed a myriad of streams which create the basis for the system of pack trails throughout the four parcels. Parcel 1 is most easily accessed by Chiwakum Road off of Highway 2 approximately ten miles north of Leavenworth. Parcel 2 can be found by driving eight miles southeast of Leavenworth up Icicle Creek Road. At the Eight Mile Campground, a 2.5 mile pack trail gains 1,400 feet of elevation before reaching this parcel. Parcel 3 begins at the Ingalls Creek Guard Station, approximately 13 miles south of Leavenworth on Highway 97 South. The property is a mile off the highway, where the trail follows Ingalls Creek into the core of the parcel. Access to all four parcels can be limited during the winter months, as not all the roads are plowed free of snow.

Comparable No. 8 is located along the Big Sur coast, approximately 15 miles south of Carmel, California. The **Big Sur** Land Trust, a private land trust in the Big Sur area of California, sold some 1,200 acres of redwood forest to the Monterey Peninsula Regional Park District for $1.2 million in June, 1989. The selling price per acre was $1,037 cash. The property is located along the scenic California coast roughly 15 miles south of Carmel, and has significant stands of old growth redwood and several archeological sites. The property abuts wilderness on one side and private ownership on all other sides. It is located within a canyon at the confluence of Bixby and Turner Creeks. It does not have direct ocean frontage, though views of the Pacific Ocean are afforded from some of the higher knolls. The land trust had previously obtained the land from the Federal Land Bank after a Ukiah based timber company defaulted on its permit to log. The land trust was founded in 1977 to conserve open space and significant natural resources for public benefit in coastal Monterey County. The property is intended for limited day use recreation after a management plan has been approved.

Comparable No. 9 is located on Cypress Island in the San Juan Archipelago of Washington State. In May 1989, the state acquired 3,176 acres of the island's total 5,500 acres, placing a major portion of the island into public ownership. The total price was $5.4 million, which included $1,150,000 worth of improvements, to include an old shop building, unimproved airstrip, and jeep trails. This results in a total land value of $4,250,000 or $1,338 per acre.

Cypress Island is the largest remaining undeveloped island in the San Juan archipelago. It is located approximately three miles from Anacortes but is not accessible by the state ferry system. The property is forested with 40 to 120 year old timber and includes approximately 18 miles of Puget Sound waterfront and numerous lakes, ponds and wetlands. It is semi-mountainous with elevations ranging from 0 to 1,500 feet. There are several massive, prominently exposed rock outcrops, ledges and cliffs which afford outstanding views of the surrounding islands and water. Six archeological sites have been recorded on the island, with a high likelihood of additional sites. The property is intended for designation as a state Natural Resources Conservation Area.

In examining these acquisitions further, several factors relative to their per acre values were considered and analyzed to determine the appropriateness of making adjustments. These factors and the adjustments made are described below.

Table 13
Comparable Sales & Adjustments

Comp. No. Location:	1 Gates of the Arctic	2 Kantishna Denali Ntl Park	3 Rabbit Valley Chugach S.P.	4 Eagle River Chugach S.P.	5 Kachemak Bay State Park-I	6 Kachemak Bay State Park-II	7 Alpine Lakes Washington	8 Big Sur California	9 Cypress Island Washington
Date	Jun., 1988	Dec., 1988	Apr., 1978	Aug., 1977	Mar., 1983	1985	Dec., 1982	Jun., 1989	May, 1989
Size	160	121	320	150	3,578	960	22,457	1,157	3,176
Price	$103,000	$665,000	$960,000	$313,000	$3,303,500	$900,000	$28,983,243	$1,200,000	$4,250,000
Price/Acre	$644	$5,495	$3,000	$2,087	$923	$938	$1,291	$1,037	$1,338
Terms	cash	cash	cash	cash	exchange	exchange	cash	cash	cash
Grantee	U.S.N.P.S.	U.S.N.P.S.	State of AK	State of AK	State of AK	State of AK	U.S.F.S.	Monterey Parks	WA State DNR
Access	air	air, 4WD road	4WD road	walk-in	air, water	air, water	walk-in	county road	air, water
Utilities	none	none	none	none	none	none	none	none	none
Improvements	cabin	none	none	homestead cabin	none	none	none	none	unimp airstrip
Topography	level to sloping	rolling to steep	alpine valley	steep	steep	moderate	steep-mountainous	moderate to steep	semi-mountainous
Ground Cover	low brush	low brush	brush, spruce	wooded	wooded	wooded	wooded	heavily wooded	wooded
Waterfront	lake, river	creek	Rabbit Crk	Eagle River	Tuka Bay	China Poot Bay	creeks	creeks	Puget sound
View	mountain	mountain	mountain & water	mountain & water	mountain & water	mountain & water	mountain	mt, some ocean	island, water
Intended Use	Ntl Park addition	Ntl Park addition	State Pk addition	State Pk addition	State Pk addition	State Pk addition	wilderness	preserve	conservation area
Adjustments									
Date:	none	none	none	none	none	none	none	none	none
Size:	---				none	none	none	none	none
-$5.00/acre to 200;	---	($395)	---	($250)					
-$2.25/acre to 500	---	($675)	($405)	($675)					
Total Size Adj.	---	($1,070)	($405)	($925)					
Location:					$13-$20,000/acre	$13-$20,000/acre	$16-18,000/acre	$15-75,000/acre	$6-20,000/acre
Wtrft Rec Property:					$365/FF	$365/FF	$/FF unknown	$/FF unknown	$325/FF
Adjustment	none	none	none	none	none	none	none	none	none
Access:	inferior	inferior	superior	comparable	comparable	comparable	comparable	superior	comparable
Adj. Price/Acre	**$644**	**$4,425**	**$2,595**	**$1,162**	**$923**	**$938**	**$1,291**	**$1,037**	**$1,338**

Source: Mundy Day Bunn

Sale Date

Sale date is an attribute commonly adjusted for in the sales comparison approach. Adjustments made to particular sales are meant to account for economic changes in the marketplace which may influence the value of real property. Changing market conditions are particularly relevant in appraising income producing properties. However, the market for preservation land does not appear to be as dynamic. While it has been asserted in the introductory sections of this report that high amenity natural lands are likely to increase in value as they become more scarce, this process tends to be a longterm one.

Several means of testing this relationship were employed to determine what, if any, adjustments to the comparables were warranted. A database containing over 275 sales of land over 100 acres in the State of Alaska was used in examining the six Alaskan comparables. First, a regression analysis was performed on the data in three forms: 1) all sales; 2) sales of over 500 acres only; 3) sales of recreation, rural subdivision and/or speculation property only. The results of these regression analyses are summarized in the Appendix. Though a general positive trend between sale date and price per acre was detected, there was considerable dispersion in the data and in none of the three analyses was the relationship statistically significant at a confidence level greater than 90%.

A second means of testing this relationship employed the analysis of paired sales. Again relying on the state's database of sales over 100 acres, one resale and several sales similar in most aspects but sale date were found and are summarized in Table 14. These paired sales cover a variety of periods. Further documentation of these paired sales are included in the Appendix. This group of evidence suggests that appreciation has occurred at a rate of about 2% per month, or 24% per year. This is a surprisingly high rate.

Comparables No. 5 and No. 6 can serve as a relatively good set of paired sales. Except for the difference in size and water frontage, these two sales are very similar to each other in respect to their relative location, topography, ground cover, natural resources, views, and intended use. One might expect No. 6 to be considerably higher in value, both because of its smaller size and later selling date, though the lack of water frontage might partially offset these factors. And yet, their per acre values are virtually the same. This would indicate that no time adjustments are warranted.

Lastly, in considering adjustments made for differences in sale dates, especially for those comparable sales in Alaska, it is first relevant to put them in perspective of the overall economy. Given the relationship between the real estate market and the economy, we would expect to see appreciation in periods of strength and growth, and see little or no appreciation (or even depreciation) in periods of slow or declining economic activity.

In respect to the six Alaskan comparable sales, the Gates of the Arctic and the Kantishna sale both took place in 1988, during a weak state economy which is still in the process of rebounding. This would suggest that no upward adjustment is warranted. The two Kachemak Bay acquisitions, as discussed above, do not indicate a need for time adjustments as the two transactions were nearly equivalent in value despite a two year difference in time. The two sales in Chugach State Park took place in the late 1970's, during a relatively tumultuous period in the state's economy. Alaska's economy has experienced significant fluctuations during the 12 or so years since these sales took place. The trend has been far from linear: the economy peaked in the mid-to-late 1970's, followed by a post-pipeline decline. Growth was dramatic through the early 1980's, reached a new peak in mid-decade, and then plummeted again during the 1986 to 1989 period. If the comparable sales had taken place at a low point in the economy and we were now at a peak, then adjustments would be warranted. However, this is not the case; rather, there have been many offsetting trends since the sales occurred. Because of these fluctuations, we have chosen not to adjust these sales as well.

Table 14
Paired Sales Analysis

Resale #1	Talkeetna - 160 acres			
	04/88	$58,000	19% change	= 3.8%/month
	09/88	$69,000	5 months	
Paired Sale #2	Talkeetna - 480 acres			
	12/84	$168,000	14% change	= 1%/month
	10/85	$192,000	13.5 months	
Paired Sale #3	Admiralty Island - @133 acres			
	12/76	$202,000	127% change	= 2.6%/month
	01/81	$458,500	49 months	
Paired Sale #4	La Touche Island -315 acres			
	03/79	$200,000	50% change	= 2%/month
	1981	$300,000	24 months	

Note: Documentation of comparables is contained in Appendix D
Source: DNR Comparable Sales Database
Mundy-Day-Bunn

The Big Sur and Cypress Island acquisitions both occurred during 1989 within several months of the subjuct appraisal date. Due to the short period of time between these two sales and the subject's appraisal date, no adjustment has been made.

This leaves the Alpine Lakes Wilderness acquisition which occurred in 1982. A correlation and regression analysis was also performed on a database of U.S. Forest Service and U.S. Fish & Wildlife Service acquisitions in the continental U.S. between 1980 and 1989. The results were insignificant with a correlation of -.155, a R^2 of .024 (2.4% of the variation in per acre value can be explained by selling date), and a confidence level of less than 90%. Given this lack of statistical significance and no data to show the contrary, this comparable has also not been adjusted for time.

Size

As with sale date, a series of regression analyses was performed on the state database of sales over 100 acres to test the relationship between size and per acre values. Recognizing that the relationship may not be a linear one and that the magnitude of the effect is likely to decrease as the size of the parcel increases, the data was separated into distinct size groupings of 100 to 200 acres, 200 to 500 acres, and 500 to 1,000 acres. There were too few sales of recreational or speculative property over 1,000 acres to make a meaningful analysis. The results of these regression analyses are summarized in the Appendix and below.

Table 15
Regression Analysis Summary
Size and Price/Acre

100 - 200 acres		
	p = .2926	d.f. = 67
	R^2 = .017	
	Regression Equation:	y = - 5.199x + 2262.044
200 - 500 acres		
	p = .0175	d.f. =18
	R^2 = .289	
	Regression Equation:	y = - 2.279x +1506.472
500 - 1,000 acres		
	p = .2012	d.f. =17
	R^2 = .1	
	Regression Equation:	y = 1.178x - 216.012

Though there appears to be decreasing effect as indicated by the regression equations for the first two datasets (from a $5.20 per acre decrease in value for 100 to 200 acre parcels, to a $2.28 per acre decrease for 200 to 500 acre parcels), the results show a statistically significant relationship between a parcel size and per acre value only for those sales between 200 and 500 acres in size. In this instance, we can say with 98% confidence that 29% of the variation in per acre values can be explained by a parcel's size and for each acre increase in size we can predict a $2.28/acre drop in value.

For those sales between 500 and 1,000 acres, the data indicate a positive relationship between the two variables (i.e., per acre value increases with size). This result is opposite of what might be expected, though it supports the contention that in some instances increasing size has a positive

effect on value. Regardless of the interpretation, the results are not statistically significant at the 90% confidence level, and yield a weak R^2.

Despite the lack of statistical significance for sales between 100 to 200 acres, we feel it is reasonable that the magnitude of the effect on parcels of this size range is greater than the effect on parcels of between 200 and 500 acres. For the purpose of making adjustments to the comparable properties, therefore, we have relied on the slopes and coefficients derived in the regression equations summarized in Table 15. This indicates that for every one acre increase in a parcel's size between 100 and 200 acres, a $5.00 downward adjustment in per acre value should be made. Similarly, for every one acre increase in a parcel's size between 201 and 500 acres, a $2.25 downward adjustment in per acre value should be made. According to the regression coefficients, the effect of increasing size on a parcel's value for parcels larger than 500 acres is no longer significant and may, in fact, be positive. We have, therefore, made no adjustments to sales greater than 500 acres.

To use Comparable No. 2, (Lloyd, Cook, Lloyd) as an illustration of this process, we have made the following adjustment:

1. Parcel size = 121 acres
2. Per acre sales price = $5,495
3. 200 - 121 acres = 79 acres x - $5.00/acre = - $395
4. 500 - 200 acres = 300 acres x - $2.25/acre = - $675
5. Total adjustment to 500 acres = - $1,070
6. Total adjusted price/acre = $4,425

This same process is followed for Comparables 3 and 4, as shown in Table 13. The adjustments indicated by the market evidence are so substantial that to apply these adjustments to Comparable No. 1 would result in a negative per acre value. This is partly due to the lineal nature of the adjustment: the lower the per acre value of the comparable, the greater the relative impact of the adjustment. Comparable No. 1 is also an outlyer relative to the other sales, with a value considerably lower. For these reasons, we have chosen to delete it from further analysis.

Terms

According to the sources we contacted for confirmation, all comparable sales were made for cash or terms equivalent to cash.

Location

As a means to gauge whether an adjustment was warranted for the three non-Alaskan sales, research was conducted on selling prices of high amenity private recreational land in very close proximity to the sales properties in each of the three regions where the comparable sales are located. Values for similar type properties in Halibut Cove and Peterson Bay were used as a standard of comparison. The range in per acre values and price per waterfront foot for the four areas is summarized in Table 13.

According to current listings obtained by a local real estate office, small unimproved lots on the south side of Kachemak Bay in the vicinity of the subject ranged from $13,000 to $20,500 per acre, with one listing indicating $365 per waterfront foot. Similar lots fronting Lake Wenatchee and the Icicle River in Central Washington are selling in the $16,000 to $18,000 per acre range. A list of sales occurring in the Big Sur area over the last few years indicate a much wider range in value from roughly $15,000 to $75,000 per acre, with some exclusive ocean front lots near Carmel selling for as much as $250,000. Finally, a list of recent waterfront lot sales on the more remote

islands in the San Juans (e.g., those not served by the state ferry system) indicate values between $6,000 and $20,000 per acre, or $325 per waterfront foot.

With the exception of Big Sur, these values are remarkably similar. If the values of private waterfront recreational properties in the vicinity of the comparable sales as compared to similar properties in the vicinity of the subject are used as a gauge, this evidence indicates that no adjustment for the non-Alaskan sales is warranted.

In researching the market in Big Sur, it was found that recently enacted coastal zoning laws have restricted the subdivision and development of property to such an extent as to make smaller lot recreational property virtually unobtainable. This has resulted in skyrocketing prices for these types of properties. It appears that the prevailing real estate market in the Monterey Peninsula has not influenced the comparable sale's value, or one would expect a value well in excess of $1,000 per acre. In fact, the seller revealed that the property was originally acquired at a bargain rate that was less than the merchantable timber value contained on the property. Given these circumstances, a location adjustment to this comparable does not appear to be warranted.

Access

Access to each of the comparable properties has been ranked as superior, inferior, or comparable to the subject, based primarily on the availability of road access. Though specific dollar adjustments to the property have not been applied to reflect these differences, comparability of access was considered in applying all evaluation.

Conclusion

After adjustments, the sales have been ranked as superior, comparable, or inferior/non-comparable to the subject based on access and other attributes and considerations not already discussed. This ranking scheme is summarized in the table below.

Table 16
Comparable Sales Ranked

Relative Ranking	Sale #	Name	Adjusted $/Acre	Reason for Ranking
Superior	3	Rabbit Valley	$2,595	Access
	8	Big Sur	$1,037	Access, location
Comparable	4	Eagle River	$1,162	Intended use, topography
	5	Kachemak - I	$923	Intended use, location
	6	Kachemak - II	$938	Intended use, location
	7	Alpine Lakes	$1,291	Topography, access, political
	9	Cypress Island	$1,338	Access
Not Comparable	2	Kantishna[11]	$4,425	Access, noncontiguity, high value outlyer
	1	Gates of the Arctic[11]	$644 (unadj)	Access, location, low value outlyer.

Source: Mundy & Associates

[11] In addition to reasons mentioned in the table, these two sales were also excluded from the final analysis because they were not inspected in the field.

Finally, after adjusting and ranking, it is recognized that some sales provide better evidence than others. These better sales, for example, required fewer adjustments. Given this consideration, we feel the best comparables are Sales No. 5, No. 6, No. 7 and No. 9. The four sales are equally polarized between $950 and $1,300 per acre. Based on this evidence, we feel the most probable value for the subject is $1,150/acre.

In conclusion, our opinion of the total value of the 19,367 acres offered for exchange is:

TWENTY-TWO MILLION, TWO HUNDRED SEVENTY-TWO THOUSAND FIFTY DOLLARS

($22,272,050.00)

CERTIFICATION

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

- the statements of fact contained in this report are true and correct.
- 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.
- I have no personal interest or bias with respect to the parties involved.
- my compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.
- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the American Institute of Real Estate Appraisers.
- the use of this report is subject to the requirements of the American Institute of Real Estate Appraisers relating to review by its duly authorized representatives.
- I am currently certified under the voluntary continuing education program of the American Institute of Real Estate Appraisers.
- Vicki Adams and I have made a personal inspection of the property that is the subject of this report.
- Vicki Adams provided significant professional assistance to the person signing this report.

The date of valuation and inspection is August 10, 1989.

Our opinion of the total value of the 19,367 acres that is the subject of this report is $22,272,050.

MUNDY-DAY-BUNN

Bill Mundy

Bill Mundy, Ph.D., CRE, MAI

APPENDIX A

SUBJECT LEGAL DESCRIPTION

ATTACHMENT A

SNA LANDS TO BE ACQUIRED BY STATE

* All land described below is within Seward Meridian and is identified in BLM Interim Conveyances 139, 304, 372

Parcel	Legal Description	Approximate Acreage
1	Township 7 South, Range 12 West Sec. 13 (fractional): W½ NE¼ NW¼ NE¼, SE¼ NW¼ NE¼, W½ NW¼ NE¼, S½ NE¼ NW¼, S½	575
2	Sections 22 (fractional): excluding Lot 1 of USS 3606	370
	Sec. 21 (fractional): excluding ADL 47665 located in the SW¼ NW¼, ADL 41036 located in the N½, SW¼, ADL 41300 located in S½, SW¼	495
3	Section 29: excluding USS 4738, ADL 41084-41085 located in NW¼ SW¼	410
4	Section 30: excluding USS 3912, USS 3977 Tracts A, C, D, ASLS 76-114, ADL 41704, located in SW¼ SW¼	408
5	Sections 19 (fractional), 20 (fractional), 21 (fractional), 23 (fractional), 24 (fractional), 25 (fractional), 26, 27, 28, 31, 32, 33, 34, 35, 36: All	7,629
6	Township 8 South, Range 12 West Sections 1, 2, 3, 4, 7, (fractional), 8 (fractional) 9, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25,26, 27, 28: All	12,385
7	Section 5 (fractional): excluding ADL 49431 located in the W½ W½ SW¼	615
8	Section 6 (fractional): excluding ADL 48787 and ADL 49431 located in the E½ SW¼; ADL 46149, ADL 46150, ADL 46151, ADL 46152, ADL 46153, and ADL 46650 located in the N½ SE¼; and ADL 41043 located in the SW¼ NE¼ and NW¼ SE¼	300

ATTACHMENT A

SNA LANDS TO BE ACQUIRED BY STATE

*All land described below is within Seward Meridian and is identified in BLM Interim Conveyances 139, 304, 372

cel	Legal Description	Approximate Acreage
9	Section 16 (fractional): excluding ADL 46773 located in the SW¼ SW¼	615
0	Section 21 (fractional): excluding ADL 47665 located in the SW¼ NW¼, ADL 41036 located in the N½ SW¼, ADL 41300 located in the S½ SW¼	495
	Cumulative Total	23,802

APPENDIX B

STATISTICAL AREAS USED IN FISH & WILDLIFE ANALYSES

DESCRIPTIONS OF GAME MANAGEMENT UNITS

5 AAC 90.010 General provisions.

The taking of game shall be limited to the respective open seasons, bag limits and other applicable provisions as prescribed in relation to twenty-six geographical areas of the state designated as Game Management Units as described in this part.

1. Unit 1, Southeast Mainland.

The Southeast Alaska mainland from Dixon Entrance to Cape Fairweather and those islands lying east of Clarence Strait from Dixon Entrance to Camano Point and all islands in Stephens Passage and Lynn Canal north of Taku Inlet.

A. Subunit 1(A)—That portion of Unit 1 lying south of Lemesurier Point, including all drainages into Behm Canal and excluding all drainages into Ernest Sound.

B. Subunit 1(B)—That portion of Unit 1 lying between Lemesurier Point and Cape Fanshaw, including all drainages into Ernest Sound and Farragut Bay, including adjacent islands easterly of the center lines of Frederick Sound, Dry Straits (between Sergief and Kadin Islands), Eastern Passage, Blake Channel (excluding Blake Island), Ernest Sound and Seward Passage.

C. Subunit 1(C)—That portion of Unit 1 lying between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages into Berners Bay and excluding the drainages into Farragut Bay.

D. Subunit 1(D)—That portion of Unit 1 lying north of the latitude of Eldred Rock, excluding Sullivan Island and the drainages into Berners Bay.

west of Yakutat Bay, Disenchantment Bay and the eastern edge of the Hubbard Glacier.

6. Unit 6, Cordova-Valdez.

That area draining into the Gulf of Alaska and Prince William Sound from the middle of Icy Bay and the west side of the Guyot Hills to Cape Fairfield excluding the Nellie Juan and Kings River drainages, but not extending above Miles Glacier on the Copper River; and Kayak, Hinchinbrook, Montague and adjacent islands and Middleton Island.

A. Subunit 6(A)—That portion of Unit 6 with drainages into the Gulf of Alaska east of Palm Point (near Katalla) including Kanak, Wingham and Kayak Islands.

B. Subunit 6(B)—That portion of Unit 6 lying east of the west bank of the Copper River and a line between Flag Point and Cottonwood Point; and the drainages into the Copper River or Gulf of Alaska west of Palm Point (near Katalla).

C. Subunit 6(C)—That portion of Unit 6 lying east of the east bank of Rude River, and along the eastern shore of Nelson Bay and Orca Inlet and west of the west bank of the Copper River including that area west of a line between Flag Point and Cottonwood Point.

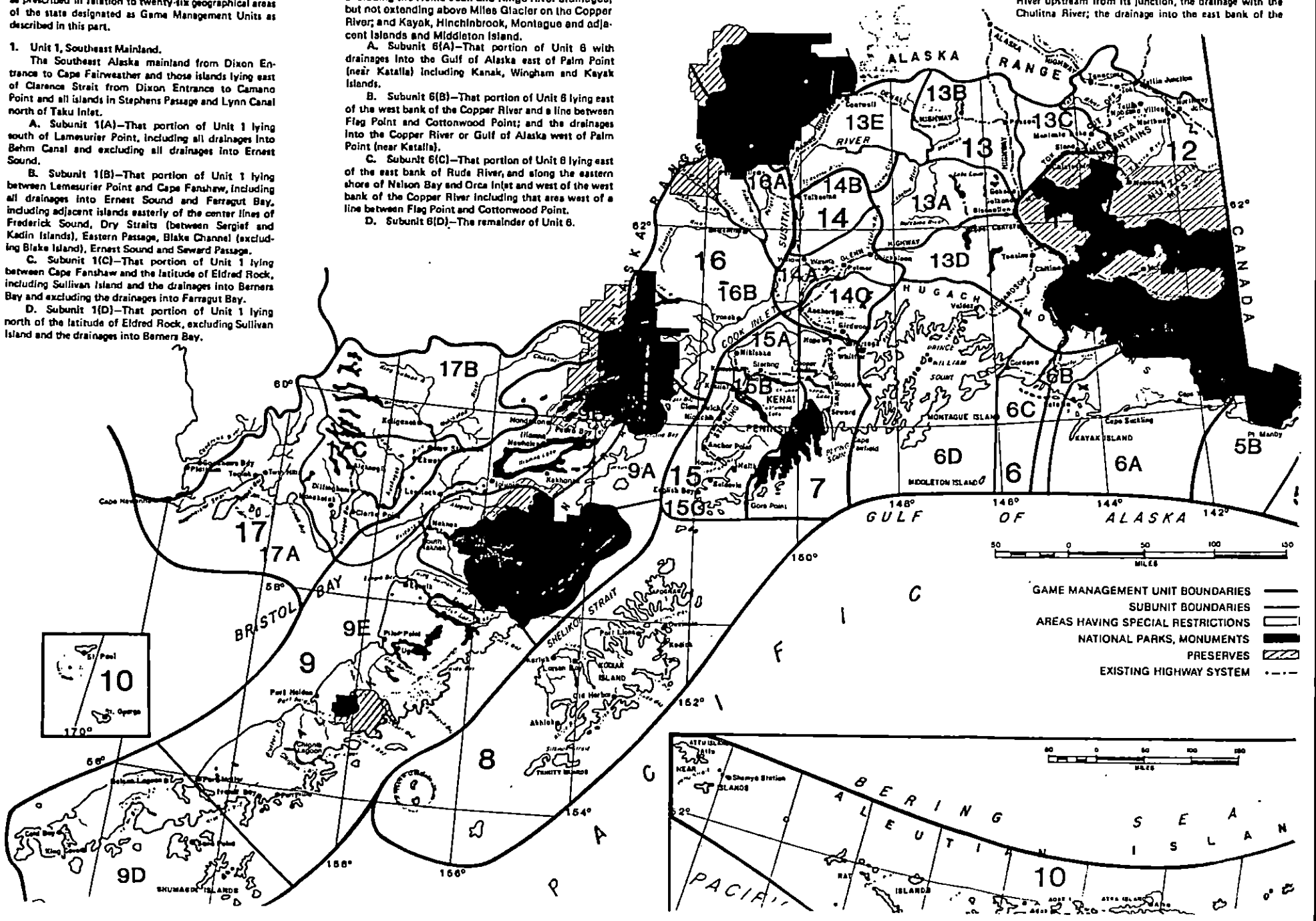
D. Subunit 6(D)—The remainder of Unit 6.

Katmai National Park & Preserve.

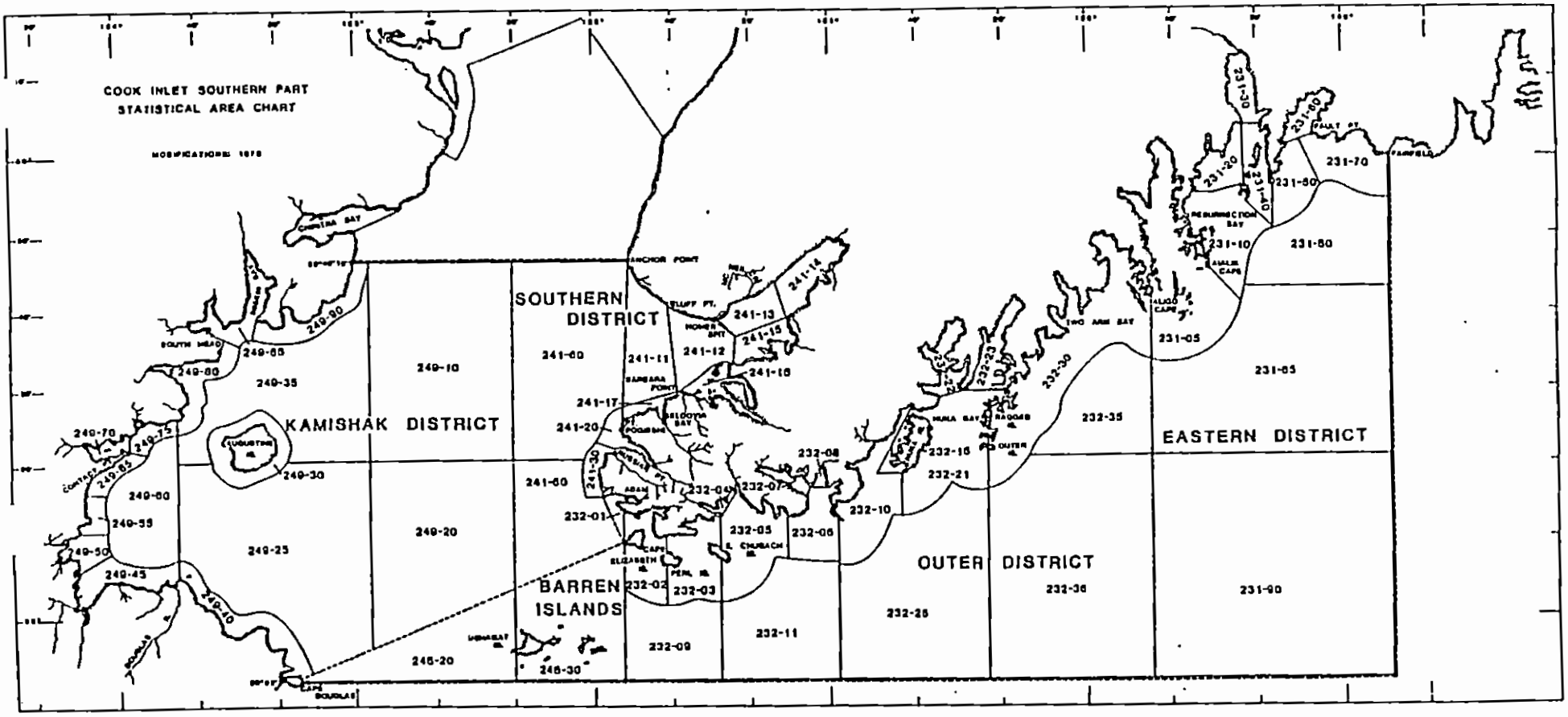
B. Subunit 9(B)—That portion of Unit 9 drained by the Kvichak River.

C. Subunit 9(C)—That portion of Unit 9 drained by Alagnak (Branch) and Naknek Rivers, and including all lands within Katmai National Park & Preserve.

the Copper River from Miles Glacier and including the Slana River drainages north of Suslota Creek; the drainages into the Delta River upstream from Clear Creek and Black Rapids Glacier; the drainage into the Nenana River upstream from the southeast corner of Mt. McKinley National Park at Windy; the drainage into the Susitna River upstream from its junction, the drainage with the Chulitna River; the drainage into the east bank of the



Statistical Areas Used in Commercial Fisheries Analyses



Source: Alaska Dept. of Fish & Game, Commercial Fisheries Division, Lower Cook Inlet Region

Salmon: Area 241-15 &1/2 of Area 241-16

Crab: Southern District

APPENDIX C

KACHEMAK BAY BIRD SPECIES LIST

Bird Species of Kachemak Bay

LEGEND

A Abundant—species occurs consistently in proper habitat, with available habitat densely occupied, and/or the region regularly hosts great numbers of the species.

C Common—species occurs in all or nearly all proper habitats, but some areas of presumed suitable habitat are occupied sparsely or not at all, and/or the region regularly hosts large numbers of the species.

U Uncommon—species occurs regularly, but utilizes only some or very little of the suitable habitat, and/or the region regularly hosts relatively small numbers; species not observed regularly, even in proper habitat.

R Rare—species occurs, or probably occurs, regularly in the region, but in very small numbers.

AC Accidental—species has been recorded no more than a few times, but irregular observations are likely over a period of years.

STATUS

r - resident
wr - winter resident
B - confirmed breeder
b - probable breeder
v - visitant: non-breeding species, also a species not directly en route between breeding and winter range.

sr - summer resident
m - migrant
n - nomadic

Sp - spring: March–May
Su - summer: June–Aug.
F - fall: Sept.–Nov.
W - winter: Dec.–Feb.

SPECIES	Sp	Su	F	W	Status
Red-throated Loon	C	U	C	U	r/m b
Pacific Loon	C	U	C	C	wr/m
Common Loon	C	C	C	C	r B
Yellow-billed Loon	R	R	R	R	wr
Horned Grebe	C	U	C	C	r/m b
Red-necked Grebe	C	C	C	C	r/m B
Northern Fulmar	U	C	C		sr
Pink-footed Shearwater		R			v
Flesh-footed Shearwater			R		v
Sooty Shearwater	U	C	C		v
Short-tailed Shearwater	C	C-A	C		v
Forked-tailed Storm-petrel	R	U	U		sr
Leach's Storm-petrel			R		sr
Double-crested Cormorant	U	U	U	R	r b
Brandt's Cormorant		R			v
Pelagic Cormorant	C	C	C	C	r B
Red-faced Cormorant	C	C	C	R	r B
Great Blue Heron	R	R	R	R	v
Tundra Swan	U		U		m
Trumpeter Swan	U	R	U		sr/m B
Greater White-fronted Goose	U	U	U		m
Snow Goose	R		U		m
Emperor Goose				AC	v
Brant	U		R		m
Canada Goose	C	U	C		m
Green-winged Teal	C	C	C	R	sr B
Mallard	C	C	C	C	r/m B
Northern Pintail	C	U	C		sr/m B
Blue-winged Teal	R		R		m
Northern Shoveler	C	U	U	R	m
Gadwall	U	R	R		m
Eurasian Wigeon	U				v
American Wigeon	C	C	C		sr/m B
Common Pochard	AC				v
Canvasback	U				m
Redhead	U		R		m
Ring-necked Duck	R				m
Tufted Duck	AC				v
Greater Scaup	C	C	C	C	r/m B
Lesser Scaup	R				m
Common Eider	C	C	C	C	r B
King Eider	U		R	R	wr
Steller's Eider	R		C	C	wr
Spectacled Eider				AC	v
Harlequin Duck	C	C	C	C	r B
Oldsquaw	C	R	C	C	wr
Black Scoter	C	C	C	C	r/m B
Surf Scoter	C	C	C	C	r/m
White-winged Scoter	C	C	C	A	r/m
Common Goldeneye	C	C	C	C	r B
Barrow's Goldeneye	C	C	C	C	r/m B
Bufflehead	C	R	C	C	r/m b
Common Merganser	C	C	C	C	r B
Red-breasted Merganser	U	U	U	U	r B
Osprey	R	R	R		m
Bald Eagle	C	C	C	A	r B
Northern Harrier	U	U	U	R	sr B
Sharp-shined Hawk	C	C	C	C	r B
Northern Goshawk	C	C	C	C	r B
Swainson's Hawk	R		R		m
Red-tailed Hawk	U	U	U		sr B
Rough-legged Hawk	U	U	U		sr B
Golden Eagle	R	R	R		sr b
American Kestrel	R	R	R		m
Merlin	R	R	R	R	m
Peregrine Falcon	U	R	R	R	m
Gyrfalcon	R	R	R	R	wr
Ring-necked Pheasant	R	R	R	R	r B
Spruce Grouse	C	C	C	C	r B
Willow Ptarmigan	C	C	C	C	r B
Rock Ptarmigan	C	C	C	C	r B
White-tailed Ptarmigan	U	U	U	U	r b
American Coot			AC		v
Sandhill Crane	C	C	C		sr/m B
Black-bellied Plover	C	C	C		m
Lesser Golden Plover	C	C	C		m
Semipalmated Plover	C	C	C		sr/m B
Killdeer		R	R		v
Black Oystercatcher	R				sr
Greater Yellowlegs	C	C	C		sr B
Lesser Yellowlegs	U	U	U		sr b
Solitary Sandpiper	R	R	R		m
Wandering Tattler	C	C	C		sr
Spotted Sandpiper	C	C	C		sr B
Whimbrel	C	C	C		sr/m
Bristle-thighed Curlew	R	R			v
Hudsonian Godwit	R				m
Bar-tailed Godwit	U				m
Marbled Godwit	AC				m
Ruddy Turnstone	C	R	R		m
Black Turnstone	C	U	U		m
Surfbird	C	C	C		sr/m
Red Knot	R	R	R		m
Sanderling	U	U	U		m
Semipalmated Sandpiper	C	C	C		m
Western Sandpiper	A	A	C		m
Rufous-necked Stint		AC			v
Least Sandpiper	C	U	U		sr/m b
Baird's Sandpiper	R	R	R		m
Pectoral Sandpiper	U	U	C		m
Sharp-tailed Sandpiper			U		m
Rock Sandpiper	U		U	C	wr
Dunlin	C	U	U	R	m
Short-billed Dowitcher	U	U	U		m
Long-billed Dowitcher	C	C	C		sr/m
Common Snipe	C	C	C	R	sr B
Red-necked Phalarope	C	C	C		sr B
Red Phalarope	R	R	R		v
Pomarine Jaeger	U	U	R		m
Parasitic Jaeger	R	R	R		m
Long-tailed Jaeger	R	R	R		v
Common Black-headed Gull		AC			v
Bonaparte's Gull	C	C	C		sr b
Mew Gull	C	C	C		r B
Ring-billed Gull	R	R	R	R	v
Herring Gull	C	U	C	C	r
Thayer's Gull				AC	v
Slaty-backed Gull				AC	v
Glaucous-winged Gull	A	A	A	A	r B
Glaucous Gull	U	R	U	C	wr
Black-legged Kittiwake	C	C	C	U	sr B
Red-legged Kittiwake		AC			v
Ross' Gull		AC			v
Sabine's Gull			R		v
Ivory Gull				AC	v
Caspian Tern		AC			v
Royal Tern		AC			v
Arctic Tern	C	C	R		sr B
Aleutian Tern	C	C	R		sr B
Common Murre	A	A	C	C	r B
Thick-billed Murre				R	wr
Pigeon Guillemot	C	C	C	C	r B
Marbled Murrelet	C	C	C	C	r b
Kittlitz's Murrelet	C	C	C	R	r b
Ancient Murrelet	R	R	R	R	sr b
Cassin's Auklet		R	R		v
Parakeet Auklet		R			v
Crested Auklet			R	R	v
Rhinoceros Auklet		R			v
Tufted Puffin	C	C	C		sr B
Horned Puffin	C	C	C	R	sr B
Mourning Dove			AC	AC	v
Great Horned Owl	C	C	C	C	r B
Snowy Owl				R	wr
Northern Hawk-Owl	R	R	R	R	sr b
Great Grey Owl	R	R	R	R	r b
Short-eared Owl	U	U	R	R	sr B
Boreal Owl	U	U	U	U	r b
Northern Saw-whet Owl	U	U	U	R	r B
Common Nighthawk	R	R			v
Rufous Hummingbird		R	U		v
Belted Kingfisher	C	C	C	C	r B
Red-breasted Sapsucker				R	v
Downy Woodpecker	U	U	U	U	r B
Hairy Woodpecker	R	R	R	R	r b
Three-toed Woodpecker	U	U	U	U	r b
Black-backed Woodpecker				R	r
Northern Flicker	R	R	U	U	r
Olive-sided Flycatcher	R	U	U		sr B
Alder Flycatcher	U	C	C		sr B
Say's Phoebe	R	R	R		m
Horned Lark	R	U	U	R	sr b
Tree Swallow	C	C	C		sr B
Violet-green Swallow	C	C	C		sr B
Bank Swallow	C	C	C		sr B
Cliff Swallow	C	C	C		sr B
Gray Jay	C	C	C	C	sr B
Steller's Jay	C	C	C	C	r B
Black-billed Magpie	C	C	C	C	r B
Northwestern Crow	C	C	C	C	r B
Common Raven	C	C	C	C	r B
Black-capped Chickadee	C	C	C	C	r B
Boreal Chickadee	C	C	C	C	r B
Chestnut-backed Chickadee				R	v
Red-breasted Nuthatch	C	C	C	C	r b
Brown Creeper	C	C	C	C	r b
Winter Wren	C	C	C	C	r B
American Dipper	C	C	C	C	r B
Golden-crowned Kinglet	C	C	C	C	r B
Ruby-crowned Kinglet	C	C	C		B
Northern Wheatear	R	R	R		n
Gray-cheeked Thrush	U	U	U		sr B
Swainson's Thrush	C	C	C		sr B
Hermit Thrush	C	C	C		sr B
American Robin	C	A	A	U	sr B
Varied Thrush	C	A	C	U	sr B
Yellow Wagtail		R			v
Water Pipit	C	C	C	R	sr b
Bohemian Waxwing		R	C	C	m
Northern Shrike	U	U	U	U	r B
European Starling				R	v
Orange-crowned Warbler	C	C	C		sr B
Yellow Warbler	C	C	C		sr B
Yellow-rumped Warbler	C	C	C		sr B
Townsend's Warbler	C	C	U		sr B
Blackpoll Warbler	U	U	U		sr b
Northern Waterthrush	U	U	U		sr b
Wilson's Warbler	C	C	U	R	sr B
Western Tanager	AC				v
American Tree Sparrow	U	R	U	U	wr
Savannah Sparrow	A	A	C		sr B
Fox Sparrow	C	C	C	R	sr B
Song Sparrow	C	C	C	C	r B
Lincoln's Sparrow	C	C	C	R	sr B
White-throated Sparrow				AC	v
Golden-crowned Sparrow	C	C	C	C	r/m B
White-crowned Sparrow	C	C	C	C	r/m B
Harris' Sparrow				AC	v
Dark-eyed Junco	C	C	C	C	r/m B
Lapland Longspur	C	R	C	R	m
Rustic Bunting	AC				v
Snow Bunting	U			U	wr
McKay's Bunting				/	
Red-winged Blackbird	R	R			
Rusty Blackbird	C	C	C		
Brown-headed Cowbird				R	v
Rosy Finch	C		C	C	wr
Pine Grosbeak	C	C	C	C	r B
Purple Finch	R			R	v
Cassin's Finch	AC				v
Red Crossbill	R	R	R	R	n b
White-winged Crossbill	C	C	C	C-A	n b
Common Redpoll	C-A	C	C	C-A	r/n B
Hoary Redpoll	R	R	R	R	wr
Pine Siskin	C	C	C	C-A	r/n B

Source: Center for Alaskan Coastal Studies; May, 1989

APPENDIX D

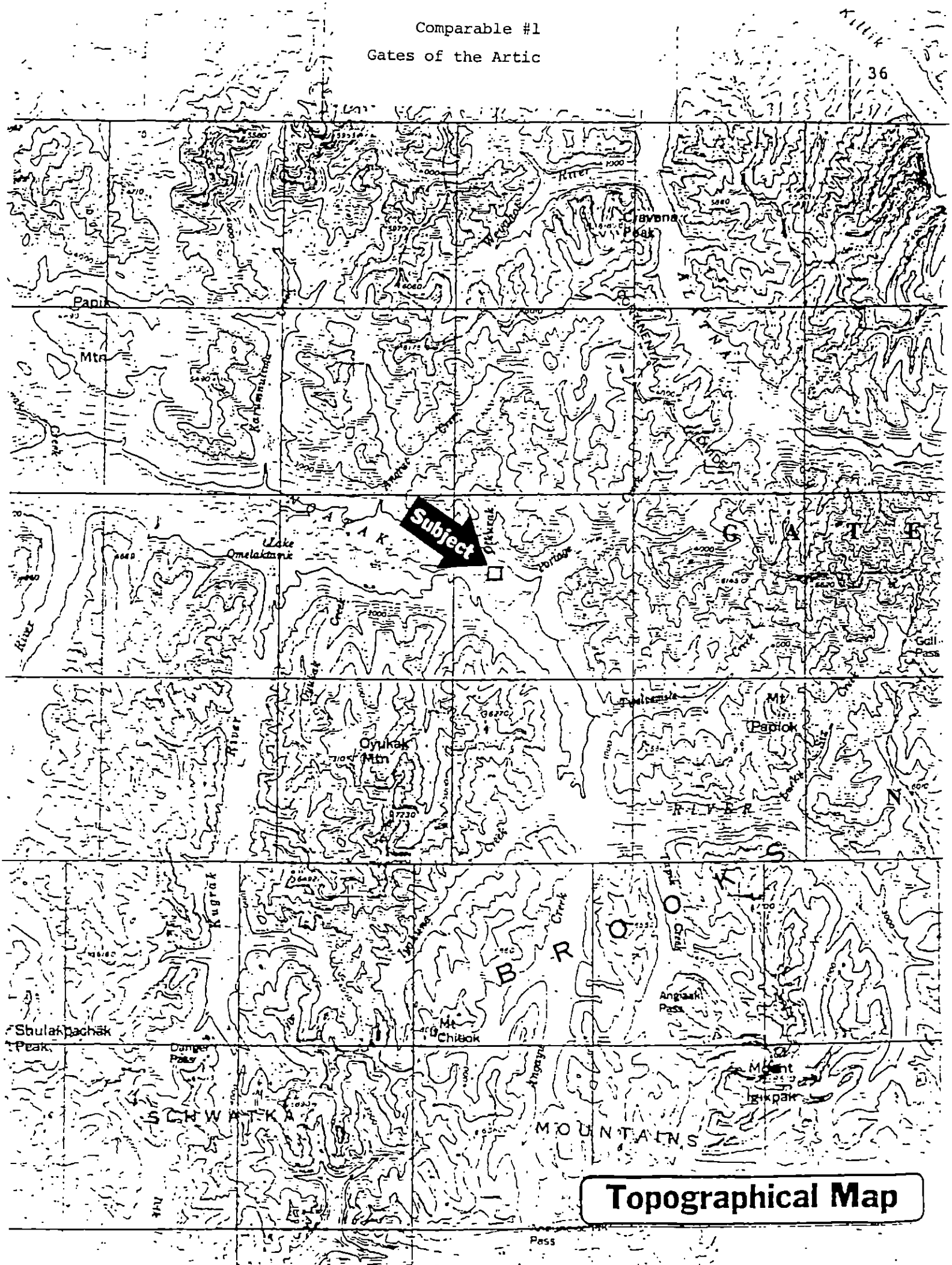
COMPARABLE SALES

COMPARABLE SALE #1

Location:	Upper Noatak River Drainage, south of its confluence with Otkurah Creek, the Gates of the Arctic National Park, approximately 70 miles northeast of Bettles, Alaska
Legal Description:	Allotment F-19203, unsurveyed parcel within Section 17, T. 26N, R.16E, Kateel River Meridian
Grantor:	Myra Walker
Grantee:	U.S. National Parks Service
Date:	June, 1988
Size:	160± acres
Sales Price:	$108,000
Terms:	Cash
Land Value:	$103,000
Price/Acre:	$644.00
Improvements:	10' x 12' wood frame cabin valued at $5,000
Utilities:	None
Access:	Float or ski plane, walk-in
Description:	The property is a square parcel of 160± acres located within the Gates of the Arctic National Park. The topography is mostly level with some gentle sloping. There is an approximate 40 acre lake on the site which provides the main access. There are three small drainage ways leading to the lake and the property may have frontage on the Noatak River. The vegetation is natural grasses, low brush and berry bushes. The property is situated in a broad open valley offering spectacular views of the valley and Brooks Range.
Analysis:	$103,000 land value ÷ 160 acres = $644/acre
Adjustments:	None

Comparable #1

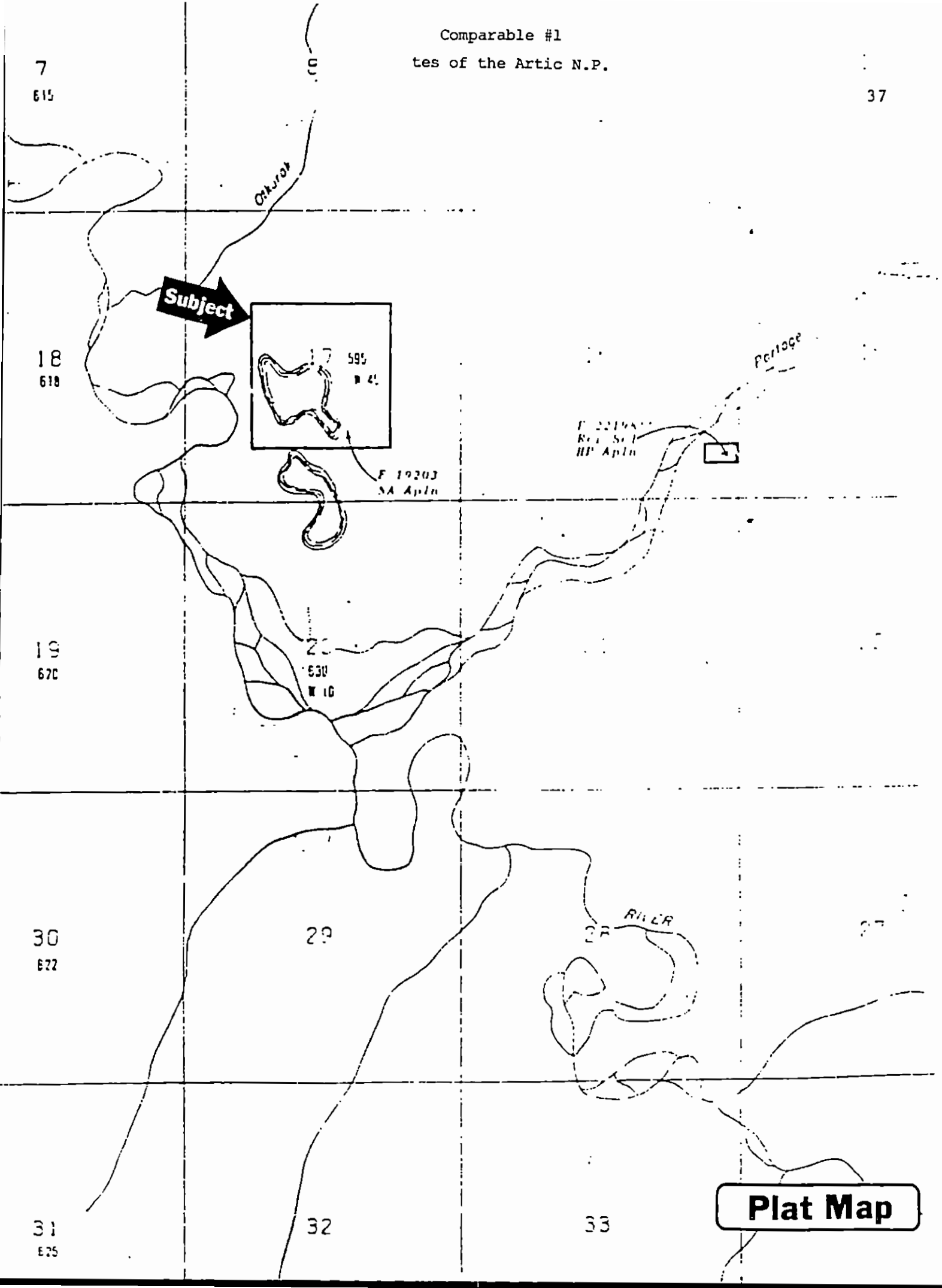
Gates of the Artic



Topographical Map

Comparable #1

tes of the Artic N.P.

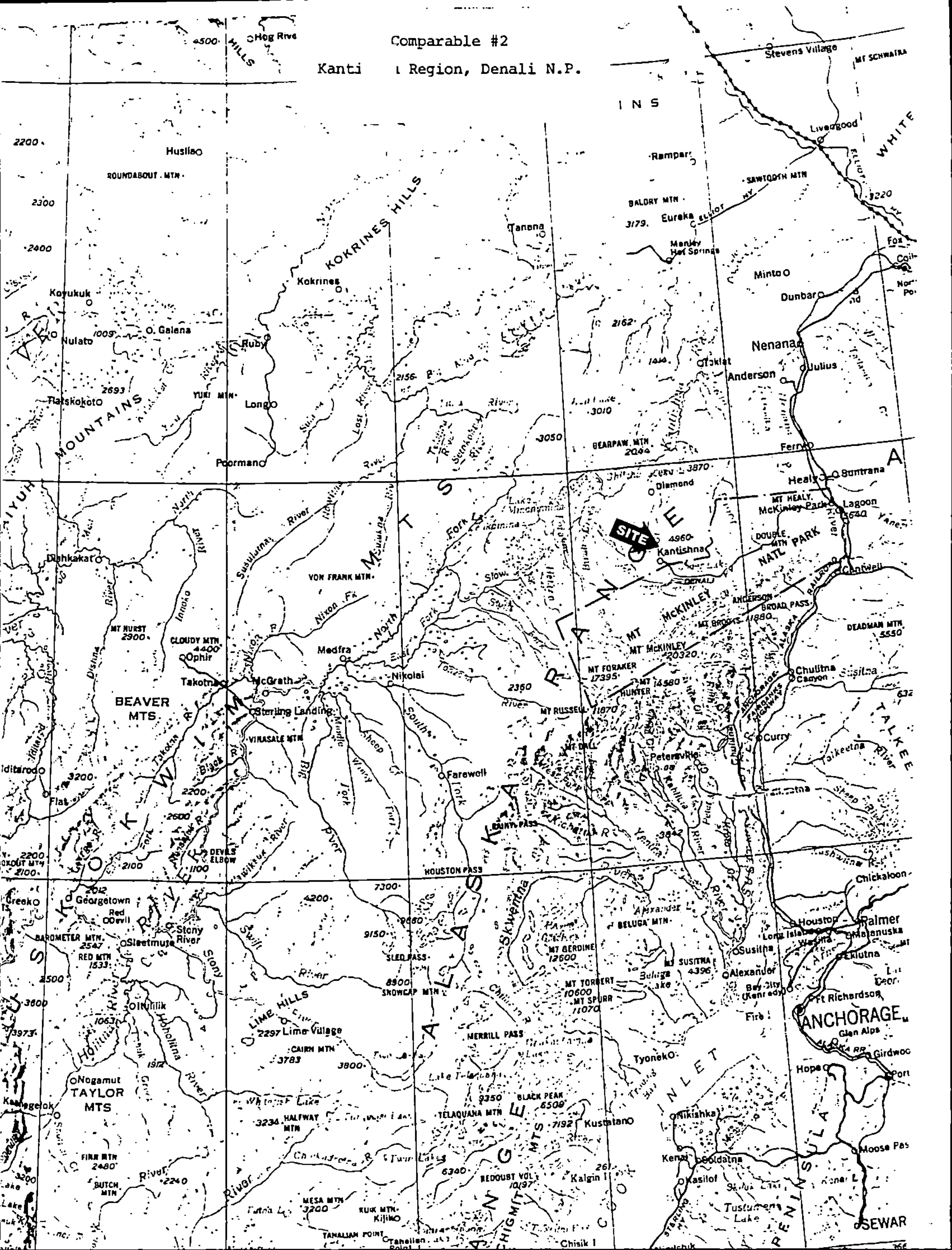


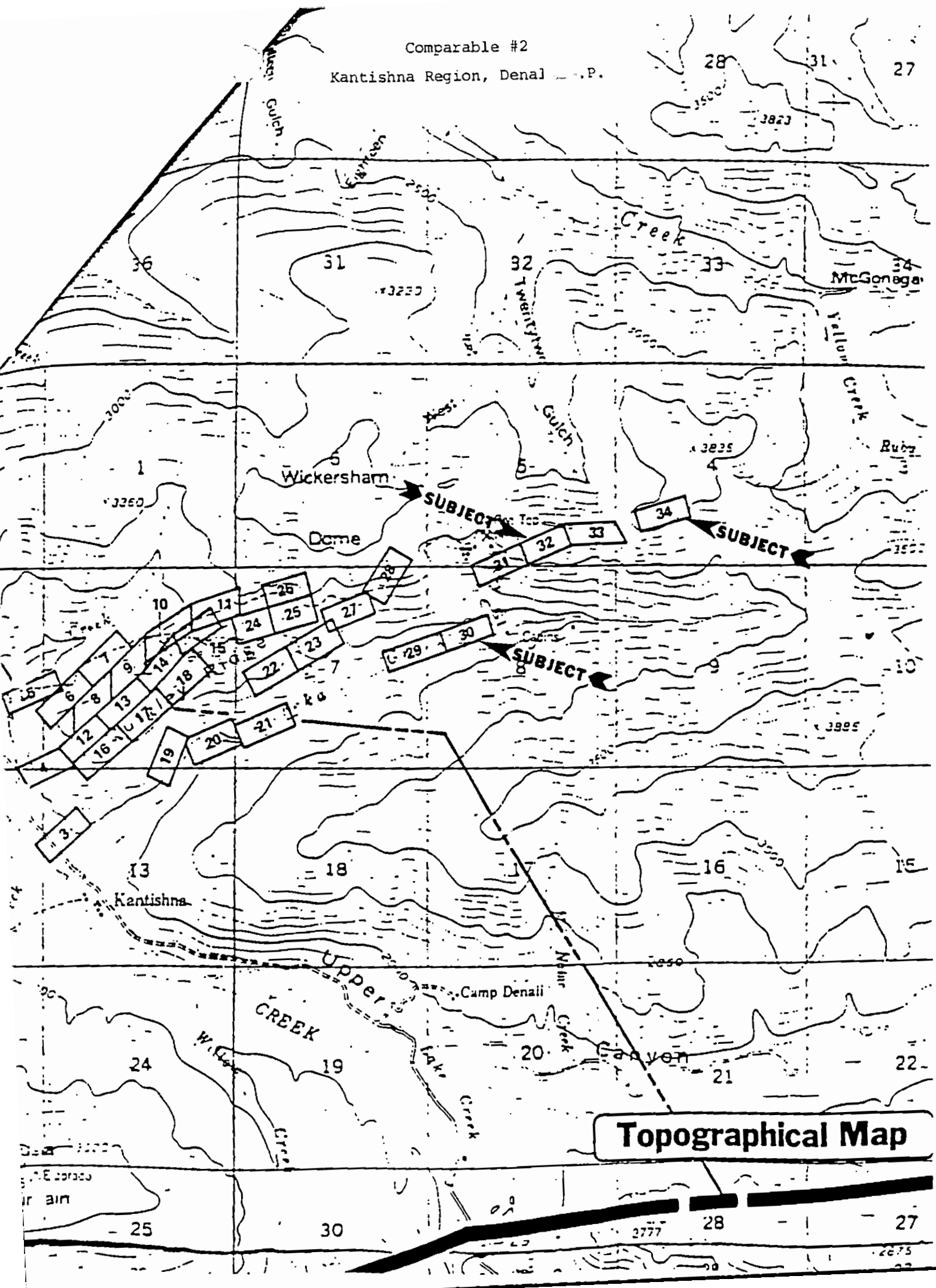
COMPARABLE SALE #2

Location:	Kantishna Region, Denali National Park
Legal Description:	Parcel I: U.S. Mineral Survey No. 360, Fairbanks Recording District Parcel II: U.S. Mineral Survey No. 361, Fairbanks Recording District Parcel III: U.S. Mineral Survey No. 362, Fairbanks Recording District All in Sections 4, 5, 8, Township 16S, Range 17W, Fairbanks Meridian
Grantor:	Lloyd, Cook, Lloyd
Grantee:	U.S. National Park Service
Date:	December, 1988
Size:	121 acre
Sales Price:	$665,000
Terms:	Cash
Land Value:	$665,000
Price/Acre:	$5,495
Improvements:	None
Utilities:	None
Access:	Single lane four wheel drive road; 78 miles from paved road; air strip
Description:	The property consists of three noncontiguous parcels consisting of two patented lode mining claims each. According to the seller and the NPS appraisal, the appraised value did not attribute any value to the subsurface estate. Two deeds of conveyance were involved in the sale—one for the surface estate and the second for the subsurface estate. The second deed of conveyance was considered a donation for which no value was assigned by the NPS in its purchase of the property. The property is within Denali Park and is surrounded by public lands controlled by the NPS. It is located approximately 95 miles from the Parks Highway. The topography contains steep slopes, though one of the parcels is located in a canyon. Elevations vary from 2,300 to 3,800 feet. There is some creek frontage on Eureka Creek.
Analysis:	$665,000 ÷ 121 acres = $5,495/acre
Adjustment for Size:	- $5.00/acre x (200 - 121) = - $395 - $2.50/acre x (500 - 200) = - $750 - $1,145
Adjusted Price/Acre:	$4,350

Comparable #2

Kanti   ı Region, Denali N.P.




Comparable #2
Kantishna Region, Denal
Wickersham
SUBJECT
Dome
SUBJECT
SUBJECT
Kantishna
Upper
Camp Denali
CREEK
Canyon
Topographical Map

COMPARABLE SALE #3

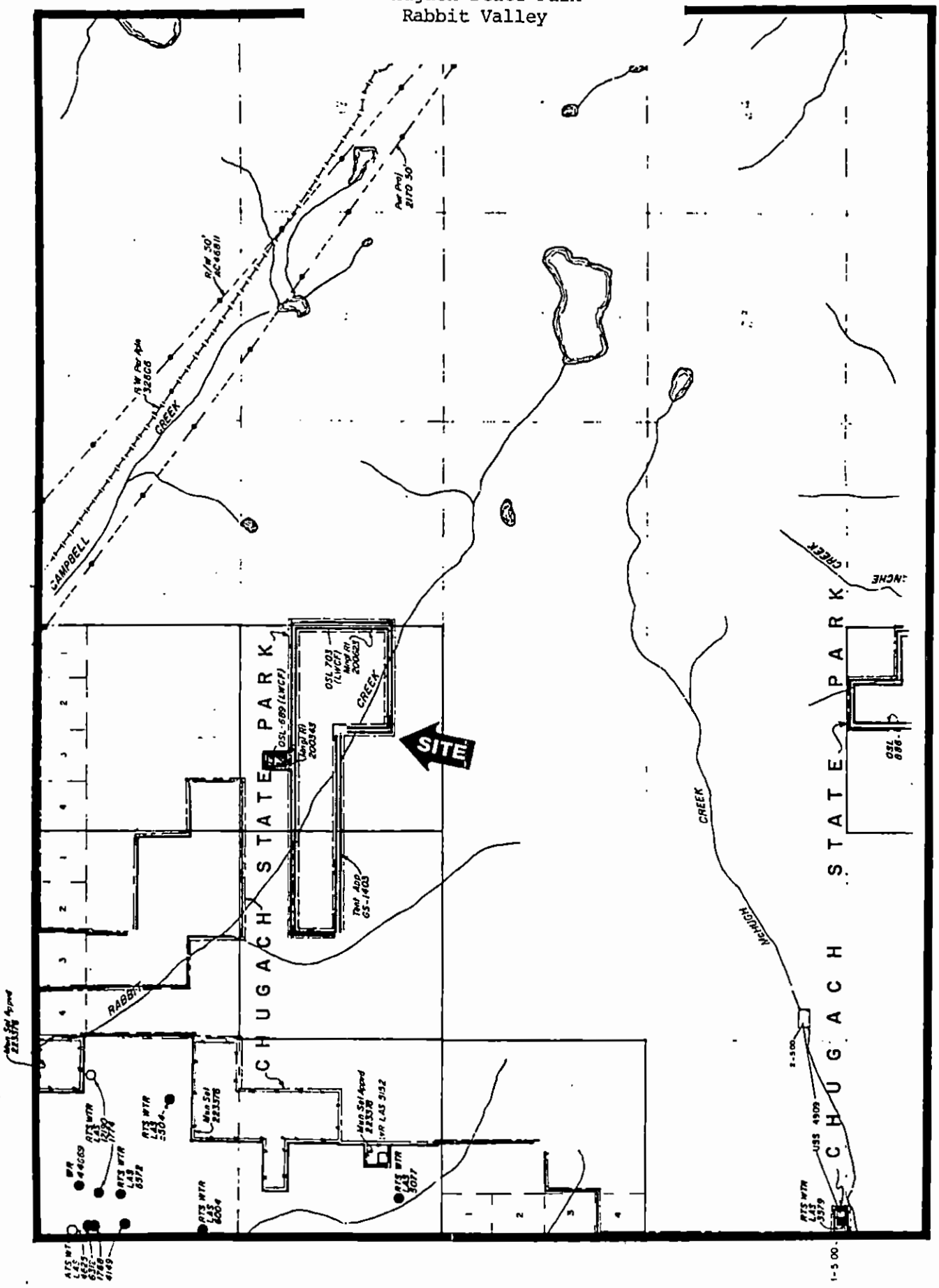
Location:	Rabbit Creek, Chugach State Park, approximately ten miles southeast of Anchorage
Legal Description:	S1/2 of the NE1/4; N1/2 of the SE1/4; S1/2 of the NW1/4 of Section 9, T.11N, R.2W, Seward Meridian and the S1/2 of the NE1/4 of Sect. 8, T.11 N, R. 2W
Grantor:	Jerry and Paula Bruton
Grantee:	State of Alaska Division of Parks
Date:	April, 1978
Size:	320.0 acres
Sales Price:	$960,000
Terms:	Cash
Land Value:	$960,000
Price/Acre:	$3,000
Improvements:	None
Utilities:	None
Access:	Two-lane unpaved local road which connects to a homestead trail; four-wheel drive is necessary during winter months
Description:	The property is situated in the Chugach Mountains in a high alpine valley of about 2,500 feet elevation. Rabbit Creek flows through the center of the property. Vegetation consists of open patches of grass and moss interspersed with alder brush and occasional spruce. The property is well above the tree line and has excellent views in all directions, overlooking glacial cirques, the Alaska Range, and Cook Inlet.
Analysis:	$960,000 ÷ 320 acres = $3,000/acre
Adjusted for Size:	- $2.50 x (500 - 320) = - $450
Adjusted Price/Acre:	$2,550

Comparable #

Chugach State Park
Rabbit Valley

Comparable #3

Chugach State Park
Rabbit Valley



Comparable Photograph #3

Chugach State Park
Rabbit Valley

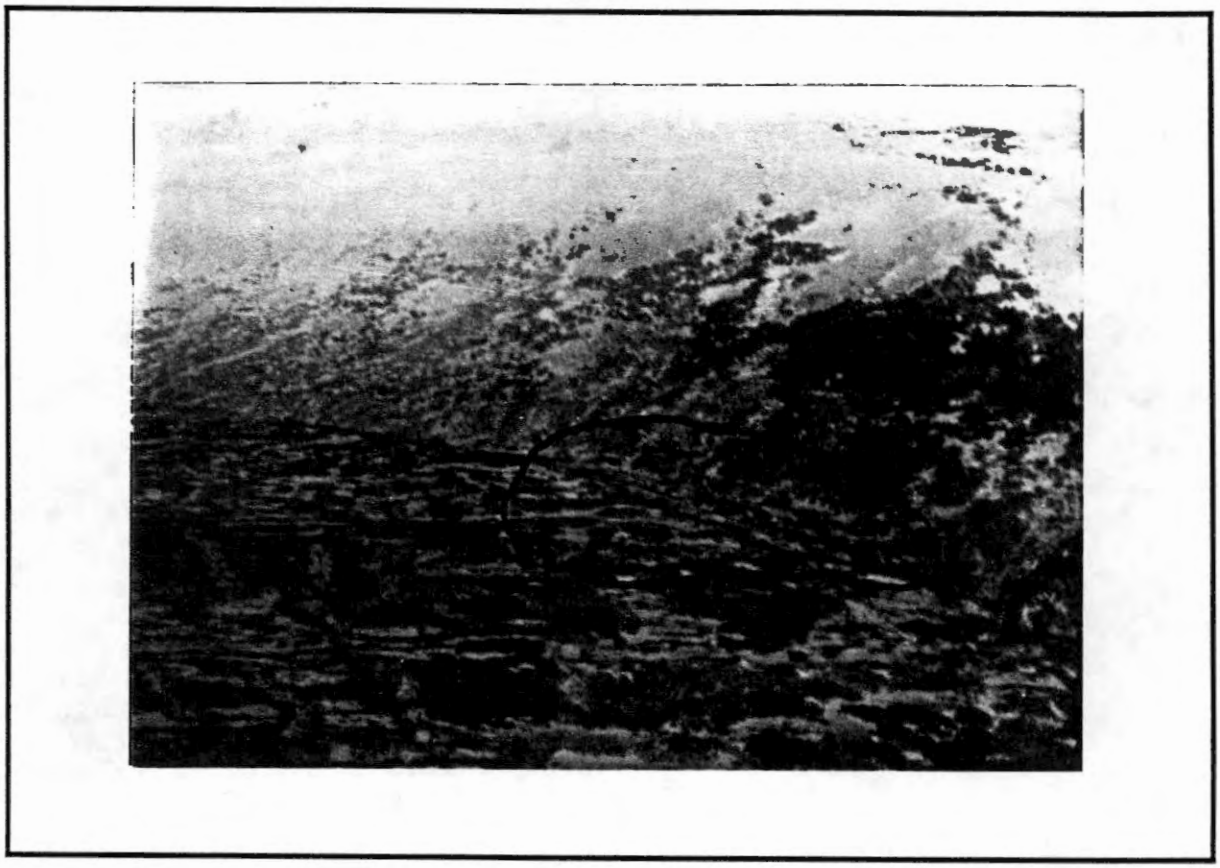


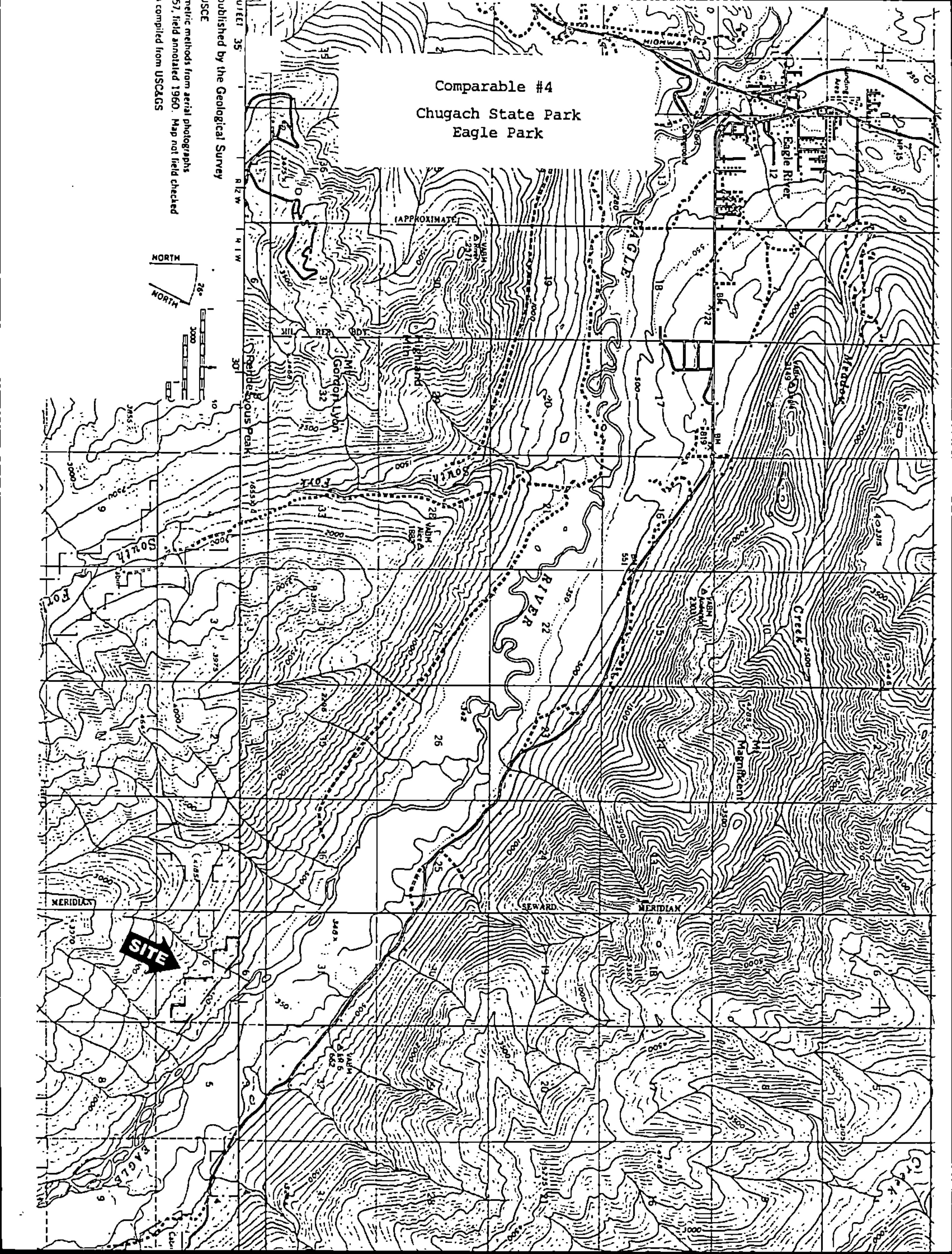
Photo #1

COMPARABLE SALE #4

Location:	Eagle River Valley, Chugach State Park, approximately 20 miles northeast of Anchorage
Legal Description:	Portion of Section 6, T.13N, R. 1E, Seward Meridian, Anchorage Recording District, Third Judicial District, State of Alaska
Grantor:	The Nature Conservancy
Grantee:	Alaska Division of Parks
Date:	August, 1977
Size:	150 acres
Sales Price:	$313,000
Terms:	Cash
Land Value:	$313,000
Price/Acre:	$2,087
Improvements:	Homestead cabin and outbuilding; nominal value
Utilities:	None
Access:	Four-wheel drive homestead road connected to Hiland Road, a narrow winding dirt road. Glenn Highway is located nine miles away.
Description:	This is a remote 150-acre parcel developed as a homestead with minimal road access. It sits on a north slope at the base of a steep mountain ridge, offering great privacy and no sunlight in a wilderness setting. Eagle River Road is inaccessible; it is only a mile away across the valley, but crossing Eagle River is impractical. The site is between the 500' and 900' elevation on the south side of Eagle River Valley, about 1,000 feet south of the riverbed. The average slope is 35% in the area, where the river lies at the 350' elevation and adjacent ridges rise to 4,000 - 5,000 feet. Most of the site is wooded with deciduous trees, commonly birch and alder. The western half of the site was apparently cleared around 1960 to comply with homestead requirements. The property has a view of the Eagle River Valley and Eagle River itself, along with the mountains on the north side of the valley.
Analysis:	$313,000 ÷ 150 acres = $2,087/acre
Adjusted for Size:	- $5.00/acre x (200 - 150) = - $250 - $2.50/acre x (500 - 200) = - $750 - $1,000
Adjusted Price/Acre:	$1,087

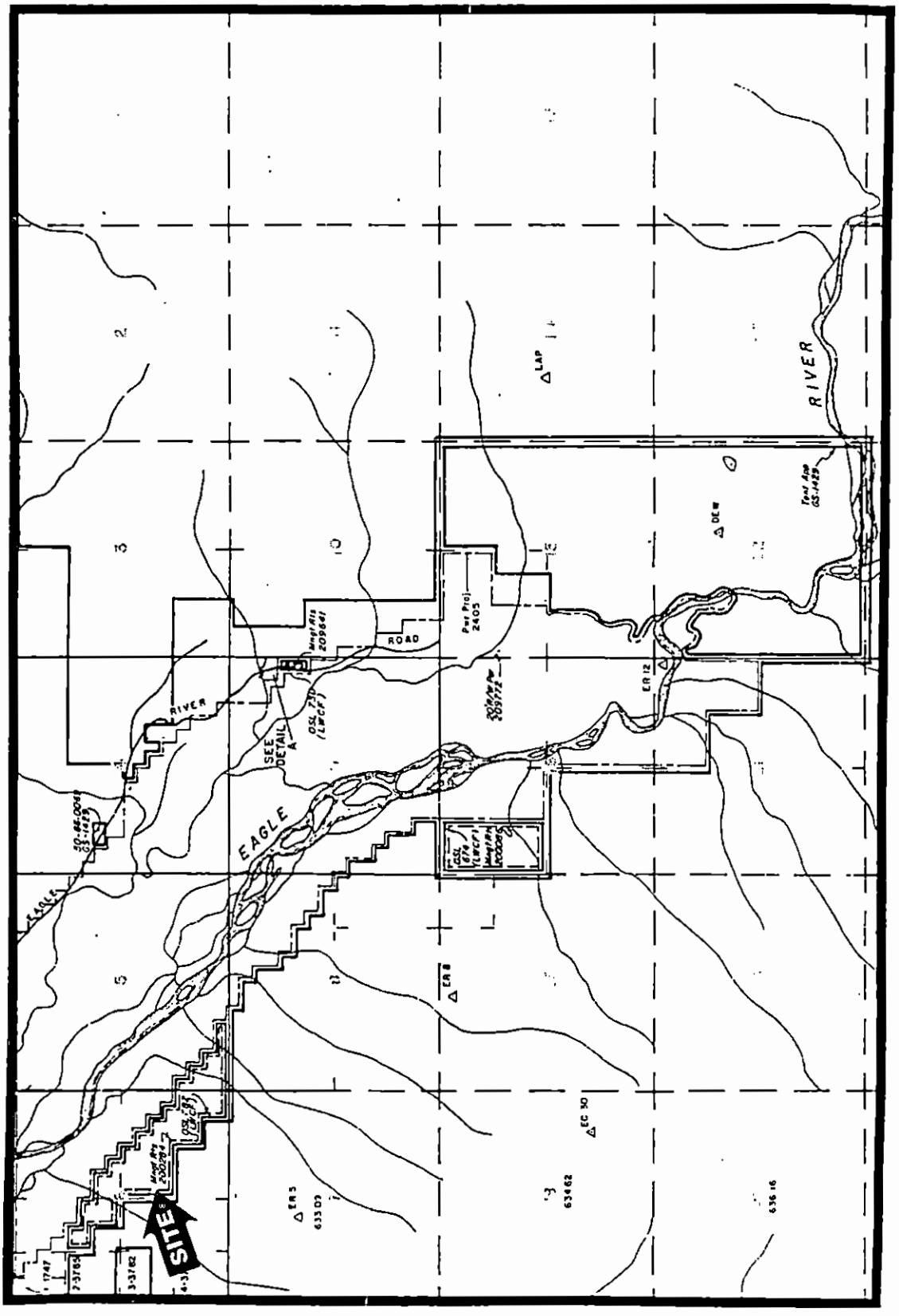
Comparable #4

Chugach State Park
Eagle Park



Comparable #4

Chugach State Park
Eagle Park



Comparable Photograph #4

Chugach State Park
Eagle Park

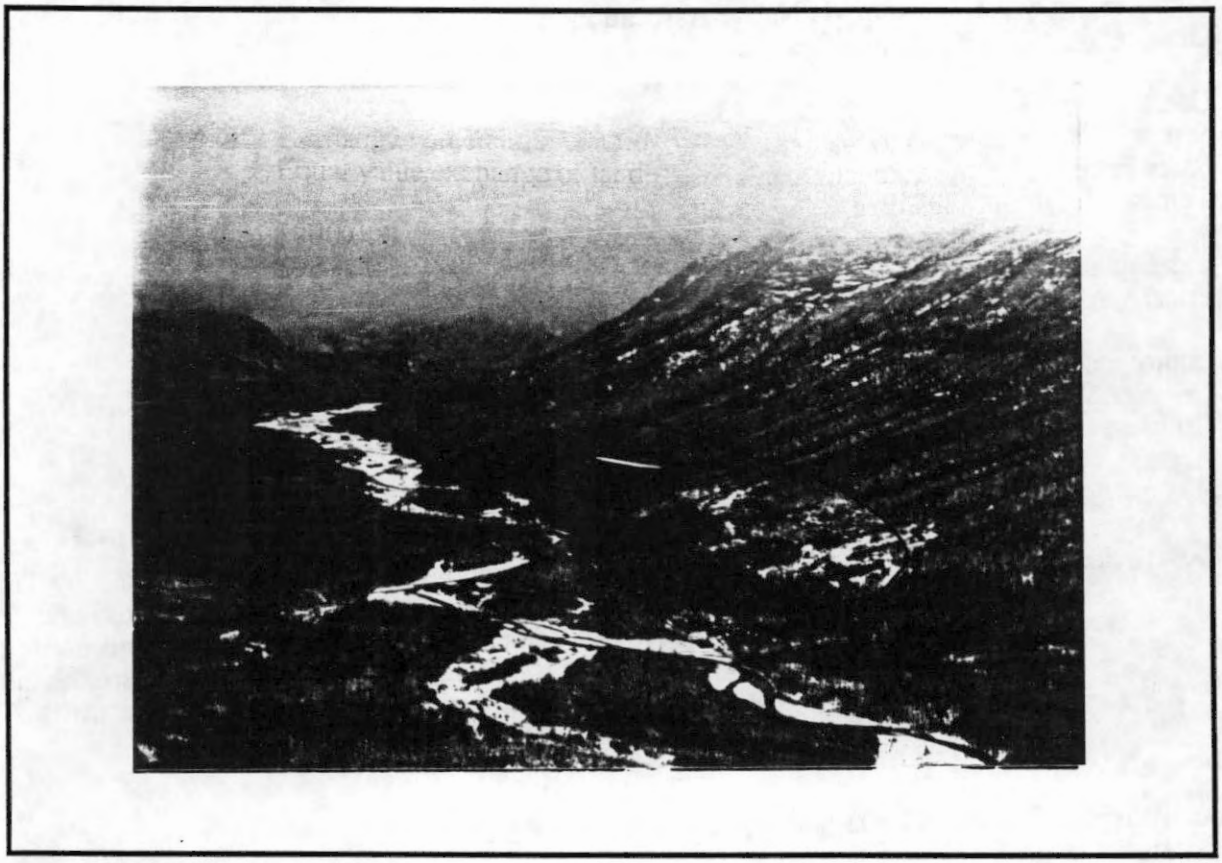


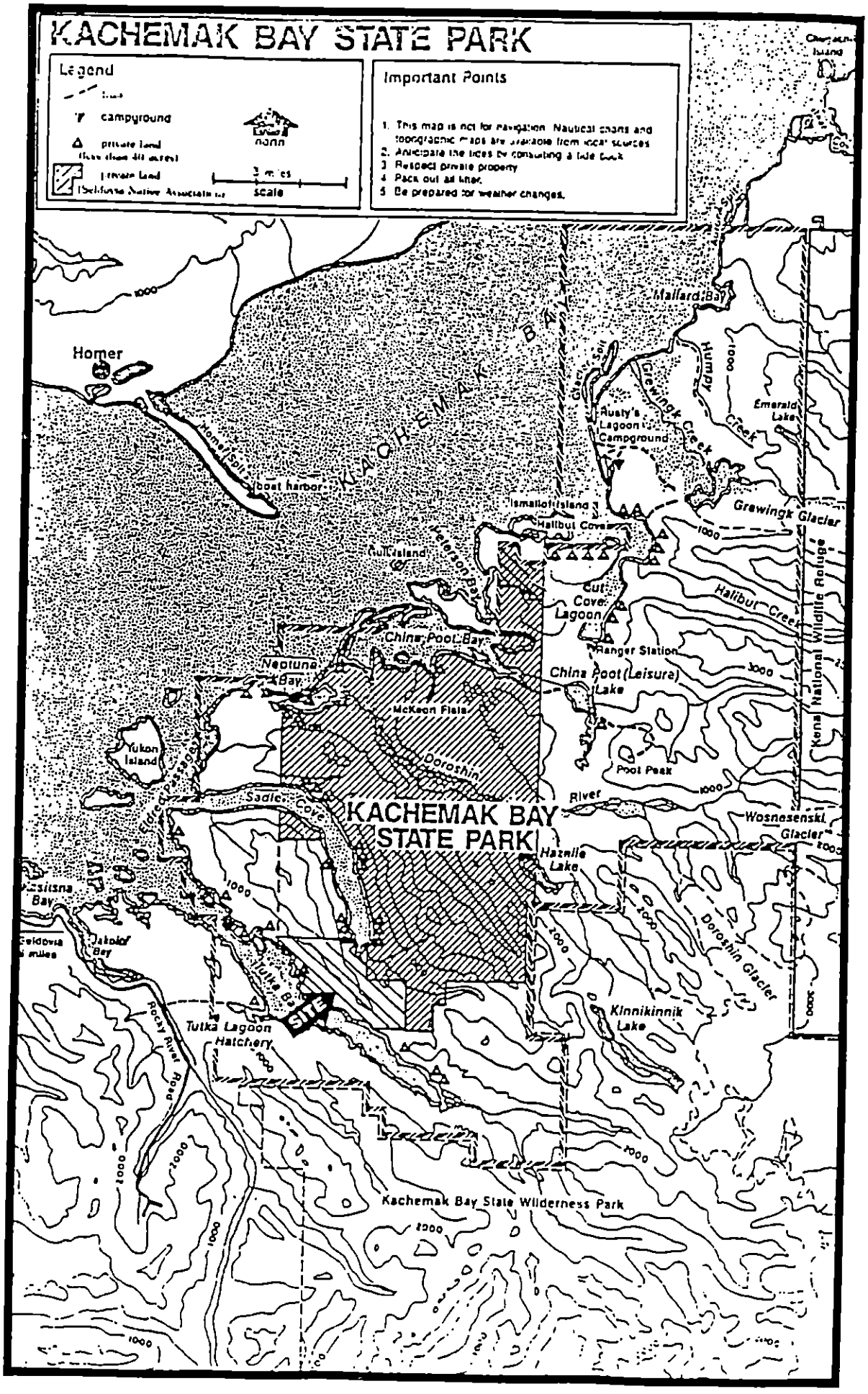
Photo #1

COMPARABLE SALE #5

Location:	Kachemak Bay State Park, Alaska
Legal Description:	T 8S, R12W, Section 29, 30, 31, 32, 33, 34 T 9S, R13W, Section 1, 2, 11
Grantor:	Seldovia Native Assocation
Grantee:	State of Alaska
Date:	March 15, 1983
Size:	3,578 acres
Sales Price:	Exchange valued at $3,303,500
Terms:	Equal value exchange of land
Land Value:	$3,303,500
Price/Acre:	$923
Improvements:	None
Utilities:	None
Access:	Float plane or boat
Description:	This property consists of two noncontiguous parcels separated by Tutka Bay and located within the boundaries of Kachemak Bay State Park. The more northerly parcel has some frontage on Sadie Cove and abuts the subject property's southern boundaries. The property was exchanged consistent with a 1979 Memorandum of Understanding pursuant to A.S. 38.50.
Analysis:	$3,303,500 ÷ 3,578 acres = $923/acre
Adjustments:	None

Comparable #5

Kachemak Bay State
3,578 Acres



Comparable Photograph #5

Kachemak Bay State Park
3,578 Acres

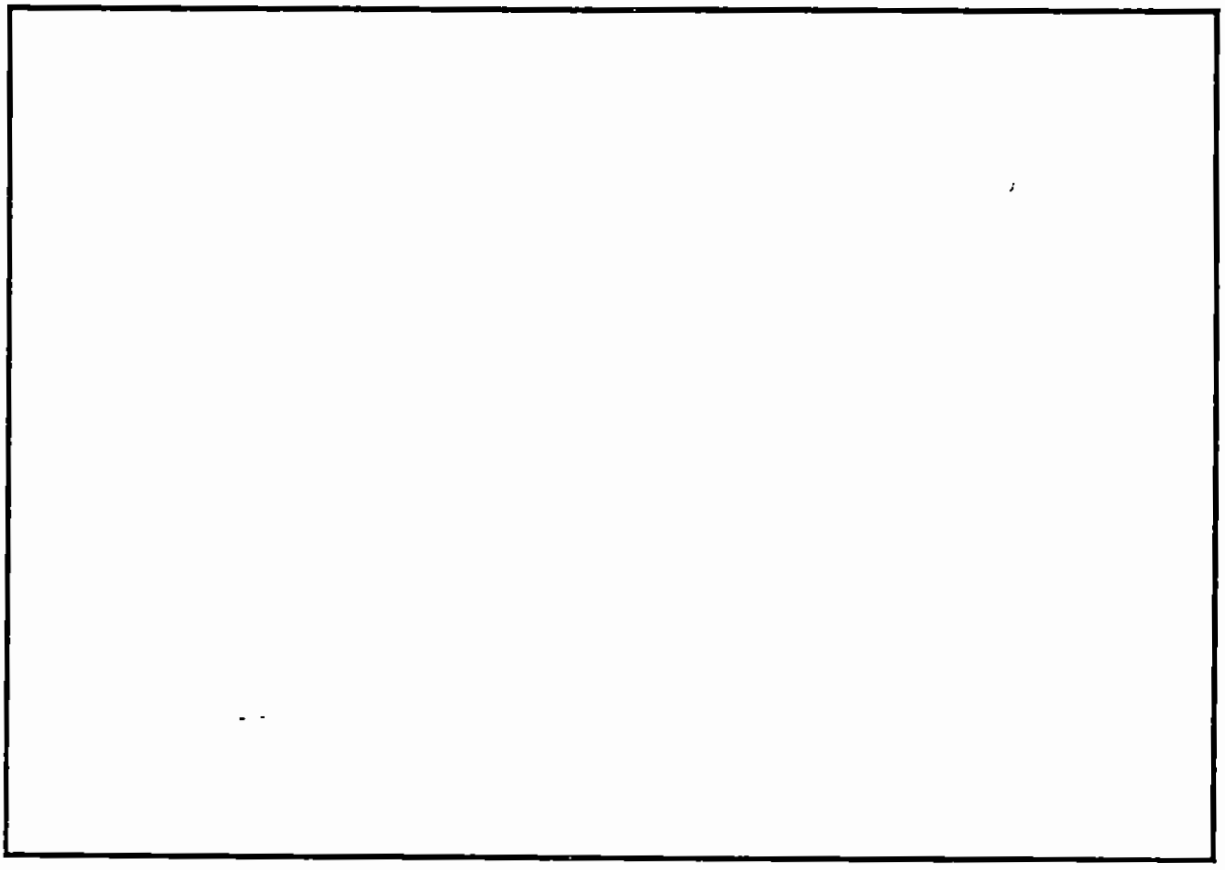


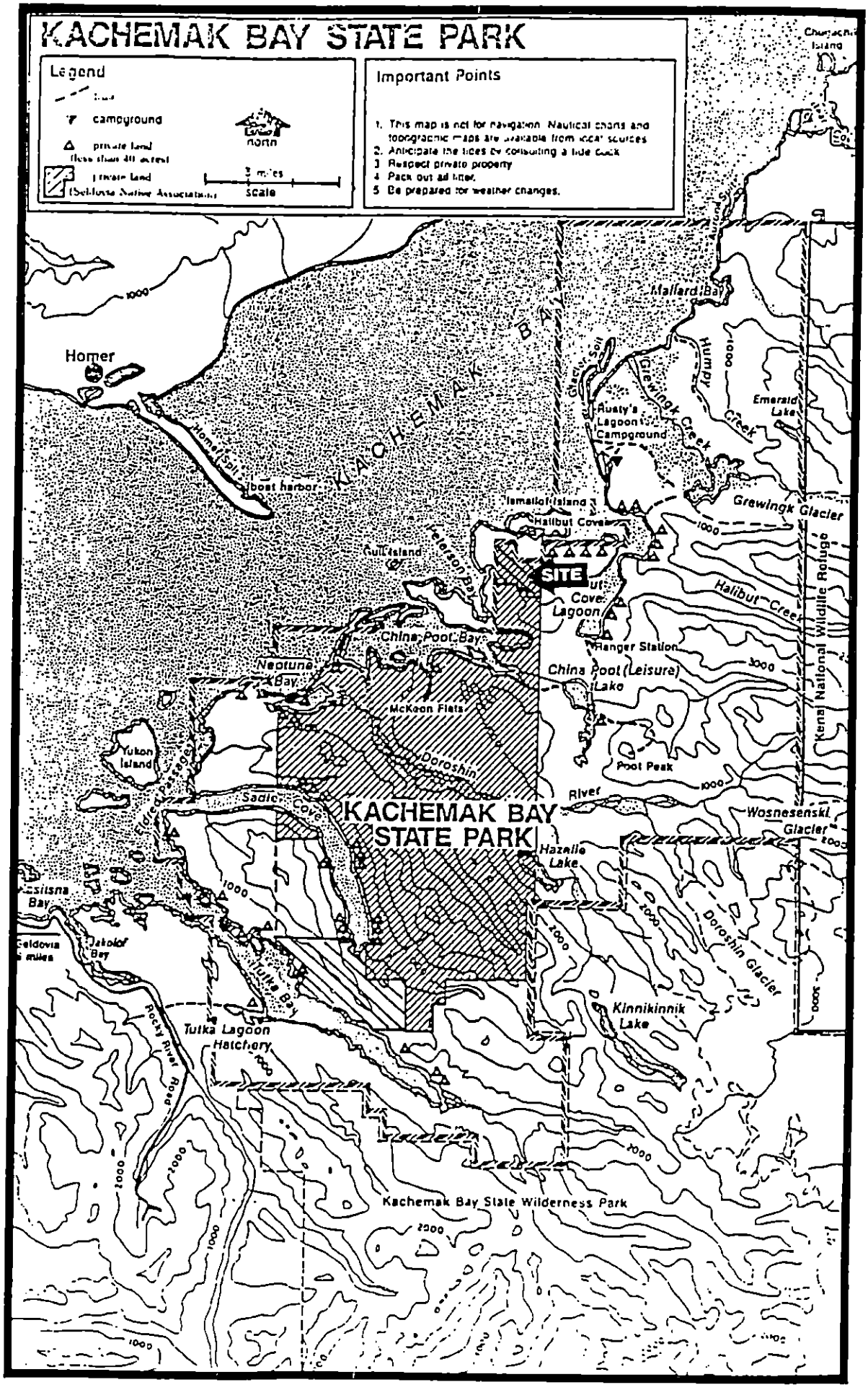
Photo #1: Picture Not Available

COMPARABLE SALE #6

Location:	Kachemak Bay State Park, Alaska
Legal Description:	T 7S, R12W, Sections 12, 13
Grantor:	Seldovia Native Association
Grantee:	State of Alaska
Date:	1985
Size:	960 acres
Sales Price:	Exchange valued at $900,000
Terms:	Equal value exchange of land
Land Value:	$900,000
Price/Acre:	$937.50
Improvements:	None
Utilities:	None
Access:	Boat to overland hiking
Description:	This property is located between Halibut Cove and Peterson Bay within the boundaries of Kachemak Bay State Park. It has no waterfront. Topography is moderate to sloping toward the center. The property abuts the subject property's northern boundaries and shares many of its attributes.
Analysis:	$900,000 ÷ 960 acres = $937.50/acre
Adjustments:	None

Comparable #6

Kachemak Bay State Park
960 Acres



Comparable Photograph #6

Kachemak Bay State Park
960 Acres

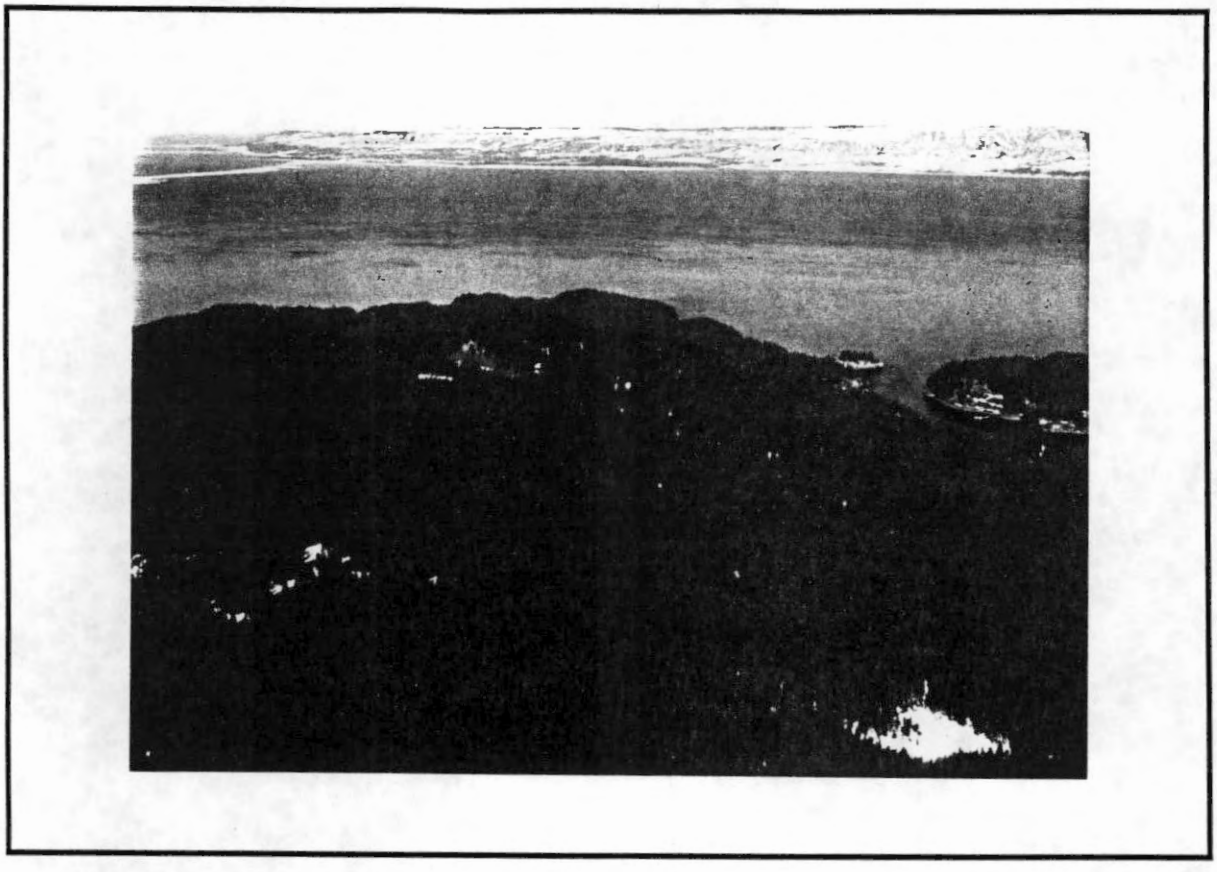


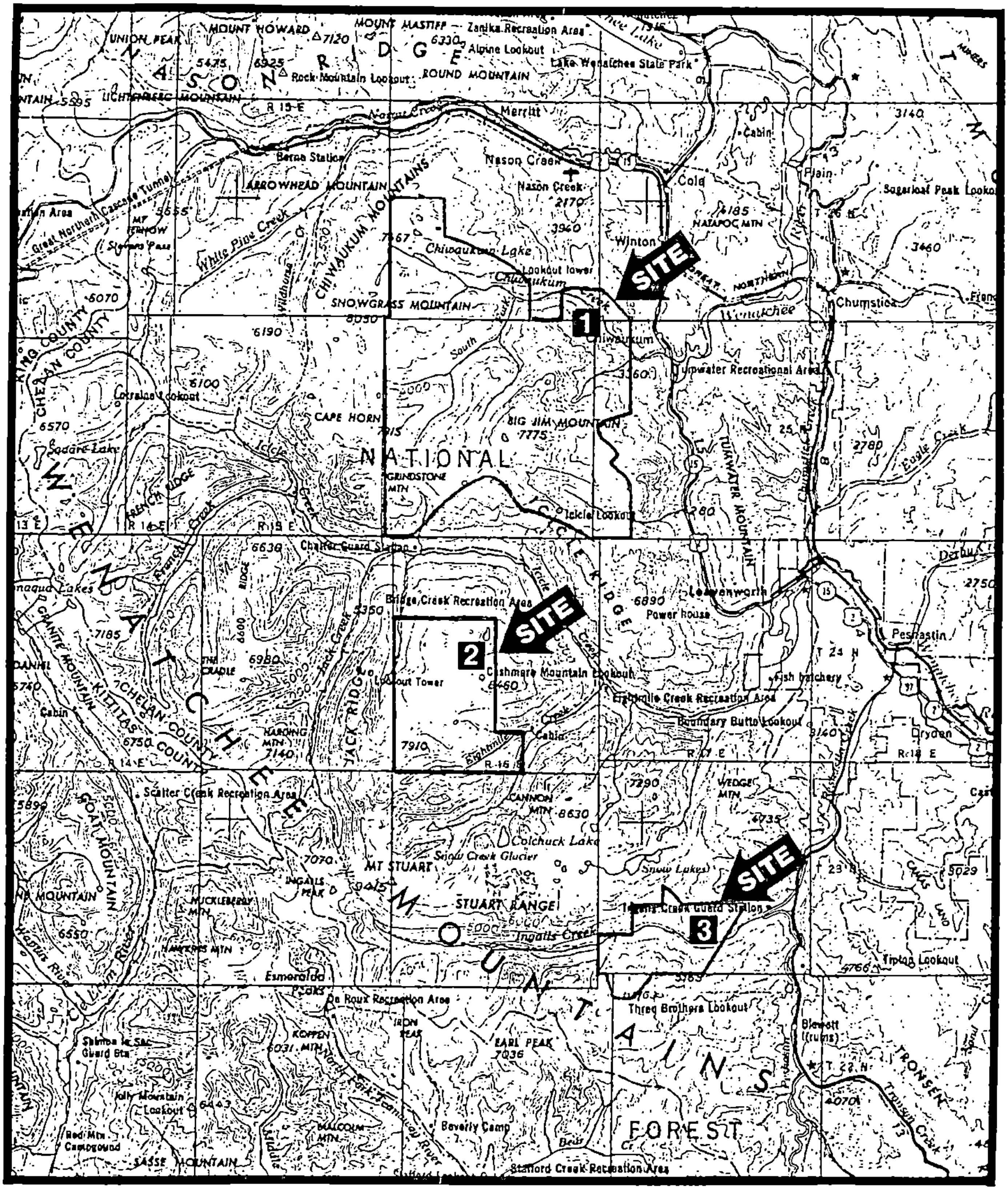
Photo #1

COMPARABLE SALE #7

Location:	Chelan County, Washington. Part of the Alpine Lakes Wilderness Area. Lies between I-90 and U.S. Hwy. 2
Legal Description:	*Parcel 1*—Portions of Secs. 17 & 18; Secs. 19 & 20; Portions of Secs. 27 & 28; Secs. 31, 32, 33, 34 & 36; all in T. 26N, R 16E; and portions of Secs. 31, T. 26N, R 17E, and Secs. 1-25; portions of Secs. 26-28; Sec. 29-31; Portions of Secs. 32 & 36; all in T. 25N, R 16E; and Sec. 5, 6, & 7; portions of Secs. 18 & 19; portions of Secs. 24; Secs. 30 & 31; Portions of Secs. 32; all in T. 26N, R 17E, of Chelan County in the State of Washington. *Parcel 2*—Secs. 16-21, 28-33; and portions of Sec. 34; all in T. 24N, R 16E, of Chelan County in Washington State. *Parcel 3*—Portions of Secs. 21 & 26; Secs. 27-28, 31-33; Portions of Sec. 34; all in T. 23N, R 17E; and Portions of Sec 1, in T. 22N, R 16E; and portions of Secs. 5 & 6; in T. 22N, R 17E; of Chelan County in Washington State.
Grantor: Grantee:	Chastek et al U.S. Forest Service
Date: Size: Sales Price: Terms:	December, 1982 22,457 acres $28,983,243 Cash
Land Value: Price/Acre:	$28,983,243 $1,290 (weighted average of four parcels)
Improvements:	None
Utilities: Access:	None Walk in, see description.
Description:	The Alpine Lakes Wilderness Region of Chelan County, WA, lies between Highway 2 and Interstate 90. The land sale included four non-contiguous parcels each having similar physical characteristics. The topography is rather extreme with altitudes ranging from 2,000 feet at the highway to 8,501 feet at the peak of Cashmere Mountain, which provides spectacular panoramic views. Most of the property is covered with pine trees with various deciduous trees intermixed throughout. The ground covering is mostly bare or medium grasses. Several small mountain lakes can be found within the properties. These lakes feed a myriad of streams which create the basis for the system of pack trails throughout the four parcels. Parcel 1 is most easily accessed by Chiwakum Road off of Highway 2 approximately ten miles north of Leavenworth. Parcel 2 can be found by driving eight miles southeast of Leavenworth up Icicle Creek Road. At the Eight Mile Campground, a 2.5 mile pack trail gains 1,400 feet of elevation before

Comparable #7

Al_-_e Lakes Wilderness,
Washington



Comparable Photograph #7

Alpine Lakes Wilderness,
Washington

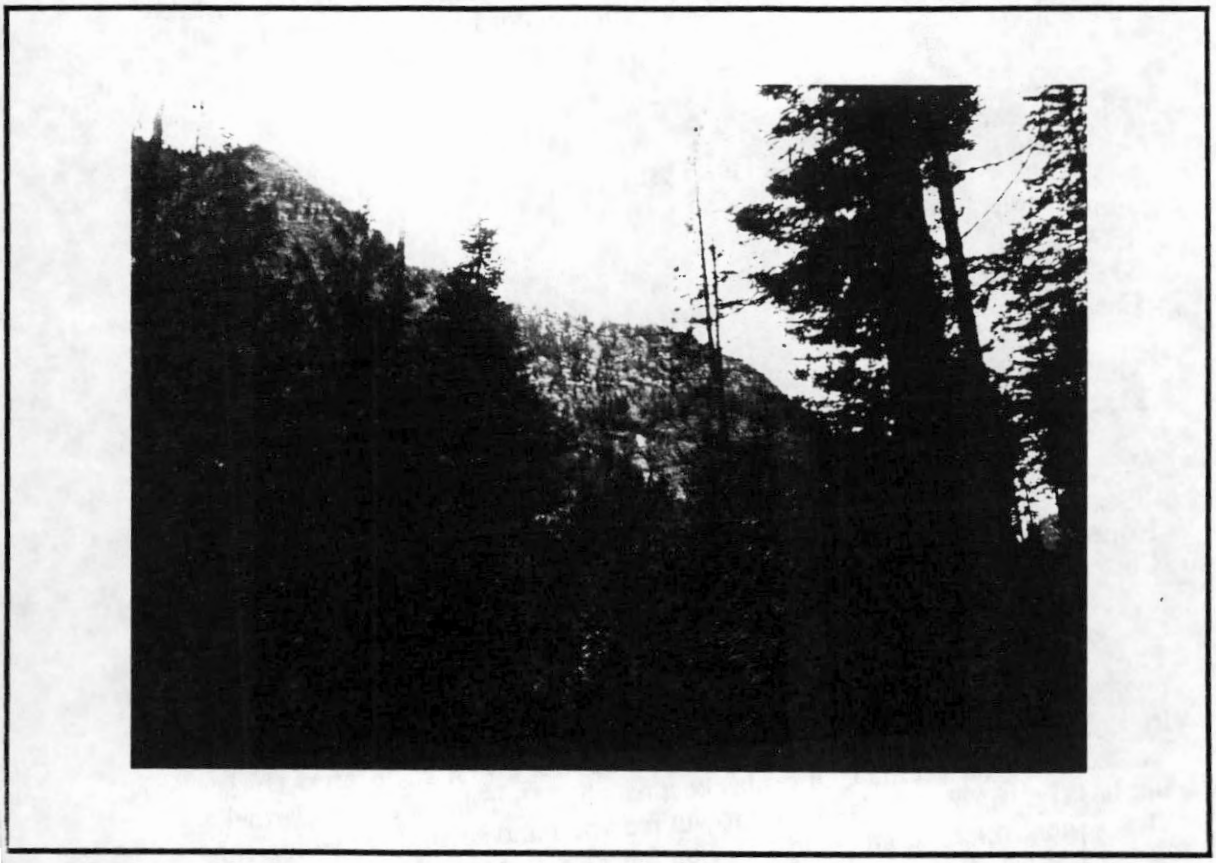


Photo #1

COMPARABLE SALE #8

Location:	Big Sur Coast, 15 miles south of Carmel, California
Legal Description:	The NW 1/4, the SW 1/4, lots 4, 11, 12, 13 and 14 of Section 14; NE 1/4, W 1/2 of SE 1/4, N 1/2 of the SW 1/4, S 1/2 of NW 1/4 and NE 1/4 of NW 1/4 of seciton 15; S 1/2 of SW 1/4, lots 13 and 14 of Section 11; S 1/2 of SE 1/4 of Section 10, all in Township 18 S, Range 1 E, MDM, in the County of Monterey, State of California, according to the Official Plat thereof.
Grantor:	Big Sur Land Trust
Grantee:	Monterey Peninsula Regional Park District
Date:	June, 1989
Size:	1,157 acres
Sales Price:	$1,200,000
Terms:	Cash
Land Value:	$1,200,000
Price/Acre:	$1,037
Improvements:	None
Utilities:	None
Access:	County road
Description:	The **Big Sur** Land Trust, a private land trust in the Big Sur area of California, sold 1,200 acres of redwood forest to the Monterey Peninsula Regional Park District for $1.2 million in June, 1989. The property is located along the scenic California coast roughly 15 miles south of Carmel, and has significant stands of old growth redwood and several archeological sites. The property abuts wilderness on one side and private ownership on all other sides. It is located within a canyon at the confluence of Bixby and Turner Creeks. It does not have direct ocean frontage, though views of the Pacific Ocean are afforded from some of the higher knolls. The land trust had previously obtained the land from the Federal Land Bank after a Ukiah based timber company defaulted on its permit to log. The land trust was founded in 1977 to conserve open space and significant natural resources for public benefit in coastal Monterey County. The property is intended for limited day use recreation after a management plan has been approved.
Analysis:	$1,200,000 ÷ 1,157 acres = $1,037/acre
Adjustments:	None

reaching this parcel. Parcel 3 begins at the Ingalls Creek Guard Station, approximately 13 miles south of Leavenworth on Highway 97 South. The property is a mile off the highway, where the trail follows Ingalls Creek into the core of the parcel. Access to all four parcels can be limited during the winter months, as not all the roads are plowed free of snow.

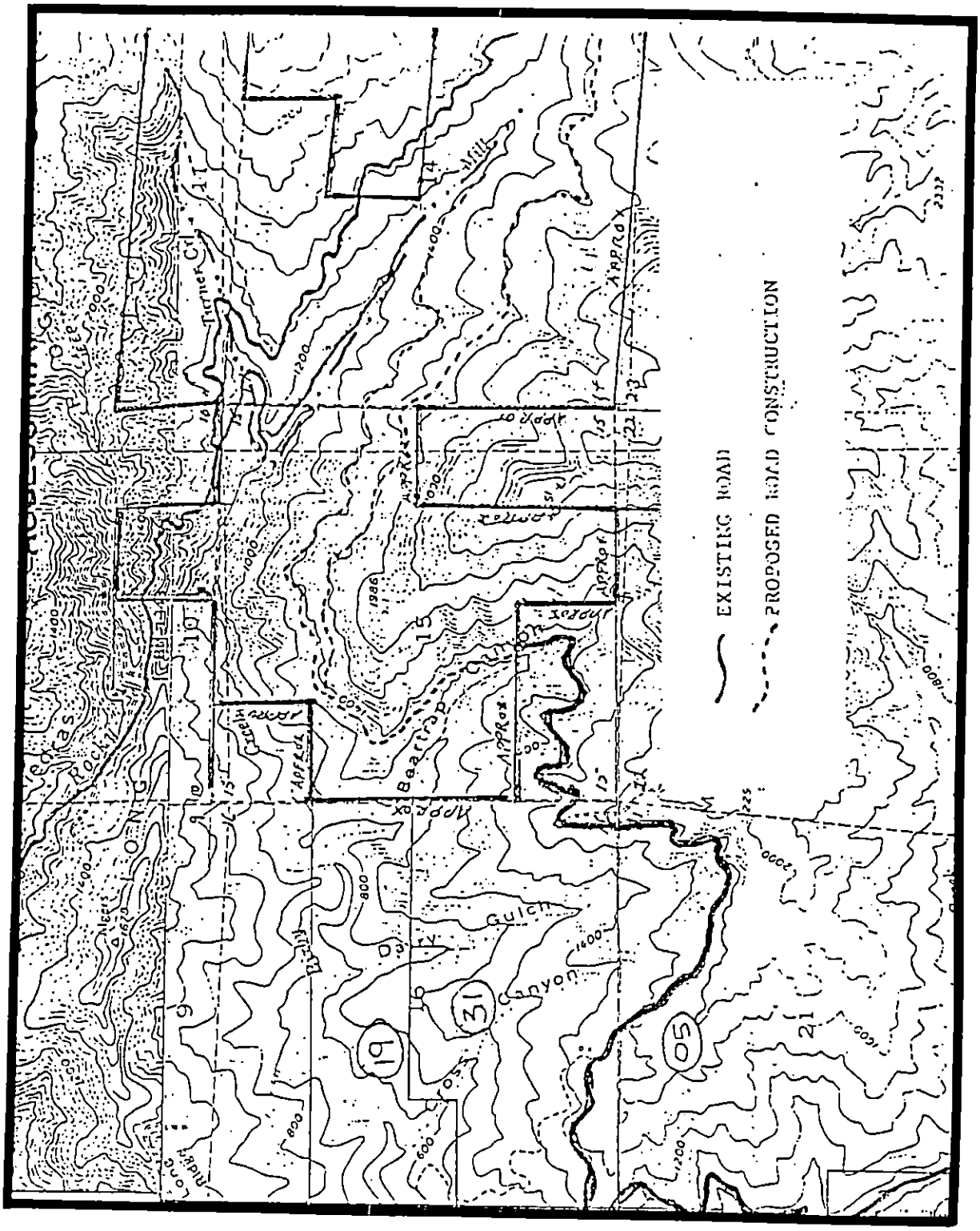
The four parcels were sold to the U.S. Forest Service in 1982. In 1981 the USFS appraisal determined the value of a larger 23,400 acre tract which encompassed all of the subject acreage to be $17.5 million based on the parcel's harvestable timber ($740 per acre). A second appraisal contracted by the owners determined a value of $37.0 million based on the property's highest and best use as wilderness. After long protracted negotiations involving Congress as well as the two parties, a settlement value of $28.98 million for the 22,456 acres was agreed upon, yielding a weighted average per acre value of $1,290 for the four parcels. Following the Alpine Lakes Wilderness bill, the land was sold to the federal government for inclusion to the wilderness area.

Analysis: $28,983,243 ÷ 22,457 acres = $1,291/acre

Adjustments: None

Comparable #8

Big Sur, California



Comparable Photograph #8

Big Sur,
California

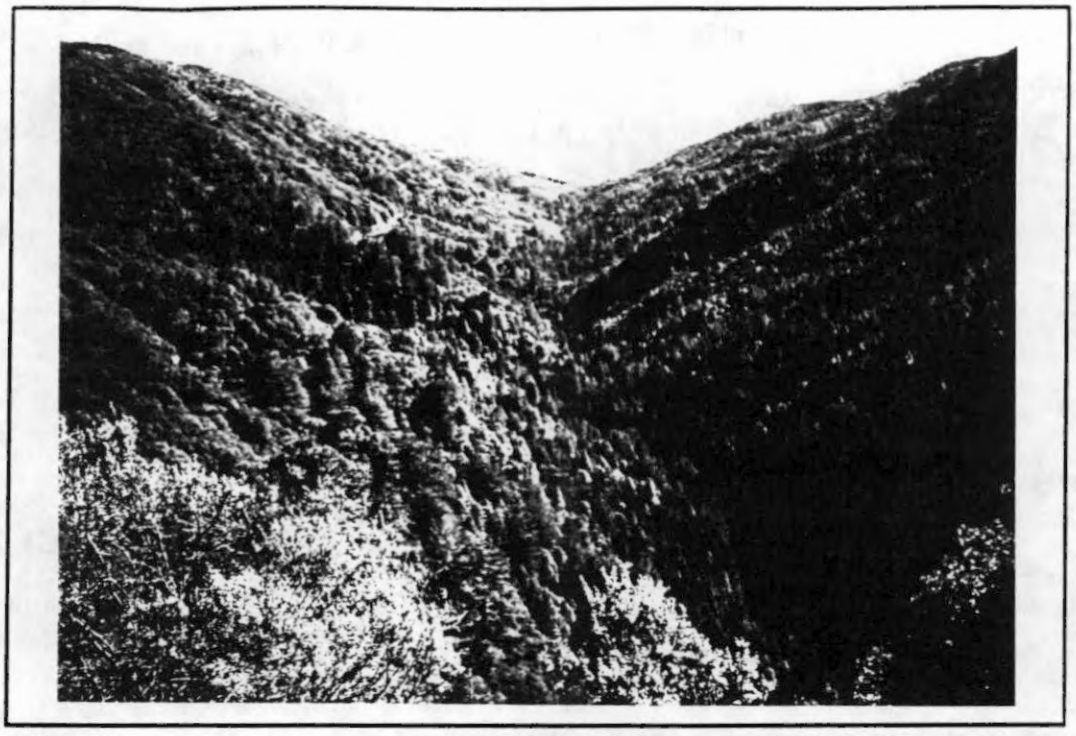


Photo #1:

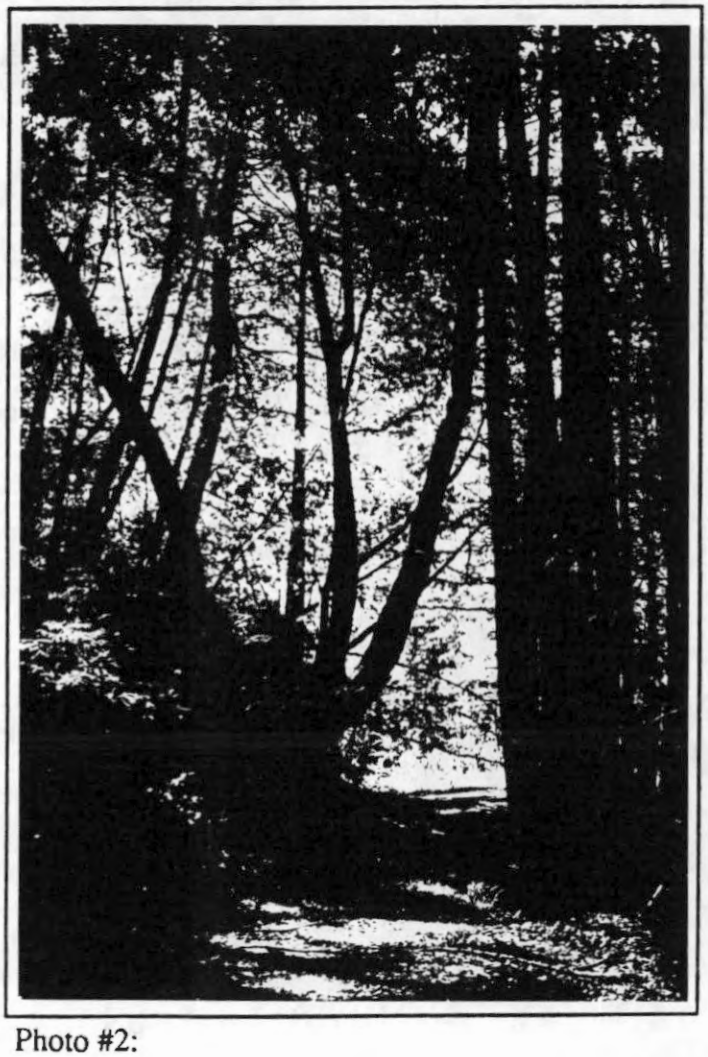


Photo #2:

COMPARABLE SALE #9

Location:	Cypress Island in the San Juan Archipelago, Washington
Legal Description:	Portions of Sections 19, 20, 21, 27, 28, 29, 30, 31, 32, 33. T. 36 N, R. 1E; and Portion of Sections 5, 6, 8, T. 35 N, R. 1E
Grantor:	Raymond Hanson
Grantee:	State of Washington Department of Natural Resources
Date:	May, 1989
Size:	3,176 acres
Sales Price:	$5,400,000
Terms:	Cash
Land Value:	$4,250,000
Price/Acre:	$1,338
Improvements:	Shop building and equipment valued at $41,550; unimproved air strip and roads valued by cost of replacement approach at $1,108,450 (includes entrepreneurial profit)
Utilities:	None
Access:	Airstrip, boat
Description:	Cypress Island is the last largest undeveloped island in the San Juan archipelago. It is located approximately three miles from Anacortes but is not accessible by the state ferry system. The property is forested with 40 to 120 year old timber and includes approximately 18 miles of Puget Sound waterfront and numerous lakes, ponds and wetlands. It is semi-mountainous with elevations ranging from 0 to 1,500 feet. There are several massive, prominently exposed rock outcrops, ledges and cliffs which afford outstanding views of the surrounding islands and water. Six archeological sites have been recorded on the island, with a high likelihood of additional sites. The property is intended for designation as a state Natural Resources Conservation Area.
Analysis:	$4,250,000 land value ÷ 3,176 acres = $1,338/acre
Adjustments:	None

EXHIBIT "A"

The land referred to in this report/policy is situated in the State of Washington, County of Skagit, and is described as follows:

PARCEL "A":

All of Section 5, Township 35 North, Range 1 East, W.M.

TOGETHER WITH tidelands of the second class as conveyed by the State of Washington, situated in front of, adjacent to or abutting upon Government Lot 4, 5 and 6 of said Section 5; EXCEPT mineral rights, as reserved by the State of Washington by deed dated January 14, 1953, recorded October 6, 1953 as Auditor's File No. 493646.

EXCEPT from the above Section 5, that portion thereof lying within the boundaries of the following plats:

1.) "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 1", as per plat recorded in Volume 8 of Plats, page 28, records of Skagit County.

2.) "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 2", as per plat recorded in Volume 8 of Plats, page 31, records of Skagit County.

3.) "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 3", as per plat recorded in Volume 8 of Plats, page 32, records of Skagit County.

PARCEL "B":

Government Lots 1 and 2 in Section 6, Township 35 North, Range 1 East, W.M.

TOGETHER WITH tidelands of the second class as conveyed by the State of Washington, situated in front of, adjacent to or abutting upon Government Lots 1 and 2; EXCEPT mineral rights as reserved by the State of Washington by deed dated January 14, 1953, recorded October 6, 1953 under Auditor's File No. 493646.

PARCEL "C":

Government Lots 1, 2, 3 and 4, Section 8, Township 35 North, Range 1 East, W.M.

TOGETHER WITH tidelands of the second class as conveyed by the State of Washington, situated in front of, adjacent to or abutting upon Government Lots 1, 2 and 4, EXCEPT those tidelands situated in front of, adjacent to or abutting upon the East 165 feet of said Government Lot 4; EXCEPT mineral rights as reserved by the State of Washington in deeds dated November 30, 1973 and January 14, 1953, recorded December 1, 1973 and October 6, 1953 under Auditor's File Nos. 794069 and 493646.

PARCEL "D":

The South 1/2 of Government Lot 4, Section 21, Township 36 North, Range 1 East, W.M., as measured along the West line of said Government Lot 4.

PARCEL "E":

The Southwest 1/4 of the Northwest 1/4, Government Lot 1; Government Lot 2; Government Lot 3; Government Lot 4; Government Lot 5; the Northwest 1/4 of the Southwest 1/4 and the Northeast 1/4 of the Southwest 1/4, and tidelands of the second class as conveyed by the State of Washington lying in front of, adjacent to or abutting upon Government Lots 1, 2, 3, 4 and 5; all in Section 28, Township 36 North, Range 1 East, W.M., EXCEPT mineral rights as reserved by the State of Washington in deed dated January 14, 1953, recorded October 6, 1953 under Auditor's File No. 493646. EXCEPT road rights-of-way.

PARCEL "F":

The South 1/2 of the Southwest 1/4 and the Southwest 1/4 of the Southeast 1/4 of Section 28, Township 36 North, Range 1 East, W.M.; EXCEPT road rights-of-way.

PARCEL "G":

The Northeast 1/4 of the Northeast 1/4 and the South 1/2 of the Northeast 1/4 of Section 29, Township 36 North, Range 1 East, W.M.

PARCEL "H":

The Southwest 1/4 of the Northwest 1/4 and the South 1/2 of Section 29, Township 36 North, Range 1 East, W.M.

PARCEL "I":

The Northeast 1/4; the East 1/2 of the Northwest 1/4; the East 1/2 of the Southwest 1/4; the West 1/2 of the Southeast 1/4; the Southeast 1/4 of the Southeast 1/4 and Government Lot 2, all in Section 32, Township 36 North, Range 1 East, W.M., TOGETHER WITH tidelands of the second class as conveyed by the State of Washington, situate in front of, adjacent to or abutting upon said Government Lot 2; EXCEPT mineral rights as reserved by the State of Washington, in deed dated February 28, 1956, recorded March 5, 1957 as Auditor's File No. 548232.

PARCEL "J":

The North 1/2 of Section 33, Township 36 North, Range 1 East, W.M.; EXCEPT mineral rights as reserved in deed recorded February 2, 1944 under Auditor's File No. 368032.

PARCEL "K":

All of the plat of "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 1", as per plat recorded in Volume 8 of Plats, page 28, records of Skagit County; being comprised of Lots 25 through 34, inclusive, in Block

PARCEL "K":

All of the plat of "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 1", as per plat recorded in Volume 8 of Plats, page 28, records of Skagit County; being comprised of Lots 25 through 34, inclusive, in Block 77-A. TOGETHER WITH all of the land shown thereon as dedicated roadways.

PARCEL "L":

All of the plat of "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 2", as per plat recorded in Volume 8 of Plats, page 31, records of Skagit County; being comprised of Lots 1 through 24, inclusive, in Block 77-B. TOGETHER WITH all of the land shown thereon as dedicated roadways.

PARCEL "M":

All of the plat of "CYPRESS ISLAND ESTATES, SUBDIVISION NO. 3", as per plat recorded in Volume 8 of Plats, page 32, records of Skagit County; being comprised of Lots 1 through 19, inclusive, Block 78, Lots 25 through 37, inclusive, Block 76-A, and Lots 35 through 62, inclusive, in Block 77-C. TOGETHER WITH all of the land shown thereon as dedicated roadways.

PARCEL "P":

Government Lot 1 (EXCEPT the North 1026.88 feet thereof) and the East 1/2 of the Southeast 1/4; ALSO Government Lot 2, all in Section 19, Township 36 North, Range 1 East, W.M.; EXCEPT that portion of the South 267.60 feet of said Lot 2, lying Westerly of a line described as follows:

Commencing at the point of intersection of the East boundary line of Government Lots 3 and 4 in said section with the South boundary line of said Government Lot 2; thence Northerly along the projection of said Easterly boundary line of said Government Lots 3 and 4, across said Government Lot 2.

PARCEL "Q":

Government Lot 1, EXCEPT the Northerly 300 feet thereof; Southeast 1/4 of the Northeast 1/4; the West 1/2 of the Northeast 1/4, EXCEPT the Northerly 300 feet thereof; the Northwest 1/4; the North 1/2 of the Southwest 1/4; the West 1/2 of the Southeast 1/4; the Southeast 1/4 of the Southeast 1/4; and Government Lot 2; all in Section 20, Township 36 North, Range 1 East, W.M.; EXCEPT that portion of said Government Lot 2, described as follows:

Commencing at a point 1345 feet North of the corner of Sections 20, 21, 28 and 29, said Township and Range; thence West 200 feet; thence North 125 feet; thence East 200 feet; thence South 125 feet to the point of beginning.

ALSO EXCEPT that portion of the Northwest 1/4 of said Section, described as follows:

Commencing at the Northwest corner of said Section 20; thence East along the North line of said Section 660 feet; thence Southwesterly 933.38 feet to a point on the West line of said section 660 feet South of the Northwest corner of said section; thence Northerly along said West line to the point of beginning.

PARCEL "R":

Government Lots 1, 2 and 3; also Government Lot 4, EXCEPT the South 1/2 thereof, as measured along the West line of said Government Lot 4; all in Section 21, Township 36 North, Range 1 East, W.M.

EXCEPT that portion of said Government Lot 1, described as follows:

Beginning at the Southeast corner of the Northerly 300 feet of Government Lot 1 of Section 20; thence South 89 degrees 29'11" East, a prolongation of the South line of said North 300 feet of Government Lot 1, to ordinary high tide line 120 feet; thence Northwesterly along said ordinary high tide line to the meander corner of Sections 20 and 21; thence South along the said West section line 161.2 feet, more or less, to the point of beginning.

April 14, 1989

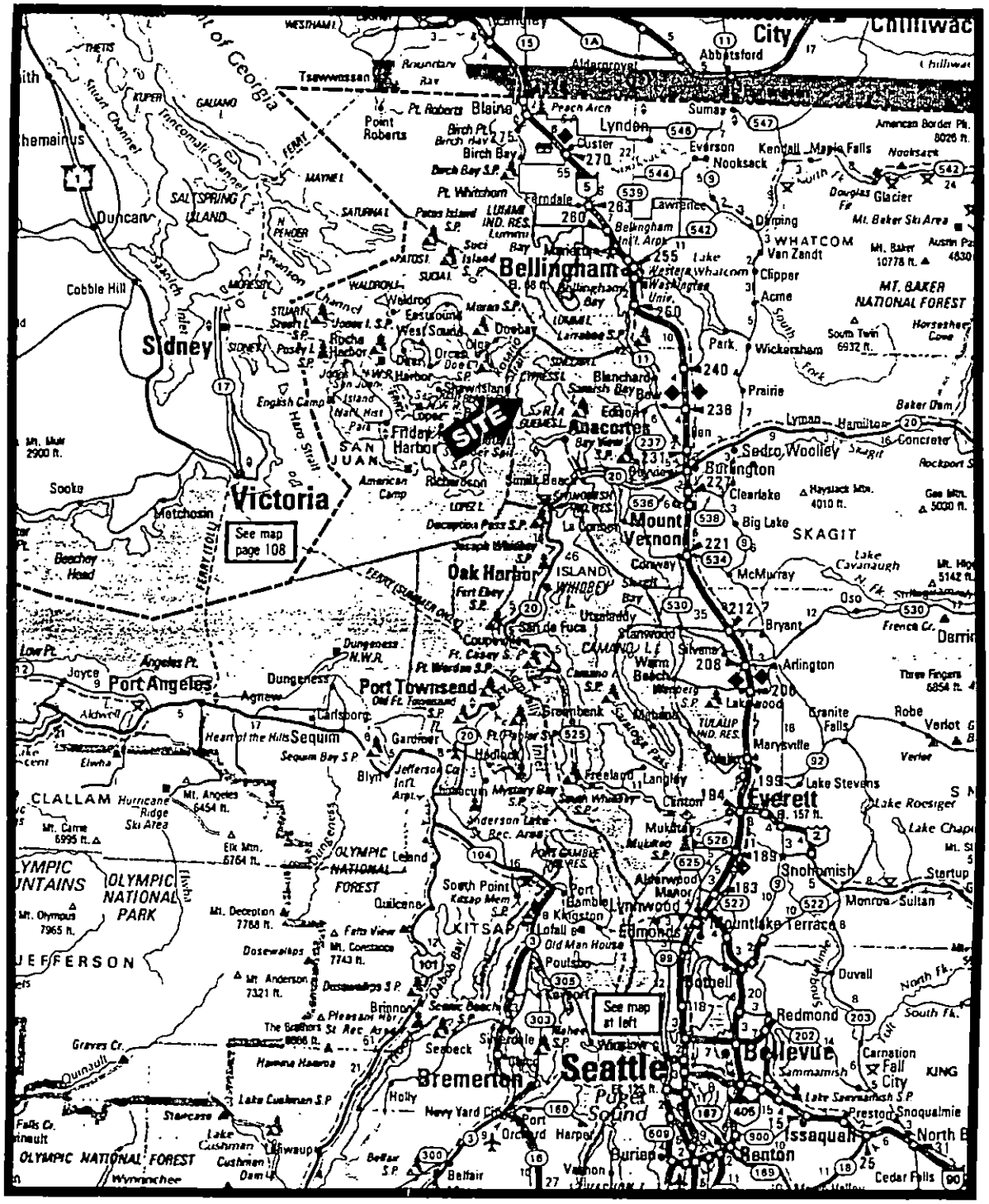
Property to be Retained From DNR Sale

That portion of Government Lots 1, 2 and 3 of Section 21, Township 36 North, Range 1 East, W.M., being more particularly described as follows:

Commencing at the Southwest corner of said Section 21; thence North 56°59'11" East, a distance of 2,326.33 feet to a brass disc in rock, stamped USC&GS Eagle 2; thence North 70°45' West, a distance of 900 feet to the TRUE POINT OF BEGINNING; thence North 23°30' West, a distance of 835 feet; thence North a distance of 100 feet, more or less, to the interseotion with a line lying 20 feet Easterly of the centerline of the existing logging road; thence North following a line 20 feet Easterly, and parallel with the centerline of said logging road, a distance of 2500 feet, more or less, to the intersection with the West line of said Section 21; thence North along the West line of said Section 21 to the intersection with the South line of the North 300 feet of Government Lot 1 of Section 20, Township 36 North, Range 1 East, W.M.; thence East on a projection of the South line of the North 300 feet of said Section 20, a distance of 120 feet, more or less, to the ordinary high tide line; thence Southerly, following the line of ordinary high tide, through Government Lots 1, 2 and 3 to the intersection of a line bearing East from the TRUE POINT OF BEGINNING; thence West a distance of 800 feet, more or less, to the TRUE POINT OF BEGINNING.

Comparable #9

Cypress Island, Washington



Comparable Photograph #9

Cypress Island, Washington

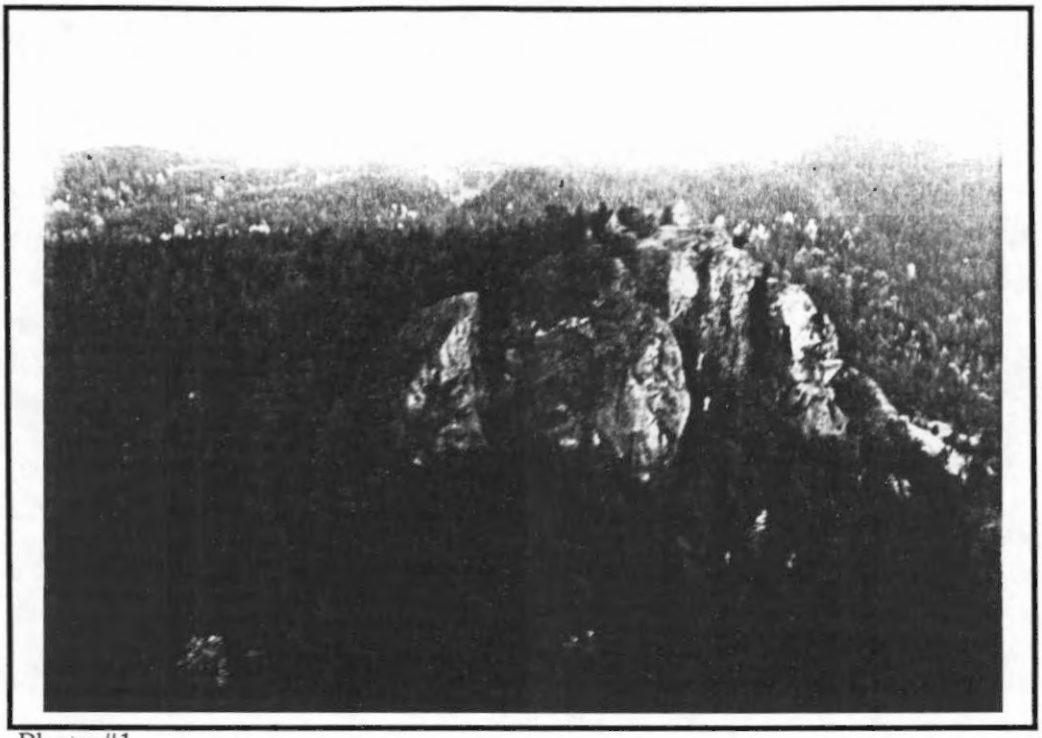


Photo #1

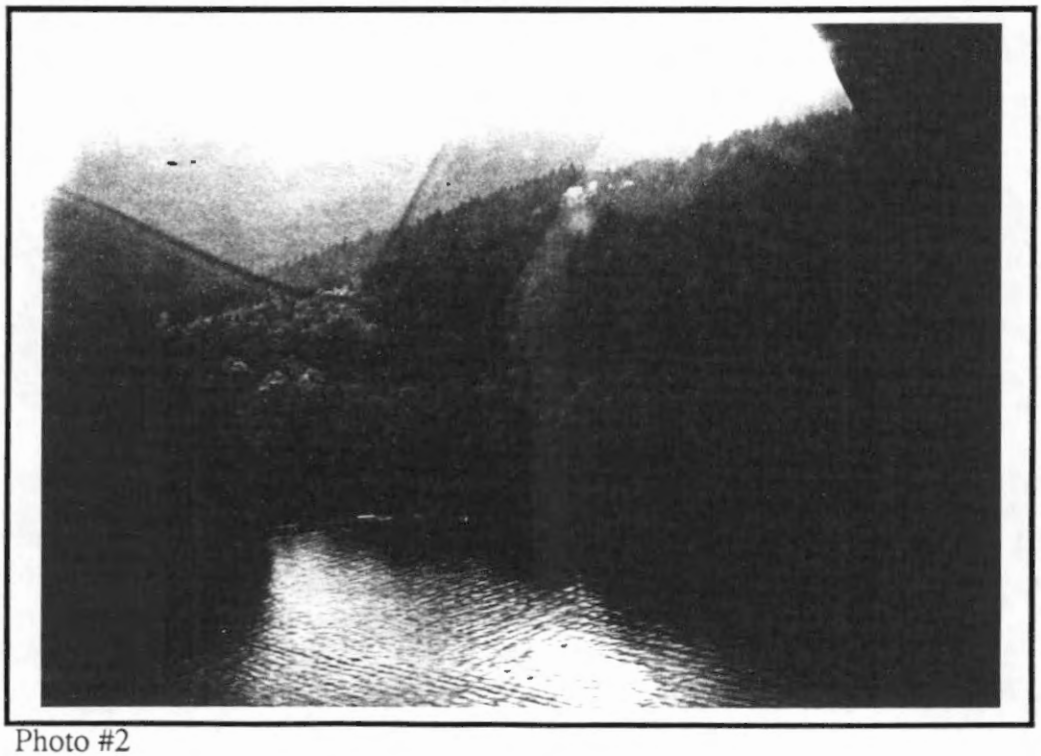
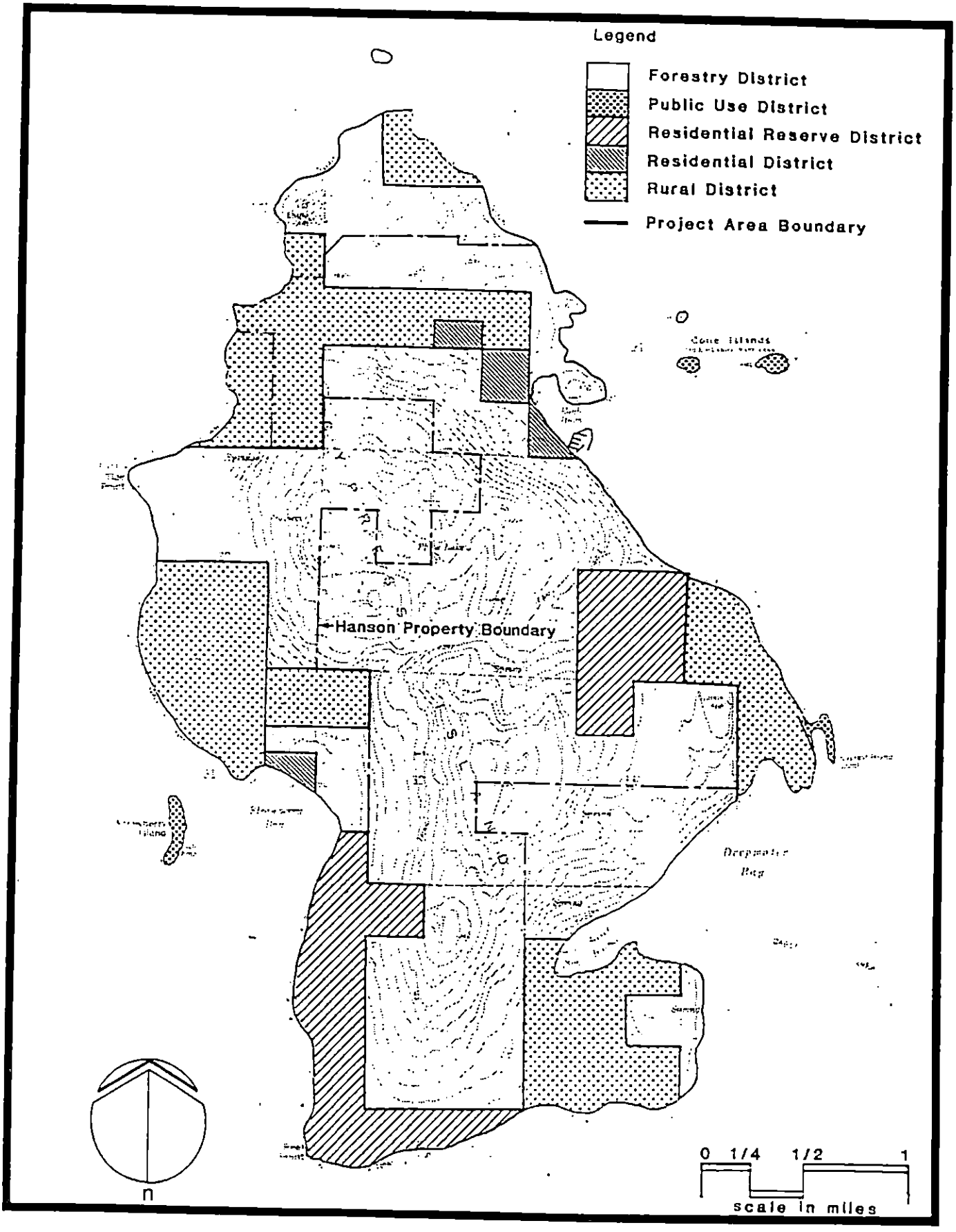


Photo #2

Comparable #9

Cypress Island, Washington



PAIRED SALE #1

Location:	Talketna	Frontage:	None
Legal:	USS 7166	Access:	Highway
Grantor:	Hough	Utilities:	Available
Grantee:	Solsvig	Improvements:	None
Date of Sale:	4/1/88	Zoning:	None
Acres:	160.0	Highest /Best Use:	Recreational
Sale Price:	$58,000		
Price/Acre:	$363		

RESALE

Location:	Talketna	Frontage:	None
Legal:	USS 7166	Access:	Highway
Grantor:	Solsvig	Utilities:	Available
Grantee:	Yoon	Improvements:	None
Date of Sale:	9/1/88	Zoning:	None
Acres:	160.0	Highest /Best Use:	Recreational
Sale Price:	$69,000		
Price/Acre:	$431		

Analysis: 4/88 — $58,000
9/88 — $69,000

19% increase ÷ 5 months = 3.8%/month

PAIRED SALE #2

Location:	Talheetna	Frontage:	Creek
Legal:	South 3/4 Sec. 17	Access:	Walk-in
Grantor:	Brady	Utilities:	None
Grantee:	Calvin	Improvements:	None
Date of Sale:	10/15/85	Zoning:	None
Acres:	480	Highest /Best Use:	Recreational
Sale Price:	$192,000		
Price/Acre:	$400		

Location:	Talheetna	Frontage:	None
Legal:	E2 E2, Sec. 7, Ptn. Sec. 8	Access:	Walk-in
Grantor:	Atwater	Utilities:	None
Grantee:	Harman, et al.	Improvements:	None
Date of Sale:	12/1/84	Zoning:	None
Acres:	480	Highest /Best Use:	Recreational
Sale Price:	$168,000		
Price/Acre:	$350		

Analysis: 12/1/84 — $168,000
10/15/85 — $192,000

14% change ÷ 13.5 months = 1%/month

PAIRED SALE #3

Location:	Wheeler Cr., Admiralty Island	Frontage:	Ocean
Legal:	USS 1159	Access:	Boat, float plane
Grantor:	Schnabel Lumber Co.	Utilities:	None
Grantee:	Youngquist	Improvements:	None
Date of Sale:	12/76	Zoning:	—
Acres:	134.80	Highest /Best Use:	Recreational homesites
Sale Price:	$202,000		
Price/Acre:	$1,500		

Location:	Kanalku Bay, Admiralty Is.	Frontage:	Ocean
Legal:	USMS 312	Access:	Boat, float plane
Grantor:	Stansworth, et al.	Utilities:	None
Grantee:	Kootsnoowoo, Inc.	Improvements:	None
Date of Sale:	1/81	Zoning:	—
Acres:	132.67	Highest /Best Use:	Recreational homesites
Sale Price:	$458,500 (cash equiv.)		
Price/Acre:	$3,456 (adjusted for terms)		

Analysis: 12/76 — $202,000
1/81 — $458,500

127% change ÷ 49 months = 2.6%/month

PAIRED SALE #4

Location:	La Touche Island	Frontage:	Waterfront
Legal:	USS 713, Ptn USMS 782, Ptn USMS 584	Access:	Water
Grantor:	Bolstridge, Derkavorkian	Utilities:	—
Grantee:	Development, Inc.	Improvements:	None
Date of Sale:	5/79	Zoning:	None
Acres:	316	Highest /Best Use:	Recreational subdivision
Sale Price:	$200,000		
Price/Acre:	$633		

Location:	LaTouche Island	Frontage:	Waterfront
Legal:	Survey 83-7, Ptn USS 774	Access:	Water
Grantor:	Reynolds Mining Co.	Utilities:	—
Grantee:	Groh, Marino	Improvements:	None
Date of Sale:	1981	Zoning:	None
Acres:	315.38	Highest /Best Use:	Recreational homesites
Sale Price:	$300,000		
Price/Acre:	$951		

Analysis: 5/79 — $200,000
1981 — $300,000

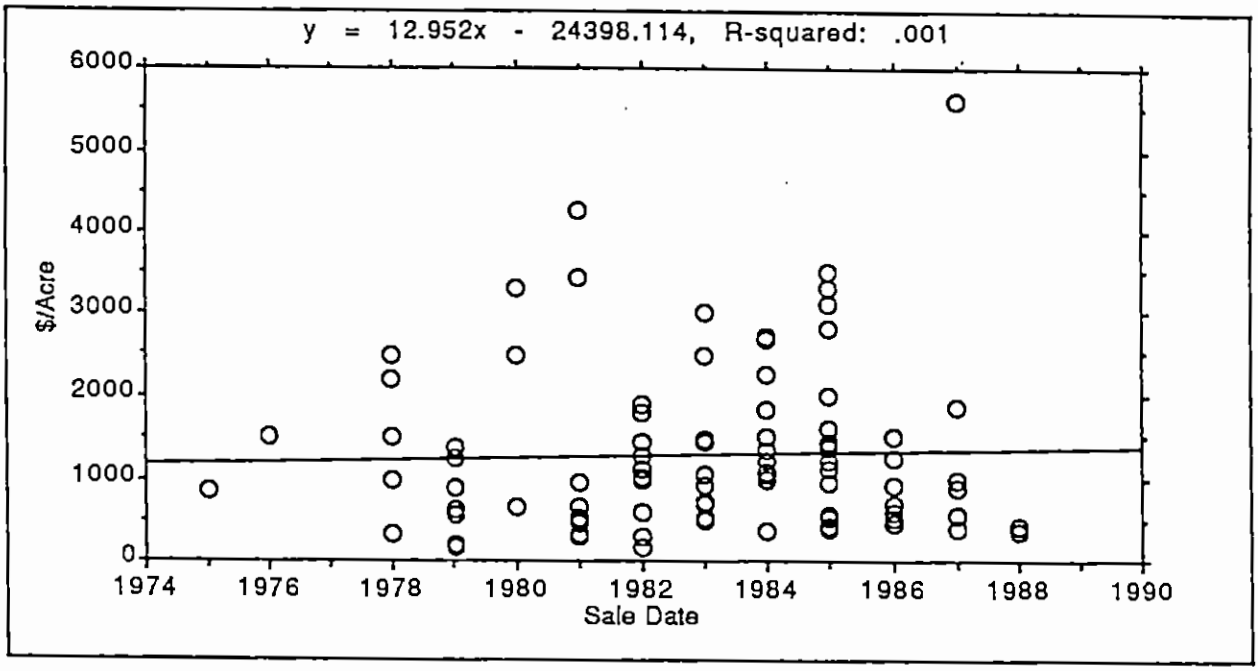
50% change ÷ 24 months = 2%/month

APPENDIX E

STATISTICAL ANALYSES & SCATTERGRAMS

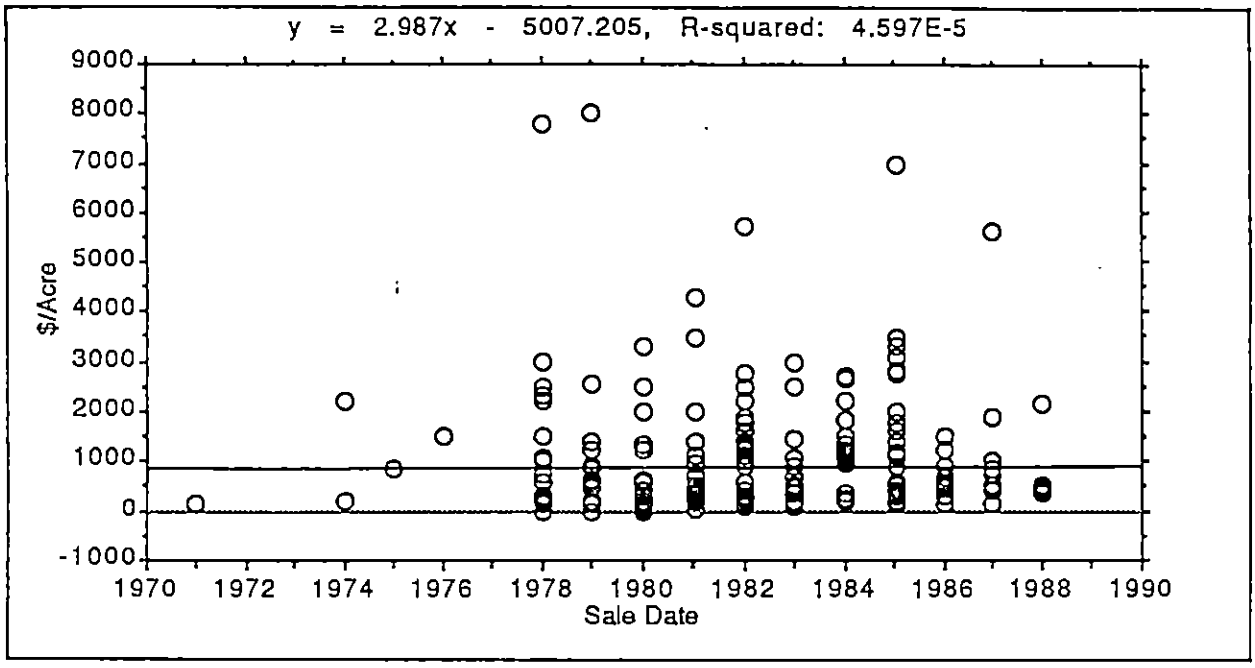
SALE DATE - PRICE/ACRE

Recreation, Subdivison,
Speculation Property
All Sizes



SALE DATE - PRICE/ACRE

All Cases



Simple Regression X_1: Acres Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
67	.13	.017	.002	933.433

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	980853.658	980853.658	1.126
RESIDUAL	66	57505650.224	871297.731	p = .2926
TOTAL	67	58486503.882		

No Residual Statistics Computed

1

Simple Regression X_1: Acres Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	2262.044				
SLOPE	-5.199	4.9	-.13	1.061	.2926

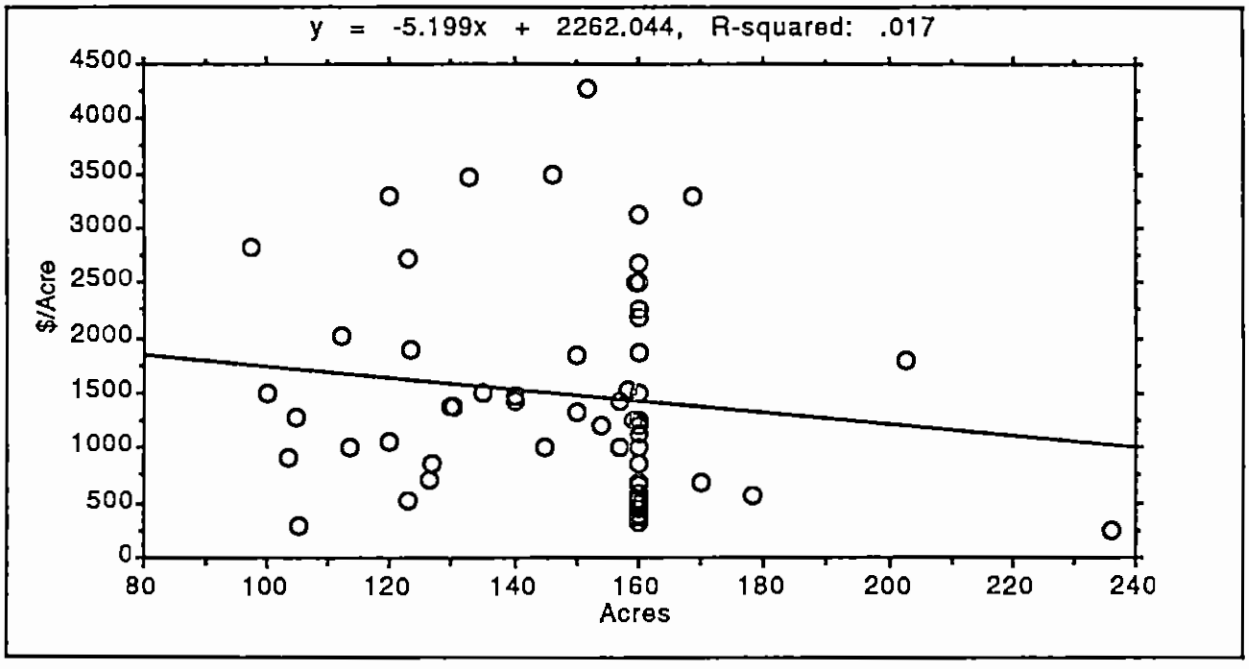
Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	1260.152	1712.201	1297.318	1675.035
SLOPE	-14.982	4.585	-13.373	2.976

2

SIZE - PRICE/ACRE

Sales 100-200 Acres



Simple Regression X_1: Sale Date Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
249	.007	4.597E-5	-.004	1205.604

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	16570.17	16570.17	.011
RESIDUAL	248	360462990.326	1453479.8	p = .9151
TOTAL	249	360479560.496		

No Residual Statistics Computed

Note: 2 cases deleted with missing values.

1

Simple Regression X_1: Sale Date Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	-5007.205				
SLOPE	2.987	27.972	.007	.107	.9151

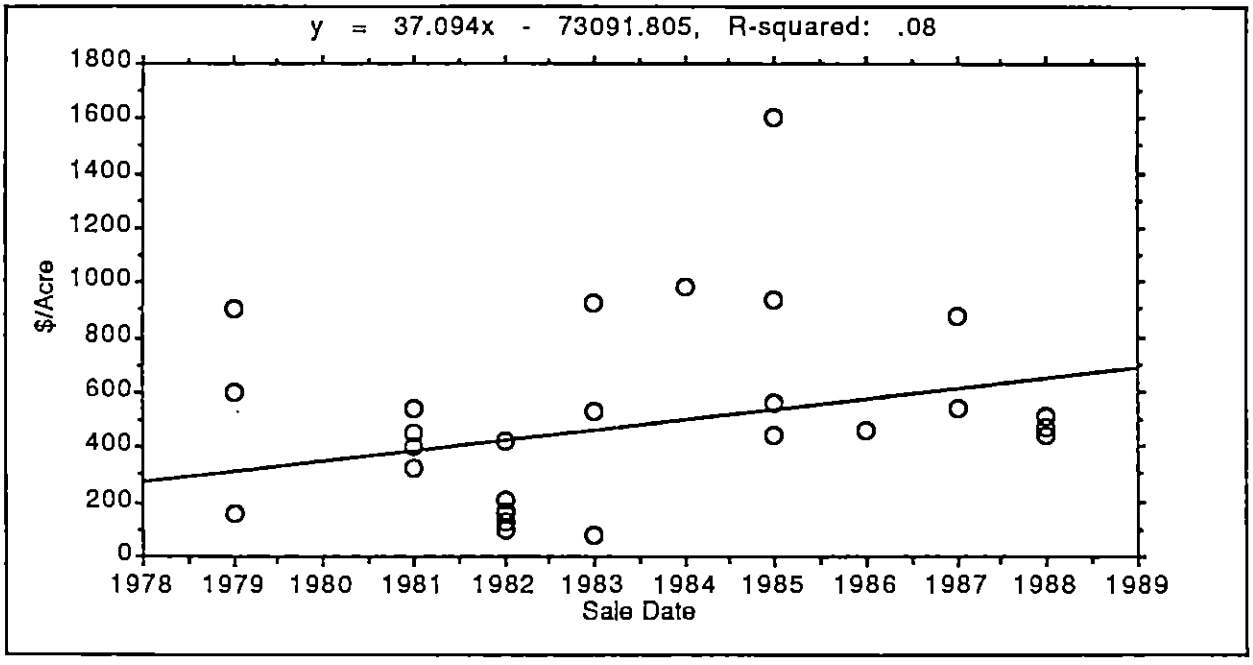
Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	762.303	1062.689	786.596	1038.396
SLOPE	-52.112	58.086	-43.2	49.174

2

SALE DATE - PRICE/ACRE

Sales 500 + Acres



Simple Regression X_1: Sale Date Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
30	.284	.08	.049	336.055

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	286462.991	286462.991	2.537
RESIDUAL	29	3275062.88	112933.203	p = .1221
TOTAL	30	3561525.871		

No Residual Statistics Computed

Simple Regression X_1: Sale Date Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	-73091.805				
SLOPE	37.094	23.29	.284	1.593	.1221

Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	347.607	594.522	368.5	573.629
SLOPE	-10.545	84.733	-2.483	76.671

Simple Regression X_1: Acres Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
249	.121	.015	.011	1196.706

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	5317563.526	5317563.526	3.713
RESIDUAL	248	355161996.97	1432104.826	p = .0551
TOTAL	249	360479560.496		

No Residual Statistics Computed

Note: 2 cases deleted with missing values.

1

Simple Regression X_1: Acres Y_1: $/Acre

Beta Coefficient Table

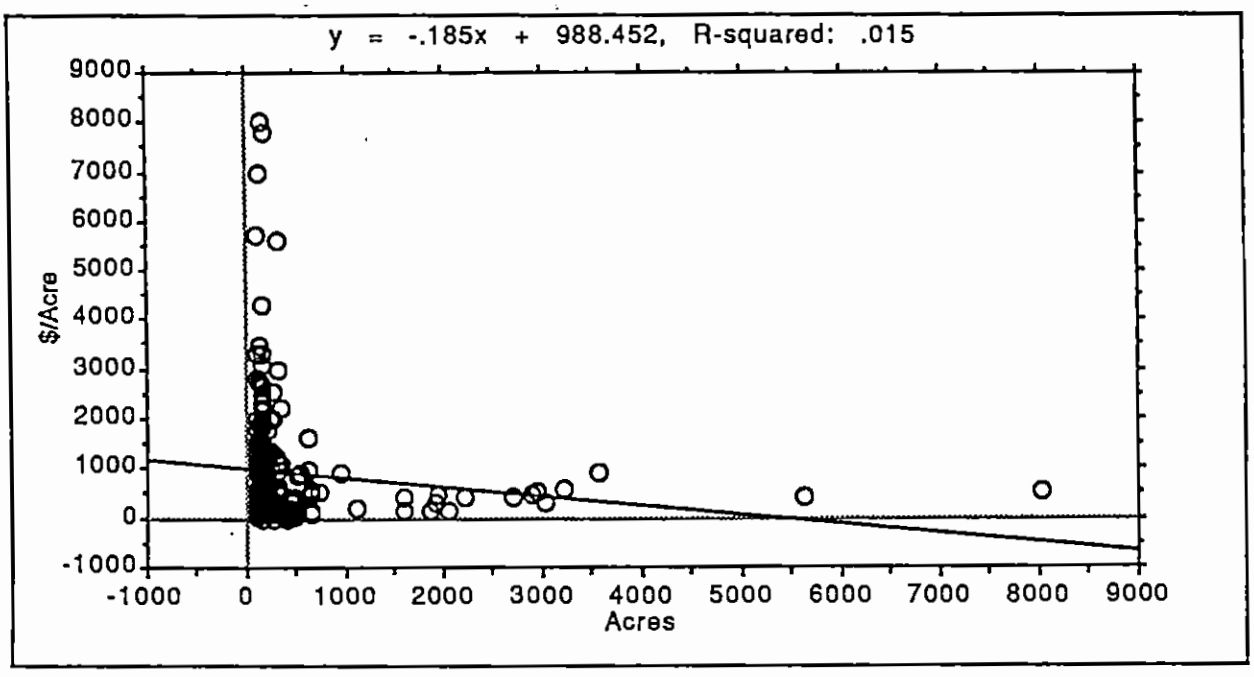
Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	988.452				
SLOPE	-.185	.096	-.121	1.927	.0551

Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	763.411	1061.581	787.525	1037.467
SLOPE	-.374	.004	-.344	-.026

2

SIZE - PRICE/ACRE



Simple Regression X_1: Acres Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
18	.538	.289	.248	395.315

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	1082290.078	1082290.078	6.926
RESIDUAL	17	2656654.028	156273.766	p = .0175
TOTAL	18	3738944.105		

No Residual Statistics Computed

1

Simple Regression X_1: Acres Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	1506.472				
SLOPE	-2.279	.866	-.538	2.632	.0175

Confidence Intervals Table

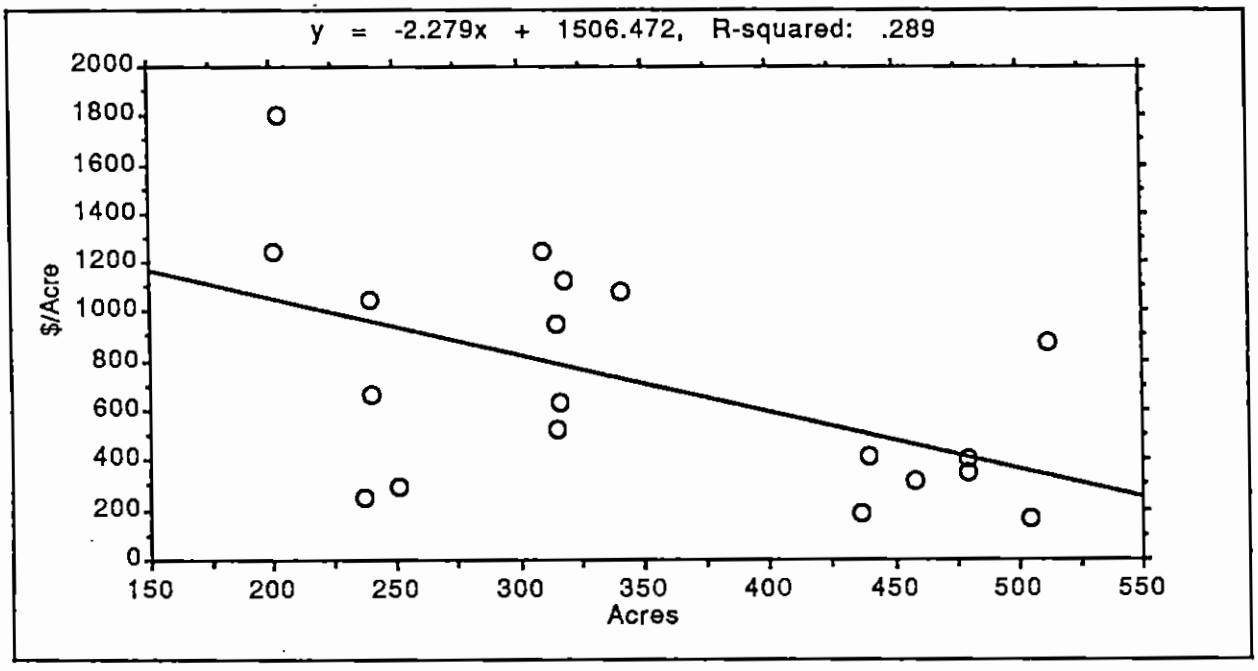
Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	523.953	906.679	557.533	873.099
SLOPE	-4.106	-.452	-3.785	-.772

2

SIZE - PRICE/ACRE

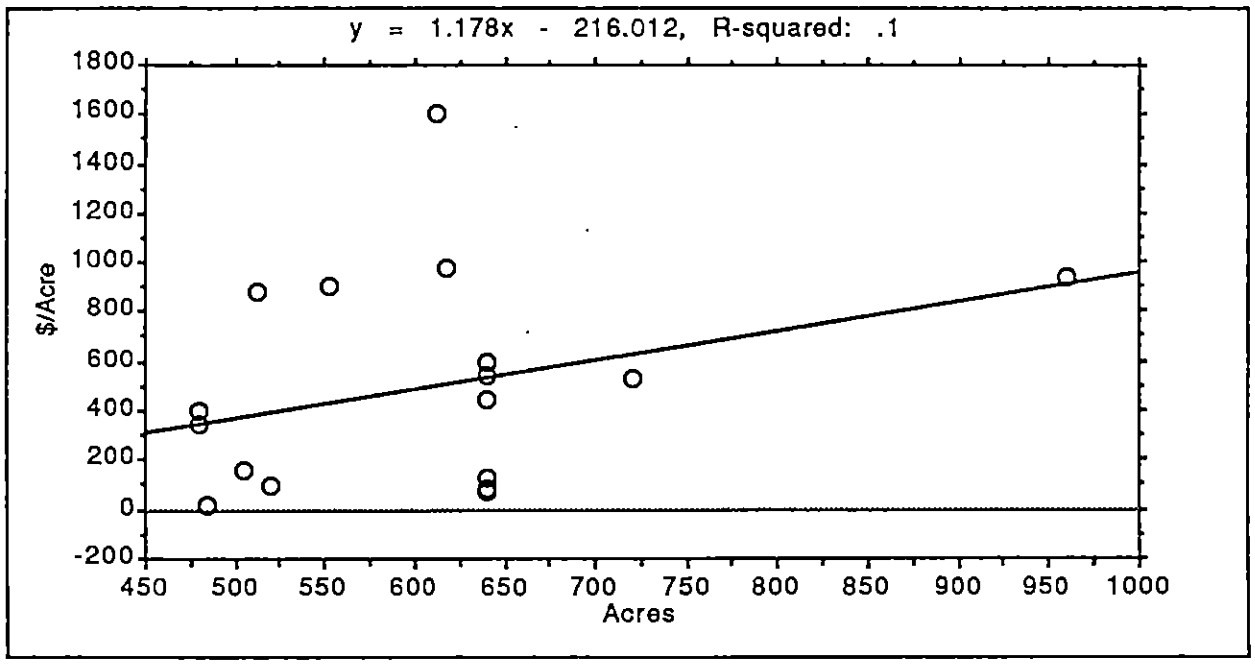
200 - 500 Acres

Recreational & Speculation Property



SIZE - PRICE/ACRE

Sales 500-1000 Acres



Simple Regression X_1: Acres Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
17	.316	.1	.044	421.679

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	315896.943	315896.943	1.777
RESIDUAL	16	2845007.057	177812.941	p = .2012
TOTAL	17	3160904		

No Residual Statistics Computed

1

Simple Regression X_1: Acres Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	-216.012				
SLOPE	1.178	.884	.316	1.333	.2012

Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	280.278	701.722	317.458	664.542
SLOPE	-.696	3.052	-.365	2.721

2

Simple Regression X_1: Sale Date Y_1: $/Acre

DF:	R:	R-squared:	Adj. R-squared:	Std. Error:
92	.037	.001	-.01	1006.994

Analysis of Variance Table

Source	DF:	Sum Squares:	Mean Square:	F-test:
REGRESSION	1	125092.756	125092.756	.123
RESIDUAL	91	92277421.201	1014037.596	p = .7262
TOTAL	92	92402513.957		

No Residual Statistics Computed

1

Simple Regression X_1: Sale Date Y_1: $/Acre

Beta Coefficient Table

Parameter:	Value:	Std. Err.:	Std. Value:	t-Value:	Probability:
INTERCEPT	-24398.114				
SLOPE	12.952	36.876	.037	.351	.7262

Confidence Intervals Table

Parameter:	95% Lower:	95% Upper:	90% Lower:	90% Upper:
MEAN (X,Y)	1076.582	1491.461	1110.483	1457.56
SLOPE	-60.305	86.209	-48.333	74.237

2

APPENDIX F

BIBLIOGRAPHY

BIBLIOGRAPHY

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Zube, E.H., R.O. Brush, and J.G. Fabos, eds. *Landscape Assessment: Values, Perceptions and Resources.* Strouldsburg, PA: Dowden, Hutchinson and Ross, 1975.

APPENDIX G

COVER LETTER TO APPRAISAL OF TIMBER TRADING COMPANY OWNED TIMBERIN KACHEMAK BAY STATE PARK

CRONK & HOLMES
Consulting Foresters

Alton G. Cronk
Richard W. Holmes

6936 N.E. Halsey Street
Portland, Oregon 97213
Telephone (503) 256-3840

August 22, 1989

Mr. Charlie Nash
Timber Trading Company
3501 Denali, Suite 202
Anchorage, Alaska 99503

Dear Mr. Nash:

You have requested my opinion of the fair market value of timber owned by Timber Trading Company in the Kachemak Bay area as of June 30, 1989.

The fair market value is described as the price that would be paid for the subject timber that is exposed to the market for a reasonable length of time, and that price which would be agreed upon by a seller and buyer, both of whom are equally informed and have reasonable knowledge of the facts concerning the subject timber and both of whom are willing, but under no compulsion, to buy or sell.

You have furnished me with certain records concerning the subject timber including indications of quality and type as well as logging conditions. In arriving at the opinion of fair market value, I have personally inspected the area. My general knowledge of the area, timber types, terrain, local conditions and markets was also of value in arriving at this opinion of value.

After taking into account all of the timber valuation factors herein mentioned, as well as other factors not specifically mentioned, it is my opinion that the fair market value of the Timber Trading Company timber in the Kachemak Bay area at June 30, 1989 is:

Species	Volume MBF	$/MBF	Total Value
Spruce	44,987	$165	$7,422,855

Sincerely;
CRONK & HOLMES

Alton G. Cronk

Alton G. Cronk

APPENDIX H

QUALIFICATIONS

BILL MUNDY
PROFESSIONAL QUALIFICATIONS

EXPERIENCE

Bill Mundy has over twenty years of experience in real estate market, economic and valuation research. Over this time span he has held the following positions:

- Doane Agricultural Service (1965-67). Farm Manager and rural appraiser.
- Fenton, Conger & Ballaine (1967-68). Real estate appraiser and market analyst.
- Weyerhaeuser Real Estate Company (1971-73). Land economist and housing market analyst.
- Bill Mundy & Associates (1976-present). Owner. Real estate development.
- Mundy, Jarvis & Associates, Inc. dba Mundy & Associates (1976-present). President. Real estate market, economic and valuation (appraisal) analysts and consultants.

Dr. Mundy has been and continues to be heavily involved in the educational community. He has taught at the University of Washington and for the American Institute of Real Estate Appraisers (AIREA). He developed a real estate and urban economics curriculum for Seattle University. Professional education development activities for AIREA include membership on the continuing education committee, instructor of the Market Analysis course and developer of the Market Analysis seminar.

Bill has a broad range of analytical experience, including benefit-cost, economic base, market and survey research, and real estate appraisal throughout a significant part of the United States: the Midwest, South, Southwest, Pacific Northwest, Alaska and Hawaii. Several important areas of concentration include market research involving litigation matters and radioactive, hazardous and toxic waste. He has also developed, for his own account, residential, office, retail and rehabilitation properties in the Seattle and Anchorage metropolitan areas.

EDUCATION

Bachelor of Science, Agriculture (Business Option), 1965
Washington State University, Pullman, Washington

Master of Arts, Urban Economics, 1971
University of Washington, Seattle, Washington

Doctor of Philosophy, Marketing, Urban Economics and Survey Research, 1977
University of Washington, Seattle, Washington

SCHOLASTIC HONORS

Beta Gamma Sigma

American Institute of Real Estate Appraisers Scholarship Recipient, 1970-71, 1975-76.

University of Washington representative to doctoral consortium and American Marketing Association Meetings, 1976.

Fellow Invitation, Homer Hoyt Institute, 1987, 1988

Arthur A. May Memorial Award, 1988, American Institute of Real Estate Appraisers, for developing the seminar "Market Analysis."

PUBLICATIONS

"A Methodology to Optimize Building Rent," Bill Mundy & Associates, Inc., 1977, Seattle, Washington.

A Partial Test of a Multi-Stage Theory of Homebuyer Behavior: A Methodological and Substantive Approach Using Judgmental and Behavioral Data, Ph.D. Dissertation, University of Washington, 1977.

"Natural Resource Scarcities and the Cost of Housing" monograph, University of Washington, 1976, Seattle, Washington.

The Seattle Metropolitan Area Economic Base with Population and Housing Projections, 1984, Bill Mundy & Associates, Inc., Seattle, Washington.

Urban Obsolescence —A Case History of Obsolescence-Renewal, Masters Thesis, University of Washington, 1970.

Contributor: *The Mundy Insider.*

PROFESSIONAL AFFILIATIONS

American Arbitration Association.

American Institute of Real Estate Appraisers (MAI #5439).

- Member, Division of Faculty
- Course and seminar instructor
- Curriculum developer

American Society of Real Estate Counselors (CRE #1011).

National Association of Business Economists

Lambda Alpha (National Real Estate Honorary)

ACADEMIC AFFILIATION

Member, Real Estate Curriculum Advisory Board, and Chairman, Finance Committee, Washington State University.

EDUCATIONAL CERTIFICATION

The American Institute of Real Estate Appraisers conducts a voluntary program of continuing education for its designated members. Dr. Mundy is certified under this program through September 15, 1992.

TEACHING EXPERIENCE

American Institute of Real Estate Appraisers 5 day courses.

Memphis State University:	Principles, Procedures
University of Houston:	Principles, Procedures
University of Portland:	Market Analysis
University of San Diego:	Market Analysis
University of Colorado:	Market Analysis
Arizona State University:	Market Analysis
University of Oklahoma:	Market Analysis
University of North Carolina:	Market Analysis

AIREA—seminars (Market Analysis)

Chicago, IL	Houston, TX
Omaha, NB	Albuquerque, NM
Anchorage, AK	San Diego, CA
Knoxville, TN	

WRITING/CURRICULUM DEVELOPMENT

AIREA Terminology Handbook, Reviewer
The Appraisal of Real Estate, 8th Edition, Reviewer
Real Estate Market Analysis, forthcoming, Reviewer
AIREA Market Analysis Course, Contributor
AIREA Market Analysis Seminar, Developer
AIREA Survey Research Seminar, Developer
The Mundy Insider, frequent contributor

LICENSES

State of Oregon—Broker, Appraiser
State of Washington—Broker
State of Alaska—Broker

EXPERT WITNESS

Various courts in:
Alaska
Oregon
Washington

JOHN P. DAY, MAI
PROFESSIONAL QUALIFICATIONS

EXPERIENCE

In 1963, employed by Cawdrey & Vemo, Inc., General Contractors, Inc., Seattle, as an estimator and project manager. From 1965 to 1974, owned and operated a mechanical subcontracting company and a retail appliance store, along with developing an office building, industrial park and a real estate subdivision. In 1975, completed the American Institute of Real Estate Appraisers Course 1-A, and became associated with the firm of Shorett & Riely. The period from 1976 through 1978, became Resident Manager—Appraiser of the Anchorage, Alaska branch office of Shorett & Riely. In 1978, was appointed to the Board of Equalization, Anchorage Borough. In 1979, completed all requirements of the American Institute of Real Estate Appraisers and was awarded the M.A.I. designation, Certificate No. 5986.

In 1982, was employed by Quadrant Development Company as their Executive Vice President in charge of new acquisitions and projects. In 1982, concurrent with employment with the Quadrant Companies, the appraisal firm of John P. Day, M.A.I. & Associates Company, Inc. was formed.

1983-84 served as co-chairman for the Alaska Railway Transfer Committee in which I supervised and represented the State of Alaska in the evaluation and subsequent acquisition of the Alaska Railway System.

1985 formed the firm of Mundy-Day Associates which is an affiliation with Bill Mundy, Ph.D., CRE, MAI, of Seattle for the purpose of conducting appraisals, consulting and market research throughout the State of Alaska.

Served as an instructor for the American Institute of Real Estate Appraisers and as a national grader for examinations given in their various educational courses. Served on the American Institute of Real Estate Appraisers Educational Committee.

The American Institute of Real Estate Appraisers conducts a voluntary program of continuing education for its designated members. MAI and RM Members who meet the minimum standards of this program are awarded periodic educational certification. I am currently certified under the AIREA Volunteer Certification Continuing Education Program.

The types of properties on which full appraisals have been prepared include warehouses, industrial plants, office buildings, motels, apartments, shopping centers, condominiums, and vacant land. The following is a partial list of clients for whom appraisal reports have been written:

Northland Shopping Center (JAFCO)
Seattle First National Bank
Washington Mutual Savings Bank
Security Savings & Loan Association
Pacific Mortgage Corporation
National Bank of Alaska
Alaska Pacific Bank
Alaska National Bank of the North
Alaska Mutual Bank
First Federal Bank
Puget Sound Mutual Savings Bank
Washington Mortgage Company
Rainier Mortgage
Transamerica Investment Services
Blackwell North American
Drever McIntosh Company
Alaska Airlines
Dimond Shopping Center
Northwest Pipeline Company
Bethel Native Corporation
Bureau of Land Management
Department of Interior
Department of the Army, Corps of Engineers
Portland Development Comm.
Sealand Services, Inc.
Vacation Internationale, Ltd.
International Longshoremen's Union
Kaiser Cement & Gypsum/Columbia
Ounalashka Native Corporation
Paug-Vik Native Corporation
Bering Straits Native Corporation
Akutan Native Corporation
Royal Krest Homes
Yarmon Investment Co.
Carr-Gottstein Properties
Alaska Brick Company (Division of Sea-Alaska Native Corporation)

Expert Witness in the following:

Federal Bankruptcy Court: Anchorage, Tacoma
Superior Court: King Country, Pierce County, Anchorage Borough

EDUCATION

M.B.A., Business Administration, 1963
Harvard Business School, Cambridge, Massachusetts

B.S., Civil and Industrial Engineering, 1961
University of Washington, Seattle, Washington

RONALD W. BUNN, MAI
6600 Lawlor Circle
Anchorage, Alaska 99502
(907) 248-0534

Appraiser's Experience Data

Ronald W. Bunn, MAI

Ronald W. Bunn, MAI, has managed the Alaska division of a leading regional real estate appraisal, market analysis and consulting firm since May, 1978. He is a member of the American Institute of Real Estate Appraisers, having been awarded the MAI designation on November 20, 1981, Certificate No. 6313. He is a 1970 graduate of Alaska Methodist University with a Bachelor of Science Degree in Business Administration.

Mr. Bunn has a widely diversified background in real estate appraisal, with particular emphasis upon major office and retail, as well as hotel type properties. Property types upon which full narrative appraisal reports have been made include warehouse, industrial plants, office buildings, motels, major first class hotels, resort hotels, apartments, shopping centers and numerous special purpose type properties. Mr. Bunn completes a semi-annual analysis of the Anchorage office market and compiles a semi-annual market letter. He is a published author of technical articles on the Anchorage office market.

The American Institute of Real Estate Appraisers conducts a voluntary program of continuing education for its designated members. MAI's and RM's who meet the minimum standards of this program are awarded periodic education certification. I am currently certified under this program.

The following is a partial list of agencies and clients for whom appraisal reports, feasibility studies and market analysis assignments have been prepared:

Carr-Gottstein Corporation
Rainier Real Estate Advisors
National Bank of Alaska
Quadrant Capital Investments
The Equitable Life Assurance Society
Goldbelt, Incorporated
Partnership Management Corporation
Alaska Electrical Pension Fund
Nationwide Life Insurance, Columbus, Ohio
Seafirst Bank, Seattle, Washington
Bristol Bay Native Corporation
Security Pacific Mortgage Corporation
Washington Mutual Savings Bank
The Rainier Fund, Seattle
United Bank Alaska
Alaska Mutual Savings Bank
Savings Bank of Puget Sound
Washington Mortgage
The Jack White Company
Kennedy Associates
Benedict Properties
State of Alaska, Division of Lands
Alaska National Bank of the North
Wells Fargo Bank
Sealaska Corporation

A partial list of properties for which appraisals and feasibility studies have been prepared are in included on the following page.

Appraiser's Experience Data
Ronald W. Bunn, MAI

Office

The Frontier Building
Resolution Plaza
Anglo Energy Building
Denali Towers North and South
4201 Tudor Centre
3111 "C" Street
Fifth Avenue Building
Goldbelt Plaza, Juneau
Resolution Tower
Alaska Mutual Bank
Chugach Alaska Building
Anchorage Business Park
First Interstate Bank at Tudor Centre
101 Benson
Peterson Towers
Sealaska Plaza, Juneau

Industrial

Anchorage Distribution Center
MarkAir Office & Cargo Building
ARCO Warehouse
Alaska International Air Freight Terminal
Air Cargo Center Nos I & II

Retail

Anchorage Fifth Avenue Mall
Northway Mall
Valley River Center
Dimond Center, Phases I, II & III
Cottonwood Creek Mall
Various other store front retail centers throughout Southcentral Alaska

Hotel Properties

Anchorage Hilton
Sheraton Anchorage
Captain Bartlett Inn, Fairbanks
Plaza Inn, Anchorage
Voyager Hotel, Anchorage
Juneau Hilton (Cape Fox)
Breakwater Inn, Juneau
Barratt Inn, Anchorage
Anchorage International Inn

Special Purpose Properties

Alyeska Resort
West Douglas Island & Echo Cove Properties, Juneau, Alaska
Sheldon Jackson College, Sitka
Zachar Bay Processing Plant, Kodiak Is.
Happy Horse Camp & Industrial Buildings, Deadhorse, Alaska

VICTORIA B. ADAMS
PROFESSIONAL QUALIFICATIONS

RECENT EXPERIENCE AT MUNDY & ASSOCIATES

- Public Interest Valuation of State Park land addition, Seaside, Oregon, January, 1989.
- Appraisal Assistance, Westmark Hotels, Alaska, January, 1989.
- Public Interest Value Appraisal Review, Alaska, December, 1988.
- Highest and best use analysis, Sitkalidak Island, Alaska, November, 1988
- Public Interest Valuation of Wildlife Lands, Karluk, Alaska, October, 1988.
- Elderly Housing market analysis, Kitsap County, Washington, October, 1988.
- Public Interest Valuation of Wildlife Lands, Afognak Island, Alaska, April, 1988.
- Fairbanks, Nenana, Delta Junction, Nome, Kotzebue and Barrow Communities social and economic analyses, Alaska, December 1987.
- Alaska State Economy annual update, November 1987.
- Downtown J.C. Penneys site retail market analysis, Seattle, Washington, November 1987.
- Lakewood-Tacoma Industrial Park Expansion market analysis, Tacoma, Washington, September 1987.
- Active Retirement and Congregate Housing market analysis, Bellevue, Washington, June 1987.
- Elderly Housing market analysis, Winslow, Washington, June 1987.
- Public Interest Valuation of Wildlife Lands, Sitkalidak Island, Alaska, April 1987.
- Review and critique of Economic Feasibility Analysis, Early Winters Ski Resort, April 1987.
- Impact analysis of Hazardous and Solid Waste Disposal Facilities on Residential Property Values, February 1987.
- Public Interest Valuation of Wildlife Lands, Kodiak Island, Alaska, January 1987.
- Elderly Housing market analysis, Grays Harbor and Pacific counties, Washington, October 1986.

RELATED EXPERIENCE

- Attitudinal survey of second home owners and permanent residents, Priest Lake, Idaho.
- The Effects of Recreational Development on Rural Land Uses and Community Structure (M.A. Thesis, 1986).
- Valuation methodologies for assessing aesthetic and recreational resources.
- Optimal location analysis of public health facilities in Idaho counties.
- Carrying Capacity Analysis of natural resources, environmental thresholds and public services, Lake Tahoe, California.
- Historical research: California Theatre in the Gold Rush Era, for Knotts Berry Farm, Inc.

EDUCATION

M.A. Geography/Resource Analysis, 1986
University of Washington, Seattle, Washington

B.A. Interdisciplinary Studies, 1979
University of the Pacific, Stockton, California

AFFILIATIONS

Association of American Geographers

LINDA S. GLOVER

PROFESSIONAL QUALIFICATIONS

RECENT EXPERIENCE AT MUNDY & ASSOCIATES

- Block 2, Seattle Central Business District, retail and residential market study, December, 1988.
- Condemnation appraisal research, Salem, Oregon, November, 1988.
- Highest and best use study, Normandy Park, Washington, October, 1988.
- Land appraisal, Union Pacific Railroad, October, 1988.
- Valuation update, Brooks Range Supply, Deadhorse, Alaska, October, 1988.
- Golf and Country Club market analysis and survey, Gig Harbor, Washington, September, 1988.
- Key Bank appraisal, Fairbanks, Alaska, September, 1988.
- Multi-family market study, Krug/Blakely Development, Issaquah, Washington, September, 1988.
- Kent Valley Industrial market study, August, 1988.
- Downtown Seattle office market study, August, 1988.

EDUCATION

M.B.A. , Marketing/Finance
University of Washington, Seattle, Washington

B.A. , Sociology/Anthropology
Western Washington University, Bellingham, Washington