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September 29, 2014

Commissioner Joe Balash
State of Alaska, Department of Natural Resources
Office of the Commissioner
550 West 7th Avenue, Suite 1400
Anchorage, AK 99501
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Re: Appeal of September 8, 2014 Final Decision of Division of Parks and Outdoor Recreation Denying Cook Inlet Aquaculture Association's Application for Special Park Use Permit for Tutka Bay Temporary Salmon Net Pens (LAS 29920)
Our File No. 10776.007

Dear Commissioner Balash:

Pursuant to 11 AAC 02, Cook Inlet Aquaculture Association ("CIAA") appeals the final decision (the "Decision") of the Director of the Division of Parks and Outdoor Recreation (the "Director") denying the issuance of a special park use permit to CIAA to allow it to temporarily relocate ten of its net pens from its Tutka Bay Lagoon hatchery to a different location in Tutka Bay.

I. INTRODUCTION

The State of Alaska built and began operating a fish hatchery in Tutka Bay within what is now Kachemak Bay State Park (the "Park") in 1975. CIAA began operating the hatchery for the State in 1991. The hatchery consists of a main hatchery building, several outbuildings, and supporting equipment, including a net pen complex used in the final

stage of rearing fish before releasing them into the wild. DNR's current management plan for the Park explicitly identifies fishery enhancement as a goal for the Park, and repeatedly characterizes fishing as an important recreational and commercial activity in the Park.

CIAA recently submitted an application to DNR to temporarily relocate ten of its hatchery net pens from in front of the hatchery to another area in Tutka Bay.[1] This request was the result of CIAA's consultation with the Alaska Department of Fish and Game ("ADF&G"), with ADF&G specifically concluding that moving the net pens to the proposed sites in Tutka Bay would be best for the hatchery fish and the overall health of the fishery.

The Director denied CIAA's application on the sole basis that allowing net pens in Tutka Bay would interfere with the "view shed" in the Park.[2] The Decision reflexively concluded that any structure that can be seen in the Park interferes with the "view shed" and thus cannot be permitted. DNR's own regulations, however, specifically allow for certain structures to be erected (permanently or temporarily) within state parks under a four-part balancing test set forth in 11 AAC 18.025(c).

The Director improperly applied this regulation, did not take into account or mention the existing Park management plan supporting CIAA's hatchery activities in Tutka Bay, did not acknowledge that there has been an operating (and quite visible) fish hatchery in Tutka Bay for over 40 years, and did not review recently submitted public comments supporting hatchery activities within the park. Accordingly, the Decision represents an arbitrary and unjustified departure from DNR's current Park management plan.

Further, the Director did not consider the overall public interest in denying CIAA's permit. While the Director considered the fact that CIAA's submerged net pens may be visible during their temporary placement, he did not consider the public benefits conferred by CIAA's hatchery activities, that ADF&G believed that moving the net pens

[1] Ex. 1 (permit application).

[2] Ex. 2 (Director's Determination of Sept. 8, 2014) (hereinafter "Director's Decision").

was in the best interests of the fishery, or that the public itself has informed DNR that it supports hatchery and fishing activities in Tutka Bay.

For these reasons, CIAA respectfully requests that the Decision be reversed and CIAA's permit be granted.

II. FACTUAL BACKGROUND

A. Background on CIAA

CIAA was founded in 1976 to provide the Cook Inlet drainage with self-perpetuating salmon stocks and to rehabilitate salmon stocks and habitat. CIAA is one of five regional private non-profit aquaculture associations created in response to the Alaska Legislature's passage of legislation encouraging the creation of private non-profit salmon hatcheries.[3]

In furtherance of its mission to sustain and enhance salmon fisheries, CIAA engages in hatchery management as well as habitat protection and restoration activities. CIAA produces hatchery-born ocean-raised wild salmon for the commercial, sport, and personal use fisheries in Cook Inlet and the Susitna River drainage. CIAA's habitat protection and restoration activities include lake fertilization, flow control structure operation, fishway management and construction, habitat surveying, and educational programming.

[3] This legislation is known as the Private Non-Profit Hatchery Act and its provisions are now codified at AS 16.10.375 *et seq.* The Act's stated purpose was to "authorize the private ownership of salmon hatcheries by qualified non-profit corporations for the purposes of contributing, by artificial means, to the rehabilitation of the State's depleted and depressed salmon fishery." *Id.* Other qualified regional aquaculture associations include: (1) Prince William Sound Aquaculture Corporation (based in Cordova); (2) Kodiak Regional Aquaculture Association (based in Kodiak); (3) Northern Southeast Regional Aquaculture Association (based in Sitka); and (4) Southern Southeast Regional Aquaculture Association (based in Ketchikan).

CIAA's salmon enhancement, rehabilitation, and restoration activities are guided by both its Board of Directors and the Cook Inlet Regional Salmon Enhancement Plan.[4] CIAA's activities are regulated by ADF&G and the Alaska Board of Fisheries, and CIAA works closely and collaboratively with both agencies toward the common goal of protecting, promoting, and enhancing Cook Inlet's salmon fisheries.

CIAA's activities are funded through periodic state and federal grants, state loans, licensing a portion of returning hatchery salmon for a fee to seafood processors who in turn catch and sell the fish (cost recovery), and a voluntary 2% salmon enhancement tax paid by commercial fishermen.

CIAA owns and/or operates four hatchery facilities, including the Tutka Bay Lagoon Hatchery. The Tutka Bay Lagoon Hatchery is owned by the State of Alaska and operated by CIAA under contract with ADF&G and is permitted to produce pink salmon fry for release to Tutka Bay and Kachemak Bay. It also serves as a remote rearing site for sockeye salmon smolt for the State-owned Trail Lakes Hatchery, which CIAA likewise operates under contract with ADF&G. The Trail Lakes Hatchery is permitted to produce sockeye and coho salmon for release at selected sites throughout the Cook Inlet watershed. The Eklutna Hatchery is owned by CIAA and is located on land now owned by the State of Alaska. While the Eklutna Hatchery is not currently in active production, CIAA uses it as a backup facility and ADF&G uses it to support its sport fishing enhancement activities. Finally, CIAA recently acquired the fish hatchery in Port Graham located on land owned by the Port Graham Corporation and the Village of Port Graham. CIAA is in the process of renovating the facility with the goal of soon returning it to its full permitted production levels.

B. CIAA's Tutka Bay Lagoon Hatchery

The Tutka Bay Lagoon Hatchery is a State of Alaska-owned facility that is operated by CIAA under Private Non-Profit Permit #32 issued in 1994. ADF&G constructed the hatchery in 1975 and operated the facility until 1991, when CIAA was

[4] This Plan is formulated by a regional planning team consisting of multiple stakeholders in the Cook Inlet fisheries.

contracted to operate the facility.[5] The Tutka Bay Lagoon Hatchery is primarily a pink salmon facility with a permitted capacity of 125 million pink salmon eggs annually.

The Hatchery facility consists of a hatchery building, a settling tank, and numerous outbuildings.[6] The outbuildings include a shop, pump house, generator building, three small storage buildings for hatchery equipment, two three-bedroom houses, a studio suite apartment, and accommodations for seasonal employees, which include a common kitchen and four small cabins. The facility also includes an existing net pen complex of twelve net pens.[7]

In addition to rearing pink salmon, CIAA uses the net pen complex in Tutka Lagoon as a remote rearing site for sockeye salmon smolts incubated at Trail Lakes Hatchery. Future returns from the smolts released in the lagoon will be used as a brood source for the Lower Inlet Lakes (Leisure, Hazel, and Kirschner) Enhancement Project.

In 2004, due to poor pink prices, CIAA elected to suspend hatchery operations until the pink market improved. In 2011, CIAA resumed operations with the goal of returning the hatchery to its permitted capacity. To reach this goal, CIAA is now rebuilding the hatchery broodstock. CIAA was successful in collecting sufficient adult pink salmon in 2011 and 2012 to ensure that adult returns in 2013 and 2014 would be sufficient to meet hatchery operating requirements (up to 125 million pink salmon eggs).

In order to provide economic resources for the hatchery while rebuilding the Tutka broodstock, CIAA received ADF&G approval to collect fish/eggs from Windy Bay (2011) and Port Graham Bay (2012). CIAA also received ADF&G approval to short-term rear the resulting progeny in net pens located at Halibut Cove (2011 Windy Bay stock; Park Use Permit 12-KA-1185) and Port Graham Bay (2012 Port Graham stock).

In 2013, CIAA began collecting pink salmon eggs from adult returns to the Tutka Bay Lagoon Hatchery. CIAA had pink salmon fry that it needed to release into the ocean. It is common fish culture practice to transfer pink salmon fry to net pens in the

[5] Ex. 3 (current contract between CIAA and ADF&G).

[6] Ex. 4 (photos of the Hatchery facility).

[7] Ex. 5 at 1 (aerial photo of the existing Hatchery net pen complex).

waters outside a hatchery to be short-term reared for two to three months before being released. It is this need to use the net pen complex at Tutka Bay that gave rise to CIAA's permit application.

C. The 1995 Kachemak Bay Management Plan Supports Fishery Enhancement—and Tutka Bay Lagoon Hatchery Operations—as an Important Park Goal.

In 1995, DNR issued a management plan for Kachemak Bay State Park and Kachemak Bay State Wilderness Park ("1995 Management Plan").[8] The plan was developed after extensive consultation with the Park's citizen's advisory board, state and federal agencies, and the public. Its introduction provides the following description:

> The plan guides the management and development of Kachemak Bay State Park. It describes the park's natural, cultural, and recreation resources. It lists and discusses issues that affect the park. It also describes current and projected recreation demand, and makes recommendations for management and facility development that reflect the park's qualities and recreation opportunities.[9]

The introduction acknowledges that Kachemak Bay State Park was legislatively designated a scenic park, and quotes both AS 41.21.131 (establishing it as a "scenic park") and AS 41.21.990 (defining "scenic park").[10]

The 1995 Management Plan explicitly identifies fishery enhancement as a goal for the Park, and repeatedly characterizes fishing as an important recreational and

[8] Ex. 6 (1995 Management Plan).

[9] *Id.* at 13.

[10] *Id.* at 14.

commercial activity in the Park in general and Tutka Bay in particular.[11] It specifically references CIAA's Tutka Bay Lagoon Hatchery, extolling its virtues as an attraction for visitors:

> Formerly operated by the Alaska Department of Fish and Game, the Tutka lagoon hatchery is now operated by the Cook Inlet Aquaculture Association. **The hatchery has provided an important sport and commercial pink salmon fishery, attracting commercial and sport fishers to the area.**[12]

DNR's determination that fishery enhancement was both a compatible and beneficial Park activity, as embodied in the 1995 Management Plan, was in accordance with the views and preferences of the public. In a section of the 1995 Management Plan entitled "Trends and Implications," DNR stated that "Visitor use data and public preference surveys show an increasing demand for boating/fishing facilities and access, for trails and trail-related activities, and for public use cabins."[13] As discussed below, based on recent information collected by DNR, the public's interest in and desire for increased fishery activities continues today.[14]

In embracing fishery enhancement activities as a legitimate and beneficial Park purpose, the 1995 Management Plan did not ignore the statutory requirement that the Park be maintained and protected as a scenic park. Rather, it expressly found fishery enhancement activities to be compatible with the scenic park designation. The 1995 Management Plan determined—in a section containing its analysis of compatible and

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[11] *E.g., id.* at 40 ("Fishery enhancement programs in the area attract sport and commercial fishers to park waters. Enhancement programs are active in Tutka Lagoon, China Poot Bay, and Halibut Cove Lagoon."); *id.* at 41 ("The area from Neptune Bay to Tutka Bay is rugged. The steep mountain slopes end abruptly at salt water in both Sadie Cove and Tutka Bay. There are few attractive overnight campsites or hiking trails. Sport fishing, kayaking, and clam digging are popular activities in this part of the park.").

[12] *Id.* at 49 (emphasis added).

[13] *Id.* at 42; *see also id.* at 41 ("Five of the top six outdoor recreation activities Alaskans favor most are available in the park; sport fishing, hiking, walking, hunting, and tent camping.").

[14] *See infra* at Section III(C)(2).

incompatible uses—that "fisheries enhancement/restoration" was "conditionally compatible, under DPOR permit," as long as "equipment [is] removed and the site restored following project completion."[15] Thus, under DNR's established policy as expressed in the 1995 Management Plan, salmon net pens installed temporarily under a permit are compatible with the Park's scenic nature.

D. CIAA's Temporary Net Pen Permit Application and DNR's Denial.

Historically, all of the pink salmon fry at the Tutka Bay Lagoon Hatchery were transferred to net pens within Tutka Bay Lagoon in front of the hatchery complex. However, CIAA and ADF&G have determined that there may be a better strategy for the hatchery and for the management of the resulting fishery.[16] Therefore, CIAA and ADF&G have explored using alternative remote rearing sites to rear the majority of the pink salmon fry (up to 80 million). The remaining 20 million fry would be reared at Tutka Bay Lagoon.

On April 29, 2013, CIAA applied for a permit that will allow it to annually (April/May) move up to ten individual net pen structures that are stored at Tutka Bay Lagoon during the off season to a remote rearing site elsewhere in Tutka Bay.[17] Selection of potential remote rearing sites was based on: (1) impacts to other natural salmon populations; (2) freshwater for imprinting; (3) management of the commercial fishery; (4) staffing and site logistics (ability to access, anchoring, water quality etc.); and (5) impact to users of the park. Based on these criteria, CIAA and ADF&G identified three potential sites within Tutka Bay.[18] Of these three sites (A, B, and C), Site C at the headwaters of Tutka Bay best meets the identified criteria and was the only area fully acceptable to ADF&G. CIAA's permit application presented all three sites as options.

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[15] Ex. 6 at 61. All structures were found to be incompatible in wilderness zones, but Tutka Bay is in a natural zone, where structures were deemed compatible. *Id.* at 74-75 (maps of land use zones, showing Tutka Bay in a "Natural Zone").

[16] Attached as Exhibit 7 are two ADF&G internal analyses explaining the agency's findings regarding the proposed remote release sites.

[17] Ex. 1.

[18] *See* Ex. 7 (ADF&G analyses) (addressing biological and fishery management considerations supporting the proposed sites); Ex. 1 at 7 (map of proposed sites).

The net pens measure 50' x 50' and have a 1' – 2' steel walkway. They will be anchored at a minimum at the four corners and at the center on each side. All anchor lines will be marked with buoys. A small structure will be attached for storing of small equipment associated with fish culture (nets, rope, and water quality meters). The net pens will be linked together and will be anchored to the bottom using anchors.[19]

Once the net pens have been deployed, CIAA will transport, via boat, up to 80 million pink salmon fry to the pens. Each pen will hold 8 million pink salmon fry. These fry will be reared in these pens until mid- to late June. At this time, the fry will be released and the net pens removed and stored back at Tutka Bay Lagoon until the next fry rearing season. Staff will commute daily to the net pen site from Tutka Bay Lagoon Hatchery to culture and rear the fish as well as maintain the facility. No living quarters will be available on site.

Approximately 80 million pink salmon fry will be reared and released from Tukta Bay and an additional 20 million pink salmon fry at Tutka Bay Lagoon. It is expected this release of pink salmon fry will result in up to 3 million adult pink salmon returning to the area (combined Tutka Bay and Tutka Bay Lagoon), providing opportunity for the common property fishery. At current prices ($0.35/lb), these 3 million returning adult pink salmon could result in a realized ex-vessel value of $3,360,000. All of this information was contained in CIAA's permit application.

On September 8, 2014, the Director of the Division of Parks and Outdoor Recreation denied CIAA's application.[20] The denial was made pursuant to 11 AAC 18.010, which disallows specified activities within state parks without a permit. The Director based his determination on his conclusion that:

> Placing floating net pens will detrimentally impact the view shed within the park thereby conflicting with the enabling legislation. CIAA's proposed activities would result in use of park waters for a non-recreational purpose that is not consistent [with the] park's statutory purpose. In addition,

[19] Ex. 1 at 8-10 (diagrams of proposed net pen structures); Ex. 5 at 2 (photo of comparable net pen complex at CIAA's Port Graham facility).

[20] Ex. 2 (Director's Decision).

CIAA's proposed activities may impede the public's access to recreational opportunities.[21]

E. Consequences of Permit Denial

As noted, CIAA worked closely with ADF&G to identify optimal net pen placement to ensure the health of the hatchery fish as well as the overall fishery in and around Tutka Bay. Not allowing CIAA to place its net pens in any remote location within the Park not only undermines these goals but also the reasoned decision of another State agency. Further, jeopardizing the success of CIAA's fish rearing at Tutka Bay Hatchery negatively impacts the commercial, sport, and personal use fishers who rely on CIAA's hatchery fish.

III. ARGUMENT

A. Legal Standards

11 AAC 18.010(a)(4) provides that no person may, without a permit, "construct[] or plac[e]an improvement, structure, or property within a [state] park, including a sign (with the exception of a state regulatory marker), fixture, shelter or cabin, personal property, road, trail, excavation, fill, or buttress[.]" However, 11 AAC 18.025(c) provides that the Director may issue a permit for these activities within a state park if he determines that:

(1) Park facilities and natural and cultural resources will not be adversely affected;
(2) The state park is protected from pollution;
(3) Public use values of the state park will be maintained and protected; and
(4) The public safety, health, and welfare will not be adversely affected.

In addition, DNR has a constitutional and statutory mandate to manage state lands in the public interest.[22]

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[21] *Id.* at 3.

Here, the Director denied CIAA's application solely on the grounds that that the net pens would not protect or maintain the public use values of the park. Specifically, the Director concluded that placing temporary net pens submerged in the waters of Tutka Bay was not consistent with the scenic purposes of the Park, and that the net pens would "detrimentally impact the view shed within the park."

The Director otherwise concluded that there was no adverse effect on natural resources, there was no risk of pollution, and that there was no adverse effect on the public health and welfare.

The Director's decision requires reversal because: (1) his reliance on a single factor of 11 AAC 18.025(c), rather than considering all factors together, was error; (2) his analysis of the "public use values" of the Park was legally and factually flawed; (3) his factual findings were not supported by the record; (4) his decision reversed long-standing DNR policy of supporting CIAA's hatchery activities in the Park; and (5) he failed to address the public interest and balance the numerous considerations present in this case.

B. The Director Improperly Applied 11 AAC 18.025(c).

The four-factor test of 11 AAC 18.025(c) is intended to guide the Director's decision to grant or deny a permit by providing standards that allow a thorough and reasoned evaluation of the proposed use's impacts on the Park. Here, however, the Director failed to give proper consideration to all four factors. Instead, his Decision was based solely on the third factor (public use values). The Director found that all of the other three factors supported granting the permit, yet allowed a single perceived defect regarding the public use value factor to govern his entire decision. This reliance on a single factor of a four-factor test constituted a misapplication of 11 AAC 18.025(c) and was legal error.

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[22] *See, e.g.,* AS 38.05.020; *Kachemak Bay Conservation Soc'y v. State*, 6 P.3d 270, 276 (Alaska 2000).

C. The Director's Findings Regarding the Public Use Values of the Park Are Flawed.

1. The Director Did Not Identify Any Public Use Value that Would Be Adversely Affected in a Manner Justifying Denying CIAA's Permit Request.

Even if reliance on a single factor in 11 AAC 18.025(c) were appropriate, the Director's findings on the third factor here were unsupported by the facts and the law. The third factor requires the protection and maintenance of "public use values of the state park[.]"[23] The Director found that: (1) the net pens may conflict or interfere with recreational boating; (2) the net pens would increase commercial boating in July and August; and (3) the scenic resources of the park would be negatively impacted.[24] But these findings do not identify any "public use values" that would be adversely affected by the seasonal presence of temporary net pens.

Of the Director's three findings on this factor, only the first—recreational boating—implicates an actual public use value. It is, however, unsupported by the evidence because it is directly contradicted by the Director's earlier acknowledgement that all three of the proposed net pen sites are "off shore and in areas where boat traffic is dispersed."[25] It is unclear how temporary, seasonal net pens in low-traffic areas would interfere with recreational boating. The Director's second finding, which references commercial boat activity, is problematic because it merely states that commercial traffic may increase but does not identify any public use value that would be impacted by the alleged increase. Further, the Director does not acknowledge that commercial traffic has been frequenting the area for years due to the hatchery and adjacent commercial fisheries.

The Director's third finding on this factor—that the Park's "scenic resources" would be affected because of the purported interference with the view shed—provides the primary reason for his denial of the permit. However, it was legal error for him to deny

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[23] 11 AAC 18.025(c)(3).

[24] Director's Decision at 2-3.

[25] *Id.* at 2.

the permit on these grounds. Notably, not one of 11 AAC 18.025(c)'s four factors mandates unconditional protection of the Park's view shed. The reason for this is clear on the face of the regulations: by definition, *any* use under 11 AAC 18.010(a)(4) interferes with the park's view shed, as every use on that list (*e.g.*, signs, cabins) involves a visible physical presence. This fact does not render them automatically incompatible; it merely renders them subject to the four-factor test, which allows a more holistic analysis to take place.

Further, the fact that the Park is a "scenic" park under State law does not support denying any permit for a structure that may interfere with the view shed, *i.e.*, is visible. Again, any use permitted under 11 AAC 18.025(c) involves a visible structure. Concluding no visible structure may be erected within a scenic Park reads this regulation out of existence. Further, DNR's existing Park management plan has already addressed the specific balancing between the Park being a "scenic" park and the various activities taking place in the Park. As noted, it expressly found CIAA's fishery enhancement activities to be compatible with the scenic park designation.[26]

For these reasons, potential interference with the Park view shed, by itself, is therefore not a valid reason to deny a use permit to build a visible structure as a matter of law.

2. The Director Failed to Consider Important Evidence in Evaluating Protection of Public Use Values.

The Director's finding on the public use value factor is also unsupported by the facts because it fails to consider significant evidence of actual public use values. Information recently solicited from the public by DNR itself demonstrates strong support for fishery enhancement and hatchery activities within the Park.

[26] *See supra* Section II(C).

In 2013, DNR initiated a planning process to revise the 1995 Park Management Plan.[27] To ensure that the new plan meets the needs and preferences of the public, it solicited information through a public scoping process, which concluded on May 15, 2014.[28] One of the mechanisms for soliciting public comments was a questionnaire seeking input regarding recreation use, access, and facilities for the parks.[29] Despite the fact that questionnaire did not provide fishery enhancement (or related activities) as a response option, that answer was one of the most frequently provided responses in the write-in areas. In response to questions about why they chose to visit the Park, what activities they enjoyed while at the Park, what uses they considered appropriate for the Park, and what they liked most about the Park, respondents wrote in "hatchery operations," "anchored net pens," and "salmon enhancement."[30] They also identified restrictions on these activities as one of the things they liked least about the Park.[31]

This information represents the best evidence of current public use values and should have been considered by the Director in his analysis of the public use value factor. It was solicited by DNR, available to the Director at the time the denial was made, and unquestionably relevant to the subject matter of the permit application. The Director's failure to consider it was error.

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[27] Ex. 8 (Alaska Department of Natural Resources, Division of Parks & Outdoor Recreation, Kachemak Bay State Park and State Wilderness Park Planning webpage, captured on Sept. 19, 2014, *available at* http://dnr.alaska.gov/parks/plans/kbay/kbayplan.htm).

[28] *Id.*

[29] Ex. 9 (Kachemak Bay State Park and Kachemak Bay State Wilderness Park Planning Update, *available at* http://dnr.alaska.gov/parks/plans/kbay/kbayplan.htm) (aggregating questionnaire responses).

[30] *Id.*

[31] *Id.*

D. The Director's Factual Findings Were Not Supported by the Evidence.

The Director's factual findings that CIAA's temporarily-placed submerged net pens would "detrimentally impact the view shed within the park" and impede the public's "access to recreational opportunities" are not supported by the evidence.

First, there is no evidence that proposed Site A will have any impact on any view shed within the Park. The Director's decision does not address proposed site A and contains no analysis of whether the net pens at this site would be visible from any travelled location, let alone whether viewing the net pens would have any "detrimental" impact on the viewer.

Second, the record similarly contains no evidence that Proposed Sites B and C will have a detrimental impact on the park's view shed, even assuming they are technically within sightlines of two recreational campsites. As indicated by CIAA's diagrams and descriptions, and the description relied on in the Director's Decision, anchored net pens are low-profile structures. Indeed, they are mostly submerged in the water (as they have to be for the enclosed fish to survive).[32] The Director cited no evidence or facts to support his apparent inference that low-profile submerged net pens at Proposed Sites B and C would actually be visible from the recreational campsites, and if so, what impact, if any, this visibility would have on the experience of Park users.

Third, the Director's concern over the purported visibility of the net pens ignores the reality of the existing Tutka Bay view shed. As noted, the Tutka Bay hatchery was constructed in 1975. Thus, the hatchery buildings and facilities, including the net pen complex at issue here, have been visible from areas in the Park for over 40 years.[33] Further, it is undisputed that commercial fishing activities, including various cost recovery harvests, have taken place in the same area over the same amount of time. It is hard to conceive how moving the preexisting net pens to a different location in the Park for a brief period of time will have any material impact on a Park view shed that already includes a fish hatchery, numerous fishing boats, and these same net pens.

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[32] *See* Ex. 5 at 2.

[33] *See* Ex. 4.

Fourth, the Director's concern regarding "the public's access to recreational opportunities" likewise disregards the status quo in Tutka Bay. Again, the public has managed to enjoy the Park in and around Tutka Bay for years while the Tutka Bay hatchery has been in operation in some form or another. There is no evidence that moving the net pens to a different location for a brief period of time will have any impact on the public's existing access and use of the Park. Indeed, the Director himself concluded that "[a]ll three [proposed] locations are off shore and in areas where boat traffic is dispersed."[34]

Finally, the Director's factual findings are contradicted by DNR's own management plan for the Park that *supports* CIAA's hatchery and fishery activities. As noted, the plan explicitly identifies fishery enhancement as a goal for the Park, and repeatedly characterizes fishing as an important recreational and commercial activity in the Park in general and Tutka Bay in particular. It is not reasonable to conclude that the entirety of CIAA's hatchery operations are consistent with Park purposes and then conclude that one small subset of these operations has such a negative impact on the view shed of the Park that it cannot be allowed.

E. The Director's Reversal of DNR's Longstanding Policy to Support CIAA's Tutka Bay Activities Was Arbitrary and Capricious.

The Director's Decision represents a sudden departure from the longstanding DNR policy of finding hatchery activity within the Park to be compatible with its designation as a scenic park. This policy is codified in the 1995 Management Plan discussed above which identifies fishery enhancement as an important Park function, praises CIAA's activities in Tutka Bay, and expressly states that fishery enhancement is a compatible use for the Park.[35] In rendering his denial of CIAA's temporary net pen permit application, the Director—without explanation—disregarded the entire 1995 Management Plan, opting instead for a purportedly strict application of the statutory definition of scenic parks.

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[34] Director's Decision at 2.

[35] *See supra* Section II(C).

The 1995 Management Plan demonstrates a careful sensitivity to different areas within the Park, recognizing that certain areas may be more or less appropriate for certain activities. Accordingly, it divides the Park into distinct zones: natural zones, wilderness zones, cultural zones, and recreational development zones.[36] Wilderness zones are the most restricted, while recreational development zones are the least restricted.[37] The Director's Decision ignores these subtleties and instead seeks to impose a strict construction of the scenic park statute—in effect, a wilderness zone standard—on the entire park. This goes against the 1995 Management Plan's designation of Tutka Bay as a natural zone, which is a moderate zone, and one in which hatchery operations are expressly categorized as a compatible use.[38]

Affirming the Director's Decision will give him free license to engage in arbitrary and capricious decision-making. If the Director is permitted to pick and choose when to follow the established policies of the 1995 Management Plan, and when to utterly disregard those policies, there will be no predictability, no consistency, and most importantly no discernible standards in his decisions. Accordingly, the Director's decision merits reversal, as it is an arbitrary, capricious, and unexplained departure from longstanding DNR policy.[39]

F. The Director Failed to Account for the Public Interest.

DNR is the state agency charged with managing state lands and resources for the maximum public benefit.[40] Accounting for the public interest inherently involves

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[36] Ex. 6 at 62.

[37] *Id.* at 55-58; *cf. id.* at 42 ("The public draws a sharp distinction between Kachemak Bay State Park and Kachemak Bay State Wilderness Park. Restrictive management practices and policies are favored for the wilderness park, to protect wilderness values.").

[38] *Id.* at 61.

[39] *Cf. Blas v. State, Dep't of Labor & Workforce Dev., Div. of Employment Sec.*, 331 P.3d 363, 373 (Alaska 2014), *reh'g denied* (Aug. 27, 2014) (longstanding agency interpretations entitled to weight).

[40] *See supra* n.22.

recognizing the numerous interests applicable to a given decision and balancing these interests. Yet the Director's decision here did not mention the public interest and made no attempt to balance the interests identified in his decision.

Specifically, the Director considered only one issue – whether temporarily placed submerged net pens would interfere with certain view sheds within the Park. As noted, the Director did not include as part of this analysis other existing structures in the Park or whether a small net pen complex would be sufficiently visible in enough areas of the Park to have anything more than a marginal impact. Putting that aside, the Director failed to consider in any way the public interest served by CIAA's activities and the fact that the proposed net pen placements were made after consultation with ADF&G, the state agency charged with protecting and managing state fisheries.

As noted, the record is clear that CIAA's hatchery activities at Tutka Bay benefit not only all fishery user groups (including sport, commercial, and personal use fishers), but the community as a whole by generating significant economic activity and opportunity. Denying CIAA the ability to rear and release its fish in the best manner undermines and jeopardizes CIAA's ability to continue providing these economic benefits to the public and to the State.

Further, the record establishes that the proposed net pen locations are, in the opinion of ADF&G, in the best interests of the overall fishery.[41] Promoting and protecting the overall health of the fisheries in Kachemak Bay is an important public interest. While ADF&G is primarily charged with fisheries management and protection, DNR cannot ignore this element of the public interest in its decision making. Here, the Director took an entirely myopic view of the issue at hand and only considered whether any visible structure would impact a view in any way and if so, the Director apparently believes the structure should not be permitted. The Director failed to balance the health of the fishery and the benefits of CIAA's activities against the fact that a few people may see submerged net pens (in addition to the hatchery and various fishing boats that frequent Tutka Bay) at certain times of the year when viewing Tutka Bay from certain locations. This failure to consider and balance the public interest is ground for reversal.

[41] Ex. 7 (ADF&G reports addressing biological and fishery management considerations supporting the proposed sites).

IV. CONCLUSION

Proper application of the four factors enumerated in 11 AAC 18.025(c) supports granting CIAA's permit request to temporarily relocate its net pens into a different area of Tutka Bay. The visual impact of the net pens is minimal, particularly when considering that the summer view shed in Tutka Bay already includes the hatchery, numerous sport and commercial fishing boats, *and these same net pens*. The public benefit of allowing CIAA to move its net pens is significant, as doing so allows CIAA to continue its hatchery activities and produce fish for sport, commercial and personal use fishers, all of which provide significant economic benefits to the Park region and the State. Further, ADF&G has already concluded that temporarily relocating the net pens is in the best interest of the overall fishery in Tutka Bay (and the Park generally). Therefore, both DNR's regulations and the public interest support granting CIAA's permit request. CIAA is willing to work with DNR regarding precise placement and to evaluate potential steps to mitigate any perceived negative impacts associated with temporarily relocating the net pens.

Given the importance of this issue and pursuant to 11 AAC 02.030(13), CIAA respectfully requests an oral hearing and further opportunity to build a factual record through the submittal of additional written materials. Alternatively or in addition to a hearing, CIAA requests a meeting with the Commissioner to discuss its permit request, provide additional materials, and answer any questions the Commissioner may have.

CIAA looks forward to hearing from the Commissioner's office and is available at any time to answer questions and provide additional information.

Very truly yours,

ASHBURN & MASON, P.C.

For Matthew T. Findley

Multi-Agency Permit Application

RIVER CENTER

Please answer all questions completely.

Applicant Information:

Name: Caroline Cherry
Cook Inlet Aquaculture Association
Owner? ☒ Yes ☐ No

Mailing Address:
(permits will be mailed to this address)
40610 Kalifornsky Beach Rd
Kenai, Alaska 99611

Phone (Home/Work): 907-283-5761
Cell Phone: 907-398-4504
Fax: 907-283-9433

E-Mail: CCherry@CIAAnet.org

Agent Information:

Name: _____

Mailing Address: _____

Phone (Home/Work): _____
Cell Phone: _____
Fax: _____

E-Mail: _____

Project Location:

Please complete all information including the legal description of the property or site location. This information can be found on your tax bill or by visiting the KPB Assessing Department website at www.borough.kenai.ak.us/assessingdept/default.htm.

Waterbody Name: Tutka Bay Lagoon Site A, Site B, Site C

River Mile: _____ ☐ Right or ☐ Left bank (looking downstream)

Subdivision: _____ Lot: _____ Block: _____

Township: _____ Range: _____ Section: _____

KPB Parcel Number: _____ Physical Address: _____

Directions to the site: _____

_____

Please Complete the Following:

1) This activity is a: ☐ new project ☒ modification, addition, repair, or replacement to an existing project

2) What is the purpose of this project? Move + expand net pen site from Halibut Cove to Tutka Bay. Net pen will be used for short-term rearing of pink salmon. Net pen structure will increase in size from 4 pens to 10 pens. Deployment time will be April - June annually.

Multi-Agency Permit Application – Page 2

3) Provide a detailed description of your entire project and all related activities. Attach additional pages if needed.
Please be sure that your description contains all of the following:

The location and dimensions of all existing and proposed development, including buildings, roads/driveways, pathways, building pads, accessory structures, and fill, as well as the location of any water bodies.

The type(s) and amount(s) of fill material to be used for the project. Include the location/source of the fill material.

The measurements of all new development, including platforms, walkways, structures, and bank restoration techniques. Please include measurements from water bodies and lot lines.

The area and volume of material to be dredged and the location of the disposal site.

A description of the waterbody, including wetlands to be filled. Include the types and volumes of each type of fill material.

A description of construction methods and types of equipment to be used.

If you are withdrawing water from a waterbody, a description of water use including location, methods of withdrawal, rate of withdrawal, and the total quantity of water required.

If fuel storage is required for your project, indicate the location, quantities, and types of fuel.

If vegetation or trees must be cleared as a result of your project, indicate the location, amount, and type of vegetation to be cleared.

The type(s) and amount(s) of material that will be excavated for the project. Include the location the excavated material will be placed.

See attached for details.

4) Proposed project start date: April 2014 Proposed project end date: June 2014 on annual basis

Estimated number of actual construction days: 90 days

5) If this project is within the limits of an incorporated city, please indicate city: NONE

6) Is the project located within 50 feet of ordinary high water (OHW) or mean high water (MHW) of a stream or waterbody? ☒ Yes ☐ No ☐ Not sure where OHW or MHW line is

Multi-Agency Permit Application – Page 3

7) Does any portion of the project cantilever or extend **over** the OHW or MHW of the stream or waterbody?
☒ Yes ☐ No ☐ Not sure where OHW or MHW line is

8a) Does any portion of the project extend **below** the OHW or MHW of the stream or waterbody?
☒ Yes ☐ No ☐ Not sure where OHW or MHW line is

8b) Will a structure (e.g., culvert, bridge support, dike) be placed below OHW, MHW, or High Tide Line (HTL) of the waterbody?
☒ Yes ☒ No Net pens.

9) Will material be extracted or dredged from

☐ Floodplain of a river, lake, or ocean N/A

☐ Tidal or non-tidal waters N/A

If you checked one of the above boxes, what type of material? N/A
What amount of material? N/A
Where will the material be deposited? N/A

10) Will material (including spoils, debris or overburden) be deposited in a

☐ Mapped floodplain or velocity zone of a river, lake or ocean N/A

☐ Tidal or non-tidal waters N/A

If you checked one of the above boxes, is the fill temporary ☐ or permanent ☐? N/A
If temporary, how long will it be in place? N/A
What type of material is it? N/A Amount? N/A
Identify the location(s) of any deposited material on the attached top-view site plan drawing.

11) What is the surface area (in acres) that would be filled, excavated, or dredged of any waters, including areas below the HTL or MHW of tidal waters, below the OHW of non-tidal waters and/or wetlands adjacent to tidal or non-tidal waters? None

12a) List all motorized equipment to be used in this project, including access route to site and any stream or waterbody crossings:
Boat access to site via Tutka Bay from Tutka Bay Lagoon Hatchery

12b) How long will motorized equipment be used **below** OHW, MHW, or the HTL?

13) Are there any threatened or endangered species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work? ☒ Yes ☒ No If yes, list all species:
Beluga whale critical habitat

Multi-Agency Permit Application – Page 4

14) Are there any historic properties that may be affected by the proposed work? ☐ Yes ☒ No If yes, state which property or properties may be affected and/or attach a vicinity map including the location of the historic property or properties.

15) Is any portion of the work already complete? ☐ Yes ☒ No If yes, describe the completed work:

16) Will utility systems, including water, electric, gas, etc. be developed? ☐ Yes ☒ No If yes, describe:

Application Checklist

Are pages 1 through 4 completely filled out? If a question does not pertain to your activity, write 'N/A'

Did you include a detailed project description?

Did you complete the Top View & Elevation/Side View drawings? Be sure to review the instructions for site plans and make sure all relevant information is included.

Did you include your permit fee (if applicable)? If your project is within State Park Boundaries or cantilevers over a State Park (which includes the Kenai River) a $50 fee is required at the time of application. Make checks payable to 'State of Alaska.' If you are not certain if a fee is required, contact State Parks at the River Center at (907) 714-2470.

Did you sign your application? If you have designated an agent to work the agencies on your behalf, they must also sign the application.

Application is hereby made for a permit or permits to authorize the work described in this application form. I certify the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

X Loudino K Cheny — April 29, 2013

Signature of Applicant — Date

If you designated an agent, both the applicant and agent must sign this application.

X _____ _____

Signature of Agent — Date

TUTKA BAY NET PEN INSTALLATION

Project Description

Tutka Bay Lagoon Hatchery, is a State of Alaska-owned facility. Currently, this facility is operated by Cook Inlet Aquaculture Association (CIAA) under the Private Non-Profit Permit #32 issued in 1994. Alaska Department of Fish and Game (ADF&G) constructed the hatchery in 1975 and operated the facility until 1991, after which CIAA was contracted to operate the facility. Tutka Bay Lagoon Hatchery is primarily a pink salmon facility with a permitted capacity of 125 million pink salmon eggs annually. In 2004, due to poor pink prices, CIAA elected to suspend operations until such time that pink prices improved. In 2011, CIAA resumed operations at the same permitted capacity.

In order to return the Tutka Bay Lagoon Hatchery to full production, CIAA must rebuild the hatchery broodstock. CIAA was successful in collecting sufficient adult pink salmon in 2011 and 2012 to ensure that adult returns in 2013 and 2014 will be sufficient to meet full capacity of the hatchery (125 million pink salmon eggs).

In order to provide economic resources for the hatchery while rebuilding the Tutka broodstock, CIAA received approval to collect fish/eggs from Windy Bay (2011) and Port Graham Bay (2012). CIAA also received approval to short-term rear the resulting progeny in net pens located at Halibut Cove (Windy Bay stock; 2011; Park Use Permit 12-KA-1185) and Port Graham Bay (Port Graham stock; 2012).

Starting in 2013, CIAA will be collecting 125 million pink salmon eggs from adult returns to Tutka Bay Lagoon Hatchery. This will result in 100 million pink salmon fry in 2014. It is common fish culture practice to transfer pink salmon fry to net pens to be short-term reared for two to three months before being released. Historically, all of these fry would be transferred to net pens within Tutka Bay Lagoon. However, it has been recognized by CIAA and ADF&G, that this strategy may not be the best for the success of the program and for the management of the resulting fishery. Therefore, CIAA and ADFG have discussed alternative remote rearing sites to rear the majority of the pink salmon fry (up to 80 million). The remaining 20 million fry will be reared at Tutka Bay Lagoon.

Selection of a remote rearing site is based on:

(1) impacts to other natural salmon populations,
(2) freshwater for imprinting;
(3) management of the commercial fishery;
(4) staffing and site logistics (ability to access, anchoring, water quality etc.); and

(5) impact to users of the park.

Based on these criteria, three potential sites within Tutka Bay have been identified (see map). Of these three sites, Site C at the headwaters of Tutka Bay best meets the identified criteria.

On an annual basis (month of April/May), CIAA will move up to ten individual net pen structures that are stored at Tutka Bay Lagoon during the off season. These pens will be linked together and will be anchored to the bottom using danforths anchors. Net pens are 50' * 50' with a 1' - 2' steel walkway. Net pens will be anchored at a minimum at the four corners and at the center on each side. All anchor lines will be clearly marked with bouys. A small structure will be attached for storing of small equipment associated with fish culture (nets, rope, water quality meters) and provide shelter for the staff while on site.

CIAA will then transport via boat, up to 80 million pink salmon fry once the pens have been deployed. Each pen will have 8 million pink salmon fry. These fry will be reared in these pens until mid to late June. At this time, the fry will be released and the net pens removed and stored back at Tutka Bay Lagoon until the next fry rearing season.

Staff will commute daily to the net pen site from Tutka Bay Lagoon Hatchery to culture and rear the fish as well as maintain the facility. No long term living quarters will be available on site.

See attached for:

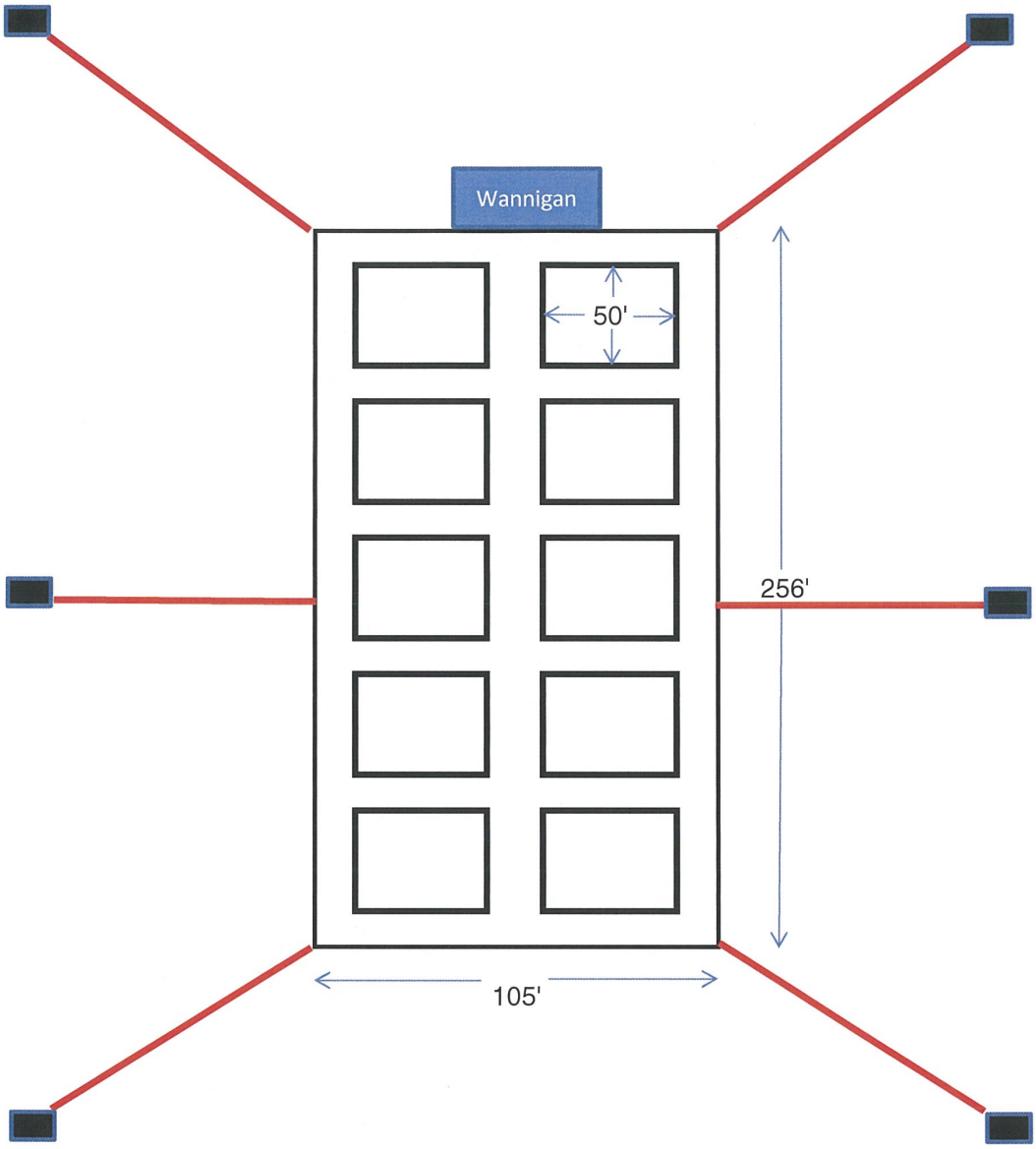
Google Earth - Overview of the 3 potential sites
Marine Chart of Tutka Bay Lagoon showing depth stratum.
Diagrams of Net Pen Structure

Benefits

Approximately 80 M pink salmon fry will be reared and released from Tukta Bay and an additional 20 M pink salmon fry at Tutka Bay Lagoon. It is expected this release of pink salmon fry will result in up to 3.0 million adult pink salmon returning to the area (combined Tutka Bay and Tutka Bay Lagoon), providing opportunity for the common property fishery. At current prices ($0.35/lb), these 3,000,000 returning adult pink salmon could result in a realized ex-vessel value of $3,360,000.

Site A
Site B
Site C
Tutka Bay Lagoon
Tutka Bay Lagoon, Alaska 99603, USA
Image U.S. Geological Survey
Imagery Date: 6/25/1997 59°28'37.09" N 151°

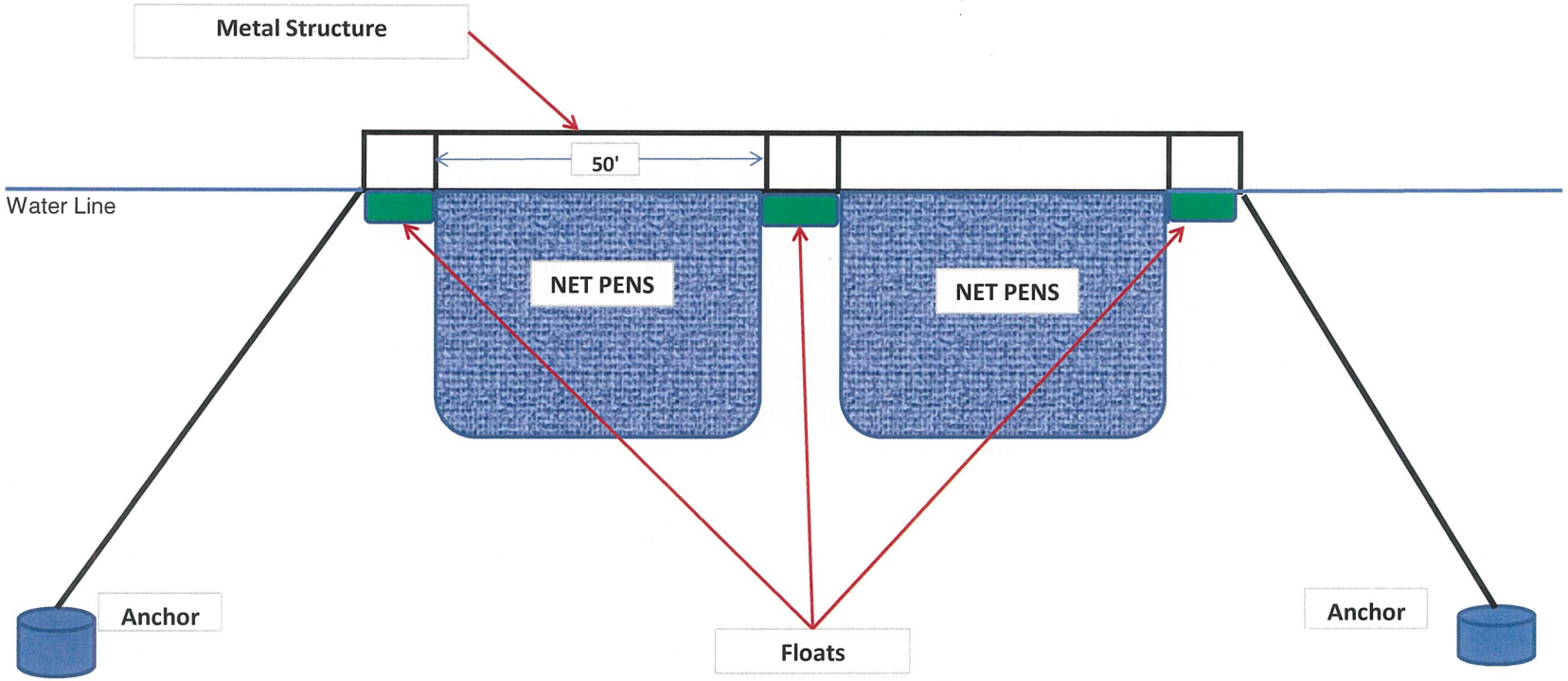
Tutka Bay Net Pen Structure Overview



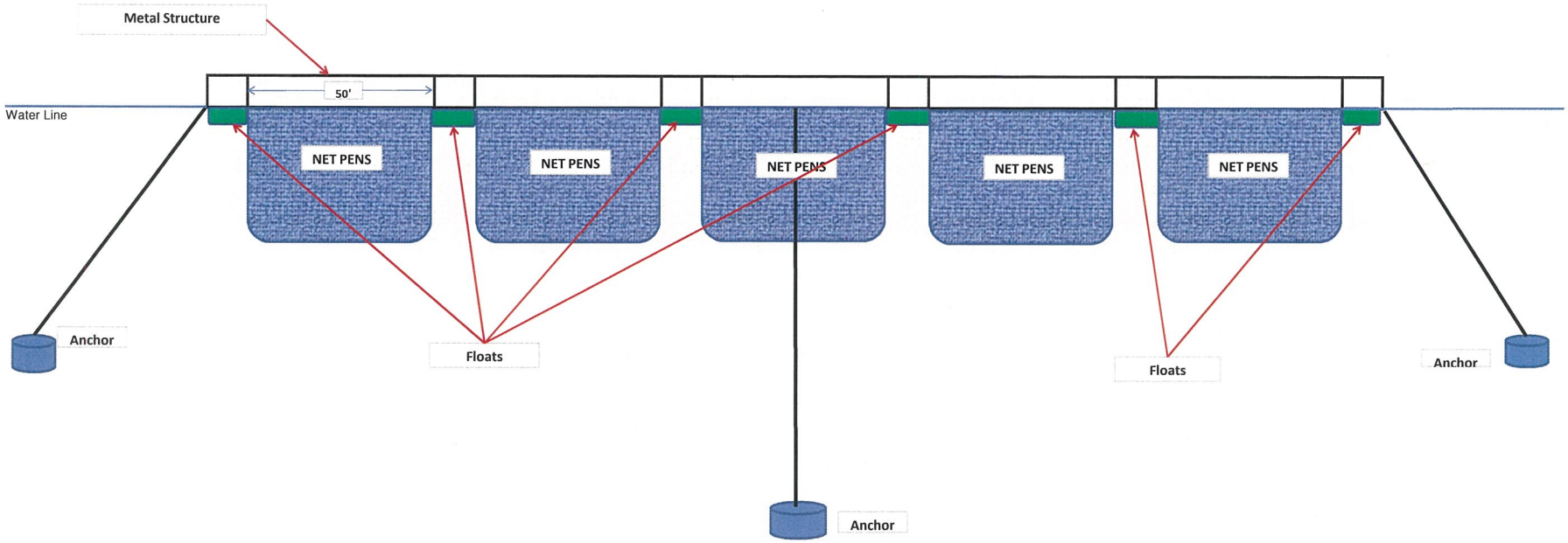
Anchor

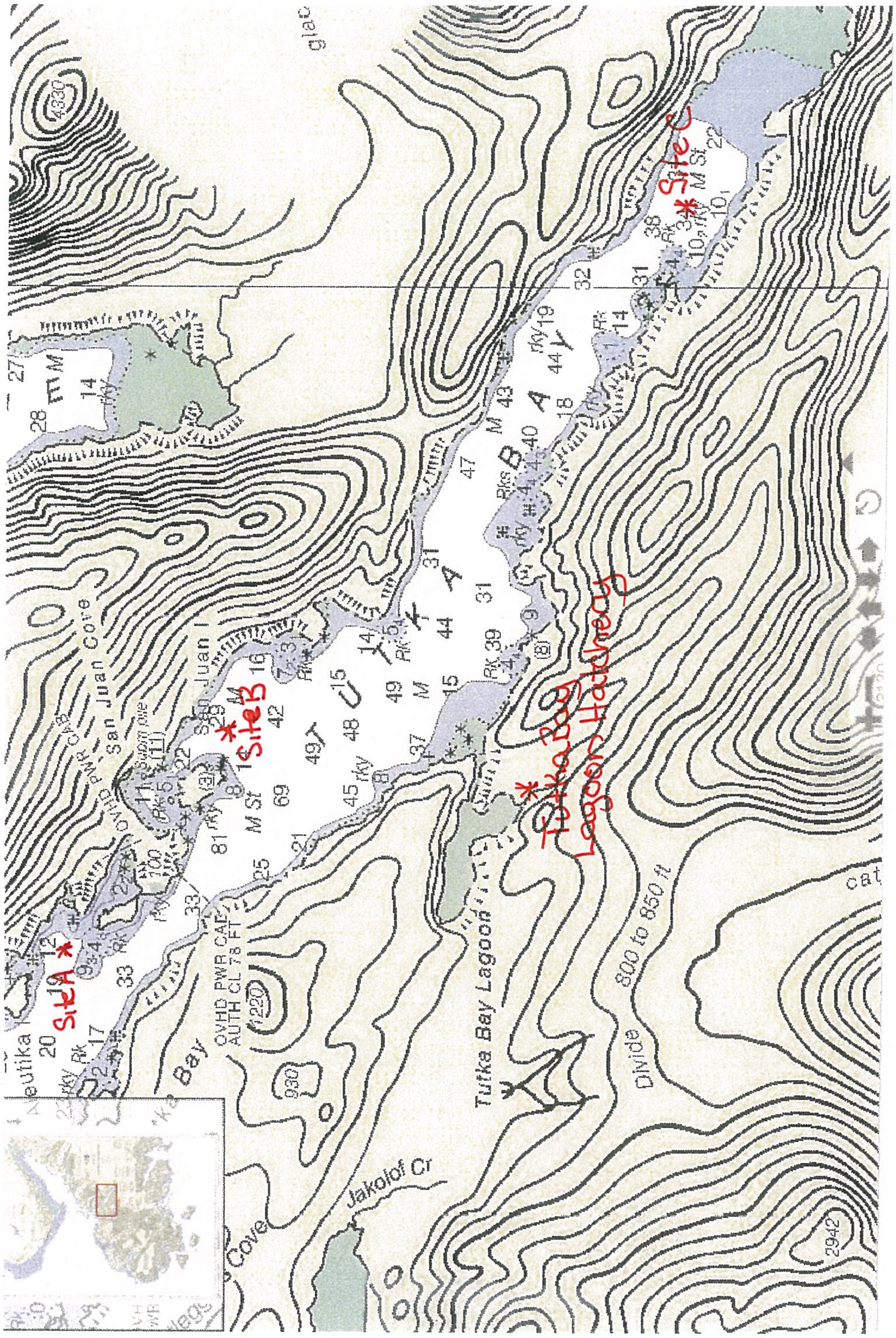
Anchor Line

Tutka Bay Net Pen Cross-Sectional Overview



Tutka Bay Lagoon Net Pen Cross-Sectional Overview




Site A
Site B
Site C
Tutka Bay Lagoon Hatchery
Tutka Bay Lagoon
TUTKA BAY
San Juan Cove
San Juan I
OVHD PWR CAB
AUTH CL 78 FT
Jakolof Cr
Divide
800 to 850 ft

State of Alaska
Department of Natural Resources
Division of Parks and Outdoor Recreation

Director's Determination
Special Park Use Permit (LAS 29920)
Cook Inlet Aquaculture Association
Tutka Bay – Kachemak Bay State Park

Proposed Action
Cook Inlet Aquaculture Association has applied to the Division of Parks and Outdoor Recreation (DPOR) for a special park use permit to place up to ten net pens from April-June annually in Tutka Bay within Kachemak Bay State Park for rearing pink salmon.

Scope of Activity
On April 29, 2013, CIAA submitted a special park use permit application to utilize waters within Kachemak Bay State Park for rearing pink salmon. As proposed by CIAA, ten 50' x 50' net pens would be used for short term rearing of pink salmon and deployed annually, from April to June. The ten net pens would utilize an area with dimensions of 105' x 256'. Three possible locations have been identified by CIAA in Tutka Bay for anchoring the net pens; all three locations are within Kachemak Bay State Park.

The net pen complex would be anchored at least at all four corners and at the center of each side. All anchor lines would be marked with bouys. During the time the net pens are located in state park waters, CIAA staff would monitor them daily and access the pens via motorized boat. After fry are released, the net pens would be removed and stored at the Tutka Bay Lagoon hatchery.

CIAA currently operates the Tutka Bay Lagoon Hatchery where primarily pink salmon are reared; the hatchery's permitted annual capacity is 125 million pink salmon eggs. CIAA collected 125 million pink salmon eggs from adult returns to the Tutka Bay Lagoon Hatchery in 2013; these eggs will produce an estimated 100 million pink salmon fry in 2014. Historically, all of these fry would be transferred to net pens located within the Tutka Bay Lagoon, however, it has been recognized by ADFG and CIAA that this practice "may not be the best for the success of the program and for the management of the resulting fishery" (CIAA special park use permit application 4/29/13). CIAA proposes to rear 20 million fry in net pens located within the lagoon and the remaining 80 million fry at one of three sites identified in Tutka Bay.

It is expected that this project will result in 3 million adult pink salmon returning to the area and providing opportunity for a common property fishery. At current prices this could result in a realized ex-vessel value of $3,360,000. A portion of the returning fish would be harvested and sold to recover costs incurred by CIAA for the project.

Authority
This special park use permit application is being adjudicated pursuant to the following statutes and regulations:

- 11 AAC 18.010 (4) (Special Park Use Permits)
- 11 AAC 18.025 (Procedure)

- AS 41.21.131 (Kachemak Bay State Park legislation)
- AS 41.21.990 (Definition of scenic park)

Management Plan
Kachemak Bay State Park and d State Wilderness Park Management Plan, March 1995. Tutka Bay is classified as a Natural Zone in the management plan.

Enabling Legislation
Kachemak Bay State Park was designated by the legislature in 1970. The park was established to protect and preserve the land and water for its unique and exceptional scenic value and "shall be managed as a scenic park" (AS 41.21.131(a)). The land and water in the state park is reserved from all uses incompatible with its primary function as a scenic park.

Procedure
Pursuant to 11 AAC 18.025 (c), the Director may, upon proper application, issue a permit for activities described in 11 AAC 18.010 (2) – (11), if he or she determines that:

1. Park facilities and natural and cultural resources will not be adversely affected;
2. The state park is protected from pollution;
3. Public use values of the state park will be maintained and protected; and
4. The public safety, health, and welfare will not be adversely affected

1 .*Will park facilities and natural and cultural resources be adversely affected?*
All three locations identified by CIAA for the net pens are within state park boundaries in Tutka Bay.

All three locations are off shore and in areas where boat traffic is dispersed.

Proposed net pen site B is across the bay and within the viewshed of the Sea Star Public Use Cabin and a developed campsite near the Tutka Lake trailhead. Proposed net pen site C is directly in front of a developed campsite.

There are no known cultural resources that would be affected.

As noted in the CIAA permit application, this activity could affect Beluga whale critical habitat (CIAA special park use permit application 4/29/13).

2. *Will the park be protected from pollution?*
The permittee will not be generating pollutants from this project and would be responsible for mitigating any damages that might occur by an unforeseen accident involving boat gas or any other hazardous substance. CIAA does not propose storing any fuel or hazardous substances on or in the net pens.

3. *Will public use values of the park be maintained and protected?*
The net pens will displace public use of park waters for recreational boating and may conflict or interfere with present recreational uses of the area. The cost recovery and common property fisheries will result in increased commercial boating activity in July and August when recreational use of the park is at or near its peak.

The scenic resources of the park in the Tutka Bay area, including views from the air as well as from the alpine trail along Grace Ridge, would be negatively impacted from this proposed activity.

4. *Will public safety, health and, welfare be adversely affected?*
It does not appear that this activity would adversely affect the public safety, health, and welfare. The applicant would be responsible for marking structures for all mariners so as to avoid any navigational hazard issues.

Analysis
The proposed activity is not consistent with the purposes of Kachemak Bay State Park (AS 41.21.131) which states that the park shall be managed as a scenic park. Alaska statute defines a scenic park to mean:

> "relatively spacious areas of outstanding natural significance, where major values are in their natural geological, 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 the natural values such as camping, picnicking, sightseeing, nature study, hiking, riding and related activities which involve no major modification of the land, forests or waters and without extensive introduction of artificial features or forms of recreational development that are primarily of urban character;" (AS 41.21.990(1))

Placing floating net pens will detrimentally impact the view shed within the park thereby conflicting with the enabling legislation.

CIAA's proposed activities would result in use of park waters for a non-recreational purpose that is not consistent park's statutory purpose. In addition, CIAA's proposed activities may impede the public's access to recreational opportunities.

Determination
After evaluating this proposal, it is the decision of the Director to not permit this activity in Kachemak Bay State Park and deny the issuance of a special park use permit to CIAA for the seasonal placement of ten net pens in the waters of Kachemak Bay State Park.

Ben Ellis, Director
Division of Parks and Outdoor Recreation
Department of Natural Resource

9-8-14
Date

Appeals

All appeals must be in accordance with 11 AAC 02. To be eligible for an appeal a person must be affected by this decision. An appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02(c) and (d) and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to dnr.appeals@alaska.gov. If no appeal is filed by that date, this decision goes into effect as a final order and decision on the 31st calendar day after the date of issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to the Superior Court. A copy of 11 AAC 02 may be obtained from any regional office of the Department of Natural Resources.

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Fish and Game

DIVISION OF ADMINISTRATIVE SERVICES
Procurement Office

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Phone: 907.465.6177
Fax: 907.465.6181
TTY: 800.478.3648

May 29, 2014

Gary Fandrei
Cook Inlet Aquaculture Association
40610 Kalifornsky Beach Road
Kenai, AK 99611

RECEIVED
MAY 31 2014
BY:_____

RE: Tutka Lagoon Hatchery IHP 14-100

Dear Mr. Fandrei:

Enclosed is a fully executed copy of IHP 14-100 for your file.

The Department's Project Director is Ron Josephson. Please direct all inquiries concerning this project to him at (907) 465-4088. Please refer to the above tracking numbers on all correspondence.

Kind regards,

Mindy Butler

Mindy Butler
Procurement Specialist II
E-mail: melinda.butler@alaska.gov

Enclosure

STANDARD AGREEMENT FORM FOR PROFESSIONAL SERVICES

1. Agency Contract Number	2. ASPS Number	3. Financial Coding	4. Agency Assigned Encumbrance Number
IHP 14-100			

5. Vendor Number	6. Project/Case Number	7. Alaska Business License Number

This contract is between the State of Alaska,

8. Department of	Division	
Fish and Game	Commercial Fisheries	hereafter the State, and

9. Contractor

Cook Inlet Aquaculture Association — Hereafter the Contractor

Mailing Address	Street or P.O. Box	City	State	ZIP+4
	40610 Kalifornsky Beach Road	Kenai	Alaska	99611

10.

ARTICLE 1. Appendices: Appendices referred to in this contract and attached to it are considered part of it.

ARTICLE 2. Performance of Service:

2.1 Appendix A (General Provisions), Articles 1 through 19, governs the performance of services under this contract.
2.2 Appendix B sets forth the liability and insurance provisions of this contract.
2.3 Appendix C sets forth the services to be performed by the contractor.
2.4 Appendix D sets forth financial considerations.
2.5 Appendix E sets forth environmental matters.

ARTICLE 3. Period of Performance: The period of performance for this contract begins July 1, 2011 and ends June 30, 2031.

ARTICLE 4. Considerations:

4.1 In full consideration of the contractor's performance under this contract, the State shall pay the contractor in accordance with the provisions of Appendix D.
4.2 When billing the State, the contractor shall refer to the Authority Number or the Agency Contract Number and send the billing to:

11. Department of	Attention: Division of
Fish and Game	Commercial Fisheries
Mailing Address	**Attention:**
P.O. Box 115526 Juneau, Alaska 99811-5526	PNP Hatchery Section Chief/Ron Josephson

12. CONTRACTOR		14. CERTIFICATION: I certify that the facts herein and on supporting documents are correct, that this voucher constitutes a legal charge against funds and appropriations cited, that sufficient funds are encumbered to pay this obligation, or that there is a sufficient balance in the appropriation cited to cover this obligation. I am aware that to knowingly make or allow false entries or alterations on a public record, or knowingly destroy, mutilate, suppress, conceal, remove or otherwise impair the verity, legibility or availability of a public record constitutes tampering with public records punishable under AS 11.56.815-.820. Other disciplinary action may be taken up to and including dismissal.
Name of Firm: Cook Inlet Aquaculture Association		
Signature of Authorized Representative: Gary Fandrei	Date: 5/20/14	
Typed or Printed Name of Authorized Representative: Gary Fandrei		
Title: Executive Director		
13. CONTRACTING AGENCY		Signature of Head of Contracting Agency or Designee: for	Date: 5/24/14
Department/Division: Commercial Fisheries	Date: 5/27/14	Typed or Printed Name: John White
Signature of Project Director		Title: Procurement Officer
Typed or Printed Name of Project Director: Joseph Hall		
Title: Administrative Operations Manager II		

NOTICE: This contract has no effect until signed by the head of contracting agency or designee.

02-093 (12/03/02)

APPENDIX A
GENERAL PROVISIONS

Article 1. Definitions.

1.1 In this contract and appendices, "Project Director" or "Agency Head" or "Procurement Officer" means the person who signs this contract on behalf of the Requesting Agency and includes a successor or authorized representative.

1.2 "State Contracting Agency" means the department for which this contract is to be performed and for which the Commissioner or Authorized Designee acted in signing this contract.

Article2. Inspection and Reports.

2.1 The department may inspect, in the manner and at reasonable times it considers appropriate, all the contractor's facilities and activities under this contract.

2.2 The contractor shall make progress and other reports in the manner and at the times the department reasonably requires.

Article 3. Disputes.

3.1 Any dispute concerning a question of fact arising under this contract which is not disposed of by mutual agreement shall be decided in accordance with AS 36.30.620-632.

Article 4. Equal Employment Opportunity.

4.1 The contractor may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, or because of age, disability, sex, marital status, changes in marital status, pregnancy or parenthood when the reasonable demands of the position(s) do not require distinction on the basis of age, disability, sex, marital status, changes in marital status, pregnancy, or parenthood. The contractor shall take affirmative action to assure that the applicants are considered for employment and that employees are treated during employment without unlawful regard to their race, color, religion, national origin, ancestry, disability, age, sex, marital status, changes in marital status, pregnancy or parenthood. This action must include, but need not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting out the provisions of this paragraph.

4.2 The contractor shall state, in all solicitations or advertisements for employees to work on State of Alaska contract jobs, that it is an equal opportunity employer and that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, disability, sex, marital status, changes in marital status, pregnancy or parenthood.

4.3 The contractor shall send to each labor union or representative of workers with which the contractor has a collective bargaining agreement or other contract or understanding a notice advising the labor union or workers' compensation representative of the contractor's commitments under this article and post copies of the notice in conspicuous places available to all employees and applicants for employment.

4.4 The contractor shall include the provisions of this article in every contract, and shall require the inclusion of these provisions in every contract entered into by any of its subcontractors, so that those provisions will be binding upon each subcontractor. For the purpose of including those provisions in any contract or subcontract, as required by this contract, "contractor" and "subcontractor" may be changed to reflect appropriately the name or designation of the parties of the contract or subcontract.

4.5 The contractor shall cooperate fully with State efforts which seek to deal with the problem of unlawful discrimination, and with all other State efforts to guarantee fair employment practices under this contract, and promptly comply with all requests and directions from the State Commission for Human Rights or any of its officers or agents relating to prevention of discriminatory employment practices.

4.6 Full cooperation in paragraph 4.5 includes, but is not limited to, being a witness in any proceeding involving questions of unlawful discrimination if that is requested by any official or agency of the State of Alaska; permitting employees of the contractor to be witnesses or complainants in any proceeding involving questions of unlawful discrimination, if that is requested by any official or agency of the State of Alaska; participating in meetings; submitting periodic reports on the equal employment aspects of present and future employment; assisting inspection of the contractor's facilities; and promptly complying with all State directives considered essential by any office or agency of the State of Alaska to insure compliance with all federal and State laws, regulations, and policies pertaining to the prevention of discriminatory employment practices.

4.7 Failure to perform under this article constitutes a material breach of the contract.

Article 5. Termination.

The Project Director, by written notice, may terminate this contract, in whole or in part, when it is in the best interest of the State. The State is liable only for payment in accordance with the payment provisions of this contract for services rendered before the effective date of termination.

Article 6. No Assignment or Delegation.

The contractor may not assign or delegate this contract, or any part of it, or any right to any of the money to be paid under it, except with the written consent of the Project Director and the Agency Head.

Article 7. No Additional Work or Material.

No claim for additional services, not specifically provided in this contract, performed or furnished by the contractor, will be allowed, nor may the contractor do any work or furnish any material not covered by the contract unless the work or material is ordered in writing by the Project Director and approved by the Agency Head.

Article 8. Independent Contractor.

The contractor and any agents and employees of the contractor act in an independent capacity and are not officers or employees or agents of the State in the performance of this contract.

Article 9. Payment of Taxes.

As a condition of performance of this contract, the contractor shall pay all federal, State, and local taxes incurred by the contractor and shall require their payment by any Subcontractor or any other persons in the performance of this contract. Satisfactory performance of this paragraph is a condition precedent to payment by the State under this contract.

Article 10. Ownership of Documents.

All designs, drawings, specifications, notes, artwork, and other work solely related to the Tutka Bay Lagoon Hatchery developed in the performance of this agreement are produced for hire and remain the sole property of the State of Alaska and may be used by the State for any other purpose without additional compensation to the contractor. The contractor agrees not to assert any rights and not to establish any claim under the design patent or copyright laws. The contractor, for a period of three years after final payment under this contract, agrees to furnish and provide access to all retained materials at the request of the Project Director. Unless otherwise directed by the Project Director, the contractor may retain copies of all the materials.

Article 11. Governing Law.

This contract is governed by the laws of the State of Alaska. All actions concerning this contract shall be brought in the Superior Court of the State of Alaska.

Article 12. Conflicting Provisions.

Unless specifically amended and approved by the Department of Law the General Provisions of this contract supersede any provisions in other appendices.

Article 13. Officials Not to Benefit.
Contractor must comply with all applicable federal or State laws regulating ethical conduct of public officers and employees.

Article 14. Covenant Against Contingent Fees.
The contractor warrants that no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee except employees or agencies maintained by the contractor for the purpose of securing business. For the breach or violation of this warranty, the State may terminate this contract without liability or in its discretion deduct from the contract price or consideration the full amount of the commission, percentage, brokerage or contingent fee.

Article 15. Changes in the Contract:
No changes or modifications can be made to the contract without written prior approval from the Commissioner of the Department of Fish and Game and Cook Inlet Aquaculture Association (CIAA) hereinafter referred to as the contractor.

Article 16. Property Ownership:
The State is responsible for all local property assessments and for improvements to the properties which are property of the State. Nothing in this contract transfers the title, land jurisdiction, or ownership of buildings or structures from the State to the Contractor.

Article 17. Act of God:
In the event of an act of God the department and the contractor shall assess the damage and elect to repair the site, contract out the repairs, or terminate the contract without fault. The ability to repair will be based on insurance coverage, available funding and the level of damage sustained. Neither party will be responsible for any loss or damage resulting from an act of God.

Article 18. Termination of Permit Due to Default:
The department shall issue to the contractor who operates a hatchery under this contract a permit to harvest and sell adult salmon and eggs during the term of this contract according to AS 16.10.450. In the event the contract is terminated due to default the permit shall be cancelled according to AS 16.10.430(b).

Article 19. Termination in Best Interest of the State:
In the event the contract is prematurely terminated in the best interest of the state, in addition to other remedies the contractor may continue cost recovery harvesting according to AS 16.10.430(b).

APPENDIX B
INDEMNITY AND INSURANCE

Article 1. Indemnification

The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act of the Contractor under this agreement. The Contractor shall not be required to indemnify the contracting agency for a claim of, or liability for, the independent negligence of the contracting agency. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of the Contracting agency, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "Contractor" and "Contracting agency", as used within this and the following article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "independent negligence" is negligence other than in the Contracting agency's selection, administration, monitoring, or controlling of the Contractor and in approving or accepting the Contractor's work.

Article 2. Insurance

Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this agreement the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, the state shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Contracting Officer prior to beginning work and must provide for a 30-day prior notice of cancellation, nonrenewal or material change of conditions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21.

2.1 Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against the State.

2.2 Commercial General Liability Insurance: covering all business premises and operations used by the Contractor in the performance of services under this agreement with minimum coverage limits of $300,000 combined single limit per occurrence.

2.3 Commercial Automobile Liability Insurance: covering all vehicles used by the Contractor in the performance of services under this agreement with minimum coverage limits of $300,000 combined single limit per occurrence.

APPENDIX C
SCOPE OF SERVICES

I. Background/Authority:

The parties to this contract are the State of Alaska, Department of Fish and Game (ADF&G or "State") and Cook Inlet Aquaculture Association (CIAA or "Contractor"). During the term of this contract, the management and operations of ADF&G's Tutka Bay Lagoon Hatchery are being contracted out to CIAA. The purpose of this contract is to maintain the operation of the Tutka Bay Lagoon Hatchery in order to provide fish for the common property fishery as part of the Statewide Salmon Fisheries Enhancement Program. The Contractor will continue the hatchery production level as previously approved by ADF&G in the 2013 Annual Management Plan, or as established in succeeding annual management plans approved by the Department; and as stipulated in the Private Nonprofit Hatchery Permit and the Basic Management Plan.

In consideration of CIAA's operation and management of the Tutka Bay Lagoon Hatchery, ADF&G shall make available to CIAA the hatchery site including all buildings and equipment located at the site. ADF&G will cooperate when possible with CIAA's efforts to effectively operate and maintain the hatchery and to obtain the cost recovery levels, when appropriate, as indicated in Annual Management Plans for Tutka Bay Lagoon Hatchery.

ADF&G enters into this agreement under authority of AS 16.10.480.

II. Contract Period:

The contract period of this management contract shall begin July 1, 2011, upon approval of ADF&G. The contract will continue for 20 years, expiring June 30, 2031. During this term, the parties agree to explore the possibility of the transfer of ownership of the hatchery to CIAA.

Operation of Tutka Bay Lagoon Hatchery by CIAA during the contract term shall be in accordance with all applicable laws, regulations, and agreements. Annual management plans detailing specific operational requirements and plans for cost recovery harvest will be presented by the Contractor to ADF&G by the date established in Section XI and then reviewed and approved by ADF&G.

III. Contract Amendments:

Modifications or amendments to this contract may be made at the request of either party during the life of this contract. All such amendments must be in writing and approved by both parties prior to implementation.

IV. Contract Renewal:

The contract may be renewed upon mutual agreement and upon the department's acceptance of the Contractor's proposed method of operation and management of the hatchery site. The Contractor shall notify the department in writing 365 days prior to the end of the contract period whether or not it intends to renew. Within 60 days upon receiving notice from the contractor, ADF&G will respond and address its intentions. Should the contract be terminated, the Contractor will coordinate the transition with the department to minimize the impact on the hatchery operation.

V. Contract Termination:

Either the Contractor or ADF&G may terminate the contract by notifying the other party in writing 180 days in advance of the termination. The Contractor may terminate the contract unilaterally should the hatchery prove to be financially or operationally unworkable for the Contractor by notifying ADF&G in writing 180 days in advance of termination. ADF&G shall not be liable for operating expenses incurred by the Contractor during the contract period.

The Commissioner shall allow the Contractor to continue to perform cost recovery operations in the Tutka Bay Lagoon Hatchery Special Harvest Area only on fish released by the Contractor at Tutka Bay Lagoon Hatchery. If the State terminates the contract, the Commissioner shall allow the contractor to continue to perform cost recovery operations beyond termination. Cost recovery operations shall only be allowed in years in which fish may return as a result of releases at the Tutka Bay Lagoon Hatchery by the contractor.

In the event the Contractor terminates the contract under this section, the Contractor will coordinate the transition with ADF&G to minimize the impact on the hatchery operation.

VI. Inventory:

Equipment purchased by the Contractor shall belong to the Contractor and shall not be included in the state inventory. This equipment is not subject to the Contractor's obligation to inventory or replace State equipment which is discussed in the following paragraphs.

A beginning inventory of all equipment with a value in excess of $5,000.00 shall be taken by at least one (1) representative from ADF&G and from the Contractor. The inventory list shall be signed by both parties. A yearly inventory shall be completed by the Contractor and presented to ADF&G by September 1 of each year, or at another date with a 90 day notice.

During the beginning and yearly inventory reviews, the Contractor may, with the State's permission, surplus any pieces of equipment which are nonessential to the operation of the hatchery.

The Contractor shall notify ADF&G's Project Director of any inventoried items which are lost, stolen or destroyed when the Contractor becomes aware of such an occurrence.

Upon completion of the contract period, a representative from ADF&G and Contractor shall conduct a final inventory which shall be signed by both parties. The Contractor shall give an accounting for all state-owned and inventoried equipment. Any equipment purchased by the Contractor which is not a permanent fixture shall remain property of the Contractor. All inventoried property shall remain with the state. Obsolete equipment shall be surplused through ADF&G's Procurement Section office in Juneau at the expense of the State of Alaska.

VII. Interagency Land Management Assignment (ILMA):

ADF&G holds an ILMA from the Department of Natural Resources (DNR) (ADL200098), a copy of which is attached and made part of this contract. There is no expiration date. The Contractor shall be responsible for complying with the terms and conditions of the ILMA and any additional amendments.

The ILMA authorizes land use for the Tutka Bay Lagoon Hatchery and the ILMA is not transferrable from the state to CIAA. The State of Alaska retains primary responsibility for adherence to the conditions of the ILMA.

The Contractor shall participate in a formal review with ADF&G (and the Department of Natural Resources where required by the ILMA) prior to any physical improvements to or expansion of the hatchery.

VIII. Goal:

The Contractor shall operate the Tutka Bay Lagoon Hatchery site at the production level agreed upon in the 2013 Annual Management Plan, or as established in a succeeding annual management plan approved by ADF&G.

IX. Scope of Work:

The Contractor shall, at a minimum, provide the following:

A. Personnel: Adequate staff to operate the site; including at a minimum a hatchery manager, a maintenance worker, a fish culturist, and sufficient seasonal staff for egg take, incubation, and cleanup activities.

B. Utilities: The Contractor shall be solely responsible for repair or replacement of any failure, defect, deficiency or impairment of any water supply system, building heating system, drainage or sewer system, electrical supply system, electrical apparatus, wires or other utilities serving the fish hatchery during the life of the contract.

C. Operating Cost: Including, but not limited to: utility costs; operating supplies; salaries; required insurance; and site upkeep.

D. Maintenance: It is the desire of ADF&G that the hatchery buildings and site be kept at their current level of maintenance and shall be in keeping with the ILMA.

The Contractor will maintain repairs and maintenance at a level that will ensure that upon completion of the contract, the site and facilities are returned to ADF&G in their original condition, excluding normal wear and tear.

Hatchery maintenance shall include the day-to-day maintenance including, but not limited to:

1. Structural maintenance, repair and reconstruction, plumbing and heating systems, roofs and interior or exterior walls. If the work is not completed in a timely manner, ADF&G will notify the contractor in writing of the need for correction. If the correction is not made within a reasonable period of time considering the seriousness of the problem, ADF&G may hire competent professionals to correct the deficiencies, the costs of which shall be paid by the contractor. Bills shall be sent directly to the Contractor for payment.

2. Maintaining the hatchery grounds in a safe and sanitary fashion.

E. Repairs: The Contractor shall be responsible for major repairs necessary during the life of the contract. Repair of equipment shall be addressed on a case by case basis between the contractor and the project director.

CIAA has attempted to acquire "All Risk Property Insurance" with no success. The department recognizes that the facility may not be covered for earthquake or flood events; if one of these events were to damage the facility then the responsibility will be the department's to make the repairs at their discretion.

F. Capital Improvements: Tutka Bay Lagoon Hatchery is located within an ILMA on designated mental health trust land. All improvements must be developed in a manner approved of by ADF&G and be preapproved in writing and shall be in keeping with the terms and conditions of the ILMA. All such improvements shall become the property of ADF&G when completed.

The funding source for capital improvement projects will determine how the projects are handled. The Contractor is not subject to the state procurement code but shall be subject to the following:

1. The Contractor will be responsible for meeting and complying with all federal, state, and local laws, regulations, industry standards, codes, licenses and permits related to site improvement.

2. The Contractor shall keep any improvements it undertakes, existing structures and land, free and clear of all liens and shall hold the state harmless from all costs or liability resulting from such improvements. Improvements of a structural nature may require State approval.

3. Should ADF&G improve the site, it shall consult with the Contractor prior to any improvements and shall make the improvements in such a manner that it has minimal impact on the hatchery operations. ADF&G shall assume responsibility and liability for such modifications to the facility. Once the modification becomes operational, the Contractor will assume responsibility and liability for the maintenance and operation.

4. The Contractor shall provide ADF&G two copies of "as built" plans reflecting any improvements made. The Contractor shall also retain 'as built' plans over the life of the contract.

G. Subcontracting: The Contractor may subcontract improvements to the site. The Contractor will be responsible for assuring all permits and licenses are obtained and all applicable codes are met. Payment for the subcontracted work will be the sole responsibility of the Contractor.

H. Capital Improvement Compensation: In the event the contract is prematurely terminated at no fault of the Contractor, ADF&G will pursue efforts to establish a capital improvement project budget as the means of purchasing approved capital items contributed by the contractor at the residual value based on a straight line depreciation for a twenty-year equipment of facility life. Any capital reimbursement would be subject to legislative approval. Capital improvements are defined as any single item over $25,000 as a permanent fixture to the existing facility. In addition to seeking a capital improvement appropriation, the Commissioner shall allow the contractor to continue to harvest salmon as a means of repayment.

I. Site Access: ADF&G will be allowed reasonable equipment storage and access to the site and may perform periodic inspections as long as it does not interfere with the hatchery operations.

The contractor may discourage public use of the site. However, should the site be open to the public, the contractor shall be responsible for obtaining adequate liability insurance. Any fees charged for public access require prior approval from the department, which shall not be unreasonably withheld.

J. Available information: Upon request from the Contractor, ADF&G shall make available hatchery performance data regarding Tutka Bay operations. Upon request from ADF&G, the Contractor shall make available hatchery performance data regarding Tutka Bay operations.

K. Cost Recovery: Provisions for cost recovery will be described in the Annual Management Plan. The cost recovery harvest area, dates and quota will be established and carefully monitored by ADF&G. If cost recovery harvest is defined by regulation, it will be described in the Annual Management Plan; otherwise cost recovery harvest criteria will be defined and established in the Annual Management Plan. A special harvest area for broodstock collection and cost recovery harvest will be established pursuant to state law.

L. Hatchery Revenue: The Contractor may only sell eggs, conduct cost recovery harvest or any other revenue generating procedures at the Tutka Bay Lagoon Hatchery in keeping with the PNP Hatchery Permit, Annual Management Plan and applicable statutes and regulations. Within these constraints, revenues realized at Tutka Bay Lagoon Hatchery will be used as necessary by the Contractor for the overall good of the CIAA operations.

M. Insurance and Land Lease Costs: The Contractor shall be responsible for reimbursement to ADF&G for the cost of any lease expenses paid for by ADF&G under the ILMA.

N. Annual Facility Organizational and Management Plans: The Contractor in cooperation with ADF&G shall annually prepare a management plan for the operation of Tutka Bay Lagoon Hatchery as a multipurpose fish hatchery focusing on the rearing of pink salmon or other fish in a manner that furthers the development and diversification of the Lower Cook Inlet fisheries. Corporate goals will be a consideration in the Annual Management Plan within the confines of AS 16.10.100 through 16.10.480.

X. Annual Management Plan:

The Annual Management Plan shall be prepared by a Contractor/departmental drafting team and presented to the department by April 1st of each year and shall be outlined in the following format unless otherwise agreed to by the parties:

ANNUAL MANAGEMENT PLAN

Outline of Required Elements

1.0 Operational Plans
- 1.1 Egg Take Limits, Broodstock Sources, and Release Sites by Species.
- 1.2 Egg Take, Transport and Carcass Disposal Plans, by Species.
- 1.3 Incubation Plans, by Species.
- 1.4 Rearing and Release Plans, by Species.

2.0 Donor Stock Management

2.1 Management Strategies for Donor Stocks, by Species.
2.2 Escapement Requirements, by Species.
2.3 Donor Stock Collection Methods, by Species.

3.0 Hatchery Return Management
3.1 Common Property Fisheries Management, by Species.
3.2 Special Harvest Area Management, by Species.

4.0 Marking/Special Studies
4.1 Marking Plans.
4.2 Special Studies.

XI. Insolvency and Bankruptcy:

In the event the Contractor should declare bankruptcy, ADF&G shall take immediate occupancy of the hatchery, terminating this contract in the best interest of the state, either with or without process of the law through any form of Notice of Proceedings.

XII. Reporting:

The Contractor shall maintain a separate set of financial records for this contract.

The method of accounting shall be one acceptable to the state. Upon request, the accounting records may be reviewed at any time during normal business hours by a representative of the State of Alaska.

The Contractor's accounts shall be audited yearly by an independent auditor. The audit report shall be submitted to the State of Alaska each contract year.

All audit costs shall be borne by the Contractor.

A. The audit shall contain at a minimum, an examination of the systems of internal control; financial transactions and accounts, and financial statements. This examination is to determine whether:
   1. There is effective control over and proper accounting for revenues, expenditures, assets, and liabilities.
   2. The financial statements are presented fairly in accordance with generally accepted accounting principles.

B. The auditor shall test to determine whether the changes:
   1. Are necessary and reasonable for the proper administration of the project.
   2. Include costs properly chargeable to other programs or projects.
   3. Were properly recorded (i.e. correct amount, date) and supported by source documentation.

If the auditor becomes aware of irregularities, the auditor shall promptly notify ADF&G.

Irregularities include such matters as conflicts of interest, falsification of records or reports, and misappropriation of funds or other assets.

C. The audit report shall include:

1. Financial statements.
2. The auditor's comments on the financial statements which should:
   a. Identify records examined and period covered.
   b. Express an opinion as to whether the financial statements are fairly presented in accordance with generally accepted accounting principles.

XIII. Entire Agreement:

The Contractor acknowledges that this contract with Attachments is the entire agreement. Any prior contracts, agreements, promises or representations between the Contractor and ADF&G concerning contracting for the operation of the Tutka Bay Lagoon Hatchery are hereby extinguished.

XIV. Time is of the Essence:

Time is of the essence for each term, condition and provision of this contract.

XV. Lack of Insistence Not a Waiver:

The failure of either party to insist in any one or more instances upon a strict performance by the other party shall not be considered a waiver or relinquishment for the future, unless expressed in writing by ADF&G.

XVI. National Emergency:

In the case of National emergency, as declared by the federal government, neither party may be held liable for any inability to perform any or all of the terms of this contract due to such an emergency.

APPENDIX D
FINANCIAL CONSIDERATIONS

I. State funding for the Tutka Bay Lagoon Hatchery is zero.

II. State funding for subsequent years is zero.

III. The Contractor shall annually be responsible for the applicable risk management insurance cost of the facility required under the terms of this Agreement, including Appendix B and Appendix C.X.E. Payment for the risk management insurance shall be made within 30 days of receipt of billing. Risk management costs may vary from year to year. The Contractor shall make any applicable lease payments under the ILMA as provided in Appendix C.X.M, within 30 days of receipt of billing.

IV. All correspondence regarding this contract should be sent to:

Alaska Department of Fish and Game
Division of Commercial Fisheries
PNP Salmon Hatchery Program
P.O. Box 115526
Juneau, AK 99811-5526

The department does not have funding for the Tutka Bay Lagoon Hatchery. The contractor may use cost recovery harvest as mentioned in Appendix C to help defray the operating costs of the hatchery. The cost recovery harvest strategies and financial targets shall be established in the Annual Management Plan. The harvest dates shall be described in the annual management plan. Operating costs is understood to include fees for permit applications, permits, inspections and other such costs that can normally be expected to be paid by the operator of a hatchery.

APPENDIX E
ENVIRONMENTAL MATTERS

I. Hazardous Materials

Hazardous Materials mean any substance:

(a) The unpermitted release into the environment and/or presence of which requires investigation, containment, cleanup, removal, response action, restoration, or remediation under any applicable federal, state, or local statute, regulation, ordinance, permit, order, action, policy, or common law; or

(b) which is or becomes defined as a "hazardous waste," "hazardous substance," "oil," "pollutant," or "contaminant" under any federal, state or local statute, regulation, rule, or ordinance, or any amendments thereto, including without limitation, the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. § 9601 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.),the Oil Pollution Act of 1990 (33 U.S.C. § 2701 et seq.), Alaska Statutes 46.08 et seq., 18 Alaska Administrative Code 75, or any other applicable federal, state, or local statutes, regulations, ordinances, or permits.

II. Proper Handling and Reporting of all Hazardous Materials

(a) The Contractor agrees to handle and store at the hatchery, both at the site and facilities, only those Hazardous Materials necessary to the operation of the hatchery.

(b) If Hazardous Materials are handled at the hatchery, including at both the site and the facilities, the Contractor agrees to have properly trained personnel or consultants and adequate procedures for safely storing, dispensing and otherwise handling the Hazardous Materials in accordance with all applicable federal, state, and local laws.

(c) If Hazardous Materials are handled at the hatchery, including at both the site and the facilities, the Contractor agrees to adhere to the reporting requirements relating to the handling, storage, release, or spill of Hazardous Materials required under applicable federal, state, and local laws, including without limitation, the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. § 9601 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 et seq.), and applicable portions of Title 18 of the Alaska Administrative Code. When the Contractor prepares and submits such reports to the federal, state and local authorities, the Contractor concurrently will provide copies of same to the Department.

III. Notification by the Contractor to the Department

If, after the execution date of this Agreement, the Contractor becomes aware of, or receives notice or other communication concerning any actual, alleged or suspected release or spill of Hazardous Materials at the hatchery, both at the site and the facilities, in addition to any other notification requirements under federal, state, or local laws, the Contractor must immediately notify the Department of such actual, alleged or suspected release or spill, and submit to the

Department copies of any related notice or communication received by the Contractor regarding such actual, alleged or suspected release or spill.

IV. Contractor's Obligation to Remediate and Indemnify the State

(a) If contamination of the hatchery, at either the site or the facilities, or of other property or water by Hazardous Materials occurs or has occurred as a result of the Contractor's operation of the hatchery, beginning from when the Contractor first took control of the operation of the hatchery, the Contractor, at its sole expense, shall promptly contain, cleanup, remove, remediate, and restore the affected area in accordance with all applicable federal, state, and local laws and regulations. Such containment, cleanup, removal, remediation, and restoration of the affected area by the Contractor must not adversely impact the future operation and development of the hatchery. The obligations of the Contractor in this paragraph shall survive the completion or termination of this contract.

(b) If contamination of the hatchery, at either the site or the facilities, or of other property or water by Hazardous Materials occurs or has occurred as a result of the Contractor's operation of the hatchery, beginning from when the Contractor first took control of the operation of the hatchery, the Contractor shall indemnify, defend, and hold the Department and the State of Alaska harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities, or losses of any kind, including without limitation sums paid in settlement of claims, attorney's fees, consultants fees, expert fees, which are the result of such contamination. This indemnification of the Department and the State of Alaska by the Contractor includes without limitation costs incurred by the Department and/or the State in connection with any investigation of site conditions or any containment, cleanup, removal, remediation, or restorative work required by applicable federal, state, or local law or regulations. The obligations of the Contractor in this paragraph shall survive the completion or termination of this contract.

V. The Department's Right to Inspect the Hatchery

The Department, at its sole discretion and expense, shall have the right, but not the duty, to enter and conduct an inspection, including any environmental audit it deems necessary, of the hatchery, including the site and facilities, to ensure that the Contractor is complying with the terms of this agreement. The Department will give the Contractor forty-eight (48) hours advance notice of such inspection, unless there is an imminent and substantial threat to the public health or welfare, or to the environment, or emergency conditions dictate otherwise. While conducting its inspection, the Department or its agent will use its best efforts to avoid unreasonably interfering with the Contractor's operation of the hatchery.

EXHIBIT 5
Page 1 of 2

Management Plan For
Kachemak Bay State Park
And
Kachemak Bay State Wilderness Park

March 1995

Alaska Department of
NATURAL
RESOURCES

ALASKA
STATE PARKS

Cover photo by: Jeffrey S. Johnson
View of the Kenai Mountains from
Nuka Island

This publication was released by the Department of Natural Resources, produced at a cost of $8.96 per copy to provide a Kachemak Bay State Park management plan for the public and other agencies. It was printed in Anchorage, Alaska.

Management Plan for

Kachemak Bay State Park

and

Kachemak Bay State Wilderness Park

March 1995

State of Alaska

Department of Natural Resources

Division of Parks & Outdoor Recreation

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

3601 C STREET, SUITE 1200
ANCHORAGE, ALASKA 99503-5921
PHONE: (907) 762-2600
FAX: (907) 762-2535

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION

April 6, 1995

Dear Alaskan:

Kachemak Bay State Park, Alaska's first state park, is known for its scenic beauty, richness of wildlife, and a grand variety of recreation opportunities. Those who visit Kachemak Bay State Park and Wilderness Park are richly rewarded by their experience.

The park's last management plan was written in 1989. Since then, several important events have occurred.

- In March of 1989, the Exxon Valdez oil spill hit the beaches of the wilderness park.
- That same year, the legislature added more than 50,000 acres of state land to the park, including Nuka Island.
- The long-standing threat of logging within the park was resolved with the purchase of more than 24,000 acres of private lands and timber rights, with funds from the civil and criminal settlements against Exxon.
- Park visitation steadily increases as operating budgets are decreasing.

This management plan revision was developed in response to these events.

Citizen participation in meeting these challenges has demonstrated Alaskans' sense of pride and stewardship in these parks, and has perpetuated the values for which these parks were established. This plan was developed with the help of the Kachemak Bay State Park citizen's advisory board, other state and federal agencies, and the general public.

I believe the plan appropriately balances preservation with the development of recreation facilities and so, with my signature, adopt it as state policy.

Sincerely,

Neil C. Johannsen
Director

Summary

On May 9, 1970, Kachemak Bay State Park became Alaska's first state park. In 1972, Kachemak Bay State Wilderness Park became Alaska's first state wilderness park. Together, they encompass approximately 380,000 acres of land and water on the southwestern arm of the Kenai Peninsula. The parks include much of the southern shore of Kachemak Bay, parts of the Kenai Mountains, Nuka Island, waters in Kachemak Bay and the Gulf of Alaska, lands on the west side of Nuka Passage, and lands on the north side of Kachemak Bay, in the Cottonwood / Eastland Creek area.

Outdoor recreation opportunities are important to Alaskans and visitors. Recreation and natural resource values are high in both parks. They include fishing, boating and kayaking along the coast, picnicking, recreational clamming, coastal and upland hiking, skiing and climbing, hunting, and berry picking are available in the park. Although access is limited to boat or plane, both parks are experiencing increased use.

This plan describes the park's natural and cultural resources, existing and expected recreation uses, and visitor preferences. The plan also identifies and discusses issues, and outlines the management goals and objectives of Alaska State Parks as they apply to these parks. The plan then applies the Alaska State Parks land use classification system to zone park lands, recommends park-wide management policies, and makes recommendations for administrative action and facility development.

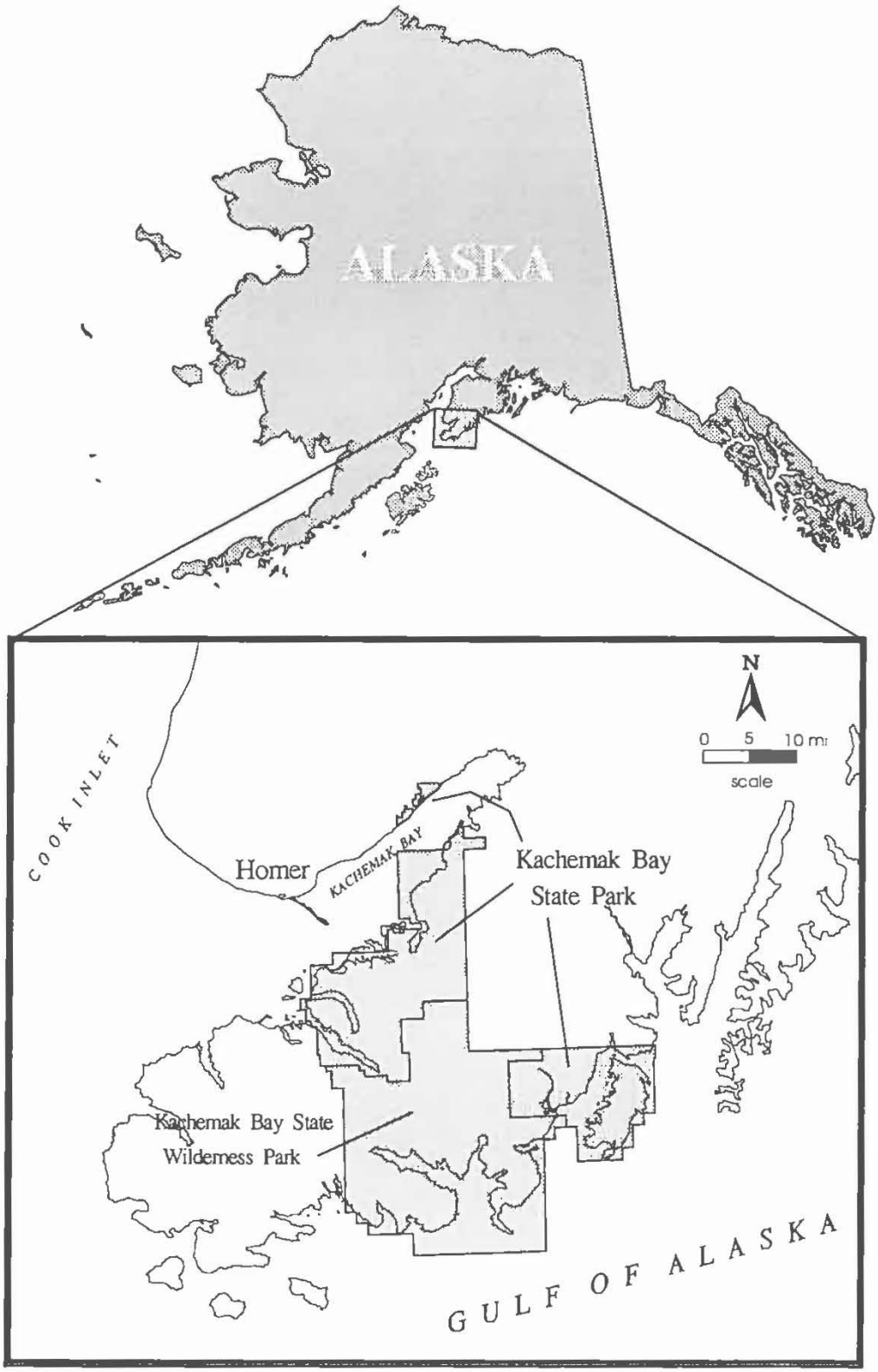
Administrative recommendations include:

- Resource inventories,
- The acquisition of certain lands,
- A carrying capacity study,
- Cooperative agreements,
- Staffing increases, and
- Regulation revisions.

Facility development recommendations include:

- Trails and trail related facilities,
- Boat moorage facilities,
- Campsites, and
- Public use cabins.

Provisions for amending the plan are included at the end of the document.



Location of Kachemak Bay State Park

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Chapter 1: Introduction

PLAN PURPOSE

This management plan is written for Kachemak Bay State Park and Kachemak Bay State Wilderness Park. Although they retain their separate identities, this plan will frequently refer to them singularly as Kachemak Bay State Park.

The plan guides the management and development of Kachemak Bay State Park. It describes the park's natural, cultural, and recreation resources. It lists and discusses issues that affect the park. It also describes current and projected recreation demand, and makes recommendations for management and facility development that reflect the park's qualities and recreation opportunities.

The park's first plan was written in 1973, but was not implemented. The park's second plan was published in 1989. Since then, several important events have occurred:

- In 1989, the legislature added more than 50,000 acres to the park, including lands in the Cottonwood / Eastland Creek area, lands and waters in Nuka passage, and Nuka Island.
- In March of 1989, the *Exxon Valdez* oil spill hit the park's outer coast.
- In 1993, 23,000 acres of private lands within the park, slated to be logged, were purchased with funds from the *Exxon Valdez* criminal and civil settlements, and added to the park. Also from the criminal settlement, $500,000 was appropriated to Alaska State Parks for Kachemak Bay State Park visitor center facilities.

These events significantly affected the park, prompting a revision of the 1989 plan.

PLANNING PROCESS

This plan was researched and written by Alaska State Parks staff, in cooperation with other state and federal agencies, the Kachemak Bay State Park Citizen's Advisory Board, and the public. The Kachemak Bay State Park Citizen's Advisory Board provides a forum for public opinion regarding the management of the park. Public review of this plan is part of the planning process.

PARK PURPOSE

Parcels of state land and water containing 640 acres or more can only be closed to multiple purpose use by an act of the legislature. Kachemak Bay State Park and Kachemak Bay State Wilderness Park have been legislatively removed from the public domain, and designated as "special purpose areas." Specific legislative language defines these purposes:

Kachemak Bay State Park:
"In order to protect and preserve these lands and waters for their unique and exceptional scenic nature, the park is established and shall be managed as a scenic park." (AS 41.21.131)

State of Alaska statute AS 41.21.990 defines "scenic park" as:

> Relatively spacious areas of outstanding natural significance, where major values are in their natural geological, 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.

Kachemak Bay State Wilderness Park:
"In order to protect and preserve this land and water for their unique and exceptional wilderness values, the park is established and shall be managed as a wilderness park." (AS 41.21.140)

State of Alaska statute AS 41.21.990 defines "wilderness park" as:

> 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 man-made objects will be strictly limited and depend entirely on good taste and judgement so that the wilderness values are not lost.

Chapter 2: Environment and Resources

REGIONAL SETTING

The Kenai Peninsula is a rich and varied region, known as the "playground" of southcentral Alaska. Mountains and glaciers (including the 1,000-square mile Harding Icefield) cover much of the peninsula, but there are also extensive lowland forests, meadows, and river systems. The area's abundant fish and wildlife contribute to the quality of life of residents and visitors.

Most of the peninsula's land mass falls within large conservation areas managed by the federal government. Chugach National Forest, Kenai National Wildlife Refuge and Kenai Fjords National Park are managed primarily for multiple use, wildlife habitat and public recreation/resource protection, respectively.

The major communities of the Kenai Peninsula are situated along the peninsula's rivers and coastline. Kenai and Soldotna and their neighboring communities collectively contain the region's largest population, and are host to its main government and retail services. Homer, located on Kachemak Bay, is considered the "host" community for Kachemak Bay State Park. It has a bustling harbor and deep water dock. As the population center of the southwest Kenai peninsula, it serves the smaller communities of Kachemak Bay. Other peninsula communities include Seward, on the southeastern peninsula, Anchor Point, Ninilchik, Sterling, and Seldovia. The major economic bases for the region are oil and gas, commercial fishing, tourism, and recreation.

PARK OVERVIEW

Kachemak Bay State Park became Alaska's first state park on June 9, 1970. The park is named for Kachemak Bay; a relatively shallow, 39 mile long nutrient rich estuary, located on the southern Kenai peninsula coast. The Kenai mountains shelter the bay from the rugged outer coast of the Gulf of Alaska. The waters and tidelands of Kachemak Bay, known as the "nursery" for many marine species, were also legislatively designated a State Critical Habitat Area in 1974.

Most of the park's 171,000 roadless acres are located on Kachemak Bay's south side. The park also includes the sand and clay cliffs of the Cottonwood/Eastland Creek area (on the bay's north shore), Nuka Island (the largest island on the southern Kenai coast), and lands in the Petrof Glacier area.

Kachemak Bay State Wilderness Park became Alaska's first (and only) state wilderness park in 1972. It abuts the southern boundary of Kachemak Bay State Park in the Kenai

mountains and extends south, into the waters of the Gulf of Alaska. It contains approximately 198,399 roadless acres, including 79 miles of rugged coastline.

A wide variety of ecotypes with associated plant and animal communities occur within these parks. They range from coastal intertidal areas, glaciated river valleys, and alluvial fans, to the rocky cliffs, glaciers, snowfields, and alpine lakes of the Kenai Mountains. The parks also contain significant cultural resources, evidence of occupation by early Alaska native culture.

NATURAL ENVIRONMENT

Surface Geology

Four general geologic units have been identified in the area. They are: alluvial and beach deposits, contorted cherts with some lava, ellipsoidal lavas and graywacke, and slate with some chert limestone and basic igneous material.

Geologic History

As the Kachemak area is part of the western edge of the Kenai Peninsula, its geologic history is parallel to that of the Kenai-Chugach Mountains. The slates and graywackes in the Kachemak Bay area were probably deposited in the late Paleozoic and were likely derived from a nearby land mass that was undergoing rapid erosion. During the Carboniferous, some limestone was deposited in the sea that had covered the area. By the beginning of the Mesozoic, the area was again a land mass and the ellipsoidal lavas are believed to have originated at this time. Volcanic activity continued during the Triassic. Contorted cherts and some undifferentiated lavas of Triassic age occur along the immediate coastal zone.

On the Kenai Peninsula, the record for the Jurassic is generally unclear. No units of Jurassic age have been mapped within the park boundaries. It is known, however, that there are acidic dikes in the area and it is possible that these are Jurassic intrusions, as intrusive action was common to most of Alaska during that period. The record of cretaceous activities is also unclear. It seems likely, however, that the region stood above the sea and that the major features of the present landform were in their beginning stages.

At the beginning of the Tertiary, the area probably stood above the sea. During the Miocene, it is believed that much of the Alaska coastal belt was submerged, but again, no record exists in the Kenai Peninsula. At the close of the Tertiary, the landscape was probably similar to that of the present. Subsequent changes in landform have been largely due to glaciation and diastrophism (twisting forces that cause deformation of the earth's crust).

The Kenai Mountains, like much of southern Alaska, were occupied by glaciers in early Quaternary. Periods of glaciation in the Kachemak area occurred before, during and after the Pleistocene. Many Quaternary deposits along the coast and river valley, are probably of glacial origin.

Physiographic Features

Glaciers and diastrophism have been active in shaping the landscape of the Kachemak area. Glacial valleys and outwash plains dominate much of the area. Additionally, three significant "fault zones" (fractured and displaced sections of the earth's crust), have contributed heavily to the shaping of the area. Two of these zones, identified as the "Tutka Fault Zone" and the "Doroshin Fault Zone" (after the predominating existing surface feature with which they are associated) are roughly perpendicular to the axis of the Kenai Mountains. The other zone, identified as the "Halibut Cove Lagoon Zone," is nearly parallel to the axis of the Kenai Mountains.

The Halibut and Doroshin fault zones have truncated the glacial valleys that extend seaward from Wosnesenski, Doroshin and several other smaller glaciers. They also form the landward boundaries of a wedge shaped area of complex block faulting. This area includes China Poot Bay, Peterson Bay, Ismailof Island, Halibut Cove, Halibut Cove Lagoon, Poot Lake and several unnamed lakes in the Halibut Cove Lagoon zone and in the block area itself.

The Kachemak area is seismically active, and earthquakes are common. The Good Friday earthquake of March 27, 1964 caused subsidence, earth flows, landslides and fissuring in the Homer area. Measurements taken along the south side of Kachemak Bay indicate that the total subsidence ranged from three feet near Halibut Cove, to nearly six feet at Seldovia. The effects of this subsidence extended over a two-year period, causing the gradual loss of uplands due to saltwater inundation and wave erosion. Land subsidence killed trees along the Wosnesenski river, the bars of China Poot Bay, and the outwash plains of Grewingk and Portlock Glaciers. Seismic potential should be a consideration during site planning for facility development.

Many land forms of the Kachemak Bay area and Gulf of Alaska coast areas are extremely youthful. An example is the mouth of the Wosnesenski river. Now open principally to Neptune Bay, the river had previously entered China Poot Bay to the north.

Slopes in excess of 30% are typical in the Kachemak Bay area, the wilderness park, and on the east side of Nuka Island. Notable exceptions include the outwash plains of Grewingk, Petrof, Yalik, and Portlock glaciers, the Doroshin River valley, and several small isolated areas in the interior valleys. It should also be noted that several areas are subject to avalanches and landslides. One major landslide covered a portion of Grewingk Glacier, and other landslide scars exist up-canyon of the glacier. Several avalanche scars exist on the peaks forming the south edge of the Wosnesenski river valley. Sadie Cove shows extensive avalanche scars along most of its length. Avalanche potential should be considered when siting facilities, particularly in Sadie Cove and on mountain slopes. Landslide potential, particularly in the Grewingk Glacier and Doroshin River valleys, should also be considered.

Soils

It appears that five soil types exist in the park:

Tundra soil - is developed in the upper reaches of the area above approximately 2,500 feet of elevation. This soil is thin, poorly developed in profile, and porous.

Forest soil - develops under the forest canopy, and has a high percentage of organics. This soil is light, has poor mechanical strength and is easily disturbed by human activity.

Marsh soil - develops at the confluence of rivers and tidal flats or in bogs. This soil is highly organic, fine particled and retains moisture.

Alluvial soil - is developed along the course of streams. This soil is granular and well drained but low in organic content, and is preferred by cottonwood.

Residual soil - is poorly developed granular soil. It's parent material has been weathered through mechanical and/or chemical processes.

It is especially important to consider soil instability when planning and building trails, particularly where ground water saturates soils. Because of rugged terrain, steep slopes, thin soils and thick vegetation, trail construction will always be a challenge in these parks.

Minerals

There are no known significant mineral deposits within the park. Within the adjacent area, however, are lignitic coal deposits, chromite, beach sands with placer gold, and limestone and copper. Chromite and ferrous metals are found in the outwash plain of Grewingk Glacier and it has been reported that placer gold has been found near Grewingk Glacier, and in the Sadie Cove and Tutka Bay areas.

Climate

The principal controls of the climate in the area are the maritime influence, and the Kenai Mountains.

The Kenai Peninsula is bound by the waters of the Gulf of Alaska (east, and south) and by Cook Inlet (west). The presence of the year-round, relatively warm Kuroshio Current in the southwestern Gulf of Alaska modifies the temperatures of the Kenai Peninsula. Even though cold weather occasionally moves in from the interior, the Kenai Peninsula is one of the warmer areas in Southcentral Alaska.

Kachemak Bay is on the Kenai Peninsula, northwest of the primary ridge line of the Kenai Mountains. The mountains moderate the effects of storms that approach the Kachemak Bay

area from the Gulf of Alaska. With the passage of storms, precipitation producing winds are forced up and over the southeast side of the coastal mountains of the wilderness park. They drop increasing amounts of precipitation with increasing elevation. Conversely, as the winds descend into the Kachemak Bay area, they produce a decreasing amount of precipitation with decreasing elevation, and are warmed through the process of compression. The northwest exposures of the park are therefore dryer and warmer than the southeast exposures.

Precipitation

Annual precipitation in the bay area amounts to about 25 inches, though an estimated annual of over 60 inches of precipitation occurs in the Kenai Mountains. Due to the rain shadow effect of the mountains, the Gulf of Alaska receives far more precipitation than does the Kachemak Bay side.

Snowfall in Homer and the lower elevations along Kachemak Bay averages 54 inches. The higher elevations inland, however, receive up to three times this average, because air temperatures are significantly cooler in those areas. Local winds and vegetation cause variations. Snowfall usually starts in October and continues through April. Snow may remain until June in sheltered areas. On north slopes and the high elevations, snow remains until late summer. Avalanches are common on steeper slopes, especially where cornices are formed on ridges, as evidenced in Sadie Cove, portions of Tutka Bay and most of the higher elevations.

Temperature

Temperatures in the park are dominated by the maritime influence. Winter temperatures average between 11 degrees F and 42 degrees F (similar to Portland, Oregon). Summer temperatures average between 42 degrees F and 59 degrees F (similar to San Francisco). With increases in elevation, the mean temperature will decrease about 3 degrees for every 1,000 feet of elevation. Local variations in temperature occur due to differences in aspect, exposure, cold air drainage and mountain valley winds.

The average time between springtime's last freezing temperature and the first freeze in the fall is 133 days, May 18 to September 28.

Winds

Wind patterns in Kachemak and the gulf coast reflect the movement of high and low pressure systems through the area. The area's mountains and valleys influence the commonly light prevailing wind patterns, frequently producing dominant local winds.

In Kachemak Bay, winds typically range from 10 to 25 knots, with higher winds experienced on mountain ridges and passes, and in open areas such as the mouths of Tutka Bay and Sadie Cove. On Kachemak Bay during the summer months, the wind is typically 15 to 20 knots from the southwest (called the "day breeze"). The day breeze is light in the early mornings

and late evenings, but is stronger at mid-day. With the approach of storms from the Gulf of Alaska, the winds change to southeast. In the fall and winter, winds in the bay are more commonly from the north and northeast.

The Gulf of Alaska is subject to the severe storms of the north Pacific. Winds more than 40 knots and seas greater than 15 feet make landings on many beaches in the wilderness park difficult or impossible for extended periods.

Winds and tidal action at the mouths of the valleys and fjords, and along exposed portions of the coast, can create tide "rips" and other treacherous water conditions.

Winds must be considered before constructing mooring and dock facilities, coastal trail heads, and campsites with coastal access.

Clouds and Fog

The mean cloud cover for the year is 72%, with between 70% and 80% coverage for all months except December (with 66%) and January (with 56%). Longer periods of overcast occur in the mountains.

Homer experiences heavy fog an average of five days per year. Fog most frequently occurs in the low lying areas of the bay where cold air collects, such as downslope from the Doroshin, Wosnesenski, and Grewingk Glaciers. The sun normally dissipates fog by mid-day.

Hydrology and Hydrography

Kachemak Bay State Park has four hydrologic zones; marine, freshwater lakes and bogs, glacial and freshwater streams, and glaciers. Each zone has a unique environment, mostly determined by glaciation, block faulting, and precipitation patterns.

Marine Zone

The tides in Kachemak Bay State Park have a daily average range of 15.4 feet. Tidal extremes range from approximately 23.2 feet (high tide) to approximately -5.9 feet (low tide).

The Homer, Grewingk Glacier, Aurora, and China Poot Bay spits all curve inward, suggesting that the incoming tidal action is stronger than outgoing tidal action. Tide water movement in the smaller bays and coves, especially in shallow areas, can be extremely swift and boaters should exercise caution when navigating in these waters.

The Kachemak area continually experiences changes to its shoreline. Some changes are due to the 1964 earthquake. Other changes are due to a combination of freezing weather and strong wave and tidal action that fractures and eventually breaks down the shoreline. "Packing" may

occur when high tides and high winds combine, causing abnormally high tidal conditions that magnify these effects.

Freshwater Lakes and Bogs

There are six large lakes (more than 100 acres in size), and many small lakes within the park. In the Kachemak area, lakes formed by fault block action (the rising, tilting and sinking of the terrain) are the most common. In the area of the "China Poot Drop Block Zone," several lakes form a "chain" along the fault trace. Other lakes in the park were formed by receding glaciers. The largest of the glacially formed lakes in the Kachemak area is Grewingk Lake at the foot of Grewingk Glacier. The shoreline of this lake is constantly changing as the glacier recedes and as landslides occur.

Freshwater and Glacial Streams

There are two main stream types in Kachemak Bay State Park: the streams formed by the fault blocking of the local terrain, and those formed by glaciers.

The creeks and streams of the Poot Lake basin were probably formed by geologic faulting. The largest drainage in the park (Doroshin River) is a combination of the two types. The headwaters of Doroshin River come directly off Doroshin Glacier, Wosnesenski Glacier and some smaller unnamed glaciers.

Glaciers have formed many hydrologically significant drainage patterns in the park. Almost every valley or cut in a mountain has a small stream or spring flowing from it. Many cirques and hanging valleys have magnificent waterfalls cascading down shear cut walls. Two of these waterfalls are readily visible. Hanging Creek, as it comes down its glaciated valley and drops into Doroshin River, has a fall of about 75 to 100 feet. A small unnamed stream near the head of Tutka Bay has a fall of about 150 to 200 feet. In the winter, they become striking ice formations. The headwaters of Tutka, Halibut, Grewingk, Humpy, Portlock, and Petrof creeks are drainage from active glaciers.

Most of the streams in the park area are young, and are just beginning their erosional processes.

Glaciers and Icefields

Grewingk, Portlock, Wosnesenski, Doroshin, Petrof, and Southern Glaciers, and many small unnamed glaciers are part of the Grewingk-Yalik Glacier ice complex at the southwestern end of the Harding Icefield, in the Kenai Mountains.

Five glacier feature types within the park are:

1. The large fjords, such as Sadie Cove,

2. The "U" shaped glaciated valleys found in various locations throughout the park,
3. The many glacial lakes (cirques) that line the mountain tops,
4. The hanging valleys, where a large valley glacier has cut off a small valley glacier, and;
5. The broad plains of loose glacial till, left behind by retreating glaciers.

Water Quality

The water quality in Kachemak Bay State Park is excellent, though "glacial flour" is present in those streams originating at glaciers. The clear water streams and springs are often used for drinking water, although the potential for giardia contamination exists, and appropriate precautions should be taken.

Vegetation

The park area supports a wide variety of vegetation. Plant communities include tidelands and coastal marshes, coastal forests of spruce and hemlock, thick alder on mountain slopes, and alpine meadows and tundra.

The northernmost range for many plant species is extended by the relatively warm, wet marine climate. The result is an association, (in the lower elevations), of Sitka spruce, western hemlock, and scattered cottonwood.

This marine influence is strongest in the Gulf of Alaska and on the southwestern end of Kachemak Bay. It becomes less of an influence on the northeast end of the bay. For example, tree cover in Tutka Bay is found at higher elevation than in the Humpy Creek area. Undergrowth is much more luxuriant on the outer coast and on the south side of the bay than on the north.

Glaciation also influences vegetative associations. The most recently glaciated areas have little or no vegetation, because they lack soil. Faulted valleys (such as Tutka Bay) have more advanced vegetative development than do glacier valleys (such as Grewingk) that have not been faulted.

Local environmental effects cause several other variations in vegetation patterns. In some areas of Sadie Cove and Tutka Bay, snow slides (rather than soils and altitude) influence vegetation types. Slides form long, narrow chutes and destroy the tree cover in their path. This disrupts the plant succession process. Instead of the typical horizontal transition between vegetation types, the line is often vertical.

The 1964 earthquake and subsequent land subsidence have also caused local changes in vegetative associations. With subsidence, the water table has risen in some areas in relation to the once well drained alluvial soils, killing stands of coastal Sitka spruce and creating "ghost forests."

Vegetation Associations

There are five vegetation zones in the park. These zones are broad, and are used for planning only. A brief description of each zone follows, with a list of species found in each. This list, though far from complete, provides a summary of the plant associations within zones.

Coastal Marshes and Sea Shores

The saltwater influence dominates this zone. It is found primarily along the flat floodplains and at the head of the coves facing Kachemak Bay and Gulf of Alaska.

The vegetation in this zone is tolerant of tidal flooding and drying. Some species, along stream banks, are alternately flooded by freshwater (when the tide is out), and saltwater (when the tide is in).

Land subsidence has greatly affected this zone. Several old beaches have disappeared. New shoreline is building up in some areas, stopping tidal movement into what was once tidal marsh. Formerly flowing into China Poot Bay, the Doroshin River now flows out through Neptune Bay, changing the vegetation of both bays.

Tidal estuaries are biologically productive areas, containing critical habitat for many marine, freshwater and upland species.

Forest Zone

Two basic forest subzones in the park are Sitka spruce/western hemlock, and black cottonwood. Both are climax forests.

The Sitka spruce/western hemlock forest, in the southern area of the park, grows from sea level to an elevation of 1,000-2,000 feet. It grows in gradually lower elevation as it moves north. At tidewater, trees can grow to more than two feet in diameter and 60 feet in height. At tree line they are smaller, almost bush size. Sitka spruce is found on old alluvial soils with direct marine influence. Succession in spruce/hemlock forest starts with alder and devilsclub. Grass cover often dominates in open areas, however, and tree cover comes slowly.

The undergrowth in the spruce/hemlock forest is a solid cover of wintergreens, ferns, mosses and occasionally, alder and devilsclub. As the canopy opens, the alder, devilsclub and willow are more dominant.

Away from the direct marine influence, the tree cover changes to black cottonwood. Cottonwood is also common along rivers in the park. In the cottonwood stands, under a closed canopy, tall grasses and ferns dominate. In the more open areas, willow is the dominant species.

Facility development is appropriate within the forest zone in Kachemak Bay State Park, with a few considerations:

1. Wherever tree cover is opened and soils are disturbed, devilsclub and/or alder move in quickly. Devilsclub is a food for black bears, but it is undesirable in public use areas. Because devilsclub prefers wet soils, developments should be placed on dry, well drained soils.

2. Facility development or heavy use within the forest zone can easily damage trees, because root systems are close to the surface. Soil compaction can affect tree growth. Although roots can cause footing problems when they become exposed on the trail surface, cutting them affects tree and soil stability. Because this problem is easier to prevent than it is to treat, it should be considered before trail and campsite construction. Crews should avoid trees and root systems during trail layout.

3. Vegetation and associated soils can be easily disturbed, especially on slopes. Carefully designed and properly constructed trails drain water across (rather than down) the trail.

Subalpine Zone

The transition zone between forest and alpine is difficult to define. It is sensitive to local environmental influences. Microclimates within this zone allow tree cover to invade from below, and alpine cover from above. Snow slides and geologic activity cause breaks in vegetation.

Alder, in association with birch and willow, is the dominant species. Grasses, ferns, mosses and wild flowers grow where shrub species are absent.

Soil depth and moisture play a major role in determining the upper limit of this zone.

Alpine Zone

The alpine zone extends from the upper fringes of the subalpine zone to bare rock. Grasses, mosses, heather, lichens, low mat plants, and a variety of flowering plants grow here.

Alpine vegetation experiences severe growing conditions. Summers are extremely short, soils are fragile and shallow, and temperatures reach the lower extremes for plant growth. In spite of these conditions, however, beautiful alpine plants thrive in this zone. The alpine zone is easily disturbed, and is generally unsuitable for facility development.

Marshes and Bogs

In areas where drainage is poor and the water table is close to the surface, vegetation consists of associations of sedge and cotton grass mats, willows, and bog cranberries. In Kachemak

Bay State Park, these areas are often eutrophic lakes (lakes evolving into marshes), areas of subsidence, or stream overflows. Wetlands add to the variety of plant and animal associations and species diversity in the park, and provide wildlife habitat. Marshes and bogs are unsuitable for facility development. Trails should be located well away from wetlands and boggy lake shores.

Wildlife

The park has six general habitat types: marine, seashore/tidal marsh, forest, subalpine brush, alpine, and fresh water. The boundaries of these habitats are broad, and they overlap. Individual species identified in one habitat often range into other habitats. Species are listed in the habitat where they are most often found. The species list that accompanies the discussion of each habitat is incomplete.

Marine Habitat

The marine habitat encompasses all continuously covered saltwater areas. Many species found in the marine habitat also use the seashore and tidal marsh habitats. For example, ocean birds spend a considerable amount of time on the water, but come ashore for breeding and nesting.

Birds

Kachemak Bay is among the most important marine bird habitats in the region. More than 230 species of marine birds have been identified around Kachemak Bay. Most of the birds of the bay are migratory, using the bay area only during certain times of the year. Others complete their entire life cycle on the waters of the bay. The major categories of birds identified on or near Kachemak Bay include waterfowl, shorebirds, gulls, terns, and seabirds.

Waterfowl are the most abundant group of birds in the bay area. This group includes diving ducks, seas ducks, dabblers, geese, and swans. Species include common eiders, harlequin ducks, goldeneye ducks, mergansers, scoters, mallards, scaups, pintail, and teal. Many, such as mallards and pintail, are migratory. Others, such as oldsquaws, winter on the bay. Waterfowl have extremely diverse diets and feeding habits change by season, depending on the species.

Shorebirds, including phalaropes and sandpipers, migrate in great numbers through the area. They use the bay as an important rest stop during migration.

"Gulls" commonly seen on park waters include Black-legged kittiwakes, Glaucus-winged gulls, and shearwaters.

Arctic terns nest in small numbers on the moraine of Grewingk Glacier, and in other areas around Kachemak Bay and Cook Inlet. They congregate in the bay area in late July, and leave by September.

Seabirds include pigeon guillemots, marbled murrelets, Kittliz's murrelets, common murres, pelagic and red-faced cormorants, and tufted and horned puffins. Food supply and nesting habitats are two critical aspects of the life history of both seabird and gull species. Small fish and crustaceans make up most of their food supply. Some will feed on the ocean surface diving for small fish. Others prefer to come ashore for crustaceans in the tidal pools, or insects along the shore. Nesting habits also vary. Some build nests along the rocky shores while others lay their eggs on bare rocks high on the cliffs above the sea. The nesting period is the most critical time of the life cycle. Eggs are vulnerable to predation by other birds and mammals when left unprotected. This can happen when rookeries are disturbed. A reliable source of food and adequate nesting sites are the keys to species survival.

Gull Island, located near the park between Peterson Bay and China Poot Bay, hosts an important seabird rookery. Nine species including Kittiwakes, cormorants, gulls, murres, and puffins, nest on the island. Because outer coast colonies were damaged by the *Exxon Valdez* oil spill, the Gull Island Kittiwake colony may now be one of the most productive in the Gulf of Alaska. It is owned by the Seldovia Native Association.

Harbor Seal

Harbor seals are essentially animals of the open sea, although they are sometimes seen in rivers and lakes far from the ocean. Seals "haul out" on certain beaches and rocky shores to rest and to give birth.

Birth usually occurs on sandy beaches or remote reefs and rocks along the outer coast. One pup is born sometime between June and mid-July and is nursed by the mother for three to four weeks. Pups may be abandoned by the mother, particularly when they are disturbed. Because seals are easily disturbed by human activity, haul outs should be kept free from development.

The diet of the harbor seal includes herring, flounder, salmon, rockfish, cod, sculpin, octopus, squid, shrimp, and small crabs.

Sea Otter

The Russian fur trade nearly caused extinction of the sea otter in Alaska. This member of the weasel family, however, has made a slow recovery in Alaska, and has repopulated much of its former range.

Sea otters usually give birth to one pup every two years. The maternal instinct is strong; the female will care for a pup for nearly a year. Studies suggest that females will not mate while they have pups with them.

The diet of the sea otter includes fish, crab, crustacea, sea urchins, rock oyster, mussels, various other mollusks, and octopus.

Seashore & Tidal Marsh Habitat

The seashore/tidal marsh habitat can be described as the area between saltwater and the beginning of the upland forest. This area, which includes the intertidal zone and saltwater marsh, has the largest variety of animal life of any of the habitats. Crabs, urchins, periwinkles, barnacles, mussels, clams, starfish, limpets, and many other forms of sea life are found in this zone. They make up the diet of many shorebirds and mammals. As the transition between marine and upland habitat areas this habitat is particularly vulnerable.

The marshes in this zone are a delicate association of plant and water. They provide some of the best nesting, feeding and resting areas for migratory waterfowl in the region. Even minor disturbances to this balance can destroy this habitat.

Many mammal and bird species are dependent on the health, variety, and concentration of intertidal life. Because collection or harvest could deplete intertidal animals in a short time, they should be carefully managed.

Forest Habitat

The forest habitat (primarily Sitka spruce, alder, and cottonwood) ranges from the edge of the high intertidal zone and up the mountain slopes to the timberline. It provides cover, protection, and nesting and den sites for most of the upland mammals and birds in Kachemak Bay State Park.

The potential for conflict exists between humans and upland wildlife, and should be carefully considered. Development and concentrated use can disturb wildlife, especially near nests or dens.

Following is a brief summary of the life history of some species found in the forest habitat.

Bald Eagle

Bald eagles frequent the shores of lakes, rivers and bays. Their food consists largely of fish and carrion, and they usually nest where food can be easily obtained. They are generally non-migratory, deserting home only during the coldest weather.

Bald eagles mate for life. One brood, of one to three eaglets, is hatched and reared each year. Maturity is reached at three years, when the distinctive white plumage fully emerges. The park hosts a healthy bald eagle population. Nuka Island, in particular, is host to the highest concentration of nesting bald eagles on the southern Kenai Peninsula coast.

Because eagles are easily disturbed, no development should occur within 300 feet of nests.

Coyote

The coyote ranges from the coast to the mountains, but prefers open areas. The status of coyote populations within the park is not well known. Their abundance in this area is probably dependent on the availability of food in tidal areas and lowland forests.

Red Fox

The red fox prefers broken country, crisscrossed with hills and draws. The red fox is omnivorous and eats a variety of foods including muskrats, squirrels, hares, birds, eggs, insects, vegetation and carrion. Mice seem to be preferred. Red fox are rare in this region.

Black Bear

Though it has a decided preference for open forest, the black bear can be found in all terrestrial habitat types within Kachemak Bay State Park. Semi-open forest areas, composed primarily of fruit-bearing shrubs and herbs, lush grasses and succulent forms, are particularly favored.

In the spring, grass and other early appearing herbaceous plants appear to make up the bulk of the black bear's diet. With the approach of summer these foods are supplemented by a variety of fruit-bearing plants and shrubs. In the early fall and, varying with location, the black bear generally has an abundant variety of berries and fleshy fruits for forage; devilsclub berries, crowberries, cranberries, raspberries, blueberries and others. During the late fall, foods are less plentiful unless food sources such as fish are available. At this season, as in the spring, grass is apparently the staple food.

Black bear do not coexist well with humans. To reduce confrontations, areas with high bear concentrations and/or dens should be identified, and excluded when considering sites for facility development.

Wolves

Wolf activity is evident in some areas within Kachemak Bay State Park, though few sightings have been reported. The lack of a consistent, available food source probably accounts for the low numbers. Wolf den sites should be excluded from areas considered for facility development.

Moose

The park's small moose population frequents the lowlands and river valleys. The small population is likely due to the limited browse available in the park's predominantly climax forest type.

Grizzly and Brown Bear

Considered to be the same species, brown and grizzly bears range throughout Alaska. Exceptions are the islands south of Frederick Sound (in Southeastern Alaska), the islands west of Unimak (in the Aleutian Chain), and the islands of the Bering Sea.

While the exact habitat requirements of the brown/grizzly bear are unknown, the species is seemingly most at home in open tundra and grassland areas, and in coastal areas with strong salmon runs.

The brown/grizzly bear is omnivorous. Preferred foods include berries, grass, sedge, horsetail, cow parsnip, fish, roots, and upland animals, when available. Although the area contains good brown bear habitat, few brown bears have been seen in the park.

Other mammals found in this zone are ermine, river otter, mink, marten, wolverine, lynx, hoary marmot, red squirrel and mice.

Alpine Habitat

The Alpine habitat includes the areas of the park above the tree line. There is limited cover, and environmental conditions can be extreme. Although several mammal species frequent the alpine habitat, few are consistently found there.

Mountain Goat

Mountain goats are both grazing and browsing animals. They normally summer in high alpine meadows where they graze on grasses, herbs and low growing shrubs. As winter arrives and the more succulent species are frost-killed, the feeding habits shift to browsing. Hemlock is an important winter food. Most goats migrate from alpine summer ranges to winter at or below tree line. Surveys by Alaska Department of Fish and Game suggest healthy goat populations within the park. Goat kidding areas should be excluded from areas considered for facility development.

Fresh Water Habitat

The fresh water streams and lakes that support fish life are considered fresh water habitats. Several streams in the park are spawning areas for red, pink, chum, and coho salmon.

Special emphasis should be placed on protecting the salmon spawning areas within the park. Development near (or upstream of) spawning areas should be done with caution.

Dolly Varden

The Dolly Varden is a popular sport fish, found in many streams in coastal Alaska. Although frequently called a trout, it is actually a char. They spawn in streams during the fall and migrate to the sea in their third or fourth year of life. They have a habit of searching for streams with lakes, and are frequently found in streams without salmon. Dolly Varden are found in many of the coves and clear freshwater streams of Kachemak Bay.

Pink Salmon

The pink salmon is also called humpback salmon or "humpy," because the male develops a prominent hump on its back at spawning time. It is the smallest (and most plentiful) of the Pacific salmon species, averaging three to five pounds. Usually, it travels only a few miles up river to spawn and is known to spawn in saltwater estuaries.

Spawning takes place from July to September. The female drops 1,200 to 2,000 eggs that, depending on the water temperature, hatch out from December to February. The alevins, or sac fry, remain in the gravel until the yolk sac is absorbed, usually until April to mid May. Immediately after emerging, the free swimming fry start out to sea. They spend one year in the ocean, then head back to "parent" rivers to spawn. The most significant natural spawning stream in the park is Humpy Creek. Others are located on the gulf coast side of the park. Tutka Lagoon hatchery, located on park land in Tutka Bay, has produced pink salmon returns of over 1.6 million fish.

King Salmon

King (chinook) salmon are the largest of the salmon species. King salmon spawn in the fall in Alaska with the average fish dropping five to six thousand eggs. The adults, male and female, die shortly after spawning and the young hatch the following spring. After a year or occasionally two, they drift to sea in schools as three-inch fish. After four to five years at sea the king salmon returns to its native river to spawn. King salmon migrate and feed throughout the saltwater areas of the park. The Alaska Department of Fish and Game annually releases king salmon smolt in Halibut Cove Lagoon. Although the returning adult king salmon do not spawn there, they provide a popular sport fishery.

Silver Salmon

Silver (coho) salmon are found in streams and rivers of all sizes. They usually spawn near the sea, but some migrate farther up larger rivers. Spawning begins in August, peaks in late October or November and continues even into January. The eggs hatch in 40 to 50 days or longer depending on water temperature. The majority of the fry migrate to the ocean in their second year. After two years in the river and one in the ocean, the silver returns to its parent river to spawn. The adults, male and female, die shortly after spawning. Silver salmon can be found in Peterson Bay and at the head of Sadie Cove.

Rainbow Trout

Rainbow trout are a smaller species of the family Salmonidae. They have gained wide popularity as a sport fish. They can be easily raised in hatcheries, and stocked in fresh water streams and lakes. Rainbow trout were stocked in China Poot (Leisure) Lake in the 1950's, and are a self-sustaining population.

They feed on insects, crustacea, worms, smaller fishes and their eggs. Spawning is likely to take place in gravel-bottomed streams in which the female scoops out a hollow or redd for the eggs. When the eggs are laid and fertilized, the female covers them with sand or gravel They hatch in four to seven weeks, depending on water temperature.

CULTURAL ENVIRONMENT

Pre-Contact History

Because of its coastal location, diverse vegetation and wide range of animal life, the Kachemak Bay and Gulf of Alaska areas have long been occupied by humans. Evidence shows area occupation by Pacific Eskimo cultures along the southern Kenai Peninsula coast as early as 6,000 years ago.

Post-Contact History

In July of 1741, the Russian explorers Vitus Bering and Alexia Chirikof became the first Europeans to visit the southern Alaska coast. Cook Inlet is named for Captain James Cook, who explored the area in 1778. The Spanish conducted at least five expeditions to Prince William Sound and Gulf of Alaska waters between 1774 and 1792. Peter Doroshin, a Russian scientist, explored the region in 1850. The Russian fur traders frequented the area in the mid 1800's. In 1880, William H. Dall, a scientist and explorer who mapped Grewingk Glacier, also named Halibut Cove, Grewingk Glacier, Sadie Cove, and several other features of the bay.

Halibut Cove, a small community adjacent to the park, was established around 1911 at the start of the area's thriving herring fishery. Several herring salteries operated around Halibut cove and the nearby lagoon. The fishery ended in the early 1930's, due to depleted stocks. The remnants of herring salteries still exist at some coastal sites.

A few trappers operated in the area from the 1920's through the 1940's. Some of their original trails are now part of the park's trail system. Several features in the park were named for Henry "China" Poot, a railroad worker who hunted, fished and trapped in the China Poot Bay area in the early 1900's. "Herring" Pete Sather and his wife, Josephine, resided on Nuka Island from the 1920's to the early 1960's, and operated a fox farm there. The Nuka area also saw activity in mining and exploration during this period, but this was ended during World War II. Nuka Island was federally owned and was once proposed for inclusion in Kenai Fjords National Park, before the state selected the island.

Cultural Resources

Cultural resources are deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity over 50 years old. They are important evidence of early human occupation. If lost, they are irreplaceable. Cultural sites are studied by evaluating the horizontal and vertical "context" of evidence at the site. Context is the three-dimensional spatial arrangement of a site, artifact, feature or specimen, relative to an established point. The placement of objects relative to each other tells a story of how people lived. Once an object is moved, its context is destroyed. It is unlawful to disturb cultural resources on either state or federal lands. Cultural resources must be carefully managed so their value is

preserved. Within state parks, areas with sensitive archeological resources are often designated as cultural zones.

Investigations since the early 1930's have uncovered and documented several significant sites of ethnohistoric and American period occupation in the Kachemak Bay and Gulf of Alaska areas. They may contain features such as sites, middens (refuse deposits), and artifacts (such as tools and fire cracked rock). There are several important sites within the park.

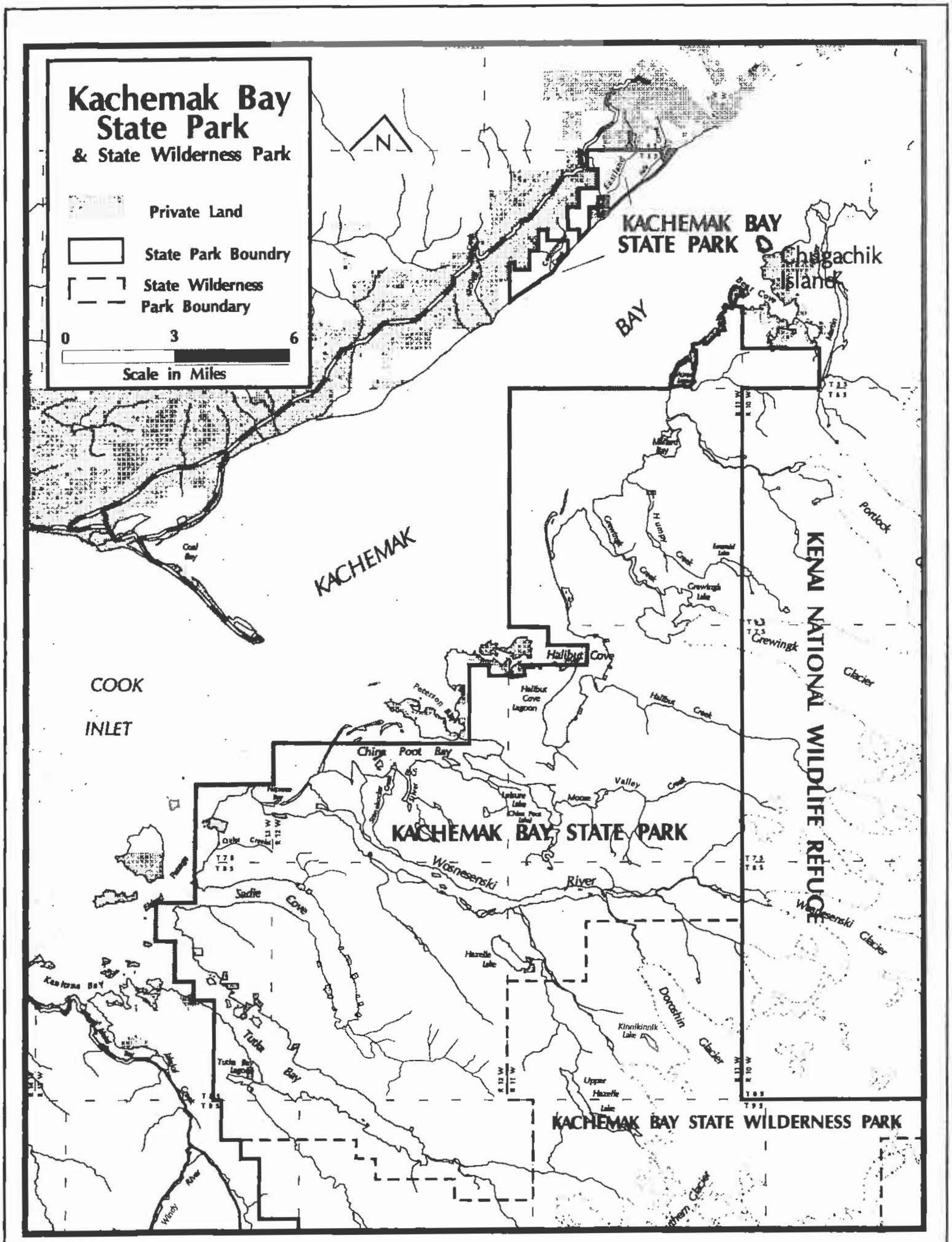
LAND STATUS

The Kenai National Wildlife Refuge and Kenai Fjords National Park are the major landowners to the east of Kachemak Bay State Park. The community of Halibut Cove lies on the northern boundary of the park. The Seldovia and Port Graham Native Associations are the primary landowners to the west and southwest. The southern park boundary extends well into the Gulf of Alaska.

The waters of Kachemak Bay were designated as the Kachemak Bay State Critical Habitat area by the Alaska legislature in 1984. Managed by the Alaska Department of Fish and Game, it was established to protect fish and wildlife habitat, and to insure long-term public use and enjoyment. The Critical Habitat area overlaps designated state park waters in some areas of the bay.

The Bureau of Land Management (BLM) owns 120 acres near Rusty's lagoon, on glacier spit (USS 4730). Part of that agency's forest preserve system, the parcel was established primarily for research. Because it has high recreation value and is surrounded by park land, the state has requested the parcel be transferred, and added to the park. Even though research could continue on the parcel following transfer, the Bureau of Land Management has held that the parcel is better protected under their management.

There are nearly 100 private "inholdings" within the park. Most are five acres or less. The majority are located along the southern coast of Kachemak Bay and in the Petrof view subdivision, on the gulf coast side. The University of Alaska owns two 25 acre parcels on the west side of Nuka Island.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China Poot Bay
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Wosnesenski
River
Sadie
Cove
Tutka
Bay
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KENAI NATIONAL WILDLIFE REFUGE
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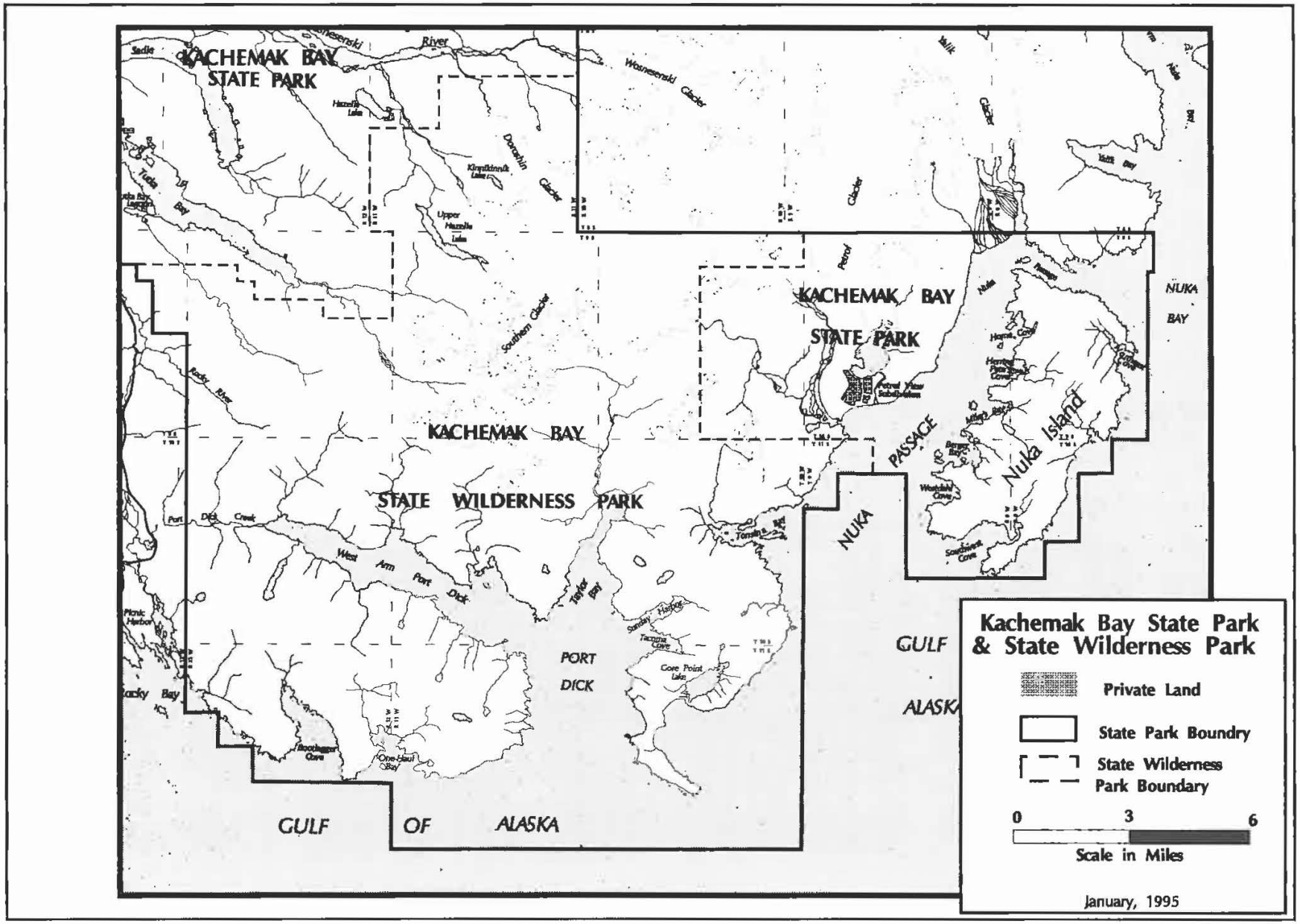
KACHEMAK BAY
STATE PARK
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KACHEMAK BAY
STATE WILDERNESS PARK
NUKA BAY
PASSAGE
Nuka Island
NUKA
GULF OF ALASKA
PORT DICK
Kachemak Bay State Park & State Wilderness Park
Private Land
State Park Boundry
State Wilderness Park Boundary
0 3 6
Scale in Miles
January, 1995

ENVIRONMENTAL IMPACTS

Excluding private lands, several sites within the park have been affected to varying degrees. The following are recognized impacts, and will require evaluation and mitigation:

The former Sadie Cove rock quarry is located on a point between Sadie Cove and Tutka Bay, in Eldred Passage. In 1982, Alaska State Parks issued a permit for the extraction of armor rock one final time. In exchange, the contractor agreed to restore the site by filling and contouring. It will be many more years, however, before new vegetation completely hides the evidence of the quarry operation.

Halibut Cove Lagoon was the site of an extensive ADF&G King salmon rearing project, from 1973 to 1982. Construction materials, old power lines, and water pipeline materials remain on the site, but the area is slowly being cleaned up and rehabilitated.

China Poot (Leisure) Lake offers rainbow trout fishing, and is a popular destination for hikers and fly-in groups. The Alaska Department of Fish and Game conducts a sockeye salmon enhancement project at Leisure lake that involves the use of power boats and lake fertilization. Project equipment is stored at the lake. A small cabin is located on park land in the northeast corner of the lake. The small island on the lake is privately owned.

Several trails in the park were originally established by locals. Many were routed through marsh or straight up steep mountain slopes, without consideration for proper tread construction and drainage control. Although adequate for the low traffic volume they originally received, increased use and/or inadequate drainage has resulted in significant erosion in some areas.

Many popular camping areas of the park have, over time, been affected by heavy use. Sanitation has become a problem in some areas without facilities. This also could cause water quality problems.

The Alaska Department of Fish and Game, under a permit from Alaska State Parks, constructed a large scale fish hatchery in Tutka lagoon. The hatchery is operated by the Cook Inlet Aquaculture Association. The association operates under a memorandum or understanding with the Alaska Department of Fish and Game. The hatchery includes several buildings for staff housing, egg incubation, research, and storage.

In the mid 1970's the Alaska Department of Fish and Game constructed a cabin in the wilderness park at the outlet of Port Dick Creek. The cabin, with out-buildings, is located on a site with resource sensitivities. Site impacts and associated debris have accumulated, and degraded the area over time. It is the only structure standing in the wilderness park.

The wilderness park, Nuka Island, and the north and west sides of Nuka Passage were heavily impacted by the *Exxon Valdez* oil spill. Although the effects of the spill have diminished with

time, oil can still be found in several locations. Evidence of cleanup and research activities also remains.

Chapter 3: Recreation Use, Patterns and Trends

REGIONAL RECREATION PROVIDERS

Federal agencies

The federal government is the major land owner on the Kenai Peninsula. The units of the federal system on the Kenai Peninsula include the Kenai National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service; Chugach National Forest, managed by the U.S. Forest Service; and Kenai Fjords National Park, managed by the National Park Service.

The Kenai National Wildlife Refuge extends from the north coast of the Kenai Peninsula to Kachemak Bay State Park. The refuge accommodates a variety of recreational uses that include hunting, fishing, hiking, camping, and cross-country skiing. Most recreational use is compatible with the agency's goal of fish and wildlife habitat conservation.

Chugach National Forest encompasses six and one-half million acres. It covers much of the northeast Kenai Peninsula, and much of the land in Prince William Sound. The Kenai Peninsula portion of the forest is mountainous, and is bisected by highway, roads, and trails, making it accessible to a wide variety of upland recreational users. Within the Prince William Sound area, popular activities are pleasure boating, hunting, fishing, hiking, and skiing. The Chugach National Forest manages 43 public use cabins and an extensive trail system.

Kenai Fjords National Park extends along the gulf coast, from Kachemak Bay State Wilderness Park to the City of Seward. It includes rugged coastline in the Gulf of Alaska, and much of the Harding Icefield. The entire coast of the park has been recommended as wilderness study area by the National Park Service. The National Park Service estimates that in the summer of 1993 more than 2,000 people visited the coastal portion of the park, and some 50,000 visitors viewed the park from charter vessels. Recreation opportunities in the park include camping, fishing, hiking, mountaineering, boating, and wildlife observation. The National Park Service manages four public use cabins in the park, and a visitor center at Exit Glacier.

State of Alaska

Besides Kachemak Bay State Park and Wilderness Park, Alaska State Parks manages another 30 units of the state park system on the Kenai Peninsula. Units such as the Kenai River Special Management Area, and Ninilchik, Deep Creek, and Anchor River State Recreation Areas provide access to outstanding sport fishing opportunities. The state marine parks of Prince William Sound and Resurrection Bay provide a variety of coastal recreation activities. Caines Head State Recreation Area provides a public use cabin, and camping and hiking opportunities at the site of Fort McGilvary, a World War II gun emplacement. Captain Cook

and Johnson Lake State Recreation Areas, and Stariski State Recreation Site, are popular for picnicking and camping. Clam Gulch State Recreation Area provides access to razor clam digging.

The State of Alaska, Division of Land manages the Caribou Hills north of Homer, a popular area for hunting and winter sports.

RECREATION WITHIN KACHEMAK BAY STATE PARK

Recreation Opportunities

Most recreational opportunities available in the park are found on or next to its bodies of water. Activities include pleasure boating, sport fishing, clam digging, sea kayaking, crabbing, beachcombing, photography, scuba diving, waterfowl hunting, and wildlife observation. Fishery enhancement programs in the area attract sport and commercial fishers to park waters. Enhancement programs are active in Tutka Lagoon, China Poot Bay, and Halibut Cove Lagoon.

Beaches (such as Grewingk Glacier spit) provide sites for picnicking and camping, and are important staging areas for upland activities such as day hiking, mountaineering, skiing, backpacking, and hunting. Day hiking and backpacking opportunities are increasing as the park trail system is developed. Mountaineering and skiing are available on the park's snowfields and glaciers.

More than 20 guides, charters, and air and water taxi services provide access to park lands and waters. They also offer flightseeing, photography, and wildlife viewing.

Existing Use Patterns

Kachemak Bay State Park visitor records document steadily increasing visitor use. The park received about 40,600 visitors in 1993. Trail registers indicated that more than 1,000 hikers used park trails that year.

Halibut Cove Lagoon attracts many sport fishers during the king salmon season. As many as 70 boats per day visit the lagoon during the peak period of May to July. The 1993 harvest of king salmon was estimated at 3,500 fish, with 2,300 caught by sport fishers. A ranger station, public use cabin and floating dock are located at the head of the lagoon. The trailhead to China Poot (Leisure) Lake, a popular destination for hikers, sports fishers and campers, is also located here.

The popular Grewingk Glacier Spit area is known primarily for camping, hiking, clamming, sport fishing, and beachcombing. Within this area are the popular Grewingk Glacier and Alpine Ridge trails. The Humpy Creek trail provides access for anglers during pink salmon, silver salmon, and Dolly Varden runs.

The area from Neptune Bay to Tutka Bay is rugged. The steep mountain slopes end abruptly at salt water in both Sadie Cove and Tutka Bay. There are few attractive overnight campsites or hiking trails. Sport fishing, kayaking, and clam digging are popular activities in this part of the park.

The major recreational attraction in China Poot Bay is "dip netting" for sockeye (red) salmon in July. The records of the Alaska Department of Fish and Game show a sport harvest of 4,400 fish in 1993. The China Poot Bay estuary, known as a major bird breeding and rearing area, attracts naturalists, photographers and students.

The park's outer coast, including the wilderness park and Nuka Island, has remained truly wild. Because of its remote location, it receives only a small fraction of the visitation that the Kachemak Bay area receives. Commercial fishers, mountaineers, kayakers, skiers, and hunters make up the bulk of the area's visitors. Recreational boating along the outer gulf coast is limited. The exposed coastline has few protected anchorages. Harsh weather and rough seas are commonly encountered. Occasionally, visitors arrive by foot from the nearby Rocky River Road, or by traversing the Kenai Mountains. The Alaska ferry passes along the park's outer coast on its Homer-Seward run, affording views and photographic opportunities.

PUBLIC PREFERENCES

During 1991 and 1992, Alaska State Parks commissioned Hellenthal and Associates to conduct a statewide survey of over 600 Alaskan households to identify Alaskans' outdoor recreation preferences. The following are the survey results that apply particularly to Kachemak Bay State Park:

- Alaska residents place overwhelming importance on outdoor recreation. Nearly 95% of the population considers outdoor recreation to be significantly important to their lifestyles.

- Public use cabins were supported by an average of 81% of those polled. There is also substantial support for development of new trails, tent campgrounds, for new and/or specialized types or recreational opportunities, and for the establishment of new parks.

- Five of the top six outdoor recreation activities Alaskans favor most are available in the park; sport fishing, hiking, walking, hunting, and tent camping.

In two surveys taken in 1983 and 1984 for the most recent management plan, Alaska State Parks polled residents on issues specific to Kachemak Bay State Park. The survey results clearly illustrated that:

- The public has a cautious attitude concerning facility development within the park.

- Those surveyed strongly supported foot trails and camping areas, but did not favor lodges, marinas or docks.

- The public draws a sharp distinction between Kachemak Bay State Park and Kachemak Bay State Wilderness Park. Restrictive management practices and policies are favored for the wilderness park, to protect wilderness values.

For over 10 years, public opinion has been solicited through the Kachemak Bay State Park Citizen's' Advisory Board. The board consists of residents of the Kachemak Bay communities and is consistent with state policy that calls for public participation in all phases of planning and park management. During monthly meetings the board addresses a variety of issues concerning the park and solicits public opinion. Public meetings are sometimes held to gauge public opinion on controversial park issues.

TRENDS AND IMPLICATIONS

The following indicate increasing demand for recreation opportunities in the region:

- Visitor use data and public preference surveys show an increasing demand for boating/fishing facilities and access, for trails and trail-related activities, and for public use cabins.

- The residents of Southcentral Alaska place a great deal of pressure on the recreation resources of the Kenai Peninsula. The population is growing 10-20% per year.

- The expansion of the Homer small boat harbor and improved boat launching facilities have increased public access to the natural resources of Kachemak Bay.

- Tourism is a major economic development strategy for the Kenai Peninsula. As the state and local tourist industry grows, an increase in out-of-state visitors should be expected.

Kachemak Bay State Park will play an increasingly important role in meeting recreational demand and in attracting tourism to the region. The implication for the future is that the park will see an ever-increasing demand upon its resources. Adequate staffing, management, resource protection, and appropriate facility development will all be needed if Alaska State Parks is to meet these challenges.

Chapter 4: Issues

The following issues, identified by managers and the public, affect the park. The chapter on land use classification, and the recommendations for park-wide policies, facility development, and administration, were developed in consideration of these issues.

ISSUE: PRIVATE LAND WITHIN THE PARK

More than 150 private parcels of land are within or next to the park. Many have cabins or other structures. Some are inhabited year round. For the most part, they are five acres or less in size, and are located along prime areas of the coast. Most of these parcels predate the establishment of the park and were obtained through state and federal land disposal programs. The potential for conflict exists between park users and private landowners. Conflicts could also arise between park managers and private landowners regarding management practices, policies, and the development of park facilities.

Significant blocks of privately owned lands within or next to the park include the community of Halibut Cove, and subdivisions in Peterson Bay and Petrof View. Petrof view is a remote subdivision on the gulf coast, in Nuka Passage. It consists of approximately 55 private parcels, with 100 ft. easements for roads. Development of this subdivision may result in requests for the use of park resources and will increase use of and impacts to adjacent park lands.

Following are sub-issues and examples that relate to private lands:

1. *Trespass*: The potential for trespass can create conflict between park users and land owners. In 1993, for example, campers started a campfire on a parcel of private land located within the park and left it unattended. It spread, causing significant damage to the property. Private land owners want reasonable access to their property. In doing so, however, they can encroach upon and/or impact public lands and waters.

2. *Water Quality*: Waste water discharge and the pollution of public lands and waters by property and boat owners are a concern.

3. *Water Use*: Some land owners collect water for personal use by placing water collection devices on park lands.

4. *Firewood/ house logs*: Park regulations allow for collection of dead and down wood, if used within the park. There have been instances, however, where property owners have illegally cut and removed dead and down wood, drift wood, and even standing timber from the park for personal use.

5. *Commercial development*: Lodges, tours, and related businesses on adjacent private lands can provide access to and enhance enjoyment of the park. The resulting increased use, however, can result in resource impacts.

6. *Visual impacts*: Certain building types and colors, or extensive site modification, can diminish the park's scenic values.

7. *Other uses*: Running lines, docks, and personal property have been placed on park lands and/or waters without a permit.

8. *Park management:* Owners of private property adjacent to the park may feel their activities on adjacent park lands and waters are unduly restricted by the regulations designed to protect the park.

ISSUE: ACCESS

Although several trails, campsites and mooring buoys have been developed, and water and air taxi services are available, access to the park remains difficult. The following issues are associated with park access:

1. The cost of a water taxi or air charter is prohibitive for many potential park visitors.

2. Due to topography and exposure, there are few ideal beach landing sites and protected anchorages available in the park. This is particularly true in the wilderness park and the east side of Nuka Island. Private boat operators and water taxies frequently experience hazardous conditions when attempting landings at popular beaches and trailheads.

3. Designated landing sites can concentrate use, accelerating resource impacts.

4. Improvements such as docks and mooring buoys enhance access, but can concentrate use, speed site degradation, and contribute to user conflicts. Use of these facilities may need to be controlled.

5. Trails, trailheads and other facilities are often difficult or even impossible to access by the physically challenged. An example is the floating dock at Halibut Cove Lagoon ranger station. The dock consists of an anchored main float and a smaller "running line float" used to reach the shore. It is cumbersome and can be difficult to operate, especially by children and older adults.

6. The ranger station and public use cabin in Halibut Cove Lagoon are located in an area that can be difficult to reach because of tidal action. Negotiating the channel linking Halibut Cove with the lagoon can be hazardous (or even impossible) during tides lower than + 3 feet. The channel is not marked.

7. The two parcels of park land in the Cottonwood/Eastland Creek area are separated from each other (and from the closest public road) by private property. Linking park lands together with a road or trail system may be difficult, costly, and controversial. The only roads into the Cottonwood/ Eastland creek area are private. There are no trails or other improvements to facilitate public access.

8. Section 17b of the Alaska Native Claims Settlement Act provides for identification of certain public easements across native selected lands. One of these easements provides access to the wilderness park from the Rocky river road. The easements in the Kachemak Bay area have not been adequately identified and signed.

ISSUE: AIRCRAFT AND MOTOR VEHICLE USE

As previously discussed, access to Kachemak Bay State Park (except the Cottonwood/ Eastland additions), is limited to either boat or aircraft.

Flight-seeing and air taxi services offer an important recreation service. Conflicts can arise, though, between those seeking a "backcountry" experience and those reaching the park by air. Aircraft can easily get to many remote areas in the park, where backcountry users have made considerable effort to get away from this kind of activity. Management strategies should be developed to reduce both potential and existing conflicts.

Current regulations allow aircraft landing within Kachemak Bay State Park, and on saltwater or saltwater beaches within Kachemak Bay State Wilderness Park. These regulations do not differentiate between wheeled fixed-wing, float equipped aircraft, or helicopters.

The use of inboard and outboard powered boats in saltwater has not been an issue, but the use of jet boats, jet skis, air boats, and hovercraft in rivers, streams and lakes, is. Habitat damage, disturbance to wildlife, and conflicts between user groups because of noise are some examples. Current park regulations do not specifically prohibit such use in saltwater, though the Kachemak Bay Critical Habitat Area management plan states; "Traversing areas with rooted vegetation in airboats or hovercraft is prohibited."

Motor vehicles (such as automobiles, ATV's or heavy equipment) are prohibited in the park by law. They have, however, been illegally used in the park.

ISSUE: FACILITY DEVELOPMENT

Encouraged by public comments and the advisory board, Alaska State Parks has historically taken a conservative, "go slow" approach toward facility development within Kachemak Bay State Park. Public opinion polls show a demand for additional trail development. There are concerns, though, that developments such as public use cabins, lodges and docking facilities could diminish park values.

Facilities often attract and concentrate use. Lack of adequate planning, maintenance, and resource protection can result in site erosion, resource degradation, litter, and a further reduction in scenic and/or wilderness values. Lack of adequate sanitary facilities at popular picnic areas, camp sites, and trailheads can diminish resource values and threaten water quality. Wildlife are often attracted to high-use areas, such as popular campgrounds, where campers store and prepare food. Animals can quickly become conditioned to the presence of humans in these areas, causing public safety problems.

ISSUE: RIDING AND PACK ANIMALS

Park users and managers have long been concerned with the impacts associated with riding and pack animals (except llamas). Trail erosion, grazed vegetation, degraded water quality and conflicts between user groups are examples of potential problems. The thin, unstable soils common to the park are highly sensitive. Trails constructed for stock are more difficult and costly to build and maintain than are trails designed exclusively for foot traffic.

ISSUE: TRESPASS CABINS

This issue involves private cabins (or other private facilities) placed on park lands and waters without a permit. There are at least two cabins within the park that have no current permit, title or lease. Both cabins were constructed before the park was established. One cabin is located on China Poot Lake and is used by local residents and friends and family of the owner. Another cabin is located in Moose Valley. It is a simple log cabin with dirt floor, built in the 1960's. It is occasionally used by local residents. The Kachemak Bay State Park Citizen's Advisory Board has opposed the conveyance of park land to the owners of these structures. It is not within the authority of Alaska State Parks to sell or otherwise dispose of park land.

Alaska State Parks "inherited" several structures through land acquisitions. Many of these (such as duck hunting shacks and shooting blinds) are not allowed in the park.

ISSUE: WILDERNESS MANAGEMENT

There are two ways to establish designated wilderness areas in the Alaska State Park system: through legislation, and by administrative land use classification (zoning), as described in the "Alaska State Park System: Statewide Framework." The wilderness park is an example of a legislatively designated wilderness area. Due to terrain, character, and lack of development, certain state park lands may qualify for wilderness "zone" classification. Examples include lands above the 1,000-foot elevation, or lands next to federally managed wilderness areas.

Wilderness classification can be controversial, because most facility development is strictly limited and certain uses are controlled to protect wilderness qualities. The Kachemak Bay State Park Citizen's' Advisory Board, and many Alaskans and park users support strict limits on facility development in the wilderness park.

The Port Dick cabin, located at the terminus of Port Dick Creek, is the only structure standing in the wilderness park. Constructed in the early 1970's by the Department of Fish & Game, the cabin and outbuildings supported fishery research workers. The Alaska Department of Fish and Game did not apply for or obtain a permit from Alaska State Parks prior to constructing the cabin. Although Fish and Game has not used it for many years, the agency has expressed interest in retaining the cabin for future projects. The cabin has become popular with commercial fishers, hunters, sport fishers, air taxi services, and locals.

The cabin has become an attraction, concentrating use in a small remote site with resource sensitivities. Site degradation has occurred and debris has accumulated over time. Removing the cabin and restoring the site is controversial, but leaving it creates long term management problems. Finally, this level of facility development is incompatible with the wilderness values for which the park was established.

ISSUE: COMMERCIAL FISHING

Commercial fishing was a traditional use of Kachemak Bay prior to the establishment of the park. It has included the harvest of salmon, shrimp, crab, groundfish, rockfish and halibut, herring, hardshell clams, and other species. According to the Alaska Department of Fish and Game, the trawl shrimp, dungeness crab, pot shrimp, herring, and king crab fisheries are now closed because of severely depressed stocks. Although the industry's activities have provided visitors an opportunity to observe and learn about the lifestyle of many Alaskans, conflicts occasionally arise between park users and commercial fishers. The following issues relate to commercial fishing within the park:

1. Enhancement activities provide sport fishing opportunities, but fishing boats frequently occupy popular locations for extended periods, limiting recreational boating and sport fishing access.

2. Recreational boaters occasionally disrupt commercial fishing operations by driving over and damaging nets and floating crab and shrimp pot lines. In areas such as Halibut Cove and Halibut Cove Lagoon, the concentration of commercial and recreational crab and shrimp pots creates boating hazards and visual impacts.

3. Dragging the bottom of shallow bays during seining operations may diminish the potential for sport and subsistence harvest of dungeness crab.

4. The allocation of fish and shellfish between sport and commercial interests has been and will continue to be an issue in the park. The controversial commercial harvest of hard shell clams on the park's beaches is the most recent example. Many people feel only subsistence and recreational harvest of crab and clams should be allowed in the park. The Alaska Board of Fish and the Alaska Board of Game have responsibility for allocating state managed species between sport and commercial interests.

ISSUE: COMMERCIAL ACTIVITIES

Alaska State Parks generally encourages commercial activities that provide or enhance recreation services in state parks, provided they are consistent with the purposes of the park.

Commercial uses of park lands and waters (except commercial fishing) are managed by Alaska State Parks through a commercial use permit system. Commercial fishing is managed by the Alaska Department of Fish and Game.

Commercial operators include visitor services such as water and air taxis, fishing charters, guided hiking and hunting, and wildlife tours. Production of films, publications, video guides, and commercials is also considered a commercial activity. Many of these commercial activities enhance recreational use of the park. Certain commercial activities can be controversial, however, if they are perceived to be in conflict with park values.

ISSUE: FEES

Fees are an important revenue source for Alaska State Parks. They play an increasingly important role in the continued support and maintenance of state park facilities.

Commercial operators (except commercial fishers) pay fees for permits to operate within state parks. In this way, the public receives compensation for the commercial use of public resources. Fees are opposed by some commercial operators.

User fees are also collected in some units of the state park system. Fees for camping, parking and boat launching are generally well supported where there are adequate facilities. User fees have not been charged in certain parks where facilities such as water, latrines, improved campsites and fire grates are not always provided. Kachemak Bay State Park is one of these. The issue is whether a park fee should be established for using roadless or remote parks, and how these fees should be collected.

ISSUE: FISH ENHANCEMENT ACTIVITIES

This issue concerns fishery enhancement activity in the park. The Alaska Department of Fish and Game has statutory authority to manage fisheries within the park. The Alaska Department of Fish and Game is also allowed, by law, to enhance or rehabilitate fisheries on lands within Kachemak Bay State Wilderness Park. These activities are subject to park use permit requirements. Fishery enhancement projects include egg taking, rearing, smolt release and lake fertilization.

The Department of Fish & Game has proposed several projects that affect the park. These include stream channeling and the introduction of non-indigenous species. Stream channeling provides access for salmon up creeks or streams diverted by the 1964 earthquake. It involves the use of heavy equipment within wilderness zone, and is controversial. Introducing

nonindigenous species such as deer to the park could increase visitor use, but introduced species may compete for habitat with native species.

Formerly operated by the Alaska Department of Fish and Game, the Tutka lagoon hatchery is now operated by the Cook Inlet Aquaculture Association. The hatchery has provided an important sport and commercial pink salmon fishery, attracting commercial and sport fishers to the area.

Fish enhancement projects provide valuable terminal fisheries that attract commercial fishers, fishing guides and sport fishers to the park. They concentrate use, however, and create an increasing need for facilities, public information, resource protection, facility maintenance, and public safety.

ISSUE: COMMUNITY & TOURISM GROWTH

Growth on the Kenai Peninsula increased about 10-20% per year through the 1980's. From 1990 to 1992 it increased by 8%. Since 1889, the Homer area population has increased at least 10% per year to nearly 4,500 in 1993. The number of private parcels adjoining the park, particularly at Bear Cove, Halibut Cove, Peterson Bay and the Tutka/Jackolof areas, increased, as larger parcels were subdivided and sold. Information gathered from visitor counts in the park show an increase in park use of between 10% and 15% per year. This will result in an increased demand for facilities and maintenance.

ISSUE: ADJACENT STATE LANDS

The management of state-owned lands near the park is a concern, because many of these parcels have high recreation value. The issue is whether to add these lands to the park, make them available for private ownership, or continue management through other state agencies.

ISSUE: PUBLIC SAFETY

The need for resource protection, medical emergency response, and search and rescues has been increasing with park visitation. The park is assigned only one seasonal ranger. With almost 400,000 acres of land and water to manage and with the current staffing level, it is nearly impossible to provide the full range of public safety services park wide. Alaska State Parks and other agencies responsible for public safety within the park will eventually require additional staffing.

ISSUE: WILDLIFE MANAGEMENT

The Alaska Department of Fish and Game manages many of the wildlife species that inhabit Alaska's lands and waters (including state parks). Sea otters, bald eagles and migratory waterfowl within the park are managed and protected by the U.S. Fish & Wildlife Service. Many people believe hunting and trapping within state parks should be restricted, to provide for high quality wildlife viewing and photographic opportunities. The eco-tourism industry is growing world wide. Many visitors coming to Alaska expect world class wildlife viewing opportunities, especially in designated parks.

Certain practices associated with hunting and trapping can also directly conflict with other park uses. Bear baiting, especially near public recreation facilities, is a public safety concern. Family pets could be caught in the traps set along park trails. The Alaska Board of Game establishes seasons and regulates harvest within the park

ISSUE: SPRUCE BEETLE INFESTATION (see beetle survey map in appendix)

Spruce bark beetles spread from interior forests along the Kenai Peninsula and established a foothold in Kachemak Bay in the early 1980's. Like fire, insect infestation is a natural process that has a significant negative visual impact. To date, over 40,000 acres have been affected around the bay, mostly along the north side and in the Fox River valley. On the bay's south side, beetles infested more than 14,000 acres around Mallard Bay, 2,180 acres around Halibut Cove, 934 acres around China Poot lake, 234 acres in Sadie Cove, and 311 acres in Tutka Bay. The beetle normally infects mature interior white spruce, especially old trees that have lost their ability to resist disease. Beetles prefer a warm, dry environment. Foresters believe that the beetle is not a significant threat to coastal Sitka spruce due to the normally moist, cool maritime environment. According to the 1993 USDA Forest Service Forest Health Management Report, however, beetle activity in the Kachemak Bay area increased in 1993 for the fifth consecutive year. This is most likely due to a series of unusually warm, dry summers.

ISSUE: MARICULTURE

Mariculture, or aquatic farming, began in the Kachemak Bay area in 1983 as a research project. Interest in mariculture grew, and Alaska State Parks began receiving permit applications for blue mussel farming from floating rafts within Kachemak Bay State Park. Halibut Cove Lagoon was identified by applicants as a preferred location for mariculture, due to it's protected waters and good water quality. Commercial uses of the park that do not provide a recreation service are, by law, incompatible with the purposes for which the park was established. For this reason, the park's Citizen's' advisory board opposed the issuance of permits for mariculture rafts. Temporary and conditional permits were, however, issued to applicants by Alaska State Parks and by the Department of Fish and Game. In 1989, a special and temporary act of the legislature act allowed those already holding valid permits to continue mariculture on a 20-acre site within the lagoon. This legislation stipulates that the