S B
528

HOUSE COMMITTEE REPORT

(9)
Date Referred: April 20, 1990 FURTHER REFERRALS:

Date of Committee Action: 5/5/90

The RESOURCES Committee considered: CSSB 528(RESOURCES)

CS SB NO. 528 (Res) SHELLFISH MARICULTURE: KACHEMAK BAY PARK

"An Act relating to shellfish mariculture within the Kachemak Bay State Park; and providing for an effective date."

RECOMMENDATIONS:
[X] be replaced with House CS for CSSB 528 (Resources) [X] the same title [ ] a new title
[ ] have attached amendment(s)
[ ] do pass
[ ] do not pass
[ ] no recommendation
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(s): (Dept)
[ ] fiscal impact _____
[ ] zero fiscal note _____
[ ] zero with analysis _____

APPROVES PREVIOUS: (Date/Dept)
[ ] fiscal note(s) _____
[X] zero fiscal note(s) DNR, F+G
[ ] zero fn/analysis _____

SIGNING DO PASS:

Menard
Navarre

SIGNING: (Check approp. column)

	Do Not Pass	No Rec	Amend
Davidson	✓		
Jacko		✓	
Hudson		✓	
Davis		✓	

Chairman's Signature

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION CS SB 528 (Res) (a)
PUBLISH DATE: 4/3/90

FISCAL NOTE

REQUEST:

Revision Date: 30-Mar-90
Title: An Act relating to shellfish mariculture within Kachemak Bay State Park
Sponsor: Rules Committee
Requestor: Resources Committee

Agency Affected: Natural Resources
BRU: Land & Water Mgmt
Parks & Outdoor Rec
Components: Land & Water Mgmt
Parks Mgmt

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND&STRUCTURES						
GRANTS,CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Larry Ostrovsky
Phone: 465-2400
Division: Commissioner's Office
Date: 30-Mar-90

Approved by Commissioner: for Lennie Gorsuch
Date: 30-Mar-90
Agency: Department of Natural Resources

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Changes in CS SB 528 (Res) have no fiscal impact. This fiscal note is appropriate. Projections of no fiscal impact would continue through 1996.

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: CS SB 528 (Res)(b)
PUBLISH DATE: 4/3/90

FISCAL NOTE

REQUEST:

Revision Date:
Title: Relating to Shellfish Mari-culture Kachemak Bay State Park
Sponsor: Rules
Requestor: Legislative Budget & Audit

Agency Affected: Fish and Game
BRU: Division of Habitat
Components: Habitat

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

No FY 90 impact.

Prepared by: Molly McCammon
Phone: 465-4100
Division: Commissioner's Office
Date: 04-02-90

Approved by Commissioner:
Date: 4/3/90
Agency:

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Changes in CS SB528 (Res) have no fiscal impact. This fiscal note is appropriate. Projections of no fiscal impact

MEMO

NO. OF PAGES 1

Original sponsor(s): Rules/Legislative Budget & Audit Committee

IN THE SENATE BY THE RESOURCES COMMITTEE

HOUSE CS FOR CS FOR SENATE BILL NO. 523 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

SIXTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to shellfish mariculture within the Kachemak Bay State Park; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. FINDINGS. (a) The legislature recognizes that shellfish mariculture is a commercial activity that is incompatible with the purposes of state parks generally, and that commercial activities of this type conflict with the expressed purpose of Kachemak Bay State Park as set out in AS 41.21.130.

(b) The legislature also recognizes that restricted commercial shellfish mariculture activity within Kachemak Bay State Park within Halibut Cove Lagoon has been permitted in recent years. In this unique instance, the legislature acknowledges that this particular commercial activity has not appeared to significantly diminish Kachemak Bay State Park's value as a scenic park under AS 41.21.990. The legislature further recognizes that if this activity is not allowed to continue, the present operators may be prevented from realizing a return on their investments that were made while operating under valid state permits.

(c) Therefore, the legislature finds that notwithstanding the determination that shellfish mariculture is incompatible with recognized park purposes, such activities within Halibut Cove Lagoon may, with proper public oversight, be permitted to continue on a restricted basis.

(d) The legislature also finds that to achieve this end, the area where shellfish mariculture activities may be permitted shall be confined

to Halibut Cove Lagoon and shall be limited to a maximum of 20 acres.

* Sec. 2. A person who is the operator of a shellfish mariculture activity on Halibut Cove Lagoon within Kachemak Bay State Park on the effective date of this Act is entitled to continue the shellfish mariculture activity for five years with a right of renewal and otherwise according to the terms of the permits issued by the commissioner of natural resources as they existed on the effective date of this Act. The rights granted under this section lapse if the right of renewal is not exercised. Except as provided in this Act, the commissioner may not approve a transfer or an extension of the permits. The area in which the shellfish mariculture occurs may not exceed 20 acres.

* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

6-2365Eb
Bradley

A M E N D M E N T

OFFERED IN THE SENATE BY SEN. KERTTULA

TO: CSSB 528 (Resources)

Page 1, line 15:

Delete "AS 41.21.026 - 41.21.030"

Insert "AS 38.05.083 and 38.05.855 - 38.05.856"

4-25-90

BRENDA HAYS
BAY BLUE MUSSEL FARM
BOX 6458 HALIBUT COVE, AK.

REP. CURT MENARD,

On behalf of myself, and all the mussle growers of Halibut Cove Lagoon, We urge you to pass Bill #528, allowing 20 acres for mariculture within Kachemak Bay State Park.

For the past two years we have been laden with political red tape from five different agencies, which we have managed to survive, with the exception of the Kachemak Bay State Park advisory Board. This organization is trying to shut us down on the grounds that Mariculture is noncompatible within the park.

Their own 1989 Management Plan (See page 52) states that Commercial Shellfish farming is compatible "only by permit" through DPOR, which we all now hold.

We have been constantly threatened by the expiration of this special use permit.

May I remind you, that we are here by invitation from "Parks Dept.", and are

- just trying to explain - a -
idea, which was extremely thought
out. all we want to do is continue
growing mussels in the only protected
and nutrient rich, deep waters of
Halibut Cove Lagoon.

Thank you,
BRENDA HAYS
Brenda Hays

Testimony to House Resources Committee, April 25, 1990

My name is Karen Brewster. I am a resident of Barrow, AK. I appreciate having this opportunity to comment. I am strongly opposed to SB 528, allowing for shellfish mariculture within Kachemak Bay State Park. I formerly lived in Anchorage, where I spent time in and around Kachemak Bay State Park (KBSP). I spent a lot of time researching this issue and found mariculture to be clearly incompatible with the purpose of KBSP, and the legality of authority for its approval to be questionable. It was my understanding that the Division of Park's previous review decided to have the permits expire in December 1989. Now I am hearing that the permits were automatically extended until December 1990.

This current attempt to get mariculture in Halibut Cove Lagoon permanently by asking for legislative action is abhorrent. This is an attempt to get around existing procedures and laws. This is a park management issue, not a legislative issue. Please leave such decisions up to the experts, who have already determined that these permits should not be reauthorized.

Alaska's state parks were not established to provide for commercial uses, but rather for public recreation, and wildlife and habitat protection. Commercial shellfish mariculture conflicts with the purposes of KBSP and is inconsistent with the park's management plan. This bill is an attempt by the legislature to circumvent the planning process established for appropriate management of Alaska's state parks. The KBSP local advisory committee has consistently voted in opposition to shellfish mariculture within KBSP for the last 3 years, and the division of parks action with the permits shows their interest in having mariculture removed from the park. This bill's attempt to override preexisting authority and decisions is an insult to the management plan and the local advisory committee.

The uses of state public land, such as within a state park, is a matter that should be put before the public. The lack of public involvement in SB528 is appalling. I only heard of this bill yesterday and if I had not called Juneau personally I would not have been included in this public hearing. I fear the bad precedent being set by such exclusion.

A special interest, such as a shellfish farmer, should not be directing how a state park is managed. This is what park managers are for. If the legislature allows commercial shellfish mariculture within KBSP, despite it's inconsistency with the park's existing management plan and mandate, I wonder what is in store for the rest of our valuable state park lands? There are serious implications from the legislature acting in such a manner. Our state park system and the complex public planning procedure that is in place will be undermined.

The first permit for mariculture in KBSP was an experimental permit, wrongly authorized by Division of Land and Water Management. Because the activity was within state park boundaries, Division of Parks was the managing authority. This allowance made it easier for subsequent applicants to receive mariculture permits for within the park. Just because the activity has been occurring for a number of years, is no reason that it should continue, especially when it is clear that it is an incompatible use.

I am also opposed to the proposed amendment giving oversight authority to the Division of Land and Water Management. This shellfish mariculture is a commercial activity within state park boundaries, so it falls within the Division of Park's jurisdiction. They must retain management and oversight authority for activities within their domain.

I urge you not to pass SB528. It sets a bad precedent for state park management decision-making, and for allowing incompatible uses within a state park.

Thank you. Karen Brewster 852-5052

Emily Barnett: April 25, 1990 Testimony regarding SB 528, a bill to allow mariculture in Kachemak Bay State Park.

Hello, my name is Emily Barnett and I am representing the Sierra Club. We have over 1600 members in Alaska, many of whom visit and enjoy Kachemak Bay State Park.

I urge the Committee to oppose SB 528. There are many compelling reasons why the legislature should not take action to allow mariculture in KBSP.

This bill, which so far has received almost no public scrutiny, flies in the face of many well-established legal mandates. Commercial aqua-farming in Kachemak Bay state park represents an incompatible activity that violates not only the park's enabling legislation but also Title 38 of the Alaska statutes, the State Constitution, the AK Coastal Management program, and DNR's own regulations. In a legal analysis by SCLDF, the attorneys concluded that :

"Title 38 clearly prohibits purely private, commercial use of lands which have been withdrawn for state park purposes...The statutes establishing KBSP clearly and unambiguously withhold the authority to authorize commercial mariculture operations within its boundaries."

In a 1988 policy statement the Division of Parks itself determined that "mariculture activities in most parks, including Kachemak Bay State Park are incompatible with the basic mission as stated in statute."

SB 528 would allow commercial operations inside a park which are completely unrelated to the purposes of the park. Incompatible uses should not be allowed in state partks. The bill represents a very dangerous precedent which would make all of our parks vulnerable to commercial activities at the whim of private interests. It is not appropriate for the legislature to rush a bill through at the last moment which undermines the integrity of all our state parks.

One need only look at the Division of Park's files to see that many Alaskans share these concerns. There is an extensive public record concerning aqua-farming in state parks which has revealed strong public opposition. When the Division of Parks proposed new regulations dealing with aqua-farming in state parks they received a strong and clear message that the public did not support such uses of our state parks. In a letter to the permit holders, the Division stated that:

> "Opposition centered on the belief that mariculture within KBSP was a violation of the enabling park statute, was an incompatible activity and, as a commercial use of the park, did not provide a service in the park related to public recreation or land and water preservation." (11/28/90)

It is important to keep in mind that alternative sites for mariculture exist outside of Kachemak Bay State Park. DNR is currently preparing for the Southcentral opening and will soon begin to process permit applications for mariculture operations in southcentral Alaska. KBSP was established as a "scenic park" and it would be contrary to the express purposes of KBSP to allow mariculture activities there.

Finally, SB 528 has not received enough public scrutiny. It was introduced late in the session and passed the senate with no opportunity for public involvement. This bill has very serious ramifications and should not be rushed through the legislature in the end-of-session crunch.

Our state parks only mean as much as the laws which protect them. SB 528, not only jeopardizes KBSP but opens the door to a whole host of potential threats and incompatible uses of our state parks. We urge the legislature to defend the public interest in the face of private interests by opposing this bill. Please protect the integrity of KBSP and of all of our state parks and oppose SB 528.

Thank you for this opportunity to testify.

State Parks
14 November 1989

Cont. There were 16 active shellfish permits one year ago. State Parks has shut down all but the ones listed below.

ACTIVE MARICULTURE PERMITTEES
SHELLFISH ONLY

Mark Bradley
Select Seafoods of Alaska
P.O. Box 4336
Kenai, AK 99611

Brenda Hays
P.O. Box 6458
Halibut Cove, AK 99603

James and Nancy Hemming
6740 Roundtree Drive
Anchorage, AK 99516

Jon Zuck
1823 Sunrise Drive
Anchorage, AK 99508

Ms. Nancy Munro
Mr. James Branson
P.O. Box 6401
Halibut Cove, AK 99603

Kevin Sidelinger
Box 6430
Halibut Cove, AK 99603

Ms. Kathy Kuletz
Mr. Robert Atkinson
P.O. Box 4067
Kenai, AK 99611

Joe Banta
12304 Hilltop Drive
Anchorage, AK 99515

Diana Tillion
P.O. Box 6409
Halibut Cove, AK 99603

Mr. Peter J. Moore
1216 S. Street
Anchorage, AK 99501

MUSSEL AQUACULTURE IN ALASKA

James E. Hemming
Otter Sea Farms
Anchorage, Alaska

Cont. This text the requirements for a good shellfish culture site.

Mussel culture is not new. It began more than 750 years ago in France when an Irish sailor put a fish trap made of wooden poles on the tide flats. Instead of fish, he caught blue mussels when spat settled in great abundance on his poles. Mussels proved to be an easily obtainable food source in France and the Irishman's discovery eventually led to a culture system called the bouchot system, which is still in use in France.

Blue mussels are grown in Washington on Puget Sound. They are also grown commercially along the New England coast, and on oil rigs in the Santa Barbara channel of southern California. Each of these areas has chronic water quality problems.

Alaska has innumerable fiords and protected bays with excellent water quality that should provide suitable sites for shellfish culture. With good planning, technical support, and protective regulations, Alaska could easily become the mariculture center of North America.

Blue mussels are filter feeders, which collect food by straining microscopic organisms from the water they live in. In the wild, mussels occur in the intertidal zone, where they are uncovered part of each day by the tide. This means that they can feed only about half of each day. Because they must filter algae and plankton from the water, they do best in areas with relatively strong currents and good circulation. Wild mussels grow slowly in intertidal zones because they can feed only during high tide. Cultured mussels reach commercial size in 12 to 18 months, whereas wild mussels may require five years or more to reach an equivalent size. If you compare wild versus raft-grown mussels of the same shell length, you will find that the raft-grown mussels yield 40 to 50 percent more meat than their wild cousins, i.e., they are fatter.

Wild mussels attach themselves to rocks and old shell debris on the bottom where they are constantly scoured by sand and gravel moved by tidal currents. If sand grains become embedded in soft tissues, they form tiny pearls or grit that are unpalatable to patrons of fine restaurants. The use of raft or longline culture systems keeps mussels off the bottom, which reduces the hazard of pearl development, and in the water column where they can feed and grow continuously.

Author's address: Otter Sea Farms, 6740 Roundtree Dr., Anchorage, Alaska 99516.

CONSIDERATIONS FOR STARTING A BLUE MUSSEL FARM

The attributes for an ideal mussel farm include:

1. Protection from weather.
2. Excellent water quality.
3. An abundant supply of food organisms and nutrients in the water column.
4. Ice-free conditions.
5. Limited human settlement or development (minimum pollution).
6. Abundant wild mussels for seed stock.
7. Low incidence of paralytic shellfish poisoning (PSP).

Shelter

A suitable site must have some protection from seasonal storms that may cause damage and make harvesting impossible. Sturdy rafts and longline systems can be used in bays that are not facing directly into the open sea. It is important to define the worst possible wave conditions for the site under consideration before making final decisions to establish a sea farm. On the more exposed sites, longline systems may prove the most practical.

Depth

A minimum depth of 8 to 10 fathoms is required for raft or longline systems, because net tubes containing young mussels are usually 10 to 20 feet in length and the dropper lines must be kept off the bottom to avoid predation from starfish. There also is an advantage to establishing raft or longline systems in areas with water depths greater than those normally used by feeding sea ducks: deep water sites would significantly reduce the risk of sea duck predation on young mussels. Our system is anchored at a depth of 20 fathoms.

Sea Bed Type

The best type of bottom for holding moorings is firm mud or clay. Sand bottoms can also be used but may require burying anchors with diver assistance.

Salinity

Blue mussels can exist in salinities as low as 5 parts per thousand (ppt) but will grow well in salinities of 17

ppt or greater. At our site, summer salinities averaged 26.6 ppt at the surface and 24.5 ppt at 10 feet below the surface. Ocean water is usually considered to be 35 ppt.

Temperature

Mussels survive in temperatures ranging from -4° to 80°F (-20° to 27°C). Mussel growth rates will increase as temperature increases up to about 68° (20°C) provided that sufficient food is available. Temperatures at our location in Halibut Cove Lagoon range between 34°F and 55°F (near 0° to 12.5°C). Summer temperatures averaged 53°F (11.6°C).

Water Quality

It is important to select sites that are free of industrial or sewage pollution. Sewage pollution can be remedied by using depuration, but this is costly. Depuration is the process of moving live mussels from the harvest site to tanks containing sterilized seawater, and holding them there until they are free of coliform bacteria and chemical pollutants. It is necessary to depurate commercially harvested mussels and clams from many locations on the East Coast, and it is a common practice in Europe. In Alaska, we have a great advantage over other locations because most areas are still pollution-free. Alaska regulations require that water samples be taken several times a year from shellfish growing areas.

Water Exchange and Currents

Tidal action and circulation should be adequate to replenish food organisms and to keep the water well oxygenated and to dilute toxic products released by the shellfish themselves. Most sites with moderate currents are suitable for growing mussels except those at the heads of bays where currents may be very slow and where food availability may be limited. If longline systems are used in areas with very strong currents it may be difficult to work the lines.

Feeding Conditions

Mussels feed on runoff from land as well as on the microscopic plants and animals that occur naturally in the water column. The best feeding conditions are usually found adjacent to steep-sided fiords, and poorer conditions occur adjacent to flat or low-lying coastlines.

Growth

In many parts of the world, commercial-sized mussels (1 ½ to 2 inches in length) can be produced within 18 months from spat fall, except in places where salinity is so low that it hinders feeding. At our site, mussels reach commercial size in approximately 12 months.

Seed Supply

Mussel farm sites should be selected close to good natural populations of wild mussels, where wild seed can be collected or spat collectors can be used. Another option would be to purchase spat from a commercial or state-operated hatchery. There seems to be good potential for economic production of spat for purchase by shellfish growers at facilities such as Sheldon Jackson College in Sitka. I think all of the shellfish growers in Alaska would welcome a hatchery and it would probably pay for itself.

Fouling

This includes competitor organisms such as barnacles, tube worms, sea squirts, and kelp. The presence of fouling organisms results in higher maintenance costs. If they affect the appearance of mussels, they may result in lowered market value. However, the presence of plant materials such as kelp increase the organic matter available for mussel feeding. In some parts of the world, kelp culture is an integral part of mussel culture. Finfish farmers and oyster farmers would probably consider mussels vermin. They are one of the chief fouling organisms for various types of three-dimensional aquaculture.

Predators

Common scoters and other sea ducks feed heavily on blue mussels. If they discover a mussel farm, special remedies such as scarecrows or protective netting will be required around the rafts. As mentioned earlier, we found that by setting our rafts in parts of the fiord where our anchors are at depths much greater than the normal feeding range of sea ducks, we have no problem with predation. It is important to understand the natural feeding patterns of sea ducks in a potential sea farm site, so feeding areas can be avoided. If predators discover the rafts, it probably will be necessary to hang nets around raft boundaries. This will increase the level of maintenance labor required to regularly clean fouling organisms from the netting.

Parasites and Diseases

Suspended mussel culture minimizes infection by parasites such as pea crabs and red worms (red worms are actually copepods). It also avoids production of pearl-like particles in the flesh, which are often found in wild mussels as a reaction to both sand bombardment and trematode worm infections. Another problem requiring special attention is related to paralytic shellfish poisoning. This problem is caused by plankton blooms made up of toxic organisms that are ingested by the mussels. The mussels become dangerous to humans for several days or weeks. As a result, it is required by permit to test each shipment of blue mussels before they

can be approved for commercial sale. In selecting sites, it also is important to collect background information on natural levels of PSP in hard-shell clams, cockles, and mussels to be sure that the site is free of problems. At present, the only PSP testing facility is the state laboratory in Palmer. Because of its location, it is time consuming and sometimes costly to obtain test results in a timely manner. Meanwhile, harvested shellfish must be held out of water and artificially chilled. Increased facilities at more convenient locations on the coast would ensure delivery of higher quality product and reduce costs.

Use Conflicts

In selecting a site, careful attention must be paid to other users of the area. These may include commercial fishing operations, gear storage, recreational traffic areas, etc. Such use patterns may not always be obvious and it is important to check with local fisherman and residents before finalizing site selection. As a shellfish grower in Maine puts it, "Musseling in at the expense of traditional communities can only lead to hostility."

We also have learned that mussel farming is compatible with special upland classifications such as state parks and wilderness areas because both parks and shellfish farms have a long-term interest in maintaining very high quality water. Usually this is assured only by restricting upland development and settlement. For example, our operation is within park waters in Kachemak Bay State Park and requires a special land use permit from the State Division of Parks rather than the usual Land and Water Resources Division permit from the Department of Natural Resources. Consider the long-term use potential of your site carefully before making a capital investment.

Access

Shellfish farms should be located close to good commercial transportation. Site feasibility assessments should include the cost of transporting products to market and the distance from reliable road or air transportation.

Permits

Once a suitable site has been found, permits and licenses must be obtained. An Alaska business license is the first step, followed by a tidelands lease, water quality certification, coastal management consistency determination, Corps of Engineers Section 10 Permit for structures in navigable waters, Commercial Fisheries Entry Commission permit, a shucker-shipper permit from the Department of Environmental Conservation, and soon a shellfish farm permit from the Alaska Department of Fish and Game (ADF&G). If the sea farmer plans to do anything beyond harvesting and shipping live mussels to market, other permits may be required as well.

At present, it is possible to apply for a shellfish farm permit at any location on the coast. However, there has been no planning by the state to identify areas that are both suitable for shellfish culture and have minimum conflicts with other users. Because of this, we are seeing a flood of applications for shellfish farms in the small lagoon where our farm is located because people don't know where else to go. There will probably be serious conflicts at our site in the very near future.

Before we go much farther with regulations and permits for other species, the state should do a coastal survey to identify areas that are suitable for mariculture and that do not have serious conflicts with other users. This is not difficult to do and would not be very expensive.

Once a survey is done, areas should be zoned for mariculture so new business can have the long-term support needed to assure financing as well as the potential for successful farm operation.

The farm regulations proposed by ADF&G may also create problems, because they would restrict permits to those of us with prior experience in sea farming. This would be good for me but not for newcomers.

There is no specified time limit on ADF&G permits or provisions for removal of facilities such as rafts or longlines when a permit is dropped. This means a flaky operator could abandon his system, leaving the state with the liability for cleaning up the mess. By having a set permit period requiring periodic reviews and by placing the liability for removal of facilities with the permittee, we would see the development of a much more responsible mariculture industry.

Draft regulations also seem to mix finfish culture with shellfish culture, and I don't think the shellfish farmers want their permits tied to the tail of salmon farmers or vice versa. There needs to be a clear definition of what is meant by shellfish.

Regulations also need to require that cultured shellfish seed stocks not endemic to Alaska be certified disease-free before they are introduced into Alaska waters. We don't want to be shut down because someone brings in diseased spat.

If we are going to start a new industry, we need to do it right to assure success.

TO--Rep. Cliff Davidson
Fax 465-2418

FRM-Diana Tillion, Blue Lagoon Mussels
FAX 296-2203

Please support SB 528 that allows 20 acres of Kachemak Bay State Park to be used for shellfish mariculture and I hope specifically Halibut Cove Lagoon where several of us have established mussel rafts at the invitation of the Parks.

In spite of the fact that we understood the establishment of mussel mariculture was experimental it is evident the experiment was successful; the regulations and location designated in no way conflict with tourists using the Lagoon to fish the annual king salmon run or to access the trails.

The KACHEMAK BAY STATE PARK MANAGEMENT PLAN 1989 STATES ON PAGE 52 lists Mariculture (commercial shellfish farming) acceptable by permit.

For some reason the Homer advisory board seemed unaware of this.

Mussel mariculture is not an activity that imposes any unnatural elements, the mussels merely grow off the rafts and are fatter and grit free rather than on the shore where they are only accessable at low tide and not as good.

It would seem that while Parks have imposed stringent regulations over our mariculture now there seems small worry that that control will not continue and that Halibut Cove Lagoon can easily provide for the fishing and viewing public as well as the eating public.

Jim H. Branson
P.O. Box 6401
Halibut Cove, AK 99603

April 19, 1990

The Honorable Cliff Davidson
Chairman, House Resources Committee
The Alaska State Legislature, Pouch V
Juneau, AK 99811

Dear Cliff:

I am writing to ask your support for Senate Bill #528, which should be getting to your Committee very shortly. The Bill designates shellfish maraculture as a compatible use in 20 acres of marine waters in Kachemak Bay State Park. It would also allow longer term leases to be issued than are now permitted under Park regulations. If handled by the Lands & Water Division of the Department of Natural Resources I presume that could mean up to 10 years. Although the exact location is not stated in the Bill it is meant to be in Halibut Cove Lagoon in the area now covered by experimental permits for mussel culture.

The permit holders who have rafts in the Lagoon (I have had 2 rafts there for the past three years) received extensions to their current permits from the Park Service last fall until November 1, 1990. We were advised in that letter to look for other sites for maraculture since it might not be possible to extend our permits past that date. In any case Park regulations do not permit permits to be issued for longer than 2 years, a horizon much to close for planning and investment in a business that requires at least a year, more commonly two, before any return can be expected.

We have looked for other sites of course. Unfortunately there are none within feasible range that have the clean, deep water and lack of conflict with other users, particularly commercial fishermen, that Halibut Cove Lagoon has.

The current enabling legislation for Kachemak Bay State Park makes maraculture a non-compatible use of Park waters. SB 528 would make it compatible in a very small and unobtrusive portion of the Lagoon. The area currently used by our rafts, and I presume any area designated through the new legislation would be the same, is well off the traffic lane to the fishing and camping areas at the head of the Lagoon and the mussel rafts are barely

visible to most users. Shellfish maraculture does not add food or medications to the environment and takes nothing from it. Maraculturists are even more concerned about clean water and the effects of pollution than the hardiest environmentalist. It is in our interest to protect the area and it's resources.

Shellfish maraculture is one of the few enterprises I know of that holds some promise for the small scale Alaskan entrepreneur. With a reasonably modest investment and a good bit of sweat equity it can yield a decent income supplement. I doubt if anyone is going to get big enough to make a living solely from it, but individuals situated in the right spots can make it pay. It could be a marvelous enterprise for the family, involving everyone but still allowing other forms of employment, be it in fisheries or whatever. We can definitely supply a first class food to the Alaska market, hopefully to the eventual exclusion of the present suppliers from Puget Sound and the East Coast.

I and my fellow mussel farmers here in Kachemak Bay would really appreciate your support and help with this Bill. Please let me know, Cliff, if I can furnish further information on what we are doing. We need the Lagoon as a place to operate, and we need the longer investment horizon of extended lease permits.

Best regards,

Jim H. Branson

810 N Street
Anchorage, AK 99501
April 26, 1990

Rep. Mike Navarre
Room 216, Capitol Building
P. O. Box V
Juneau, AK 99811

RE: Comments in opposition to Committee Substitute for Senate Bill 528

Dear Rep. Navarre:

I attended the scheduled teleconference hearing for the House Resources Committee consideration of the above bill at 3:00 p.m. yesterday in Anchorage. I was disappointed to learn that the teleconference had been moved up to 2:00 p.m., and in fact it was just closing when I arrived at 3:00 p.m. As a result, I did not have the opportunity to present my oral testimony on SB 528, and I am offering it to you and your Committee in writing.

I am representing only myself in my testimony against SB 528. I am a long-time user of various units of the State Park system. I was an appointed member of the Chugach State Park Citizen's Advisory Board from 1984 through 1987, and was elected its chairman in 1985 and 1987. I am an attorney in private practice, specializing in natural resources law; before assuming my present employment, I was an Alaska assistant attorney general and supervisor of the natural resources section in Anchorage from October, 1976 through April, 1982. I am familiar with many of the legal and factual issues surrounding Alaska's State Park system.

You have no doubt heard testimony from others, including members of the Kachemak Bay State Park Citizen's

Advisory Board, who have emphasized the dangerous and unfortunate precedent which would be set by adoption of SB 528. For the first time, land reserved by law from the State's public domain for the benefit of all of the public would be leased to individuals for private, commercial purposes which have no benefit or logical relationship to the Park's purposes or its visitors. With such a precedent thus established, why would it not also be possible to lease a tract inside Chugach State Park to Alascom or a group of radio stations for an antenna field? After all, the mountains behind Anchorage are as suitable for antennas as are the submerged lands within Kachemak Bay State Park for the commercial production of shellfish. Why would it not also be logical to lease land within Denali State Park for a private ranching, logging, or fur-farming operation? SB 528 will simply open Pandora's box, and it is not sufficient to say that its purpose is only to legitimize a commercial shellfish operation which was unlawful within the Park from the day the Director first approved it on a "trial" or "experimental" basis.

These are the practical and logical arguments against SB 528, which is an opening wedge in the piecemeal degradation of our State Park system. I believe that there are also substantial arguments, based on Alaska's Constitution, which indicate that the Legislature is without authority to diminish Kachemak Bay State Park (or any state park) through a vehicle such as SB 528. Article VIII, Section 8 of the Alaska Constitution grants the Legislature authority to ". . . provide for the leasing of and the issuance of permits for exploration of, any part of the public domain." It is under this constitutional authority that the Legislature would be acting in adopting SB 528. However, Kachemak Bay State Park is <u>not</u> a part of the State's public domain, and has not been since the Park's creation in 1970. Alaska Statute 41.21.130 states the purposes in establishment of Kachemak Bay State Park: the land is restricted to use as a state park. By that Section, the state land within the Park is closed to multiple purpose use, and in its creation as a park it was designated as a "special purpose site in accordance with Art. VIII, Section 7 of the Constitution of the State of Alaska."

The Legislature's basic authority to create state parks is found in the cited Article VIII, Section 7 of the

Alaska Constitution. Kachemak Bay State Park was designated as a "special purpose site", and was thereby reserved from the State's public domain, under the following constitutional authority:

> Section 7. Special Purpose Sites. The Legislature may provide for the acquisition of sites, objects, and areas of natural beauty or of historic, cultural, recreational, or scientific value. It may reserve them from the public domain and provide for their administration and preservation for the use, enjoyment, and welfare of the people. [emphasis supplied]

This constitutional provision makes clear that the Legislature has two sources for special purpose sites: it may acquire (purchase) them, or it may reserve them from the public domain. Kachemak Bay State Park was designated and reserved as a special purpose site through the latter method, by reservation from the State's public domain. As quoted earlier, the Legislature under Article VIII, Section 8 of the Alaska Constitution has authority only for the leasing of state public domain land; once a site has been designated and reserved as a special purpose site under Article VIII, Section 7, it is no longer part of the public domain. Therefore, SB 528 would be unconstitutional, in purporting to authorize the leasing of a special purpose site which has already been reserved from the public domain.

There is at least one opinion of the Attorney General's office which has held that state park lands were constitutionally protected from mineral leasing because they were no longer a part of the State's public domain. I see no reason why that analysis should not be equally applicable to the present situation, notwithstanding the attempted cure which SB 528 proposes to offer. In the limited time available to prepare this testimony, I was not able to obtain the number of that Attorney General's opinion, or a copy of that opinion. I am sure a copy could be made available to you by the Attorney General's office in Juneau.

Although Article VIII, Section 7 of the Alaska Constitution authorizes the reservation of special purpose sites for the public domain, it contains no authority for the "de-reservation" of such sites. A strong argument may be made

that once land is designated and reserved as a special purpose site "for the use, enjoyment and welfare of the people", a public trust relationship has been created between the state government and the people. If such a public trust is judicially recognized in this situation, the Legislature could not, for example, by the simple expedient of redrawing the State Park's boundaries to exclude the subject lands and waters, lawfully return these lands to the state "public domain".

The public trust doctrine, as a legal concept which protects the general public's undivided, unquantified rights in the wise management, allocation and preservation of public resources, is a developing area of natural resources law in the western states. It has been recognized and applied by the Alaska Supreme Court in cases involving tidelands and exclusive big-game guiding areas. A substantial argument may be made that the public's right to have the subject lands remain within the boundaries of Kachemak Bay State Park, as a constitutionally-protected "special purpose site" for all of the people, would receive equal recognition and protection by the Alaska Supreme Court, if that ever became necessary.

Based upon these legal arguments, as well as the general need to protect and preserve the integrity of the state park system for the use, enjoyment, and welfare of all of the people (which is the reason Kachemak Bay State Park was created in the first place), I urge that your Committee and the House of Representatives defeat SB 528. Thank you very much for your consideration of these comments. I request that my written testimony be provided to members of your Committee, in lieu of the oral testimony which I was unable to present at the teleconference hearing.

Sincerely,

Thomas E. Meacham

607DAT/tem

Bering Sea
Fishermen's Association

725 Christensen Drive
Anchorage, Alaska 99501
(907) 279-6519

Representative Cliff Davidson
P. O. Box V
Juneau, Alaska 99811

April 23, 1990

Dear Representative Davidson,

We would like to inform you that Bering Sea Fishermen's Association has some concerns with S. B. 528 and we would like to go on record as being opposed to the bill. The use of Kachemak Bay State Park waters for shellfish culture sets a bad precedent for other park waters located in our state. BSFA believes such activities may harm or make difficult subsistence fisheries located within the park waters.

While our region in western Alaska currently has no marine parks or parks which include waters within their boundaries, undoubtedly these types of parks may be considered in the future. In addition, there are critical habitat areas in our area and we do not want to see incompatible uses in areas important to subsistence. At this time subsistence fishermen in southeast Alaska are having a difficult time preserving subsistence fisheries such as those for abalone and sea cucumbers. We do not want to see similar problems in western Alaska, and park waters without shellfish culturing activities may be one method of ensuring adequate stocks of subsistence food resources remain available.

We appreciate this opportunity to send you our comments. We believe that great care must be taken with any activities which may harm the susbsistence foods of our members and thank you for considering this when your discussions of S. B. 528 take place.

With Regards,

Henry Mitchell

Henry Mitchell, Executive Director
Bering Sea Fishermen's Association

END

Alaska State Legislature

SENATE

Official Business

P.O. Box V
State Capitol
Juneau, Alaska 99811

SPONSOR STATEMENT

SENATE BILL 528

Senate Bill 528 would authorize the Department of Natural Resources to issue permits to shellfish growers to grow mussels in 20 acres of Kachemak Bay State Park. The shellfish growers have been operating in the park under DNR permits for the past two years and their operations have been economic and environmental successes. However, there have been questions over whether DNR actually has statutory authorization to permit this activity. Therefore, the department has notified the permittees that mussel mariculture permits will not be reissued beyond November 1990. Senate Bill 528 provides statutory authorization for these small businesses which have been successfully operating for the past two years. The only 20 acres which are suitable for mussel cultivation in the park is that area which is presently being used for that purpose.

Senate Bill 528 has a "0" fiscal note and is supported by the administration. I urge your support for the bill.

Senator Jay Kerttula

MUSSEL AQUACULTURE IN ALASKA

James E. Hemming
Otter Sea Farms
Anchorage, Alaska

Mussel culture is not new. It began more than 750 years ago in France when an Irish sailor put a fish trap made of wooden poles on the tide flats. Instead of fish, he caught blue mussels when spat settled in great abundance on his poles. Mussels proved to be an easily obtainable food source in France and the Irishman's discovery eventually led to a culture system called the bouchot system, which is still in use in France.

Blue mussels are grown in Washington on Puget Sound. They are also grown commercially along the New England coast, and on oil rigs in the Santa Barbara channel of southern California. Each of these areas has chronic water quality problems.

Alaska has innumerable fiords and protected bays with excellent water quality that should provide suitable sites for shellfish culture. With good planning, technical support, and protective regulations, Alaska could easily become the mariculture center of North America.

Blue mussels are filter feeders, which collect food by straining microscopic organisms from the water they live in. In the wild, mussels occur in the intertidal zone, where they are uncovered part of each day by the tide. This means that they can feed only about half of each day. Because they must filter algae and plankton from the water, they do best in areas with relatively strong currents and good circulation. Wild mussels grow slowly in intertidal zones because they can feed only during high tide. Cultured mussels reach commercial size in 12 to 18 months, whereas wild mussels may require five years or more to reach an equivalent size. If you compare wild versus raft-grown mussels of the same shell length, you will find that the raft-grown mussels yield 40 to 50 percent more meat than their wild cousins, i.e., they are fatter.

Wild mussels attach themselves to rocks and old shell debris on the bottom where they are constantly scoured by sand and gravel moved by tidal currents. If sand grains become embedded in soft tissues, they form tiny pearls or grit that are unpalatable to patrons of fine restaurants. The use of raft or longline culture systems keeps mussels off the bottom, which reduces the hazard of pearl development, and in the water column where they can feed and grow continuously.

Author's address: Otter Sea Farms, 6740 Roundtree Dr., Anchorage, Alaska 99516.

CONSIDERATIONS FOR STARTING A BLUE MUSSEL FARM

The attributes for an ideal mussel farm include:

1. Protection from weather.
2. Excellent water quality.
3. An abundant supply of food organisms and nutrients in the water column.
4. Ice-free conditions.
5. Limited human settlement or development (minimum pollution).
6. Abundant wild mussels for seed stock.
7. Low incidence of paralytic shellfish poisoning (PSP).

Shelter

A suitable site must have some protection from seasonal storms that may cause damage and make harvesting impossible. Sturdy rafts and longline systems can be used in bays that are not facing directly into the open sea. It is important to define the worst possible wave conditions for the site under consideration before making final decisions to establish a sea farm. On the more exposed sites, longline systems may prove the most practical.

Depth

A minimum depth of 8 to 10 fathoms is required for raft or longline systems, because net tubes containing young mussels are usually 10 to 20 feet in length and the dropper lines must be kept off the bottom to avoid predation from starfish. There also is an advantage to establishing raft or longline systems in areas with water depths greater than those normally used by feeding sea ducks: deep water sites would significantly reduce the risk of sea duck predation on young mussels. Our system is anchored at a depth of 20 fathoms.

Sea Bed Type

The best type of bottom for holding moorings is firm mud or clay. Sand bottoms can also be used but may require burying anchors with diver assistance.

Salinity

Blue mussels can exist in salinities as low as 5 parts per thousand (ppt) but will grow well in salinities of 17

ppt or greater. At our site, summer salinities averaged 26.6 ppt at the surface and 24.5 ppt at 10 feet below the surface. Ocean water is usually considered to be 35 ppt.

Temperature

Mussels survive in temperatures ranging from -4° to 80°F (-20° to 27°C). Mussel growth rates will increase as temperature increases up to about 68° (20°C) provided that sufficient food is available. Temperatures at our location in Halibut Cove Lagoon range between 34°F and 55°F (near 0° to 12.5°C). Summer temperatures averaged 53°F (11.6°C).

Water Quality

It is important to select sites that are free of industrial or sewage pollution. Sewage pollution can be remedied by using depuration, but this is costly. Depuration is the process of moving live mussels from the harvest site to tanks containing sterilized seawater, and holding them there until they are free of coliform bacteria and chemical pollutants. It is necessary to depurate commercially harvested mussels and clams from many locations on the East Coast, and it is a common practice in Europe. In Alaska, we have a great advantage over other locations because most areas are still pollution-free. Alaska regulations require that water samples be taken several times a year from shellfish growing areas.

Water Exchange and Currents

Tidal action and circulation should be adequate to replenish food organisms and to keep the water well oxygenated and to dilute toxic products released by the shellfish themselves. Most sites with moderate currents are suitable for growing mussels except those at the heads of bays where currents may be very slow and where food availability may be limited. If longline systems are used in areas with very strong currents it may be difficult to work the lines.

Feeding Conditions

Mussels feed on runoff from land as well as on the microscopic plants and animals that occur naturally in the water column. The best feeding conditions are usually found adjacent to steep-sided fiords, and poorer conditions occur adjacent to flat or low-lying coastlines.

Growth

In many parts of the world, commercial-sized mussels (1 ½ to 2 inches in length) can be produced within 18 months from spat fall, except in places where salinity is so low that it hinders feeding. At our site, mussels reach commercial size in approximately 12 months.

Seed Supply

Mussel farm sites should be selected close to good natural populations of wild mussels, where wild seed can be collected or spat collectors can be used. Another option would be to purchase spat from a commercial or state-operated hatchery. There seems to be good potential for economic production of spat for purchase by shellfish growers at facilities such as Sheldon Jackson College in Sitka. I think all of the shellfish growers in Alaska would welcome a hatchery and it would probably pay for itself.

Fouling

This includes competitor organisms such as barnacles, tube worms, sea squirts, and kelp. The presence of fouling organisms results in higher maintenance costs. If they affect the appearance of mussels, they may result in lowered market value. However, the presence of plant materials such as kelp increase the organic matter available for mussel feeding. In some parts of the world, kelp culture is an integral part of mussel culture. Finfish farmers and oyster farmers would probably consider mussels vermin. They are one of the chief fouling organisms for various types of three-dimensional aquaculture.

Predators

Common scoters and other sea ducks feed heavily on blue mussels. If they discover a mussel farm, special remedies such as scarecrows or protective netting will be required around the rafts. As mentioned earlier, we found that by setting our rafts in parts of the fiord where our anchors are at depths much greater than the normal feeding range of sea ducks, we have no problem with predation. It is important to understand the natural feeding patterns of sea ducks in a potential sea farm site, so feeding areas can be avoided. If predators discover the rafts, it probably will be necessary to hang nets around raft boundaries. This will increase the level of maintenance labor required to regularly clean fouling organisms from the netting.

Parasites and Diseases

Suspended mussel culture minimizes infection by parasites such as pea crabs and red worms (red worms are actually copepods). It also avoids production of pearl-like particles in the flesh, which are often found in wild mussels as a reaction to both sand bombardment and trematode worm infections. Another problem requiring special attention is related to paralytic shellfish poisoning. This problem is caused by plankton blooms made up of toxic organisms that are ingested by the mussels. The mussels become dangerous to humans for several days or weeks. As a result, it is required by permit to test each shipment of blue mussels before they

can be approved for commercial sale. In selecting sites, it also is important to collect background information on natural levels of PSP in hard-shell clams, cockles, and mussels to be sure that the site is free of problems. At present, the only PSP testing facility is the state laboratory in Palmer. Because of its location, it is time consuming and sometimes costly to obtain test results in a timely manner. Meanwhile, harvested shellfish must be held out of water and artificially chilled. Increased facilities at more convenient locations on the coast would ensure delivery of higher quality product and reduce costs.

Use Conflicts

In selecting a site, careful attention must be paid to other users of the area. These may include commercial fishing operations, gear storage, recreational traffic areas, etc. Such use patterns may not always be obvious and it is important to check with local fisherman and residents before finalizing site selection. As a shellfish grower in Maine puts it, "Musseling in at the expense of traditional communities can only lead to hostility."

We also have learned that mussel farming is compatible with special upland classifications such as state parks and wilderness areas because both parks and shellfish farms have a long-term interest in maintaining very high quality water. Usually this is assured only by restricting upland development and settlement. For example, our operation is within park waters in Kachemak Bay State Park and requires a special land use permit from the State Division of Parks rather than the usual Land and Water Resources Division permit from the Department of Natural Resources. Consider the long-term use potential of your site carefully before making a capital investment.

Access

Shellfish farms should be located close to good commercial transportation. Site feasibility assessments should include the cost of transporting products to market and the distance from reliable road or air transportation.

Permits

Once a suitable site has been found, permits and licenses must be obtained. An Alaska business license is the first step, followed by a tidelands lease, water quality certification, coastal management consistency determination, Corps of Engineers Section 10 Permit for structures in navigable waters, Commercial Fisheries Entry Commission permit, a shucker-shipper permit from the Department of Environmental Conservation, and soon a shellfish farm permit from the Alaska Department of Fish and Game (ADF&G). If the sea farmer plans to do anything beyond harvesting and shipping live mussels to market, other permits may be required as well.

At present, it is possible to apply for a shellfish farm permit at any location on the coast. However, there has been no planning by the state to identify areas that are both suitable for shellfish culture and have minimum conflicts with other users. Because of this, we are seeing a flood of applications for shellfish farms in the small lagoon where our farm is located because people don't know where else to go. There will probably be serious conflicts at our site in the very near future.

Before we go much farther with regulations and permits for other species, the state should do a coastal survey to identify areas that are suitable for mariculture and that do not have serious conflicts with other users. This is not difficult to do and would not be very expensive.

Once a survey is done, areas should be zoned for mariculture so new business can have the long-term support needed to assure financing as well as the potential for successful farm operation.

The farm regulations proposed by ADF&G may also create problems, because they would restrict permits to those of us with prior experience in sea farming. This would be good for me but not for newcomers.

There is no specified time limit on ADF&G permits or provisions for removal of facilities such as rafts or longlines when a permit is dropped. This means a flaky operator could abandon his system, leaving the state with the liability for cleaning up the mess. By having a set permit period requiring periodic reviews and by placing the liability for removal of facilities with the permittee, we would see the development of a much more responsible mariculture industry.

Draft regulations also seem to mix finfish culture with shellfish culture, and I don't think the shellfish farmers want their permits tied to the tail of salmon farmers or vice versa. There needs to be a clear definition of what is meant by shellfish.

Regulations also need to require that cultured shellfish seed stocks not endemic to Alaska be certified disease-free before they are introduced into Alaska waters. We don't want to be shut down because someone brings in diseased spat.

If we are going to start a new industry, we need to do it right to assure success.

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: SB 528
PUBLISH DATE: _____

FISCAL NOTE

REQUEST:

Revision Date: _____
Title: Relating to Shellfish Mari-culture Kachemak Bay State Park
Sponsor: Rules
Requestor: Legislative Budget & Audit

Agency Affected: Fish and Game
BRU: Division of Habitat
Component: Habitat

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

No FY 90 impact.

Prepared by: Molly McCammon
Phone: 465-4100
Division: Commissioner's Office
Date: 04-02-90

Approved by Commissioner: [signature]
Date: 4/3/90
Agency: _____

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FROM: Molly PHONE 465-4100
NO. OF PAGES

Kathe
464

Kachemak Shellfish Mariculture Association
12304 Hilltop Drive
Anchorage, Alaska 99515

March 10, 1990

Senator Jay Kertulla
P.O. Box V
Juneau, Alaska 99811

Dear Senator Kertulla,

The members of Kachemak Bay Shellfish Mariculture Association (KSMA) are continuing to work toward resolving the issue of shellfish mariculture compatibility with Kachemak Bay State Park. We would like to inform you that the Kenai area superintendent of the Division of Parks and Outdoor Recreation's Kachemak Bay State Park has decided not to reissue, beyond Nov. 1990, the mussel mariculture permits that have been located and permitted within the Kachemak Bay State Park's Halibut Cove Lagoon for the past two years. This is being done even though the Park actively advertised for applicants and encouraged entrance into the area. Furthermore, the cultivation of mussels was going on in the Halibut Cove location even before the park was given jurisdiction of the waters due to the rich, world class nature of the area's waters. This decision has been made without any communication between mariculturists and the park, and with little justification as to the reason why. Out of all the comments received in the visitor log at the ranger cabin in Halibut Cove Lagoon during the past two years, only one had any negative comments regarding mariculture.

We would appreciate your assistance in preserving our fledgling industry in which we have invested thousands of dollars per permittee along with countless hours of work. We are still seeking legislation which would mandate the compatibility of shellfish and marine plant farming with only the twenty acre portion of the park where we are currently operating. This is the small portion of Halibut Cove Lagoon which has been set aside after careful study by both ADF&G's Habitat Division and DNR's Division of Parks. We have no interest in mandating compatibility for the entire park but only would like to preserve our small area where we have been for years.

KSMA recently met with DNR Commissioner Lenny Gorsuch, and representatives from DNR's Division of Land and Water Management and Division of Parks on March 5th. In that meeting DNR and KSMA's board of directors came up with a legislative change which DNR would support and which both DNR and KSMA believe would ammend the situation.

The change would involve a simple one paragraph change to the existing Kachemak Bay State Park bill. The basic form is as follows:

> The Department of Natural Resources is authorized to set aside up to twenty acres of Halibut Cove Lagoon for shellfish mariculture in accordance with AS 38 (Existing mariculture regulations)

We believe a variation of this sentence could be added to the legislation authorizing purchase of the Seldovia Native Association lands. Perhaps there is other legislation which this could be added to and would work as well.

The business of growing shellfish is what got KSMA members together, from Homer to Halibut Cove to Anchorage, and we would much rather be doing that rather than politicking. Although we do appreciate the opportunity to work with you, we are losing valuable seasons of work on the biological portion of our business. This problem has put the shellfish mariculture industry in Southcentral Alaska back a good two years. KSMA would appreciate your assistance and if we we can provide any additional information, please let us know. Similar letters have been sent to Representative Mike Navarre and Senator Paul Fischer.

Sincerely,

Joe Banta, Vice-President
Kachemak Shellfish Mariculture Association

KSMA
Position Statement

*Shellfish and marine plant mariculture is the only type of mariculture supported by KSMA

*Shellfish and marine plant mariculture is a low impact, low tech method of mariculture that is absolutely dependent upon clean and unpolluted waters.

*KSMA is committed to mariculture that is not detrimental to the surrounding marine environment.

*KSMA supports an industry that is based upon the concept of small, artisanal, co-op organisations with membership composed of local residents.

*KSMA board members all hold college degrees in biological sciences, and work in the fields of fisheries and marine biology.

*KSMA board members are environmentally concerned citizens. One member is on the board of directors for the Northwestern Region of the National Wildlife Federation, another is on the board of directors of Trustees for Alaska, and the other two are members of Alaska Center for the Environment.

*KSMA believes that shellfish and marine plant mariculture is compatible with state park guidelines, when it is carefully planned and located.

*ADF&G's Habitat Division has determined that Halibut Cove Lagoon is one of the best places in Kachemak Bay for minimizing user conflicts, and this is due to the fact that the Division of Parks did a long carefully planned analysis when they located the site in Halibut Cove Lagoon.

*Because shellfish and marine plant mariculture is totally dependent upon pristine water, the industry can be an ally to those concerned about potential pollution from sources such as mining, logging, and petroleum development.

*There is a great deal of educational value in shellfish and marine plant mariculture, as it combines the concepts of growing organisms together with the complexity of the marine environment. These are two areas that would be of great interest to students or park visitors. This type of mariculture also reinforces the importance of protecting our waters from pollution. KSMA would welcome educators interested in using facilities for educational purposes.

*KSMA is establishing operating standards for all its members who are permitted to operate within Kachemak Bay State Park so as to provide a self policing mechanism which promotes the lowest impact on a visual and biological level.

HISTORY OF HALIBUT COVE LAGOON MARICULTURE DEVELOPMENT

James E. Hemming

1969	Filed open-to-entry site in Halibut Cove Lagoon (HCL)
1970	Contructed log cabin in HCL
1981	Alaska Dept. of Commerce funds shellfish mariculture study in HCL
	Obtained water rights from Alaska Dept. of Natural Resources
	Obtained Coastal Zone Consistency Determination for mariculture
	Obtained Alaska Dept. of Fish and Game Critical Habitat permit for mariculture
1981-1982	Monthly collection of wild clams and mussels from HCL for Alaska Dept. of Environmental Conservation certification
1983	ADEC certifies HCL as safe for shellfish harvest
	Obtained U.S. Army Corps of Engineers Sect. 10 permit for mussel culture rafts in HCL
1984	Completed market assessment and final report for ADC. Documented HCL as best mariculture site in southcentral Alaska.
	First commercial harvest and sale of mussels from Alaska from HCL
1985	Governor Sheffield appoints J.E. Hemming to State mariculture committee. State of Alaska encourages mariculture development
1986	Application to ADNR for tidelands lease in HCL
	Ak. Div. of Parks shows first interest in Hemming mariculture project
1987	Div. of Parks sets aside area in HCL for additional shellfish mariculture permits
1988	Governor Cowper sends letter of support to Kachemak Shellfish Mariculture Association for mussel culture in HCL

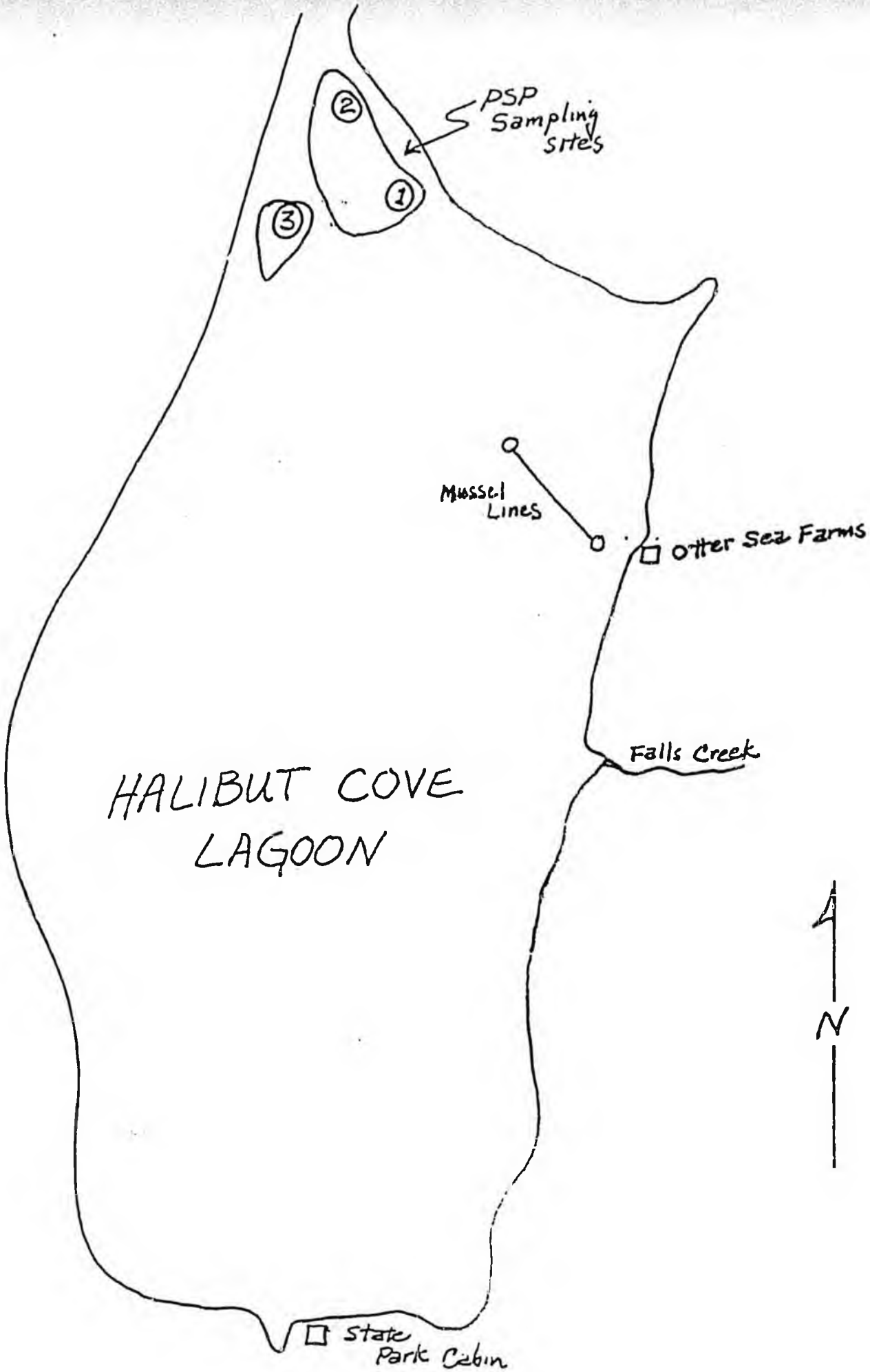
1988 Additional raft culture systems constructed in HCL by other permittees

1989 Div. of Parks threatens cancellation of HCL mariculture permits

Permits renewed until November 1990

1990 Of 12 approved shellfish farms on Kachemak Bay, 10 are located in HCL

Div. of Parks threatens cancellation of mariculture permits in HCL


PSP Sampling Sites
2
1
3
Mussel Lines
Otter Sea Farms
Falls Creek
HALIBUT COVE LAGOON
N
State Park Cabin

Dear Senator Kerttula,

I am a mussel grower in Halibut Cove Lagoon, and thanks to your introduction of bill # 528 I may be able to stay in business. I would like to invite you to see the mariculture projects in our area, again, thank you for your support.

Sincerely

Brenda Hays
Bay Blue Mussels
Box 6458
Halibut Cove Ak
99603

3.27.90

Dear Carol,

The following issues addressthe realities of the Kachemak Bay State Park. How much it cost the state per visitor in the Kachemak Bay State Park, how many are targeted for land use and how many are fishing in the saltwaters of the park, and what services are supplied by state parks for each of the intrest groups.

Persons targeted for land use, hiking, glacier climbing etc. I will be using numbers taken by charter boats only. Because of our extreme tide and weather problems people seldom leave boats unatended.

Water taxi--------1988-360 1989-309
Lodge -visitors---1988- 72 1989- 72
Misc. ------------1988-100 1989- 75

Total land traffic-----1988-532 1989-456

Motor boat traffic specificly headed for park waters not passing through to get to a summer cabin or residence. and kayaks. This is information from A.D.F. & G.

Claming by charter-1989--120 1989---70
Tutka bay hatchery-1988-2575 1989-3000
H.C. lagoon Kings-- 2600 2200
Chinapoot Reds---- 1200 1200
Hummpy Creek -- very little activity
(these I believe are slightly high numbers just by comparing H.C. Lagoon with local opinion)
Kayaks who traveled, without water taxi, from Homer
1988-75 1989-120

Total Marine traffic 1988-6570 1989-6590

The actual mail survey shows aproximatly 11,000 finfish particapants and 9,000 shell fish participants in Kachemak Bay, however, these two numbers probably have at least a 90% overlap. Of course Not all of the above are targeted for the KBSP. These are 1987 numbers so they may be off, if anything high.

Numbers of persons taken to the park is from information from actual charter persons.

-----Total traffic in the Kachemak Bay State Park-------
1988=7102 1989=7046

What does the ranger offer in terms of service to these visitors?

Trail enhancement-most part trails were built by locals over the years, and by the 4H kids. Trail system is confined to the Halibut Cove area. Refer to Exibit (B)

Emergency assistance- It is difficult to reach the ranger by radio or boat because of location. Of course boat breakdowns are taken care of by RESQUE 21, and /or locals.

Informing visitors of dangers in the park. There is no information concerning the very dangerous tidal lagoons in the park. There basically is no verbal information unless you get into H.C. Lagoon, one of most dangerous lagoons in the Bay.

The ranger checks for fishing licenses in H.C. lagoon. That fishery is over the end of June.

Actually meeting a ranger on one of the Grewink Glacier trails would be unusual because their whaler is too large to be safely left beached. This confines the ranger to the lagoon trail system which get about 50-100 visitors per year, highest percent of traffic going to the Grewink Glacer area.

Information offered in Park Brochure pertains to land use only. The ranger himself is no seaman and seems oblivious to the dangers on the sea. Perhaps because he is operating a $50,000 whaler that was designed to be safe for anyone. He is also hauling park volunteers, people who simpley need a ride, and other rangers for free and with no Coast Gaurd liscense.

The Kachemak Bay State park cost the people of the state a very tidy sum of money.

Two boat stalls in the Homer harbor----------888.20
This isn't extra trancient fees
1. 18' aluminum HN-3229
2. 17'whaler AK1643F - For one ranger-
3. 27' Blue aluminum
Annual upkeep and depreciation would average---15,000
Electricity at H.C.ranger cabin in 1989------ 1143.83
Jan and Feb of 1990 was 291.34
The New Ranger Cabin in H.C. lagoon ----------5000.00
Food and Fuel for Ranger&Volunteers----------3000.00
Truck -depreciation and repairs----------6000.00
Rangers part time salery & benefits 6 mo.----23491.57
Hidden expenses, travel etc.----------1000.00

Total expenses----------55523.70
this is not including extra months or other rangers

This looks like each visitor to the Kachemak Bay State Park costs the state of Alaska 7.88. I may remind you the

the Ranger is available to only 2300 persons so in all honesty it's 23.14 per person.

What has the Park Service actually accomplished over the past 4 years, in the KBSP? Two functioning trails were built and one of those paralels an existing trail. One other trail built up a mountain but has a dead end. Out houses were built in H.C. lagoon. Trail markers we put on all the existing trails, and annual brush out done. This cost the state aproximatly $200,000 (being conservative). That is one heck of a lot of money. Many local persons would love to bid on a job like that.

Is the KBSP having a tramendous increase in traffic? NO, I feel the reason for no increase in park use is the tremendous increase in (destination) attractions around the bay. Four years ago I would have taken at least 300 people to the park many of which were student groups, large family outings, etc. There are now more accomodating facilities around the Bay. For example I have had a 40% increase in business over the past 2 years and a decrease in camper traffic. I believe this trend will continue as private enterprise developes.

Also keep in mind our adverse weather and tide conditions. The majority of use in the KBSP is on the ocean not upland streems and lakes. Because of the unique problems here on the Bay development cannot take place like it has on the Kenai river for instance, and there for should not be subject to the same type of regulation. The parks persons stated that 11 AAC.12.340 (19) was adopted to satisfy regulation needs on the Kenai river. I feel that any (Commercial) activity associated to the KBSP is incidental (for example, on a rough day a halibut charter fishing off of Glacier Spit) and should fall under -ordinary- use. If Parks wants some information from park users have questionaires available at the Homer chamber of commerce on Homer Spit. Currently the Ranger in Homer not only is not on the Spit but several miles out of town.

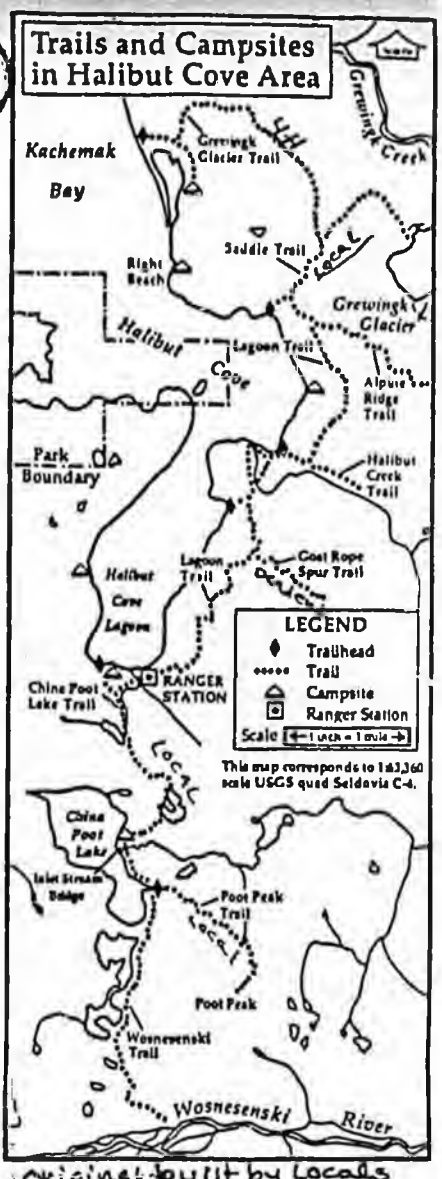
The example of the over blown STING that I recieved for taking a few people to the park for free, seems to indicate a frantic need to substanciate an existence. Another perception could be that the Kenai Rangers are over staffed and have a lot of extra cash. The sting cost aproximatly $20,00, involved aproximatly 40 persons, and 9 of the 10 Rangers from the Kenai division.

Sincerely,

Marian T Beck

Marian T. Beck

Curt, if you have any questions please call or FAX. Phone 296-2223 FAX 296-2245



The park's trails receive little maintenance and often climb over steep, rugged terrain. Routes may be hidden at times by fallen trees or tall grass. Exposed rocks and roots, and wet, boggy areas are common. Depending on the trail taken, you may need to cross several glacial streams. Following is a partial list of the park's trails. Hiking times given are the minimum needed by a person in good physical condition without a pack to hike the trail one way. For more information, contact a state park ranger in Homer or Halibut Cove Lagoon.

Access to the Park

Access to the park is by boat or airplane, as there are no roads to the park. Air charters, water taxi services and boat rentals are available in Homer.

Grewingk Glacier *(3.5 miles)*

built by 4H

Rating - *easy*

Hiking Time - *1 hour, 20 minutes*

This is an easy hike over flat terrain, through stands of spruce and cottonwood and across the outwash of the Grewingk Glacier. It offers superb views of the glacier and surrounding area. There is a small campground about ten minutes from the trailhead, and another at Right Beach, a favorite water taxi drop-off point. Right Beach is accessible by land only from the north and only at low tide. Rock cairns mark the trail across the outwash of the glacier. Access to the glacial ice is difficult and hazardous due to the slide area on the south and steep cliffs on the north. There is a stream near the junction of this trail and the Saddle Trail.

Saddle Trail *(1.0 miles)*

built by Locals

Rating - *moderate*

Hiking Time - *25 minutes*

This hike leads over the saddle between Halibut Cove and the Grewingk Glacier and is steep on the Halibut Cove side. The Saddle Trail accesses the Alpine Ridge and Lagoon Trails and also connects with the Grewingk Glacier Trail. No transportation is available from the trailhead to Glacier Spit or Halibut Cove unless you have made prior arrangements. It is not possible to hike the beach from the trailhead to the Right Beach campsite due to steep cliffs. The Saddle Trail trailhead is a popular spot to land boats during bad weather. Please respect private property near this trail.

Alpine Ridge Trail *(2.0 miles)*

Rating - *moderate to difficult*

Hiking Time - *1 hour, 40 minutes to*

Built by LOCALS *get above timberline*

This steep hike begins at the high point on the Saddle Trail and follows a ridge up through spruce and alder stands to the alpine tundra and its many wildflowers. Slippery vegetation may make footing difficult on steeper slopes. Once above timberline, the views of the Grewingk Glacier on one side and a deep glacial valley on the other are spectacular. Rock cairns mark the alpine part of the trail, but picking out some landmarks will make it easier to find the end of the trail for the trip back down. Remember that alpine areas are extremely fragile; please practice minimum impact camping.

Lagoon Trail *(5.5 miles)*

Rating - *moderate to difficult*

Hiking Time - *5 hours*

From the junction with the Alpine Ridge Trail, the Lagoon Trail winds along Halibut Cove and passes through a wet, boggy area to the Halibut Creek Trailhead and delta. You may be able to ford the river at the low tide line but the water can be high, depending on the weather. Pick up the trail again by walking upstream (on the south side) about 200 yards or walk around the delta on the tide flats. A series of steep switchbacks then leads through a spruce forest up to where the trail intersects Goat Rope Spur Trail at 1200 feet. The trail continues downhill and south, across Falls Creek and on to the end of the lagoon and the ranger station. Here you may take the stairs down to the stream where a sign directs you to the China Poot Lake Trail.

Goat Rope Spur Trail *(0.5 miles)*

This is a Dead end

Rating - *difficult*

Hiking Time - *1 hour*

This is a short, steep trail through alders that begins at the highest point on the Lagoon Trail. It leads hikers up through a "notch" and to the alpine areas where the trail ends. Take your camera for pictures of the view.

China Poot Lake *(2.5 miles)*

Original trail built by locals

Rating - *easy to moderate*

Hiking Time - *1 hour, 15 minutes*

This trail begins at Halibut Cove Lagoon and passes three lakes beneath China Poot Peak. You reach the first lake after 15 minutes of hiking uphill. The trail crosses the lake outlet stream just before reaching the lake and continues through forest and bog for 30 minutes to the second lake - Two Loon Lake. China Poot Lake is another 30 minutes away through more spruce and muskeg.

Poot Peak *(2 miles)*

Built by locals

Rating - *difficult*

Hiking Time - *3 to 4 hours roundtrip*

This steep, slick, unmaintained route begins across the China Poot Lake inlet stream bridge and heads up to timberline. Climbing the 2100 foot peak is hazardous due to shifting scree and rotten rock. Hand and foot holds are poor at best and worse in wet weather. Your efforts will be rewarded above timberline with superb views of Wosnesenski Glacier and Kachemak Bay.

Wosnesenski Trail *(2 miles)*

Goes to nowhere

Rating - *easy to moderate*

Hiking Time - *1 hour, 15 minutes*

Begin this trail where it meets the China Poot Peak Trail, about 10 minutes after crossing the inlet stream bridge at China Poot Lake. This fairly easy trail winds along the shoreline of three lakes formed by a geologic fault. You will find a good camping area in a stand of cottonwoods by the lake after about 25 minutes on the trail. After another 25 minutes of hiking, the trail climbs over a low saddle and drops down into the valley. Be careful if you decide to cross the rivers while exploring the valley. Glacial rivers vary in depth and current depending on the weather, but the water level is usually lower in early summer and much higher in July and August. Choose a slow-moving, shallow spot to cross; water above thigh level is too hazardous to cross. A pair of tennis shoes will make crossing these icy rivers easier.

FACSIMILE COVER SHEET

Date: April 19, 1990

TO: Rep. Curt Menard

Address: Pouch V, Juneau

Fax No: 465-2299 Telephone No: 465-2679

No. of Pages: 2 (Excluding cover sheet)

FROM: Jim H. Branson
P.O. Box 6401
Halibut Cove, AK 99603

COMMENTS: Mussel maraculture in Kachemak Bay State Park SB 528

This is a 'one-line' FAX so to transmit to me call using your handset, while you are listening to the out going message (OGM) from my machine press the asterik * on your phone dial, then when you hear the beep press your FAX transmit button.

Telephone: (907) 296-2208 Fax: (907) 296-2208

Jim H. Branson
P.O. Box 6401
Halibut Cove, AK 99603

April 19, 1990

The Honorable Curt Menard
Chairman, House Resources Committee
Alaska State Legislature
PO Box V, Juneau, AK 99811

Dear Representative Menard:

First, a belated "Thank you" for the letters you wrote last fall on behalf of the mussel farmers in Halibut Lagoon. We do not have the matter of raft location fully settled as yet but I think, because of your letters, that the Park service will be amenable to allowing communal anchoring when we get the growers together. We had a neighborhood work day last week, to untangle anchor lines and reposition the rafts moved by the winter ice. Some of the tangles would have turned a spider green with envy. The mussels survived in good shape however, we should have a decent crop through the summer.

We are still living with the expectation of losing our permits from the Park Service however. They were extended last fall till the first of November, 1990, with the suggestion we look for other sites for our operations. Unfortunately, as I explained last fall when we chatted here in the Cove, there are no other usable sites in upper Kachemak that meet the necessary criteria for mussel culture. We must have clean water, deep enough so the growing lines never touch bottom and pick up parasites, sheltered, but out of the way of commercial fishermen and other users of the Bay.

This is why Senate Bill 528 is so important if the industry is to have an opportunity to succeed in Cook Inlet. The Bill makes shellfish maraculture an acceptable activity within 20 acres of the waters of Kachemak Bay State Park and permits long term leasing (I presume the 10 years now permitted under Division of Lands and Waters regulations). Twenty acres, a very small percentage of the total of Halibut Cove Lagoon, can raise an awful lot of mussels. The impact on the Lagoon is benign, growing a native organism that does not require feeding or medication, takes nothing out of the system and puts nothing non-native back in. In fact, judging from the commensal organisms I find on my lines I think I may be increasing the general productivity of the area.

The most frequently voiced objection to maraculture in the Park is that it is unsightly and not in keeping with the pristine nature of parks in general. I believe the rafts as presently situated really do not detract from the Park. They are well out of the regular traffic pattern and hardly distinguishable to most of the boaters and fishermen who use the Lagoon for king salmon fishing, hiking, and camping.

Shellfish maraculture is one of the few enterprises I know of that holds some promise for the small scale entrepreneur. With a reasonably modest investment and a good bit of sweat equity it can yield a decent income supplement. I doubt if anyone is going to get big enough to make a living solely from it, but individuals situated in the right spots can make it pay. It could be a marvelous enterprise for the family, involving everyone but still allowing other forms of employment, be it in fisheries or whatever. We can definitely supply a first class food to the Alaska market, hopefully to the eventual exclusion of the present suppliers from Puget Sound and the East Coast.

I and my fellow mussel raisers would greatly appreciate your support of SB 528 as it moves through your Committee and through the House. We think it is a win/win situation and will give this budding industry an opportunity in perhaps the only spot in Alaska where the first attempts can succeed. Reasonably close to transportation and markets, and within feasible operating distance of the operators.

Thank you for your help Curt, I look forward to seeing you on your next trip to Halibut Cove. The sun has been shining enough lately to give us some hope for another gorgeous summer . All of our free soil nutrients from Mt. Redoubt should make things even more green than usual.

Sincerely yours,

Jim H. Branson

APR 18 1990

KACHEMAK BAY STATE PARK CITIZENS ADVISORY BOARD

DAVID STUTZER, CHAIRPERSON
P.O. Box 2296
HOMER, AK 99603

April 12, 1990

Senator Bettye Fahrenkamp
P.O. Box V
Juneau, AK 99811

Dear Senator Fahrenkamp,

We, the Kachemak Bay State Park Citizens Advisory Board, urge you NOT to support Senate Bill 528, a bill written to set aside 20 acres of Kachemak Bay State Park for commercial mussel mariculture. AS 41.21.130 - 41.21.134 explicitly prohibits incompatible commercial use in a state park. This bill was designed especially to circumvent Alaska statute. Senate Bill 528 sets a dangerous precedent with respect to the integrity of all of Alaska's state parks. Instead of addressing the larger question of what constitutes an incompatible commercial use, the supporters of this bill are creating one small loophole that may be used later to justify other special exceptions.

Although none of the Kachemak Bay State Park Citizens Advisory Board members are against mussel mariculture, the Board has for the last three years opposed the issuance of permits for commercial shellfish mariculture. Last year the Advisory Board was unanimously resolved against the continuation of these permits in Kachemak Bay State Park.

Citizen involvement is essential in our parks planning process. This bill has been supported by DNR, the Alaska State Chamber of Commerce and the Kenai Peninsula Borough with NO public hearing and without any notification to the Kachemak Bay State Park Citizens Advisory Board. As such, support of this bill by these agencies is an insult to Park Advisory Boards across the state and to our park management plans.

State parks are designated to protect public lands - they should NOT be chopped into little pieces to accommodate special commercial interests, incompatible with natural resource management and recreation. Senate Bill 528 erodes the integrity of Kachemak Bay State Park and Alaska's parks statewide and should not be supported.

Respectfully submitted,

David Stutzer

David Stutzer
Chairperson

Alaska Mariculture Association

TO: Rep. Mike Navarre

FROM: Rodger Painter

DATE: May 4, 1990

RE: HCSCSSB 528 (Res.)

The Alaska Mariculture Association believes your proposed committee substitute for SB 528 is a reasonable compromise on the issue of shellfish mariculture in Kachemak Bay State Park. Under this approach, the mussel growers will be able to secure long-term permits and some stability will be provided to these small businesses.

We would suggest a slight modification of the findings section as the proposed measure would relate to other state parks and areas in restricted use classifications. Subsection (a) of the committee substitute states that shellfish mariculture is "incompatible with the purposes of state parks in general."

AMA is concerned that this strong language could be used to prevent any future shellfish mariculture in state parks, including marine parks and sanctuaries. We believe decisions should be made on more of a case-by-case determination, and that, in some cases at least, shellfish mariculture could be found compatible with park values.

I believe our concerns could be alleviated with a slight change in the language without defeating the purpose of the findings section. I respectfully request you consider rewording the clause as follows: "The legislature recognizes that shellfish mariculture is a commercial activity that is <u>generally</u> incompatible with the purposes of state parks [IN GENERAL]..."

DNR also has suggested to me that duplicative permitting programs could be eliminated by the processing of the 10 permits under the Division of Land and Water Management along with all other aquatic farming land use permits. The authority over the permits could be left under the Division of Parks, but the administrative responsibility for permit issuance could be transferred to Land and Water Management. This could be accomplished by a letter of intent.

130 Seward St., Suite 201 • Juneau, Alaska 99801 • (907) 463-3600

I would suggest the following language for a committee letter of intent to accomplish this purpose:

> It is the legislature's intent that the authority over the shellfish mariculture permits in Halibut Cove Lagoon remain within the Division of State Parks. To achieve maximum cost efficiency and eliminate the potential for duplicative administrative programs, the administrative responsibility for permit issuance and renewal can be transferred to the Division of Land and Water Management which has an existing aquatic farm permitting program.

Thank you for considering these proposals. We appreciate your work on achieving a reasonable compromise on this thorny issue that meets the primary concerns of both the growers and park advisory committee.