

Findings of Fact Regarding
Subsistence Fishing in Cook Inlet

Alaska Board of Fisheries
#81-90-FB

*See also #77-27-FB,
#78-42-FB,
#79-50-FB,
#81-88-FB,
#81-91-FB,
#81-95-FB*

At its December 1980 meeting the Board of Fisheries adopted "Findings and Policy Regarding Subsistence Use of Cook Inlet Salmon" (#80-79-FB). That policy statement established ten characteristics for identifying "customary and traditional" uses of Cook Inlet salmon. See generally AS 16.05.251(b). The Board has evaluated these characteristics in light of all the evidence presented and has concluded that they represent necessary criteria for determining whether "customary and traditional" uses are present. The Board has applied the policy to Cook Inlet and has determined that the subsistence fisheries at English Bay, Port Graham and Tyonek clearly satisfy all ten characteristics.

With respect to English Bay and Port Graham, the Board finds the following facts:

1. Use of subsistence resources, particularly salmon, has remained essentially the same over at least the past 50 years. Historical evidence from the Russian period indicates that use of such resources extends back 200 years and probably longer. Regulation has affected the gear used and has curtailed Port Graham's early sockeye and king salmon fishery. The villages consistently have relied upon the salmon runs of the English Bay and Port Graham rivers.

Community reliance on local resources allows these communities to remain economically viable despite relatively low cash availability. According to the 1980 subsistence survey conducted by The North Pacific Rim, over half the households surveyed in Port Graham had incomes under \$10,000. (Forty-two of the 47 total Port Graham households were included in the study.) Two-thirds of these households reported incomes under \$15,000. In English Bay, over half of the households interviewed had incomes under \$10,000. (Twenty-six of the 29 total English Bay households were included in the study.) Fully 80% of the English Bay households reported incomes under \$15,000. The income data presented above clearly indicate a necessary reliance on local resources to supplement a low cash-flow situation. These data, then, establish that both a limited market economy and a subsistence economy are operative in these communities.

These facts indicate "long-term, stable, reliable pattern[s] of use and dependency, excluding interruption generated by outside circumstance...."

2. English Bay and Port Graham are long-established communities and occupy clearly defined village sites. Their populations participate in shared economic and cultural interrelationships and values (e.g., exchange patterns and kinship obligations) Both villages are characterized by integrated resource use patterns which are geared to the seasonal availability of Cook Inlet salmon.

These facts indicate use patterns established by identified communities having preponderant concentrations of persons showing past use.

3. Of particular importance to English Bay residents are the red, pink and silver salmon runs of the English Bay River. The 1979 harvests by species were reported as follows:

Salmon Species	Number of Fish Harvested	Number of Households Harvesting	Average Catch Per Household
Kings	137	8	17
Silvers	1545	24	64
Reds	2437	23	106
Chums	305	12	25
Pinks	2186	22	99
All Species	6610	24	275

Salmon runs in the Port Graham River are predominantly pinks and silvers. Port Graham residents also have traveled to English Bay for harvesting reds. In addition, king salmon have been caught with setnets in the Port Graham subdistrict during May and early June. The 1979 harvests by species were reported as follows:

Salmon Species	Total Number Harvested	Number of Households Harvesting	Average Catch Per Household
King	237	25	9
Silver	779	36	22
Red	586	24	24
Chum	486	30	16
Pink	1,200	34	35
All Species	3,499	36	97

These facts indicate use patterns "associated with specific stocks and seasons."

4. The salmon harvest patterns of these two communities have been based for many years upon the use of gill-nets to catch salmon in saltwater. In recorded history traps and weirs were the means of harvesting salmon, but these gear types were eliminated by regulation. Subsequently gillnets were utilized and these were set in both fresh and salt water. The fresh water use of gillnets also was eliminated by regulation. Subsistence setnetting requires both a net and a skiff. Sharing of skiffs is the usual practice.

These facts indicate use patterns "based on the most efficient and productive gear and economical use of time, energy, and money."

5. Almost all of the subsistence salmon fishing done by residents of these villages takes place within the Port Graham subdistrict. Most fishing effort occurs within walking distance of one or both villages and requires only a skiff in order either to pick the nets or to travel between English Bay and Port Graham. Some subsistence fishing also is undertaken south of the two villages--often in conjunction with other subsistence activities.

These facts indicate use patterns "occurring in reasonable geographic proximity to the primary residence of the community...."

6. Because the subsistence harvest of salmon is accomplished in areas immediately adjacent to the villages or in nearby areas used for other purposes, minimal costs are incurred. Access rarely requires any special planning or effort.

These facts indicate use patterns "occurring in locations with easiest and most direct access...."

7. Traditional techniques of smoking and drying fish--employed for generations--continue to be extremely important methods of preserving salmon. In addition, canning and salting have been long-established. Salt fish are used throughout the year, especially in fish pie, the villagers' staple meal. Roughly 50% of the English Bay households have smokehouses. In addition, some fish are frozen; freezing was a traditional practice even before the availability of refrigeration equipment.

These facts indicate use patterns which include "a history of traditional modes of handling, preparing, and storing the product...."

- 8. The populations of English Bay and Port Graham have remained stable in modern times. Today, the only residents who did not grow up in the villages are either school teachers or people who have married into the communities.

Subsistence activities, harvest preservation techniques, and other skills are being transmitted today, as in the past, within and between families. Because fishing has long been characterized by family effort, it is understood and expected that these skills will be mastered by younger community members. This transfer of knowledge has occurred consistently in these villages and continues today.

These facts indicate use patterns which include "the intergenerational transmission of activities and skills."

- 9. Subsistence resources of all kinds are shared widely throughout these communities. Sharing is common with both fresh and processed items; often a cooked dish is shared from household to household. Community members also provide for elderly residents. (Eight of Port Graham's 47 households are composed entirely of persons over 60 years old.)

The 1979 English Bay moose harvest illustrates the typical sharing pattern. That year, only two households were able to kill a moose. The two moose were widely distributed, however. Seventeen of the 29 households in English Bay reported consuming moose meat during the year.

These facts indicate use patterns in which "the effort and products are distributed on a community and family basis...."

- 10. At least 10% of the households in English Bay harvested 81 different natural resources in 1979; some harvested an even larger variety. In Port Graham, at least 10% of the households harvested 54 different natural resources in 1979. Again, some households utilized more than 54. Both communities contain preponderant concentrations of households that rely on diverse subsistence resources in cyclical patterns that reflect both seasonal availability and traditional preservation methods.

These facts indicate use patterns which include "reliance on subsistence taking of a range of wild resources" in proximity to the communities.

With respect to Tyonek, the Board finds the following facts:

1. The village of Tyonek existed in the vicinity of its present location for a long period of time prior to the Russian settlement of Cook Inlet, and the village has relied upon king salmon as well as red, chum, and silver salmon for a major part of its annual food supply. Except for the period between 1964 and 1979, when regulations prohibited the harvest of king salmon in Upper Cook Inlet, the dependence upon kings has been continuous. In addition, the village consistently has relied upon other local subsistence resources. The 1980 court decision restored the harvest of a traditionally used species at a traditional time (Table 1).

Table 1. Tyonek May 23 - June 15 Subsistence Catch Data, 1980

Date	No. Nets	Catch						Total
		King Salmon			Sockeye Salmon			
		Period	Cum.	CPUE $\frac{1}{2}$	Period	Cum.	CPUE $\frac{1}{2}$	
5/24	6	50	50	8.3	29	29	4.8	79
5/27	14	199	249	14.2	44	73	3.1	243
5/30	17	296	545	17.4	16	89	0.9	312
6/01	18	384	929	21.3	67	156	3.7	451
6/03	5	90	1,019	18.0	9	165	1.8	99
6/05	11	144	1,163	13.1	25	190	2.3	169
6/08	17	362	1,525	21.3	45	235	2.6	407
6/11	7	130	1,655	18.6	5	240	0.7	135
6/13	6	171	1,826	28.5	7	247	1.2	178
6/15	10	110	1,936	11.0	15	262	1.5	125
Total		1,536			262			2,198

$\frac{1}{2}$ Fish/net.

Source: Table 6. 1980 Upper Cook Inlet Salmon Report.

These facts indicate "a long-term, stable, reliable, pattern of use and dependency, excluding interruption generated by outside circumstance...."

2. The village of Tyonek is a recognized Tanaina Athapaskan Indian village in which the majority of the inhabitants and their ancestors have lived all their lives.

These facts indicate "a use pattern established by an identified community... having preponderant concentrations of persons showing past use."

3. Members of Tyonek have for generations relied upon the runs of king salmon which begin passing the village in mid-May and continue through June. Specific reference to the season of the king salmon, its harvest, and preparation are made in the Tanaina language spoken by many older Tyonek residents.

These facts indicate "a use pattern associated with specific stocks and seasons."

4. To harvest king salmon on the beaches near Tyonek, set gill nets have been used during most of recorded history in Cook Inlet. Prior to the advent of the gill net and the elimination of fish traps in the Inlet, traps and weirs were the means of harvesting salmon. Although testimony has been presented indicating an historic use of 8 1/2 inch mesh gear and such gear is still owned by many residents, the use of smaller mesh size gear is required by regulation. In an attempt to prevent excessive losses from the smaller mesh size, nets have been rigged with drag anchors so they can be pulled on the incoming tides as fish are caught.

These facts indicate "a use pattern based on the most efficient and productive gear and economical use of time, energy, and money."

5. The harvest of king salmon has been on the beaches immediately adjacent to the village and near fish camps located south of the present village. The village once was located south of its present location in the vicinity of established fish camps where the majority of the king salmon harvest occurs (Figure 1).

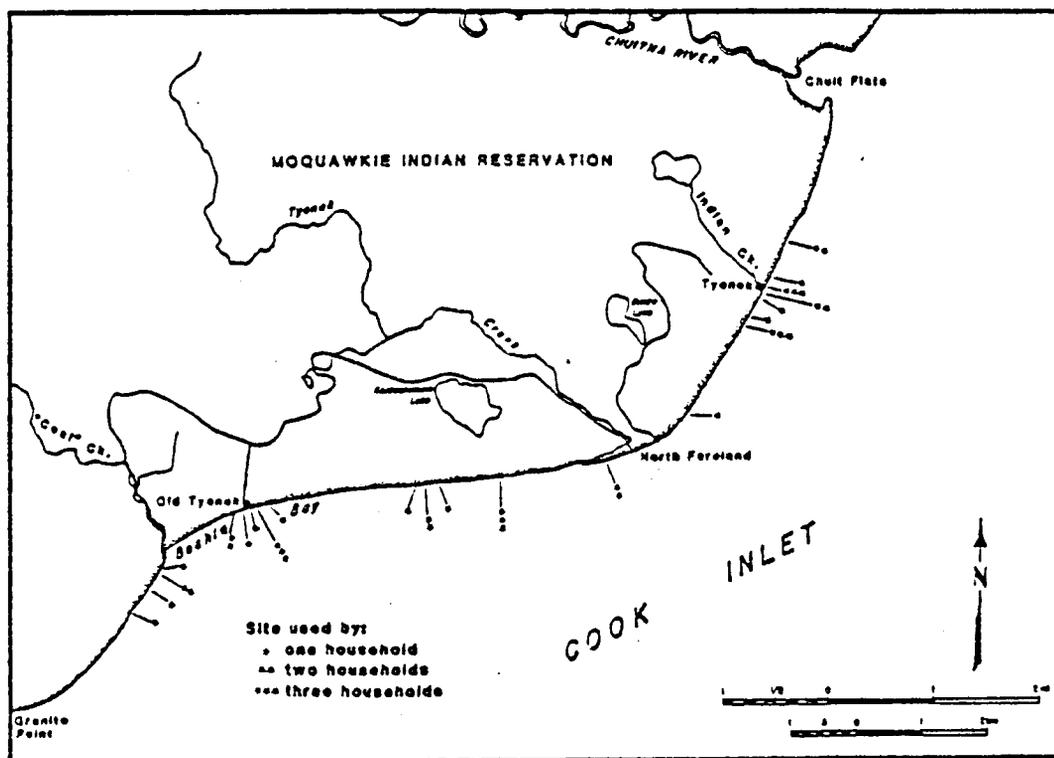


Figure 1. The area open to the 1980 Tyonek subsistence king salmon season showing set net sites and relative degree of use.

These facts indicate "a use pattern occurring in reasonable geographic proximity to the primary residence of the community...."

6. The harvest of king salmon occurs and has occurred on the beaches within walking distance from most village residences on the long-established fish camps where the fish are processed and stored.

These facts indicate "a use pattern which occurs in locations with easiest and most direct access to the resources."

7. The traditional handling of king salmon in the past and today has included (a) storing fish for several days as part of a curing process, (b) cutting the flesh into strips and fillets called in the Tanaina language "belik", "ganut" and "baba" which are hung in smokehouses for preservation, (c) splitting salmon heads to be dried and used as food, (d) drying fish stomachs, (e) storing fish eggs with berries to make "chukline", and (f) smoking and drying backbones for "geatin."

These facts indicate "a use pattern which includes a history of traditional modes of handling, preparing, and storing the product...."

8. The methods of preparation in #7 above are traditional methods passed on between generations. Methods of harvest, some of which are not actively practiced, also have been passed on for generations. Methods of harvest and preparation are being transmitted today, as in the past, within and between families. Words in the Tanaina language, spoken by most older Tyonek residents, refer specifically to methods of fish preparation and specific products.

These facts indicate "a use pattern which includes the intergenerational transmission of activities and skills."

9. All activities involving the harvest, preparation, and distribution of king salmon have been in the past and are done today primarily on a family basis and includes sharing fish with older community members who are either unable to fish for themselves or are without a fishing site or equipment. Salmon also are bartered among village residences for services and favors such as transportation of fish, use of smokehouses, and assistance in fish harvest and preparation. Sharing is a characteristic of the fishery evidenced by the ways gear, sites, and transportation are used and the ways in which the catch is dispersed throughout the community.

The sharing or dispersal of fish within the community occurs in different ways. Most commonly, fish are given to the elderly people who were unable to fish and/or who had no one in the family to fish for them. Many younger people, not familiar with processing their catches, have older people (especially the women) assist them in cutting and preserving in exchange for several fish.

Fishing sites (Figure 2) most commonly used are the same as those used by commercial setnetters. In Beshta Bay, where the long-established fish camps are located, actual site sharing is more common than at the village. Usually those people who are relatives or friends of fish camp owners use the Beshta Bay sites to fish. Sites near the village were used by more than one household. However, site sharing per se is less common here because of greater "public" access to the beach.

Some elderly people who had children or grandchildren relied on them to catch fish for the household. Sharing was common between younger people and elderly, widowed people. Fish were shared by those households which caught more than they needed by giving fish to households which did not catch enough for their needs.

These facts indicate a use pattern in which "the effort and products are distributed on a community and family basis...."

- 10. In addition to salmon, Tyonek residents have relied upon other resources harvested in the vicinity of the village including waterfowl, other fish species, beluga whales, harbor seals, beavers, muskrats, clams, berries, wood and, in recent times, moose as part of the mainstay of their economy. A 1979 survey indicated the following estimates of subsistence harvest.

Table 2. Subsistence harvest of various fish and wildlife species by the village of Tyonek in 1979.

<u>Species</u>	<u>Number Harvested</u>
Moose	20
Beaver	100
Muskrat	50
Ducks (All Species)	400
Geese (All Species)	100
Harbor Seals	a number harvested but no figures available
Beluga Whales	3
Clams (All Species)	1,500

These facts indicate "a use pattern which includes reliance on subsistence taking of a range of wild resources in proximity to the community or primary residency."

In light of the evidence described above, the fisheries associated with English Bay, Port Graham, and Tyonek meet all ten characteristics required by policy #80-79-FB. Consequently, the Board has adopted subsistence fishing regulations to provide the priority established by AS 16.05.251.

Although the Board received staff reports and considered public testimony regarding other uses of Cook Inlet salmon, evidence on the record does not support a conclusion that "customary and traditional" uses exist at the present time in any areas other than the three communities already discussed. In particular, the Board determines that no group has demonstrated the presence of all ten characteristics described in the Findings and Policy Regarding Subsistence Use of Cook Inlet Salmon (#80-79-FB); therefore the Board must weigh those characteristics which were demonstrated. With respect to these ten characteristics, the Board has considered carefully the evidence about the uses of Cook Inlet salmon in areas other than English Bay, Port Graham, and Tyonek; the Board finds as follows:

1. No showing has been made that a long-term, stable, reliable use pattern applies at the present time. Although this characteristic might have been satisfied in the past, during the last 25-30 years no such patterns have remained intact. The Board considers this lack extremely important, and views other characteristics which have been demonstrated as less persuasive, in light of the absence of long term, stable, reliable use patterns.
2. Although some users have shown the existence of a community of interest (e.g., the Kenaitze Tribe and the Kachemak Bay Subsistence Group), these persons either are too widely dispersed or are too heterogeneous to be considered an identifiable community, subcommunity, or group. On the evidence presented, the Board cannot conclude either that activities are conducted in common or that sharing and other group interchange occurs in relation to the resource. No established community meets this characteristic when viewed as a whole; nor has a sufficient showing been made to support a conclusion that any enclave, subcommunity or group satisfies the requirements.
3. Targetting of specific salmon stocks has been demonstrated in relation to certain areas of the Kenai Peninsula, including but not limited to Kachemak cohos, Kenai cohos, and Susitna cohos.
4. Use of the most efficient and productive gear type has been shown for users who have fished with gillnets in Cook Inlet. The record does not evidence economical use of time, energy, and money.

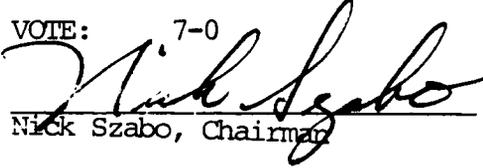
5. The record is ambiguous regarding proximity. The dispersion of the Kenaitze Tribe throughout the Kenai Borough suggests that the Kenaitzes do not form a group, subcommunity or community with a use pattern occurring in reasonable geographic proximity to its primary residence. Certain other user concentrations (e.g., in Homer and Ninilchik) may have use patterns occurring in reasonable geographic proximity to their townsites; but as noted above, there has been insufficient showing of any community, subcommunity, or group identity from which to assess proximity.
6. The Board's conclusions on characteristic number 5, proximity, also apply to characteristic number 6, easy and direct access.
7. The Kenaitze Tribe has presented testimony suggesting a history of handling salmon by traditional modes (e.g., using all parts of the fish including fins, heads, tails and eggs; drying; smoking). No other user concentration has made an adequate showing on this characteristic.
8. Whether or not techniques and skills once were transmitted within and between families, the interests and practices of the user concentrations no longer reflect this characteristic for any group taken as a whole. This includes the Kenaitzes, who now are dispersed throughout the rest of the area's populations.
9. No showing has been made that efforts and products are distributed throughout the entire community of interest described by the Kenaitzes. Other user concentrations (e.g., the Kachemak Bay Subsistence Group) have failed to show such distribution for their communities of interest.
10. No user concentration has demonstrated reliance on a wide range of wild resources taken in proximity to the community. Instead, only a narrow range has been addressed (primarily use patterns involving king and coho salmon).

As with all its determinations, the Alaska Board of Fisheries will consider additional information from the public during its next regulatory proposal cycle, if such information is offered. In the event adjustments to the findings or regulations are necessary, appropriate changes can be made at that time. However, no expansion of eligibility for the subsistence priority is warranted on the present record.

Because no Cook Inlet fishing participants other than residents of English Bay, Port Graham and Tyonek have met all ten of the characteristics identified by policy #80-79-FB, the Board concludes that the 1981 Cook Inlet subsistence salmon fishery should be limited to the communities named above. The Board believes this management approach is consistent with the requirements of the Alaska Constitution, complies with the provisions of the Alaska subsistence law, and conforms to the March 19, 1981, Alaska Senate Resolution (CSSR 4 Rules am).

ADOPTED: Anchorage, Alaska
April 6, 1981

VOTE: 7-0


Nick Szabo, Chairman