

UPPER COOK INLET SUBSISTENCE AND
PERSONAL USE FISHERIES, REPORT
TO THE ALASKA BOARD OF FISHERIES, 1996

By

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and

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INTRODUCTION

In 1978, the State of Alaska passed its first subsistence statute (AS 16.05.258) which gave "priority" to subsistence uses of fish and game resources over other uses. In contrast, Federal passage of Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA, 1980) gave a subsistence priority to rural residents only. In order to comply with ANILCA, the Board of Fisheries by regulation limited subsistence eligibility to rural Alaska residents. Since 1978 the Alaska subsistence statute has received numerous challenges and adjustments by the court system and the Alaska State Legislature (Table 1). In 1985, as a result of the Madison et al. versus Alaska Board of Fisheries decision, all Alaska residents qualified as subsistence users. More liberal subsistence fisheries were established under emergency regulations for the 1985 fishing season. Prior to the 1986 fishing season the Alaska Legislature passed legislation which again limited subsistence to rural residents. As a result of the McDowell versus State of Alaska decision by the Alaska Supreme Court in 1989 the "rural" requirement was removed from state statute. This prompted the Joint Boards of Fish and Game to announce the "all Alaskan policy" in October of 1990 which stated that all Alaska residents are subsistence users under a Tier I classification.

In December of 1990, the Alaska Board of Fisheries (BOF) at a regularly scheduled meeting covering Upper Cook Inlet, adopted the Upper Cook Inlet Subsistence Salmon Management Plan. In addition to subsistence regulations, they also modified existing personal use fisheries in the Central District of Upper Cook Inlet to minimize the impacts of these newly expanded subsistence fisheries.

The Alaska State Legislature, during the 1992 session, passed legislation that required the Boards of Fish and Game to identify non-subsistence areas "where subsistence was not a principal part of the social or economic structure of the community". During the November 1992 meeting covering Upper Cook Inlet, Boards of Fish and Game established the Anchorage-Mat-Su-Kenai non-subsistence area which encompassed most of the Kenai Peninsula, all of the Municipality of Anchorage, and much of the Mat-Su Borough. Also the Board of Fisheries rescinded the Upper Cook Inlet Subsistence Salmon Management Plan which: (1) ended all subsistence fisheries in Upper Cook Inlet except the Tyonek subsistence fishery, (2) reinstated personal use set gillnet fisheries at the mouth of the Kasilof River in late June and along the eastern shoreline north of Kasilof River during the last three weekends of September. In addition, dip net fisheries were reinstated in the mouth of Kenai and Kasilof rivers.

In October of 1993 the "non-subsistence areas" provision was ruled unconstitutional in Superior Court (Kenaitze v. Alaska). This ruling was appealed by the State of Alaska to the Alaska Supreme Court where a stay was granted on March 10, 1994. This stay was vacated by the full court on April 11, 1994. A special meeting of the Joint Boards was convened on April 28, 1994 by teleconference. As a result of these meetings the Upper Cook Inlet Subsistence Salmon Management Plan was readopted on April 28, 1994.

In early May of 1995 the Alaska Supreme Court overturned the October 1993 Superior Court decision. This ruling reestablished the Anchorage-Mat-Su-Kenai non-subsistence area where subsistence fisheries were scheduled to begin on May 20, 1995. The Board of Fisheries convened an emergency meeting by teleconference on May 24, 1995 to close subsistence fisheries in the non-subsistence area. At this emergency meeting the Board of Fisheries delegated the authority to the commissioner to readopt the Upper Cook Inlet Subsistence Salmon Management Plan as a personal use fishery. This was done by emergency regulation and later was made a permanent regulation due to the length of the fishing season. The result of this action was that 5 AAC 77.540 *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* was established in regulation. The Board of Fisheries also left standing; (1) 5 AAC 77.545 *Cook Inlet Personal Use Salmon Dip Net Management Plan*, (2) 5 AAC 77.547 *Central District Personal Use Sockeye Salmon Management Plan*, and (3) 5 AAC 77.548 *Central and Northern District Personal Use Coho Salmon Management Plan*. The Board of Fisheries requested the department to provide the same opportunity under personal use in 1995 as there had been during the 1994 season when *The Upper Cook Inlet Subsistence Salmon Management Plan* was in effect. The Board of Fisheries also requested that the department submit a proposal for the next scheduled Upper Cook Inlet meeting which would blend these personal use fisheries to remove conflicting aspects of the various regulations and address any biological or social issues that the department observed.

UPPER COOK INLET MANAGEMENT AREAS

The Division of Commercial Fisheries Management and Development has defined the Upper Cook Inlet management area as that portion of Cook Inlet north of the latitude of Anchor Point. For commercial fisheries management purposes, it has been further divided into the Central and Northern Districts (Figure 1). This same area has been divided by Sport Fish Division into two sport fish management areas, (1) the upper Kenai Peninsula Management area which includes all fresh and saltwater fisheries between Anchor Point and a line connecting the West Forelands and Boulder Point and (2) the Northern Cook Inlet sport fish management area which includes all saltwater fisheries north of the forelands and all non-Kenai Peninsula freshwater systems draining into that portion of Cook Inlet.

HISTORY OF SUBSISTENCE FISHING IN UPPER COOK INLET

There is a long history of Alaskans harvesting fish and game for their personal consumptive needs in the Cook Inlet area (Braund 1982) under sport, subsistence, and commercial fishing

regulations. Prior to 1978 some estimate that between 100 to 5,700 salmon (mostly coho salmon) were harvested annually for personal consumptive needs in Upper Cook Inlet. Though, Braund (1982) concludes that the harvest of many subsistence users went unreported. Between 1979 and 1980 reported harvests of salmon for subsistence increased significantly (10,000-15,000 salmon annually). In 1981, the Board of Fisheries adopted new subsistence fishing regulations for the Tyonek Subdistrict. Between 1986 and 1990, subsistence fishing in Upper Cook Inlet was limited to the Tyonek Subdistrict. Personal use dip net fisheries were begun in 1981 and gillnet fisheries in 1982 and 1983. The remainder of this report includes detailed information on current fisheries only. Currently, the only area open to subsistence fishing in Upper Cook Inlet is the Tyonek Subdistrict on the west side of Cook Inlet in the Northern District. In addition, there are personal use fisheries using gillnets along most of Upper Cook Inlet and dip net fisheries in Kenai and Kasilof rivers and in Fish Creek in Knik Arm.

UPPER COOK INLET SUBSISTENCE/PERSONAL USE SALMON FISHERY

The Upper Cook Inlet Subsistence Salmon Management Plan was first adopted in December 1990. On May 24, 1995, this plan was readopted as the *Upper Cook Inlet Personal Use Salmon Fishery Management Plan*, (5 AAC 77.540). Under these plans subsistence or personal use fishing is allowed in most marine waters of Upper Cook Inlet normally open to commercial set gillnet fishing (Figure 2). In addition, set gillnet fishing is allowed in Knik Arm, as well as dip net fishing in the mouths of the Kenai and Kasilof rivers. Fisheries under these plans were conducted as subsistence fisheries in 1991, 1992, and 1994, or as personal use fisheries in 1995. Generally, regulations were similar among these years. In 1993 the only personal use fisheries allowed were governed under other personal use management plans.

Permits have been required by the *Upper Cook Inlet Subsistence Salmon Management Plan* and the *Upper Cook Inlet Personal Use Salmon Fishery Management Plan*, (5 AAC 77.540). Only when the fishery was conducted as a personal use fishery (1995) was a valid resident Alaska sport fishing license required or an exemption from licensing under AS 16.05.400. The annual bag and possession limits are twenty-five salmon per head of household of which no more than five can be chinook salmon. In addition, a household is allowed another ten salmon for each household member of which no more than one can be a chinook salmon. Currently, personal use fishing periods are scheduled by regulation on select Wednesdays and Saturdays from 8:00 a.m. to 8:00 p.m. Less opportunity is afforded in May and June to protect chinook salmon stocks, more opportunity in July when sockeye salmon are more abundant, and decreasing opportunity in August and September to harvest coho salmon stocks.

Legal gear under these plans are set gillnets and dip nets. A set gillnet can not exceed 10 fathoms (60 feet), or 45 meshes in depth. Mesh size must be greater than four inches but may not exceed six inches. In general nets must be set less than 500 ft seaward of the mean high

water mark, not seaward of another net and have a buoy clearly labeled with the operator's name and address. All gear including anchors and running lines must be removed from the water by the end of a fishing period. Gillnets must be set at least 250 ft apart at all times. One exception is that nets must be 600 ft apart in the Eastern, General, Kustatan, Kalgin Island, Lower, Western, and Chinitna Bay subdistricts during personal use only periods. A legal dip net has been defined in regulation 5 AAC 39.105 (24).

1991 Subsistence Fishery

A total of thirty-four days of subsistence fishing were created under the *Upper Cook Inlet Subsistence Salmon Management Plan* for the 1991 season, however all but five were canceled by court action. All areas and gear types were not open concurrently (Table 2). A total of 7,065 permits were issued. Approximately 75% of the permits were returned as required, totaling 5,480. On 2,480 returned permits people said they fished for a total harvest of 38,435 salmon (Table 3). The remainder of those who returned permits, approximately 3,000, indicated they had not fished. Residency information was summarized across all permits issued. Anchorage (46%) and Kenai Peninsula (43%) residents received the majority of the permits (Figure 3).

1992 Subsistence Fishery

The 1992 fishery was the second year of the subsistence fishery created in 1990 by the Board of Fisheries. The legal challenges experienced in 1991 did not occur during the 1992 season and all thirty-five fishing periods remained open as scheduled (Table 4). A total of 9,500 permits were issued in 1992. Approximately 43% of these permits were returned as required. On 1,149 of the returned permits people indicated that they did not fish. On the remaining returned permits, 1,387 people indicated they used dip nets in Kenai and Kasilof rivers for a total harvest of 19,826 salmon and 1,646 indicated they used a set gillnet in the marine waters of Upper Cook Inlet for a total harvest of 41,697 salmon (Table 5). Seventy-five permits were used to both set gillnet and dip net. The majority of the effort and harvest was from the east side of the Central District and from Knik Arm of the Northern District.

1993 Personal Use Fishery

During the November 1992 meeting covering Upper Cook Inlet the Boards of Fish and Game established that most of Upper Cook Inlet was a non-subsistence area and rescinded the *Upper*

Cook Inlet Subsistence Salmon Management Plan. This action ended all subsistence fisheries in Upper Cook Inlet except the Tyonek Subdistrict subsistence fishery. Personal use set gillnet fisheries at the mouth of the Kasilof River in late June (under 5 AAC 77.547) and along the eastern shoreline north of the Kasilof River during the last three weekends of September (under 5 AAC 77.548) did occur in 1993 harvesting 7,089 and 1,191 salmon respectively. In addition, dip net fisheries could open in the mouth of the Kenai and Kasilof rivers and in Fish Creek in the Northern District (under 5 AAC 77.545) if specified escapements were projected. In 1993, dip net fisheries were conducted only in Kenai River where 34,059 salmon were harvested (Nelson 1995) and Fish Creek where 40,768 salmon were harvested (Whitmore et al. 1995).

1994 Subsistence Fishery

In October of 1993 the "non-subsistence areas" provision was ruled unconstitutional in Superior Court and the *Upper Cook Inlet Subsistence Salmon Management Plan* was readopted. Fishing periods were again on select Wednesdays and Saturdays from late May to the end of September (Table 6). A total of 10,127 permits were issued for the 1994 season and only 4,823 (48%) of these permits were returned as required. On 1,635 of the returned permits people indicated that they did not fish. On 1,312 returned permits, people indicated that they used dip nets in Kenai and Kasilof rivers for a total harvest of 20,995 salmon (Table 7). On a total of 1,875 returned permits people indicated that they used set gillnets for a total harvest of 50,724 salmon. The majority of the effort and harvest was from the east side of the Central District and from Knik Arm of the Northern District.

1995 Personal Use Fishery

Just prior to the start of the 1995 fishing season the Alaska Supreme Court ruled in *Kenaitze versus Alaska* overturning the lower court ruling and reestablishing the Anchorage-Mat-Su-Kenai non-subsistence area. The Board of Fisheries convened an emergency meeting by teleconference to close subsistence fisheries in the non-subsistence area. At this emergency meeting the Board of Fisheries delegated authority to the commissioner to readopt the Upper Cook Inlet Subsistence Salmon Management Plan as a personal use fishery. The result of this action was that 5 AAC 77.540 *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* was established in regulation. The fishing schedule was fixed in regulation on select Wednesdays and Saturdays from late May to the end of September (Table 8). Approximately 9,300 permits were issued for the 1995 season and 4,816 (52%) of these permits were returned as required. The majority of harvest was from the east side of the Central District and from Knik Arm of the Northern District.

Total Estimated Harvest For 1995

Total harvest will be estimated as the sum of: (1) the harvest from returned permits and (2) an estimated harvest for those who did not return permits. The harvest of those who did not return permits will be based on mailed questionnaires with up to four reminder questionnaires. This report contains preliminary total harvest estimates for the unreturned permits using responses from the first two mailings only. We mailed to approximately 20 percent (1,106) of those who did not return their permits. Approximately 55 percent of the questionnaires were returned after the first mailing and 10 percent after the second. The preliminary total estimated catch for all species of salmon totaled 107,215 with 77% being sockeye salmon (Table 9). By month, roughly 67% of the harvest was sockeye salmon taken in July (Table 10). Approximately, 800 chinook salmon were harvested in June and July, though days open to fishing were quite different between these months. We estimate that the greatest number of people obtaining permits did not fish (3,931) followed by those who indicated they dipnetted in the Kenai River (1,774). Preliminary estimated effort was the lowest on the westside of Cook Inlet (Table 11). The average salmon catch per permit ranged from a low of 5 in Trading Bay to a high of 33 in Chinitna Bay with an average of approximately 20 salmon for all areas and gear types (Table 12). The average harvest for set gillnets was nearly double that of dip nets. The average household fished 1.75 days. Of those who obtained permits in 1995, only 42% are estimated to have fished.

TYONEK SUBSISTENCE SALMON FISHERY

Fishing for personal consumptive use has occurred for a long time in the Tyonek area (Braund 1982). The present subsistence fishery in the Tyonek Subdistrict was created by an Anchorage Superior Court order in May 1980 (Fall and Stanek 1990). In March 1981, the Board of Fisheries adopted permanent regulations for this fishery. Originally open only to those individuals living in the village of Tyonek, recent court decisions allow any Alaska resident to participate, although very few non-villagers seek permits. Fishing is allowed only in the Tyonek Subdistrict of the Northern District. Only one permit is allowed per household and each permit holder is allowed a single ten-fathom gillnet having a mesh size no greater than six inches. Fishing is allowed from 4:00 a.m. to 8:00 p.m. each Tuesday, Thursday and Friday from May 15 to June 15 or until 4,200 chinook salmon are taken. Fishing is again allowed from 6:00 a.m. to 6:00 p.m. each Saturday after June 15, though the opening is delayed until July 1 if 4,200 chinook salmon were taken before June 16. The permit allows 25 salmon per permit holder and 10 salmon for each additional member. Chinook salmon harvests have ranged from 797 in 1990 to 2,750 in 1983 (Table 13). The total reported harvest for the 1995 season was 1,271 chinook, 45 sockeye, 123 coho, 14 pink, and 15 chum salmon (Stanek 1995).

"ADDITIONAL" UPPER COOK INLET PERSONAL USE GILLNET FISHERIES

Currently there are two additional personal use set gillnet fisheries in the Upper Cook Inlet Area, each regulated by a fishery management plan. The *Central District Personal Use Sockeye Salmon Management Plan*, 5 AAC 77.547 was created in 1982. This plan governs a set gillnet personal use fishery which takes place in waters closed to commercial fishing surrounding the mouth of the Kasilof River. The second is a fall coho set gillnet personal use fishery created in 1983 which takes place along the east side of Cook Inlet north of the Kasilof River. This fishery is regulated under the *Central and Northern District Personal Use Coho Salmon Management Plan*, 5 AAC 77.548. By regulation, neither fishery is open in years in which a subsistence fishery is conducted. This was added to each management plan after 1991 as these fisheries overlap in time and area and were in conflict with the Upper Cook Inlet subsistence fishery. When the *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5AAC 77.540) was established in regulation in 1995 it was the desire of the Board of Fisheries to maintain the same fishing opportunity as in 1994. Therefore the two "additional" personal use gillnet fishery management plans should have been repealed. BOF proposal 153 as amended by the department recommends repeal of the *Central District Personal Use Sockeye Salmon Management Plan*, 5 AAC 77.547 and the *Central and Northern District Personal Use Coho Salmon Management Plan*, 5 AAC 77.548.

UPPER COOK INLET PERSONAL USE DIP NET FISHERIES

Three personal use dip net fisheries in Upper Cook Inlet are conducted under the *Cook Inlet Personal Use Dip Net Fishery Management Plan*, 5 AAC 77.545 which was adopted at the 1981 Board of Fisheries meeting. They occur in Kenai and Kasilof rivers and in Fish Creek. As with other personal use fisheries, only Alaska residents may participate and a sport fishing license is required. Fisheries under this management plan in Kasilof and Kenai rivers (5 AAC 77.545) may not occur on the same day as (1) the subsistence dip net fishery under the *Upper Cook Inlet Subsistence Salmon Management Plan* (1991-92 and 1994) or (2) the personal use salmon dip net fishery under the *Upper Cook Inlet Personal Use Salmon Fishery Management Plan*, 5 AAC 77.540 (1995). The daily bag and possession limit is six salmon which are not in addition to other sport fishing limits. Chinook salmon must be released immediately. Legal gear is a dip net as defined in 5 AAC 39.105 (24). Dip netting from a boat is legal under this personal use management plan (5 AAC 77.545) and is very popular in the Kenai and Kasilof fisheries. Permits are not required for these fisheries and harvests are estimated by the statewide sport fish harvest survey.

Kenai River Personal Use Dip Net Fishery

The area open to dip nets in the Kenai River extends from Department regulatory markers located on the Cook Inlet beaches outside the terminus of the river, upstream to the downstream side of the Warren Ames Bridge (Figure 4). From 1981 to 1988 this fishery was opened by emergency order when an escapement of 500,000 sockeye salmon was projected. Prior to 1987 this fishery occurred only in 1982 and 1983 with insignificant harvests. The trigger point was raised at the 1988 Board of Fisheries meeting to 700,000, the upper end of the new escapement goal. At the 1990 Board of Fisheries meeting the escapement level that triggers this fishery was set to 700,000 in years when a subsistence dip net fishery occurs in the Kenai River and 400,000 if there was no subsistence fishery. During the 1992 Board of Fisheries meeting the trigger point was lowered to 400,000 when subsistence fisheries were repealed to match the lower end of the escapement goal. In 1994 when the minimum escapement goal was raised to 450,000 the trigger point was raised to equal that figure. Harvests in this fishery since 1987 have ranged from 12,189 in 1992 to 48,980 in 1989 with an average of 27,000 when opened (Table 14). There were no dip net fisheries in 1990, 1991 and 1994 because escapements were below the trigger point (Nelson 1995). Harvest estimates are not yet available for 1995 from the statewide sport fish harvest survey.

Kasilof River Personal Use Dip Net Fishery

The area open to dip nets on Kasilof River extends from the Department regulatory markers located on Cook Inlet beaches outside the terminus of the river upstream for a distance of one mile (Figure 5). Prior to the 1990 Board of Fisheries meeting this fishery was allowed when Kasilof River escapement was projected to exceed the minimum escapement goal of 150,000 sockeye salmon. This fishery occurred annually from 1981 through 1988 and harvests ranged from 1,800 to 38,670 salmon with an average harvest of 14,000. At the 1990 Board of Fisheries meeting the escapement level that triggers this fishery was raised to 250,000 in years when a subsistence dip net fishery occurs in Kasilof River. If no subsistence fishery occurs this personal use fishery will occur when the 150,000 minimum escapement is projected. Since 1988 this fishery has occurred only in 1994 when an estimated 4,100 sockeye salmon were harvested and in 1995 (Table 15). Harvest estimates are not yet available for 1995 from the statewide sport fish harvest survey.

Fish Creek Personal Use Dip Net Fishery

Sockeye salmon of hatchery origin comprise about 90% of the annual returns to Fish Creek in

Northern Cook Inlet. This personal use fishery was established in 1986 to utilize Big Lake drainage sockeye salmon which were surplus to spawning and egg-take requirements (Whitmore et al. 1995). This fishery is opened by Department emergency order after July 23 on Saturdays, Sundays, and Wednesdays if the spawning escapement into the Big Lake drainage is projected to exceed 50,000 sockeye salmon. Additional fishing time can be established by emergency order if the escapement into Fish Creek warrants such action, provided that no more than three consecutive days of fishing are allowed without a minimum one-day closure. The area open to dip nets on Fish Creek extends from Department regulatory markers located on both sides of the terminus of Fish Creek to Department regulatory markers located approximately one-quarter mile upstream of Knik-Goose Bay Road (Figure 6). Prior to 1993 coho salmon had to be released. The fishery closes on the second Friday in August or earlier by emergency order. Since 1987 this fishery has occurred each year with harvests ranging from 4,400 to 40,768 salmon (Table 16).

Management objectives of the Fish Creek fishery have been to assure a 50,000 sockeye salmon escapement and to spread the harvest across that portion of the run that enters the creek after the fishery is opened. During the first six years (1987-1992), once the fishery opened it remained open for the rest of the season. All salmon were harvested and no sockeye salmon from the later portion of the run arrived on the spawning grounds. During 1993 and 1994, day closures were provided approximately every third day. Under this strategy, sockeye salmon from the later portion of the return reached the spawning grounds in much greater numbers than anticipated. Apparently, sockeye salmon would hold in marine waters during open dip net periods, and pass upriver during the closures. The department supports modification of the Fish Creek portion of the *Cook Inlet Personal Use Dip Net Fishery Management Plan*, 5 AAC 77.545 to allow dipnetting to begin July 15. Fishing periods of 12 hour duration would be scheduled each day through the season, with the exception that the fishery would be closed during days of open commercial fishing periods in the Fish Creek special harvest area. A dip net fishery dispatched in this manner should provide greater harvest opportunity to the public, provide for harvest and escapement from all segments of the run, and provide a better likelihood of an escapement nearer the goal. During the last two seasons the sockeye salmon escapement has been at least twice the goal. BOF proposal 153, as amended by the department addresses this and other Cook Inlet personal use fisheries.

UPPER COOK INLET EDUCATIONAL FISHERIES

Several permits for fishing have been issued to Alaska Native groups in Cook Inlet. The first was to the Kenaitze Tribe under the terms of an injunction negotiated between the State of Alaska and the tribe in 1989. Prior to the start of the 1993 fishing season the Superior Court ordered the department to create educational fisheries for the Kenaitze Indian Tribe, the Ninilchik Traditional Council, the Native Village of Eklutna, and the Knik Tribal Council. These have

been renewed annually under the Alaska Administrative Code 5 Article 2 *Educational Fishery Program*.

Kenaitze Tribal Fishery

The Kenaitze Tribal fishery was first allowed in 1989 and has continued through 1995. The Kenaitze Tribe was issued a single permit allowing the bearer, who must be a tribal member living in Game Management Unit 7 or 15 (the Kenai Peninsula), to operate a single 10-fathom set gillnet having a mesh size no greater than 8.5 inches in Kenai River downstream from a point one-quarter mile above Warren Ames Bridge and including those marine waters adjacent to the river mouth normally closed to commercial salmon fishing. Fishing dates have varied and in 1995 fishing was permitted 24-hours a day from May 1 to October 15. Fishing was to cease when a total of 5,000 salmon had been harvested. A total harvest quota of 300 chinook salmon was also in effect after which all chinook salmon would be released alive. A third provision of this permit allowed for a harvest quota of no more than 500 coho salmon taken after September 15 which was increased to 800 on October 10, 1995.

Fishing occurs primarily in marine waters south of the mouth of Kenai River and occasionally in an area known as the "Birches", a prominent stand of birch trees on the south bank of the river immediately upstream of the Warren Ames Bridge. The tribal office reported the 1995 harvest as totaling 40 chinook, 1,498 sockeye, 35 pink and 868 coho salmon (Table 17).

Ninilchik Traditional Council Fishery

Under the terms of a permit first issued in 1993, Alaska residents accompanied by a Ninilchik Traditional Council member may participate in this fishery. The permit allows the council to operate a single 10-fathom set gillnet having a mesh size no greater than 6.0 inches in the waters of Cook Inlet between a point 100 yards north of the Ninilchik small boat harbor entrance and the latitude of the commercial fisheries marker located approximately 1 statute mile north of the Ninilchik small boat harbor entrance and extending one-fourth of a mile offshore. A traditional stick fence weir was also permitted within Ninilchik River on May 31 to harvest up to 20 chinook salmon. Fishing time has varied and in 1995 was permitted 24-hours a day from May 8 to September 30. Fishing was to cease when a total of 2,000 salmon had been harvested, with no more than 250 being coho salmon and 100 being chinook salmon. Only 50 chinook salmon could be harvested prior to July 21 with an additional 50 chinook salmon harvested after July 21 if the projected spawning escapement into the Kenai River exceeds 22,300 chinook salmon. The harvest for the 1995 season totaled 77 chinook, 229 sockeye, 85 coho and 23 pink salmon (Table 18).

Native Village Of Eklutna Fishery

Under the terms of a permit first issued in 1993, Alaska residents accompanied by a Eklutna native village member may participate in this fishery. The permit allows the village to operate a single 10-fathom set gillnet having a mesh size no greater than 6.0 inches, in Knik Arm adjacent to the village site or in those waters within one mile from mean high water in an area from Goose Bay Creek north to Fish Creek. Fishing time has varied and in 1995 fishing was permitted 24-hours a day from June 1 to September 30 with the exception of closures in the Fish Creek area during commercial periods. In addition no fishing was permitted in the Fish Creek area after July 26. A harvest quota of 1,000 salmon, no more than 250 of which could be coho salmon was placed on this fishery. Additionally, this harvest quota was divided equally between each fishing location so that no more than 500 salmon and 125 coho salmon could be taken at Fish Creek or at the village site. The harvest for the 1995 season totaled 5 chinook, 21 sockeye, 1 coho and 1 chum salmon (Table 19).

Knik Tribal Council Fishery

Under the terms of a permit first issued in 1993, Alaska residents accompanied by a Knik Tribal Council member may participate in this fishery. The permit allows the village to operate a single 10-fathom set gillnet having a mesh size no greater than 6.0 inches in Knik Arm adjacent to the village site or in those waters within one mile from mean high water in an area from Goose Bay Creek to Fish Creek. Fishing time has varied and in 1995 fishing was permitted 24-hours a day from June 6 to September 30. A harvest quota of 1,000 salmon, no more than 250 of which could be coho salmon was placed on this fishery. Additionally, this harvest quota was divided equally between each fishing location so that no more than 500 salmon and 125 coho salmon could be taken at Fish Creek or at the village site. Harvests have been 200 salmon for 1993, 29 salmon for 1994 and 155 salmon 1995. The permittee did not report harvest by species.

RECOMMENDATIONS AND ISSUES

Fishing for personal consumption in Upper Cook Inlet began long before statehood. Yet recently, fishing regulations have changed as a result of the various court challenges and legislative adjustments described in Table 1. Fisheries have been regulated as either subsistence or personal use since 1981 (Table 20). Currently four fishery management plans and general regulations on subsistence fishing are used to regulate personal use and subsistence fishing in Upper Cook Inlet. The department has amended language to BOF proposal 153 in order to blend several options

outlined in other proposals to help facilitate the board's discussion on issues dealing with personal use fisheries. The proposal attempts to eliminate or reduce the confusion that currently exists in the dip net fisheries in Kenai and Kasilof rivers when the escapement triggers are achieved and both fisheries operate (under 77.540 and under 77.545). Proposal 153 as amended by the department also has an option to start the dip net fishery in Fish Creek eight days earlier with a modified fishing schedule to improve our ability to reach the escapement goal. This proposal will also eliminate some enforcement problems that have existed since 1991 with respect to anchors and running lines, and reporting requirements.

The department submitted amended language to BOF proposal 153 as a starting point for the Board to discuss the personal use fishery. The department strongly recommends that a permit be required upon which harvest by date and location is recorded. There are other options contained in proposal 153 concerning: (1) whether or not chinook salmon can be retained in Kenai and Kasilof river dip net fisheries, (2) whether or not fishing from boats will be allowed in Kenai and Kasilof river dip net fisheries, (3) whether the current fishing dates should be adopted for the set gillnet and dip net fisheries or fishing be delayed until July 1, and (4) whether or not the Fish Creek dip net fishery should begin eight days earlier. The department does not support or oppose the allocative aspects of this plan. The department does support the opportunity to clarify how these overlapping plans can be simplified for those who wish to participate in these fisheries.

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Table 1. History of Alaska statutes, Boards of Fish and Game decisions, and court cases affecting subsistence and personal use fisheries in Upper Cook Inlet, 1978-1995.

Year
1978-----Passage of AS 16.05.258- Gave priority to subsistence uses.
1980-----Passage of ANILCA established rural preference in federal law
1985-----Madison et al. v. Alaska - All Alaska residents qualified as subsistence users
1986-----Legislation passed limiting subsistence to rural residents
1989-----McDowell vs. Alaska - Removed "rural" requirement from state statute
1990-----Board announced that all Alaska residents are subsistence users, "All Alaskan Policy" - UCI subsistence salmon management plan was created.
1992-----AS 16.05.258 modified to require Boards of Fish and Game to establish non-subsistence areas. Most of UCI was designated a non-subsistence area, UCI subsistence salmon management plan rescinded at a fall BOF meeting.
1993-----AK Superior Court ruled in Kenaitze vs. Alaska that the "non-subsistence areas" provision was unconstitutional.
1994-----UCI subsistence salmon management plan re-adopted April 1994.
1995-----AK Supreme Court ruled in Kenaitze vs. Alaska - In part validated the non-subsistence area provision of the 1992 statute - The UCI subsistence salmon management plan was rescinded. The UCI personal use plan adopted.

Table 2. Upper Cook Inlet subsistence gillnet and dip net fishing periods by area, 1991*.

Area	Month				
	May	June	July	Aug.	Sept.
West Side except Tyonek (Gill Net Only)	25	5, 8	3, 6, 10, 13, 17 20, 24, 27, 31	3, 17	7, 11, 21
East Side from 1 mile north of Ninilchik north to "Blanchard Line" (Gill Net Only)	25	5, 8	3, 6, 10, 13, 17 20, 24, 27, 31	3, 17	7, 11, 21
East Side from "Blanchard Line" north to Boulder Point (Gill Net Only)	25		3, 6, 10, 13, 17 20, 24, 27, 31	3, 17	7, 11, 21
Boulder Point north to Point Possession (Gill Net Only)	25	5, 8	3, 6, 10, 13, 17 20, 24, 27, 31	3, 17	7, 11, 21
Mouth of Kenai River (Dip Net Only)	25	1, 8, 15 22, 29	3, 6, 10, 13, 17 17, 20, 24, 29 27, 31	3, 7, 10, 14 17, 21, 24 28, 31	4, 7, 11, 14 18, 21, 25 28
Mouth of Kasilof River (Dip Net Only)		SAME AS MOUTH OF KENAI RIVER			

* All periods except May 25, July 24, August 3 and July 29&31 in Central District only were closed by court order.

Table 3. Reported subsistence catch by gear, area, and species, Upper Cook Inlet, 1991.*

Subdistrict/Gear	Specific Area	Chinook	Sockeye	Coho	Pink	Chum	Total
<u>Central Dip Net</u>							
	Kenai River	44	10,468	146	17	2	10,677
	Kasilof River	10	907	2	3	0	922
	Subtotal	54	11,375	148	20	2	11,599
<u>Central Set Net</u>							
Upper	Ninilchik	62	705	18	11	0	796
	Cohoe	55	2,505	62	9	5	2,636
	Kalifornsky	221	8,490	164	20	12	8,907
	Salamatof	31	4,490	154	38	14	4,727
	Kalgin Island	3	71	6	0	0	80
	Kustatan	0	12	70	1	0	83
	Western	11	247	151	9	27	445
	Chinitna Bay	0	0	40	0	0	40
	Subtotal	383	16,520	665	88	58	17,714
<u>Northern Set Net</u>							
	General	59	1,089	943	84	389	2,564
	Eastern	33	294	66	6	10	409
	Knik Arm	21	2,952	1,698	339	1,139	6,149
	Subtotal	113	4,335	2,707	429	1,538	9,122
<u>Grand Total</u>		550	32,230	3,520	537	1,598	38,435

* Harvest figures with 75 percent of returned permits. Does not include Tyonek subsistence or any personal use fishery harvests.

Table 4. Upper Cook Inlet subsistence gillnet and dip net fishing periods by area, 1992.

Area	Month				
	May	June	July	Aug.	Sept.
West Side except Tyonek (Gill Net Only)	23	3, 13	1, 4, 8, 11, 15 18, 22, 25, 29	1, 15	5, 9, 19
East Side from 1 mile north of Ninilchik north to "Blanchard Line" (Gill Net Only)	23	3, 13	1, 4, 8, 11, 15 18, 22, 25, 29	1, 15	5, 9, 19
East Side from "Blanchard Line" north to Boulder Point (Gill Net Only)	16, 23		1, 4, 8, 11, 15 18, 22, 25, 29	1, 15	5, 9, 19
Boulder Point north to Point Possession (Gill Net Only)	23	3, 13	1, 4, 8, 11, 15 18, 22, 25, 29	1, 15	5, 9, 19
Mouth of Kenai River (Dip Net Only)	16, 23, 30	6, 13 20, 27	1, 4, 8, 11, 15 18, 22, 25, 29	1, 5, 8, 12, 15 19, 22, 26, 29	2, 5, 9, 12, 16 19, 23, 26, 30
Mouth of Kasilof River (Dip Net Only)	SAME AS MOUTH OF KENAI RIVER				

Table 5. Reported subsistence catch by gear, area, and species, Upper Cook Inlet, 1992.*

Subdistrict/Gear	Specific Area	Chinook	Sockeye	Coho	Pink	Chum	Total
Central Dip Net							
	Kenai River	158	16,240	1,475	598	74	18,545
	Kasilof River	24	1,230	24	3	0	1,281
	Subtotal	182	17,470	1,499	601	74	19,826
Central Set Net							
Upper	Ninilchik	55	1,277	153	45	1	1,531
	Cohoe	147	4,610	683	88	12	5,540
	Kalifornsky	189	9,541	1,920	273	154	12,077
	Salamatof	72	3,911	1,009	132	24	5,148
Kalgin Island		8	226	24	0	3	261
Kustatan		0	31	36	0	3	70
Western		6	417	157	9	15	604
Chinitna Bay		0	0	0	0	0	0
	Subtotal	477	20,013	3,982	547	212	25,231
Northern Set Net							
General		344	3,236	2,182	300	572	6,634
Eastern		4	497	329	16	4	850
Knik Arm		132	5,203	2,328	354	965	8,982
	Subtotal	480	8,936	4,839	670	1,541	16,466
Grand Total		1,139	46,419	10,320	1,818	1,827	61,523

* Harvest figures with 43 percent of returned permits. Does not include Tyonek subsistence or any personal use fishery harvests.

Table 6. Upper Cook Inlet subsistence gillnet and dip net fishing periods by area, 1994.

Area	Month				
	May	June	July	Aug.	Sept.
West Side except Tyonek (gill Net Only)	28	1, 11	2, 6, 9, 13, 16 20, 23, 27, 30	6, 20	3, 14, 17
East Side from 1 mile north of Ninilchik north to "Blanchard Line" (gill Net Only)	28	1, 11	2, 6, 9, 13, 16 20, 23, 27, 30	6, 20	3, 14, 17
East Side from "Blanchard Line" north to Boulder Point (gill Net Only)	21, 28		2, 6, 9, 13, 16 20, 23, 27, 30	6, 20	3, 14, 17
Boulder Point north to Point Possession (gill Net Only)	28	1, 11	2, 6, 9, 13, 16 20, 23, 27, 30	6, 20	3, 14, 17
Mouth of Kenai River (Dip Net Only)	21, 28	4, 11 18, 25	2, 6, 9, 13, 16 20, 23, 27, 30	3, 6, 10, 13, 17 20, 24, 27, 31	3, 7, 10, 14, 17 21, 24, 28
Mouth of Kasilof River (Dip Net Only)		SAME AS MOUTH OF KENAI RIVER			

Table 7. Reported subsistence catch by gear, area, and species, Upper Cook Inlet, 1994.*

Subdistrict/Gear	Specific Area	Chinook	Sockeye	Coho	Pink	Chum	Total
<u>Central Dip Net</u>							
	Kenai River	187	13,897	2,535	1,263	114	17,996
	Kasilof River	54	2,735	137	59	14	2,999
	Subtotal	241	16,632	2,672	1,322	128	20,995
<u>Central Set Net</u>							
Upper	Ninilchik	88	2,089	274	77	43	2,571
	Cohoe	145	3,605	368	109	25	4,252
	Kalifornsky	245	9,488	1,154	288	40	11,215
	Salamatof	132	7,822	1,008	455	54	9,471
Kalgin Island		24	205	90	3	7	329
Kustatan		0	0	0	0	0	0
Western		3	228	241	0	13	485
Chinitna Bay		12	15	36	3	31	97
	Subtotal	649	23,452	3,171	935	213	28,420
<u>Northern Set Net</u>							
General		314	4,639	3,081	314	684	9,032
Eastern		61	1,191	521	51	24	1,848
Knik Arm		236	7,419	2,736	353	680	11,424
	Subtotal	611	13,249	6,338	718	1,388	22,304
Grand Total		1,501	53,333	12,181	2,975	1,729	71,719

* Harvest figures with 48 percent of returned permits. Does not include Tyonek subsistence or any personal use fishery harvests.

Table 8. Upper Cook Inlet personal use gillnet and dip net fishing periods by area, 1995.

Area	Month				
	May	June	July	Aug.	Sept.
West Side except Tyonek (Gill Net Only)	27	7, 10	1, 5, 8, 12, 15 19, 22, 26, 29	5, 19	2, 13, 16
East Side from 1 mile north of Ninilchik north to "Blanchard Line" (Gill Net Only)	27	7, 10	1, 5, 8, 12, 15 19, 22, 26, 29	5, 19	2, 13, 16
East Side from "Blanchard Line" north to Boulder Point (Gill Net Only)	27	NOT OPEN	1, 5, 8, 12, 15 19, 22, 26, 29	5, 19	2, 13, 16
Boulder Point north to Point Possession (Gill Net Only)	27	7, 10	1, 5, 8, 12, 15 19, 22, 26, 29	5, 19	2, 13, 16
Mouth of Kenai River (Dip Net Only)	27	3, 10 17, 24	2, 6, 9, 13, 16 19, 22, 26, 29	2, 5, 9, 12, 16 19, 23, 26, 30	2, 6, 9, 13, 16 20, 23, 27, 30
Mouth of Kasilof River (Dip Net Only)		SAME AS MOUTH OF KENAI RIVER			

Table 9. Preliminary total estimated personal use catch by gear, area, and species, Upper Cook Inlet, 1995.

Subdistrict /Gear		Specific Area	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
Central Dip Net								
		Kenai River	77	18,502	1,556	297	79	20,511
		Kasilof R.	63	6,371	303	76	12	6,826
		Subtotal	140	24,873	1,859	373	91	27,337
Central Set Gillnet								
	Upper	Ninilchik	312	5,819	496	139	53	6,819
		Cohoe	164	5,322	741	74	62	6,364
		Kalifornsky	376	19,517	2,188	459	161	22,701
		Salamatof	95	8,692	1,674	256	37	10,754
	Kalgin Island		11	243	83	0	0	337
	Kustatan		15	237	114	1	32	399
	Western		62	272	204	14	13	565
	Chinitna Bay		22	53	157	17	71	320
		Subtotal	1,057	40,155	5,657	960	429	48,259
Northern Set Gillnet								
	General		483	4,784	2,764	235	747	9,013
	Eastern		75	2,416	779	37	29	3,336
	Knik Arm		269	13,440	3,928	431	1,202	19,269
		Subtotal	827	20,640	7,471	703	1,978	31,619
Dip Net			140	24,873	1,859	373	91	27,337
Set Gillnet			1,884	60,796	13,128	1,663	2,407	79,878
Grand Total			2,024	85,669	14,987	2,036	2,498	107,215

Table 10. Preliminary estimates of total harvest for the Upper Cook Inlet personal use fishery by month in 1995.

Month	Salmon					Total
	Chinook	Sockeye	Coho	Pink	Chum	
May	302	573	1	0	0	876
June	802	3,962	51	79	40	4,934
July	799	72,332	5,915	1,513	1,564	82,123
August	100	8,229	5,806	375	796	15,306
September	21	573	3,213	69	98	3,975
Total	2,024	85,669	14,987	2,036	2,498	107,215

Table 11. Preliminary estimates of total participation and harvest by permit area from returned permits and postcards for the Upper Cook Inlet personal use fishery, 1995.

Area	Permits	Number of Salmon					Total
		Chinook	Sockeye	Coho	Pink	Chum	
Did Not Fish	3,931	0	0	0	0	0	0
Ninilchik Beach	315	312	5,819	496	139	53	6,819
Cohoe Beach	294	164	5,322	741	74	62	6,364
K-Beach South	509	205	8,681	959	175	45	10,065
K-Beach North	555	170	10,837	1,229	283	116	12,636
Salamatof Beach	395	95	8,692	1,674	256	37	10,754
Kasilof River	563	63	6,371	303	76	12	6,826
Kenai River	1,774	77	18,502	1,556	297	79	20,511
Northern District E.	142	75	2,416	779	37	29	3,336
Fire Island	76	179	772	374	35	168	1,529
Knik Arm	816	269	13,440	3,928	431	1,202	19,269
Susitna Flats	216	125	2,789	1,458	172	481	5,025
Beluga/Ivan River	102	166	1,201	932	28	89	2,416
Trading Bay	9	13	22	0	0	8	43
West Forelands	19	15	237	114	1	32	399
Kalgin Island	12	11	243	83	0	0	337
Western Subdistrict	32	62	272	204	14	13	565
Chinitna Bay	10	22	53	157	17	71	320
Total ^a	9,300	2,024	85,669	14,987	2,036	2,498	107,215

^a Represents total unique permits and may not equal the total permits by area as a permit holder may fish more than one area.

Table 12. Average catch per permit by area for personal use permit holders in Upper Cook Inlet, 1995^a.

Area	Permits	Average Number of Salmon					Total
		Chinook	Sockeye	Coho	Pink	Chum	
Ninilchik Beach	315	1.0	18.5	1.6	0.4	0.2	21.6
Cohoe Beach	294	0.6	18.1	2.5	0.3	0.2	21.7
K-Beach South	509	0.4	17.1	1.9	0.3	0.1	19.8
K-Beach North	555	0.3	19.5	2.2	0.5	0.2	22.8
Salamatof Beach	395	0.2	22.0	4.2	0.6	0.1	27.2
Kasilof River	563	0.1	11.3	0.5	0.1	0.0	12.1
Kenai River	1,774	0.0	10.4	0.9	0.2	0.0	11.6
Northern District E.	142	0.5	17.0	5.5	0.3	0.2	23.5
Fire Island	76	2.4	10.2	4.9	0.5	2.2	20.2
Knik Arm	816	0.3	16.5	4.8	0.5	1.5	23.6
Susitna Flats	216	0.6	12.9	6.8	0.8	2.2	23.3
Beluga / Ivan River	102	1.6	11.7	9.1	0.3	0.9	23.6
Trading Bay	9	1.5	2.6	0.0	0.0	0.9	5.0
West Forelands	19	0.8	12.7	6.1	0.1	1.7	21.4
Kalgin Island	12	0.9	20.3	6.9	0.0	0.0	28.1
Western Subdistrict	32	1.9	8.5	6.4	0.4	0.4	17.7
Chinitna Bay	10	2.3	5.5	16.3	1.8	7.4	33.3

^a Harvest data are preliminary.

Table 13. Tyonek Subdistrict subsistence salmon harvest, Upper Cook Inlet, 1980-1995.

	No. of Permits	Chinook	Sockeye	Coho	Pink	Chum
1980	67	1,936	262	0	0	0
1981	70	2,002	269	64	32	15
1982	69	1,565	209	113	15	4
1983	75	2,750	185	40	0	2
1984	75	2,354	310	66	3	23
1985	76	1,720	44	8	0	10
1986	65	1,523	198	210	45	44
1987	64	1,552	161	149	5	24
1988	47	1,474	52	185	6	9
1989	49	1,314	67	175	0	1
1990	42	797	92	366	124	10
1991	57	1,105	25	80	0	0
1992	57	905	74	234	7	19
1993	53	1,247	43	36	11	9
1994	58	840	41	111	0	22
1995*	70	1,271	45	123	14	15

* 1995 data are preliminary.

Table 14. Kenai River personal use dip net fishery summary, 1981-1995.

Year	Escapement Trigger	Date Opened	Date Closed	Total Days	Salmon Harvest
1981	500,000	No Fishery		0.00	
1982	500,000	26-Jul	5-Aug	9.25	Insignificant
1983	500,000	20-Jul	5-Aug	15.25	Insignificant
1984	500,000	No Fishery		0.00	
1985	500,000	No Fishery		0.00	
1986	500,000	No Fishery		0.00	
1987	500,000	23-Jul	5-Aug	13.50	24,090
1988	500,000	22-Jul	5-Aug	14.25	16,880
1989	700,000	21-Jul	5-Aug	15.00	48,980
1990	700,000	No Fishery		0.00	
1991	700,000	No Fishery		0.00	
1992 ^a	700,000	27-Jul	5-Aug	6.50	12,189
1993	400,000	17-Jul	31-Jul	14.40	34,059
1994	700,000	No Fishery		0.00	
1995	450,000	25-Jul	31-Jul	4.75	^b

^a Since 1992 fishery closed on Wednesdays and Saturdays.

^b Estimated by the statewide sport harvest survey. Results not available until the fall of 1996.

Table 15. Kasilof River personal use dip net fishery summary, 1981-1995.

Year	Escapement Trigger	Date Opened	Date Closed	Total Days	Salmon Harvest
1981	150,000	4-Jul	31-Jul	27.50	10,300 ^a
1982	150,000	21-Jul	5-Aug	15.50	1,800
1983	150,000	15-Jul	5-Aug	21.00	11,120
1984	150,000	16-Jul	5-Aug	20.50	12,770
1985	150,000	15-Jul	5-Aug	21.25	16,280
1986	150,000	15-Jul	5-Aug	21.75	38,670
1987	150,000	10-Jul	5-Aug	25.50	18,450
1988	150,000	22-Jul	5-Aug	14.25	3,550
1989	150,000	No Fishery			
1990	150,000	No Fishery			
1991	250,000	No Fishery			
1992	250,000	No Fishery			
1993	150,000	No Fishery			
1994 ^b	250,000	22-Jul	5-Aug	10.50	4,100
1995 ^b	150,000	17-Jul	31-Jul	10.25	^c

^a Harvest during the first two years of the fishery are field estimates. Starting in 1983 data are from the statewide survey.

^b Since 1994 fishery closed on Wednesdays and Saturdays.

^c Estimated by the statewide sport harvest survey. Results not available until the fall of 1996.

Table 16. Fish Creek personal use dip net fishery summary, 1987-1995.

Year	Number of Salmon Harvested				Total
	Sockeye	Coho	Pink	Chum	
1987	2,200	0	2,200	0	4,400
1988	3,000	0	3,000	0	6,000
1989	5,000	0	5,000	0	10,000
1990	6,500	0	6,500	0	13,000
1991	14,369	0	567	549	15,485
1992	19,002	0	678	607	20,287
1993	37,224	973	2,068	503	40,768
1994	16,012	1,336	632	248	18,228
1995*					

* Estimated by the statewide sport harvest survey. Results not available until the fall of 1996.

Table 17. Salmon harvest in the Kenaitze Tribal fishery, Upper Cook Inlet, 1989-1995.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
1989	95	2,212	1,814	0	0
1990	53	3,477	1,117	326	0
1991	34	2,965	1,945	4	0
1992	55	2,025	3	3	0
1993	145	1,533	477	1	0
1994	57	1,858	829	134	0
1995	40	1,498	868	35	0

Table 18. Salmon harvest in the Ninilchik Traditional Council fishery, Upper Cook Inlet, 1993-1995.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
1993	1	27	193	6	0
1994	7	162	119	16	0
1995	77	229	85	23	0

Table 19. Salmon harvest in the Native Village of Eklutna fishery, Upper Cook Inlet, 1993-1995.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
1993	0	67	14	0	15
1994	2	27	7	0	76
1995	5	21	1	0	1

Table 20. History of subsistence and personal use fisheries in Upper Cook Inlet, 1960-1995..

Year	Subsistence Fisheries		Personal Use Fisheries	
	Saltwater Gillnet	In-river Dip Net	Saltwater Gillnet	In-river Dip Net
60-80	General Marine Waters			
81	Tyonek Only		General Marine	Kenai,
82	↓		Kasilof Sockeye	Kasilof
83			Kasilof, Fall Coho	
84	↓		↓	
85	General Marine		Kasilof Only	
86	Tyonek Only		Kasilof, Fall Coho	
87	↓			Fish Cr. Added
88			↓	
89				
90	↓			
91	General Marine	Kasilof, Kenai		
92	↓	↓		
93	Tyonek Only		Kasilof, Fall Coho	
94	General Marine	Kasilof, Kenai		
95	Tyonek Only		General Marine	↓

UPPER COOK INLET SALMON DISTRICTS

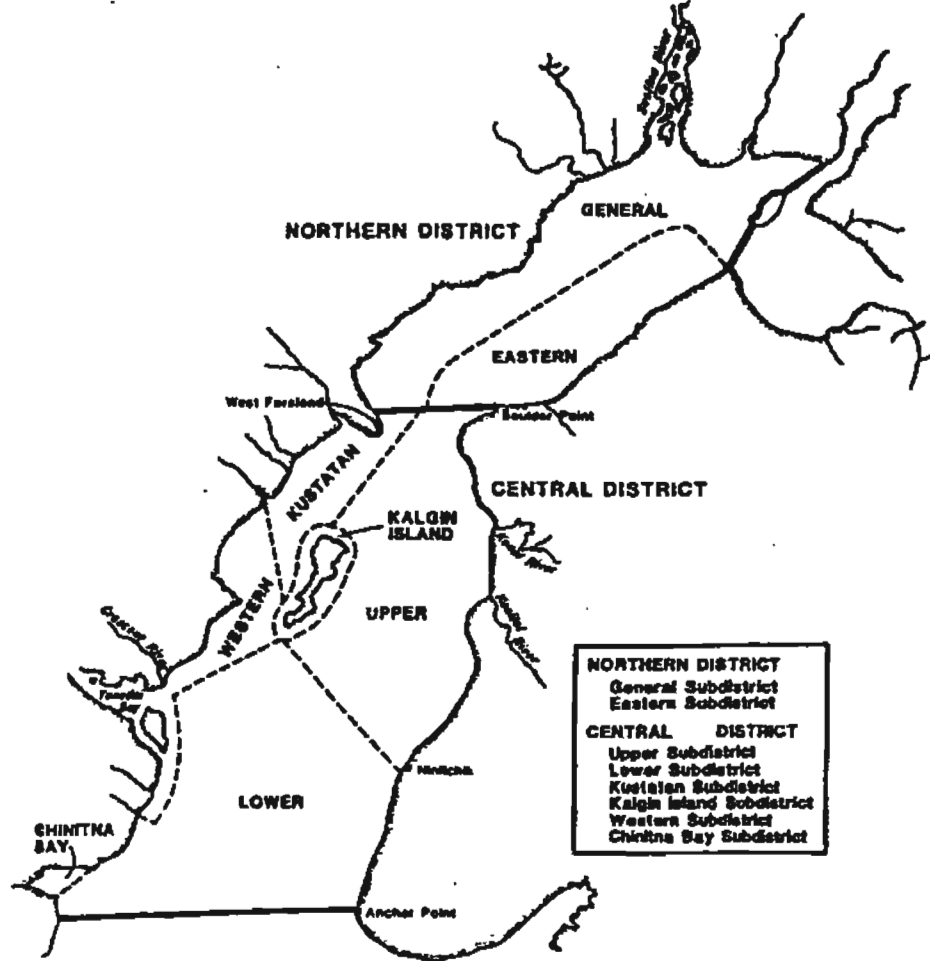


Figure 1. Upper Cook Inlet commercial fishing districts.

UPPER COOK INLET PERSONAL USE GILLNET AND DIP NET FISHING AREAS

1. NINILCHIK BEACH
2. COHOE BEACH
3. K-BEACH SOUTH
4. K-BEACH NORTH
5. SALAMATOF BEACH
6. KASILOF RIVER DIP NET
7. KENAI RIVER DIP NET
8. NORTHERN DISTRICT EAST
9. FIRE ISLAND
10. KNIK ARM
11. SUSITNA FLATS
12. BELUGA
13. TRADING BAY
14. WEST FORELANDS
15. KALGIN ISLAND
16. WESTERN SUBDISTRICT
17. CHINITNA BAY

NOTE: CLOSED WATERS AT STREAM
MOUTHS NOT SHOWN

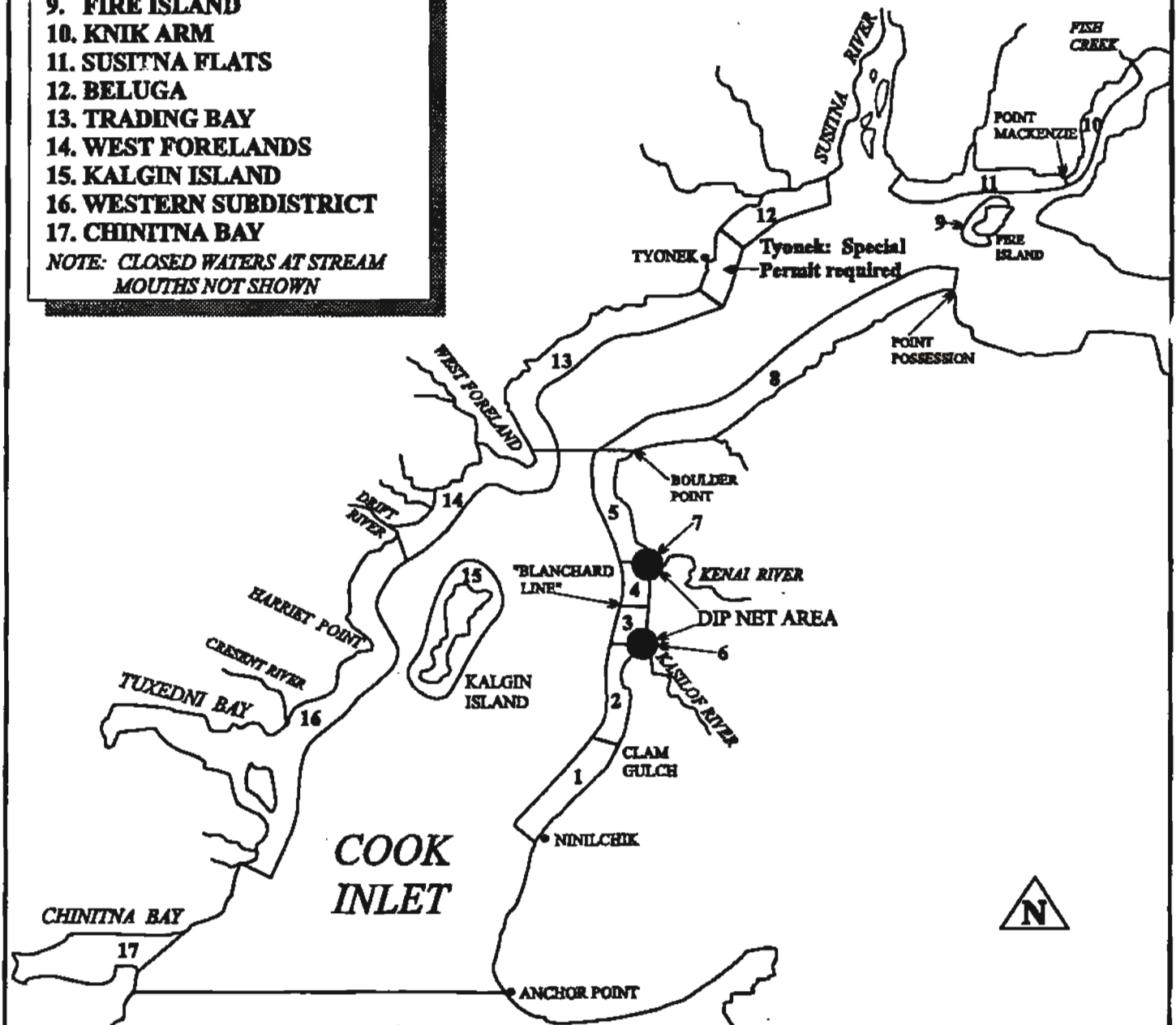


Figure 2. Upper Cook Inlet personal use fishing areas in 1995.

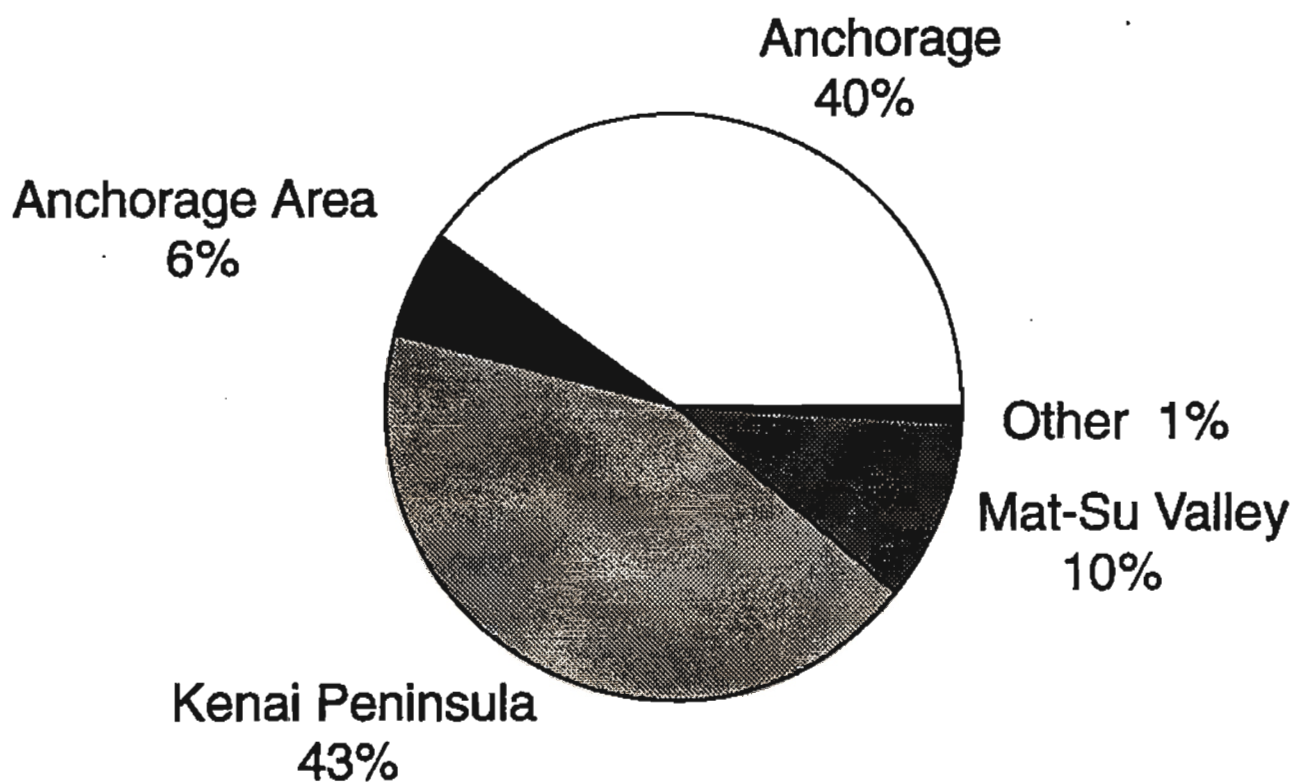


Figure 3. Percent of subsistence permits issued in Upper Cook Inlet by area of residence, 1991.

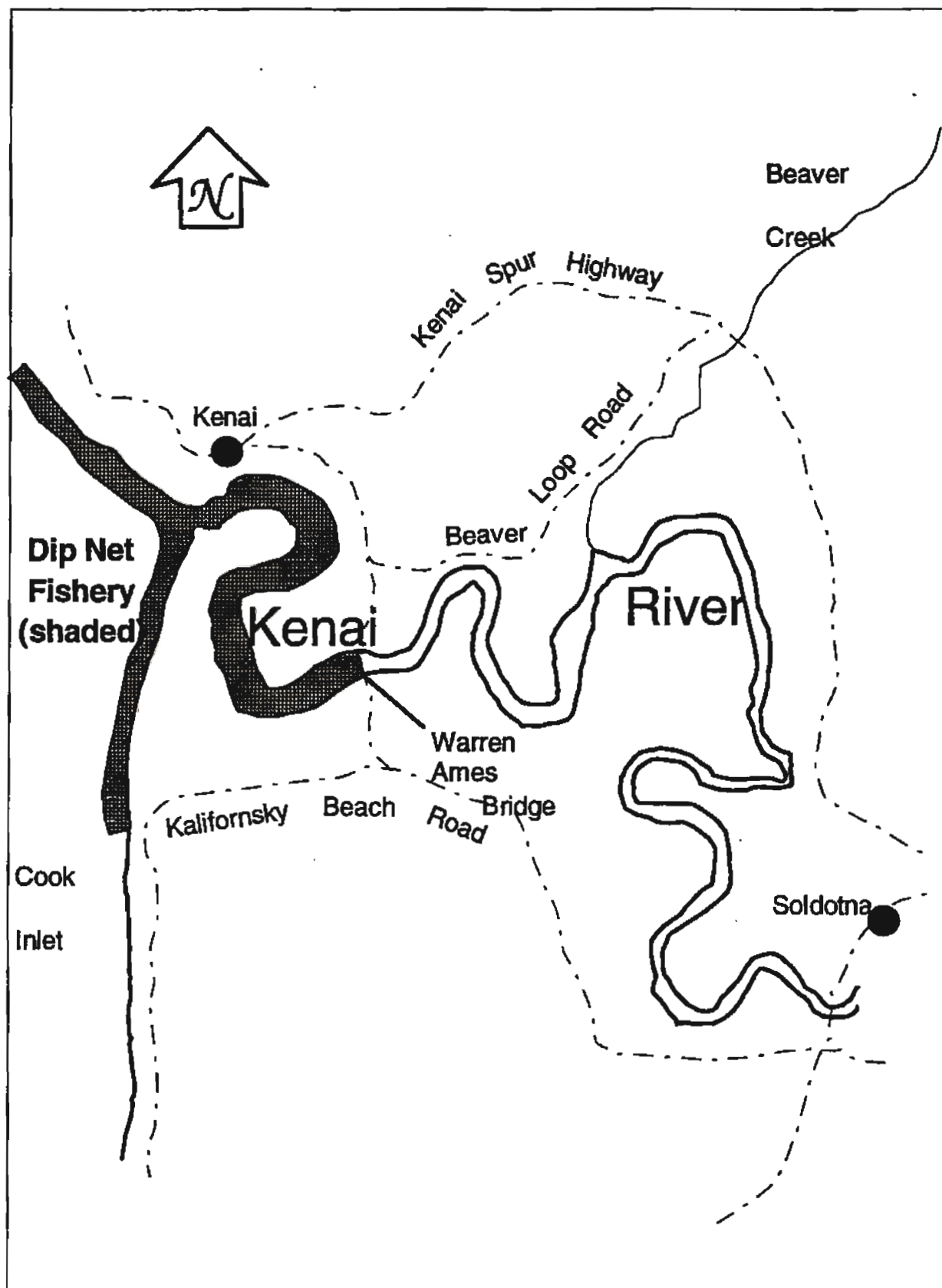


Figure 4. The Kenai River personal use dip net fishery.

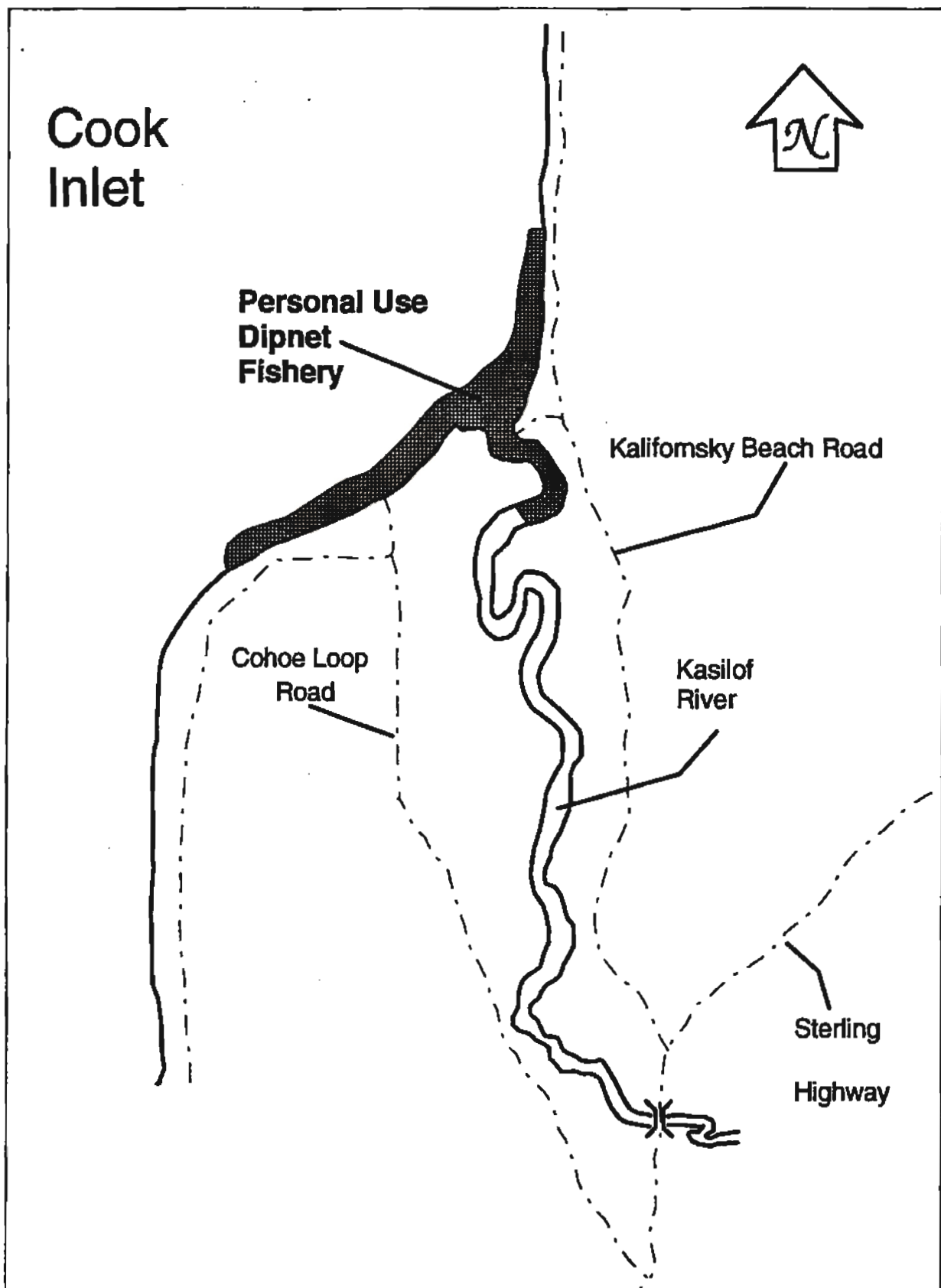


Figure 5. The Kasilof River personal use dip net fishery.

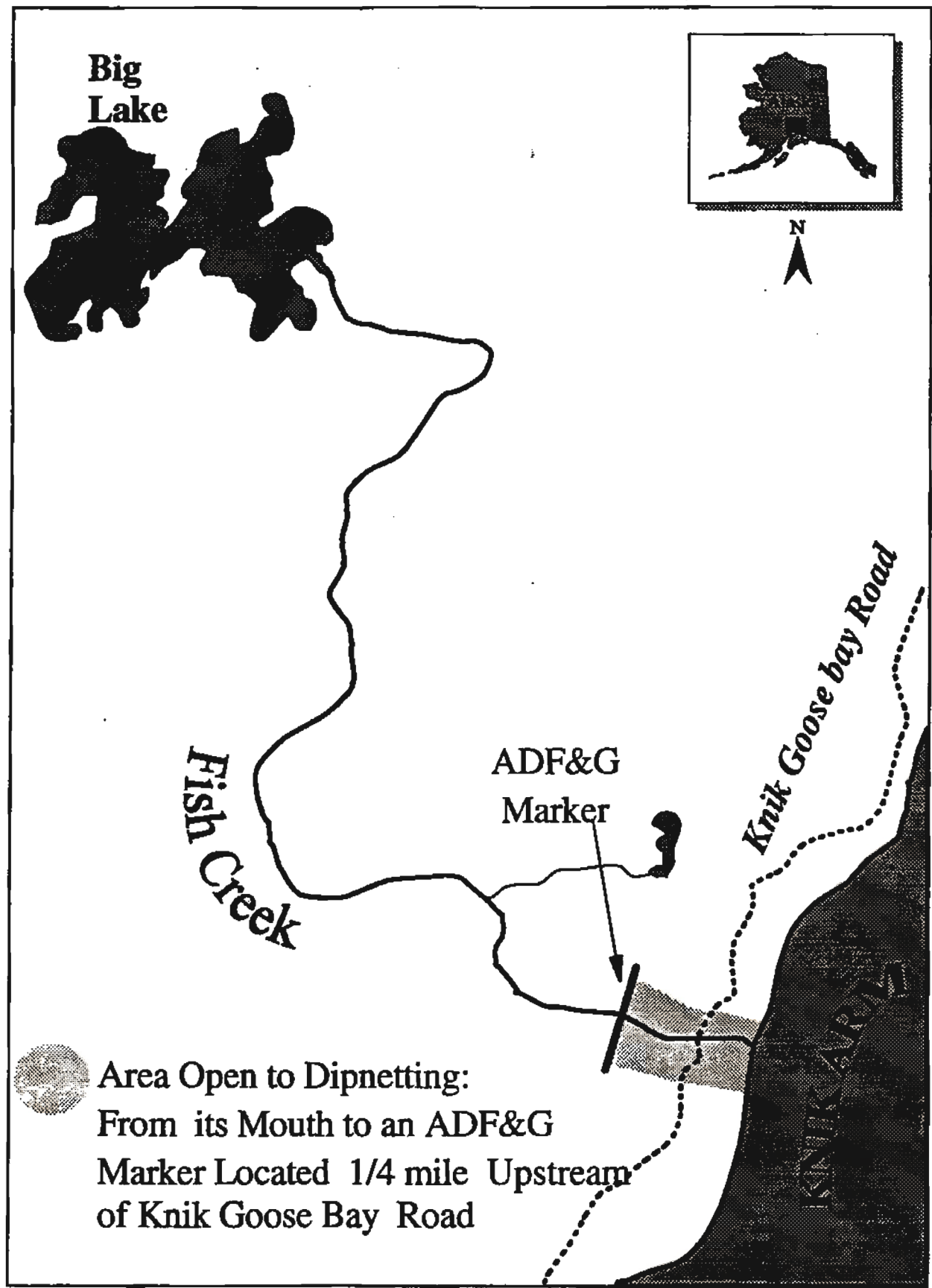


Figure 6. Area open to dipnetting on Fish Creek.