

KUSKOKWIM AREA COMMERCIAL AND SUBSISTENCE SALMON FISHERIES
1990 MANAGEMENT PLAN

By

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Division of Commercial Fisheries

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INTRODUCTION

This management plan will inform fishermen, processors, and other interested persons about the status of the 1990 Kuskokwim Area salmon runs and the Department's strategies to regulate the salmon fisheries. The Division of Commercial Fisheries of the Alaska Department of Fish and Game is responsible for the management of commercial and subsistence fisheries in the Kuskokwim Area (Figure 1). The objective of the Department's program is to manage the salmon runs for optimum sustained yield under the policies set forth by the Alaska Board of Fisheries. Subsistence has the highest priority among consumptive uses of the resource. Most commercial fishermen take salmon for both commercial and subsistence purposes. In order to enforce commercial fishing regulations it is necessary to place some restrictions on the subsistence fishery.

In 1983, provisional spawning escapement objectives were established for the area's major spawning systems (Table 1). These objectives were the average escapement counts obtained in these systems since 1959. Escapements at objective levels will maintain the salmon stocks at past levels of abundance. Continuing assessment of salmon returns and escapement data result in adjustment of some objectives to maximize salmon production.

Commercial fishing time during the season varies in response to the magnitude of salmon returns as shown by commercial catch data, test fishing and spawning escapement monitoring. The Alaska Board of Fisheries, the Department of Fish and Game, the Kuskokwim Area Advisory Committees, subsistence and commercial fishermen, and the processors agreed to work together to share information on fishery management. By sharing information the parties hope to arrive at a consensus concerning when the Kuskokwim River salmon fishery should be opened and closed. Department staff and a working group consisting of fishermen and processor representatives will evaluate historic and in-season data on the magnitude of salmon returns when discussing commercial fishing periods.

Kuskokwim area salmon processors will sponsor a test fishery again this year. This test fishery, near Eek Island, will be run by fishermen, with technical help from the Department, near Eek Island. The Department will continue to operate a dual beam sonar in the Kuskokwim River. The goal of this project is to provide an accurate estimate of the number of salmon swimming up the Kuskokwim River. The development of this project is progressing faster than expected but it will be one or two more years before the data can be used for management in-season. The Working Group will continue an in-season subsistence catch reporting system. This should provide more complete information on the timing and magnitude of salmon migrations. The "fisheries forum" provided by the working group allows the members and the public to provide the general in-season status of the subsistence salmon harvest.

Subsistence fishermen will receive salmon catch calendars, which the Department will collect in October and November. Changing the calendar collection date to October or November has improved the accuracy of coho catch reporting.

Budget cuts and personnel shortages forced the Department to discontinue the Kanektok River Sonar project. The Kanektok Sonar project will not operate this year. This unfortunate interruption of the project will slow the improvement of fishery management information for District 4. The Department will be appraising the Kanektok River to determine the feasibility of other methods of enumerating salmon escapement. King, sockeye, and chum salmon escapement will continue to be monitored by a counting tower on the Middle Fork Goodnews River.

REGULATION CHANGES

Kuskokwim River

The boundaries of District 1, the Lower Kuskokwim and District 2, the Middle Kuskokwim River, have changed (Figures 2 and 3). The upstream boundary of District 1, the lower Kuskokwim, has moved downstream from Bogus Creek to ADF&G regulatory markers about 1 mile upstream of the mouth of the Tuluksak River, just downstream of the southern tip of Nelson Island, also known as Big Island (Figure 2). The downstream boundary of District 2, the Middle Kuskokwim River, has moved upstream from High Bluffs to the ADF&G regulatory markers located below the second slough on the west bank downstream of Kalskag (Figure 3).

Subsistence Fishermen Note: Subsistence fishing closes between District 1, the lower Kuskokwim River (Figure 2) and District 2, the Middle Kuskokwim River when subsistence fishing closes in District 1.

In District 1 and 2, all subsistence nets have to be out of the water beginning 16 hours before, during, and 6 hours after each commercial period. Subsistence nets must be out of the water at 9:00 p.m. the day before each 6 hour commercial fishing period. Nets may begin fishing again at 1:00 a.m. the morning after a commercial fishing period. Subsistence fishermen should also be aware that the closure times will change if the commercial period is longer than 6 hours.

Kuskokuak Slough is an exception to the subsistence fishing closure rule in District 1. In Kuskokuak Slough subsistence nets must not be in the water 16 hours before and during commercial openings. Subsistence fishing may begin as soon as the commercial period is over. Kuskokuak Slough is closed to commercial fishing.

The normal commercial fishing period in District 1 and District 2

will be from 1:00 p.m. until 7:00 p.m. If the periods are longer than six hours, the extra time may be before 1:00 p.m. or after 7:00 p.m. The time of the fishing periods is a regulation and not determined by the Department or the working group. This regulation was a request of the Lower Kuskokwim Advisory Committee.

The Kuskokwim River Salmon Management Plan requires the following:

1. no directed commercial king salmon fishery;
2. only District 1, the lower Kuskokwim River downstream of Bethel, will be open during the first commercial fishing period;
3. there shall be at least 3 eight hour commercial fishing periods in June;
4. the incidental king salmon guideline harvest level is 15,000 to 50,000 fish;
5. the Department shall provide at least 24 hours notice of District 1 commercial fishing periods.

The JOINT STATEMENT ON THE MANAGEMENT OF THE KUSKOKWIM RIVER SALMON FISHERY as modified by the Board of Fish in 1990 agrees that:

The Board of Fisheries, the Department of Fish and Game, the local Fish and Game advisory committees, and local subsistence and commercial fishermen agree to work together towards the goal of increasing the sustained yield of Kuskokwim River salmon stocks to provide for subsistence needs and an economically viable commercial fishery. To achieve that goal, the parties agree to the following:

1. The Kuskokwim River Salmon Management Group, formed in 1988, will continue to co-operate with the Department in the management of the Kuskokwim River fishery.
2. The local Department staff will meet with the Working Group to discuss pre-season and in-season management of the fishery and evaluate items such as, historic and in-season data from, but not limited to, the following sources:
 - a. test fisheries;
 - b. CPUE results from commercial fisheries;
 - c. in-season subsistence catch data;
 - d. Aniak Sonar;
 - e. Kogrukluik Weir;
3. it is understood that the purpose of these meetings shall be to arrive at a consensus, as defined by the rules of conduct of the Kuskokwim River Salmon Management Working Group, regarding recommendations on management of the Kuskokwim River fishery. Emergency Order authority continues to be at the Department's discretion;
4. the Department shall provide at least 48 hours notice of the first commercial fishing period;
5. the fishing periods may be separated by up to, but no more than, six days to assist king salmon passage;
6. the Department and the Working Group will continue working towards the development of a comprehensive management plan for

all Kuskokwim River salmon stocks, and report to the Board or their progress.

7. Working Group/Staff meetings will be called at the discretion of the chair of the Working Group.

The Kuskokwim River between District 1, the Lower Kuskokwim and District 2, the Middle Kuskokwim (Figures 2 & 3) is **CLOSED** to commercial fishing. As in District 1, subsistence nets must be out of the water 16 hours before, during, and 6 hours after each commercial fishing period in District 1.

Subsistence fishermen upstream of Chuathbaluk complained that they did not hear the commercial period announcements because of the poor radio reception in that area. At the request of the Central Kuskokwim Advisory Committee, the Kuskokwim River upstream of Chuathbaluk is closed to commercial fishing. This will allow the subsistence fishermen upstream of Chuathbaluk to subsistence fish 7 days a week with no closures.

Kuskokwim Bay Districts

The Board of Fisheries changed the northern boundary of District 4, Quinhagak (Figure 4). The boundary will move north 4 miles from Oyak Creek to Wheelung Creek. The Central Kuskokwim Advisory Committee requested the boundary change. Both the Department and the Lower Kuskokwim Advisory Committee supported the change. An individual made a similar proposal that was rejected. The proposal was rejected because the justification for the boundary change was "because people fish there illegally." The Board wished to make it clear that illegal fishing is not a reason to open an area to commercial fishing. No other changes in District 4 or District 5 regulations were made.

During the 1988 season fishermen informed the Department that they preferred to fish from 9:00 a.m. to 9:00 p.m. The fishing periods changed to that time at the request of the fishermen. During the 1990 season daylight hours from 9:00 a.m. until 9:00 p.m. will be used for the entire season in District 4, Quinhagak. Periods will normally be 12 hours long.

In District 4, Quinhagak and District 5, Goodnews Bay subsistence nets must be out of the water 24 hours before, during, and six hours after each commercial fishing period. In District 4, Quinhagak subsistence nets must be out of the water by 9:00 a.m. the day before a commercial fishing period. Subsistence fishing will begin again at 3:00 a.m. the day after the commercial fishing period.

COMMERCIAL FISHERIES MANAGEMENT

Districts 1 and 2, The Kuskokwim River

commercial fishing in the Kuskokwim River is only allowed in Districts 1 and 2. The boundaries of both districts changed in 1990 and fishermen should refer to Figures 2 and 3 before fishing. District 1, the Lower Kuskokwim, includes the Kuskokwim River beginning at a line between Apokak Slough and Popokamiut upstream to a line located between Fish and Game regulatory markers located about 1 mile upstream of the mouth of the Tuluksak River just downstream of the southern tip of Nelson Island, also known as Big Island (Figure 2).

PROCESSORS AND FISHERMEN: please note that there are new statistical areas in District 1. Statistical area 335-11 is Popokamiut upstream to the bluffs on the west bank upstream of the Kialik River (Figure 2). The new statistical area 335-12, begins at the bluffs on the west bank upstream of the Kialik River and continues upstream to ADF&G regulatory markers just above Bethel (Figure 2). Statistical area 335-13 begins at Bethel and runs upstream to the fish camp downstream of Akiak (Figure 2). Statistical area 335-14 begins at the fish camp downstream of Akiak and continues upstream to the new district boundary a mile upstream of the Tuluksak River (Figure 2). Please check Figure 2 and report the correct statistical area on your fish tickets. This will aid the Working Group in determining where fish are and estimating their traveling speed.

District 2 includes the Kuskokwim River from ADF&G regulatory markers located at the downstream mouth of the second slough on the west bank downstream of Kalskag upstream to Chuathbaluk (Figure 3). The Kuskokwim River between District 1 and 2 and upstream of Chuathbaluk is not open to commercial fishing.

Commercial gill nets may not exceed 50 fathoms in length, 45 meshes in depth, and may not be greater than 6 inch mesh in all districts.

No directed harvest of king salmon occurs in either district. All harvest guidelines for District 2 were repealed. The incidental guideline harvest level for king salmon in District 1 and 2 is 15,000 to 50,000 fish. Commercial fishing time in Districts 1 and 2 will be based on subsistence needs, run timing, run strength, and fish quality. This means that District 2 will open after District 1 since it requires more time for salmon to travel upstream to District 2. Commercial fishing in both districts may be delayed or interrupted if subsistence fishermen say that the associated subsistence closures are creating a hardship. Commercial fishing may close if fish quality becomes unacceptable to processors.

In consultation with the Kuskokwim Salmon Working Group, the Department will provide at least 48 hours notice of the first

commercial period in District 1 . Only District 1 downstream of Bethel will be open during the first fishing period. All openings are by emergency order based on run strength. Run strength is determined by a joint evaluation of all available information by the Working Group and the Department. The commercial fishery will begin in each district when the available information indicates that chum salmon will be the dominate species. Special actions may be required early in the fishery to insure adequate king salmon subsistence catches and escapement.

The commercial chum salmon harvest for the Kuskokwim River has ranged from 200,000 to 1,382,000 salmon in the last five years (Table 2). The expected catch in 1990 should be within this range. Catch will continue to be adjusted based on run strength and escapement. The commercial harvest will not greatly exceed 300,000 chum salmon except under the following conditions:

1. Test fishing indices exceed historic average CPUE for years with adequate escapement of chum salmon.
2. Commercial catch per unit effort (especially in early and middle July) is above average.
3. Subsistence fishermen report adequate subsistence catches.
4. Chum salmon escapement projects show adequate escapements are occurring.

Management options for insuring adequate escapements during poor returns include in order of priority:

1. Commercial harvest fishing time restrictions, including early closure.
2. Personal use fishing time restrictions, including early closure.
3. Subsistence harvest fishing time restrictions.

In 1990 the Department will receive the latest catch updates from the Shumigan and Unimak salmon fisheries. The Department will present this data to the Working Group to aid in the determination of run strength.

The Kuskokwim River Salmon Working Group has resulted in significant changes in the conduct of the fishery. Besides providing a forum for input into the management process the Working Group has involved itself in many other area's. The Working Group has been working with both the Department of Public Safety and fishermen to improve compliance with the regulations. The Working Group has also made significant contributions in improving the communication of information to and from fishermen. Fishermen safety has also improved through the actions of the Working Group. Two years of cooperative management with the Working Group have been very successful and the 1990 season should see further improvements.

There are fewer red salmon than chum salmon in the Kuskokwim River. Historically, red and chum salmon have not been accurately identified in the commercial or subsistence catches. For this reason, the red and chum salmon harvest in the main Kuskokwim River was not documented. Since 1981, fishermen, processors and the Department have worked together to identify each species in the commercial harvest. Red salmon have comprised 5 to 24 percent of the combined chum-red salmon catch since 1981. Before 1981 the reported red salmon catch was 2 percent or less of the combined chum-red salmon harvest. Recent years catch data and interviews with life-long residents of the drainage suggest that the recent increased catches are partly a result of increased red salmon returns. The previous 5 year average harvest of red salmon has been 95,900 (Table 2). Since 1981, the red salmon catch has ranged from 33,100 to 136,100. The catch should be similar in 1990.

A 10 to 20 day closure usually begins in mid-July following the chum salmon run. The Kuskokwim River reopens, usually by 1 August, when coho salmon predominate in test fishing and subsistence catches. The normal fishing schedule is two 6-hour periods a week. Fishing time increases or decreases depending on run strength.

The commercial coho salmon harvest in the Kuskokwim River has averaged 509,000 salmon in the last 5-years (Table 2). In recent years the coho salmon catch has increased because of larger runs and more effort. Even year coho salmon runs have been larger than the odd years since 1980. Catches have ranged from 222,000 to 660,000 in even numbered years since 1980. A similar catch is expected in 1990.

District 4, Quinhagak

All subsistence fishing must stop 24 hours before, during and 6 hours after each commercial fishing period in District 4 and in the Kanektok and Arolik Rivers.

Commercial fishing in District 4 occurs in the marine waters of Kuskokwim Bay (Figure 4) near Quinhagak. **Fishermen Please Note:** The northern boundary of District 4 moved approximately 4 miles north from Oyak Creek to Wheelung Creek. Gill nets may not exceed 50 fathoms in length, 45 meshes in depth, and may not be greater than 6 inch mesh.

The commercial king salmon season in District 4, will open before June 16 as required by the District 4 Salmon Management Plan. The commercial fishing schedule is normally two 12-hour periods per week from mid-June to early July when the target species is king salmon. These periods are from 9:00 a.m. to 9:00 p.m. as requested by the fishermen in 1988.

The commercial king salmon harvest in District 4 ranged from 14,000

to 34,000 fish in the last five years. Comparing catch data collected by the Department with data collected in previous years is the primary means of assessing run strength. Harvest levels increase or decrease in response to the Department's assessment of in-season run strength by adjusting fishing time via emergency order. King salmon abundance has been stable since 1984, except for 1988. The 1990 return should be similar to recent years and the harvest should be between 14,000 and 33,500 (Table 3).

In early July, red salmon are the target species in District 4. The District 4 Salmon Management Plan requires the Department to manage for red salmon once they exceed 50 percent of the combined king and red salmon catch. The recent 5 year average catch of red salmon has been 15,000 in District 4 (Table 3). The catch should be average in 1990.

Based on exploitation rates in other fisheries the provisional escapement objectives for red salmon in the Kanektok River appear to be too high. The former objective of 32,000 red salmon was lowered to 15,000 (Table 1).

Chum salmon are taken incidentally to the other species in District 4. The previous 5 year average catch is 28,000; the 1990 catch should be similar (Table 3).

Commercial coho salmon harvests in District 4 have averaged 68,000 fish per year during the 1984-89 period (Table 3). Normally the fishing schedule is three (Monday, Wednesday, Friday) 12-hour fishing periods per week. This schedule has in the past allowed commercial catches that still provide adequate spawning escapements and subsistence harvests. The three period per week schedule is frequent enough to compensate for any fishing time "lost" (because of weather). District 4 closes by regulation on September 8.

District 5, Goodnews Bay

All subsistence nets must be out of the water for 24 hours before, during and 6 hours after every commercial opening in the District and in the Goodnews River.

Commercial salmon fishing in District 5 occurs in the marine waters of Goodnews Bay (Figure 5). The Goodnews River is closed to commercial fishing. Commercial fishermen must use six inch or less stretched mesh nets, which may not exceed 50 fathoms in length or 45 meshes in depth. These gear restrictions help managers to reduce the selective harvest of the larger and more productive chinook salmon, while allowing the take of the more abundant red salmon.

The "normal" commercial fishing schedule two 12-hour periods per week from mid-June to early July. These periods are from 9:00 a.m. until 9:00 p.m. The king salmon in District 5, Goodnews Bay, have

been below escapement objective while the red salmon run has been achieving escapement objective during the last five years. The run timing overlaps making it difficult to fish for red salmon without catching king salmon. A delay in the opening in mid June will increase king salmon escapement without reducing sockeye salmon catch. In the neighboring Togiak District, longer openings once a week has allowed king salmon to reach escapement objective while harvesting the surplus red salmon. In 1990, depending on run strength the Department may use longer once a week opening in Goodnews Bay to improve king salmon escapement.

A counting tower on the middle fork of the Goodnews River estimates salmon escapements. King, red and chum salmon are migrating during the time the tower is in operation. The project ending date precludes adequate assessment of pink and coho salmon. The primary objective of the project is to provide daily escapement information to help management of the commercial salmon fishery in Goodnews Bay. The tower also allows accurate interpolation of the aerial survey escapement data collected in the Goodnews River drainage.

The total population estimates made possible by the tower count suggest the red salmon escapement objectives were too high. Based on exploitation rates in other fisheries the provisional escapement objectives for red salmon at the Goodnews Tower project were lowered from 35,000 to 45,000 red salmon to 20,000 to 30,000.

The red salmon catch has averaged 22,300 in recent years. An average return of red salmon in 1990 should result in a catch of more than 20,000 fish. The incidental king salmon catch should range from 3,000 to 6,000 fish. The incidental chum salmon catch averages 16,600 fish (Table 4).

The management strategy in District 5 for coho salmon (three 12-hour periods per week) is similar to that used in District 4. The coho salmon return should be average in 1990. The coho salmon catch in Goodnews Bay should approach 20,000 to 30,000 fish (Table 4). District 5 closes by regulation on September 8.

SUMMARY OF 1990 COMMERCIAL SALMON REGULATIONS, KUSKOKWIM AREA

This summary of regulations is for informational use only. This list of regulations is not complete or official. Copies of complete regulations are available at the Bethel Fish and Game office.

1. Commercial Fishing Districts:

- A. District 1, the lower Kuskokwim River, consists of that portion of the Kuskokwim River upstream of a line from Apokak Slough (60' 08' N. lat. 162' 28' W. long.) to the southernmost

tip of Eek Island to Popokamiut (60' 04' N. lat. 162' 28' W. long.) to a line between ADF&G regulatory markers located about 1 mile upstream of the mouth of the Tuluksak River just downstream of the southern tip of Nelson Island.

- B. District 2 is that portion of the Kuskokwim River from ADF&G regulatory markers located at the downstream mouth of the second slough downstream of Kalskag upstream to Chuathbaluk (Figure 3).
- C. District 4, Quinhagak consists of the Kuskokwim Bay between ADF&G regulatory markers placed at the mouth of Wheelung Creek and at the southernmost edge of the mouth of the Arolik River.
- D. District 5, Goodnews Bay consists of that portion of Goodnews Bay inside a line between Department of Fish and Game regulatory markers placed near the bay entrance and a line between Department of Fish and Game regulatory markers placed near the mouth of the Ukfigag River and on the opposite shore near the mouth of the Tunulik River.
- E. All other waters are closed to commercial salmon fishing.

2. Commercial Gill Net Specifications and Operation:

- A. Only set and drift gill nets are legal gear.
- B. Fishermen shall fish or help in fishing only one type of gear at any time, they cannot have set nets out while they are fishing with drift nets.
- C. The length of a set or drift gill net may not exceed 50 fathoms.
- D. Salmon may be taken only with gill nets of 6 inch or smaller mesh.
- E. Gill nets with 6 inch or smaller mesh may not be more than 45 meshes deep.
- F. No gill net may obstruct more than one-half the width of any waterway. In the intertidal zone this restriction applies at all stages of the tide.
- G. All gill nets in operation must have a red keg, buoy or cluster of floats plainly and legibly marked with the fisherman's five digit CFEC permit serial number. There may not be any other numbers or letters on the buoy.
- H. In District 5 no part of the set gill net may be set or operated within 300 feet of any part of another set gill net.
- I. Gill net web must contain at least 30 filaments or the web must contain at least six filaments, each of which must be at least 0.20 millimeter in diameter.

3. Commercial Fishing Seasons and Periods:

- A. All districts open by emergency order.
- B. KUSKOKWIM RIVER SALMON MANAGEMENT PLAN.

- 1. The objective of the Kuskokwim River Salmon Management Plan is to provide guidelines for the management of the

Kuskokwim River commercial salmon fishery that will result in sustained yields of the salmon stocks large enough to provide for subsistence needs and an economically viable commercial fishery.

2. It is the intent of the Board of Fisheries that the Kuskokwim River king salmon stock be managed in a conservative manner consistent with sustained yield principles and the subsistence priority and, consistent with intent, that the available surpluses of other salmon stocks be taken. To accomplish these objectives the department shall manage the Kuskokwim River commercial salmon fishery as follows:

- (a) there shall be no directed commercial king salmon fishery;
- (b) deleted;
- (c) only those waters of District 1 downstream of ADF&G regulatory markers located at Bethel shall be open during the first period;
- (d) there shall be at least three eight-hour fishing periods in June;
- (e) although no directed fishery on king salmon is allowed, the incidental catch guideline harvest level for king salmon during fisheries directed on other species is 15,000 to 50,000 fish;
- (f) to the extent possible, the department shall provide at least 24 hours advance opening of District 1 fishing periods;
- (g) District 1 fishing periods are from 1:00 p.m. until 7:00 p.m.; when longer fishing periods are allowed, the extra time is to be divided before 1:00 p.m. and after 7:00 p.m.

C. JOINT STATEMENT ON THE MANAGEMENT OF THE KUSKOKWIM RIVER SALMON FISHERY

The Board of Fisheries, the Department of Fish and Game, the local Fish and Game advisory committees, and local subsistence and commercial fishermen agree to work together towards the goal of increasing the sustained yield of Kuskokwim River salmon stocks to provide for subsistence needs and an

economically viable commercial fishery. To achieve that goal, the parties agree to the following:

1. The Kuskokwim River Salmon Management Group, formed in 1988, will continue to co-operate with the Department in the management of the Kuskokwim River fishery.
 2. The local Department staff will meet with the Working Group to discuss preseason and in-season management of the fishery and evaluate items such as, historic and inseason data from, but not limited to, the following sources:
 - a. test fisheries;
 - b. CPUE results from commercial fisheries;
 - c. in-season subsistence catch data;
 - d. Aniak Sonar;
 - e. Kogrukluuk Weir;
 3. it is understood that the purpose of these meetings shall be to arrive at a consensus, as defined by the rules of conduct of the Kuskokwim River Salmon Management Working Group, regarding recommendations on management of the Kuskokwim River fishery. Emergency Order authority continues to be at the Department's discretion;
 4. The Department shall provide at least 48 hours notice of the first commercial fishing period;
 5. The fishing periods may be separated by up to, but no more than, six days to assist king salmon passage;
 6. The Department and the Working Group will continue working towards the development of a comprehensive management plan for all Kuskokwim River salmon stocks, and report to the Board on their progress.
 6. Working Group/Staff meetings will be called at the discretion of the chair of the Working Group.
- E. Districts 1 and 2 will close on September 1.
- F. District 4
1. Will open before 16 June.
 2. There shall be at least one fishing period a week unless a severe conservation problem exists.
 3. If the commercial salmon fishery is closed the department shall decide by the tenth day whether the sport fishery on the species of concern will close.
- G. District 4 and 5 will close on 8 September.
4. Closed Waters
- A. All waters of the Kuskokwim River drainage not included in Districts 1 and 2.
 - B. All waters of Kuskokuak Slough.

- C. The Goodnews, Kanektok and Arolik Rivers.
- D. All waters of the Kuskokwim Area not included in Districts 4, and 5.

YOU MAY OBTAIN THE CURRENT COMMERCIAL SALMON OPENINGS 24 HOURS A DAY BY CALLING 543-2598.

SUBSISTENCE SALMON FISHING REGULATIONS

- A. SALMON MAY ONLY BE TAKEN FOR SUBSISTENCE BY RESIDENTS OF THE KUSKOKWIM AREA, except those persons living on the U.S. military installations located on Cape Newenham, Sparevohn, and Tatalina.
- B. IT IS UNLAWFUL TO BUY OR SELL SUBSISTENCE-TAKEN FISH OR THEIR PARTS, OR THEIR EGGS.
- C. In District 1 and in those waters of the Kuskokwim River between Districts 1 and 2, excluding the Kuskokuak Slough, salmon may be taken anytime except salmon may not be taken 16 hours before, during, and for six hours after each open commercial salmon fishing period for District 1.
- D. Kuskokuak Slough salmon may be taken at anytime except salmon may not be taken 16 hours before and during each open commercial salmon fishing period for District 1.
- E. In District 2 and tributaries flowing into the Kuskokwim River salmon may be taken at any time except from June 1 through September 8 salmon may not be taken 16 hours before, during, and for six hours after each open commercial salmon fishing period for District 2.
- F. In District 4 and 5 salmon may be taken at any time except from June 1 through September 8 salmon may not be taken 24 hours before, during and 6 hours after each open commercial fishing period in the district.
- G. Only gill net, beach seine or fishwheel are legal gear for taking salmon, salmon may also be taken by spear in the Holitna River drainage.
- H. All unattended fishing gear must have the fishermen's initial, last name, and address written on it legibly.
- I. The length of set gill nets or drift gill nets in use by any individual for taking salmon may not exceed 50 fathoms.
- J. In tributaries of the Kuskokwim River, set gill nets must connect to the bank and fish perpendicular to the bank and in a straight line.
- K. In that portion of the Kuskokwim River drainage from the southern end of the Eek Island, upstream to the mouth of the Kolmakof River, no part of a set gill net located within the tributary of the Kuskokwim River may be set or operated within 150 feet of any part of another gill net.
- L. A gill net may obstruct not more than one-half of the width of any fish stream. A stationary fishing device may obstruct not more than one-half the width of any salmon stream.

- M. The maximum depth of gill nets is as follows;
- (1) gill nets with 6 inch or smaller mesh may not be more than 45 meshes in depth.
 - (2) gill nets with greater than 6 inch mesh may not be more than 35 meshes in depth.
- N. The Goodnews River is closed east of a line between ADF&G regulatory markers placed near the mouth 24 hours before, during and 6 hours after each commercial salmon fishing period.
- O. The Kanektok River is closed upstream of ADF&G regulatory markers placed near the mouth 24 hours, before, during and 6 hours after each open commercial salmon fishing period.

YOU MAY OBTAIN THE CURRENT COMMERCIAL SALMON OPENINGS 24 HOURS A DAY BY CALLING 543-2598.

PERSONAL USE FISHERY

- A. Salmon may only be taken for personal use by a holder of a valid resident Alaska sport fishing license or by an Alaskan resident exempt from licensing.
- B. In the Kuskokwim Area salmon may only be taken by people who hold a Kuskokwim Area Personal Use Salmon Fishing Permit. You may obtain a Kuskokwim Area Personal Use Salmon Fishing Permit from the Commercial Fisheries Division, Room 215, Bethel Native Corporation Building, Bethel, Alaska; mailing address PO Box 90, Bethel, Alaska 99559; telephone 543-2433.
- C. Salmon may only be taken from July 1 through September 30.
- D. Salmon taken for personal use may not be used for bait or fed to dogs. It is unlawful to buy, sell, trade or barter fish or their parts taken for personal use.
- E. Each personal use fishermen shall plainly and legibly inscribe their first initial, last name, and home address on a keg or buoy attached to a gill net.
- F. Both lobes of the caudal or tail fin of personal use fish must be removed immediately upon landing.
- G. In District 1 and in those waters of the Kuskokwim River between Districts 1 and 2, excluding the Kuskokuak Slough, salmon may not be taken 16 hours before, during, and for six hours after each open commercial salmon fishing period for District 1.
- H. Salmon may not be taken in Kuskokuak Slough 16 hours before and during commercial salmon fishing periods in District 1.
- I. In District 2 and tributaries flowing into the Kuskokwim River salmon may not be taken 24 hours before, during and 6 hours after each open commercial fishing period in the district.
- J. In District 4 and 5 salmon may not be taken 24 hours before, during and 6 hours after each open commercial fishing period in the district.
- K. Only gill net, beach seine or fishwheel are legal gear for taking salmon, salmon may also be taken by spear in the

Holitna River drainage.

- L. The length of set gill nets or drift gill nets in use by any individual for taking salmon may not exceed 50 fathoms.
- M. In tributaries of the Kuskokwim River, set gill nets must connect to the bank, fish perpendicular to the bank and in a straight line.
- N. In that portion of the Kuskokwim River drainage from the southern end of the Eek Island, upstream to the mouth of the Kolmakof River, no part of a set gill net located within the tributary of the Kuskokwim River may set or operated within 150 feet of any part of another gill net.
- O. A gill net may obstruct not more than one-half of the width of any fish stream. A stationary fishing device may obstruct not more than one-half the width of any salmon stream.
- P. The maximum depth of gill nets is as follows;
 - (1) gill nets with 6 inch or smaller mesh may not be more than 45 meshes in depth.
 - (2) gill nets with greater than 6 inch may not be more than 35 meshes in depth.
- Q. The Goodnews River is closed east of a line between ADF&G regulatory markers placed near the mouth 24 hours before, during and 6 hours after each commercial salmon fishing period.
- R. The Kanektok River is closed upstream of ADF&G regulatory markers placed near the mouth 24 hours, before, during and 6 hours after each open commercial salmon fishing period.

YOU MAY OBTAIN THE CURRENT COMMERCIAL SALMON OPENINGS 24 HOURS A DAY BY CALLING 543-2598.

Table 1. Kuskokwim Area preliminary escapement index objectives for chinook, sockeye, coho and chum salmon.

	Escapement Objectives ^a			
	Chinook	Sockeye	Coho	Chum
<u>KUSKOKWIM RIVER:</u>				
1. Kwethluk River				
a. 3-step Mt. to Canyon Cr.	1.0	-	-	7.0
b. Canyon Creek	0.2	-	-	-
2. Kisaralik River				
a. Airstrip to Kisaralik L.	1.0	-	-	8.0
b. Kasigluk R. (upper to lower)	1.0	-	-	8.0
3. Tuluksak R. (Fog R. to Bear Cr.)	0.4	-	-	5.0
4. Aniak River		-		
a. Buckstock R. to Aniak L.	1.5	-	-	10.0
b. Salmon River	0.6	-	-	3.0
c. Aniak Sonar Project ^b	-	-	-	250.0
5. Holitna River				
a. Nogamut to Kasheggok	2.0	1.0	-	49.0
b. Kogruklu Weir ^c	10.0	2.0	25.0	30.0
6. Salmon River (Pitka Fork)	1.3	-	-	-
<u>KUSKOKWIM BAY:</u>				
1. Kanektok River to Kagati Lake	5.8	15.0	25.0	30.5
2. Goodnews River System				
a. Main Fork and lakes	1.6	15.0	15.0	17.0
b. Middle Fork and lakes	0.0	5.0	2.0	4.0
c. Middle Fork Tower Project ^d	3.5	25.0	-	15.0

- a. Escapement objectives in thousands of fish. These are preliminary and are subject to change as additional data becomes available. For a more detailed explanation see text or the Kuskokwim Annual Management Report. Unless otherwise indicated, escapement objectives are based on aerial index counts which do not represent total escapement, but do reflect annual spawner abundance trends when made using standard survey methods under acceptable survey conditions.
- b. Sonar total escapement estimates obtained 1980 - 1984.
- c. Total Kogruklu River escapement estimates 1976 - 1983.
- d. Tower total escapement estimates 1982 - 1985, revised in 1989 based on exploitation rate calculated from total population estimates for 1983 - 1988.

Table 2 Lower Kuskokwim River, District 1, and the middle Kuskokwim River, District 2, combined commercial salmon harvest, 1960 - 1989.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1960	5,969	0	2,498	0	0	8,467
1961	18,918	0	5,044	0	0	23,962
1962	15,341	0	12,432	0	0	27,773
1963	12,016	0	15,660	0	0	27,676
1964	17,149	0	28,613	0	0	45,762
1965	21,989	0	12,191	0	0	34,180
1966	25,545	0	22,985	0	0	48,530
1967	29,986	0	56,313	0	148	86,447
1968	34,278	0	127,306	0	187	161,771
1969	43,997	322	83,765	0	7,165	135,249
1970	39,290	117	38,601	44	1,664	79,716
1971	40,274	2,606	5,253	0	68,914	117,047
1972	39,454	102	22,579	8	78,619	140,762
1973	32,838	369	130,876	33	148,746	312,862
1974	18,664	136	147,269	84	171,887	338,040
1975	21,720	23	81,945	10	181,840	285,538
1976	30,735	2,971	88,501	133	177,864	300,204
1977	35,830	9,379	241,364	203	248,721	535,497
1978	45,641	733	213,393	5,832	248,656	514,255
1979	38,966	1,054	219,060	78	261,874	521,032
1980	35,881	360	222,012	803	483,211	742,267
1981	47,663	48,375	211,251	292	418,677	726,258
1982	48,234	33,154	447,117	1,748	278,306	808,559
1983	33,174	68,855	196,287	211	267,698	566,225
1984	31,742	48,575	623,447	2,942	423,718	1,130,424
1985	37,889	106,647	335,606	75	199,478	679,695
1986	19,414	95,433	659,988	3,422	309,213	1,087,470
1987	36,179	136,602	399,467	43	574,336	1,146,627
1988	55,716	92,025	524,296	10,825	1,381,674	2,064,536
1989	43,217	42,747	479,856	464	749,182	1,315,466
Five Year						
Average 38,483						
(1985-1989)						
		94,690	479,843	2,966	642,776	1,258,758

Table 3. Quinhagak District commercial salmon harvest, 1960-1989.

<u>Year</u>	<u>Chinook</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1960	0	5,649	3,000	0	0	8,649
1961	4,328	2,308	46	90	18,864	25,636
1962	5,526	10,313	0	4,340	45,707	65,886
1963	6,555	0	0	0	0	6,555
1964	4,081	13,422	379	939	707	19,528
1965	2,976	1,886	0	0	4,242	9,104
1966	278	1,030	0	268	2,610	4,186
1967	0	652	1,926	0	8,087	10,665
1968	8,879	5,884	21,511	75,818	19,497	131,589
1969	16,802	3,784	15,077	953	38,206	74,822
1970	18,269	5,393	16,850	15,195	46,556	102,263
1971	4,185	3,118	2,982	13	30,208	40,506
1972	15,880	3,286	376	1,878	17,247	38,667
1973	14,993	2,783	16,515	277	19,680	54,248
1974	8,704	19,510	10,979	43,642	15,298	98,133
1975	3,928	8,584	10,742	486	35,233	58,973
1976	14,110	6,090	13,777	31,412	43,659	109,048
1977	19,090	5,519	9,028	202	43,707	77,546
1978	12,335	7,589	20,114	47,033	24,798	111,869
1979	11,144	18,828	47,525	295	25,995	103,787
1980	10,387	13,221	62,610	21,671	65,984	173,873
1981	24,524	17,292	47,557	160	53,334	142,867
1982	22,106	25,685	73,652	11,838	33,346	166,627
1983	46,385	10,263	32,442	168	23,090	112,348
1984	33,652	17,258	135,342	16,249	50,424	252,925
1985	30,401	7,876	29,992	28	20,418	88,715
1986	22,835	21,484	57,544	8,700	29,700	140,263
1987	26,022	6,489	50,070	66	8,557	91,204
1988	13,872	21,534	68,591	21,258	29,183	154,438
1989	20,820	20,582	44,607	273	39,395	125,677
Five Year Average (1985-1989)	22,790	15,593	50,160	6,065	25,450	120,059

Table 4. Goodnews Bay District commercial salmon harvest, 1968-1989.

<u>YEAR</u>	<u>CHINOOK</u>	<u>SOCKEYE</u>	<u>COHO</u>	<u>PINK</u>	<u>CHUM</u>	<u>TOTAL</u>
1968			5,458			5,458
1969	3,978	6,256	11,631	298	5,006	7,169
1970	7,163	7,144	6,794	12,183	12,346	45,630
1971	477	330	1,771	0	301	2,879
1972	264	924	925	66	1,331	3,510
1973	3,543	2,072	5,017	324	15,781	26,737
1974	3,302	9,357	21,340	16,373	8,942	59,314
1975	2,156	9,098	17,889	419	5,904	35,466
1976	4,417	5,575	9,852	8,453	10,354	38,651
1977	3,336	3,723	13,335	29	6,531	26,954
1978	5,218	5,412	13,764	9,103	8,590	42,087
1979	3,204	19,581	42,098	201	9,298	74,382
1980	2,331	28,632	43,256	7,832	11,748	93,799
1981	7,190	40,273	19,749	11	13,642	80,865
1982	9,476	38,877	46,683	4,673	13,829	113,538
1983	14,117	11,716	19,660	0	6,766	52,259
1984	8,612	15,474	71,176	4,711	14,340	114,313
1985	5,793	6,698	16,498	8	4,784	33,781
1986	2,723	25,112	19,378	4,447	10,355	62,015
1987	3,357	27,758	29,057	54	20,381	80,607
1988	4,964	36,368	30,832	5,509	33,059	110,732
1989	2,966	19,299	31,849	82	13,622	67,818
Five year Average (1985-1989)	3,960	23,047	25,522	2,020	16,440	70,990

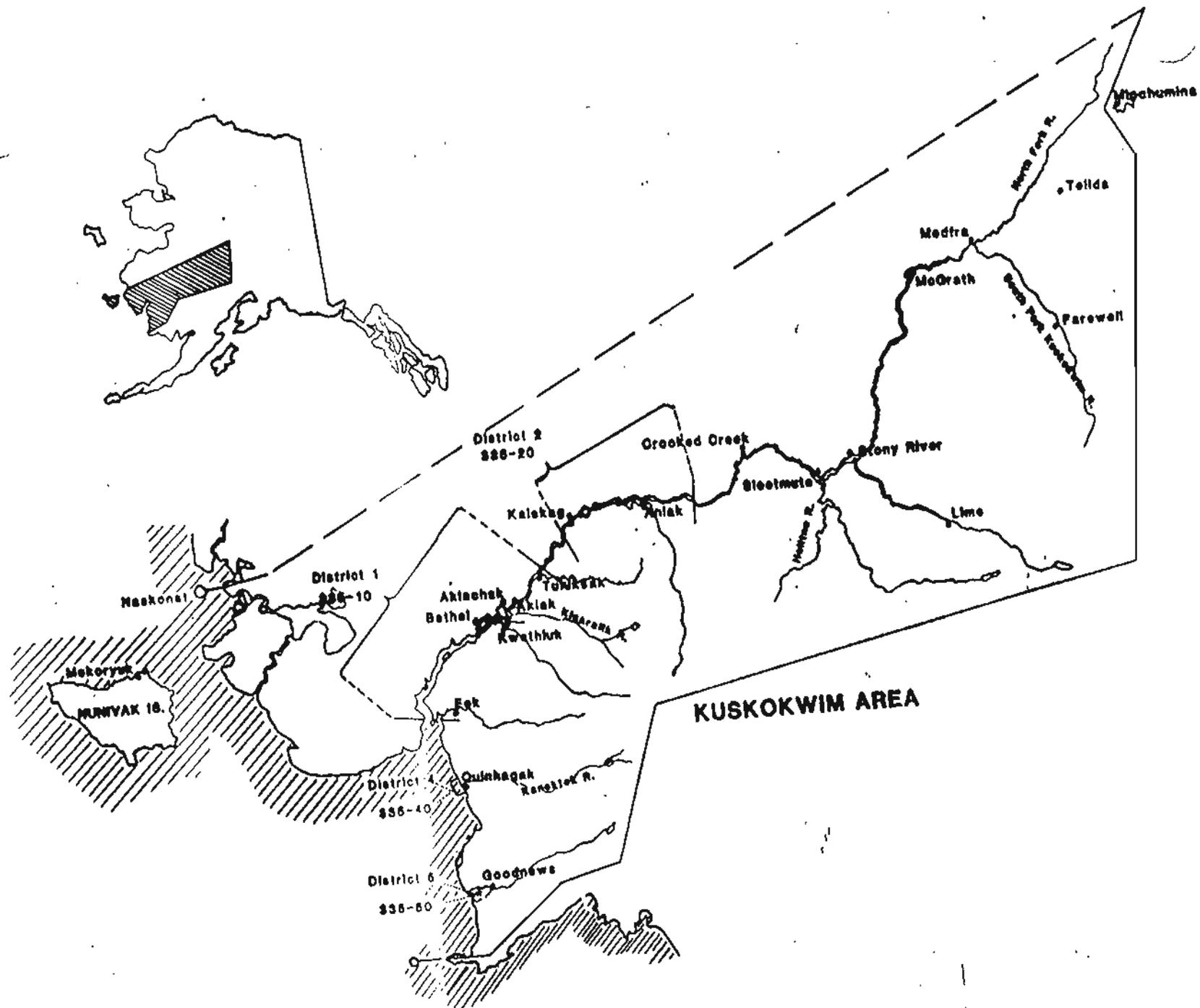


Figure 1. Kuskokwim Area Map

**Kuskokwim Management Area
District W-1
Kuskokwim River**

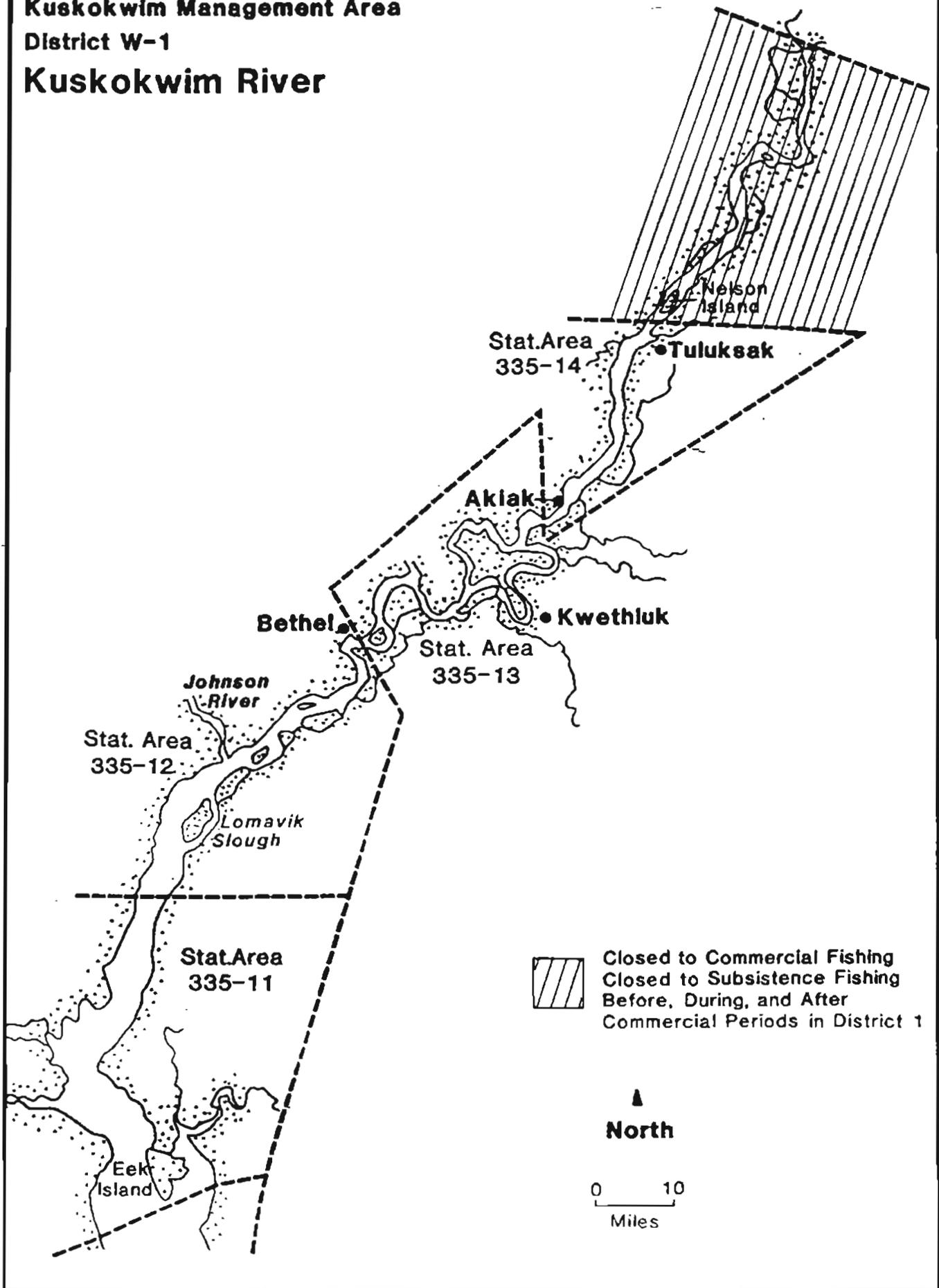


Figure 2. Kuskokwim Management Area, District W-1

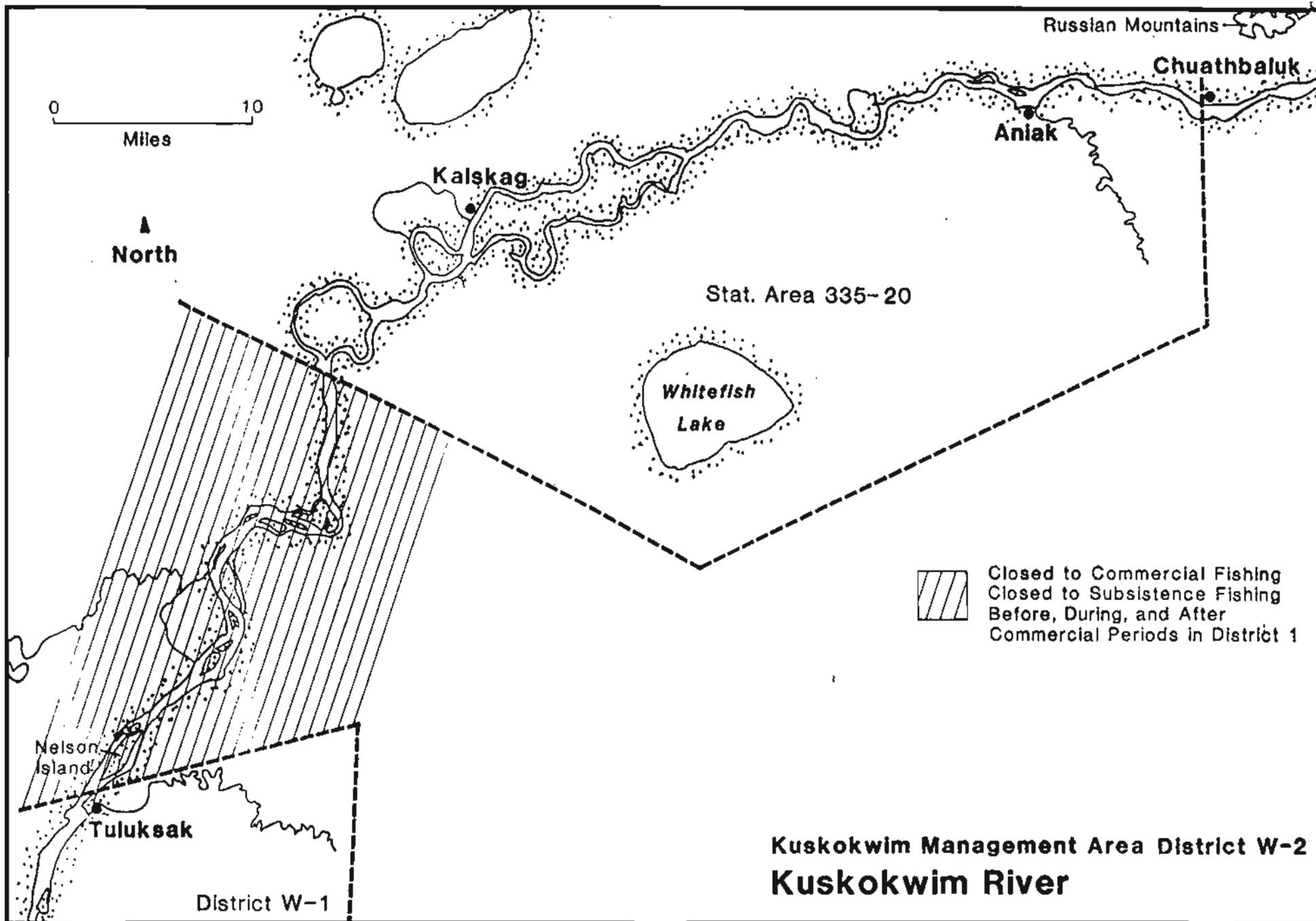


Figure 1. Kuskokwim Management Area, District W-2

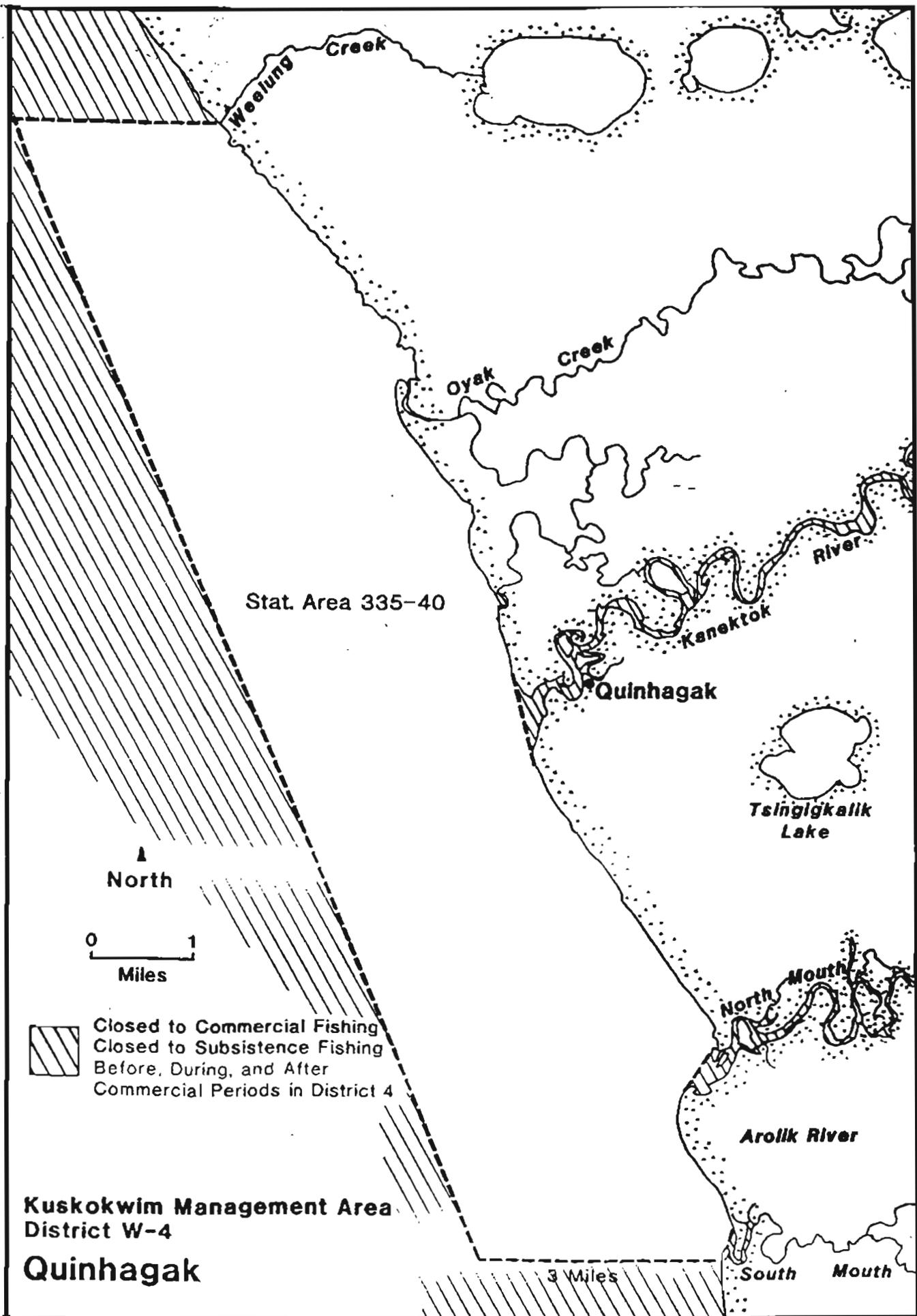


Figure 4. Kuskokwim Management Area, District W-4

Kuskokwim Management Area District W-5

Goodnews Bay

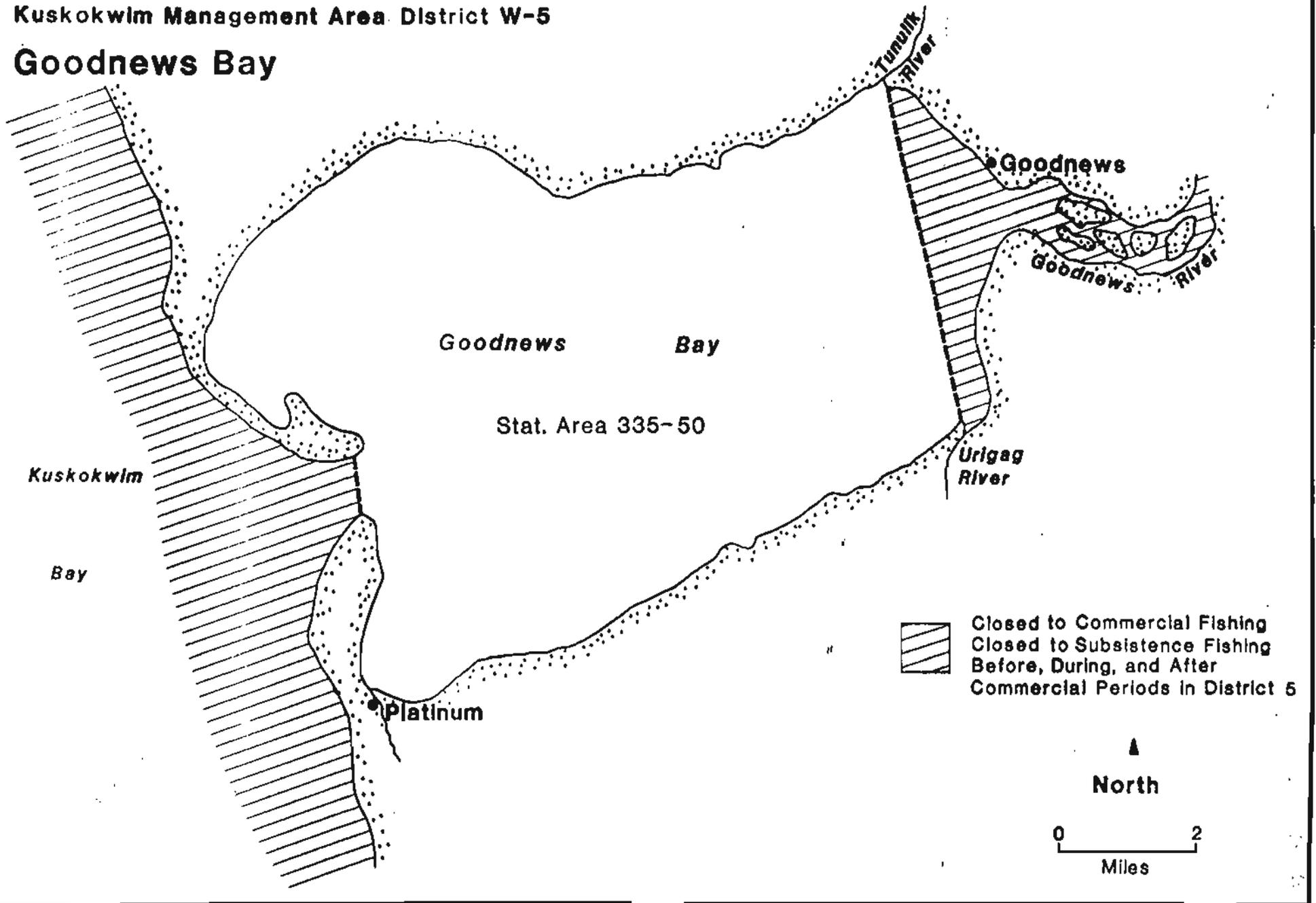


Figure 5. Kuskokwim Management Area, District W-5