



Advisory Announcement

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2020 Upper Cook Inlet Commercial Salmon Fishery Season Summary

The 2020 Upper Cook Inlet (UCI) commercial salmon fishery harvest and value was historically low (Table 1). The commercial harvest of approximately 1.2 million salmon was 65% less than the recent 10-year average harvest of 3.2 million fish. The estimated exvessel value of the 2020 harvest of all salmon species is approximately \$5.2 million, the worst exvessel value on record, and roughly 81% less than the previous 10-year average annual exvessel value of \$27.0 million. While all five species of Pacific salmon are present in UCI, sockeye salmon are the most valuable accounting for nearly 93% of the total exvessel value during the past 20 years. The 2020 total run preseason forecast of sockeye salmon was 4.3 million fish, and the estimate for the actual inseason run was 4.4 million fish.

Salmon escapements to UCI streams in 2020 were mostly above or within established goal ranges for sockeye, chum and coho salmon, but were poor for Chinook salmon. Sockeye salmon escapement goals were exceeded in three systems (Kenai River late run, Kasilof River, Fish Creek), met at two systems (Judd Lake and Packers Lake), and below at one system (Larson Lake). Run timing of sockeye salmon into Cook Inlet in 2020, measured with the Offshore Test Fishery (OTF), was estimated to be at least two days late. In 2020, both the lower end of the Kenai River early run and late run Chinook salmon Optimal Escapement Goals (OEGs) were not achieved. Of the three southern Chinook salmon systems (Anchor River, Deep Creek, and Ninilchik River), only the Ninilchik River Chinook SEG was achieved. In the north, the Deshka and Little Susitna rivers Chinook salmon weir count Sustainable Escapement Goals (SEGs) were achieved. Additionally, the lower bound of the recently established Chinook salmon stock complex escapement goals for the Yentna and Talkeetna stocks were not met, but the Eastside Susitna was met. For coho salmon, the Little Susitna River was within its escapement goal range, while the Deshka River projected to meet its escapement goal at the end of the season, but the weir was pulled early. At Fish Creek, the coho count was within its goal range. Finally, the chum salmon escapement goal was met in the Chinitna Bay tributaries.

SOCKEYE SALMON

2020 Run and Fishery Summary

The 2020 total run of sockeye salmon to UCI, which includes estimates of fishery harvests for commercial, sport, personal use, educational, and subsistence, as well as escapement, of approximately 4.4 million fish was 93,000 fish, or 2% more than the preseason forecast (Table 2). Sockeye salmon run abundance to the Kenai River was higher than forecasted by approximately 321,000 fish and to the Kasilof River by 98,000 fish. The number of sockeye salmon returning to

Fish Creek, however, was 47,000 less than forecasted, and in the Susitna River and all other systems (minor systems) inseason abundance was 23% to 39% less than forecasted for 2020.

In 2020, the peak day of sockeye salmon passage in the Kenai River occurred on August 17, with a count of 134,874 fish. This was the highest daily sockeye salmon passage recorded in August at the Kenai River sonar, and the latest peak of sockeye salmon movement recorded. During the previous 10 years, the average date where 50% of the yearly sonar passage occurred in the Kenai River was July 25. In 2020, 50% of the total passage did not occur until August 6 and approximately 61% of the run arrived in August. An exceptional abundance of pink salmon (see pink salmon section) also occurred during the 2020 sockeye salmon run and the sonar count data is currently being analyzed to determine if the apportionment of pink and sockeye salmon from the sonar count can be improved. Weak Kenai River Chinook salmon runs resulted in paired restrictive actions in the sport fishery and the eastside set gillnet (ESSN) fishery of the Upper Subdistrict. For the ESSN fishery, this meant less fishing time than what is allowed as per the sockeye salmon management plans, and gear restriction options were also applied. The final passage estimate of 1,814,252 sockeye salmon exceeded the upper end of the Kenai River sockeye salmon inriver goal range (1,000,000–1,200,000) by more than 600,000 fish (Table 3). Given typical sport fishery harvests at this inriver abundance level, the SEG (750,000–1,300,000) was also likely exceeded. The Kasilof River sockeye salmon sonar count of 545,654 fish exceeded the upper bound of the Kasilof River Biological Escapement Goal (BEG) of 140,000–320,000 fish and was the largest recorded sockeye salmon escapement recorded for the Kasilof River sonar project (38 years). The passage midpoint for Kasilof River occurred on July 19, which was three days later than the midpoint from the previous 10 years and the peak daily passage of 17,472 occurred on July 28.

The 2020 UCI commercial harvest of 669,751 sockeye salmon was approximately 74% less than the 2010–2019 average annual harvest of 2.6 million fish. The 2020 sockeye salmon commercial harvest was the second smallest harvest in the past 50 years (1970–2019). Sockeye salmon prices varied during the season but based on an estimated average price of \$1.24 per pound, the total exvessel value of the sockeye salmon harvest was approximately \$4.2 million, representing 77% of the total 2020 exvessel value of all salmon in UCI.

Upper Subdistrict Set Gillnet and Central District Drift Gillnet Fisheries

The 2020 UCI preseason forecast included a total run of approximately 4.3 million sockeye salmon (Table 2), including a total harvest estimate (sport, personal use and commercial) of 2.3 million fish, and a commercial fisheries harvest of approximately 1.7 million fish.

The sockeye salmon run forecast to the Kenai River in 2020 was 2.2 million fish, which meant management of the drift gillnet and ESSN fisheries fell into the provisions of the lowest run size tier (< 2.3 million fish). In this run size tier, from July 8 through August 10, the ESSN fishery is open for the regulatory Monday and Thursday 12-hour fishing periods, with up to 51 additional fishing hours per week. However, on Monday, June 15, 2020, the department issued EO No. 2-KS-1-22-20 restricting the Chinook salmon sport fishery in the Kenai River to no retention of fish over 34 inches in length beginning July 1, 2020. In response, EO 2S-04-20 was issued on June 22, which modified 5AAC 21.320(a)(2)(E) Weekly Fishing Periods with set gillnets in all waters of the Upper Subdistrict. In the Upper Subdistrict of the Central District (Figure 1), salmon could be taken only during fishing periods established by EO from June 20 through July 31, 2020. In 2020, the paired restrictions were enacted when the sport fishery was restricted to no retention of

Chinook salmon over 34 inches in length. Commercial fishing periods were restricted to no more than 36 hours per week, with a 36-hour continuous closure per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday. Subsequently, on July 13, The department issued a second EO No. 2-KS-1-34-20 restricting the Chinook salmon sport fishery in the Kenai River to catch and release only, and as such the ESSN fishery was further restricted to no more than 24 hours per week, with a 36-hour continuous closure per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday. In addition to all fishing time coming via EO only in the Upper Subdistrict set gillnet fishery, beginning in 2020, the Alaska Board of Fisheries also mandated the use of one of two gear restriction options that limit gillnet depth or length during all Upper Subdistrict set gillnet fishing periods, when the Kenai River Chinook salmon sport fishery is restricted. These mandatory gear restrictions were implemented from the beginning of the season through July 31 in the entire Upper Subdistrict set gillnet fishery. The specific gear restriction option that ADF&G chose to implement was identified in each UCI Commercial Fishing Announcement. Of the two potential gear restriction options, the more restrictive provision (limiting gillnet gear by two-thirds) was used ten days, and the lesser restriction (limiting gillnet gear by one-third) was used three days.

From the beginning of the ESSN fishing season on June 23 through August 15, the commercial fishing management strategy was largely predicated upon allowing harvest of sockeye salmon while closely monitoring late-run Chinook salmon abundance in the Kenai River. The Kasilof Section (statistical areas 244-31, 244-22 and 244-21; Figure 2) set gillnet fishery opened on Tuesday, June 23. On July 2, the North Kalifornsky Beach (NKB) statistical area (244-32) opened with additional restrictions specific to the NKB stat area, including that from July 1 to the opening of the Kenai and East Foreland sections season, the NKB stat area can be open within 600 feet of the mean high tide mark using set gillnets that are no greater than 29 meshes in depth, and with mesh sizes no greater than four and three quarters inches. In 2020, the first day of fishing for the Kenai and East Foreland sections concurrently, occurred on Thursday, July 9

The Kasilof River sockeye salmon run timing appeared average in late June and early July. Consequently, nine fishing periods were provided from June 23 to July 8, of which five days included the restricted openings of the NKB section. In total, from June 23 through August 15, the Kasilof Section set gillnet fishery was open on 16 different days. From July 9 through August 15, the Kenai and East Foreland sections were open on five different days. Three fishing opportunities were provided in the Kasilof Section set gillnet fishery within 600 feet of shore (July 7, July 16, and July 21). The Kasilof River Special Harvest Area was not opened in 2020. On July 22, the department issued Emergency Order (EO) 2-KS-1-41-20 closing the Kenai River drainage to fishing for Chinook salmon effective 12:01 a.m. Friday, July 24, 2020. In compliance with the *Kenai River Late-Run King Salmon Management Plan*, the Upper Subdistrict set gillnet fishery was also closed beginning July 23.

On July 24, 2020, the department made a formal inseason estimate of the total sockeye salmon run to date, including an estimate of the run yet to come. Based on OTF data, the 2020 sockeye salmon run was expected to be two to five days late, and the Kenai River sockeye salmon total run would remain under 2.3 million fish. Based on this inseason projection, management of the ESSN and Central District drift gillnet fisheries would not change and continued in the lower tier provisions for Kenai River sockeye salmon run sizes less than 2.3 million fish. However, because Kenai River late-run Chinook salmon abundance remained low and the Kenai River sport fishery was closed on July 24, no further fishing periods in the Upper Subdistrict were allowed.

On August 1, with paired restrictions remaining in effect, the ESSN fishery remained closed for the season. Despite these time, area, and gear restrictions as well as some full period closures, the final count of 11,499 Kenai River late-run Chinook salmon failed to meet the lower end of the SEG.

The drift gillnet fishery opened on June 22 for the 2020 season. The drift gillnet fishery was open for district-wide fishing periods from the beginning of the season through July 6. Additional fishing opportunity was provided in only the Kasilof Section (Figure 3) on July 7 for 13 hours, and July 8 for 8 hours. From July 9 through July 15, both regular fishing periods were limited to Drift Gillnet Area 1 and the Expanded Kenai and Expanded Kasilof sections (Figures 3 and 4). Additional fishing time was extended for 3 hours on the July 9, and a 12 hour period was opened on the July 15 in the Expanded Kenai and Expanded Kasilof sections. From July 16 through July 31, fishing during the regular fishing periods was restricted to the Expanded Kenai Section and the Expanded Kasilof Section. Additional fishing time was allowed only on July 20 for 3 hours, and on July 22 for a 12 hour period in the Expanded Sections and the Anchor Point Section. Drift gillnet fishing between August 1 and August 15 remained restricted with optional closures of Area 1 and was allowed only in the Expanded Sections for all 4 Monday and Thursday regulatory periods.

An aerial survey of Chinitna River/Clearwater Creek was conducted on August 11, 2020. This survey produced an estimate of approximately 3,970 chum salmon within these streams, which was within the SEG range of 3,500–8,000 fish. Therefore, Chinitna Bay was opened to set and drift gillnetting on Tuesdays and Fridays beginning on August 18. Regularly scheduled Monday and Thursday drift gillnet fishing periods for Drift Gillnet Areas 3 and 4 (Figure 5) began August 17.

From August 17 through the remainder of the season, all drift and set gillnet commercial fisheries in UCI followed the regulatory periods of Monday and Thursday, along with the above openings in Chinitna Bay. All UCI commercial fisheries were closed by EO after October 2 for the 2020 season.

Upper Subdistrict Set Gillnet Harvest, 2020

The total 2020 sockeye salmon harvest in the ESSN fisheries was 282,177 fish. From June 23 through July 22 the Kasilof Section was open on 16 different days, harvesting approximately 177,209 sockeye salmon, which was 61% less than the previous 10-year (excluding 2012, due to extensive fishery closures that year) average of 460,100 fish. From July 8 through August 15, the Kenai and East Foreland sections were open on five different days, producing a total sockeye salmon harvest of 104,968 fish. This was 74% less than the previous 10-year (excluding 2012) average annual sockeye salmon harvest of 397,000 fish for those sections.

Drift Gillnet Harvest, 2020

From June 19 through August 14, the drift gillnet fleet fished a total of 26 days as follows: five days in the regular Kasilof Section, six days in the Expanded Corridors, eight days in the Expanded Corridors and Anchor Point sections, two days in Drift Gillnet Area 1, and five days in all of the Central District. Beginning on Monday, August 17, all Monday/Thursday regulatory drift gillnet fishing periods were restricted to Drift Gillnet Areas 3 and 4. The total UCI drift gillnet harvest in 2020 was approximately 273,067 sockeye salmon, which was approximately 82% less than the previous 10-year average harvest of 1.5 million fish. The peak day of harvest for the drift gillnet

fleet occurred on Thursday, July 16, where 237 vessels harvested approximately 42,863 sockeye salmon, or 181 fish per boat. The previous 10-year average peak day harvest per boat was 919 fish.

A comparative examination of the 2020 sockeye salmon harvest between the ESSN and drift gillnet fisheries showed the drift gillnet fishery proportion of the harvest was less than the previous 10-year average, excluding 2012. The 2020 drift gillnet harvest of 273,067 sockeye salmon was 49% of the total harvest between the two gear types, compared to the previous 10-year average of 56%. The ESSN fishery harvested approximately 282,177 fish, or 51% of the sockeye salmon harvest of the two groups, compared to their previous 10-year average of 44%.

Western Subdistrict

The Western Subdistrict (Figure 1) set gillnet fishery opened for regulatory fishing periods on Thursday, June 18. This fishery primarily harvests sockeye salmon returning to the Crescent River. In 2020, when Crescent River sockeye salmon run indexes warranted an EO was issued on July 12 opening that portion of the Western Subdistrict south of the latitude of Redoubt Point for an extra day; from 6:00 a.m. until 10:00 p.m. on Mondays, Thursdays, and Saturdays each week from July 13 through August 8. In 2020, approximately 68,462 sockeye salmon were harvested by set gillnetters in the Western Subdistrict. This was 60% greater than the average annual harvest of approximately 42,685 fish during the previous 10 years.

Kustatan Subdistrict

The Kustatan Subdistrict includes those waters from the Drift River oil terminal to the Northern District boundary near the West Foreland (Figure 1). From 1993 to 2019, approximately nine permit holders per year reported harvest from this area. In 2020, 13 permit holders reported harvest. Most participation and harvest (more than 92% of the harvest) typically comes from the Big River sockeye salmon fishery, which is an early season fishery limited to one net per permit holder, 3 days per week, and occurs from June 1–24. Approximately 7,714 sockeye salmon were harvested in the Kustatan Subdistrict in 2020, of which 1,315 were harvested during the Big River fishery. The 2020 sockeye salmon harvest for Kustatan Subdistrict was more than double the average annual harvest of 3,193 fish during the previous 10 years.

Kalgin Island Subdistrict

The Kalgin Island Subdistrict (Figure 1) opened for regular fishing periods beginning June 25, 2020, except for the west side of Kalgin Island which was open for commercial fishing on Mondays, Wednesdays, and Fridays from June 1 through June 24 as part of the Big River sockeye salmon fishery. In 2020, approximately 35,842 sockeye salmon were harvested from the Kalgin Island Subdistrict, with nearly 5,970 (17%) of those fish taken during the Big River sockeye salmon fishery. The average annual sockeye salmon harvest on Kalgin Island during the previous 10 years was approximately 52,991 fish, with roughly 11,500 of those fish harvested during the early season Big River fishery. A mid-season review of the video deployed at Packers Creek for monitoring sockeye salmon escapement into Packers Lake did not support any additional fishing periods beyond the Monday and Thursday regular periods in the Kalgin Island Subdistrict. The final count available for Packers Lake through August 15 was 15,903 which achieved the lower end of the Packers Lake sockeye salmon escapement goal range.

Northern District

In 2020, approximately 46,045 sockeye salmon were harvested in the Northern District (Figure 1). This harvest was about equal to the 2010–2019 average annual harvest of 44,510 sockeye salmon,

yet approximately 16% less than the 1985–2019 average of nearly 76,000 fish. As in past years, restrictions to the Northern District salmon fishery that restricted the number of nets allowed were implemented from July 20 to August 6, to conserve Susitna River sockeye salmon.

COHO SALMON

2020 Run and Fishery Summary

The 2020 harvest estimate of approximately 133,761 coho salmon in all commercial fisheries in UCI was 28% less than the previous 10-year (2010–2019) average annual harvest of approximately 186,000 fish (Table 1). The 2020 drift gillnet harvest of 47,689 coho salmon was 56% less than the previous 10-year average of approximately 109,000 fish. However, the Northern District set gillnet harvest of 51,000 coho salmon was the third largest harvest since 2000 and was approximately 27% greater than the 40,000 fish annual average harvest from the previous 10 years. The increase in Northern District set gillnet coho harvest may be due to less overall fishing time in the drift gillnet fishery, where management actions kept the drift gillnet fleet in the Expanded Corridors to target Kenai and Kasilof sockeye salmon and avoid Northern District coho salmon in July–August.

In UCI, there are four coho salmon systems with escapement goals: Fish Creek and the Little Susitna and Deshka rivers have weirs, while McRoberts Creek is assessed with foot surveys. The Little Susitna River coho salmon SEG of 9,200–17,700 fish was updated in 2020. Coho salmon escapement was counted at the Little Susitna weir from July 17 through August 31, 2020. The preliminary coho salmon escapement estimate in the Little Susitna River was 9,931. Due to budget constraints in 2020 the Deshka River weir was pulled early on August 13, but a total of 5,368 fish were counted by that date. Based on average run timing the SEG (10,200–24,000) was likely achieved on Deshka River. The Fish Creek coho salmon SEG is 1,200–6,100 fish. A preliminary estimate of 4,559 coho salmon were counted from July 25 to August 14 indicating the SEG was achieved. Finally, there is a coho salmon foot survey and SEG of 250–700 fish for McRoberts Creek, which drains into Jim Creek of the Knik River drainage. In 2020, the McRoberts Creek foot survey produced a count of 735 fish, exceeding the upper bound of the SEG range.

Beginning on August 13, 2020, in reaction to low weir counts of coho salmon in the Little Susitna River, the Northern District set net fishery was restricted by closing the area east of the Susitna River, and during that time inriver restrictions also occurred to sport fisheries within the Little Susitna River. Inriver restrictions were removed on Little Susitna coho salmon sport fishery on August 25, after abundance improved and the run appeared to have late timing. Set gillnetting in the area east of Susitna River was also reopened on August 27th. Additionally, during the 2020 season, the sport fishery bag and possession limit for coho salmon on Fish Creek was increased effective 5:00 a.m. on August 22.

Based on an average price per pound of \$0.87, the estimated exvessel value of the 2020 commercial coho salmon fishery was approximately \$693,639 or 13% of the total exvessel value of all species in Upper Cook Inlet. This was approximately 19% less than the recent 10-year (2010–2019) average exvessel value of \$849,000 for coho salmon in UCI.

PINK SALMON

Pink salmon runs in UCI are even-year dominant, with odd-year average annual harvests typically less than one-sixth of even-year harvests. The 2020 UCI commercial pink salmon harvest was estimated to be 326,594 fish (Table 1), which was 5% lower than the average annual harvest of nearly 343,943 fish from the previous 10 years of even-year harvests. Conversely, the abundance of pink salmon estimated in 2020 during sockeye salmon assessments in the Kenai River, was more than twice (1.5 million) its previous high count on record (660,000). Using an average weight of 3.74 lb/fish and an average price of \$0.25/lb, the estimated exvessel value for the 2020 pink salmon harvest was \$305,754 or 6% of the total exvessel value of salmon in UCI.

CHUM SALMON

The 2020 harvest of 28,355 chum salmon was approximately 84% lower than the previous 10-year average annual harvest of 177,000 fish (Table 1). The exvessel value of the 2020 UCI commercial chum salmon harvest was approximately \$101,068 or 2% of the total exvessel value in UCI.

CHINOOK SALMON

In UCI, there are two commercial fisheries where most Chinook salmon are harvested. These include the set gillnet fisheries in the Northern District and in the Upper Subdistrict of the Central District. Chinook salmon runs were expected to be below average across Southcentral Alaska for the 2020 season. As predicted, the 2020 Chinook salmon run turned out to be below average, and even lower than the preseason forecasts, leading to both preseason and inseason conservation measures in all fisheries to reduce the harvest of Chinook salmon.

In the Northern District, the directed Chinook salmon set gillnet fishery was opened, but fishing time was reduced by 50% to 6 hours, one day per week. At the 2020 UCI BOF meeting, new regulations were adopted pairing restrictive actions in the Deshka River Chinook salmon sport fishery with the Northern District commercial Chinook salmon fishery. Changes included, 1) restricting the Northern District directed fishery to 9 hours if Deshka River sport Chinook salmon fishery is restricted to no bait and 2) restricting the Northern District directed fishery to 6 hours if Deshka River sport Chinook salmon fishery is restricted to no retention. The 2020 preseason run forecast for Deshka River Chinook salmon was approximately 10,570 fish, which suggested harvest must be very limited in order to achieve the sustainable escapement goal (SEG) of 9,000–18,000 fish. Based on this low forecast, and recent low Chinook salmon production throughout the Susitna Drainage, the department issued two Emergency Orders (EOs No. 2-KS-2-08-20 and 2-KS-2-09-20) prohibiting retention of Chinook salmon in Areas 1,3,4,5, and 6 of the Susitna River drainage (including Deshka River), and closing Area 2 entirely to Chinook salmon fishing. Therefore, the weekly commercial fishing period on Mondays was reduced from 12 to six hours. Additionally, the area of the Northern District from the wood chip dock to the Susitna River was closed to commercial fishing in conjunction with the sport fishery closure of Chuitna River.

The estimated total Chinook salmon harvest in the Northern District in 2020 was 1,622 fish with approximately 1,474 harvested during the directed Chinook salmon fishery. The estimated 2020 final escapement of Chinook salmon in the Deshka River was approximately 10,638, just above the lower end of the SEG. The Little Susitna River Chinook salmon SEG of 2,100–4,300 also was met in 2020, with a weir count of 2,445 Chinook salmon. Aerial goals of the various Susitna

drainage Chinook salmon stock complex systems are still preliminary. Chinook salmon stock complex escapement goals for the Yentna and Talkeetna stocks were not met, but the stock complex escapement goal for Eastside Susitna was met.

Late-run Chinook salmon returning to the Kenai River and Kasilof River Chinook salmon, are the primary Chinook salmon stocks that are harvested in the ESSN fishery. Kenai River late-run Chinook salmon were managed to meet an OEG of 15,000–30,000 large Chinook salmon set by the BOF in 2020. If restrictions are implemented in the sport fishery to achieve the OEG (from July 1 through August 15), restrictive “paired” actions are also required in the ESSN fishery and can begin on June 20.

Late-run Chinook salmon passage in the Kenai River was counted at the river mile 14 sonar site from July 1 through August 20. The preliminary 2020 sonar count of large late-run Kenai River Chinook salmon was 11,499 with an escapement estimate of 11,908 fish, accounting for sport fishery harvest above the sonar site and spawning below the sonar site. Thus, neither the large fish OEG of 15,000–30,000 or the SEG of 13,500–30,000, for Kenai River late-run Chinook salmon was achieved.

The 2020 preseason forecast was for a total run of 22,807 large Kenai River late-run Chinook salmon. Based on low preseason abundance projections for late-run Chinook salmon and low observed abundance of the early-run Chinook salmon stock, the 2020 late-run Chinook salmon sport fishery in the Kenai River was restricted no retention of fish over 34 inches beginning July 1, 2020. Beginning June 20, the ESSN commercial fishery was restricted to fishing no more than 36 hours per week by EO only, with a 36-hour continuous closure per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday, and gear restrictions were implemented (see above; Sockeye Salmon, Upper Subdistrict Set Gillnet and Central District Drift Gillnet Fisheries). Beginning August 1, if the sport fishery remained restricted to achieve the OEG, the ESSN fishery would be restricted to 36 hours per week by EO including a Friday no fishing window, but low abundance of Chinook salmon in the Kenai River resulted in the entire ESSN fishery being closed from July 24 through the end of the season on August 15.

Other smaller streams with Chinook salmon south of the Kenai and Kasilof rivers include the Anchor River, Deep Creek, and Ninilchik River. Of the three southern Chinook systems, only the Ninilchik River Chinook SEG of 750–1,300 was achieved with a final run of 3,098 fish.

The 2020 UCI commercial harvest of all Chinook salmon stocks was 2,833 fish, which was 59% less than the previous 10-year (2010–2019) average annual harvest of 6,848 fish, and the second lowest harvest on record (Table 1). Of this total, the ESSN fishery harvested 769 Chinook salmon, or 27% of the harvest. The 769 Chinook salmon harvested in the ESSN fishery included an estimated 221 or 29% large Chinook salmon of all stocks, which included a total of 152 or 69% that were large Kenai River late-run origin fish. The total ESSN harvest of large Kenai River Chinook is 1 % of the preliminary total run estimate of 12,132. The drift gillnet fishery harvested 125 Chinook salmon of all sizes and all stocks. Using a price of \$3.57 per pound for Chinook salmon, the estimated exvessel value of the 2020 harvest was \$124,412, or approximately 2% of the total exvessel value of salmon in UCI.

Table 1.—Upper Cook Inlet commercial salmon harvest by species, 1970–2020.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1970	8,336	732,605	275,399	814,895	776,229	2,607,464
1971	19,765	636,303	100,636	35,624	327,029	1,119,357
1972	16,086	879,824	80,933	628,574	630,103	2,235,520
1973	5,194	670,098	104,420	326,184	667,573	1,773,469
1974	6,596	497,185	200,125	483,730	396,840	1,584,476
1975	4,787	684,752	227,379	336,333	951,796	2,205,047
1976	10,865	1,664,150	208,695	1,256,728	469,802	3,610,240
1977	14,790	2,052,291	192,599	553,855	1,233,722	4,047,257
1978	17,299	2,621,421	219,193	1,688,442	571,779	5,118,134
1979	13,738	924,415	265,166	72,982	650,357	1,926,658
1980	13,798	1,573,597	271,418	1,786,430	389,675	4,034,918
1981	12,240	1,439,277	484,411	127,164	833,542	2,896,634
1982	20,870	3,259,864	793,937	790,648	1,433,866	6,299,185
1983	20,634	5,049,733	516,322	70,327	1,114,858	6,771,874
1984	10,062	2,106,714	449,993	617,452	680,726	3,864,947
1985	24,088	4,060,429	667,213	87,828	772,849	5,612,407
1986	39,256	4,792,072	757,353	1,300,958	1,134,817	8,024,456
1987	39,440	9,469,248	449,750	109,389	349,150	10,416,977
1988	29,080	6,843,833	561,048	471,080	710,615	8,615,656
1989	26,738	5,011,159	339,931	67,443	122,051	5,567,322
1990	16,105	3,604,710	501,739	603,630	351,197	5,077,381
1991	13,542	2,178,797	426,498	14,663	280,230	2,913,730
1992	17,171	9,108,353	468,930	695,861	274,303	10,564,618
1993	18,871	4,755,344	306,882	100,934	122,770	5,304,801
1994	19,962	3,565,609	583,793	523,434	303,177	4,995,975
1995	17,893	2,952,096	447,130	133,578	529,428	4,080,125
1996	14,306	3,888,922	321,668	242,911	156,520	4,624,327
1997	13,292	4,176,995	152,408	70,945	103,036	4,516,676
1998	8,124	1,219,517	160,688	551,737	95,704	2,035,770
1999	14,383	2,680,518	126,105	16,176	174,554	3,011,736
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,851	113,311	72,560	84,494	2,106,511
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
2003	18,503	3,476,161	101,756	48,789	120,767	3,765,976
2004	26,922	4,927,084	311,058	357,939	146,165	5,769,168
2005	27,667	5,238,699	224,657	48,419	69,740	5,609,182
2006	18,029	2,192,730	177,853	404,111	64,033	2,856,756
2007	17,625	3,316,779	177,339	147,020	77,240	3,736,003
2008	13,333	2,380,135	171,869	169,368	50,315	2,785,020
2009	8,750	2,045,794	153,210	214,321	82,808	2,504,883
2010	9,900	2,828,342	207,350	292,706	228,863	3,567,161
2011	11,248	5,277,995	95,291	34,123	129,407	5,548,064
2012	2,527	3,133,839	106,775	469,598	269,733	3,982,472
2013	5,398	2,683,224	260,963	48,275	139,365	3,137,225
2014	4,660	2,343,529	137,376	642,879	116,093	3,244,537
2015	10,798	2,649,667	216,032	48,004	275,960	3,200,461
2016	10,027	2,396,943	147,495	382,468	123,679	3,060,612
2017	7,369	1,838,110	293,811	168,042	239,425	2,546,757
2018	3,405	817,879	232,290	126,923	115,366	1,295,863
2019	3,149	1,720,559	163,863	70,827	129,176	2,087,574
2020	2,833	669,751	133,761	326,594	28,355	1,161,294
1970–2019 Avg	14,487	2,920,775	285,705	377,379	381,653	3,979,999
2009–2019 Avg	6,848	2,569,009	186,125	228,385	176,707	3,167,073

Table 2.—Upper Cook Inlet sockeye salmon forecast versus actual run in thousands of fish, by river system, 2020.

System	Forecast	Actual	% Difference
Kenai River	2,231	2,552	14.4%
Kasilof River	723	821	13.6%
Susitna River	571	380	-33.5%
Fish Creek	121	74	-38.8%
Minor Systems	624	483	-22.6%
Overall Total	4,270	4,363	2.2%

Table 3.—Upper Cook Inlet sockeye salmon goals and passage (or counts), 2020.

System	2020 Estimate	Goal type ^a	Lower bound	Upper bound
Kenai River	1,814,252 ^b	Inriver	1,000,000	1,200,000
		SEG	750,000	1,300,000
Kasilof River	545,654 ^{b,c}	BEG	140,000	320,000 ^c
		OEG	140,000	370,000
Larson Lake	12,018	SEG	15,000	35,000
Judd Lake	31,220	SEG	15,000	40,000
Fish Creek	64,423	SEG	15,000	45,000
Packers Creek	15,903 ^d	SEG	15,000	30,000

^a BEG=Biological Escapement Goal, SEG=Sustainable Escapement Goal, OEG=Optimum Escapement Goal, and Inriver=Inriver Goal.

^b Sonar estimate at river mile 19 on Kenai River and river mile 8 on Kasilof River; not escapement. Harvest upstream of sonar must be subtracted to estimate escapement. Sport harvest estimated from Statewide Harvest Survey; results for 2020 available spring of 2021 at the earliest.

^c The Kasilof River management goal in 2020 was the BEG.

^d Incomplete count. Video data collected from June 15 through August 15.

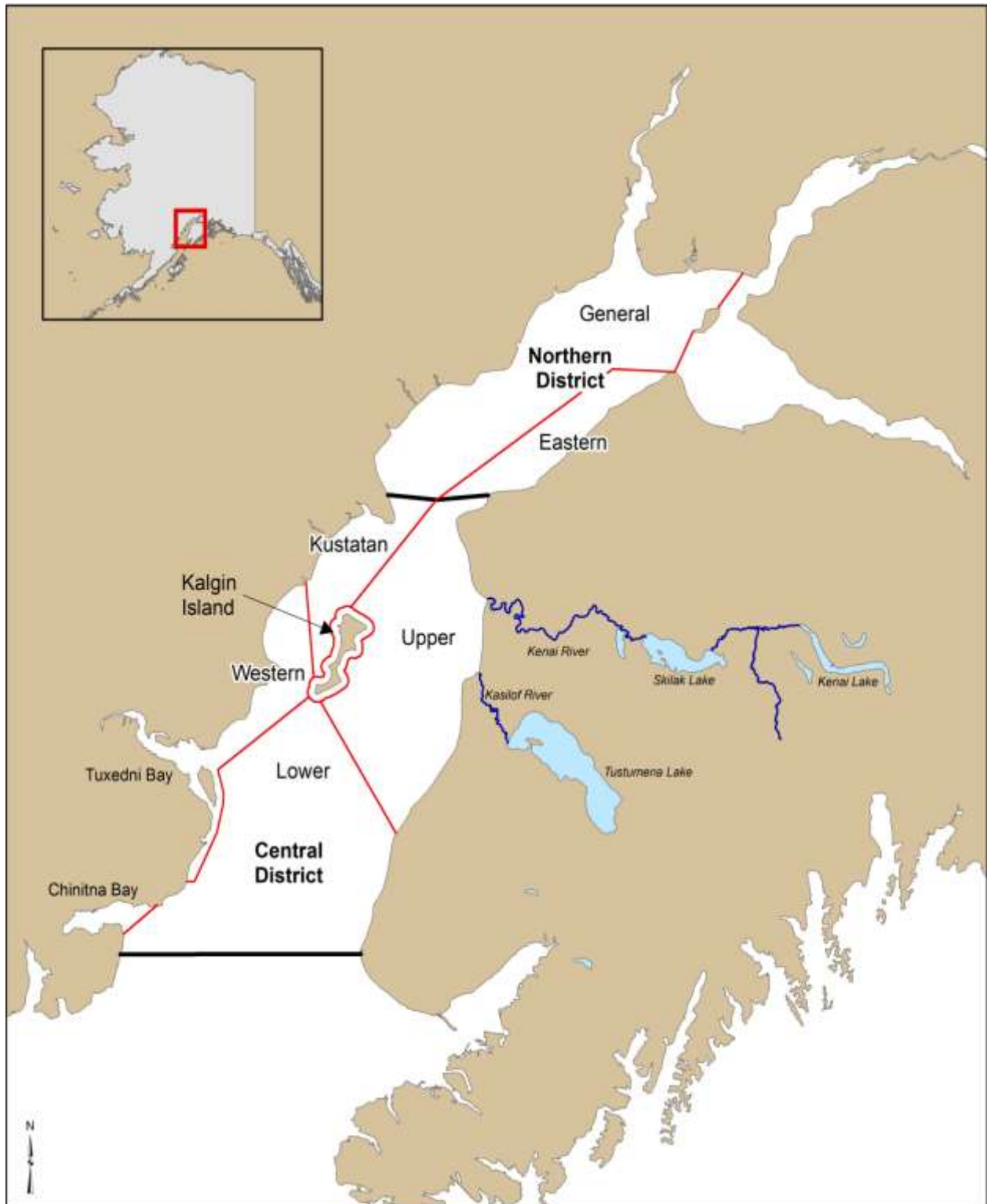


Figure 1.—Upper Cook Inlet commercial fisheries subdistrict fishing boundaries.

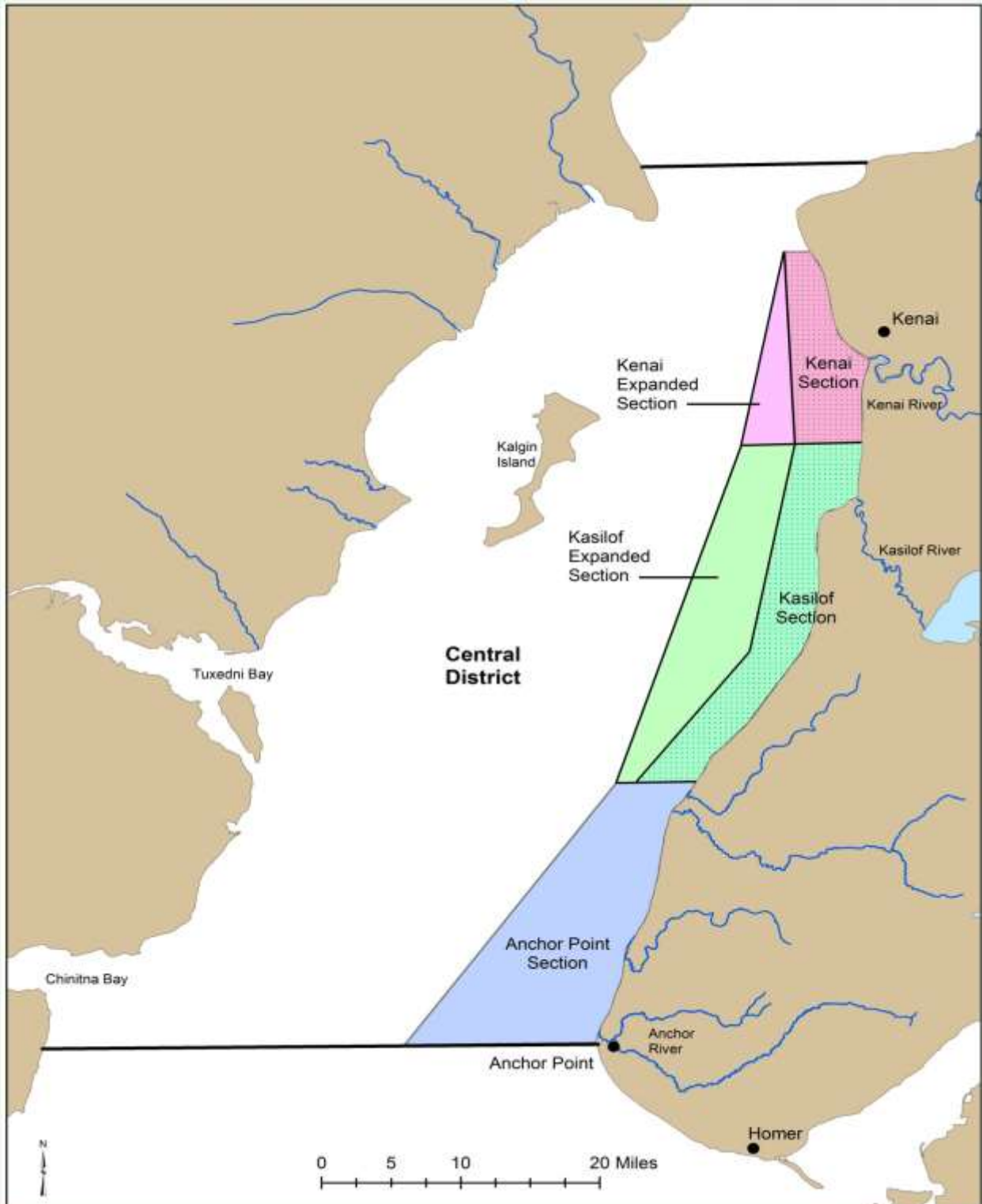


Figure 3.—Map of drift gillnet “corridor” boundaries, including the Kenai and Kasilof sections, Expanded Kenai and Expanded Kasilof sections, and the Anchor Point Section.

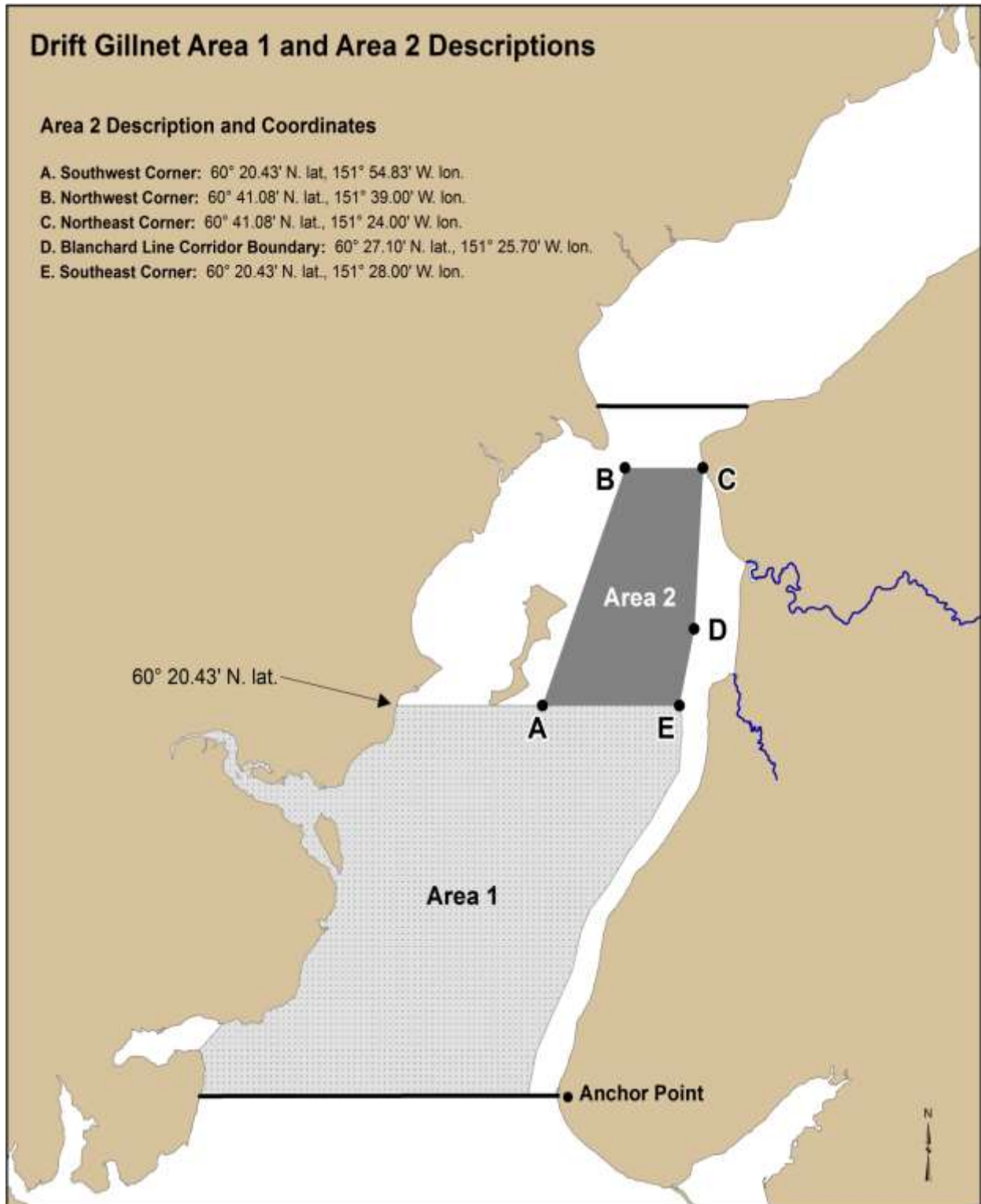


Figure 4.—Fishing boundaries for Drift Gillnet Areas 1 and 2.

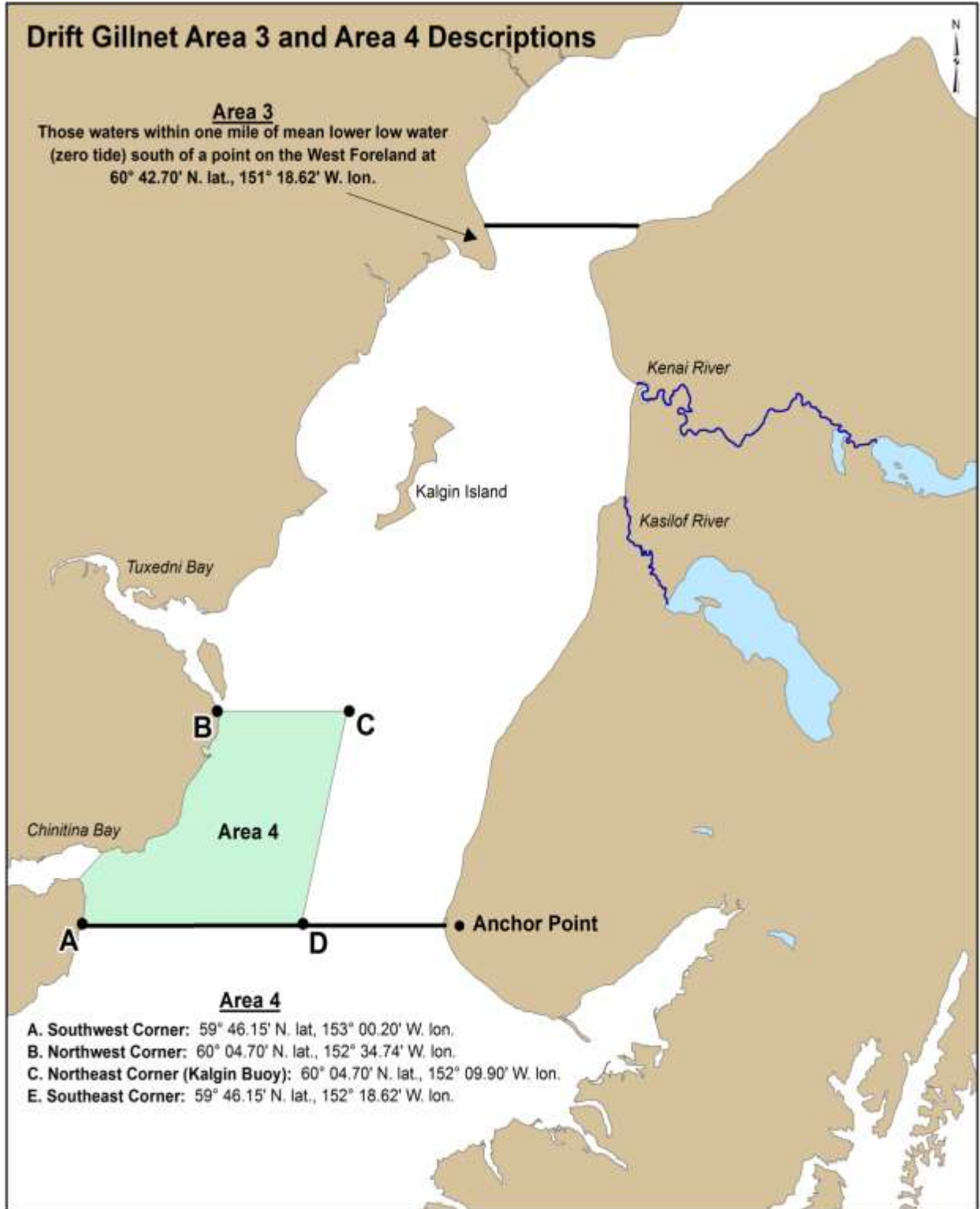


Figure 5.—Map of Drift Gillnet Areas 3 and 4.