Data Summary for the Kuskokwim River Salmon Test Fishery at Bethel, 1984-1998

By

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INTRODUCTION

The primary objective of salmon management is to provide for sustained harvest by regulating annual harvest in such a way as to ensure adequate spawning escapement (Burkey et al. 1997). Successful management requires accurate and timely knowledge about migratory timing, run strength, and escapement levels. For salmon management on the Kuskokwim River (Figure 1) these information needs are met by a variety of information sources, one of which is the Bethel test fishery. The test fishery is used to assess run timing and as a relative index of salmon abundance (Molyneaux 1994).

As an index of abundance, comparison of test-fish catch or catch per unit of effort (CPUE) data between years is affected by many factors, such as water level and clarity, weather, river channel and hydrology, fish size relative to gillnet mesh size, net saturation effects, and crew technique, among others. Therefore, caution should be exercised when attempting to interpret these data. The purpose of this report is to provide a data summary for the Bethel test fishery, 1984-1998, as is made available and used during the fishing season. This includes water stage, clarity, and temperature information and CPUE data by day for chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, chum *O. keta* and coho *O. kisutch* salmon. A more in-depth analysis and reporting of data from the Bethel test fishery can be found, most recently, in Molyneaux (1994), but current workloads and priorities make that depth of analysis and discussion not feasible at present.

Fishery Description

Stocks of chinook, sockeye, chum and coho salmon returning to the Kuskokwim River are subject to periodic commercial and subsistence fishing pressure in the river. The commercial fishery is directed primarily at chum and coho salmon, while chinook are often the principal target of subsistence fishers. Because of conservation concerns, chinook salmon have not been subjected to a directed commercial fishery since 1987; however, substantial numbers of this species are caught incidentally during the commercial chum salmon fishery (Burkey et al. 1997). Sockeye salmon are generally less abundant in the Kuskokwim River than chum and coho salmon and commercial catches of sockeye are considered incidental. Harvests of pink salmon *O. gorbuscha* are negligible.

Commercial Fishery

Commercial salmon harvests in the Kuskokwim River occur in two separate districts (Figure 1). District 1, the lower Kuskokwim, is 220 km (137 mi) in length and extends from the mouth of the river to Bogus Creek. District 1 is divided into four statistical areas (335-11, 335-12, 335-13 and

335-14) which partition the district into segments of approximately equal length (Figure 2).[2] District 2, the middle Kuskokwim, is 113 km (60 mi) in length and extends from High Bluffs to Chuathbaluk. District 2 consists of only one statistical area (335-20). Districts 1 and 2 are separated by a section of river approximately 80 km (50 mi) in length which is closed to commercial fishing. All waters upstream of District 2 are also closed to commercial fishing.

Drift gillnets are the principal commercial gear type used in the Kuskokwim River, but set gillnets are also legal. The mesh size used in the fishery is restricted to 6 inch (15.2 cm) or smaller. This mesh restriction has been imposed since 1985 in an attempt to improve then-declining chinook salmon escapements (Burkey et al. 1997).

Kuskokwim Area commercial fishermen may fish in any district in the area, but most effort is concentrated in District 1, especially statistical area 335-12, which is immediately downstream of the Bethel test fishing site. Commercial catch data from the two upriver statistical areas (335-13 and 335-14) are generally thought to underestimate the actual catch from these locations because fish caught in these areas are often delivered to buying stations in Bethel (statistical area 335-12). Consequently, it is assumed that the incorrect statistical area is sometimes recorded on the fish tickets.

District 1 has supported as many as 679 units of gear during a single commercial fishing period (Burkey et al. 1997). This amount of gear probably results in a saturated fishing district. This conclusion is supported by observations that most of the harvest occurs within the first 3 to 4 hours of the normal 6 or 8-hour opening (Huttunen 1988). Commercial fishing periods also typically result in depressed test fishing catches for 1 to 2 days following each opening.

Subsistence Fishery

Alaska state law mandates that subsistence needs have priority over commercial use of the fisheries resources (AS 16.05.258). In the Kuskokwim Area subsistence is a prominent and vital element to the local way of life. The subsistence salmon fishery is especially important along the Kuskokwim River, a point supported by the fact that the number of chinook taken from the river for subsistence purposes is often greater than the number taken commercially (Burkey et al. 1997). This pattern was even true prior to 1987 when there was a commercial fishery directed at chinook salmon.

[2] Prior to 1990 District 1 was only divided into three statistical areas (335-11, 335-12 and 335-13). In 1990 the statistical area farthest downstream (335-11) was divided in half. The numbering of all four statistical areas was then reordered to 335-11 and 335-12 (formerly 335-11), 335-13 (formerly 335-12) and 335-14 (formerly 335-13).

The types of gear used by subsistence fishermen are generally similar to the gear used for commercial fishing. However, set gillnets are more prevalent in the subsistence fishery, and there is no restriction on mesh size. In June many subsistence fishermen use mesh sizes of 8.0 to 8.5 inch (20 to 22 cm) mesh sizes to target on chinook salmon (Francisco et al. 1995).

Subsistence fishing occurs throughout the Kuskokwim River, including many of the major spawning tributaries, but over half of all reported subsistence fishing occurs in that portion of District 1 located downstream of the Bethel test fishery (Burkey et al. 1997). By regulation, subsistence fishing in District 1, and between Districts 1 and 2, is closed 16 hours before, during, and 6 hours after each District 1 commercial fishing period. Kuskokuak Slough is an exception to the regulation in that subsistence fishing in the slough may begin as soon as the commercial fishing period is over; i.e., no 6-hour delay. The slough is also closed to commercial fishing. In District 2 the subsistence fishery is closed 16 hours before, during, and 6 hours after each District 2 commercial fishing period. Upstream of District 2, subsistence fishing is typically open 7 days a week with no regularly scheduled closures.

Project Background

From 1966 through 1983 the Alaska Department of Fish and Game (ADF&G) conducted a set gillnet test fishery in the lower reach of the Kuskokwim River near an abandoned fish camp called Kwegooyuk (Huttunen 1984). At that site the river ranged from approximately 5 to 7 km in width and had a major channel along both the east and west shores. The channels were separated by soft sandy shoals which are mostly flooded at high tide. Relief along the shore is so minimal that at high tide the horizon is formed by the sky and water much like occurs when looking out at the open ocean. In this expansive body of water, the Kwegooyuk test fishing gillnets, 49 m in length, were set from the east shore just upstream of the lower boundary of District 1 and fished 24 hours a day.

The goals of the Kwegooyuk test fishery were to estimate run timing and index abundance of chinook, sockeye, and chum salmon, much like the present day Bethel test fishery. The Kwegooyuk project is thought to have adequately estimated run timing, but it was not able to satisfactorily index run abundance. This problem was attributed to fluctuations in the preferred migratory route of salmon as influenced inseason by changes in weather patterns, and between seasons by alterations in the cross-sectional profile of the channel (Huttunen 1984). Indeed, according to local residents, changes in the channel profile are so profound that every few years commercial barge traffic must switch from the west to east channel, or vice versa, as one channel becomes shallower and the other deepens. The remoteness of the test fishing location also made the sale of the daily test fishing catches difficult or impossible, a problem that often resulted in unavoidable wastage that was not acceptable to ADF&G, local residents, or the industry.

Efforts to redesign the test fishing program to improve abundance indexing and provide for proper disposition of the catch began in July of 1983. The focus was on the use of drift gillnets in a

narrower river channel near Bethel (Huttunen 1984). The objectives of the 1983 drift gillnet test fishery were to assess feasibility related to collecting run timing and abundance information for coho salmon. The new site was in the main stem Kuskokwim River about 5 km (3.5 mi) upstream from Bethel, just above the boundary line separating current statistical areas 335-12 and 335-13. The river was approximately 1 km wide at the new location and had a single major channel that allowed drift gillnets to collect accurate CPUE data at selected stations across the entire channel width. Four small channels circumvent the site (Straight, Steamboat, Church, and Napaskiak Sloughs), but their influence on the test fishery was assumed to be negligible. The new test-fish location was also convenient to outlets for the timely distribution and sale of daily catches. The conclusion from the feasibility study was that the drift gillnet test fishery at Bethel was viable and offered a more reliable means of monitoring salmon run timing and abundance than the Kwegooyuk test fishery. The Kwegooyuk set gillnet program was then discontinued after 1983 and replaced with a multiple-mesh drift gillnet project referred to as the Bethel test fishery (Huttunen 1985).

Relocation of the test fishery to a point upriver of most commercial and subsistence harvest meant that instead of indexing total run abundance, as was the objective of the Kwegooyuk test fishery, the Bethel test fishery indexes abundance of salmon at a point mid way in the fishing district. This distinction is important because the down river commercial and subsistence harvests are not accounted for in the Bethel test fishing index. Moreover, the exploitation rate of the commercial fishery is probably inconsistent because of changes in gear efficiency, changes in regulations designed to alter harvest efficiency, variability in fishing pattern (length of openings and frequency of openings), changes in water level, variability in the synchrony of openings with the entry pattern of salmon, the occurrence of fisher strikes, etc. Many of these same variables confound the inter-annual comparability of historic test-fish data. These inconsistencies confound the ability of the project to accurately and consistently index total run abundance. Many of the same factors confound the ability of the test fishery to clearly index escapement. Instead, it is more appropriate to use the Bethel test fishing data as an index of salmon passage at Bethel. Taken within the context of these limitations, the Bethel test fishery provides timely and useful insights of benefit to salmon management.

METHODS

Field Operations

The methods and location used in the Bethel test fishery have had only minor modifications over the years since 1984. Following each high tide a series of gillnet drifts are conducted in the Kuskokwim River about 5 km (3.5 mi) upstream from Bethel. The drifts are performed by a two-person crew, or in some years, by one of two alternating two-person crews, using a 6.1 m (20 ft) skiff and 50 fathom (90 m) gillnets. On occassion a third person may accompany the crew particularly if weather or fish abundance make conditions especially challenging. Each series of

drifts begin about 1 hour after the published high slack tide for Bethel which ensures that all drifts are conducted in water flowing downstream. The onset of drifting may begin later if weather conditions cause a delay in the ebbing of the tide. Nets are deployed near where the upstream end of Straight Slough diverges from the main channel, and each drift is conducted at one of three stations across the width of the channel (Figure 3). The duration of each drift is approximately 20 minutes and the mean fishing time is calculated as half the time it takes to both deploy and retrieve the net, plus the time the net is fully deployed. The river distance traversed by each drift varies depending on water and channel conditions but the distance is generally <3 km (2 mi). To avoid impacting commercial fishers, no drifts are conducted during commercial fishing periods.

The river channel is typically on the order of 12 m (36 ft) deep and 320 m (1,050 ft) wide as measured near the down-river end of the test fishing site (Figure 4). Gillnets used in the test fishery generally sample the upper half of the water column; however, at station I the inshore end of the net drags along a section of sand bar. At station III the inshore end of the net is deployed approximately 8 m (24 ft) offshore to avoid snags along the channel edge. As the station III drift progresses, it typically moves towards the center of the channel and may overlap with station II.

Each year test fishing begins within the first few days of June and continues through the end of August. Through mid-July two different mesh sizes are used in the test fishery; the first two drifts of each tide are conducted with 8 inch (20.3 cm) stretched mesh gillnets, and the second two drifts are performed with 5-3/8 inch (13.6 cm) mesh. Different mesh sizes are used because larger mesh is more effective with larger chinook salmon, whereas smaller mesh is more effective on smaller chinook and other salmon species. For each tidal drift series, one of six unique permutations from a repeating fishing schedule is used to determine which mesh size will be fished at each station (Molyneaux 1994). The result is that no station is fished with the same mesh size twice during a single tide. However, this design dictates that one station is fished twice each tide; first with 8 inch gear then with 5-3/8 inch gear. The two remaining stations are each fished only once, one station with the 8 inch gear and the other station with the 5-3/8 inch mesh. The station fished twice and the station missed by a given mesh size varies with the random fishing schedule. This design is the result of time and fiscal constraints, but is consistent across the years.

The 8 inch and 5-3/8 inch mesh gillnets are 50 fathoms in length and about 6 and 5 m deep, respectively. The webbing is manufactured by Nagura Net Company[3] and hung at a 2:1 ratio. The 8 inch mesh webbing is made of 225d #24 twine and is 35 meshes deep by 105 fathoms long; the color code is NG80 (light green). The 5-3/8 inch webbing is made of 225d #18 twine and is 45 meshes deep by 105 fathoms long; the color code is NG45 (light green).

By mid-July of each year the chinook salmon migration in the lower Kuskokwim River is essentially over, so use of the larger 8 inch mesh net is discontinued for the remainder of the

[3] Use of a company's name does not constitute endorsement.

season. Until 1990 four drifts continued to be conducted at the three stations after mid-July even though only the 5-3/8 inch mesh gillnet was in use. The random fishing schedule was used to determine the drift sequence and the station that received the duplicate drift. Results of the duplicated drifts were then averaged. However, Molyneaux (1991) found the duplicated fourth drift was unnecessary and it was discontinued beginning in 1990. The fishing schedule was adjusted accordingly.

The catch for each drift is tallied by species and by station. Weather conditions, water temperature and water clarity data are also recorded during the first drift of each tide. At the end of each series of drifts the catch is sold to a local processor or on occasion donated to charities or individuals desiring the fish for subsistence purposes. The data are recorded in the office log and entered into a computer program for analysis.

Test Fishing Index

The actual salmon catch for each drift is converted to CPUE to enhance the comparability of catch results. This is accomplished by converting differences in net length and mean fishing time of each drift to the number of fish caught by 180 m (100 fathoms) of net fished for 60 minutes. This standard net length and fishing time is used in many gillnet test fisheries conducted by ADF&G(Meacham 1978; Waltemeyer 1983). Each drift CPUE (I) is computed as:

$$I = (100 fathoms)\ (60 minutes)\ C\ (L\ T)^{-1}, \qquad (1)$$

where C is the catch of each species in numbers of fish, L is the length of net used in fathoms, and T is the mean fishing time in minutes.

For each tide the drift CPUE's are averaged over all stations to calculate a mean tidal CPUE index (I_i) for each species:

$$I_i = n^{-1} \left(\sum_{j=1}^{n} I_{i,j} \right), \qquad (2)$$

where $I_{i,j}$ is the drift CPUE index from drift j on tide i, and n is the number of applicable drifts. For chinook salmon the mean is calculated using the drift CPUE's from both 8 inch and 5-3/8 inch nets with each drift and mesh size weighted equally (n = 4). In contrast, only catches in the 5-3/8 inch mesh nets are used to calculate mean tidal CPUE's for sockeye, chum and coho salmon (n = 2 through mid-July and n = 3 after mid-July).

If a tide was not fished by the test fishing crew then an estimated mean tidal CPUE is calculated using one of two methods. First, if the tide was missed because of a commercial fishing period, the mean tidal CPUE for the missed tide is assumed to be equal to the CPUE of the next tide fished. Second, if the missed tide was not affected by commercial openings, then the estimate is assumed to be an average of the preceding and following mean tidal CPUE's. In either situation, if test-fish indexes demonstrate strong differences in abundance between low high tide and high high tide, then tides not fished may be estimated with indexes from tides of corresponding magnitude; e.g., if a high high tide is missed, it will be estimated with data from other high high tides.

Actual and estimated mean tidal CPUE's are summed by species throughout the season to generate a cumulative CPUE index (I) for the season:

$$I = \sum_{i=1}^{n} I_i, \qquad (3)$$

where n is the total number of tides which were fished or for which CPUE was estimated throughout the season.

RESULTS

As stated earlier, comparison of test fishery catch or CPUE data between years as an index of abundance is affected by many factors, such as water level and clarity, weather, river channel and hydrology, fish size relative to gillnet mesh size, net saturation effects, and crew technique, among others. Therefore, caution should be exercised when attempting to interpret these data. The purpose of this report is to provide, in a readily retrievable report format, a data summary for the Bethel test fishery, 1984-1998. A more in-depth analysis and reporting of data from the Bethel test fishery can be found, most recently in Molyneaux (1994), but current workloads and priorities make that depth of analysis and discussion not feasible at present.

Tables 1-3 present Kuskokwim River water depth, clarity, and temperature data, respectively, by day. Tables 4-6 present mean daily CPUE, cumulative mean daily CPUE, and cumulative proportion of season total CPUE, respectively, by day for chinook salmon. Similar information follows for sockeye salmon (Tables 7-9), chum salmon (Tables 10-12), and coho salmon (Tables 13-15). References in these tables to escapement at Kogrukluk River weir are intended to provide some historic perspective for inseason assessment of the adequacy of salmon passage in the Bethel test fishery. The Kogrukluk River is only one tributary of the Holitna River, which is itself only one of many tributaries of the Kuskokwim River. Salmon escapement to some other tributary streams are indexed by aerial surveys, or assessed by tower, weir or sonar projects. However, the Kogrukluk River weir project provides the longest historical database on salmon escapement, including coho salmon, in the Kuskokwim River drainage. Even so, it should be understood that the Kogrukluk

River is just one small spawning area relative to the widely distributed Kuskokwim River drainage salmon spawning stocks. Cappiello (1998) provides more information on the Kogrukluk River weir project.

The test fishing data tables presented here are used during the fishing season to provide information on salmon run timing and relative abundance, in conjunction with subsistence and commercial fishery catch information, main river sonar passage estimates, spawning escapement estimates, and other information sources. This information is used by ADF&G and the Kuskokwim River Salmon Management Working Group (KRSMWG), of which ADF&G is a member, in the management of the Kuskokwim River salmon fisheries.

DISCUSSION

The Bethel test fishery is a useful tool for Kuskokwim River salmon managers, however the results are not as simple to interpret as may be expected of a numeric index. Numerous influences confound interpretation of the test-fish index, and one must realize these limitations if the tool is to be interpreted and used effectively to assess run timing and abundance.

The Bethel test fishery is generally considered to be a good index of the overall timing of salmon passage in the Kuskokwim River at Bethel. Still, users should be cautious in their interpretation and application of these estimates. The ability of the Bethel test fishery to estimate run timing is affected by the temporal distribution of salmon harvest downstream of the test-fish site. Disproportionately high or low harvest during any segment of the run will skew interpretations of whether the overall run is truly early, normal or late. Wide fluctuations in water level may also skew the perceived run timing in a given year by altering the catchability of a species as the season progresses. For some species, such as chum salmon, the average size of fish changes over the course of the season. This also alters catchability and may skew perceived run timing. These and other influences also affect perceptions of run abundance.

The following are some recommendations regarding inter-annual comparison of Bethel test fishery data:

1. Compare data from years with comparable water level and water clarity conditions to reduce the influence these variables have on catchability.

2. Try to limit comparison to years that are contemporary of one another to avoid the influence of changing channel morphology.

3. Consider the relative magnitude of fish removal and harvest effort upstream of the test-fish site as it may influence interpretation of the adequacy of the cumulative test-fish index as relates to escapement needs.

4. Certain size components of the population could be under or over represented in the test-fish catch because of the size selectivity of the gillnet mesh sizes used in the project. As those size components of a population vary, between years or within a year, it can affect the comparability of the index values. This influence may be especially profound for chinook salmon.

The Bethel test fishery is an imperfect management tool. Still, our evolving understanding of how to interpret the test-fish results, and how to apply them to salmon management, has been an important and successful element in efforts to achieve escapement objectives. The consistency of methods, completeness of historical database, frequency of operation, and timeliness of results are a combination of attributes which set the Bethel test fishery apart from nearly all other tools available to Kuskokwim River salmon managers. But the numerous confounding influences described above limit the project's usefulness, so managers must continue to use and interpret the test-fish information in concert with the full array of other available information.

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Table 1. Historical river stage (in feet) of the Kuskokwim River at Crooked Creek, 1984 through 1998 (Source: U.S. Geological Survey and National Weather Service).

Date		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean	Record	
																		Low	High
Jun	1	7.76	18.53 e	6.60 e	6.93 e	10.76 e	12.30 e	8.38 e	10.00 e	10.07	9.29	7.64	8.28	4.14	3.87	9.13	8.91	3.87	18.53
Jun	2	7.63	19.19 e	6.38 e	7.13 e	10.76 e	11.53 e	8.65 e	10.00 e	10.38	9.16	7.43	7.98	3.99	3.85	9.24	8.89	3.85	19.19
Jun	3	7.53 e	18.53 e	6.16 e	7.43	10.76 e	11.15 e	8.83 e	10.00 e	10.15	9.09	7.24	7.51	3.88	3.65	9.26	8.74	3.65	18.53
Jun	4	7.33 e	18.00	6.05 e	7.76	10.00 e	11.15 e	9.10 e	10.00 e	10.15	8.95	6.89	7.42	3.88	3.43	9.34	8.63	3.43	18.00
Jun	5	7.13 e	17.33	5.93 e	7.73	10.00 e	10.76 e	9.43 e	9.60 e	10.15	8.96	6.83	7.38	3.95	3.31	9.39	8.53	3.31	17.33
Jun	6	7.03 e	16.86	5.93 e	7.73	10.00 e	10.76 e	9.23	9.60 e	10.15	8.91	6.67	7.22	3.93	3.31	9.39	8.45	3.31	16.86
Jun	7	6.93 e	16.13	5.81 e	7.80	9.88	10.69	9.56	10.00 e	10.15	8.74	6.57	7.21	4.00	3.25	9.31	8.40	3.25	16.13
Jun	8	6.82 e	15.39	5.81 e	7.99	9.89	10.38	9.42	10.00 e	9.15	8.50	6.47	7.24	3.93	3.21	9.29	8.23	3.21	15.39
Jun	9	6.71 e	14.64	5.75 e	8.09	9.89	10.15	9.43	9.60 e	9.15	8.22	6.41	7.13	3.95	3.35	9.04	8.10	3.35	14.64
Jun	10	6.60 e	13.35	5.64	8.07	10.00 e	10.00	9.30	9.60 e	9.15	7.95	6.31	7.10	4.05	3.52	8.95	7.97	3.52	13.35
Jun	11	6.49 e	11.15	5.20	8.06	10.76 e	9.84	9.11	9.60 e	9.15	7.61	6.21	6.12	4.50	3.79	8.89	7.77	3.79	11.15
Jun	12	6.38 e	10.53	4.97	7.94	10.76 e	9.58	8.84	9.19 e	9.15	7.50	6.07	5.95	5.07	3.99	8.76	7.65	3.99	10.76
Jun	13	6.27 e	10.07	5.17	7.63	10.76 e	9.32	8.64	9.19 e	9.15	7.41	6.13	5.72	5.47	3.94	8.75	7.57	3.94	10.76
Jun	14	6.27 e	9.78	5.01	7.23	12.30 e	9.05	8.37	9.19 e	9.75	7.28	6.09	5.56	5.38	3.83	8.82	7.59	3.83	12.30
Jun	15	6.16 e	9.78	5.02	6.86	13.07 e	8.77	8.27	9.19 e	9.75	7.17	6.09	5.55	5.06	3.84	8.83	7.56	3.84	13.07
Jun	16	6.16 e	9.59	5.13	6.52	10.76 e	8.57	8.30	9.19 e	9.75	7.23	6.29	5.54	4.78	3.73	8.35	7.33	3.73	10.76
Jun	17	6.16 e	9.45	5.02	6.17	10.00 e	8.97	8.33	9.60 e	9.75	7.24	6.58	5.62	4.57	3.49	7.74	7.25	3.49	10.00
Jun	18	6.05 e	9.48	5.14	5.85	10.76 e	8.94	8.21	9.60 e	9.70	7.05	6.80	5.78	4.33	3.55	6.93	7.21	3.55	10.76
Jun	19	6.05 e	9.27	5.84	5.64	10.76 e	8.71	8.07	10.00 e	9.55	7.06	6.89	5.86	4.09	3.60	6.37	7.18	3.60	10.76
Jun	20	5.93 e	8.74	6.08	5.52	10.00 e	8.75	7.71	10.00 e	9.55	7.11	6.94	5.79	3.93	3.59	5.94	7.04	3.59	10.00
Jun	21	5.93 e	8.20	6.48	5.43	9.60 e	8.68	7.44	9.60 e	8.68	7.07	7.08	5.68	3.84	3.45	5.78	6.86	3.45	9.60
Jun	22	5.81 e	7.78	6.50	5.32	9.60 e	8.27	7.12	9.60 e	8.68	7.11	7.38	5.63 e	3.79	3.32	5.98	6.79	3.32	9.60
Jun	23	5.81 e	7.38	6.37	5.18	9.60 e	7.89	6.84	9.19 e	8.68	7.11	7.61	5.58	3.83	3.37	6.27	6.71	3.37	9.60
Jun	24	6.05 e	6.98	6.10	5.12	9.19 e	7.71	6.64	9.19 e	8.34	7.15	7.91	5.55	3.78	3.47	6.44	6.64	3.47	9.19
Jun	25	6.27 e	6.65	5.79	5.26	9.19 e	7.75	6.51	8.74 e	8.14	7.19	8.18	5.45	3.67	3.58	6.29	6.58	3.58	9.19
Jun	26	6.49 e	6.48	5.53	5.36	9.19 e	8.21	6.29	8.74 e	7.95	7.15	8.25 e	5.22	3.67	3.58	6.11	6.55	3.58	9.19
Jun	27	6.71 e	6.20	5.24	5.26	8.74 e	8.53	6.09	8.29 e	8.08	7.03	8.23	5.17	3.86	3.63	5.82	6.46	3.63	8.74
Jun	28	6.82 e	6.06	5.08 e	5.21	8.74 e	8.20	6.03	8.29 e	8.24	6.90	8.12	5.08	3.92	3.86	5.59	6.42	3.86	8.74
Jun	29	6.93 e	5.95	5.08 e	5.28	8.74 e	7.97	5.98	7.83 e	8.24	6.76	7.91	4.96	4.15	4.02	5.53	6.36	4.02	8.74
Jun	30	6.93 e	6.03	5.20 e	5.31	8.29 e	8.02	5.92	8.29 e	8.34	6.70	7.56	5.08	4.28	4.11	5.27	6.36	4.11	8.34
Jul	1	6.93 e	6.05 e	5.20 e	5.50	8.29 e	7.95	6.00	8.29 e	8.42	6.69	7.17	4.95	4.32	4.15	5.63	6.37	4.15	8.42
Jul	2	6.71 e	6.16 e	5.20 e	5.82	8.29 e	7.78	6.01	7.83 e	8.64	6.58	6.83	4.93	4.19	4.13	5.67	6.32	4.13	8.64
Jul	3	6.49 e	6.27 e	5.20 e	6.00	7.83 e	7.71	6.01	7.83 e	8.40	6.40	6.41	5.00	3.95	4.12	5.78	6.23	3.95	8.40
Jul	4	6.27 e	6.49 e	5.32 e	6.06	7.83 e	7.74	6.03	7.33 e	8.20	6.21	6.16	5.25	3.71	4.13	5.94	6.18	3.71	8.20

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Table 1. (page 2 of 3)

Date		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean	Record	
																		Low	High
Jul	5	6.05 e	6.71 e	5.45 e	6.05	7.83 e	7.73	6.07	6.82 e	8.24	6.07	6.01	5.22 e	3.56	3.94	6.34	6.14	3.56	8.24
Jul	6	5.81 e	6.82 e	5.69 e	5.87	7.83 e	7.69	6.21	7.33 e	8.24	6.02	5.95	5.18	3.41	3.90	6.57	6.17	3.41	8.24
Jul	7	5.57 e	7.03 e	5.57 e	5.75	7.33 e	7.69	6.26	7.33 e	8.27	5.93	5.96	5.17	3.31	3.95	6.79	6.13	3.31	8.27
Jul	8	5.32 e	7.13 e	5.69 e	6.01	7.33 e	7.60	6.27	7.83 e	8.34	5.73	5.93	5.12	3.20	3.88	7.74	6.21	3.20	8.34
Jul	9	5.20 e	7.23 e	5.81 e	6.48	7.33 e	7.43	6.23	7.83 e	8.47 e	5.62	5.81	5.13	3.14	3.83	10.42	6.40	3.14	10.42
Jul	10	5.19	7.33 e	6.05 e	6.86	7.33 e	7.31	6.14	7.33 e	8.64	5.53	5.80	5.08	3.14	3.89	13.46	6.61	3.14	13.46
Jul	11	5.18	7.43 e	5.93 e	7.18	6.82 e	7.16	6.02	7.33 e	8.64	5.18	6.05	5.04	3.20	3.95	14.95	6.67	3.20	14.95
Jul	12	5.18	7.53 e	5.81 e	7.23	6.82 e	6.95	5.80	6.82 e	8.65	5.13	6.51	4.98	3.09	3.79	15.06	6.62	3.09	15.06
Jul	13	5.14	7.63 e	5.69 e	7.18	6.82 e	6.82	5.74	6.82 e	8.66	5.08	6.81	4.97	3.08	3.69	14.20	6.56	3.08	14.20
Jul	14	5.12	7.73 e	5.53	7.22	6.27 e	6.85	5.58	6.27 e	8.98	5.13	7.26	4.96	3.08	3.70	13.16	6.46	3.08	13.16
Jul	15	5.04	7.73 e	5.48	7.15	6.27 e	7.17	5.37	6.27 e	9.08	5.19	7.45	4.96	3.22	3.70	12.16	6.42	3.22	12.16
Jul	16	5.03	7.73 e	5.29	7.13	6.27 e	7.53	5.18	6.58	9.24	5.26	7.25	4.93	3.39	3.58	11.05	6.36	3.39	11.05
Jul	17	4.97	7.73 e	5.09	7.17	5.69 e	7.89	5.00	6.35	9.83	5.37	7.04	4.93	3.34	3.44	10.35	6.28	3.34	10.35
Jul	18	4.76	7.73 e	5.07	7.40	5.69 e	8.29	4.87	6.31	10.15	5.53	6.86	4.91	3.25	3.39	10.05	6.28	3.25	10.15
Jul	19	4.61	7.73 e	5.00	7.83	5.69 e	8.32	4.79	6.35	10.53	5.70	6.73	4.47	3.27	3.30	9.80	6.27	3.27	10.53
Jul	20	4.61	7.63 e	4.86	8.26	5.60 e	8.20	4.68	6.49	11.15 e	5.91	6.84	4.09	3.50	3.10	9.62	6.30	3.10	11.15
Jul	21	4.63	7.53 e	5.08	8.83	5.69 e	8.09	4.60	6.54	11.46 e	6.01	6.71	3.70	3.75	3.15	9.52	6.35	3.15	11.46
Jul	22	4.61	7.48 e	5.93	9.72	5.69 e	7.88	4.60	6.51	9.84 e	6.14	6.64	3.58	3.91	3.16	9.45	6.34	3.16	9.84
Jul	23	4.63	7.45	6.39	9.61	5.69 e	7.62	4.63	6.37	7.45 e	6.19	6.60	3.62	4.26	3.00	9.16	6.18	3.00	9.61
Jul	24	4.65	7.39	7.09	9.55	4.82 e	7.40	4.63	6.19	7.22	6.26	6.71	4.55	4.36	3.05	8.82	6.18	3.05	9.55
Jul	25	4.72	7.20	8.20	9.67	5.08 e	7.45	4.69	6.38	6.96	6.30	6.75	4.91	4.48	3.01	8.47	6.28	3.01	9.67
Jul	26	4.73	7.09	8.79	9.66	5.69 e	7.54	4.76	6.39	6.76	6.23	6.56	4.95	4.56	3.20	8.12	6.34	3.20	9.66
Jul	27	4.89	6.89	8.75	9.63	5.69 e	7.34	4.68	6.14	6.46	6.12	6.64	5.38	5.00	3.26	7.86	6.32	3.26	9.63
Jul	28	4.90	6.61	8.63	9.50	5.08 e	7.06	4.57	5.97	6.26	5.98	6.70	5.47	5.98	3.30	8.13	6.28	3.30	9.50
Jul	29	4.83	6.46	8.26	9.34	5.69 e	6.86	4.46	5.91	6.21	5.91	6.64	5.32	6.69	3.34	8.79	6.31	3.34	9.34
Jul	30	4.93	6.43	7.78	8.55	5.69 e	6.86	4.28 e	6.06	6.01	5.84	6.57	5.13	7.05	3.38	9.20	6.25	3.38	9.20
Jul	31	5.18	6.41	7.44	8.47	5.08 e	6.95	4.04	6.31	5.86	5.80	6.43	4.95	7.46	3.42	9.20	6.20	3.42	9.20
Aug	1	5.60	6.46	7.34	8.66	4.82 e	7.32	3.82	6.43	5.86	5.67	6.28	4.47	8.00	3.45	8.95	6.21	3.45	8.95
Aug	2	5.91	6.43	7.49	8.50	4.54 e	7.60	3.75	6.76	5.97	5.57	6.30	3.72	8.72	3.54	8.66	6.23	3.54	8.72
Aug	3	6.23	6.28	7.24	8.36	4.27 e	7.72	3.66	7.23	5.86	5.53	6.62	3.79	8.79	3.66	9.04	6.29	3.66	9.04
Aug	4	6.42	6.18	6.75	8.68	4.54 e	7.91	3.59	7.70	5.76	5.36	7.31	4.98	8.68	3.75	9.46	6.47	3.59	9.46
Aug	5	6.72	6.31	6.54	8.62	4.82 e	8.06	3.48	8.21	5.76	5.23	8.08	5.09	8.34	3.76	9.58	6.57	3.48	9.58
Aug	6	6.74	6.34	6.28	8.45	4.82 e	8.02	3.35	8.44	5.86	5.37	8.36	5.39	8.15	3.76	9.35	6.58	3.35	9.35
Aug	7	6.63	6.13	6.05 e	8.46	4.54 e	7.90	3.40	8.55	6.21	5.76	8.43	5.84	8.22	3.76	9.63	6.63	3.40	9.63

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Table 1. (page 3 of 3)

Date	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean	Record	
																	Low	High
Aug 8	6.62	5.97	6.05 e	8.87	4.27 e	7.99	3.35	8.74	6.65	7.41	8.25	5.78	8.12	3.76	9.58	6.76	3.35	9.58
Aug 9	6.57	5.97	5.93 e	9.40	4.54 e	8.77	3.35	8.59	7.06	7.84	7.99	5.53	8.22	3.77	9.29	6.85	3.35	9.40
Aug 10	6.47	6.31	5.93 e	9.35	5.08 e	9.23	3.38	8.23	7.03 e	7.59	7.64	5.59	8.24	3.71	9.13	6.86	3.38	9.35
Aug 11	6.32	6.52	5.81 e	9.10	4.82 e	9.76	3.41	7.85	6.93	7.42	7.37	5.59	8.69	3.65	8.67	6.79	3.41	9.76
Aug 12	6.18	6.87	5.93 e	8.83	4.27 e	10.76	3.38	7.59	7.25	7.39	7.23	5.75	9.07	3.60	8.35	6.83	3.38	10.76
Aug 13	5.96	7.82	5.93 e	8.67	4.54 e	11.92	3.45	7.27	7.42	7.52	7.19	5.77 e	9.17	3.55	8.27	6.96	3.45	11.92
Aug 14	5.75	10.15	6.05 e	8.52	4.27 e	12.38	3.57	7.15	7.35	7.70	6.83	5.78	9.14	3.50	7.62	7.05	3.50	12.38
Aug 15	5.56	10.84	6.16 e	8.28	4.82 e	12.38	3.59	7.00	7.13 e	8.73	6.61	5.91	9.00	3.45	7.30	7.12	3.45	12.38
Aug 16	5.28	10.53	6.27 e	8.19	4.27 e	11.92	3.61	6.81	6.93	9.78	6.46	6.01	8.76	3.40	7.06	7.02	3.40	11.92
Aug 17	5.04	11.23	6.38 e	8.29	4.00 e	11.53 e	3.72	6.78	6.56	10.23	6.30	5.75 e	8.39	3.36	7.22	6.99	3.36	11.53
Aug 18	4.89	11.61	6.27 e	7.95	3.70 e	10.76 e	3.79	7.00	6.38 e	10.30	6.03	5.48	8.03	3.38	7.33	6.86	3.38	11.61
Aug 19	5.12	11.15	6.16 e	7.86	3.09 e	10.00 e	3.97	7.33	6.26	9.85	5.74	5.26	7.81	3.31	7.94	6.72	3.09	11.15
Aug 20	5.87	10.69	6.15	7.63	3.41 e	9.60 e	4.15	7.55	5.97	9.49	5.68	5.09	7.68	3.18	8.41	6.70	3.18	10.69
Aug 21	6.74	10.69	5.98	7.35	3.09 e	9.60 e	4.36	7.42	6.05 e	9.23	5.65	4.85 e	7.59	3.10	8.70	6.69	3.09	10.69
Aug 22	6.85	11.07	5.81	7.04	2.77 e	9.19 e	4.91	7.26	6.05 e	9.13	5.59	4.60 e	7.35	3.15	9.91	6.71	2.77	11.07
Aug 23	6.97	11.30	5.93	6.75	2.77 e	9.19 e	5.35	7.11	6.27 e	8.76	5.86	4.35	7.31	3.35	10.60	6.79	2.77	11.30
Aug 24	7.52	10.84	6.70	6.56	3.41 e	9.19 e	5.45	6.86	6.65	8.68	5.82	3.94	7.25	3.59	11.35	6.92	3.41	11.35
Aug 25	8.01	10.38	7.43	6.57	3.09 e	9.19 e	6.05	6.74	6.56	8.29 e	5.65	3.99	7.35	3.53	11.71	6.97	3.09	11.71
Aug 26	8.65	9.90	8.64	5.87	3.41 e	9.19 e	6.52	7.00	6.42	8.29 e	5.85	3.75	8.03	3.42	11.67	7.11	3.41	11.67
Aug 27	10.23	9.40	9.47	5.31	3.70 e	9.19 e	7.63	7.43	7.18	7.83 e	8.29 e	3.69	9.29	3.59	11.87	7.61	3.59	11.87
Aug 28	10.46	8.89	9.55	5.20	4.00 e	9.19 e	11.07	7.53	6.56	7.66	11.00	3.66	10.04	4.01	11.67	8.03	3.66	11.67
Aug 29	9.87	8.49	9.46	5.00	4.00 e	9.19 e	12.46	7.23	6.46	6.84	11.69	3.62	9.85	4.02	11.04	7.95	3.62	12.46
Aug 30	9.48	8.33	9.25	4.72	3.41 e	9.19 e	14.00	7.00	7.55	6.61	12.00	3.66	9.62	3.98	10.68	7.97	3.41	14.00
Aug 31	8.86	8.27	8.92	4.64	3.70 e	9.19 e	13.64	6.67	7.16	6.62	11.84	3.78	9.33	3.96	10.38	7.80	3.70	13.64

e = indicates an estimate

Table 2. Historical daily water clarity measurements of the Kuskokwim River at the Bethel test-fish site, 1984-1998.

Date	Water Clarity (m) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
5/31																		
6/01						0.2	0.7		0.1	0.2	0.4	0.6	0.9			0.4	0.1	0.9
6/02					0.2	0.5	0.3	0.5	0.2	0.3	0.6	0.6	0.9	1.2	0.3	0.5	0.2	1.2
6/03		0.1			0.3	0.3		0.5	0.2	0.5	1.0	0.6	0.3	1.1	0.2	0.5	0.1	1.1
6/04		0.1		0.7	0.2	0.3	0.5	0.6	0.2	0.6	1.0	0.6	0.8	1.1	0.3	0.5	0.1	1.1
6/05		0.1	0.5	0.7	0.3	0.4	0.5	0.5	0.2	0.5	1.0	0.8	1.0	1.6	0.3	0.6	0.1	1.6
6/06		0.2	0.4	0.6	0.3	0.3	0.6	0.6	0.2	0.5	1.0	0.7	1.2	1.6	0.3	0.6	0.2	1.6
6/07		0.2	0.5	0.7	0.4	0.3	0.3	0.6	0.2	0.5	1.0	0.7	1.3	1.6	0.3	0.6	0.2	1.6
6/08		0.2	0.3	0.7	0.3	0.4	0.3	0.6	0.2	0.4	0.9	0.7	1.2	1.6	0.3	0.6	0.2	1.6
6/09	1.0	0.2	0.5	0.7	0.4	0.3	0.3	0.6	0.2	0.4	0.9	0.7	1.1	1.8	0.4	0.6	0.2	1.8
6/10	0.7	0.2	0.4	0.6	0.4	0.4	0.5	0.6	0.2	0.3	1.0	0.7	1.3	1.6	0.4	0.6	0.2	1.6
6/11	0.7	0.3	0.4	0.7	0.4	0.4	0.3	0.6	1.0	0.3	0.8	0.6	1.0	1.5	0.4	0.6	0.3	1.5
6/12	1.0		0.5	0.7	0.4	0.4	0.2	0.6	1.0	0.4	0.8	0.7	1.0	1.3	0.3	0.7	0.2	1.3
6/13		0.3	0.5	0.7	0.4	0.6	0.2	0.8	0.7	0.2	1.0	0.8	1.2	1.3	0.4	0.6	0.2	1.3
6/14	1.1	0.3	0.5	0.7	0.4	0.4	0.3	0.7	0.6	0.2	1.0	1.1	0.9	1.3	0.4	0.6	0.2	1.3
6/15	1.0	0.3	0.6	0.6	0.4	0.4	0.3	0.6	0.9	0.3	1.0	1.1	0.8	1.6	0.4	0.7	0.3	1.6
6/16	0.9	0.4	0.8	0.6	0.4	0.3	0.3	0.6	0.8	0.3	0.8	1.0	0.8	1.5	0.5	0.7	0.3	1.5
6/17	0.8	0.4	0.6	0.6	0.4	0.5		0.7	0.8	0.3	1.0	0.8	0.9	1.4	0.5	0.7	0.3	1.4
6/18	0.6	0.4	0.7	0.6	0.4	0.6	0.2	0.6	0.7	0.4	0.7	1.0	1.0	1.2	0.3	0.6	0.2	1.2
6/19	0.6	0.3	0.7	0.6	0.4	0.6	0.2	0.6	0.6	0.4	0.9	0.9	1.0	1.1	0.3	0.6	0.2	1.1
6/20	0.6		0.7	0.7	0.4	0.4	0.2	0.7	0.7	0.6	0.9	1.1	0.8	0.8	0.4	0.6	0.2	1.1
6/21	0.6	0.3	0.6		0.3		0.2	0.6	0.8	0.6	0.5	1.1	1.2	0.8	0.3	0.6	0.2	1.2
6/22	0.6	0.4	0.6			0.6	0.2	0.5	0.6	0.7	0.5	1.0	1.2	0.9	0.5	0.6	0.2	1.2
6/23	0.6	0.4			0.4	1.0	0.2	0.5	0.7	0.7	0.6	0.7	1.2	0.9	0.6	0.6	0.2	1.2
6/24	0.5	0.4	0.6	0.7	0.3	0.8	0.2	0.5	0.6	0.7	0.4	0.6	1.1	0.8	0.5	0.6	0.2	1.1
6/25	0.4	0.4	0.6	0.8			0.2	0.6	0.5	0.6	0.5	0.4	1.1	1.2	0.5	0.6	0.2	1.2
6/26	0.4	0.5	0.5	0.7	0.3	0.2	0.3	0.6	0.5	0.5	0.2	0.5	0.8	1.2	0.6	0.5	0.2	1.2
6/27	0.4		0.6	0.7	0.3	0.5	0.2	0.5	0.8	0.5	0.2		0.8	1.5	0.6	0.6	0.2	1.5
6/28	0.4		0.3	0.7	0.3	0.6	0.3	0.6	0.9	0.5	0.5		1.0	1.2	0.5	0.6	0.3	1.2
6/29	0.4	0.4	0.5	0.8	0.3	0.6	0.3	0.5	0.7	0.5	0.2	0.6	1.0	1.4	0.5	0.6	0.2	1.4
6/30	0.4		0.4	0.5	0.4			0.5	0.8	0.3	0.2	0.5	0.9	1.5	0.4	0.6	0.2	1.5
7/01	0.4		0.4	0.7	0.3	0.5	0.6	0.4	0.8	0.4	0.2	0.5	1.1	1.7		0.6	0.2	1.7
7/02	0.5	0.5	0.5	0.4	0.4	0.6	0.6	0.3	0.8	0.3	0.2	0.6	0.9	1.3	0.4	0.6	0.2	1.3
7/03	0.3	0.5	0.6		0.4		0.5	0.3	0.8	0.3		0.5	0.9	1.0	0.5	0.5	0.3	1.0
7/04	0.3			0.4		0.4	0.7	0.3	1.2	0.3	0.4	0.6	0.7	0.7	0.6	0.5	0.3	1.2
7/05	0.3	0.5	0.7	0.4	0.3	0.3	0.6	0.3	0.8	0.4	0.3	0.6	0.8	0.4	0.5	0.5	0.3	0.8
7/06	0.3	0.5	0.7	0.4	0.3	0.3	0.6		0.8	0.4	0.4	0.5	0.8	0.4	0.5	0.5	0.3	0.8
7/07	0.3	0.4	0.6	0.5	0.4	0.5	0.4	0.3	0.7	0.3	0.5	0.5	0.8	0.2	0.4	0.4	0.2	0.8
7/08	0.3	0.3	0.9	0.7		0.4	0.4	0.3	1.5	0.4	0.5	0.4		0.2	0.5	0.5	0.2	1.5
7/09	0.2		0.9	0.5	0.3	0.4	0.4	0.3	1.7	0.3	0.8	0.6	0.8	0.2	0.4	0.5	0.2	1.7
7/10	0.2		0.6	0.5	0.3	0.2	0.2	0.3	0.8	0.4	0.8	0.3	1.0	0.3	0.3	0.4	0.2	1.0
7/11	0.2	0.2	0.6	0.5			0.3	0.2	1.0	0.4	0.9	0.4	0.8	0.2	0.1	0.4	0.1	1.0
7/12	0.3	0.2		0.6	0.2	0.2	0.2	0.2	0.5	0.6	0.9	0.5	0.9	0.2	0.1	0.4	0.1	0.9
7/13	0.3	0.2		0.6	0.2	0.2	0.2	0.2	0.5	0.4	0.7	0.5	0.9	0.2	0.1	0.4	0.1	0.9
7/14	0.3	0.2	0.3	0.5	0.2		0.2	0.3	0.3	0.4	0.7	0.4	0.9	0.2	0.3	0.4	0.2	0.9
7/15	0.3	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.3	0.3	0.6	0.4	1.1	0.2	0.3	0.3	0.2	1.1
7/16	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.3	0.2	0.4	0.7	0.4	0.9	0.2	0.2	0.3	0.2	0.9

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Table 2. (page 2 of 3)

Date	Water Clarity (m) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
7/17	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.6	0.5	0.4	0.8	0.1	0.2	0.3	0.1	0.8
7/18	0.2	0.2	0.3		0.3	0.3	0.2		0.2	0.5	0.7	0.4	0.8	0.2	0.2	0.3	0.2	0.8
7/19	0.2	0.3		0.4	0.3	0.3	0.2	0.2	0.1	0.6	0.7	0.3	0.8	0.2	0.2	0.3	0.1	0.8
7/20	0.2	0.3			0.3	0.2	0.2	0.2	0.1	0.4	0.6	0.4	0.7	0.2	0.2	0.3	0.1	0.7
7/21	0.2		0.2	0.3	0.2	0.3	0.2		0.2	0.5	0.4	0.3	0.8	0.2	0.3	0.3	0.2	0.8
7/22	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.2	0.2	0.3	0.7	0.4	0.8	0.2	0.2	0.3	0.2	0.8
7/23	0.4	0.3	0.3	0.4	0.2	0.3	0.3	0.4	0.2	0.4	0.4	0.4	0.7	0.2	0.2	0.3	0.2	0.7
7/24	0.4	0.3	0.3	0.4	0.2	0.2	0.4	0.3		0.2	0.6	0.3	0.8	0.2	0.3	0.3	0.2	0.8
7/25	0.4	0.3	0.2			0.2	0.3	0.5	0.2	0.3	0.6	0.4	0.6	0.2	0.2	0.3	0.2	0.6
7/26	0.4	0.3	0.2		0.2	0.2	0.3	0.6	0.2	0.2	0.4	0.4	0.5	0.2	0.3	0.3	0.2	0.6
7/27	0.4	0.3	0.2	0.3	0.2		0.4	0.5	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.5
7/28	0.4	0.3	0.2	0.2	0.1	0.2	0.4	0.5	0.3	0.2	0.3	0.5	0.5	0.3	0.2	0.3	0.1	0.5
7/29	0.3	0.3	0.1	0.3	0.2	0.2	0.4	0.5	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.3	0.1	0.5
7/30	0.3	0.3	0.1	0.2	0.1	0.3		0.5	0.3	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.1	0.5
7/31	0.3	0.3		0.2	0.2		0.4	0.5	0.3	0.2	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.5
8/01	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.5	0.3	0.2	0.6	0.4	0.2	0.3		0.3	0.2	0.6
8/02	0.2	0.3	0.1	0.2	0.1	0.3	0.2	0.5	0.4	0.2	0.5	0.4	0.2	0.3	0.2	0.3	0.1	0.5
8/03	0.2	0.3	0.1	0.2	0.1	0.3	0.2	0.6	0.4	0.2	0.5	0.2	0.2	0.3	0.2	0.3	0.1	0.6
8/04	0.2	0.3	0.1	0.3	0.2	0.3	0.2	0.6	0.5	0.2	0.4	0.2	0.2	0.3	0.2	0.3	0.1	0.6
8/05	0.2	0.3	0.2	0.3	0.2	0.2	0.2		0.5	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.5
8/06			0.2	0.3	0.2	0.3	0.2	0.5	0.4	0.2	0.7	0.2	0.3	0.2		0.3	0.2	0.7
8/07		0.3	0.2	0.3	0.2		0.2	0.5	0.4	0.2	0.3	0.2		0.2	0.2	0.3	0.2	0.5
8/08	0.2		0.3	0.3		0.3	0.2	0.3	0.4	0.1	0.4	0.3	0.3	0.1	0.2	0.3	0.1	0.4
8/09	0.2		0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.3	0.2	0.4
8/10	0.2	0.3	0.3	0.2		0.3	0.3	0.3	0.3	0.1		0.2	0.3	0.1	0.2	0.2	0.1	0.3
8/11	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.1		0.3	0.4	0.1	0.3	0.3	0.1	0.4
8/12		0.3	0.2	0.2	0.2		0.4	0.3	0.4	0.1	0.1	0.4	0.4		0.3	0.3	0.1	0.4
8/13	0.2	0.3	0.3		0.2	0.2	0.4	0.3	0.3	0.1	0.2	0.4	0.4	0.1	0.2	0.2	0.1	0.4
8/14	0.1	0.2		0.2	0.3	0.2		0.2	0.4	0.1	0.2	0.4	0.3	0.1	0.3	0.2	0.1	0.4
8/15	0.2	0.2		0.2	0.3	0.2	0.5	0.2	0.4	0.2	0.1	0.4	0.3	0.1	0.3	0.3	0.1	0.5
8/16	0.1	0.2	0.3		0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.4	0.3	0.2	0.3	0.3	0.1	0.4
8/17	0.1	0.2	0.4		0.3	0.2		0.3	0.1	0.3	0.2	0.4	0.3	0.1		0.2	0.1	0.4
8/18	0.2	0.1	0.3		0.2	0.2	0.2	0.3	0.1	0.2		0.4	0.4	0.1	0.2	0.2	0.1	0.4
8/19	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.3		0.3	0.2	0.3	0.2	0.1	0.3
8/20		0.1	0.4	0.3	0.3	0.2	0.2	0.4	0.1	0.2	0.3	0.4	0.4	0.2	0.2	0.2	0.1	0.4
8/21	0.2	0.1	0.4	0.3	0.3	0.2	0.2	0.4	0.2	0.2	0.2	0.5	0.4	0.2	0.3	0.3	0.1	0.5
8/22	0.1	0.1	0.3	0.5	0.2	0.2	0.3	0.5	0.2	0.2	0.2		0.4	0.2	0.3	0.3	0.1	0.5
8/23	0.2	0.1	0.5	0.4	0.3	0.2	0.2	0.4	0.2	0.2	0.3	0.5	0.4	0.3	0.2	0.3	0.1	0.5
8/24	0.2	0.2	0.4	0.4	0.2	0.3	0.2	0.4		0.3	0.3	0.5	0.5	0.2	0.2	0.3	0.2	0.5
8/25	0.2	0.2		0.4	0.3			0.5		0.2		0.5	0.3	0.2	0.2	0.3	0.2	0.5
8/26	0.3	0.2		0.4	0.4		0.1	0.5		0.3	0.2	0.5	0.4	0.2	0.2	0.3	0.1	0.5
8/27	0.2	0.3	0.3	0.4	0.4		0.2	0.5		0.3	0.3	0.5	0.4	0.2		0.3	0.2	0.5
8/28	0.2	0.3		0.5	0.5	0.2	0.1	0.5		0.2	0.3	0.6	0.3	0.2		0.3	0.1	0.6
8/29	0.2	0.3		0.4	0.4	0.2	0.3	0.4		0.3	0.2					0.3	0.2	0.4
8/30	0.1						0.2	0.5		0.3	0.2					0.2	0.1	0.5
8/31	0.2			0.4		0.3		0.6								0.3	0.2	0.6
9/01	0.2			0.4												0.3	0.2	0.4

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Table 2. (page 3 of 3)

Date	Water Clarity (m) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
9/02	0.2			0.5												0.3	0.2	0.5
9/03	0.2			0.5												0.3	0.2	0.5
9/04	0.2			0.4												0.3	0.2	0.4
9/05	0.2			0.5												0.3	0.2	0.5
9/06	0.2			0.5												0.3	0.2	0.5
9/07				0.5												0.5	0.5	0.5
9/08				0.6												0.6	0.6	0.6
9/09				0.5												0.5	0.5	0.5
9/10				0.5												0.5	0.5	0.5
9/11																		
Mean	0.3	0.3	0.4	0.5	0.3	0.3	0.3	0.4	0.5	0.3	0.5	0.5	0.7	0.6	0.3	0.4		
Min.	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1		
Max.	1.1	0.5	0.9	0.8	0.5	1.0	0.7	0.8	1.7	0.7	1.0	1.1	1.3	1.8	0.6	1.8		

Table 3. Historical daily surface water temperature of the Kuskokwim River at the Bethel test-fish site, 1984-1998.

Date	Water Temperature (°C) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
5/31	11															11	11	11
6/01	10						12		12	14	11	11	13	15		12	10	15
6/02	11				9		12	9	12	13	13	10	11	15	7	11	7	15
6/03	11	7			9		12	9	12	14	14	11	14	14	8	11	7	14
6/04	13	7		14	10	9	13	9	10	15	11	11	13	15	9	11	7	15
6/05	13	7	7	16	10	9	12	10	11	14	11	12	15	15	8	11	7	16
6/06	13	8		16	10	9	13	11	10	13	14	12	14	15	8	12	8	16
6/07	12	8	7	16	11	9	12	12	12	15	13	13	13	15	9	12	7	16
6/08	12	8	7	15	10	9		12	12	15	13	12	12	15	9	12	7	15
6/09	13	9	8	16	10	9		13	12	14	12	12	13	14	8	12	8	16
6/10	13	9	8	14	11	9		13	13	14	13	11	10	14	8	11	8	14
6/11	15	10	8	14	11	10		13	13	14	12	10	9	14	8	12	8	15
6/12			11	14	11	9		13	14	14	14	13	10	14	8	12	8	14
6/13	16	8	12	12	12	11		13	14	14	15	13	10	14	9	12	8	16
6/14	16	8	12	10	12	11		13	14	12	15	13	11	14	9	12	8	16
6/15	15	9	12	10	12	12		12	14	13		12	12	14	9	12	9	15
6/16	16	11	14	10	13	12	12	11	14	13	14	12	14	14	10	13	10	16
6/17	16	10	14	11	13	12	12	11	14	14	14	12	13	14	10	13	10	16
6/18	16	10	14	12	13	12	12	11	14	14	14	12	14	14	11	13	10	16
6/19	16	11	13	12	13	12	12	11	14	15	14	13	14	14	11	13	11	16
6/20	16		13	11	11	12	12	12	14	14	14	14	14	14	10	13	10	16
6/21	16	10	13	12	11		11	13	14	14	14	13	14	14	10	13	10	16
6/22	16	10	13	14		13	11	13	15	14	14	14	14	14	10	13	10	16
6/23	16	11		12	11	13	10	13	15	14	13	14	14	14	11	13	10	16
6/24	15		13	12	12	13	11	13	15	14	12	11	14	16	11	13	11	16
6/25	15	11	13	12	11	12	12	13	15	15	10	11	13	16	11	13	10	16
6/26	15	12	13	13	12	13	12	13	14	14	12	11	15	16		13	11	16
6/27	16	12	13	13	11	13	11	14	14	14	10	12	14		13	13	10	16
6/28	16		13	13	11	13	11	14	15	13	11	11	13	17	12	13	11	17
6/29	16	10		13	12	14	12	16	14		11	13	13	18	13	13	10	18
6/30	16		16	13	13		14	17	13		11	14	13	18	14	14	11	18
7/01	16	13	16	12	14	16	15	16	13	15	12	13	13	18		14	12	18
7/02	17	12	17	12	15	14	16	17	14	15	13	13	13	18	14	15	12	18
7/03	17	12	13		15		16	16	14	14		13	13	20	14	15	12	20
7/04	16			14		17	16	17	15	13	12		14	19	14	15	12	19
7/05	16	13	17	13	15	18	17	17	15	13	12		14	20	15	15	12	20
7/06	16	14	17	13	15	18	17		17	14	11		16	20	15	16	11	20
7/07	15	14	16	14	16	17	16	18	16	15	10		16	20	15	16	10	20
7/08	14	13	17	14		17	16	18	16	15	11			19	14	15	11	19
7/09	13	13	16		14	15	16	17	17	15	10		16	18	13	15	10	18
7/10	13	13	16	13	15	15		18	15	15	12		17	17	12	15	12	18
7/11	15	13	15	13		15		18	15	17	11		16	17	12	15	11	18
7/12	15	15	16	13	14	15	16	18	16	16	12		16	16	11	15	11	18
7/13	16	13		13	14	15	16	16	15	15	12		15	16	11	14	11	16
7/14	16	15	14	13	15		15	15	15	15	12			16	11	14	11	16
7/15	16	15	15	14	16	15	16	14	14	17	13			16	11	15	11	17
7/16	17	15	15	12	17	15	16	14	16	16	13			16	13	15	12	17

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Table 3. (page 2 of 3)

Date	Water Temperature (°C) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
7/17	17	15	15	12	14	14	16	14	16	18	13		15	16	12	15	12	18
7/18	16	15	15	14	15	13	17		17	18	14		14	15	13	15	13	18
7/19	15	16		12	17	13	16	14	17	19	15		14	16	14	15	12	19
7/20	15	16			16	12	17	13	16	20	14		14	16	14	15	12	20
7/21	15		13	12	17	12	17	13	15	20	14	16	15	16	14	15	12	20
7/22	15	17	13	11	18	12	17	14	17	21	14	16	15	16	14	15	11	21
7/23	17	17	13	11	18	12	17	14	16	21	14	16	16	16	14	15	11	21
7/24	15	17	13	11	18	12	17	15		21	13	16	16	16	15	15	11	21
7/25	16	17	12			13	18	15	17	18	13	15	16	16	14	15	12	18
7/26	16	17	12		17	13	17	16	17	18	13	14	15	16	14	15	12	18
7/27	16	17	12	12	16		16	15	17	18	14	15	14	16	13	15	12	18
7/28	16		13	13	15	12	17	14	17	17	14	15	14	17	13	15	12	17
7/29	16	17	13	14	15	14		14	17	18	14	15	14	16	12	15	12	18
7/30	15	17	13	14	15	14		14	16	17	14	15	14	17	13	15	13	17
7/31	15	17	13		15		16	14	15	18	15	15	13	17	13	15	13	18
8/01	15	19	12	12	15	14	16	14	15	17	13	15	12	18		15	12	19
8/02	16	18	12		15	14	15	14	16	17	13	14	11	17	12	15	11	18
8/03	16	18	12		14	14	14	13	15	17	13	14	11	17	12	14	11	18
8/04	15	18	12		15	14	14	13	16	16	13	14	11	17	12	14	11	18
8/05	15	18	11		16	13	16		16	15	14	13	11	17	10	14	10	18
8/06		16	12		16	13	16	14	16	16	13	13	10	17	11	14	10	17
8/07		16	12		15	14	16	14	15	14	13	12		18	11	14	11	18
8/08	16		13			14	16	14	15	12	14	11	11	18	10	14	10	18
8/09	16	14	13		13	14	16	13	14	14	14	11	11	18	11	14	11	18
8/10	15	13	11			14	16	13	15	16	13	11	10	16	11	13	10	16
8/11	15		12	14	12	14	16	14	13	15	14	12	11	15	11	13	11	16
8/12		13	12	14	12		16	14	13	16	13	11	10		11	13	10	16
8/13	15	12			12	13	16	13	12	15	13	11	11	15	10	13	10	16
8/14	15	12		12	11	14		14	13	15	13	11	11	14	10	13	10	15
8/15	15	11	11	12	11	13	16	13	13	14	13	11	11	13	10	12	10	16
8/16	14	11	12	12	11	14	14	13	14	13	13	11	11	13	10	12	10	14
8/17	14	11	12	12	11	14		13	12	13	12	12	11	13		12	11	14
8/18	14		13	12	11	14	14	13	13	13	13	12	12	13	9	13	9	14
8/19	16		11	16	12	14	13	13	12	12	12	13	12	13	10	13	10	16
8/20			13	13	12	13	13	14	12	11	13	11	12	13	10	12	10	14
8/21	14	11	13	16	12	13	13	14	12	11	12	12	12	13	10	12	10	16
8/22	13	11	13	13	12	13	13	13	12	10	12	11	11	13	9	12	9	13
8/23	11	11	12	14	11	13	13	13	12	11	11	12	14	13	9	12	9	14
8/24	12	10	12		11	13	12	13		11	12	12	11	12	8	11	8	13
8/25	11	10			11			12		11		13	11	13	8	11	8	13
8/26	9	10			9		12	12		12	11	13	10	12	8	11	8	13
8/27	10	10	12		9		12	12		11	10	12	10	12		11	9	12
8/28	9	11			10	12	12	11		12	9	13	10	12		11	9	13
8/29	9	11		16	11	12	12	11		14	9					12	9	16
8/30	9			15		12	12	11		14	10					12	9	15
8/31	9					12	11	11		13						11	9	13
9/01	9			14												12	9	14

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Table 3. (page 3 of 3)

Date	Water Temperature (°C) by Year																	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1984-98 Summary		
																Mean	Min.	Max.
9/02	9			14												12	9	14
9/03	9			13												11	9	13
9/04	9			13												11	9	13
9/05	9			13												11	9	13
9/06				12												12	12	12
9/07				11												11	11	11
9/08				10												10	10	10
9/09				9												9	9	9
9/10				8												8	8	8
9/11				8												8	8	8
Mean	14	13	13	13	13	13	14	14	14	15	13	13	13	16	11	13		
Min.	9	7	7	8	9	9	10	9	10	10	9	10	9	12	7	7		
Max.	17	19	17	16	18	18	18	18	17	21	15	16	17	20	15	21		

Table 4. Historical daily CPUE for chinook salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	4.9	4.6	5.4	4.1	8.5	11.9	10.2	7.8	6.8	12.3	15.2	20.6	14.2	13.3	n.a.
5/30	0	0													
5/31	0	0													
6/01	0	0				0	0		0	3	3	3	3		
6/02	1	0			3	0	2	0	0	4	2	3	10	0	0
6/03	0	0	0		0	0	0	0	0	10	3	1	5	2	4
6/04	0	0	3	0	0	0	1	0	0	3	2	1	17	5	6
6/05	0	0	1	5	2	0	1	1	0	8	11	3	12	4	7
6/06	0	0	1	3	0	0	1	3	2	11	15	2	19	0	7
6/07	2	0	5	5	3	2	3	6	0	5	2	10	19	2	0
6/08	3	0	0	16	22	7	4	2	3	8	5	15	6	7	3
6/09	6	0	1	9	14	9	5	1	6	29	5	2	15	2	2
6/10	5	0	0	20	5	15	8	0	7	16	2	10	20	15	8
6/11	5	0	0	18	21	4	14	3	21	3	0	10	25	3	2
6/12	13	0	0	22	18	9	14	0	22	20	7	17	19	30	2
6/13	3	0	0	13	11	11	6	2	21	14	16	16	33	10	7
6/14	5	0	1	21	3	27	2	2	18	10	52	10	45	1	9
6/15	17	0	9	10	8	19	9	1	11	22	15	3	16	9	13
6/16	14	0	20	11	8 c	7	11	3	21	17	13	3	26	24	2
6/17	4	0	14	54	21	21	6	3	24	37	14	11	25 c	37	11
6/18	26	0	4	14 c	7	35	13	12	9 c	30	2	24	8	26	3
6/19	14	0	15	13	13	19 c	26	6	5	29	22	31	11	49	6
6/20	14	1 c	3	18	25 c	16	9 c	15 c	9	30	13	8	15 c	39	18
6/21	5	7	17	23	16	14	12	6	9	27	20	29	22	48	10
6/22	12	0	15	30	13	17	19	4	0 c	31	29	11 c	6	34	7
6/23	4	3	14	26	16	23 c	9	6	6	13	12	22	10	21 c	21
6/24	11	0 c	13	9 c	21 c	21	24	6 c	14	21	3 c	25	13 c	7	25 c
6/25	4 c	4	1	38	8	26	34 c	7	12 c	8 c	10	22	7	20	24
6/26	4	0	5 c	20	10	48 c	31	4	11	2	2	35 c	6	14	14
6/27	6	3 c	8	25	14	50	13	2	9	5	11	12	3	12	11
6/28	10 c	8	0	15	5 c	11	25	7	13	5	3	5	9	0	20
6/29	4	9	3	18	3	3	21 c	16	11 c	7	15	19 c	3	1	14 c
6/30	1	4	3 c	12 c	3	22 c	0	9	6	12	7	15	4	3	25
7/01	6	12 c	7	15	12	11	2	9 c	11	3	5	13	0	2	4
7/02	14 c	1	6	9	1 c	3	9	8	6	4	3	3	2 c	1	14
7/03	3	9	7 c	3 c	5	9 c	17	6	7	3	5	9 c	0	4	9 c
7/04	11	5 c	3	8	5	7	20	6	10	3	3	9	2	3	11
7/05	4 c	9	3	7	8 c	10 c	5 c	1	3	0	5	7	4 c	4	4
7/06	6	8	1	9	0	2	6	2 c	0 c	0	5	0 c	4	6	3
7/07	0	3	1 c	15 c	0	9	8	3	0	2	11	3	2	6	6
7/08	3	5	4	0	0 c	4 c	14	2	3	2	2	5	2 c	2	4
7/09	7 c	5	3	1	0	5	5 c	0	0	4	3	6	2	0	2
7/10	2	1	0 c	3	0	4	0	2	3	2	0	0 c	3	6	6
7/11	0	2	2	2 c	0 c	0 c	0	0	4	2	0	2	2	8	2 c
7/12	1 c	1	0	2	0	1	4	0	4	2	0	0	0 c	2	0
7/13	1	1	0	2	0	0	2	2 c	4	0	0	0	2	0	0
7/14	0	0	1	1	8 c	0 c	2 c	1	0	0	0 c	0 c	0	0	0
7/15	1	2	0	0 c	0	0	2	1	0	0	0	0	0	0	0
7/16	8 c	0	0	0	8	0	2	2	4	0	0	0	0 c	0	0
7/17	0	1	0	3	6	1	2	0	5	2	0	0	0	2	0
7/18	2	0	0	0	2 c	2 c	0	2 c	6	0	2	0 c	0	0	0
7/19	0	0	0	14	0	1	0	2	3	2	2 c	0	0 c	0	4
7/20	3	0	0	1 c	0	5	0	0	0	0	0	2	0	2	0
7/21	0	0	2	2	0 c	1	0	0	0	0	0	0 c	0	2	0
7/22	0	0	2	0	0	6	4	0 c	0	0	0	0	0 c	2	0 c
7/23	0	0	0	3	0	0	0	0	0	0	0 c	0	0	0	0
7/24	1	0	3	0	1	0	2	0	0	0	0	0	0	2	2
7/25	0	0	0	0	0 c	0	0	0 c	0	0	0	0	2 c	0	0
7/26	2	0	0	0	2	0	4	0	0	0	0 c	0	2	0	0

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Table 4. (page 2 of 2)

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	4.9	4.6	5.4	4.1	8.5	11.9	10.2	7.8	6.8	12.3	15.2	20.6	14.2	13.3	n.a.
7/27	0	2	0	4	2	0 c	0	0	0	0	0	4	0	0	0 c
7/28	0	0	0	0	0 c	0	2	0	0	0	0	0	0	0	0
7/29	0	2	0	0	0	0	4	0 c	0	0	0 c	0	0 c	0	0
7/30	0 c	0	0	0	4	0	0	0	0	0	0	2	0	0	0
7/31	3	0	0 c	0	0	0	0	0	0	0 c	0	0	2 c	0 c	0
8/01	2	0	0	0	0 c	0	0 c	0 c	0	0	0	0	0	0	0 c
8/02	0 c	0 c	0	0	0	1	0	0	0	0	0	0	0	0	0
8/03	0	0	0	1	0	0 c	0	0	0 c	0	0	0	0 c	0	0
8/04	0 c	0	0 c	0	0 c	0	0	0	0	0 c	0 c	0 c	0	0	0
8/05	0	0 c	0	0	0	0	0	0 c	0	0	0	0	0	0	0
8/06	0	0	0	0 c	0	0	2 c	0	0 c	0 c	0	0	0	0 c	0 c
8/07	0	0	0 c	2	0	0 c	0	0	2	0	0	0	0 c	0	0
8/08	0	2 c	0	0	0 c	0	0	0 c	0	0	0	0 c	0	0	0
8/09	0 c	0	0	0	0	1 c	0	0	0	0 c	0 c	0	0	0	0
8/10	0	0	0	0	0 c	0	2 c	0	0	0	0	0	0 c	0	0
8/11	0	0	0 c	2	3	0	0	0	0 c	0	0	0	0	0	0 c
8/12	0	0 c	0	0	0 c	0 c	0	0 c	0	0	0 c	0 c	0	1 c	0
8/13	0 c	0	0 c	0 c	0	2	0 c	0	0	0	0	0	0 c	2	0
8/14	0	0	0	0	0	0	0	0 c	0 c	0 c	0	0	0	0	0
8/15	0	0 c	0 c	0	0 c	0 c	2	0	0	0	0 c	0	0	0	0
8/16	0 c	0	0	0	0	0	0 c	0	0	0	0	0 c	0 c	0	0
8/17	0	0	0	0 c	0	0	0	0	0 c	0 c	0	0	0	0	0 c
8/18	0	0	0 c	0	0 c	0 c	0	0	0	0	0 c	0	0	0 c	0
8/19	0	0 c	0	0 c	0	0	0	0 c	2	0	0	0 c	0	0	0
8/20	0 c	1	0	0	0 c	2	0 c	0	0 c	0	0	0	0 c	0	0
8/21	0	0	0 c	0 c	0	0	0	0	0	0 c	0	0	0	0	0
8/22	0	0 c	0	0	0	0	0	0	0	0	0 c	0 c	0	0	0 c
8/23	0 c	0	0	0	0	0 c	0	0	0	0	0	0	0 c	0	0
8/24	0	0	0	0 c	0	0	0	0	0 c	0	2	0	0	0	0
8/25	0	0	0 c	0	0	0	0	0	0	0 c	0 c	0	0	0	0
8/26	0	0 c	0	0	0	0 c	2	0 c	0	0	0	0 c	0	0	0
8/27	0 c	0	0	0 c	0 c	0	0 c	0	0 c	0	0 c	0	0	0	
8/28	0	0	0 c	0	0	0	0	0	0	0 c	0	0	0	0	
8/29	0	0 c		0	0	0 c	0	0	0	0	0	0 c			
8/30	0 c	0		0		0	0	0	0	0	0 c				
8/31	0			0 c	c	0	0	0	0 c	0	0				
9/01	0		c	0		c				c					
9/02	0			0							c				
9/03	0 c		c	0 c											
9/04	0			0											
9/05	0			0											
9/06	0 c			0											
9/07			c	0 c											
9/08				0											
9/09				0											
9/10				0											
9/11				0											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 10,000 was not achieved.

Table 5. Historical cumulative daily CPUE for chinook salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	4.9	4.6	5.4	4.1	8.5	11.9	10.2	7.8	6.8	12.3	15.2	20.6	14.2	13.3	n.a.
5/30	0	0													
5/31	0	0													
6/01	1	0				0	0		0	3	3	0	17		
6/02	3	0			3	0	2	0	0	7	5	3	27	0	3
6/03	3	0	0		3	0	2	0	0	17	7	3	32	2	7
6/04	3	0	3	0	3	0	3	0	0	20	9	4	49	7	13
6/05	3	0	4	5	5	0	4	1	0	28	20	7	61	11	20
6/06	3	0	6	8	5	0	6	4	2	39	35	9	80	11	27
6/07	5	0	10	13	8	2	8	10	2	45	37	19	99	13	27
6/08	7	0	10	29	30	8	13	11	5	52	42	34	105	20	30
6/09	13	0	12	38	44	17	17	13	11	81	47	36	119	22	31
6/10	18	0	12	59	49	32	25	13	18	97	48	46	139	36	39
6/11	23	0	12	77	71	36	39	16	39	100	48	55	164	39	40
6/12	35	0	12	98	89	45	53	16	61	120	55	73	183	69	42
6/13	36	0	12	112	100	56	58	17	82	134	71	89	216	79	48
6/14	43	0	13	133	103	83	61	19	100	143	123	99	261	80	57
6/15	60	0	22	143	111	102	69	20	111	166	138	102	277	89	70
6/16	74	0	42	154	119 c	109	81	23	132	182	151	105	303	113	71
6/17	78	0	56	208	140	130	87	26	156	220	164	116	328 c	150	82
6/18	104	0	59	222 c	147	165	100	38	165 c	250	166	140	336	176	85
6/19	118	0	74	235	160	185 c	126	43	170	279	188	171	347	224	91
6/20	132	1 c	77	253	185 c	201	135 c	59 c	179	309	201	179	362 c	263	109
6/21	137	8	94	277	201	215	146	64	188	336	221	208	384	312	119
6/22	149	8	109	306	214	231	165	68	188 c	367	251	219 c	390	346	126
6/23	153	11	123	333	231	255 c	174	74	194	380	263	241	401	366 c	147
6/24	164	11 c	136	342 c	252 c	276	198	80 c	208	401	266 c	266	413 c	374	172 c
6/25	169 c	15	138	379	260	302	232 c	87	220 c	409 c	276	288	420	394	196
6/26	173	15	143 c	400	270	350 c	263	91	230	410	278	323 c	426	408	210
6/27	178	18 c	151	425	284	401	276	93	239	416	289	335	429	419	221
6/28	186 c	26	151	440	289 c	412	301	99	252	420	292	340	437	419	241
6/29	192	35	154	458	292	415	322 c	116	263 c	427	307	359 c	440	421	255 c
6/30	194	38	156 c	471 c	295	437 c	322	125	268	440	314	374	445	424	280
7/01	200	51 c	163	486	307	448	324	133 c	279	443	318	387	445	426	284
7/02	214 c	52	169	495	308 c	451	333	141	285	446	322	390	447 c	427	298
7/03	217	60	176 c	498 c	313	461 c	350	147	293	450	327	399 c	447	430	307 c
7/04	228	67 c	179	506	318	468	370	153	303	453	330	408	448	433	319
7/05	232 c	76	182	513	326 c	477 c	375 c	154	306	453	334	415	452 c	437	323
7/06	238	85	183	522	326	479	381	156 c	306 c	453	339	415 c	456	443	326
7/07	238	87	184 c	537 c	326	488	388	159	306	455	350	418	458	449	332
7/08	240	93	189	537	326 c	492 c	403	160	309	457	352	423	459 c	451	336
7/09	248 c	98	191	538	326	496	408 c	160	309	461	355	429	461	451	338
7/10	250	99	191 c	541	326	500	408	162	313	464	355	429 c	464	456	343
7/11	250	102	193	543 c	326 c	500 c	408	162	317	466	355	431	466	464	345 c
7/12	251 c	103	193	545	326	501	411	162	321	468	355	431	466 c	466	345
7/13	252	105	193	548	326	501	414	163 c	325	468	355	431	468	466	345
7/14	252	105	194	549	334 c	501 c	416 c	165	325	468	355 c	431 c	468	466	345
7/15	253	106	194	549 c	334	501	418	166	325	468	355	431	468	466	345
7/16	261 c	106	194	549	341	501	420	168	329	468	355	431	468 c	466	345
7/17	261	107	194	551	347	503	422	168	335	470	355	431	468	468	345
7/18	263	107	194	551	349 c	504 c	422	170 c	341	470	357	431 c	468	468	345
7/19	263	107	194	566	349	505	422	172	344	473	359 c	431	468 c	468	349
7/20	265	107	194	567 c	349	510	422	172	344	473	359	433	468	470	349
7/21	266	107	196	569	349 c	511	422	172	344	473	359	433 c	468	472	349
7/22	266	107	198	569	349	518	425	172 c	344	473	359	433	468 c	474	349 c
7/23	266	107	198	572	349	518	425	172	344	473	359 c	433	468	474	349
7/24	267	107	201	572	350	518	427	172	344	473	359	433	468	476	351
7/25	267	107	201	572	350 c	518	427	172 c	344	473	359	433	469 c	476	351
7/26	268	107	201	572	352	518	431	172	344	473	359 c	433	471	476	351

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Table 5. (page 2 of 2)

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	4.9	4.6	5.4	4.1	8.5	11.9	10.2	7.8	6.8	12.3	15.2	20.6	14.2	13.3	n.a.
7/27	268	109	201	577	354	518 c	431	172	344	473	359	438	471	476	351 c
7/28	268	109	201	577	354 c	518	433	172	344	473	359	438	471	476	351
7/29	268	111	201	577	354	518	438	172 c	344	473	359 c	438	471 c	476	351
7/30	268 c	111	201	577	358	518	438	172	344	473	359	440	471	476	351
7/31	271	111	201 c	577	358	518	438	172	344	473 c	359	440	472 c	476 c	351
8/01	273	111	201	577	358 c	518	438 c	172 c	344	473	359	440	472	476	351 c
8/02	273 c	111 c	201	577	358	519	438	172	344	473	359	440	472	476	351
8/03	273	111	201	578	358	519 c	438	172	344 c	473	359	440	472 c	476	351
8/04	273 c	111	201 c	578	358 c	519	438	172	344	473 c	359 c	440 c	472	476	351
8/05	273	111 c	201	578	358	519	438	172 c	344	473	359	440	472	476	351
8/06	273	111	201	578 c	358	519	439 c	172	344 c	473 c	359	440	472	476 c	351 c
8/07	273	111	201 c	580	358	519 c	439	172	347	473	359	440	472 c	476	351
8/08	273	113 c	201	580	358 c	519	439	172 c	347	473	359	440 c	472	476	351
8/09	273 c	113	201	580	358	520	439	172	347	473 c	359 c	440	472	476	351
8/10	273	113	201	580	358 c	520	441 c	172	347	473	359	440	472 c	476	351
8/11	273	113	201 c	582	361	520	441	172	347 c	473	359	440	472	476	351 c
8/12	273	113 c	201	582	361 c	520 c	441	172 c	347	473	359 c	440 c	472	477 c	351
8/13	273 c	113	201 c	582 c	361	522	441 c	172	347	473	359	440	472 c	478	351
8/14	273	113	201	582	361	522	441	172 c	347 c	473 c	359	440	472	478	351
8/15	273	113 c	201 c	582	361 c	522 c	443	172	347	473	359 c	440	472	478	351
8/16	273 c	113	201	582	361	522	443 c	172	347	473	359	440 c	472 c	478	351
8/17	273	113	201	582 c	361	522	443	172	347 c	473 c	359	440	472	478	351 c
8/18	273	113	201 c	582	361 c	522 c	443	172	347	473	359 c	440	472	478 c	351
8/19	273	113 c	201	582 c	361	522	443	172 c	349	473	359	440 c	472	478	351
8/20	273 c	114	201	582	361 c	523	443 c	172	349 c	473	359	440	472 c	478	351
8/21	273	114	201 c	582 c	361	523	443	172	349	473 c	359	440	472	478	351
8/22	273	114 c	201	582	361	523	443	172	349	473	359 c	440 c	472	478	351 c
8/23	273 c	114	201	582	361	523 c	443	172	349	473	359	440	472 c	478	351
8/24	273	114	201	582 c	361	523	443	172	349 c	473	362	440	472	478	351
8/25	273	114	201 c	582	361	523	443	172	349	473 c	362 c	440	472	478	351
8/26	273	114 c	201	582	361	523 c	445	172 c	349	473	362	440 c	472	478	351
8/27	273 c	114	201	582 c	361 c	523	445 c	172	349 c	473	362 c	440	472	478	
8/28	273	114	201 c	582	361	523	445	172	349	473 c	362	440	472	478	
8/29	273	114 c		582	361	523 c	445	172	349	473	362	440 c			
8/30	273 c	114		582		523	445	172	349	473	362 c				
8/31	273			582 c	c	523	445	172	349 c	473	362				
9/01	273		c	582		c				c					
9/02	273			582							c				
9/03	273 c		c	582 c											
9/04	273			582											
9/05	273			582											
9/06	273 c			582											
9/07			c	582 c											
9/08				582											
9/09				582											
9/10				582											
9/11				582											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 10,000 was not achieved.

Table 6. Historical cumulative daily percent passage of chinook salmon in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
6/01	1	0				0	0		0	1	1	0	1			0
6/02	1	0			1	0	0	0	0	1	1	1	3	0	1	1
6/03	1	0	0		1	0	0	0	0	4	2	1	4	1	2	1
6/04	1	0	1	0	1	0	1	0	0	4	2	1	8	1	4	2
6/05	1	0	2	1	1	0	1	1	0	6	6	2	10	2	6	3
6/06	1	0	3	1	1	0	1	2	0	8	10	2	14	2	8	4
6/07	2	0	5	2	2	0	2	6	0	9	10	4	18	3	8	5
6/08	3	0	5	5	8	2	3	7	1	11	12	8	20	4	8	6
6/09	5	0	6	7	12	3	4	7	3	17	13	8	23	4	9	8
6/10	7	0	6	10	14	6	6	7	5	20	13	10	27	8	11	10
6/11	8	0	6	13	20	7	9	9	11	21	13	13	33	8	11	12
6/12	13	0	6	17	25	9	12	9	17	25	15	17	37	14	12	15
6/13	14	0	6	19	28	11	13	10	23	28	20	20	44	16	14	18
6/14	16	0	6	23	29	16	14	11	29	30	34	22	54	17	16	21
6/15	22	0	11	25	31	20	16	12	32	35	38	23	57	19	20	24
6/16	27	0	21	26	33	21	18	13	38	39	42	24	63	24	20	27
6/17	29	0	28	36	39	25	20	15	45	46	45	26	68	31	23	32
6/18	38	0	30	38	41	32	23	22	47	53	46	32	70	37	24	35
6/19	43	0	37	40	44	35	28	25	49	59	52	39	73	47	26	40
6/20	48	1	38	44	51	38	30	34	51	65	56	41	76	55	31	44
6/21	50	7	47	48	56	41	33	37	54	71	61	47	81	65	34	49
6/22	55	7	54	53	59	44	37	40	54	78	69	50	82	72	36	53
6/23	56	9	61	57	64	49	39	43	56	80	73	55	84	77	42	56
6/24	60	9	68	59	70	53	45	46	60	85	73	60	87	78	49	60
6/25	62	13	68	65	72	58	52	51	63	86	76	65	89	82	56	64
6/26	63	13	71	69	75	67	59	53	66	87	77	74	90	85	60	67
6/27	65	15	75	73	79	77	62	54	69	88	80	76	91	88	63	70
6/28	69	23	75	76	80	79	68	58	72	89	81	77	92	88	69	73
6/29	70	30	76	79	81	79	73	67	75	90	85	82	93	88	73	76
6/30	71	34	78	81	82	83	73	72	77	93	87	85	94	89	80	78
7/01	73	44	81	83	85	86	73	77	80	94	88	88	94	89	81	81
7/02	78	45	84	85	85	86	75	82	82	94	89	89	94	89	85	83
7/03	79	53	87	86	87	88	79	86	84	95	90	91	94	90	88	85
7/04	83	59	89	87	88	89	83	89	87	96	91	93	95	91	91	87
7/05	85	67	90	88	90	91	85	90	88	96	92	94	96	91	92	89
7/06	87	74	91	90	90	92	86	91	88	96	94	94	97	93	93	90
7/07	87	77	92	92	90	93	88	92	88	96	97	95	97	94	95	91
7/08	88	81	94	92	90	94	91	93	89	97	97	96	97	94	96	93
7/09	91	86	95	92	90	95	92	93	89	98	98	98	98	94	96	94
7/10	92	87	95	93	90	96	92	94	90	98	98	98	98	95	98	94
7/11	92	89	96	93	90	96	92	94	91	99	98	98	99	97	98	95
7/12	92	90	96	94	90	96	93	94	92	99	98	98	99	97	98	95
7/13	92	92	96	94	90	96	93	95	93	99	98	98	99	97	98	95
7/14	92	92	97	94	92	96	94	96	93	99	98	98	99	97	98	96
7/15	93	93	97	94	92	96	94	97	93	99	98	98	99	97	98	96
7/16	95	93	97	94	95	96	95	98	95	99	98	98	99	97	98	96

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Table 6. (page 2 of 2)

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
7/17	95	94	97	95	96	96	95	98	96	100	98	98	99	98	98	97
7/18	96	94	97	95	97	96	95	99	98	100	99	98	99	98	98	97
7/19	96	94	97	97	97	97	95	100	99	100	99	98	99	98	99	98
7/20	97	94	97	97	97	98	95	100	99	100	99	99	99	98	99	98
7/21	97	94	98	98	97	98	95	100	99	100	99	99	99	99	99	98
7/22	97	94	99	98	97	99	96	100	99	100	99	99	99	99	99	98
7/23	97	94	99	98	97	99	96	100	99	100	99	99	99	99	99	98
7/24	98	94	100	98	97	99	96	100	99	100	99	99	99	99	100	99
7/25	98	94	100	98	97	99	96	100	99	100	99	99	99	99	100	99
7/26	98	94	100	98	98	99	97	100	99	100	99	99	100	99	100	99
7/27	98	96	100	99	98	99	97	100	99	100	99	99	100	99	100	99
7/28	98	96	100	99	98	99	98	100	99	100	99	99	100	99	100	99
7/29	98	97	100	99	98	99	99	100	99	100	99	99	100	99	100	99
7/30	98	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
7/31	99	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/01	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/02	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/03	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/04	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/05	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/06	100	97	100	99	99	99	99	100	99	100	99	100	100	99	100	99
8/07	100	97	100	100	99	99	99	100	99	100	99	100	100	99	100	100
8/08	100	99	100	100	99	99	99	100	99	100	99	100	100	99	100	100
8/09	100	99	100	100	99	99	99	100	99	100	99	100	100	99	100	100
8/10	100	99	100	100	99	99	100	100	99	100	99	100	100	99	100	100
8/11	100	99	100	100	100	99	100	100	99	100	99	100	100	99	100	100
8/12	100	99	100	100	100	99	100	100	99	100	99	100	100	100	100	100
8/13	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/14	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/15	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/16	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/17	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/18	100	99	100	100	100	100	100	100	99	100	99	100	100	100	100	100
8/19	100	99	100	100	100	100	100	100	100	100	99	100	100	100	100	100
8/20	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100
8/21	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100
8/22	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100
8/23	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100
8/24	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/27	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/28	100	100	100	100	100	100	100	100	100	100	100	100	100	100		100
8/29	100	100		100	100	100	100	100	100	100	100	100				100

[a] The rectangles represent the central fifty percent of the run for that year based on the test-fish index; the shaded numbers represent the medians dates of passage.

Table 7. Historical daily CPUE for sockeye salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog:[a]	4.1	4.4	4.2	n.a.	4.4	n.a.	8.4	16.5	7.5	29.4	14.2	11.0	15.4	13.1	n.a.
5/30	0	0													
5/31	0	0													
6/01	0	0				0	0		0	0	0	0	0		
6/02	0	0			0	0	0	0	0	0	0	0	0	0	0
6/03	0	0	0		0	0	0	0	0	0	0	0	0	0	0
6/04	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
6/05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/06	0	0	0	3	0	3	0	0	0	0	0	0	3	3	0
6/07	3	0	6	9	0	0	0	0	0	0	0	0	0	0	0
6/08	0	0	8	17	12	0	0	0	0	3	0	0	3	0	0
6/09	0	0	13	13	14	3	0	0	0	3	0	0	9	3	0
6/10	0	0	3	16	12	3	0	0	0	0	0	0	40	0	0
6/11	5	0	21	16	43	20	8	0	0	7	0	0	50	6	0
6/12	0	0	6	112	62	12	3	0	0	6	0	3	20	3	0
6/13	2	0	11	49	47	11	0	3	9	31	0	3	43	6	5
6/14	6	0	6	9	14	27	16	3	13	7	3	7	67	6	6
6/15	0	0	48	42	9	24	14	3	13	3	3	13	53	12	6
6/16	7	0	102	168	7 c	15	20	0	14	23	0	16	68	61	3
6/17	7	0	49	252	26	15	63	12	48	66	10	3	22 c	9	14
6/18	22	3	79	69 c	48	46	16	51	45 c	41	0	19	33	60	0
6/19	0	13	119	17	98	28 c	38	11	9	16	55	28	107	31	12
6/20	14	0 c	34	47	26 c	19	31 c	39 c	15	63	10	6	103 c	61	15
6/21	5	12	145	76	135	53	15	9	28	136	76	66	136	174	17
6/22	26	11	169	166	135	58	14	43	36 c	46	29	49 c	29	147	40
6/23	0	97	63	355	117	36 c	77	17	39	54	73	22	88	24 c	138
6/24	31	0 c	33	142 c	63 c	40	60	6 c	67	90	109 c	31	124 c	8	92 c
6/25	41 c	135	226	49	29	83	91 c	9	96 c	110 c	36	134	126	86	17
6/26	19	128	198 c	62	115	26 c	25	6	19	23	40	74 c	122	60	45
6/27	48	126 c	202	34	69	53	43	21	49	21	26	28	95	50	38
6/28	20 c	117	138	41	42 c	40	90	39	141	25	23	131	65	7	36
6/29	3	256	20	37	9	35	104 c	25	108 c	62	189	61 c	77	188	98 c
6/30	18	150	221 c	164 c	45	40 c	6	20	71	428	20	64	20	38	83
7/01	34	190 c	15	241	91	13	24	28 c	35	117	13	88	11	40	47
7/02	46 c	54	98	63	28 c	11	24	35	36	55	29	69	17 c	47	137
7/03	24	68	85 c	36 c	32	22 c	65	62	78	14	190	108 c	62	9	131 c
7/04	36	33 c	32	124	54	1	96	36	22	57	93	66	34	20	128
7/05	35 c	45	42	166	45 c	5 c	22 c	38	6	10	73	128	11 c	32	42
7/06	23	56	33	12	17	3	3	7 c	12 c	32	160	32 c	9	6	45
7/07	24	58	74 c	44 c	11	13	23	7	0	20	35	45	23	56	62
7/08	27	3	21	6	13 c	15 c	38	0	13	58	44	30	12 c	45	120
7/09	17 c	23	11	30	10	3	29 c	27	3	6	86	13	46	20	36
7/10	2	6	2 c	30	5	0	14	6	4	4	29	0 c	11	23	11
7/11	2	12	9	4 c	4 c	2 c	6	3	7	4	6	7	6	21	3 c
7/12	2 c	6	23	3	0	5	4	3	6	0	4	2	8 c	8	3
7/13	0	5	17	7	0	4	8	3 c	19	21	0	4	11	4	6
7/14	1	2	13	5	3 c	0 c	6 c	3	23	30	2 c	2 c	10	2	4
7/15	3	0	2	3 c	2	0	8	3	4	9	0	0	2	6	0
7/16	10 c	9	8	0	0	8	4	0	10	2	0	0	9 c	4	2
7/17	2	4	6	2	3	1	0	2	4	0	2	0	2	2	4
7/18	5	4	3	0	2 c	1 c	0	0 c	6	0	2	0 c	0	2	0
7/19	4	3	4	6	0	1	2	0	0	0	0 c	0	0 c	8	0
7/20	0	5	4	3 c	0	0	0	0	0	0	0	4	2	4	2
7/21	2	5	7	0	0 c	0	0	0	0	2	1	0 c	0	8	0
7/22	1	8	3	0	1	0	0	2 c	0	2	2	0	4 c	0	0 c
7/23	0	3	3	0	0	0	0	2	0	0	0 c	2	0	2	0
7/24	0	0	0	0	1	0	0	0	0	0	2	0	0	2	0
7/25	2	0	0	0	0 c	0	0	0 c	0	0	0	0	2 c	2	0
7/26	2	2	0	0	0	0	0	0	0	0	0 c	0	2	4	2

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Table 7. (page 2 of 2)

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog:[a]	4.1	4.4	4.2	n.a.	4.4	n.a.	8.4	16.5	7.5	29.4	14.2	11.0	15.4	13.1	n.a.
7/27	0	0	1	0	0	0 c	0	0	0	0	0	0	0	0	2 c
7/28	0	0	0	0	0 c	0	2	0	0	0	0	2	0	0	0
7/29	0	0	2	0	0	0	0	0 c	0	0	0 c	0	0 c	0	0
7/30	0 c	0	2	0	0	0	1	0	0	0	0	0	0	2	4
7/31	0	0	0 c	0	1	0	2	0	0	0 c	0	0	0 c	0 c	0
8/01	0	0	1	0	0 c	0	0 c	0 c	0	0	0	2	0	0	0 c
8/02	0 c	0 c	0	2	0	0	0	0	0	0	0	0	0	0	0
8/03	0	2	0	2	0	0 c	0	0	0 c	0	0	2	0 c	0	0
8/04	0 c	0	0 c	0	0 c	0	0	0	0	0 c	0 c	0 c	0	4	0
8/05	0	0 c	0	0	0	0	0	0 c	0	0	0	0	0	0	0
8/06	0	0	1	0 c	0	0	2 c	0	0 c	0 c	0	0	0	0 c	0 c
8/07	0	0	0 c	0	0	0 c	0	0	0	0	0	2	0 c	0	0
8/08	0	0 c	0	0	0 c	0	0	0 c	0	0	0	0 c	0	0	0
8/09	0 c	0	0	0	0	0 c	0	0	0	0 c	0 c	0	0	2	0
8/10	0	0	3	0	0 c	0	0 c	0	0	0	2	0	0 c	0	0
8/11	0	0	0 c	0	0	0	0	0	0 c	0	0	0	0	0	0 c
8/12	0	0 c	0	2	0 c	0 c	0	0 c	2	0	0 c	0 c	0	0 c	0
8/13	0 c	0	0 c	0 c	0	0	0 c	0	0	0	0	0	0 c	0	0
8/14	0	0	0	0	0	0	0	0 c	0 c	0 c	0	0	0	0	0
8/15	0	0 c	0 c	0	0 c	0 c	0	0	0	0	0 c	0	0	0	0
8/16	0 c	0	0	0	0	0	0 c	0	0	0	0	0 c	0 c	0	0
8/17	0	0	0	0 c	0	0	0	0	0 c	0 c	0	0	0	0	0 c
8/18	0	0	0 c	0	0 c	0 c	0	0	0	0	0 c	0	0	0 c	0
8/19	0	0 c	0	0 c	0	0	0	0 c	0	0	0	0 c	0	0	0
8/20	0 c	0	0	0	0 c	0	0 c	0	0 c	0	0	0	0 c	0	0
8/21	0	0	0 c	0 c	0	0	0	0	0	0 c	0	0	0	0	0
8/22	0	0 c	0	0	0	0	0	0	0	0	0 c	0 c	0	0	0 c
8/23	0 c	0	0	0	0	0 c	0	0	0	0	0	0	0 c	0	0
8/24	0	0	1	1 c	0	0	0	0	0 c	0	0	0	0	0	0
8/25	0	0	0 c	0	0	0	0	0	0	0 c	0 c	0	0	0	0
8/26	0	0 c	0	0	0	0 c	0	0 c	0	0	0	0 c	0	0	0
8/27	0 c	0	0	0 c	0 c	0	0 c	0	0 c	0	0 c	0	0	0	0
8/28	0	0	0 c	0	0	0	0	0	0	0 c	0	0	0	0	
8/29	0	0 c		0	0	0 c	0	0	0	0	0	0 c			
8/30	0 c	0		0		0	0	0	0	0	0 c				
8/31	0			0 c	c	0	0	0	0 c	0	0				
9/01	0		c	0		c				c		c			
9/02	0			0							c				
9/03	0 c		c	0 c											
9/04	0			0											
9/05	0			0											
9/06	0 c			0											
9/07			c	0 c											
9/08				0											
9/09				0											
9/10				0											
9/11				0											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X 1,000).

Table 8. Historical cumulative daily CPUE for sockeye salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog:[a]	4.1	4.4	4.2	n.a.	4.4	n.a.	8.4	16.5	7.5	29.4	14.2	11.0	15.4	13.1	n.a.
5/30	4	4													
5/31	4	4													
6/01	4	4				0	0		0	0	0	0	0		
6/02	4	0			0	0	0	0	0	0	0	0	0	0	0
6/03	4	0	0		0	0	0	0	0	0	0	0	0	0	0
6/04	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0
6/05	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0
6/06	4	0	0	9	0	3	0	0	0	0	0	0	3	3	0
6/07	7	0	6	18	0	3	0	0	0	0	0	0	3	3	0
6/08	7	0	14	35	12	3	0	0	0	3	0	0	6	3	0
6/09	7	0	27	48	27	6	0	0	0	6	0	0	15	6	0
6/10	7	0	30	64	38	9	0	0	0	6	0	0	55	6	0
6/11	12	0	50	80	82	29	8	0	0	14	0	0	105	12	0
6/12	12	0	56	191	143	40	11	0	0	20	0	3	125	15	0
6/13	14	0	68	240	191	51	11	3	9	50	0	6	167	20	5
6/14	20	0	73	249	205	78	27	6	22	57	3	13	234	26	11
6/15	20	0	121	290	214	102	41	9	35	60	6	26	287	38	17
6/16	27	0	223	458	221 c	117	60	9	49	83	6	42	355	98	20
6/17	34	0	273	710	247	132	123	21	97	149	16	45	377 c	107	34
6/18	56	3	352	779 c	296	178	139	71	142 c	190	16	64	411	167	34
6/19	56	16	471	796	394	207 c	177	83	151	207	71	92	518	198	46
6/20	70	16 c	505	843	419 c	226	207 c	122 c	167	269	80	98	621 c	258	60
6/21	75	28	650	919	554	278	222	130	194	406	156	164	757	432	77
6/22	101	40	819	1,085	690	336	236	173	230 c	451	185	213 c	785	580	117
6/23	101	137	882	1,440	807	372 c	313	190	269	506	258	235	873	604 c	256
6/24	132	137 c	915	1,582 c	869 c	412	374	196 c	336	596	368 c	266	997 c	612	348 c
6/25	173 c	272	1,141	1,631	898	495	464 c	204	432 c	705 c	404	400	1,123	698	365
6/26	192	400	1,339 c	1,693	1,013	521 c	489	210	451	728	443	475 c	1,245	758	410
6/27	241	526 c	1,541	1,727	1,082	574	532	231	499	749	469	502	1,341	808	448
6/28	260 c	643	1,679	1,768	1,124 c	614	622	270	640	774	492	633	1,405	814	484
6/29	263	899	1,699	1,805	1,133	648	726 c	295	748 c	836	681	694 c	1,482	1,002	582 c
6/30	281	1,049	1,920 c	1,969 c	1,178	688 c	732	315	819	1,264	701	758	1,502	1,040	665
7/01	315	1,239 c	1,935	2,211	1,269	702	756	343 c	854	1,380	714	846	1,513	1,080	712
7/02	361 c	1,293	2,032	2,273	1,297 c	713	780	378	890	1,435	742	915	1,530 c	1,127	849
7/03	385	1,361	2,117 c	2,309 c	1,329	736 c	845	440	967	1,449	932	1,023 c	1,592	1,136	980 c
7/04	420	1,394 c	2,149	2,433	1,383	737	941	476	989	1,505	1,025	1,089	1,626	1,156	1,108
7/05	455 c	1,439	2,191	2,599	1,428 c	742 c	963 c	514	995	1,515	1,097	1,217	1,637 c	1,188	1,150
7/06	479	1,495	2,224	2,611	1,445	745	966	521 c	1,008 c	1,546	1,257	1,249 c	1,646	1,194	1,195
7/07	502	1,553	2,298 c	2,655 c	1,456	759	988	528	1,008	1,566	1,292	1,294	1,669	1,250	1,257
7/08	529	1,556	2,319	2,662	1,469 c	774 c	1,027	528	1,020	1,625	1,336	1,324	1,681 c	1,295	1,377
7/09	547 c	1,579	2,330	2,691	1,478	777	1,055 c	555	1,024	1,631	1,422	1,337	1,726	1,315	1,413
7/10	549	1,584	2,332 c	2,722	1,483	777	1,069	561	1,028	1,635	1,451	1,337 c	1,738	1,339	1,424
7/11	551	1,597	2,341	2,726 c	1,488 c	779 c	1,076	563	1,034	1,639	1,457	1,343	1,743	1,360	1,427 c
7/12	553 c	1,603	2,365	2,729	1,488	784	1,080	566	1,040	1,639	1,461	1,346	1,751 c	1,368	1,430
7/13	553	1,607	2,382	2,736	1,488	788	1,088	569 c	1,059	1,660	1,461	1,350	1,763	1,372	1,436
7/14	554	1,609	2,395	2,741	1,491 c	788 c	1,093 c	572	1,082	1,690	1,463 c	1,352 c	1,772	1,374	1,440
7/15	557	1,609	2,397	2,744 c	1,492	788	1,102	575	1,086	1,698	1,463	1,352	1,774	1,380	1,440
7/16	567 c	1,619	2,404	2,744	1,492	795	1,106	575	1,097	1,700	1,463	1,352	1,783 c	1,383	1,442
7/17	568	1,622	2,411	2,746	1,496	797	1,106	577	1,101	1,700	1,465	1,352	1,784	1,385	1,446
7/18	573	1,626	2,414	2,746	1,498 c	798 c	1,106	577 c	1,107	1,700	1,468	1,352 c	1,784	1,387	1,446
7/19	577	1,629	2,418	2,752	1,498	799	1,108	577	1,107	1,700	1,468 c	1,352	1,784 c	1,395	1,446
7/20	577	1,635	2,421	2,755 c	1,498	799	1,108	577	1,107	1,700	1,468	1,357	1,786	1,399	1,448
7/21	579	1,639	2,428	2,755	1,498 c	799	1,108	577	1,107	1,703	1,469	1,357 c	1,786	1,406	1,448
7/22	580	1,648	2,431	2,755	1,499	799	1,108	579 c	1,107	1,705	1,471	1,357	1,790 c	1,406	1,448 c
7/23	580	1,651	2,434	2,755	1,499	799	1,108	581	1,107	1,705	1,471 c	1,359	1,790	1,408	1,448
7/24	580	1,651	2,434	2,755	1,500	799	1,108	581	1,107	1,705	1,473	1,359	1,790	1,410	1,448
7/25	582	1,651	2,434	2,755	1,500 c	799	1,108	581 c	1,107	1,705	1,473	1,359	1,792 c	1,412	1,448
7/26	583	1,653	2,434	2,755	1,500	799	1,108	581	1,107	1,705	1,473 c	1,359	1,794	1,416	1,450

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Table 8. (page 2 of 2)

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog:[a]	4.1	4.4	4.2	n.a.	4.4	n.a.	8.4	16.5	7.5	29.4	14.2	11.0	15.4	13.1	n.a.
7/27	583	1,653	2,435	2,755	1,500	799 c	1,108	581	1,107	1,705	1,473	1,359	1,794	1,416	1,452 c
7/28	583	1,653	2,435	2,755	1,500 c	799	1,109	581	1,107	1,705	1,473	1,361	1,794	1,416	1,452
7/29	583	1,653	2,437	2,755	1,500	799	1,109	581 c	1,107	1,705	1,473 c	1,361	1,794 c	1,416	1,452
7/30	583 c	1,653	2,439	2,755	1,500	799	1,111	581	1,107	1,705	1,473	1,361	1,794	1,418	1,456
7/31	583	1,653	2,439 c	2,755	1,501	799	1,113	581	1,107	1,705 c	1,473	1,361	1,794 c	1,418 c	1,456
8/01	583	1,653	2,441	2,755	1,501 c	799	1,113 c	581 c	1,107	1,705	1,473	1,363	1,794	1,418	1,456 c
8/02	583 c	1,653 c	2,441	2,757	1,501	799	1,113	581	1,107	1,705	1,473	1,363	1,794	1,418	1,456
8/03	583	1,654	2,441	2,759	1,501	799 c	1,113	581	1,107 c	1,705	1,473	1,365	1,794 c	1,418	1,456
8/04	583 c	1,654	2,441 c	2,759	1,501 c	799	1,113	581	1,107	1,705 c	1,473 c	1,365 c	1,794	1,422	1,456
8/05	583	1,654 c	2,441	2,759	1,501	799	1,113	581 c	1,107	1,705	1,473	1,365	1,794	1,422	1,456
8/06	583	1,654	2,442	2,759 c	1,501	799	1,114 c	581	1,107 c	1,705 c	1,473	1,365	1,794	1,422 c	1,456 c
8/07	583	1,654	2,442 c	2,759	1,501	799 c	1,114	581	1,107	1,705	1,473	1,367	1,794 c	1,422	1,456
8/08	583	1,654 c	2,442	2,759	1,501 c	799	1,114	581 c	1,107	1,705	1,473	1,367 c	1,794	1,422	1,456
8/09	583 c	1,654	2,442	2,759	1,501	799 c	1,114	581	1,107	1,705 c	1,473 c	1,367	1,794	1,424	1,456
8/10	583	1,654	2,444	2,759	1,501 c	799	1,114 c	581	1,107	1,705	1,475	1,367	1,794 c	1,424	1,456
8/11	583	1,654	2,444 c	2,759	1,501	799	1,114	581	1,107 c	1,705	1,475	1,367	1,794	1,424	1,456 c
8/12	583	1,654 c	2,444	2,761	1,501 c	799 c	1,114	581 c	1,109	1,705	1,475 c	1,367 c	1,794	1,424 c	1,456
8/13	583 c	1,654	2,444 c	2,761 c	1,501	799	1,114 c	581	1,109	1,705	1,475	1,367	1,794 c	1,424	1,456
8/14	583	1,654	2,444	2,761	1,501	799	1,114	581 c	1,109 c	1,705 c	1,475	1,367	1,794	1,424	1,456
8/15	583	1,654 c	2,444 c	2,761	1,501 c	799 c	1,114	581	1,109	1,705	1,475 c	1,367	1,794	1,424	1,456
8/16	583 c	1,654	2,444	2,761	1,501	799	1,114 c	581	1,109	1,705	1,475	1,367 c	1,794 c	1,424	1,456
8/17	583	1,654	2,444	2,761 c	1,501	799	1,114	581	1,109 c	1,705 c	1,475	1,367	1,794	1,424	1,456 c
8/18	583	1,654	2,444 c	2,761	1,501 c	799 c	1,114	581	1,109	1,705	1,475 c	1,367	1,794	1,424 c	1,456
8/19	583	1,654 c	2,444	2,761 c	1,501	799	1,114	581 c	1,109	1,705	1,475	1,367 c	1,794	1,424	1,456
8/20	583 c	1,654	2,444	2,761	1,501 c	799	1,114 c	581	1,109 c	1,705	1,475	1,367	1,794 c	1,424	1,456
8/21	583	1,654	2,444 c	2,761 c	1,501	799	1,114	581	1,109	1,705 c	1,475	1,367	1,794	1,424	1,456
8/22	583	1,654 c	2,444	2,761	1,501	799	1,114	581	1,109	1,705	1,475 c	1,367 c	1,794	1,424	1,456 c
8/23	583 c	1,654	2,444	2,761	1,501	799 c	1,114	581	1,109	1,705	1,475	1,367	1,794 c	1,424	1,456
8/24	583	1,654	2,445	2,762 c	1,501	799	1,114	581	1,109 c	1,705	1,475	1,367	1,794	1,424	1,456
8/25	583	1,654	2,445 c	2,762	1,501	799	1,114	581	1,109	1,705 c	1,475 c	1,367	1,794	1,424	1,456
8/26	583	1,654 c	2,445	2,762	1,501	799 c	1,114	581 c	1,109	1,705	1,475	1,367 c	1,794	1,424	1,456
8/27	583 c	1,654	2,445	2,762 c	1,501 c	799	1,114 c	581	1,109 c	1,705	1,475 c	1,367	1,794	1,424	
8/28	583	1,654	2,445 c	2,762	1,501	799	1,114	581	1,109	1,705 c	1,475	1,367	1,794	1,424	
8/29	583	1,654 c		2,762	1,501	799 c	1,114	581	1,109	1,705	1,475	1,367 c			
8/30	583 c	1,654		2,762		799	1,114	581	1,109	1,705	1,475 c				
8/31	583			2,762 c	c	799	1,114	581	1,109 c	1,705	1,475				
9/01	583			c 2,762		c				c			c		
9/02	583			2,762								c			
9/03	583 c			c 2,762 c											
9/04	583			2,762											
9/05	583			2,762											
9/06	583 c			2,762											
9/07				c 2,762 c											
9/08				2,762											
9/09				2,762											
9/10				2,762											
9/11				2,762											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X 1,000).

Table 9. Historical cumulative daily percent passage of sockeye salmon in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
6/01	0	0				0	0		0	0	0	0	0			0
6/02	0	0			0	0	0	0	0	0	0	0	0	0	0	0
6/03	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
6/04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/07	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6/08	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
6/09	0	0	1	2	2	1	0	0	0	0	0	0	1	0	0	0
6/10	0	0	1	2	3	1	0	0	0	0	0	0	3	0	0	1
6/11	1	0	2	3	5	4	1	0	0	1	0	0	6	1	0	2
6/12	1	0	2	7	10	5	1	0	0	1	0	0	7	1	0	2
6/13	2	0	3	9	13	6	1	0	1	3	0	0	9	1	0	3
6/14	3	0	3	9	14	10	2	1	2	3	0	1	13	2	1	4
6/15	3	0	5	11	14	13	4	1	3	4	0	2	16	3	1	5
6/16	4	0	9	17	15	15	5	1	4	5	0	3	20	7	1	7
6/17	5	0	11	26	16	17	11	4	9	9	1	3	21	8	2	9
6/18	9	0	14	28	20	22	12	12	13	11	1	5	23	12	2	12
6/19	9	1	19	29	26	26	16	14	14	12	5	7	29	14	3	15
6/20	11	1	21	31	28	28	19	21	15	16	5	7	35	18	4	17
6/21	12	2	27	33	37	35	20	22	18	24	11	12	42	30	5	22
6/22	17	2	33	39	46	42	21	30	21	26	13	16	44	41	8	27
6/23	17	8	36	52	54	47	28	33	24	30	18	17	49	42	18	31
6/24	22	8	37	57	58	52	34	34	30	35	25	19	56	43	24	36
6/25	29	16	47	59	60	62	42	35	39	41	27	29	63	49	25	42
6/26	32	24	55	61	68	65	44	36	41	43	30	35	69	53	28	46
6/27	41	32	63	63	72	72	48	40	45	44	32	37	75	57	31	50
6/28	44	39	69	64	75	77	56	46	58	45	33	46	78	57	33	55
6/29	45	54	69	65	76	81	65	51	67	49	46	51	83	70	40	61
6/30	48	63	79	71	78	86	66	54	74	74	47	55	84	73	46	67
7/01	54	75	79	80	85	88	68	59	77	81	48	62	84	76	49	71
7/02	62	78	83	82	86	89	70	65	80	84	50	67	85	79	58	75
7/03	66	82	87	84	89	92	76	76	87	85	63	75	89	80	67	80
7/04	72	84	88	88	92	92	84	82	89	88	69	80	91	81	76	84
7/05	78	87	90	94	95	93	86	89	90	89	74	89	91	83	79	87
7/06	82	90	91	95	96	93	87	90	91	91	85	91	92	84	82	89
7/07	86	94	94	96	97	95	89	91	91	92	88	95	93	88	86	92
7/08	91	94	95	96	98	97	92	91	92	95	91	97	94	91	95	94
7/09	94	95	95	97	99	97	95	96	92	96	96	98	96	92	97	96
7/10	94	96	95	99	99	97	96	97	93	96	98	98	97	94	98	96
7/11	94	97	96	99	99	98	97	97	93	96	99	98	97	96	98	97
7/12	95	97	97	99	99	98	97	98	94	96	99	98	98	96	98	97
7/13	95	97	97	99	99	99	98	98	95	97	99	99	98	96	99	98
7/14	95	97	98	99	99	99	98	99	98	99	99	99	99	96	99	98
7/15	95	97	98	99	99	99	99	99	98	100	99	99	99	97	99	98

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Table 9. (page 2 of 2)

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
7/16	97	98	98	99	99	100	99	99	99	100	99	99	99	97	99	99
7/17	97	98	99	99	100	100	99	99	99	100	99	99	99	97	99	99
7/18	98	98	99	99	100	100	99	99	100	100	99	99	99	97	99	99
7/19	99	98	99	100	100	100	99	99	100	100	99	99	99	98	99	99
7/20	99	99	99	100	100	100	99	99	100	100	99	99	100	98	99	99
7/21	99	99	99	100	100	100	99	99	100	100	100	99	100	99	99	99
7/22	99	100	99	100	100	100	99	100	100	100	100	99	100	99	99	100
7/23	99	100	100	100	100	100	99	100	100	100	100	99	100	99	99	100
7/24	99	100	100	100	100	100	99	100	100	100	100	99	100	99	99	100
7/25	100	100	100	100	100	100	99	100	100	100	100	99	100	99	99	100
7/26	100	100	100	100	100	100	99	100	100	100	100	99	100	99	100	100
7/27	100	100	100	100	100	100	99	100	100	100	100	99	100	99	100	100
7/28	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100
7/29	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100
7/30	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7/31	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/01	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/02	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/03	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/04	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/05	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/06	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/07	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/08	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/09	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/10	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/11	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/12	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/13	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/14	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/16	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/17	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/18	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/19	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/21	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/22	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/23	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/24	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/27	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/28	100	100	100	100	100	100	100	100	100	100	100	100	100	100		100
8/29	100	100		100	100	100	100	100	100	100	100	100				100

[a] The rectangles represent the central fifty percent of the run for that year based on the test-fish index; the shaded numbers represent the median dates of passage.

Table 10. Historical daily CPUE for chum salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	41.5	15.0	14.7	n.a.	41.9	39.6	26.8	24.2	34.1	31.9	46.2	31.3	48.5	7.9	n.a
5/30	0	0													
5/31	0	0													
6/01	0	0				3	0		0	0	0	0	0		
6/02	0	0			0	0	0	0	0	0	10	0	0	0	0
6/03	0	0	0		0	0	0	0	0	0	8	0	0	0	0
6/04	5	0	0	0	0	0	0	0	0	0	3	0	0	3	0
6/05	0	0	6	3	9	3	0	0	0	0	0	0	15	0	0
6/06	0	0	10	12	0	0	3	0	7	3	7	0	29	0	0
6/07	0	0	0	6	3	6	0	0	3	0	3	0	12	0	0
6/08	2	0	8	9	11	10	0	0	3	0	0	0	23	0	0
6/09	10	0	28	15	38	9	0	0	3	0	10	0	35	0	6
6/10	10	0	6	6	29	12	0	0	6	6	0	0	54	0	0
6/11	3	0	9	21	63	3	0	0	12	8	3	6	67	0	0
6/12	15	0	9	13	91	17	3	3	9	0	13	0	65	5	3
6/13	8	3	0	19	87	20	0	0	44	9	28	3	175	0	8
6/14	11	0	9	3	19	7	13	6	21	7	56	6	321	0	3
6/15	5	3	38	10	45	36	0	0	105	13	143	26	204	9	6
6/16	31	3	46	42	26 c	24	3	0	116	3	59	48	168	17	9
6/17	41	8	121	122	56	4	22	0	55	10	52	51	171 c	12	3
6/18	75	8	108	41 c	195	49	20	0	43 c	35	20	63	187	34	0
6/19	9	65	151	6	160	68 c	28	0	0	0	263	36	594	14	0
6/20	20	115 c	64	60	50 c	44	9 c	25 c	33	11	26	80	742 c	26	0
6/21	52	3	87	24	143	76	30	3	58	44	278	153	820	119	18
6/22	8	25	104	200	251	56	22	9	49 c	95	125	94 c	357	53	26
6/23	108	28	203	103	246	79 c	53	14	53	65	190	111	498	20 c	190
6/24	167	3 c	112	48 c	86 c	167	77	6 c	29	126	112 c	51	665 c	48	164 c
6/25	166 c	52	460	66	16	208	32 c	9	39 c	107 c	10	219	513	59	23
6/26	86	65	177 c	100	63	111 c	49	32	43	0	17	157 c	325	111	39
6/27	109	58 c	109	87	306	134	168	58	212	7	16	25	90	32	110
6/28	105 c	24	35	105	109 c	78	72	50	107	13	7	59	80	0	110
6/29	22	180	6	268	108	122	87 c	64	130 c	30	111	146 c	93	83	296 c
6/30	59	177	105 c	246 c	88	106 c	32	8	136	153	7	111	63	23	91
7/01	115	77 c	3	152	382	115	67	30 c	124	120	10	164	92	50	82
7/02	160 c	31	70	120	188 c	66	28	91	43	19	19	144	114 c	20	230
7/03	66	24	193 c	34 c	437	78 c	200	22	267	125	192	291 c	67	59	98 c
7/04	209	5 c	123	62	469	57	214	33	322	82	141	168	112	20	70
7/05	163 c	40	309	177	192 c	182 c	188 c	6	189	78	88	214	149 c	78	53
7/06	48	25	140	389	120	59	26	12 c	105 c	39	383	58 c	128	41	65
7/07	60	93	62 c	463 c	27	117	173	12	13	24	245	274	41	129	141
7/08	48	3	68	38	34 c	65 c	136	9	139	71	732	271	23 c	110	234
7/09	52 c	5	246	272	92	57	61 c	60	48	31	394	219	32	76	84
7/10	39	0	34 c	208	148	66	81	46	46	28	253	27 c	133	33	42
7/11	7	0	87	63 c	83 c	3 c	78	26	48	37	69	98	31	42	11 c
7/12	16 c	3	163	53	65	7	74	43	59	62	33	73	37 c	54	3
7/13	16	10	134	87	63	55	23	21 c	51	270	108	49	82	45	4
7/14	7	0	25	255	38 c	35 c	33 c	28	49	67	57 c	66 c	52	20	1
7/15	91	0	10	61 c	69	11	24	20	27	140	38	30	121	64	0
7/16	24 c	6	16	33	82	20	37	12	21	88	32	17	113 c	52	4
7/17	15	32	43	107	64	17	24	16	23	75	15	15	81	20	0
7/18	14	9	43	125	57 c	23 c	59	51 c	25	53	48	21 c	42	53	4
7/19	16	19	50	202	16	16	66	16	29	94	26 c	8	96 c	33	10
7/20	9	7	36	170 c	29	29	73	16	4	52	9	38	52	33	14
7/21	18	5	52	23	36 c	13	57	40	3	51	0	35 c	57	36	14
7/22	1	12	34	12	10	7	40	57 c	0	134	82	42	68 c	15	7 c
7/23	9	6	26	8	6	13	35	33	23	28	38 c	43	19	14	4
7/24	3	2	29	28	24	0	24	12	6	9	55	27	42	44	4
7/25	8	9	11	41	15 c	4	8	56 c	10	0	26	16	25 c	34	6
7/26	7	6	2	20	13	0	2	8	7	2	9 c	27	24	20	7

- continued -

Table 10. (page 2 of 2)

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	41.5	15.0	14.7		41.9	39.6	26.8	24.2	34.1	31.9	46.2	31.3	48.5	7.9	n.a
7/27	7	2	3	4	18	0 c	18	49	8	7	9	17	19	6	6 c
7/28	3	4	7	6	10 c	0	35	18	9	4	18	24	6	6	0
7/29	8	10	11	5	13	1	36	36 c	4	5	11 c	9	8 c	16	2
7/30	6 c	4	5	2	23	0	9	14	6	2	6	2	11	2	12
7/31	1	1	0 c	1	6	14	2	24	0	6 c	14	10	2 c	2 c	0
8/01	2	0	5	4	5 c	6	6 c	8 c	0	5	16	8	4	8	0 c
8/02	3 c	1 c	0	3	4	8	6	6	15	7	10	2	5	10	0
8/03	3	2	4	9	6	4 c	6	12	2 c	2	2	12	0 c	18	4
8/04	6 c	8	0 c	11	3 c	1	2	10	0	11 c	2 c	6 c	0	14	6
8/05	2	0 c	0	3	3	0	1	0 c	0	9	2	2	0	0	0
8/06	0	4	3	4 c	7	3	23 c	2	4 c	2 c	0	4	0	0 c	0 c
8/07	0	6	1 c	0	19	2 c	6	2	0	0	4	4	0 c	2	0
8/08	0	0 c	0	0	3 c	0	0	5 c	0	0	9	0 c	0	2	2
8/09	0 c	0	2	2	3	2 c	4	2	4	0 c	7 c	0	0	4	0
8/10	0	36	0	2	4 c	0	2 c	3	0	0	2	0	2 c	2	2
8/11	0	1	0 c	0	3	0	2	4	2 c	0	4	2	0	4	0 c
8/12	0	0 c	0	0	2 c	0 c	4	3 c	6	0	2 c	0 c	0	0 c	0
8/13	0 c	0	0 c	0 c	0	0	0 c	2	0	0	0	0	0 c	0	4
8/14	0	0	2	0	0	0	0	0 c	0 c	0 c	0	2	0	0	0
8/15	0	0 c	2 c	4	0 c	0 c	2	2	0	0	0 c	0	0	0	0
8/16	0 c	0	0	1	0	0	2 c	0	0	0	2	0 c	0 c	0	0
8/17	0	0	0	0 c	0	0	0	2	0 c	0 c	0	0	0	0	0 c
8/18	2	0	0 c	0	0 c	0 c	0	2	0	0	2 c	0	0	0 c	0
8/19	0	0 c	0	0 c	0	0	0	0 c	0	2	0	0 c	0	0	0
8/20	0 c	0	0	0	0 c	0	0 c	0	0 c	0	0	0	0 c	2	2
8/21	0	0	0 c	0 c	0	0	0	0	0	0 c	0	0	0	2	0
8/22	0	0 c	0	0	0	0	2	0	0	0	0 c	2 c	0	0	0 c
8/23	0 c	0	0	0	0	0 c	0	0	0	0	0	0	0 c	2	0
8/24	0	0	0	0 c	0	0	0	0	0 c	0	0	0	0	0	0
8/25	0	0	0 c	0	0	0	0	0	0	0 c	0 c	0	0	0	0
8/26	0	0 c	0	0	0	0 c	0	0 c	0	0	0	0 c	0	0	0
8/27	0 c	0	0	0 c	0 c	0	2 c	0	0 c	0	0 c	0	0	0	
8/28	0	0	0 c	0	0	0	0	0	0	0 c	0	0	0	0	
8/29	0	0 c		0	0	0 c	0	0	0	2	0	0 c			
8/30	0 c	0		0		0	0	0	0	0	0 c				
8/31	0			0 c	c	0	0	0	0 c	0					
9/01	0		c	0		c				c		c			
9/02	0			0							c				
9/03	0 c		c	0 c											
9/04	0			0											
9/05	0			0											
9/06	0 c			0											
9/07			c	0 c											
9/08				0											
9/09				0											
9/10				0											
9/11				0											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 30,000 was not achieved.

Table 11. Historical cumulative daily CPUE for chum salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	41.5	15.0	14.7	n.a.	41.9	39.6	26.8	24.2	34.1	31.9	46.2	31.3	48.5	7.9	n.a
5/30	0	0													
5/31	0	0													
6/01	0	0				3	0		0	0	0	31	49		
6/02	0	0			0	3	0	0	0	0	10	31	49	0	0
6/03	0	0	0		0	3	0	0	0	0	18	31	49	0	0
6/04	5	0	0	0	0	3	0	0	0	0	21	31	49	3	0
6/05	5	0	6	3	9	6	0	0	0	0	21	31	64	3	0
6/06	5	0	16	16	9	6	3	0	7	3	28	31	93	3	0
6/07	5	0	16	22	12	11	3	0	10	3	31	31	105	3	0
6/08	7	0	24	30	23	22	3	0	13	3	31	31	128	3	0
6/09	17	0	53	45	61	30	3	0	16	3	41	31	164	3	0
6/10	28	0	59	52	90	42	3	0	22	9	41	31	218	3	0
6/11	30	0	68	72	153	45	3	0	34	17	44	38	285	3	0
6/12	45	0	77	86	244	62	6	3	43	17	57	38	350	8	0
6/13	53	3	77	105	331	82	6	3	87	27	86	41	525	8	5
6/14	63	3	86	108	350	90	18	9	108	33	142	47	846	8	11
6/15	68	5	124	117	395	126	18	9	212	46	285	73	1,050	17	17
6/16	100	8	170	159	421 c	150	21	9	328	49	343	122	1,218	34	20
6/17	141	16	290	281	477	154	43	9	383	59	395	172	1,389	45	34
6/18	216	25	398	322 c	671	203	63	9	426 c	93	416	235	1,575	79	34
6/19	225	90	549	328	832	271 c	91	9	426	93	678	271	2,170	93	46
6/20	245	205 c	613	388	881 c	315	100 c	34 c	460	105	705	351	2,912 c	119	60
6/21	297	207	700	412	1,025	391	130	37	518	149	983	504	3,732	238	77
6/22	305	232	804	613	1,276	446	152	46	567 c	244	1,107	598 c	4,089	290	117
6/23	413	260	1,007	715	1,522	525 c	205	60	620	310	1,297	709	4,587	310 c	256
6/24	580	263 c	1,119	763 c	1,608 c	692	282	66 c	649	436	1,408 c	760	5,253	358	348 c
6/25	746 c	315	1,579	829	1,624	900	314 c	74	688 c	543 c	1,419	979	5,765 c	417	365
6/26	832	380	1,756 c	928	1,687	1,011 c	363	106	732	543	1,435	1,137 c	6,091	528	410
6/27	941	438 c	1,865	1,015	1,993	1,145	531	163	943	550	1,451	1,161	6,180	560	448
6/28	1,045 c	463	1,901	1,120	2,101 c	1,223	603	213	1,050	563	1,458	1,221	6,260	560	484
6/29	1,068	643	1,907	1,389	2,210	1,345	690 c	277	1,180 c	594	1,569	1,367 c	6,353 c	643	582 c
6/30	1,126	820	2,012 c	1,635 c	2,298	1,452 c	722	285	1,316	746	1,575	1,478	6,416	666	665
7/01	1,241	896 c	2,015	1,787	2,680	1,567	789	315 c	1,440	866	1,585	1,642	6,508	716	712
7/02	1,401 c	928	2,085	1,906	2,868 c	1,633	817	406	1,483	885	1,604	1,786	6,622	736	849
7/03	1,467	952	2,277 c	1,941 c	3,306	1,711 c	1,017	427	1,750	1,010	1,796	2,077 c	6,689	794	980 c
7/04	1,677	957 c	2,401	2,003	3,775	1,768	1,231	461	2,072	1,092	1,937	2,244	6,801	815	1,108
7/05	1,840 c	997	2,709	2,180	3,966 c	1,950 c	1,419 c	466	2,261	1,170	2,025	2,458	6,950 c	892	1,150
7/06	1,888	1,022	2,850	2,569	4,086	2,009	1,445	478 c	2,366 c	1,209	2,408	2,517 c	7,078	933	1,195
7/07	1,948	1,115	2,912 c	3,032 c	4,114	2,126	1,618	490	2,379	1,233	2,653	2,790	7,119	1,061	1,257
7/08	1,996	1,118	2,979	3,070	4,148 c	2,190 c	1,754	499	2,518	1,304	3,385	3,061	7,142	1,171	1,377
7/09	2,048 c	1,123	3,225	3,342	4,240	2,247	1,815 c	559	2,567	1,335	3,779	3,280	7,173 c	1,247	1,413
7/10	2,087	1,123	3,260 c	3,550	4,388	2,314	1,896	605	2,613	1,363	4,031	3,306 c	7,307	1,280	1,424
7/11	2,093	1,123	3,347	3,612 c	4,471 c	2,317 c	1,975	631	2,661	1,400	4,100	3,405	7,338	1,323	1,427 c
7/12	2,109 c	1,126	3,510	3,665	4,536	2,324	2,048	674	2,719	1,461	4,133	3,478	7,374	1,377	1,430
7/13	2,125	1,137	3,644	3,752	4,599	2,379	2,071	695 c	2,770	1,731	4,241	3,526	7,456	1,421	1,436
7/14	2,132	1,137	3,669	4,007	4,637 c	2,414 c	2,104 c	723	2,820	1,798	4,298 c	3,592 c	7,508 c	1,441	1,440
7/15	2,224	1,137	3,679	4,068 c	4,706	2,424	2,128	743	2,846	1,938	4,336	3,622	7,629	1,505	1,440
7/16	2,248 c	1,142	3,696	4,101	4,788	2,445	2,165	755	2,867	2,026	4,368	3,640	7,742	1,556	1,442
7/17	2,262	1,174	3,739	4,208	4,852	2,462	2,190	770	2,890	2,101	4,383	3,655	7,823	1,577	1,446
7/18	2,276	1,183	3,782	4,333	4,909 c	2,485 c	2,249	821 c	2,915	2,154	4,431	3,676 c	7,865	1,630	1,446
7/19	2,292	1,202	3,831	4,535	4,925	2,501	2,315	837	2,944	2,248	4,457 c	3,684	7,961	1,662	1,446
7/20	2,301	1,209	3,867	4,706 c	4,954	2,530	2,388	853	2,948	2,299	4,465	3,722	8,014	1,695	1,448
7/21	2,318	1,214	3,919	4,729	4,990 c	2,543	2,445	894	2,952	2,350	4,465	3,757 c	8,071	1,732	1,448
7/22	2,319	1,225	3,953	4,740	4,999	2,551	2,485	951 c	2,952	2,484	4,547	3,799	8,138	1,747	1,448 c
7/23	2,328	1,231	3,979	4,748	5,005	2,564	2,520	983	2,975	2,512	4,585 c	3,842	8,158	1,761	1,448
7/24	2,331	1,233	4,008	4,776	5,030	2,564	2,544	995	2,981	2,521	4,641	3,868	8,199	1,805	1,448
7/25	2,339	1,243	4,019	4,817	5,045 c	2,568	2,552	1,051 c	2,991	2,521	4,666	3,884	8,224	1,839	1,448
7/26	2,346	1,249	4,021	4,837	5,058	2,568	2,554	1,059	2,999	2,523	4,675 c	3,911	8,249	1,858	1,450

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Table 11. (page 2 of 2)

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	42	15	15		42	40	27	24	34	32	46	31	49	8	n.a
7/27	2,353	1,251	4,023	4,841	5,075	2,568 c	2,572	1,108	3,006	2,530	4,684	3,928	8,267	1,864	2,299 c
7/28	2,356	1,255	4,031	4,847	5,085 c	2,568	2,607	1,126	3,015	2,534	4,702	3,952	8,273	1,870	2,299
7/29	2,364	1,265	4,042	4,852	5,098	2,570	2,643	1,162 c	3,019	2,539	4,712 c	3,960	8,281	1,886	2,301
7/30	2,370 c	1,269	4,047	4,854	5,120	2,570	2,651	1,175	3,025	2,541	4,719	3,963	8,291	1,888	2,313
7/31	2,370	1,270	4,047 c	4,856	5,126	2,584	2,653	1,199	3,025	2,547 c	4,732	3,973	8,293	1,890 c	2,313
8/01	2,372	1,270	4,051	4,860	5,131 c	2,590	2,659 c	1,207 c	3,025	2,552	4,748	3,981	8,297 c	1,898	2,313 c
8/02	2,375 c	1,271 c	4,051	4,863	5,135	2,598	2,665	1,213	3,040	2,558	4,759	3,983	8,302	1,907	2,313
8/03	2,378	1,272	4,055	4,872	5,142	2,602 c	2,671	1,224	3,042 c	2,561	4,761	3,995	8,302	1,925	2,317
8/04	2,383 c	1,281	4,055 c	4,884	5,145 c	2,603	2,672	1,234	3,042	2,571 c	4,763 c	4,002 c	8,302	1,939	2,322
8/05	2,385	1,281 c	4,055	4,887	5,148	2,603	2,673	1,234 c	3,042	2,581	4,765	4,004	8,302	1,939	2,322
8/06	2,385	1,285	4,058	4,891 c	5,155	2,606	2,697 c	1,236	3,046 c	2,583 c	4,765	4,008	8,302 c	1,939 c	2,322 c
8/07	2,385	1,290	4,059 c	4,891	5,174	2,608 c	2,703	1,238	3,046	2,583	4,769	4,012	8,302	1,941	2,322
8/08	2,385	1,290 c	4,059	4,891	5,177 c	2,608	2,703	1,243 c	3,046	2,583	4,778	4,012 c	8,302	1,943	2,324
8/09	2,385 c	1,290	4,062	4,893	5,180	2,610 c	2,707	1,245	3,050	2,583 c	4,785 c	4,012	8,302	1,947	2,324
8/10	2,385	1,326	4,062	4,895	5,184 c	2,610	2,708 c	1,248	3,050	2,583	4,787	4,012	8,304 c	1,949	2,326
8/11	2,385	1,327	4,062 c	4,895	5,187	2,610	2,710	1,252	3,052 c	2,583	4,791	4,015	8,304	1,953	2,326 c
8/12	2,385	1,327 c	4,062	4,895	5,189 c	2,610 c	2,714	1,255 c	3,058	2,583	4,793 c	4,015 c	8,304	1,953 c	2,326
8/13	2,385 c	1,327	4,062 c	4,895 c	5,189	2,610	2,714 c	1,257	3,058	2,583	4,793	4,015	8,304 c	1,953	2,330
8/14	2,385	1,327	4,063	4,895	5,189	2,610	2,714	1,257 c	3,058 c	2,583 c	4,793	4,017	8,304	1,953	2,330
8/15	2,385	1,327 c	4,066 c	4,899	5,189 c	2,610 c	2,716	1,258	3,058	2,583	4,793 c	4,017	8,304	1,953	2,330
8/16	2,385 c	1,327	4,066	4,900	5,189	2,610	2,718 c	1,258	3,058	2,583	4,795	4,017 c	8,304 c	1,953	2,330
8/17	2,385	1,327	4,066	4,900 c	5,189	2,610	2,718	1,260	3,058 c	2,583 c	4,795	4,017	8,304	1,953	2,330 c
8/18	2,387	1,327	4,066 c	4,900	5,189 c	2,610 c	2,718	1,262	3,058	2,583	4,797 c	4,017	8,304	1,953 c	2,330
8/19	2,387	1,327 c	4,066	4,900 c	5,189	2,610	2,718	1,262 c	3,058	2,585	4,797	4,017 c	8,304	1,953	2,330
8/20	2,387 c	1,327	4,066	4,900	5,189 c	2,610	2,718 c	1,262	3,058 c	2,585	4,797	4,017	8,304 c	1,955	2,332
8/21	2,387	1,327	4,066 c	4,900 c	5,189	2,610	2,718	1,262	3,058	2,585 c	4,797	4,017	8,304	1,957	2,332
8/22	2,387	1,327 c	4,066	4,900	5,189	2,610	2,720	1,262	3,058	2,585	4,797 c	4,019 c	8,304	1,957	2,332 c
8/23	2,387 c	1,327	4,066	4,900	5,189	2,610 c	2,720	1,262	3,058	2,585	4,797	4,019	8,304	1,959	2,332
8/24	2,387	1,327	4,066	4,900 c	5,189	2,610	2,720	1,262	3,058 c	2,585	4,797	4,019	8,304	1,959	2,332
8/25	2,387	1,327	4,066 c	4,900	5,189	2,610	2,720	1,262	3,058	2,585 c	4,797 c	4,019	8,304	1,959	2,332
8/26	2,387	1,327 c	4,066	4,900	5,189	2,610 c	2,720	1,262 c	3,058	2,585	4,797	4,019 c	8,304	1,959	2,332
8/27	2,387 c	1,327	4,066	4,900 c	5,189 c	2,610	2,722 c	1,262	3,058 c	2,585	4,797 c	4,019	8,304 c	1,959	
8/28	2,387	1,327	4,066 c	4,900	5,189	2,610	2,722	1,262	3,058	2,585 c	4,797	4,019	8,304	1,959	
8/29	2,387	1,327 c		4,900	5,189	2,610 c	2,722	1,262	3,058	2,587	4,797	4,019 c			
8/30	2,387 c	1,327		4,900		2,610	2,722	1,262	3,058	2,587	4,797 c				
8/31	2,387			4,900 c	c	2,610	2,722	1,262	3,058 c	2,587					
9/01	2,387		c	4,900		c				c		c			
9/02	2,387			4,900							c				
9/03	2,387 c		c	4,900 c											
9/04	2,387			4,900											
9/05	2,387			4,900											
9/06	2,387 c			4,900											
9/07			c	4,900 c											
9/08				4,900											
9/09				4,900											
9/10				4,900											
9/11				4,900											

"c" indicates days when commercial fishing periods occured in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 30,000 was not achieved.

Table 12. Historical cumulative daily percent passage of chum salmon in the Bethel test fishery, 1984 - 1998

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
6/01	0	0				0	0		0	0	0	0	0			0
6/02	0	0			0	0	0	0	0	0	0	0	0	0	0	0
6/03	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
6/04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/06	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
6/07	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
6/08	0	0	1	1	0	1	0	0	0	0	1	0	1	0	0	0
6/09	1	0	1	1	1	1	0	0	1	0	1	0	1	0	0	1
6/10	1	0	1	1	2	2	0	0	1	0	1	0	2	0	0	1
6/11	1	0	2	1	3	2	0	0	1	1	1	0	3	0	0	1
6/12	2	0	2	2	5	2	0	0	1	1	1	0	4	0	0	1
6/13	2	0	2	2	6	3	0	0	3	1	2	0	6	0	1	2
6/14	3	0	2	2	7	3	1	1	4	1	3	0	10	0	1	3
6/15	3	0	3	2	8	5	1	1	7	2	6	1	12	1	1	3
6/16	4	1	4	3	8	6	1	1	11	2	7	2	14	2	1	4
6/17	6	1	7	6	9	6	2	1	13	2	8	4	16	2	2	6
6/18	9	2	10	7	13	8	2	1	14	4	9	5	18	4	2	7
6/19	9	7	14	7	16	10	3	1	14	4	14	6	26	5	2	9
6/20	10	15	15	8	17	12	4	3	15	4	15	8	35	6	2	11
6/21	12	16	17	8	20	15	5	3	17	6	20	12	45	12	2	14
6/22	13	17	20	13	25	17	6	4	19	9	23	14	49	15	3	16
6/23	17	20	25	15	29	20	8	5	20	12	27	17	55	16	12	20
6/24	24	20	28	16	31	27	10	5	21	17	29	18	63	18	19	23
6/25	31	24	39	17	31	34	12	6	23	21	30	24	69	21	20	27
6/26	35	29	43	19	33	39	13	8	24	21	30	28	73	27	21	30
6/27	39	33	46	21	38	44	20	13	31	21	30	28	74	29	26	33
6/28	44	35	47	23	40	47	22	17	34	22	30	30	75	29	31	35
6/29	45	48	47	28	43	52	25	22	39	23	33	33	76	33	43	39
6/30	47	62	49	33	44	56	27	23	43	29	33	36	77	34	47	43
7/01	52	68	50	36	52	60	29	25	47	33	33	40	78	37	51	46
7/02	59	70	51	39	55	63	30	32	48	34	33	44	80	38	61	49
7/03	61	72	56	40	64	66	37	34	57	39	37	51	80	41	65	53
7/04	70	72	59	41	73	68	45	36	68	42	40	56	82	42	68	57
7/05	77	75	67	44	76	75	52	37	74	45	42	61	84	46	70	62
7/06	79	77	70	52	79	77	53	38	77	47	50	62	85	48	73	65
7/07	82	84	72	62	79	81	59	39	78	48	55	69	86	54	79	68
7/08	84	84	73	63	80	84	64	40	82	50	71	76	86	60	89	72
7/09	86	85	79	68	82	86	67	44	84	52	79	81	86	64	93	76
7/10	87	85	80	72	85	89	70	48	85	53	84	82	88	65	94	78
7/11	88	85	82	74	86	89	73	50	87	54	85	85	88	68	95	79
7/12	88	85	86	75	87	89	75	53	89	57	86	86	89	70	95	81
7/13	89	86	90	77	89	91	76	55	91	67	88	88	90	73	95	83
7/14	89	86	90	82	89	92	77	57	92	70	90	89	90	74	95	84
7/15	93	86	90	83	91	93	78	59	93	75	90	90	92	77	95	86

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Table 12. (page 2 of 2)

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
7/16	94	86	91	84	92	94	80	60	94	78	91	90	93	79	95	87
7/17	95	88	92	86	94	94	81	61	95	81	91	91	94	80	95	88
7/18	95	89	93	88	95	95	83	65	95	83	92	91	95	83	96	89
7/19	96	91	94	93	95	96	85	66	96	87	93	92	96	85	96	91
7/20	96	91	95	96	95	97	88	68	96	89	93	93	96	87	97	92
7/21	97	91	96	97	96	97	90	71	97	91	93	93	97	88	97	93
7/22	97	92	97	97	96	98	91	75	97	96	95	94	98	89	97	94
7/23	98	93	98	97	96	98	93	78	97	97	96	96	98	90	98	95
7/24	98	93	99	97	97	98	94	79	97	98	97	96	99	92	98	95
7/25	98	94	99	98	97	98	94	83	98	98	97	97	99	94	98	96
7/26	98	94	99	99	97	98	94	84	98	98	97	97	99	95	98	96
7/27	99	94	99	99	98	98	95	88	98	98	98	98	100	95	99	97
7/28	99	95	99	99	98	98	96	89	99	98	98	98	100	95	99	97
7/29	99	95	99	99	98	98	97	92	99	98	98	99	100	96	99	98
7/30	99	96	100	99	99	98	97	93	99	98	98	99	100	96	99	98
7/31	99	96	100	99	99	99	98	95	99	99	99	99	100	96	99	98
8/01	99	96	100	99	99	99	98	96	99	99	99	99	100	97	99	98
8/02	100	96	100	99	99	100	98	96	99	99	99	99	100	97	99	99
8/03	100	96	100	99	99	100	98	97	99	99	99	99	100	98	99	99
8/04	100	96	100	100	99	100	98	98	99	99	99	100	100	99	100	99
8/05	100	96	100	100	99	100	98	98	99	100	99	100	100	99	100	99
8/06	100	97	100	100	99	100	99	98	100	100	99	100	100	99	100	99
8/07	100	97	100	100	100	100	99	98	100	100	99	100	100	99	100	99
8/08	100	97	100	100	100	100	99	98	100	100	100	100	100	99	100	99
8/09	100	97	100	100	100	100	100	99	100	100	100	100	100	99	100	100
8/10	100	100	100	100	100	100	100	99	100	100	100	100	100	99	100	100
8/11	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100
8/12	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100
8/13	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/14	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/16	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/17	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/18	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/19	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/21	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/22	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/23	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/24	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8/27	100	100	100	100	100	100	100	100	100	100	100	100	100	100		100
8/28	100	100	100	100	100	100	100	100	100	100	100	100	100	100		100
8/29	100	100		100	100	100	100	100	100	100	100	100				100

[a] The rectangles represent the central fifty percent of the run for that year based on the test-fish index; the shaded numbers represent the median dates of passage.

Table 13. Historical daily CPUE for coho salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	27.6	16.4	22.5	22.8	13.5	n.a	n.a.	9.9	26.1	20.5	34.7	27.9	50.6	12.3	23.8
7/10	0	0	0 c	0	0	0	0	0	0	0	0	0 c	0	0	0
7/11	0	0	0	0 c	0 c	0 c	0	0	0	0	0	0	2	0	0 c
7/12	0	0	0	0	0	0	0	0	0	0	0	0	8 c	0	0
7/13	0	0	0	0	2	2	0	0 c	6	7	0	0	8	0	0
7/14	0	0	0	0	0 c	2 c	0 c	0	2	0	0 c	0 c	10	0	0
7/15	0	0	2	0 c	0	2	0	0	0	0	2	0	8	0	0
7/16	2	0	2	0	0	0	0	0	2	0	2	0	17 c	2	0
7/17	2	2	2	0	4	2	0	0	1	0	0	0	35	0	0
7/18	3	0	2	0	0 c	4 c	0	0 c	7	0	2	0 c	17	0	0
7/19	7	2	4	0	0	0	4	2	9	9	9 c	0	122 c	6	0
7/20	7	4	4	0 c	4	10	13	6	5	2	0	4	108	8	2
7/21	5	5	10	0	2 c	7	10	7	3	5	0	0 c	194	12	0
7/22	5	20	8	7	4	16	7	4 c	7	24	22	0	120 c	6	0 c
7/23	12	0	21	2	0	6	3	6	2	28	6 c	6	97	10	0
7/24	9	2	54	0	12	6	8	4	4	9	48	2	240	36	4
7/25	16	24	29	0	16 c	4	2	7 c	9	6	38	18	675 c	57	12
7/26	12	21	26	0	8	0	2	2	11	4	11 c	8	615	31	14
7/27	18	8	74	2	44	2 c	10	23	10	20	13	11	256	20	8 c
7/28	29	15	20	2	72 c	9	43	34	11	71	27	15	170	6	14
7/29	60	40	64	12	28	8	35	42 c	23	67	26 c	4	517 c	31	4
7/30	201 c	14	54	5	43	37	12	71	25	69	66	22	598	16	27
7/31	154	29	31 c	5	75	343	10	64	13	73 c	101	25	482 c	12 c	4
8/01	179	50 c	323	13	43 c	218	26 c	42 c	32	73	75	36	186	58	39 c
8/02	104 c	37	101	40	32	447	22	24	17	148	33	30	322	85	53
8/03	312	69	404	93	79	78 c	21	118	50 c	302	21	337	38 c	340	111
8/04	45	60	419 c	69	42 c	24	54	124	11	538 c	13 c	150 c	35	276	31
8/05	78	47 c	253	27	45	159	65	10 c	11	127	2	102	79	54	44
8/06	169 c	92	249	42 c	300	348	78 c	32	57 c	318 c	24	131	26	92 c	24 c
8/07	45	182	210 c	103	370	195 c	50	20	56	102	178	145	27 c	14	18
8/08	108	86 c	86	53	183 c	54	73	64 c	115	73	230	32 c	25	22	22
8/09	76 c	114	180	34	41	185 c	118	43	250	34 c	156 c	109	120	58	23
8/10	55	124	297	43	106 c	33	58 c	42	675	11	190	69	94 c	44	43
8/11	105	218	87 c	35	257	111	64	35	420 c	25	392	69	38	150	15 c
8/12	98	96 c	326	189	256 c	74 c	210	248 c	91	66	137 c	35 c	39	46 c	39
8/13	25 c	75	96 c	142 c	68	24	180 c	91	123	32	64	75	63 c	67	170
8/14	24	29	64	348	174	17	166	40 c	128 c	0 c	93	186	44	23	188
8/15	113	84 c	180 c	205	185 c	2 c	258	36	41	9	66 c	29	56	54	43
8/16	10 c	68	55	121	58	0	108 c	20	80	109	72	28 c	27 c	49	154
8/17	279	19	48	107 c	152	15	91	25	78 c	18 c	307	44	2	18	68 c
8/18	304	23	101 c	52	112 c	4 c	86	88	41	33	188 c	45	19	31 c	16
8/19	204	8 c	91	19 c	35	6	61	35 c	32	136	22	8 c	35	16	32
8/20	6 c	12	30	9	41 c	14	83 c	26	137 c	114	60	13	25 c	70	52
8/21	28	17	94 c	16 c	10	35	39	38	17	27 c	64	31	6	117	27
8/22	110	0 c	52	9	74	22	69	20	42	4	19 c	54 c	4	71	0 c
8/23	4 c	17	136	21	68	11 c	131	10	53	0	13	26	8 c	25	14
8/24	8	8	100	25 c	108	3	40	26	4 c	4	141	12	14	48	14
8/25	33	12	26 c	9	121	26	61	14	21	9 c	81 c	43	57	35	2
8/26	26	0 c	43	19	89	10 c	56	42 c	13	18	42	27 c	12	12	0
8/27	24 c	10	10	32 c	64 c	17	39 c	17	9 c	10	59 c	2	0	0	
8/28	14	34	4 c	50	9	17	2	18	4	12 c	19	11	0	4	
8/29	48	12 c		35	4	6 c	13	18	2	13	2	4 c			
8/30	21 c	0		48		2	8	9	5	5	9 c				
8/31	24			0 c	c	7	0	0	4 c	2					
9/01	5		c	20		c				c		c			

- continued -

Table 13. (page 2 of 2)

Date	Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	27.6	16.4	22.5	22.8	13.5	n.a	n.a	9.9	26.1	20.5	34.7	27.9	50.6	12.3	23.8
9/02	11			23							c				
9/03	7 c			27 c											
9/04	5			23											
9/05	29			22											
9/06	7 c			24											
9/07				12 c											
9/08				15											
9/09				7											
9/10				19											
9/11				9											

"c" indicates days when commercial fishing periods occurred in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 25,000 was not achieved.

Table 14. Historical cumulative daily CPUE for coho salmon catches in the Bethel test fishery, 1984 - 1998.

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	27.6	16.4	22.5	22.8	13.5	n.a	n.a.	9.9	26.1	20.5	34.7	27.9	50.6	12.3	23.8
7/10	0	0	0 c	0	0	0	0	0	0	0	0	0 c	0	0	0
7/11	0	0	0	0 c	0 c	0 c	0	0	0	0	0	0	2	0	0 c
7/12	0	0	0	0	0	0	0	0	0	0	0	0	10 c	0	0
7/13	0	0	0	0	2	2	0	0 c	6	7	0	0	17	0	0
7/14	0	0	0	0	2 c	4 c	0 c	0	8	7	0 c	0 c	27	0	0
7/15	0	0	2	0 c	2	6	0	0	8	7	5	0	34	0	0
7/16	2	0	4	0	2	6	0	0	10	7	8	0	52 c	2	0
7/17	3	2	6	0	6	8	0	0	11	7	8	0	86	2	0
7/18	7	2	8	0	6 c	12 c	0	0 c	18	7	10	0 c	104	2	0
7/19	13	3	11	0	6	12	4	2	27	16	18 c	0	226 c	8	0
7/20	21	7	15	0 c	10	22	17	8	31	18	18	4	334	16	2
7/21	26	12	25	0	12 c	30	27	15	34	23	18	4 c	528	27	2
7/22	31	33	33	7	16	46	34	19 c	40	47	40	4	647 c	33	2 c
7/23	43	33	54	9	16	51	37	25	43	75	46 c	11	745	43	2
7/24	51	35	107	9	28	57	45	29	47	84	95	13	984	79	6
7/25	67	59	136	9	44 c	61	47	36 c	55	90	133	31	1,660 c	136	17
7/26	79	80	163	9	53	61	49	38	66	95	144 c	39	2,275	167	31
7/27	97	88	236	11	97	63 c	59	61	76	114	157	50	2,531	187	39 c
7/28	126	103	256	14	169 c	72	102	95	86	185	184	65	2,701	193	53
7/29	186	143	320	25	197	80	136	137 c	110	252	210 c	69	3,219 c	224	56
7/30	387 c	157	374	30	239	117	148	208	135	322	276	91	3,817	240	83
7/31	541	186	405 c	35	314	460	158	271	148	395 c	377	116	4,298 c	251 c	87
8/01	720	237 c	727	47	358 c	678	184 c	314 c	179	468	452	151	4,484	309	126 c
8/02	824 c	274	828	87	390	1,125	205	337	196	616	486	181	4,806	394	179
8/03	1,136	343	1,233	180	468	1,203 c	226	455	246 c	917	507	517	4,844 c	734	289
8/04	1,182	402	1,652 c	249	511 c	1,227	280	579	257	1,455 c	520 c	668 c	4,879	1,011	321
8/05	1,259	450 c	1,905	276	556	1,386	345	589 c	268	1,582	522	769	4,958	1,065	365
8/06	1,428 c	542	2,154	318 c	856	1,734	423 c	621	325 c	1,900 c	546	900	4,984	1,157 c	389 c
8/07	1,473	724	2,363 c	421	1,226	1,929 c	473	641	381	2,002	723	1,045	5,011 c	1,170	407
8/08	1,581	809 c	2,450	475	1,409 c	1,983	546	705 c	496	2,075	953	1,077 c	5,037	1,192	428
8/09	1,657 c	924	2,630	509	1,450	2,168 c	664	748	746	2,108 c	1,110 c	1,186	5,157	1,250	452
8/10	1,712	1,047	2,927	551	1,556 c	2,202	722 c	790	1,421	2,120	1,300	1,255	5,251 c	1,294	495
8/11	1,817	1,266	3,014 c	587	1,813	2,312	786	824	1,841 c	2,144	1,691	1,324	5,289	1,444	510 c
8/12	1,915	1,361 c	3,340	776	2,070 c	2,386 c	996	1,072 c	1,932	2,210	1,828 c	1,359 c	5,328	1,491 c	549
8/13	1,940 c	1,437	3,436 c	918 c	2,138	2,410	1,176 c	1,163	2,056	2,242	1,892	1,434	5,391 c	1,558	719
8/14	1,964	1,466	3,501	1,266	2,312	2,427	1,342	1,203 c	2,183 c	2,242 c	1,985	1,620	5,435	1,581	907
8/15	2,077	1,550 c	3,681 c	1,470	2,497 c	2,429 c	1,600	1,239	2,224	2,252	2,051 c	1,649	5,491	1,635	950
8/16	2,087 c	1,619	3,735	1,591	2,555	2,429	1,708 c	1,259	2,304	2,361	2,123	1,677 c	5,518 c	1,685	1,104
8/17	2,366	1,637	3,784	1,699 c	2,706	2,444	1,798	1,284	2,382 c	2,379 c	2,430	1,721	5,520	1,702	1,172 c
8/18	2,669	1,661	3,885 c	1,751	2,818 c	2,448 c	1,884	1,371	2,422	2,412	2,619 c	1,766	5,539	1,733 c	1,188
8/19	2,874	1,669 c	3,976	1,770 c	2,853	2,455	1,945	1,406 c	2,455	2,548	2,640	1,775 c	5,574	1,749	1,220
8/20	2,880 c	1,680	4,006	1,779	2,894 c	2,468	2,029 c	1,433	2,592 c	2,662	2,700	1,788	5,599 c	1,818	1,272
8/21	2,908	1,698	4,100 c	1,795 c	2,903	2,503	2,067	1,471	2,609	2,689 c	2,765	1,819	5,605	1,936	1,299
8/22	3,017	1,698 c	4,152	1,804	2,978	2,525	2,136	1,491	2,651	2,693	2,784 c	1,873 c	5,609	2,006	1,299 c
8/23	3,021 c	1,715	4,288	1,825	3,046	2,536 c	2,267	1,501	2,703	2,683	2,797	1,899	5,616 c	2,031	1,313
8/24	3,030	1,723	4,388	1,850 c	3,154	2,539	2,307	1,527	2,707 c	2,697	2,938	1,911	5,630	2,080	1,326
8/25	3,062	1,734	4,414 c	1,859	3,275	2,564	2,368	1,540	2,729	2,706 c	3,019 c	1,954	5,687	2,114	1,328
8/26	3,088	1,734 c	4,457	1,878	3,364	2,574 c	2,424	1,583 c	2,741	2,724	3,061	1,981 c	5,699	2,126	1,328
8/27	3,112 c	1,744	4,467	1,910 c	3,428 c	2,591	2,463 c	1,600	2,750 c	2,734	3,119 c	1,983	5,699	2,126	
8/28	3,126	1,778	4,471 c	1,960	3,437	2,609	2,465	1,618	2,754	2,745 c	3,138	1,994	5,699	2,130	
8/29	3,175	1,790 c		1,995	3,441	2,615 c	2,477	1,636	2,757	2,758	3,141	1,998 c			
8/30	3,196 c	1,790		2,043		2,616	2,485	1,645	2,762	2,763	3,150 c				
8/31	3,219			2,043 c		c 2,624	2,485	1,645	2,766 c	2,765	3,150				
9/01	3,225			c 2,043			c				c		c		

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Table 14. (page 2 of 2)

Date	Cumulative Daily CPUE by Year														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Kog[a]:	27.6	16.4	22.5	22.8	13.5	n.a	n.a.	9.9	26.1	20.5	34.7	27.9	50.6	12.3	23.8
9/02	3,236			2,043							c				
9/03	3,243 c			2,043											
9/04	3,249			2,043											
9/05	3,278			2,043											
9/06	3,285 c			2,043											
9/07				2,043											
9/08				2,043											
9/09				2,043											
9/10				2,043											
9/11				2,043											

"c" indicates days when commercial fishing periods occurred in District 1.

[a] Annual spawning ground escapement at Kogrukluk River weir (X1,000); shaded columns represent years when the biological escapement goal of 25,000 was not achieved.

Table 15. Historical cumulative daily percent passage for coho salmon catches in the Bethel test fish. 1984 - 1997.

Date	Cumulative Daily Percent Passage by Year [a]															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Mean 84-98
7/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7/16	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7/17	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
7/18	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
7/19	0	0	0	0	0	0	0	0	1	1	1	0	4	0	0	1
7/20	1	0	0	0	0	1	1	0	1	1	1	0	6	0	0	1
7/21	1	1	1	0	0	1	1	1	1	1	1	0	9	0	0	1
7/22	1	2	1	0	0	2	1	1	1	2	1	0	11	0	0	2
7/23	1	2	1	0	0	2	1	1	2	3	1	1	13	0	0	2
7/24	2	2	2	0	1	2	2	2	2	3	3	1	17	0	0	3
7/25	2	3	3	0	1	2	2	2	2	3	4	2	29	3	1	4
7/26	2	4	4	0	2	2	2	2	2	3	5	2	40	3	2	5
7/27	3	5	5	1	3	2	2	4	3	4	5	2	44	4	3	6
7/28	4	6	6	1	5	3	4	6	3	7	6	3	47	5	4	7
7/29	6	8	7	1	6	3	5	8	4	9	7	3	56	6	4	9
7/30	12	9	8	1	7	4	6	13	5	12	9	5	67	9	6	11
7/31	17	10	9	2	9	18	6	16	5	14	12	6	75	12	7	15
8/01	22	13	16	2	10	26	7	19	6	17	14	8	79	16	9	18
8/02	26	15	19	4	11	43	8	20	7	22	15	9	84	20	13	21
8/03	35	19	28	9	14	46	9	28	9	33	16	26	85	25	22	27
8/04	37	22	37	12	15	47	11	35	9	53	17	33	86	31	24	31
8/05	39	25	43	14	16	53	14	36	10	57	17	38	87	37	27	34
8/06	44	30	48	16	25	66	17	38	12	69	17	45	87	43	29	39
8/07	46	40	53	21	36	74	19	39	14	72	23	52	88	49	31	44
8/08	49	45	55	23	41	76	22	43	18	75	30	54	88	55	32	47
8/09	51	52	59	25	42	83	27	45	27	76	35	59	90	59	34	51
8/10	53	59	65	27	45	84	29	48	51	77	41	63	92	63	37	56
8/11	56	71	67	29	53	88	32	50	67	78	54	66	93	67	38	61
8/12	59	76	75	38	60	91	40	65	70	80	58	68	93	71	41	66
8/13	60	80	77	45	62	92	47	71	74	81	60	72	95	74	54	70
8/14	61	82	78	62	67	93	54	73	79	81	63	81	95	76	68	74
8/15	65	87	82	72	73	93	64	75	80	81	65	83	96	79	71	78
8/16	65	90	84	78	74	93	69	76	83	85	67	84	97	82	83	81
8/17	73	91	85	83	79	93	72	78	86	86	77	86	97	84	88	84
8/18	83	93	87	86	82	93	76	83	88	87	83	88	97	86	89	87
8/19	89	93	89	87	83	94	78	85	89	92	84	89	98	88	92	89
8/20	89	94	90	87	84	94	82	87	94	96	86	89	98	90	96	90
8/21	90	95	92	88	84	95	83	89	94	97	88	91	98	92	98	92
8/22	94	95	93	88	87	96	86	91	96	97	88	94	98	94	98	93
8/23	94	96	96	89	89	97	91	91	98	97	89	95	99	95	99	94
8/24	94	96	98	91	92	97	93	93	98	98	93	96	99	96	100	95
8/25	95	97	99	91	95	98	95	94	99	98	96	98	100	97	100	97
8/26	96	97	100	92	98	98	98	96	99	98	97	99	100	98		98
8/27	97	97	100	93	100	99	99	97	99	99	99	99	100	99		98
8/28	97	99	100	96	100	99	99	98	100	99	100	100	100	100		99
8/29	99	100		98	100	100	100	99	100	100	100	100				99
8/30	99	100		100		100	100	100	100	100	100					100
8/31	100			100		100	100	100	100	100						100

[a] The rectangles represent the central fifty percent of the run for that year based on the test-fish index; the shaded numbers represent the median dates of passage.

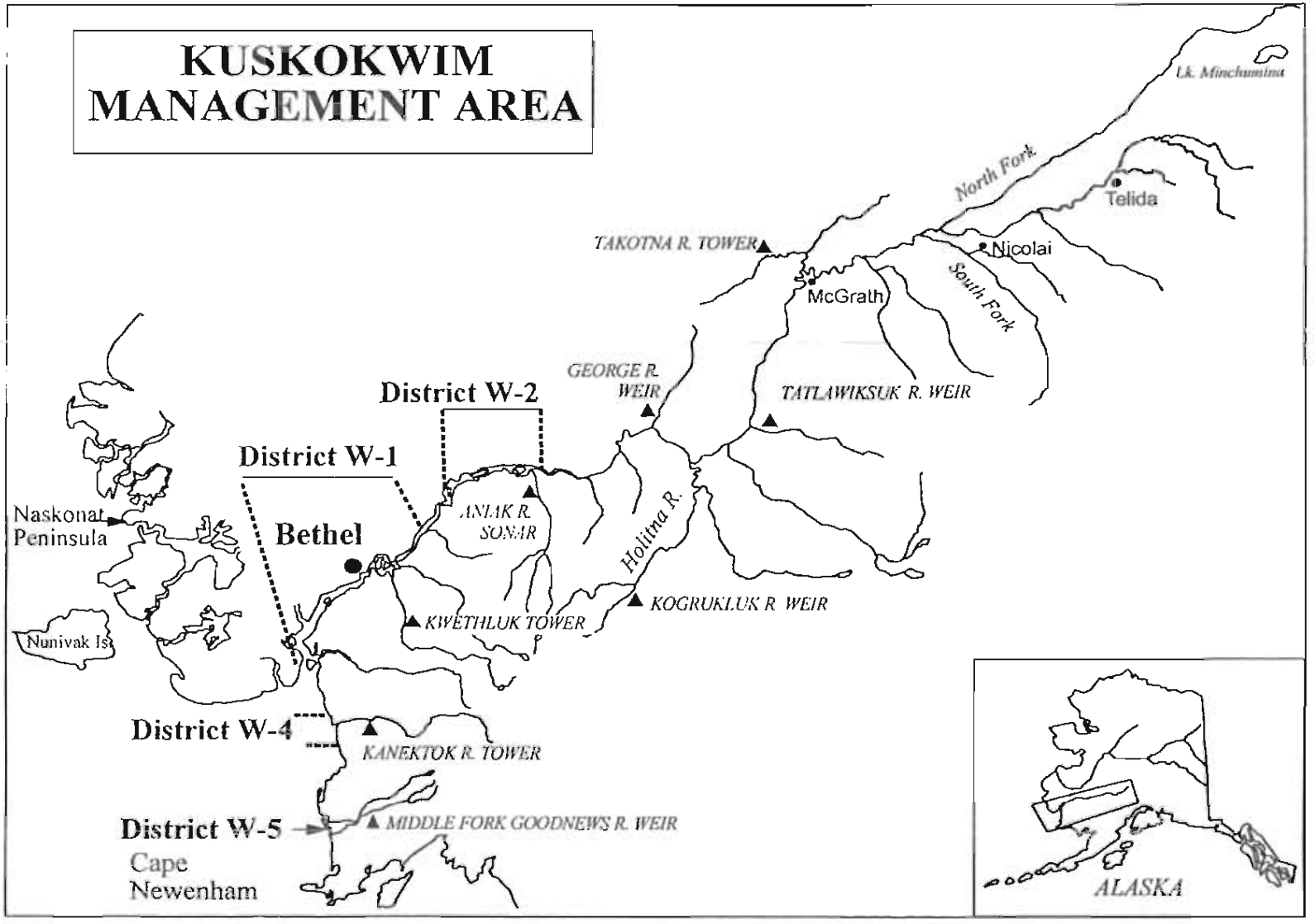

Figure 1. Kuskokwim Area map showing salmon management districts and escapement monitoring projects.

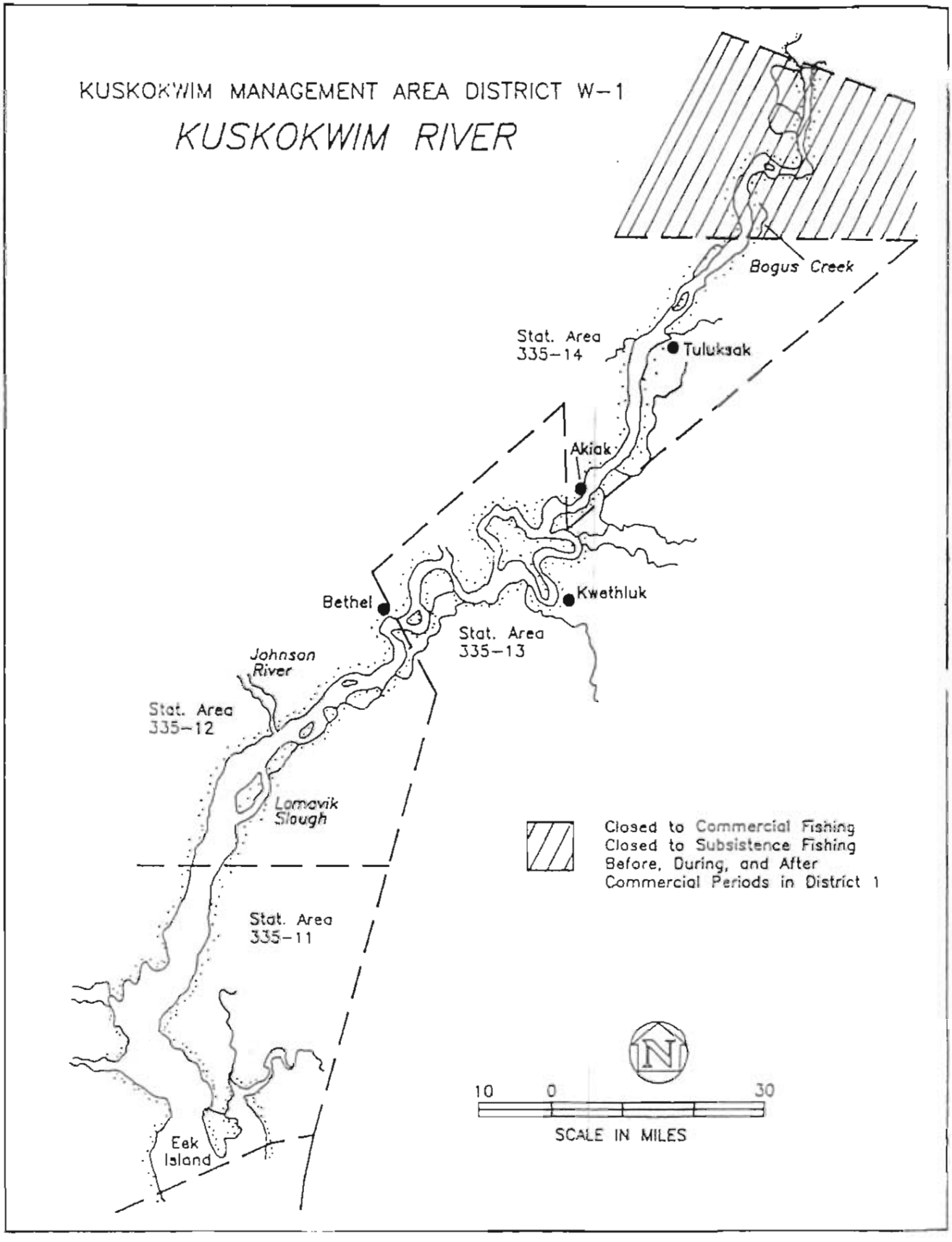

Figure 2. Kuskokwim Management Area, District W-1.

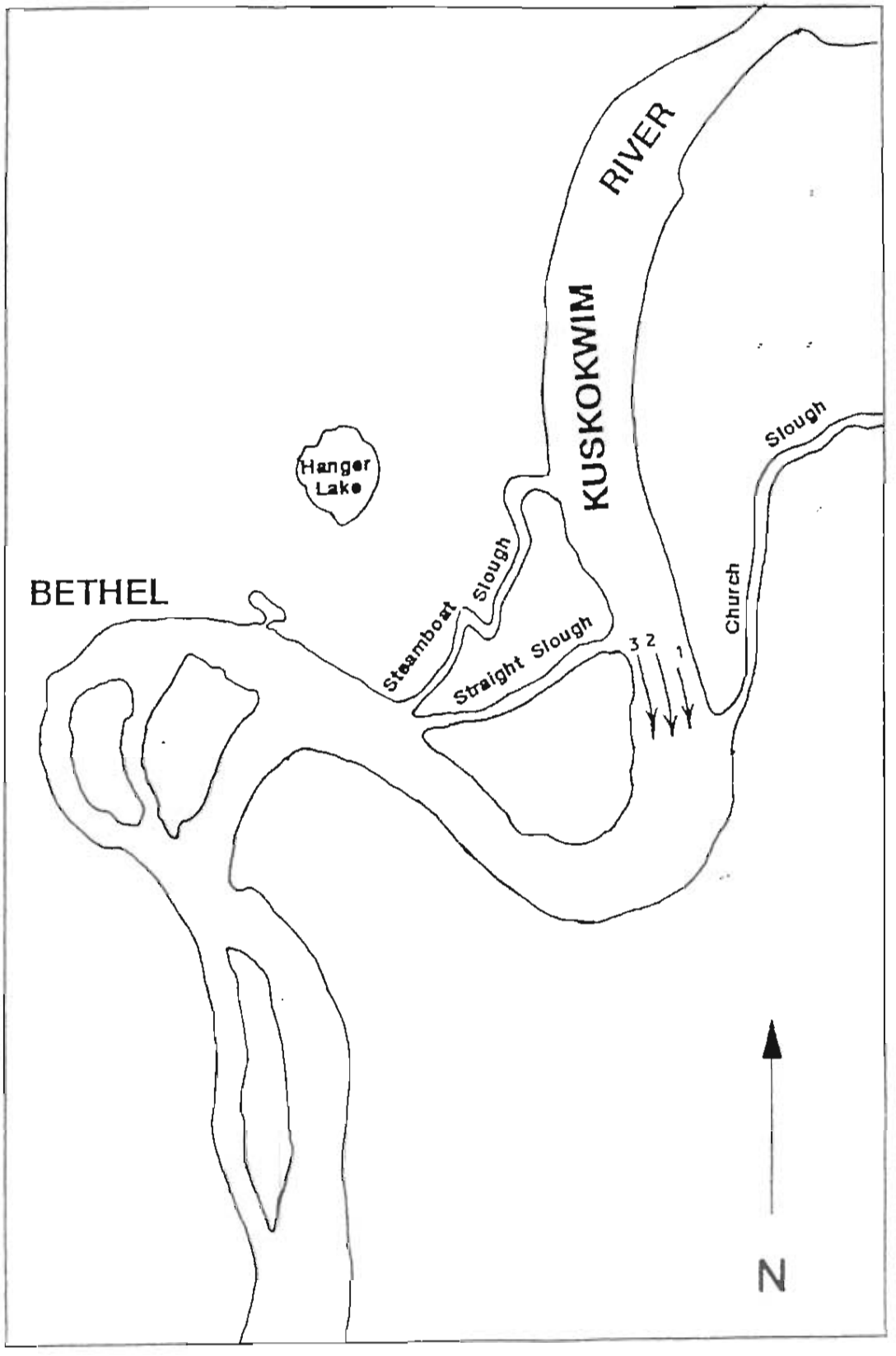

Figure 3. Project site of the Bethel test fishery: stations 1, 2, and 3.

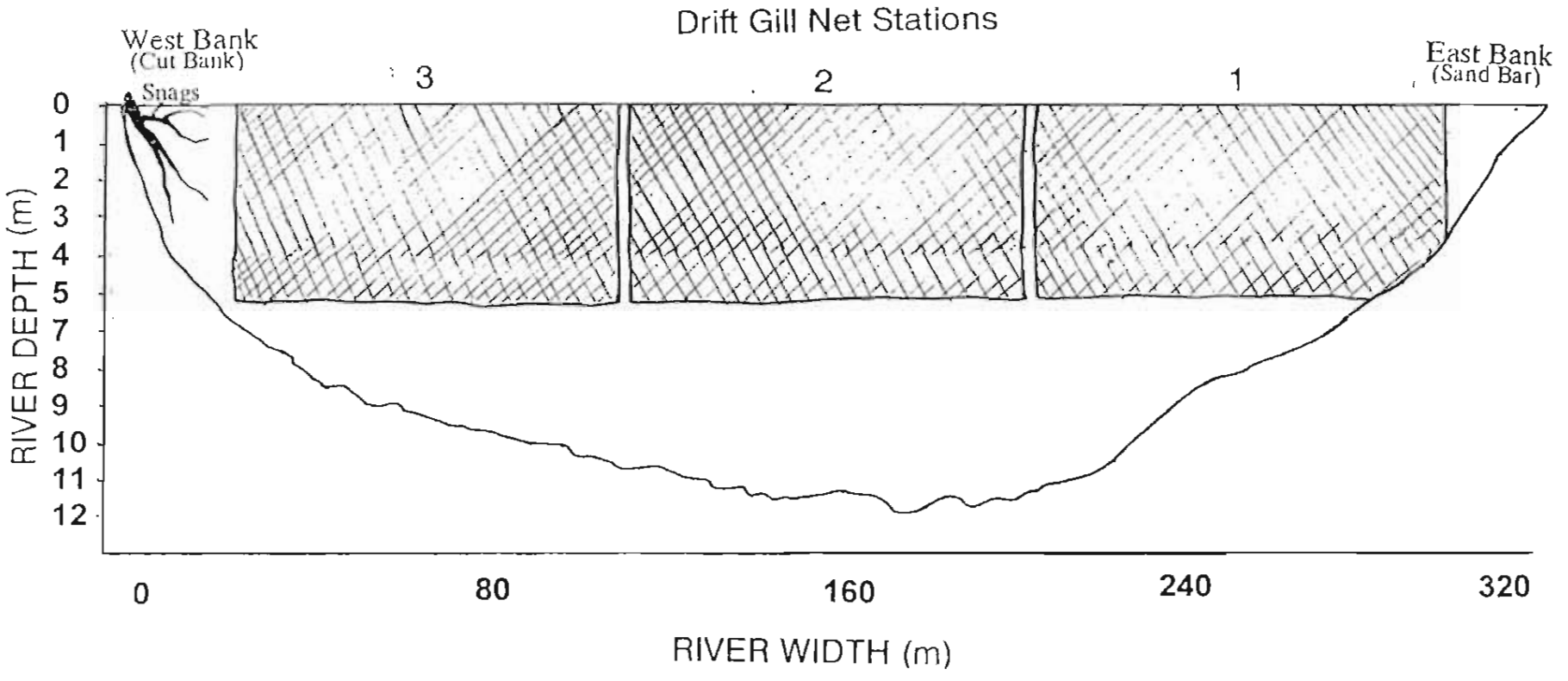

Figure 4. Typical profile of the Kuskokwim River 4 miles upstream of Bethel illustrating the area covered by gillnets used in the Bethel test fishery. The profile depicted was measured in 1995.