

STATUS OF BROWN BEARS
AND OTHER
NATURAL RESOURCES
IN THE
McNEIL RIVER STATE GAME SANCTUARY AND REFUGE

Annual Report to Alaska State Legislature

Frank Rue, Commissioner
Alaska Department of Fish and Game

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Executive Summary

The McNeil River State Game Sanctuary was legislatively established in 1967. The sanctuary was established to provide permanent protection for brown bears and other fish and wildlife populations and their habitats so that these resources may be preserved for scientific, educational and aesthetic purposes.

In May 1991, the Alaska State Legislature passed legislation (AS 16.20.160), which expanded the McNeil River State Game Sanctuary and created the McNeil River State Game Refuge. The legislation became effective on January 1, 1993, when the Commissioner of Fish and Game certified the Paint River fish ladder as operational.

A nonconcurrency determination was made by DNR regarding a lease for a commercial enterprise at Chenik Head. The BLM notified the commercial operator to cease operations and remove all structures by September 2000 for final conveyance of lands to the state.

Division of Personnel requirements combined with funding limitations led to reductions in the number of staff persons accompanying permittees to sanctuary bear viewing areas. In previous years, two staff frequently accompanied viewers, allowing staff to confirm sightings of individual bears. Observations of a bear by a single staff person do not allow sufficient reliability for confirmed sightings. Therefore, information on individual bear use of the sanctuary was not collected.

The number of individually recognizable bears observed in the sanctuary is no longer being kept as a reference point for the population. A repeatable, statistically reliable method of determining trends by using maximum daily counts of bears at McNeil Falls has been established as the technique for determining bear trend numbers. Analysis of these data will be used to determine if the bear population is experiencing impacts from other land uses.

Public use of the sanctuary averaged 7.4 persons/day, with 208 permittees (standby and drawing combined) visiting the sanctuary. A total of 1,223 applications were received for the 280 permits. All 15 special use permits were issued by the Department, however some were not used.

Estimated sockeye salmon escapement to Mikfik Creek was 15,717 fish. The chum salmon escapement index for McNeil River was a dismal 13,509 fish. There was a limited commercial harvest in the McNeil subdistrict, strictly targeting Mikfik sockeyes, with a resultant harvest of 7,150 fish. No commercial harvest was directed at the McNeil chum stock and the entire return entered the drainage. The McNeil chum salmon escapement goal was not achieved, and for the tenth straight year, the McNeil chum run failed to produce a significant commercial harvest.

Introduction

The sanctuary was established to (1) provide permanent protection for brown bears and other fish and wildlife populations and their habitats so that these resources may be preserved for scientific, aesthetic, and educational purposes; (2) manage human use and activities in a way that is compatible with the permanent protection of brown bears and other purposes described in (1) and, to manage uses and activities that would maintain and enhance the unique bear viewing opportunities within the sanctuary; and (3) provide opportunities that are compatible with (1) for wildlife viewing, fisheries enhancement, fishing, temporary safe anchorage, and other activities.

The refuge was established for similar, but somewhat different purposes. The differences are that human uses and activities in the refuge are to be managed to maintain and enhance the unique bear viewing opportunities within the sanctuary, that opportunities for brown bear hunting shall be determined by the Board of Game, and that mineral entry is allowed.

The statute requires the Commissioner of Fish and Game submit an annual report to the legislature regarding status of brown bears and other fish and wildlife resources within the sanctuary and refuge and effects of fishing and fishery enhancement activities on these resources. This report is provided in response to that requirement.

Land Status

All land in the established refuge, sanctuary and sanctuary extensions is state-owned or tentatively conveyed, including 14 sections that encompass Chenik Lake and Chenik Head. These sections had previously been jointly selected by the state and Seldovia Native Corporation and were not subject to refuge authority until they became tentatively approved state land. Litigation regarding these lands has been completed, and the State identified as the legal owner. The State will take ownership from BLM after any and all encumbrances to these lands have been addressed. A longstanding issue regarding commercial use of a site at Chenik Head for private commercial purposes was addressed by BLM and state agencies for resolution.

This issue involved a private commercial operator attempting to obtain a lease for approximately 10 acres of land in the Chenik Head area. This site contained several buildings that had served as headquarters for a private bear watching/wilderness retreat enterprise. Previous comments from Department of Fish and Game regional staff had recommended that BLM deny the lease application. However, DNR published a public notice requesting comments on the proposal to issue a letter of concurrence to BLM to issue the lease.

Response to that public notice was significant, and included comments from environmental organizations, fishing groups, members of the public and state legislature. Department staff sent additional comments to DNR recommending denial of the lease. DNR developed the State position and notified BLM of a final determination of nonconcurrence. In October 1999, BLM corresponded with DNR Commissioner Shively acknowledging receipt of their letter of nonconcurrence regarding the Chenik property. Subsequent correspondence between BLM and the Chenik operators resulted in agreements to cease operations no later than October 1999, with removal of improvements and rehabilitation of the site no later than September 30, 2000.

Regulatory Changes and Management Plan

The Department of Fish and Game formed an internal task force in January 1998 to consider improvements to the McNeil River State Game Sanctuary permit system. The charge of the Task Force was to review and evaluate the operation and effects of the current permit system, identify elements that influence public participation and, with public involvement, develop and present regulation proposals to the BOG for any recognized changes.

The Task Force formed a stakeholders group to provide public involvement and guidance in the investigation and decision making process. Participants included members from transportation services, conservation groups, photography interests, local community interests and agency staff. The Task Force also pursued an information gathering effort by initiating a private contractor survey of past applicants. Past applicants were asked a variety of questions regarding their visit to the sanctuary and what their experience was. The results were analyzed and presented to the Task Force in a published report. Regulation proposals submitted to the BOG reflect the recommendations of the stakeholders group and included the following recommended changes:

- Establish three 6-day commercial use permits in the Scientific-Educational permit category with permit fees identical to lottery permit fees;
- Increase the number of time slots available on the permit application from 2 to 3 and establish assigned draw numbers to eliminate the need for a second drawing;
- Modify the 65/35 Alaskan residency preference rule;
- Establish an auction or raffle for two regular permits;
- Reduce the number of standbys in all periods from five to three;
- Eliminate the rule requiring a 4-year interval between visits for successful permittees;
- Retain the length of regular permits at 4 days;
- Increase application and permit fees.

The BOG at the March 1999 meeting passed proposals resulting in the following regulation changes:

- Reduced the 4-year interval between visits to every other year;
- Reduced the number of standby permits from five to three;
- Modified the 65/35 Alaskan residency preference rule to a goal rather than a requirement.

The Commissioner of Fish and Game also acted on task force recommendations and established commercial use permits with a fee structure contingent on statute changes, and increased application and permit fees. Non-refundable application fees were increased from \$20 to \$25, resident permit use fees were increased from \$100 to \$150, non-resident permit use fees from \$250 to \$350, resident standby permit fees from \$50 to \$75 and non-resident standby permit fees from \$125 to \$175. A Scientific-Educational application fee of \$50 was established and also a use fee of \$150 and \$350 for residents and non-residents respectively.

Public Use

A permit is required for access to the sanctuary from June 7 through August 25. A system in place since 1993 has required that both regular and standby permits be issued through a lottery process. This system was established to reduce staff time required to manage the previous standby system and to reduce the potential for members of the public to receive more than one permit per year.

The number of people taken to a bear viewing area is limited to ten per day. In 1999, from June 7 to August 25, an average of only 7.4 people per day visited bear viewing areas in the sanctuary (Table 1). A sanctuary goal is to maximize the number of bear viewers within the required permit guidelines. However, all time slots are not always filled despite use of standby permits, primarily because occasional periods of stormy weather prevent airplane transportation, and the poor weather reduces visitors' enthusiasm to view bears. Bear viewing is also less reliable at both ends of the season, and some vacancies occur as people cancel their visits to the sanctuary. Additionally, as a result of funding and personnel changes, staff were not available to take late arriving visitors to the viewing areas. If visitors arrived on airplanes after the viewing group had left for the day, they were not allowed to visit a viewing area. This contributed to the reduction in average number of visitors/day for the sanctuary.

In 1999, ADF&G received 1,223 applications for the 280 available permits (185 regular and 95 standby). This represents the sixth year of decline from the record high number in 1993, of 2,150 permit applications (Table 2). The 1994-1998 average number of applications was 1,477. Application numbers have fluctuated considerably, especially after a media presentation on the sanctuary. However, the continued declining trend in applications may represent a response to a regulation passed by the Board in 1993, which established a 4-year waiting period for successful permit winners. This regulation may have prevented some applicants from applying on a more frequent basis resulting in declining numbers of applications, and subsequently, program revenues. The elimination of this regulation by the BOG in March 1999 may result in changes to this trend. Staff will continue to monitor this situation.

All 15 special permits were initially issued for the 1999 season, however some vacancies developed as the season progressed. Permittees that were able to visit the sanctuary included three USFS staff from the Pack Creek viewing program, three persons from Pacific Coast Video, the top instructor from the Hunter Education program, the top teacher from the wildlife Education program, one person representing the Nature Conservancy from the Kenai Peninsula, three persons from the British Broadcasting Company, and two from the National Park Service National Natural Landmark program. The Governors from California and Oregon were unable to

use their Commissioners permits due to scheduling conflicts. The demand for special permits continues to be high and the department receives numerous requests each year. Criteria developed by the department for issuing these permits provides consistency during the review of future proposals.

Brown Bear Status

In previous years, sanctuary staff observed and recorded the number of individual bears in the sanctuary and compiled information regarding total bears seen and total bear use days. Identification of individual animals was confirmed by simultaneous sightings of that animal by two or more staff. In 1999, new staffing schedules were implemented through administrative requirements that eliminated multiple staff at the viewing areas. Identification of individual animals is not possible without discussion between staff and verification of that identification at the viewing areas. Therefore, individual bear use information will no longer be available for the sanctuary. Bear use information will be gathered and tracked using the statistical technique of maximum daily counts developed by department staff.

Maximum Daily Counts

In early 1993, during development of the McNeil River State Game Sanctuary and Refuge Operational Management Plan, the public advisory group determined that a consistent, reliable method of determining fluctuations in bear numbers was needed. To address that concern, a "bear threshold criterion" was established and identified as a predetermined level of change in the population that would trigger an assessment of potential factors that may be adversely affecting the bear population or the sanctuary viewing program. The necessary statistical test, developed by division statistical staff, is based on the proven Shewhart-CUSUM quality control test. The test will detect large, short-term declines and gradual, long-term drift in the average number of bears.

Maximum daily counts, consistently collected at McNeil Falls from 1983 to 1992, were averaged to establish a standard of 48.6 bears as the benchmark for maintaining bear numbers and viewing opportunity. The median maximum count will be compared annually with the predetermined lower level of change to determine whether the number of bears observed is within the range of normal fluctuations. If the median annual maximum count drops below the threshold level of 41 bears, an investigation of probable causes will be initiated. The 1999 median annual maximum count was 41 bears, and indicates a stable population visiting the falls. Although this figure represents the minimum level of bear use at the falls, staff believes that low bear use levels are associated with the continuing poor salmon returns. Table 3 provides a summary of the hourly count information, and Appendix 1 provides information on the statistical analysis.

Brown Bear Hunting

The sanctuary is closed to brown bear hunting. In October 1995, the Board of Game closed the refuge to brown bear hunting, effective 1 July 1996.

Commercial Fisheries

Division of Commercial Fisheries staff in Homer developed the narrative on commercial fisheries activity. Table 4 summarizes the 1999 escapement estimates by date for Mikfik Creek sockeyes and McNeil River chums. The cumulative Mikfik sockeye escapement index was

15,717, while the McNeil chum escapement was estimated at 13,509. There was limited commercial fishing effort in McNeil Subdistrict this season, solely targeting Mikfik sockeyes, with a resultant harvest of approximately 7,150 fish. With no effort directed at McNeil chums, that entire return entered the drainage to spawn. This season marked the tenth straight year that the McNeil River chum salmon run has failed to produce a significant commercial harvest, while the escapement failed to reach the lower end of the escapement goal range (20,000 - 40,000 fish) for the first time in the past three seasons. This reflected a generally similar pattern observed in other southerly Kamishak District systems, such as Big and Little Kamishak Rivers, where minimum chum goals were also not attained. In contrast, chum goals were achieved in systems between Bruin Bay and the northern limits of the district. Although harvestable surpluses were identified in these areas, and they were open to fishing, no effort was directed at chum salmon in any part of the district.

The number of spawning chum salmon observed above the McNeil River falls was once again disappointing, with the peak count of 970 fish made on July 12. No other surveys this season were able to detect any fish above the falls.

Post-season evaluation indicates that run timing was normal and the three different methods we have used to derive the total escapement index again yielded similar results: 1) the historic mean run timing curve, used to extrapolate the tail of the run after the August 17 survey, produced a cumulative total of 18,456; 2) the preferred method, now used to estimate escapements for most other streams in LCI, (calculates area under the curve assuming a 17.5-day stream life factor) resulted in a cumulative estimate of 13,509 chums; 3) simple accumulation of counts from each survey after the first observed peak on 7/12 (except that the last entry used was an average of the final two surveys since they were only one day apart and made by separate observers) produced a total of 14,765. The second method has been adopted as the standard methodology for generating escapement indices and is considered the most precise estimate of escapement. A fourth method for estimating escapements, using a video camera and video cassette recorder (VCR; see below), was also used again this season, but tapes have not yet been reviewed and therefore escapement figures from this method are currently not available.

MIKFILK CREEK VIDEO RESEARCH

Deployment of the remote video salmon counting operation at the outlet of Mikfik Lake occurred for the second consecutive season. Continuation of this project is expected to demonstrate that remote video and time-lapse recording technology is capable of producing salmon escapement estimates similar in accuracy to weirs, which are presently considered the most accurate escapement-monitoring tool available. If its accuracy and reliability can be verified, remote video may be able to supplant aerial surveys as a means for collecting escapement data on small clear streams that don't warrant the expense of weirs or sonar.

The video system at Mikfik Creek once again consisted of a remote camera suspended directly above the stream pointing down, with its field of view encompassing both banks. Images of fish swimming past the site were recorded onto a time-lapse VCR. By programming the VCR to capture a single frame every 1.5 seconds, a standard 160-minute VHS tape could theoretically

last up to 12 days. The entire system was powered by four 12-volt batteries, which in turn were kept charged by the combination of a wind generator and a solar panel (the latter was not used in 1998). Tapes were periodically retrieved during routine aerial survey flights. As time permits this winter, the tapes will be played at high speed on a standard TV monitor to determine periods of high fish passage, then will be reviewed in more detail to estimate escapement.

Minor "teething" problems that occurred last season were generally overcome this year. A defective wind generator, which last year hampered the video project, was repaired and deployed with great success this year. The solar panel, added to supplement the wind generator, helped to insure that the batteries maintained a continuous state of charge. However, two system shutdowns occurred during the season. The first was due to a defective individual battery that drained the electrical system. Cause for the second shutdown was not definitively determined, but it occurred very late in the season, well after all sockeyes had already entered the lake. The staff believes that very little escapement data were lost or missed as a result of these troubles.

The problem of simultaneous upstream/downstream fish migration across the camera's field of vision (fish trading back and forth prior to entering the lake), encountered last year as the lake level dropped, was not as pronounced this season but still caused some difficulty in assessing fish passage. Reasons for this change in behavior are not clear but may simply be a function of water levels, which did not appear to reach the "critically" low stages frequently observed in this system.

For the reasons described above, aerial survey data was once again chosen to generate this season's spawning escapement index. Since the problems encountered with the video system this season appear to be quite preventable, this relatively new technology is expected to provide more precise data in future years.

Sport Fishing

Limited sport fishing occurs in McNeil Lagoon and Chenik Creek but is incidental to bear viewing activities. The only sanctuary area where fishing is allowed that attracts significant sport fishing interest is the lower Kamishak River. Due to low sampling effort and questionnaire returns, the Division of Sport Fish's annual survey of sport anglers does not accurately portray angler effort on the Kamishak River.

To address this problem, the Department included an angler reporting requirement for lodges receiving special area operating permits for the Kamishak River portion of the sanctuary. Seven lodges operated in the area during July, August, and September. As of this date, six of the lodges have completed their reporting requirements. A total of 504 anglers reported catching and keeping 767 coho salmon and 58 Dolly Varden during the 1999 season (Table 5). The same number of anglers reported catching and releasing 513 coho salmon, and 2,194 Dolly Varden. This represents a significant amount of angling effort on a single system. The information has been reported to Division of Sport Fish and they are further reviewing the data to determine if regulation changes may be required.

Fisheries Enhancement

Fisheries enhancement continues to play a major role in Lower Cook Inlet (LCI) salmon production. Enhancement and rehabilitation projects have made substantial contributions to commercial fishing harvests in the Kamishak Bay District. However, sockeye salmon returns to the Paint River enhancement project in 1999 were again poor, as they have been for the past several years. No commercial harvest or cost recovery occurred. The run strength was insufficient to warrant opening the ladder to fish passage for an eighth straight year.

The Paint River Lakes were first stocked with sockeye fry in 1986 in an effort to develop a new sockeye salmon return to the drainage, which is blocked to upstream salmon migration by a steep waterfall at tidewater. From 1991 to 1996, approximately 600,000-750,000 sockeye fry were stocked annually in the Paint River Lakes. Although construction of the Paint River fish ladder was completed in October 1991, the number of returning adults has only ranged from 200 to 800 fish. Consequently, the structure has never been opened to allow fish passage upstream through the ladder system. The low returns may be related to the current low productivity potential and high predation within both lake systems.

Cook Inlet Aquaculture Association continues to evaluate other suitable sockeye salmon broodstocks from the west side of Cook Inlet as potential replacements for the Tustumena sockeye stock that has been repeatedly released into the Paint River Lakes. Pink and chum salmon broodstock development is also being evaluated but is currently on hold until an adequate funding source is secured.

Volunteers

The 1999 season marks the seventh year for the non-department volunteer work party program. This program has created an opportunity for volunteers to assist staff in preparing the camp and trails prior to arrival of the first permittees. As in earlier years, the volunteers were from various local conservation groups. Work accomplished included trail upgrades, cabin cleaning, painting, treating cabin exteriors, camp site upgrades and fire wood collection. This program continues to be a very successful cooperative venture.

Land Use Permitting

Seven permits were issued for the establishment of sport fishing guide camps on the Kamishak River within the sanctuary. These camps appear to be operating in a manner compatible with sanctuary guidelines. Reporting requirements regarding number of clients and total fish caught are typically late in arriving at the Anchorage regional office. Additional compliance monitoring of the camps and storage permits may be necessary in upcoming seasons.

Bear-Human Conflicts

There were no known adverse interactions between bears and people in the sanctuary or refuge during the 1999 field season.

Table 1

Visitor Use @ McNeil River State Game Sanctuary

	1993	1994	1995	1996	1997	1998	1999	7 year average
June 7-August 25 (80 days)								
\bar{x} number of permits used daily	9.0	8.4	8.7	9.3	9.0	9.2	7.4 ^B	8.7
% with regular permit	74	76	82	85	83	81	86	81
% with standby permit	26	24	18	15	17	19	14	19
\bar{x} daily visitors in sanctuary ^A	14.1	13.6	13.4	14.5	15	13.7	14	14

^A = Includes all visitors (Those who flew out as well as those who stayed overnight)

^B = 1999 (unlike 1993-1998) use figures are lower due to lack of a second staff person to bring late arrivals to viewing area

Table 2
 Visitor use of McNeil River State Game Sanctuary (MRS GS)

Year	Footnotes	# of Applicants	# of Visitors ^a	Total User Days in Sanctuary	Total Permit days for July/Aug (560 possible)	Comments on Season Length
1983	A,H	625	178	738	454	6/11 - 8/25
1984	A	992	159	574	377	6/5 - 8/27
1985	A	832	216	816	449	6/10 - 8/25
1986	A	806	255	967	430	6/9 - 8/25
1987	A,I	1,757	252	1,054	473	6/9 - 8/23
1988	A	1,094	304	1,328	498	6/1 - 8/29
1989	A	1,306	264	1,183	488	5/22 - 8/26
1990	A	1,481	299	1,435	524	6/8 - 8/25
1991	B,E	1,818	249	1,415	526	6/1 - 8/27
1992	C,E,J	1,672	245	1,210	478	6/1 - 8/25
1993	D	2,150	225	1,128	516	6/7 - 8/25
1994	D,K	1,766	228	1,086	484	6/7 - 8/25
1995	D,K	1,486	212	1,074	475	6/7 - 8/25
1996	D,K	1,502	219	1,158	494	6/7 - 8/25
1997	D,K	1,474	228	1,197	489	6/7 - 8/25
1998	D,K	1,159	219	1,096	504	6/7 - 8/25
1999	D,K,L	1,223	208	1,122	398	6/7 - 8/25

A = No limit on standby or camp numbers.
 B = 1st come, 1st served for standby w/no camp limit.
 C = 1st come, 1st served for standby w/camp limit of 15.
 D = All permits (regular & standby) by lottery including June.
 E = Unlimited permits prior to June 15 then 10/day.
 F = Went from 1-5 day permits to all 4 day permits.
 G = 5 permits a day instead of 10 due to funding problems (1979 only).
 H = \$5.00 application fee instituted.
 I = \$10.00 application fee and \$40.00 user fee instituted.
 J = \$20.00 application fee and new user fees (\$100 Resident/\$50 Non-resident) instituted.
 K = Visitors to sanctuary can only apply every 4 years to visit.
 L = New lower staffing levels prevented late or early arriving visitors from joining group.

Table 3

Highest hourly counts of brown bears seen at one time at McNeil Falls (includes cubs)

	1993	1994	1995	1996	1997	1998	1999	7 year average
	Highest hourly count	highest hourly count	highest hourly count	highest hourly count	highest hourly count	highest hourly count	highest hourly count	highest hourly count
15 July	-	-	-	38	40	47*	28	38
16	-	-	-	46*	32	42	28	37
17	-	-	-	29	47	46	35	39*
18	37*	30	29	44*	43	47*	26	37
19	58*	50*	33*	54*	66*	57*	36	51*
20	55*	37*	40*	40*	52*	32	37*	42*
21	46*	43*	28	47*	50*	10	35	37
22	54*	26	48*	49*	44	18	38*	40*
23	49*	43*	29	47*	63*	35	42*	44*
24	30	52	31	33	52*	43	32	39*
25	18	18	39*	40*	51*	46	29	34
26	28	37*	30	31	54*	63*	35	40*
27	34*	44*	39*	37	49	50*	31	41*
28	24	33	28	33	27	51*	37*	33
29	28	32	12	21	30	48*	36	30
30	21	25	32*	29	27	39	41*	30
31	19	20	35*	26	15	34	42*	27
1 August	13	16	23	22	17	35	42*	24
2	7	16	16	18	24	31	29	20
3	-	-	-	18	21	23	27	22
4	-	-	-	11	11	12	16	13
5	-	-	-	10	-	18	23	17

highest hourly count is the single highest count of the day taken on the hour

- = counts were not made

* = 7 high daily counts for the season or 7 year average

Table 4. Aerial escapement estimates of sockeye and chum salmon in the Mikfik Creek and McNeil River drainages, 1999.

Survey Date	Mikfik Sockeyes	Estimated Cumulative ^a	McNeil Chums	Estimated Cumulative ^a
6/2	0	0		
6/11	730	730		
6/17	3,045	3,045		
6/20		3,045	0	
6/22	19,655	19,655		
6/24	21,550	15,717 ^b		
6/28	12,550	15,717	610	610
7/2	4,670	15,717	1,320	1,320
7/12	500	15,717	5,120	5,120
7/23			1,900	7,020
8/2			2,920	9,940
8/16			4,000	14,765
8/17			5,650	14,765
CUMULATIVE TOTAL		15,717		13,509^c

^a The cumulative estimate is not the sum of daily counts, but is adjusted for fish schooled in the lagoon that may have been observed in previous surveys; all individual daily estimates are unexpanded live counts and considered to be conservative.

^b The Mikfik cumulative total on 6/24 was derived by subtracting 5,833 sockeyes (caught during a special two-hour commercial fishery opening in waters of McNeil Lagoon) from the peak count of 21,550, which occurred just prior to the opening.

^c The cumulative total was derived by estimating area under the curve with 17.5-day stream life factor applied and compares favorably with the historical mean run timing curve for McNeil River chum salmon.

Table 5

**1999 McNEIL RIVER STATE GAME SANCTUARY
ANNUAL REPORT FOR GUIDES, TRANSPORTERS AND LODGES**

LODGE	# OF ANGLERS	COHOS		CHUMS		PINKS		DOLLYS	
		Kept	Released	Kept	Released	Kept	Released	Kept	Released
Alaska Rainbow Lodge	138	123	114	0	15	0	7	56	1,015
Bristol Bay Sportfishing Inc.	28	38	6	1	12	2	3	2	76
Iliaska Lodge	55	58	88	0	80	0	25	0	400
Kulik/Katmailand Lodge	98	192	222	0	362	0	62	0	63
Newhalen Lodge	28	42	47	0	46	0	0	0	640
Point Adventure Lodge	157	314	36	0	0	0	0	0	0
Rainbow King Lodge									
TOTAL	504	767	513	1	515	2	97	58	2,194