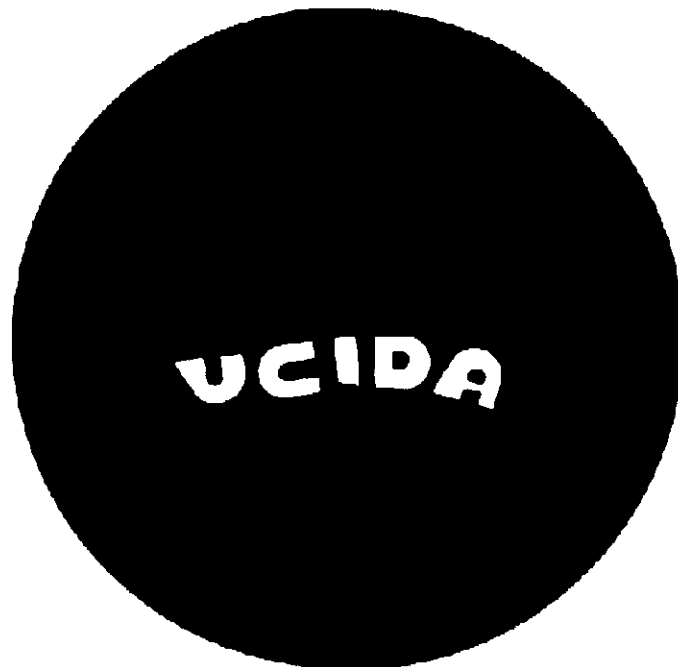


Proposed Findings
for the
Upper Cook Inlet
Joint Legislative
Salmon Task Force

Presented by
United Cook Inlet Drift Association



Proposed Findings

The Integrated Fishing Community of the Kenai Peninsula (page 3)

1. The Kenai Peninsula has a highly integrated seafood industry that is worth over a half a billion dollars annually.
2. Salmon harvests are a vital component of this highly integrated seafood industry of the Kenai Peninsula.
3. Alaskan families involved in this seafood industry depend on predictable and stable harvests of seafoods.
4. All Alaskans receive a reduced freight dividend on goods coming into South Central from the export of millions of pounds of seafood products.

Mat-Su Salmon Returns (page 4, 8-9)

5. Over 95% of the Chinook Salmon originating from the Mat-Su Area return to the Mat-Su Area.
6. On average, 95% of the Chum Salmon originating from the Mat-Su Area return to the Mat-Su Area.
7. Over 95% of the Pink Salmon originating from the Mat-Su Area return to the Mat-Su Area.
8. Over 85% of the Coho Salmon originating from the Mat-Su Area return to the Mat-Su Area.
9. Well over 50% of the Sockeye Salmon originating from the Mat-Su Area return to the Mat-Su Area.

Salmon Escapements in the Mat-Su (page 4, 10)

10. The Bendix Sonar Counter vastly underestimates the actual sockeye escapements into the Yentna River.
11. The DIDSON Sonar Counter demonstrates that escapement goals are being met.
12. The Fish Weirs, actual salmon passage counts, demonstrate that escapement goals are being met.
13. ADF&G Mark/Recapture escapements clearly identify that sockeye salmon overescapements are occurring in the Yentna, Mat-Su Area.

Board of Fish

14. The Board of Fisheries (BOF) appropriately considered thousands of pages of written materials and public testimony before rendering its regulatory decisions.

ADF&G

15. The ADF&G, as well as the sport and commercial harvesters all understand the decisions rendered by the BOF at its 2008 meeting.
16. The ADF&G has taken upon itself to unilaterally change the management plans without new, significant inseason information.

Susitna River Sport Harvests (page 11)

17. The numbers of angler days of the Susitna River are decreasing while the sport harvests of salmon remain stable.

Chinook Harvests from Eastside Susitna, Westside Susitna, West Cook Inlet and Knik Arm management units 1979-2006 (pages 51,59)

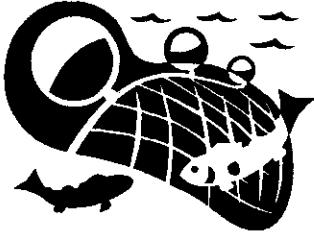
18. Chinook harvests in these areas have remained stable since the early 1980's.
19. Chinook harvests in the Westside Susitna management units have significantly increased since the mid 1990's.

Coho Harvests – Knik Arm, Little Susitna River (pages 17,19)

20. During 2006 fishing guides and anglers reported above average catches of coho salmon throughout the season despite extremely high water levels which occurred near the peak of the salmon run.
21. Total sport harvest of coho salmon in Knik Arm streams (excluding Little Susitna River) was 27,300 fish in 2006, about 150% of the 2001-2005 mean of 17,600 fish (Table 16) Total harvest was driven by a record high harvest from Jim Creek. The 2006 harvest of 19,300 on Jim Creek was nearly double the 2001-2005 mean of 10,900 fish.

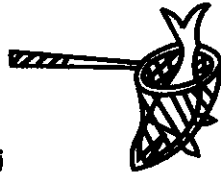
Pike – Presence and Distribution in the Mat-Su (pages 87, 121-125)

22. Northern Pike have both extensive and abundant distribution in the Mat-Su Area. These pike populations are highly predatory toward salmon populations.



The Integrated Fishing Community of the Kenai Peninsula

The Kenai is richly endowed with abundant renewable and non-renewable natural resources. In many ways we are an island community much like Kodiak. The Kenai Peninsula has a huge coastal area that is one of the largest in the United States. The Kenai has some of the most productive fresh and salt water fish habitat areas in Alaska. This productive and diverse resource base provides one of the economic foundations for our communities. Since World War II there have been thousands of families that have made the Kenai home and have economically invested in the infrastructure necessary for the production, harvesting, processing and marketing of these abundant fishery resources. Along with the fishery infrastructure, the families of Alaska and the Kenai have made very large economic investments to build a society comprised of the Borough schools, roads, banks, electrical, medical and transportation infrastructures. We have encouraged many families and small business owners involved in support industries to locate and develop on the Kenai.



Fishing Activity of the Kenai

Halibut:

One out of every three halibut (35%) caught in the entire Pacific Ocean are brought to the docks of the Kenai Peninsula. In 2006, there were 17,762,774 million pounds of halibut delivered. These halibut generate in excess of \$267,000,000 of economic activity. As families are paid for harvesting these halibut, they in turn spend these funds throughout the Kenai, Anchorage and Alaskan economy for the purchase of goods and services.

Black Cod (Sablefish):

Most Alaskans are not familiar with this premium quality fishery. In 2006 there were 9,975,098 pounds of sablefish delivered across the Kenai Peninsula docks. These deliveries represent 30% of the total landing generating in excess of \$100,000,000 of economic activity. Again, as the harvesters are paid, these families in turn purchase goods and supplies throughout Alaska. The 3,000,000 - 4,000,000 pounds of bait needed to harvest the 27,000,000 pounds of halibut and black cod are purchased locally. This bait industry is integrated into the halibut and black cod production.

Salmon:

The Kenai Peninsula has the second largest sockeye salmon fishery in the world. In 2006 the landings of salmon came to 76,569,129 pounds representing over \$200,000,000 in economic activity. Like halibut and sablefish landings, these funds provide for families, schools, roads, professional services and governments all supported by the payment of taxes.

All seafood products from the Kenai or its residents collectively amount to over 139,263,760 pounds of seafood worth over a half a billion dollars. The integration of vessels, fuel stations, docks, ice plants, processing facilities, crews, processing workers, truck drivers, packaging, marketing, management and recordkeeping add thousands of jobs for Alaskan families. Millions of dollars are spent in Anchorage, the Mat-Su and the Kenai by all these harvesters, processors, workers and their families. There are dozens of semi-truck loads of packaging, cardboard boxes and plastic materials purchased in Anchorage in order to prepare these seafood products for shipment to the lower 48.

These harvesters and infrastructure workers are volunteer firemen and paramedics; they sit on assemblies, city councils, school boards, planning commissions and hundreds of local civic groups.





Economic New Money and Indirect Benefits

As seafoods from Kenai residents and the Peninsula enter the larger USA and world economy, there is a transfer of money from their economy to our local economy. These resources bring new money to the Kenai much the same as oil and gas when they are sold outside of Alaska. This new money is much different than money that already exists in the Kenai/Alaskan economy. Economic health and wealth are created as we bring new money to our economy, as compared to trading the same dollar back and forth.

Every semi truck or ocean container that leaves the Kenai loaded with seafood represents a savings for all of us. It costs us all to ship empty semis or containers back to the Lower 48. Every **full** semi or container going south helps to reduce the transportation costs to get groceries and consumable goods delivered into Alaska. This reduced freight subsidy generated by the export of over 2,500 truckloads of seafood annually is an economic blessing to all Alaskan families and businesses.

This 100,000,000 pounds of seafood produced by the Kenai provides for over 125,000,000 meals for Alaskans and families across America. It takes a well-integrated seafood industry to provide this quantity and quality of seafoods.

Kenai Peninsula Borough and Resident Landings in 2006

Fishery Group	Number of Fishermen Who Fished	Number of Permits Fished	Total Pounds Landed	Estimated Ex-Vessel Earnings
Crab	11	13	1,504,821	\$3,212,603
Halibut	674	677	17,762,774	\$66,897,960
Herring	33	42	**	**
Other Finfish	0	0	0	\$0
Other Groundfish	88	93	15,632,269	\$6,016,077
Other Shellfish	31	32	**	**
Sablefish	251	260	9,975,098	\$23,556,306
Salmon	1,260	1,261	76,569,129	\$37,619,569
Unknown	0	0	**	**
Total	2,348	2,378	139,263,760	\$139,225,621

**Numbers in table are estimated due to confidentiality

The Mat-Su Issue

Some folks in the Mat-Su have made two complaints. First: this area is not getting enough fish. Secondly: they want a larger economic slice of the salmon industry. In the last 5 - 10 years the following percentages of salmon have gone through the Central and Lower Inlet to the streams in the Mat-Su:

- 95% of the King Salmon from the Mat-Su have returned to the Mat-Su
- 95% of the Chum Salmon from the Mat-Su have returned to the Mat-Su
- 95% of the Pink Salmon from the Mat-Su have returned to the Mat-Su
- 85% of the Coho Salmon from the Mat-Su have returned to the Mat-Su
- 50% of the Sockeye Salmon from the Mat-Su have returned to the Mat-Su



Yentna River (sockeye) counts – Escapement Goal 90,000 – 160,000 Range

Method	2006	2007	
Bendix	92,896	79,901	
DIDSON	160,462	130,000	Bold – within escapement goal range
*Fish Weirs	126,218	96,589	
Mark / Recapture	417,750	247,000	Bold Italic – above escapement goal range

*This weir count occurred on 5 of the 12 known sockeye salmon producing lakes in the Yentna Drainage.

United Cook Inlet Drift Association * 43961 K-Beach Road Suite E * Soldotna, AK 99669

State of Alaska
Commercial Fisheries Entry Commission

May 7, 2008

Kenai Peninsula Borough Residents with Landings Within the Kenai Peninsula Borough in 2006

Fishery Group	Number of Fishermen Who Fished	Number of Permits Fished	Total Pounds Landed	Estimated Gross Earnings
Crab	0	0	0	\$0
Halibut	285	287	5,513,742	\$21,086,768
Herring	13	13	**	**
Other Finfish	0	0	0	\$0
Other Groundfish	33	35	3,130,057	\$1,393,740
Other Shellfish	4	4	**	**
Sablefish	62	66	1,477,196	\$3,446,391
Salmon	585	584	22,373,843	\$12,241,229
Unknown	0	0	0	\$0
Total	795	989	32,525,625	\$38,204,934

Notes:

1. Due to the confidential nature of fish ticket information (AS 16.05.815) at least four people, permits, vessels, or processors must have recorded landings for CFEC to report pounds and gross earnings information. When fewer than four people, permits, vessels, or processors are represented, the pounds and estimated gross earnings are masked with "**". It is sometimes necessary to mask additional values so that masked pounds or gross earnings information cannot be calculated.
2. Residency in the Kenai Peninsula Borough is based on the residency permit holders claimed and the permanent address they provided on CFEC license forms. For the purposes of this report, persons who claimed to be Alaska residents and provided an address in the Kenai Peninsula Borough are treated as Borough residents. Persons claiming to be nonresidents but who provided an address within the Kenai Peninsula Borough are considered non-Borough residents. Any permit holder providing a permanent address outside the Kenai Peninsula Borough, regardless of Alaska residency, is considered a non-Borough resident. Communities considered within the Kenai Peninsula Borough are based upon the 2000 U.S. Census.
3. For the purposes of this report, the location of the landing is based on the port code indicated on the fish ticket. Landings are considered to occur within the Kenai Peninsula Borough for the following ports: Homer (HOM), Kasilof (KAS), Kenai (KEN), Nikishka or Nikiski (NIK), Ninilchik (NIN), Port Graham (GRM), Seldovia (SEL), Seward (SEW), and Soldotna (SOL). All other landings, including those with an unknown port (UNK), are considered outside the Borough.
4. Non-commercial catch, such as derby, research, confiscated, and personal use, is excluded from this table.
5. The number of fishermen who fished reflects the number of people who made at least one landing as a permit holder. This figure includes anyone who participated, including persons who later transferred away their permit, who later had their permit revoked, or who only held the permit temporarily due to an emergency transfer. In cases where a permit has been transferred, more than one person may have fished the same permit.
6. The number of permits fished reflects the number of permits attributed with at least one landing, including those that were later revoked.
7. The total pounds of fish landed on permits in each fishery group include both targeted and incidental catch. In the case of halibut landings, the pounds reflect net pounds of fish. For all other fisheries, the pounds reflect round pounds.
8. The estimated gross earnings of all fish landed on permits in each fishery group is derived from an ex-vessel price per pound developed by the CFEC Research section.

State of Alaska
Commercial Fisheries Entry Commission

May 7, 2008

Kenai Peninsula Borough Residents with Landings Outside the Kenai Peninsula Borough in 2006

Fishery Group	Number of Fishermen Who Fished	Number of Permits Fished	Total Pounds Landed	Estimated Gross Earnings
Crab	11	13	1,504,821	\$3,212,603
Halibut	77	77	1,899,458	\$6,615,389
Herring	20	29	**	**
Other Finfish	0	0	0	\$0
Other Groundfish	45	47	12,181,928	\$4,453,788
Other Shellfish	3	4	**	**
Sablefish	32	35	1,187,137	\$2,752,681
Salmon	260	262	46,056,919	\$19,980,925
Unknown	0	0	0	\$0
Total	362	467	80,224,557	\$38,557,155

Notes:

1. Due to the confidential nature of fish ticket information (AS 16.05.815) at least four people, permits, vessels, or processors must have recorded landings for CFEC to report pounds and gross earnings information. When fewer than four people, permits, vessels, or processors are represented, the pounds and estimated gross earnings are masked with "**". It is sometimes necessary to mask additional values so that masked pounds or gross earnings information cannot be calculated.
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7. The total pounds of fish landed on permits in each fishery group include both targeted and incidental catch. In the case of halibut landings, the pounds reflect net pounds of fish. For all other fisheries, the pounds reflect round pounds.
8. The estimated gross earnings of all fish landed on permits in each fishery group is derived from an ex-vessel price per pound developed by the CFEC Research section.

State of Alaska
Commercial Fisheries Entry Commission

May 7, 2008

Non-Borough Residents with Landings Within the Kenai Peninsula Borough in 2006

Fishery Group	Number of Fishermen Who Fished	Number of Permits Fished	Total Pounds Landed	Estimated Gross Earnings
Crab	0	0	0	\$0
Halibut	312	313	10,349,574	\$39,195,803
Herring	0	0	0	\$0
Other Finfish	0	0	0	\$0
Other Groundfish	10	11	320,284	\$168,549
Other Shellfish	24	24	**	**
Sablefish	157	159	7,310,765	\$17,357,234
Salmon	415	415	8,138,367	\$5,397,415
Unknown	.	.	**	**
Total	749	922	26,513,578	\$62,463,532

Notes:

1. Due to the confidential nature of fish ticket information (AS 16.05.815) at least four people, permits, vessels, or processors must have recorded landings for CFEC to report pounds and gross earnings information. When fewer than four people, permits, vessels, or processors are represented, the pounds and estimated gross earnings are masked with "**". It is sometimes necessary to mask additional values so that masked pounds or gross earnings information cannot be calculated.

2. Residency in the Kenai Peninsula Borough is based on the residency permit holders claimed and the permanent address they provided on CFEC license forms. For the purposes of this report, persons who claimed to be Alaska residents and provided an address in the Kenai Peninsula Borough are treated as Borough residents. Persons claiming to be nonresidents but who provided an address within the Kenai Peninsula Borough are considered non-Borough residents. Any permit holder providing a permanent address outside the Kenai Peninsula Borough, regardless of Alaska residency, is considered a non-Borough resident. Communities considered within the Kenai Peninsula Borough are based upon the 2000 U.S. Census.

3. For the purposes of this report, the location of the landing is based on the port code indicated on the fish ticket. Landings are considered to occur within the Kenai Peninsula Borough for the following ports: Homer (HOM), Kasilof (KAS), Kenai (KEN), Nikishka or Nikiski (NIK), Ninilchik (NIN), Port Graham (GRM), Seldovia (SEL), Seward (SEW), and Soldotna (SOL). All other landings, including those with an unknown port (UNK), are considered outside the Borough.

4. Non-commercial catch, such as derby, research, confiscated, and personal use, is excluded from this table.

5. The number of fishermen who fished reflects the number of people who made at least one landing as a permit holder. This figure includes anyone who participated, including persons who later transferred away their permit, who later had their permit revoked, or who only held the permit temporarily due to an emergency transfer. In cases where a permit has been transferred, more than one person may have fished the same permit.

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8. The estimated gross earnings of all fish landed on permits in each fishery group is derived from an ex-vessel price per pound developed by the CFEC Research section.

**MARK-RECAPTURE POPULATION ESTIMATES OF COHO, PINK, AND CHUM
SALMON RUNS TO UPPER COOK INLET IN 2002**



By
T. Mark Willette
Robert DeCino
Nancy Gove

Regional Information Report No. 2A03-20

**Alaska Department of Fish and Game
Commercial Fisheries Division
333 Raspberry Rd.
Anchorage, Alaska 99518-1599**

June 2003

¹The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or of the Commercial Fisheries Division.

ABSTRACT

This project estimated the total population sizes, escapements, and exploitation rates for coho, pink, and chum salmon returning to Upper Cook Inlet (UCI) in 2002 as a first step toward determining escapement levels needed to achieve sustained yields for these species. Mark-recapture techniques were used to estimate the total population sizes for each species returning to UCI as a whole. Salmon were tagged along a transect running from Anchor Point to the Red River delta on the west side of Cook Inlet during July and early August. Total population sizes for each species were estimated from recoveries of passive integrated transponder (PIT) tags in commercial fishery harvests. Recoveries of radio telemetry tags were used to estimate the total escapement of coho salmon into all UCI streams for comparison to the estimate derived from PIT tags. Radio telemetry tag data were also used to estimate coho salmon escapements into 33 streams and 5 areas around UCI. Our best PIT tag estimate of the total population size of coho salmon returning to UCI was 2.52 million (95% CI: 2.16-2.87 million). Given a commercial harvest of 0.25 million, the total escapement of coho salmon into all UCI streams was 2.27 million (95% CI: 1.91-2.62 million), and the exploitation rate in the commercial fishery was about 10%. Our radio tag estimate of the total escapement of coho salmon into all UCI streams was 1.36 million (95% CI: 0.98-1.96 million). Thus, our PIT tagging experiment estimated a population size for coho salmon entering UCI streams that was higher than the estimate obtained from radio tagging. Although, the 95% confidence intervals around the two estimates overlapped slightly, the z-test statistic indicated the two estimates were significantly different. Of the total coho salmon escapement into all UCI streams, 56% (0.76 million) returned to the Susitna and Little Susitna River drainages, 19% (0.26 million) returned to streams along the west side of UCI, 17% (0.24 million) returned to streams along Knik Arm, 5% (0.07 million) returned to streams along Turnagain Arm, and 3% (0.04 million) returned to streams on the Kenai Peninsula. However, these estimates for Turnagain Arm and Kenai Peninsula streams do not include the entire escapement, because we stopped tagging before the runs to these areas were complete. Our PIT tag estimate of the total population size of pink salmon returning to UCI was 21.28 million (95% CI: 1.60-40.96 million). However, this estimate was of questionable value due to its very low precision resulting from problems with tag recovery. Therefore, we estimated a maximum exploitation rate on pink salmon in the commercial fishery by simply summing escapements that were actually enumerated in 3 streams. Given a commercial harvest of 0.45 million, the maximum exploitation rate in the commercial fishery was about 12%. However, the actual exploitation rate must have been much lower, because we did not include escapements into numerous other streams around UCI. Our PIT tag estimate of the total population size of chum salmon returning to UCI was 3.88 million (95% CI: 3.30-4.47 million). Given a commercial harvest of 0.24 million, the total escapement of chum salmon into all UCI streams was 3.64 million (95% CI: 3.06-4.23 million), and the exploitation rate in the commercial fishery was about 6%. Despite uncertainty in our salmon population estimates, it is reasonable to conclude that exploitation rates on coho, pink, and chum salmon in the UCI commercial fishery were substantially below optimal rates in 2002.

KEY WORDS: Coho salmon, *Oncorhynchus kisutch*, pink salmon, *O. gorbuscha*, chum salmon, *O. keta*, mark-recapture, passive integrated transponder tags, radio telemetry tags, total population size, escapement, exploitation rate.

2083 - pg. 30 Committee B

Proposal 91: Susitna River Mark Recapture Study, 2006-2007

Year	Yentna Sonar		Weir Counts (Yentna Side)				Weir Counts (Susitna Side)				Total	
	Bendix	Didson	Judd	Shell	Hewett	Chelatna	Total	Byers	Larson	Swan		Stephan
2006	92,393	160,462	40,633	69,800	2,513	13,272	126,218	3,071	57,411			60,482
2007	79,901	150,502	58,134	26,784		11,671	96,589	1,707	47,819	5,489	4,120	59,185

Mark Recapture Estimates (2007 estimates are PRELIMINARY)

Year	River	Estimate	95% CI	Method
2006	Susitna	107,300	49,180 164,820	Pit tag
2006	Yentna	417,750	261,930 573,570	Pit tag (July 29 & later)
		311,597	252,000 391,000	Radio tags (entire year)
2007	Susitna	85,000		Radio tags (entire year)
	Yentna	247,300		Radio tags (entire year)

1977
Susitna River Sport Harvest, 1977-2006 SWHS

Approximate numbers

Year	# Resp.	Days	Chinook	Sockeye	Coho	Pink	Chum	Total
1977	2,577	76,101	3,581	5,177	9,379	26,783	1,611	46,531
1978	1,103	112,116	2,843	971	15,072	55,418	15,667	89,971
1979	1,988	115,808	6,910	1,586	12,893	12,516	4,027	37,932
1980	2,648	129,161	7,389	1,571	16,499	56,621	4,759	86,839
1981	1,726	87,843	6,944	1,283	9,391	8,660	4,207	30,485
1982	1,659	120,444	10,521	2,205	16,664	16,822	6,843	53,055
1983	1,781	119,385	12,211	4,057	8,096	4,531	5,034	33,929
1984	1,520	129,656	15,651	3,865	20,063	11,036	5,659	56,274
1985	1,336	124,781	16,353	2,072	15,747	2,868	2,303	39,343
1986	1,074	156,841	21,022	6,798	24,401	13,040	5,069	70,330
1987	1,519	148,194	20,691	4,093	17,510	3,676	3,259	49,229
1988	2,111	191,017	24,271	4,477	31,996	6,093	7,223	74,060
1989	3,698	184,606	28,539	3,819	31,941	3,237	4,458	71,994
1990	3,685	185,707	26,193	3,562	23,879	5,223	1,671	60,528
1991	3,719	211,814	29,958	4,517	36,987	2,318	2,141	75,921
1992	5,612	239,645	39,183	4,643	46,780	7,136	2,272	100,014
1993	5,149	232,253	43,804	6,129	40,535	4,501	1,602	96,571
1994	4,484	217,485	25,000	4,852	34,420	3,227	1,516	69,015
1995	3,065	156,421	14,005	5,596	34,668	2,634	3,825	60,728
1996	2,889	121,594	16,849	3,448	39,589	4,448	3,105	67,439
1997	2,889	132,570	18,607	8,728	16,728	3,141	3,719	50,923
1998	3,069	129,551	19,905	7,930	35,250	7,107	2,613	72,805
1999	3,483	212,815	29,468	9,504	42,563	3,464	3,362	88,361
2000	4,524	234,469	29,105	11,420	60,852	13,580	3,873	118,830
2001	3,658	198,792	27,372	12,430	45,525	4,724	3,619	93,670
2002	3,440	183,056	22,052	5,308	41,379	4,460	3,766	76,965
2003	3,100	181,886	24,534	11,394	34,725	2,224	3,201	76,078
2004	2,782	174,137	24,192	6,465	38,269	5,613	3,067	77,606
2005	2,483	162,906	24,632	4,105	36,223	3,156	2,665	70,781
2006	2,488	166,067	24,864	2,308	45,775	4,505	1,499	78,951

Ave. 1977-1996	153,044	18,596	3,736	24,326	12,539	4,313	63,509
Ave 1997-2006	177,625	24,473	7,959	39,729	5,197	3,138	80,497

SWHS - ADFG may 2008

(get for other rivers)

1-801-225-0401

1 775 721 6955

Fishery Management Report No. 07-65

Overview of Northern Cook Inlet Area Sport Fisheries with Proposals under Consideration by the Alaska Board of Fisheries, February 2008

- 7-10 - (4) B.I.G. -

by

Sam Ivey,

Chris Brockman,

and

Dave Rutz

RC3 TAB 5

December 2007

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Harvest Chinook

Table 7.-Harvest of Chinook salmon from the Eastside Susitna, Westside Susitna, West Cook Inlet, and Knik Arm management units, 1979-2006.

Year	Eastside Susitna Management Unit			Westside	West	Knik	Total
	Hatchery	Non-hatchery	Total	Susitna Management Unit	Cook Inlet Management Unit	Arm Management Unit	
1979			1,298	5,768	98	800	7,964
1980			1,370	6,148	34	646	8,198
1981			2,202	4,742	192	1,466	8,602
1982			2,063	8,573	147	1,666	12,449
1983			2,852	9,568	1,185	1,255	14,860
1984			4,428	12,106	1,833	2,057	20,424
1985			4,342	13,644	2,029	1,889	21,904
1986			8,569	13,402	2,378	1,524	25,873
1987			8,603	13,350	1,477	2,476	25,906
1988	355	8,784	9,139	15,970	1,695	2,916	29,720
1989	1,079	8,704	9,783	19,343	2,325	4,341	35,792
1990	1,194	8,229	9,423	17,425	2,097	2,022	30,967
1991	844	8,239	9,083	21,836	762	2,277	33,958
1992	4,566	16,741	21,307	18,737	1,213	3,969	45,226
1993	3,977	18,711	22,688	21,142	1,955	3,602	49,387
1994	2,703	12,267	14,970	10,248	1,583	4,303	31,104
1995	1,111	6,761	7,872	6,265	693	1,707	16,537
1996	1,205	9,818	11,023	5,879	1,358	1,579	19,839
1997	1,091	9,898	10,989	7,799	894	2,938	22,620
1998	902	9,570	10,472	9,716	693	2,031	22,912
1999	2,464	14,411	16,875	12,131	1,073	2,724	32,803 ✓
2000	1,776	9,998	11,774	17,341	1,163	2,824	33,102 ✓
2001	2,057	11,447	13,504	13,914	722	2,255	30,395 ✓
2002	1,720	8,975	10,695	11,357	1,227	3,195	26,474 ✓
2003	1,605	7,894	9,499	15,035	1,124	2,562	28,220 ✓
2004	969	7,529	8,498	15,694	782	2,556	27,530 ✓
2005	981	7,472	8,453	15,945	546	3,692	28,636 ✓
Mean							
2001-2005	1,466	8,663	10,130	14,389	880	2,852	28,251
2006	*		7,339	16,454	1,038	3,813	28,644 ✓

* Hatchery contribution no longer available. Creel program concluded in 2005.

Chinook Harvests

Table 11.-Chinook salmon harvest, by fishery, in the West Susitna Management Unit, 1977-2006.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Talachulitna River	Other Streams ^b	Other Lakes ^b	Total
1977	820	1,017				464		224	413	0	2,938
1978	769	850				326		12	82	0	2,039
1979	712	2,811				1,796		293	156	0	5,768
1980	1,438	3,685				775		121	129	0	6,148
1981	1,121	2,769				795		57	0	0	4,742
1982	2,506	4,307				1,645		0	115	0	8,573
1983	1,711	4,889				2,423		336	209	0	9,568
1984	2,107	5,699			112	2,881		424	709	174	12,106
1985	2,761	6,407				2,575		224	1,677	0	13,644
1986	2,937	6,490				2,134	647	201	948	45	13,402
1987	2,224	5,632				3,282	834	116	1,252	10	13,350
1988	4,687	5,474			549	2,784	729	909	829	9	15,970
1989	4,882	8,062	12	215	339	3,554	1,202	403	656	18	19,343
1990	5,119	6,161	55	178	385	3,423	740	709	631	24	17,425
1991	6,548	9,306		301	495	2,712	660	848	942	24	21,836
1992	4,124	7,256	23	652	655	3,668	879	445	867	168	18,737
1993	5,154	5,682		653	283	6,425	1,148	875	922	0	21,142
1994	3,070	624		402	202	3,548	930	927	545	0	10,248
1995	1,217	0		425	252	2,838	545	509	479	0	6,265
1996	1,005	11		320	74	2,587	415	697	770	0	5,879
1997	1,470	42		315	34	3,777	557	778	826	0	7,799
1998	1,275	3,384		350		2,511	840	563	793	0	9,716
1999	2,241	3,496		939	197	3,037	1,188	977	56	0	12,131
2000	2,721	7,076		838	236	4,611	742	695	422	0	17,341
2001	2,313	5,007		648	88	4,067	965	409	417	0	13,914
2002	1,992	4,508		559	52	2,878	761	508	99	0	11,357
2003	2,293	6,605		277	122	4,467	371	587	313	0	15,035
2004	1,294	9,050	12	523	85	3,657	390	344	293	0	15,648
2005	1,052	7,332		963	0	4,508	307	800	915	68	15,945
Mean											
2001-2005	1,789	6,500		594	69	3,915	559	530	407	14	14,380
2006	1,396	7,753	40	1964	33	4,070	103	452	643	0	16,454

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1998.

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by

Sam Ivey,

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and

Dave Rutz

RC3 TAB 5

December 2007

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



release cannot be removed from the water, a regulation that also helps reduce hook-and-release mortality.

Coho salmon runs on the Little Susitna River have been found to be significantly correlated to those of other Knik Arm streams (Namtvedt and Yanusz *In prep.*). However, the Little Susitna River at its present location at rm 71 provides very little potential for gauging run strength in other Knik Arm streams or for inseason management of the fishery which occurs primarily on the lower 40 miles of river. Despite its low use as an inseason management tool due to the weir's location high up on the river, Little Susitna weir counts were used to liberalize bag and possession limits as well as time restrictions on the Little Susitna River and Cottonwood, Fish, and Wasilla creeks in 2006 (Appendix A3).

Fishery Performance and Escapement in 2006 and 2007

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During 2006 fishing guides and anglers reported above average catches of coho salmon throughout the season despite extremely high water levels which occurred near the peak of the salmon run. Observations during the first half of the historical run were indicative of a large early run. The magnitude of the 2006 run and a possibly earlier than average run timing resulted in use of the Little Susitna River weir counts in liberalizing coho fisheries across the Knik Arm Unit (Appendix A3). At the same time this EO went into effect, the weir was subjected to major flooding, remaining submerged for the last two weeks in August and resulting in an incomplete count of escapement of only 8,800 fish (Table 20). However, the SEG of 10,100-17,700 was likely met because historical run timing suggests that at least half the run would have occurred during the two weeks the weir was inoperable. Also, escapement index surveys on Wasilla and Cottonwood creeks, both of which closely mirror the Little Susitna run, were about average (Figure 16). Reports from anglers fishing downstream of the weir during the period of flooding were good despite poor fishing conditions. During 2006, 12,400 coho were harvested from the Little Susitna River, below the 2001-2005 mean of 15,100 fish (Table 16).

During 2007, sport fishing guides and anglers reported below average catches early in the season. Angling success became average about a week later than historical observations. Post-season analysis of fish passage through the weir indicated the 2007 coho salmon run on the Little Susitna River to be about seven days late. A total of 17,600 coho salmon were counted through the Little Susitna River weir at rm 71 (Table 20), near the high end of the SEG range.

KNIK ARM MANAGEMENT UNIT: OTHER COHO SALMON FISHERIES

Fishery Description

The Knik Arm Management Unit (Figures 1 and 3) presently supports five significant sport coho salmon fisheries in addition to the Little Susitna River: Fish Creek, Cottonwood Creek, Wasilla Creek, Jim Creek, and Eklutna Tailrace. This unit also has a personal use dip net fishery on Fish Creek and four educational permit fisheries (Knik Tribal Council, Eklutna Village, Big Lake Cultural Outreach, and Intertribal Native Leadership).

Next to the Little Susitna, Jim Creek is historically the second largest Knik Arm sport fishery in terms of both participation and coho salmon harvest (Table 16). Jim Creek enters the glacial Knik River about 10 river miles from salt water. Most sport fishing occurs at the confluence of Jim Creek and the Knik River, an area locally known as the Jim Creek Flats. Fishing effort and harvest rates in the Jim Creek Flats area are strongly influenced by the Knik River because its

1999 occurred in these creeks (Appendix A3). Motorboats are not permitted on Wasilla Creek during weekends from July 15 - August 15.

Historical escapement data are available for Fish, Cottonwood, and Wasilla creeks from past weirs operated on each creek from about July 20 through September 25 and foot index counts conducted annually on Cottonwood and Wasilla creeks. For Jim Creek, foot surveys are conducted on McRoberts Creek, a tributary of Jim Creek, and on Upper Jim Creek; the counts are summed to provide a total Jim Creek escapement index. However, only the McRoberts Creek counts are used in the escapement goal. Biological escapement goals set in 1994 were reevaluated in 2002 and SEGs were established for Fish, Cottonwood, and Jim creeks (Table 21). The BEG for Wasilla Creek was dropped in 2002 because of a lack of historical escapement data from which to develop one. The Jim Creek SEG was based on historic escapement index counts, and the Fish and Cottonwood goals were based on average coho salmon weir counts. Wasilla and Fish Creek weirs were discontinued after 2003 and Cottonwood Creek weir after 2004. Therefore the Cottonwood and Fish Creek SEGs were subsequently dropped. Only one SEG of 450-700 fish on the Jim Creek drainage (McRoberts Creek) remains (Table 21). The management objective for these four systems is to achieve the escapement goal while providing a maximum level of sustained coho salmon fishing opportunity.

Coho salmon weir counts on Wasilla, Cottonwood, Fish, and Jim creeks and the Little Susitna River have been found to be significantly correlated (Namtvedt and Yanusz *In prep.*). Despite its low use as an inseason management tool due to the weir's location high up on the river, Little Susitna weir counts were used to liberalize bag and possession limits as well as time restrictions on the Little Susitna River and Cottonwood, Fish, and Wasilla creeks on August 19, 2006. Area flooding beginning at this same time and lasting through the end of August may have somewhat deflated the intent of these liberalizations.

The Cook Inlet Coho Salmon Conservation Management Plan was adopted by the BOF in February 2000 (Appendix A3) in response to poor returns of coho salmon to the Knik Arm Management Unit in 1997 and 1999 (Table 21). The plan sets the bag and possession limits for all Knik Arm fisheries, excluding the stocked coho fishery at the Eklutna Tailrace, at two coho salmon 16 inches or more in length. Jim Lake, McRoberts Creek, and upper Jim Creek, tributaries supporting large spawning populations, are the only areas closed to coho salmon fishing in the Jim Creek drainage.

Fishery Performance and Escapement in 2006 and 2007

Total sport harvest of coho salmon in Knik Arm streams (excluding Little Susitna River) was 27,300 fish in 2006, about 150% of the 2001-2005 mean of 17,600 fish (Table 16). Total harvest was driven by a record high harvest from Jim Creek. The 2006 harvest of 19,300 on Jim Creek was nearly double the 2001-2005 mean of 10,900 fish. Anglers reported good catches at Jim Creek. Eklutna Tailrace had an average run as reported by anglers and supported by an onsite inspection by area staff. Index survey counts in 2006 were above average (Table 20). The upper limit of the SEG for McRoberts Creek (Jim Creek drainage) was exceeded (Figure 16).

Limited inseason information is available for Fish, Cottonwood, and Wasilla creeks because of the very limited open season and little angler effort. Reports that were received from anglers in 2007 indicated an average return. Anglers reported good catches at Jim Creek. Eklutna Tailrace had an average run as reported by anglers and supported by an onsite inspection by area staff.

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Table 30.-Northern Cook Inlet Management Area sport catch and harvest of northern pike, by management unit, 1977-2005.

Northern Cook Inlet Management Area ^a														
Year	Knik Arm Management Unit ^b		Eastside Susitna Management Unit		Westside Susitna Management Unit		West Cook Inlet Management Unit		Total		Southcentral Region		Statewide	
	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Harvest	% NCIMA	Number	% NCIMA
1977		0				132		0		132	321	41.1	11,982	1.1
1978		0				316		0		316	767	41.2	12,520	2.5
1979		0				382		0		382	762	50.1	12,741	3.0
1980		0				232		0		232	1,358	17.1	17,000	1.4
1981		0				125		0		125	1,411	8.9	16,536	0.8
1982		0				607		0		607	1,707	35.6	18,964	3.2
1983		0				944		0		944	2,642	35.7	21,476	4.4
1984		0				1,821		0		1,821	4,424	41.2	18,641	9.8
1985		156				1,248		0		1,404	2,240	62.7	17,943	7.8
1986		458				1,519		0		1,977	2,894	68.3	21,890	9.0
1987		924				1,540		0		2,464	4,839	50.9	19,079	12.9
1988		364				2,818		291		3,473	3,598	96.5	23,440	14.8
1989		863				2,257		0		3,120	4,434	70.4	21,659	14.4
1990	2,593	754			14,465	2,088		0	17,058	2,842	3,655	77.8	15,985	17.8
1991	7,021	2,709			11,193	3,931		0	18,214	6,640	8,704	76.3	29,611	22.4
1992	7,097	2,605			13,828	2,777		0	20,925	5,382	7,314	73.6	18,616	28.9
1993	10,141	2,102	0	0	24,077	3,619	19	0	34,237	5,721	7,131	80.2	19,366	29.5
1994	2,816	1,328	0	0	5,436	2,556	18	9	8,270	3,893	5,800	67.1	25,558	15.2
1995	825	522	0	0	15,414	3,024	0	0	16,239	3,546	5,323	66.6	19,006	18.7
1996	12,220	4,021	368	11	17,657	3,902	0	0	30,245	7,934	10,503	75.5	23,043	34.4
1997	9,137	4,858	795	95	16,266	4,026	75	45	26,273	9,024	10,489	86.0	16,603	54.4
1998	10,223	4,272	130	130	17,928	3,753	321	25	28,602	8,180	9,595	85.3	15,617	52.4
1999	14,231	6,785	441	260	14,348	3,686	334	93	29,354	10,824	13,327	81.2	19,766	54.8
2000	16,717	5,698	308	101	27,381	3,692	234	86	44,640	9,577	12,019	79.7	18,062	53.0
2001	15,457	6,544	776	55	25,147	5,479	1,042	661	42,422	12,739	16,673	76.4	23,623	53.9
2002	13,079	5,716	647	618	18,450	5,865	284	119	32,460	12,318	14,862	82.9	22,567	54.6
2003	14,094	4,026	11	0	14,818	3,816	355	182	29,278	8,024	11,282	71.1	17,388	46.1
2004	11,179	4,961	119	91	21,878	6,626	704	493	33,880	12,171	17,122	71.1	28,799	42.3
2005	11,347	6,160	513	104	25,704	4,889	330	153	37,894	11,306	13,802	81.9	24,819	45.6
Means														
1977-2005	9,886	2,270	316	113	17,749	2,678	286	74	28,124	5,073	6,862	63.9	19,734	24.5
2001-2005	13,031	5,481	413	174	21,199	5,335	543	322	35,187	11,312	14,748	76.7	23,439	48.5
2006	14,754	6,664	312	137	15,685	4,318	799	285	31,550	11,404	13,261	86.0	18,184	62.7

^a No reported catch or harvest from Eastside Susitna or West Cook Inlet management units until 1993.

^b Harvest of northern pike prior to 1985 may have been included in other fish species category.

^c Catch estimates available beginning in 1990.

Pike Harvest

**APPENDIX B. PRESENCE OF NORTHERN PIKE IN WATERS
OF THE NORTHERN COOK INLET MANAGEMENT AREA**

Appendix B1.-Confirmed and suspected presence of northern pike in waters of the Northern Cook Inlet Management Area.

Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Basin Lakes	Alexander Creek	Alexander Lake	X	
Susitna Basin Lakes	Alexander Creek	Sucker Lake	X	
Susitna Basin Lakes	Alexander Creek	Trail Lake	X	
Susitna Basin Lakes	Alexander Creek	Rabbit Lake	X	
Susitna Basin Lakes	Lower Susitna	Flathorn Lake	X	
Susitna Basin Lakes	Lower Susitna	Figure 8 Lake	X	
Susitna Basin Lakes	Mid Susitna	Witsoe Lake	X	
Susitna Basin Lakes	Mid Susitna	Witsol Lake	X	
Susitna Basin Lakes	Mid Susitna	Lockwood Lake	X	
Susitna Basin Lakes	Mid Susitna	Lady Slipper	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Vern Lake	X	
Susitna Basin Lakes	Mid Susitna	Ding Dong	X	
Susitna Basin Lakes	Mid Susitna	Yensus Lake		X
Susitna Basin Lakes	Yentna River	Whiskey Lake	X	
Susitna Basin Lakes	Yentna River	Bulchitna Lake	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 1	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 2	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 3	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 4	X	
Susitna Basin Lakes	Yentna River	Donkey Lake	X	
Susitna Basin Lakes	Yentna River	Hewitt Lake	X	
Susitna Basin Lakes	Yentna River	No Name (Big Bend)	X	
Susitna Basin Lakes	Yentna River	Chelatna Lake	X	
Susitna Basin Lakes	Yentna River	Cabin Lake (Big Bend)	X	
Susitna Basin Lakes	Yentna River	Pear Lake (Upper Skwentna)	X	
Susitna Basin Lakes	Yentna River	Stickleback Lake	X	
Susitna Basin Lakes	Skwentna River	Eight Mile Lake	X	
Susitna Basin Lakes	Skwentna River	Seven Mile Lake	X	
Susitna Basin Lakes	Skwentna River	No Name (Herk Strip)	X	
Susitna Basin Lakes	Skwentna River	One Stone Lake	X	
Susitna Basin Lakes	Skwentna River	Shell Lake	X	
Susitna Basin Lakes	Deshka River	Parker Lake	X	
Susitna Basin Lakes	Deshka River	Trapper Lake	X	
Susitna Basin Lakes	Deshka River	No Name Lake	X	
Susitna Basin Lakes	Deshka River	Ambler Lake	X	
Susitna Basin Lakes	Deshka River	Rocky Lake	X	
Susitna Basin Lakes	Deshka River	Neil Lake	X	
Susitna Basin Lakes	Deshka River	Kroto Lake	X	
Susitna Basin Lakes	Deshka River	No Name 1mi SW Parker	X	

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Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Basin Lakes	Deshka River	No Name 2 mi SW Parker	X	
Susitna Basin Lakes	Upper Susitna	Kashwitna Lake		X
Susitna Basin Lakes	Upper Susitna	Caswell Lake		X
Susitna Basin Lakes	Upper Susitna	Fish Lake (Birch Ck)		X
Susitna Basin Lakes	Upper Susitna	Sawmill Lake		X
Susitna Basin Lakes	Upper Susitna	Swan Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Nancy Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Redshirt Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Lynx Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Cow Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Little Chicken Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Big No Luck Lake	X	
Susitna Basin Lakes	Nancy Lake Area	South Rolly Lake	X	
Susitna Basin Lakes	Nancy Lake Area	North Rolly Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Denaina Lake (Tanaina)	X	
Susitna Basin Lakes	Nancy Lake Area	Milo Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Frazer Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Little Frazer Lake	X	
Susitna Basin Lakes	Nancy Lake Area	James Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Owl Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Char Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Ardaw Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Phoebe Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Chicken Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #1	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #2	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #3	X	
Susitna Basin Lakes	Nancy Lake Area	Candle Stick Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #1	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #2	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #3	X	
Susitna Tributaries		Fish Creek (Flathorn)	X	
Susitna Tributaries		Fish Creek (Kroto)	X	
Susitna Tributaries		Lake Creek	X	
Susitna Tributaries		Fish Lake Creek	X	
Susitna Tributaries		Alexander Creek	X	
Susitna Tributaries		Trappers Creek	X	
Susitna Tributaries		Sucker Creek	X	
Susitna Tributaries		Montana Creek	X	
Susitna Tributaries		Rolly Creek	X	
Susitna Tributaries		Moose Creek	X	
Susitna Tributaries		Bottle Creek	X	
Susitna Tributaries		Hewitt Creek	X	

-continued-

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Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Tributaries		Donkey Creek	X	
Susitna Tributaries		Indian Creek (Yentna)	X	
Susitna Tributaries		Indian (Chulitna)		X
Susitna Tributaries		Rabideux Creek	X	
Susitna Tributaries		Fish Lake Creek	X	
Susitna Tributaries		Kutna Creek (Yentna)	X	
Susitna Tributaries		Shell Creek	X	
Susitna Tributaries		Eightmile Creek	X	
Susitna Tributaries		Caswell Creek	X	
Susitna Tributaries		Witsoe Creek	X	
Susitna Tributaries		Trapper (Talkeetna)		X
Susitna Tributaries		Talachulitna Creek		X
Susitna Tributaries		Johnson Creek	X	
Susitna Tributaries		Otter Creek	X	
Susitna Tributaries		Unnamed (Lower Su)	X	
Susitna Tributaries		Sunshine Creek		X
Susitna Tributaries		Anderson Creek		X
Susitna Tributaries		Wiggel Creek		X
Susitna Tributaries		Birch Creek		X
Susitna Tributaries		Yentna River	X	
Susitna Tributaries		Skwentna River	X	
Susitna Tributaries		Chulitna River		X
Susitna Tributaries		Tokositna	X	
Susitna Tributaries		Deshka River	X	
Knik Arm Drainage	Big Lake Drainage	Fish Creek (Big Lake)		X
Knik Arm Drainage	Big Lake Drainage	Meadow Creek (Big Lake)		X
Knik Arm Drainage	Big Lake Drainage	Big Lake	X	
Knik Arm Drainage	Big Lake Drainage	Blodgett Lake		X
Knik Arm Drainage	Big Lake Drainage	West Beaver Lake		X
Knik Arm Drainage	Big Lake Drainage	Rainbow Lake		X
Knik Arm Drainage	Cottonwood Creek	Cottonwood Creek		X
Knik Arm Drainage	Cottonwood Creek	Cottonwood Lake		X
Knik Arm Drainage	Cottonwood Creek	Andersen Lake	X	
Knik Arm Drainage	Cottonwood Creek	Wasilla Lake		X
Knik Arm Drainage	Cottonwood Creek	Mud Lake		X
Knik Arm Drainage		Little Susitna River	X	
Knik Arm Drainage	Little Susitna River	Horseshoe Lake (Little-Su)		X
Knik Arm Drainage	Knik River	Swan Lake		X
Knik Arm Drainage	Knik River	Jim Lake/Jim Creek		X
Knik Arm Drainage		Knik Lake	X	
Knik Arm Drainage		Mink Creek	X	
Knik Arm Drainage		Fire Creek	X	
West Cook Inlet		Chuit River	X	

-continued-

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Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
West Cook Inlet		Chuitbunga Lake	X	
West Cook Inlet		Threemile Creek	X	
West Cook Inlet	Threemile Creek	Threemile lakes	X	
West Cook Inlet		Tukallah Lake	X	
West Cook Inlet		Nikolai River	X	
Mat-Valley Lakes		Big Lake cut-off Lake	X	
Mat-Valley Lakes		Crystal Lake (Willow)	X	
Mat-Valley Lakes		Shirley Lake (Willow)		X
Mat-Valley Lakes		Long Lake (Willow)	X	
Mat-Valley Lakes		Prator Lake	X	
Mat-Valley Lakes		Memory Lake	X	
Mat-Valley Lakes		Finger Lake		X
Mat-Valley Lakes		Wallace Lake	X	
Anchorage Lakes		Sand Lake	X	
Anchorage Lakes		Delong Lake	X	
Anchorage Lakes		Lower Fire Lake	X	
Anchorage Lakes		Upper Fire Lake	X	