

1. Call to order $6: 20 \mathrm{pm}$
2. Sign in
3. Approval of minutes $12 / 4 / 07$ and $12 / 12 / 07$ meetings
4. Approval of agenda
5. Election of officers

- Karl Romig unanimously voted as Chairman
- Andy Szczesny unanimously voted as Vice Chair.
- John Pearson unanimously voted as Secretary.

6. Board Member Elections:

- Mike Adams re-elected for 3 year seat
- Robert Gibson re-elected for 3 year seat
- James Givens re-elected for 3 year seat
- Karl Romig re-elected for 3 year seat
- Robert Siter III re-elected for 3 year seat
- Kyle Kolodziejski elected for 2 year seat
- Ray Wilkes elected for 1 year seat(replace Bill Stockwell)
- Colin Lowe elected for 2 year seat
- Bob Overman elected for 1 year seat(replace Darwin Peterson)
- Erik Route elected for 1 year alternate
- Dominic Bauer elected for 1 year alternate



## The Alaska Board Of Fisheries

## .Board of Fisheries Upper Cook Inlet proposals, review and comments.

7. Continue review and comment of Upper Cook Inlet fish proposals

- Andy moves to group 80-86 fish proposals, Billy seconds motion
- Andy moves to vote on 80 , Robert seconds motion
- Vote on proposal 80: 1 in favor, 9 opposed-fine the way it is
- No action taken on 81-86 based on 80. As an AC we suppert winduys
- Open discussion on 154-10 opposed because "pink salmon" is a Trojan horse, no action taken on 155-159 because of 154
- Open discussion on 187: all opposed because sockeye needs to be managed for sportfishing. No action taken on $188,204,118,189,190$, 192, 193, 195, 200, 194, 196, 197, 198, 199, 201, 203, 205, 209 because of action on 187



# Alaska Backcountry Hunters \& Anglers 

Box 47, Homer, AK 99603
RECEIVED
JAN $2: 2008$
BOARDS

## Attn: BOF Comments

Alaska Department of Fish and Game
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526
Comments to the Alaska Board of Fish
Inre: February 2008 Statewide Proposals
Proposal 221-5 AAC 77.540 Implement motor type restrictions for dip net fishing from vessels

## SUPPORT

AK BHA believes it is necessary to address excessive hydrocarbon levels in Kenai river in the most direct and immediate way. This law is simple, straight forward, and easy for both the public and enforcement officials to understand. It will provide an incentive for boat owners to upgrade their outboard motors before using their vessel on the Kenai river, and achieve the desired effect of lowering hydrocarbon levels in a timely fashion. Vessel owners who cannot or will not upgrade their motors have the option of dip netting from the beach, on either bank of the river.

Proposal 241-5AAC 57.120(6) Prohibit removing rainbow trout from the water during spawning closures

## SUPPORT

This proposal adds consistency to the management of spawning rainbow trout and steelhead. Prohibiting their removal from the water when the fish are spawning by regulation, rather than by EO, will increase public awareness of this management tool. Over time, with increased public awareness, proper catch and release fishing techniques will become habitual in the majority of anglers. This is a simple conservation issue, and this proposal succinctly addresses the problem of poor fish handling and excessive mortality in these valuable stocks.

## SUPPORT

AK BHA supports the conservative management of sensitive species such as lake trout, in order to ensure that future generations of Alaskans will have a healthy abundance of fish and game to harvest. Reducing the take of lake trout by one fish will have an enormous effect on total numbers of fish taken, while continuing to allow anglers to pursue this desirable species. The reduced take will likely lead to greater fish productivity in the future, with larger, older and more numerous fish available to the public. This is a reasonable and effective proposal, and deserves to be added to the regulations.

Proposal 268-5 AAC 57.121. Extend Funny River, Slikok Creek and Lower Killey River sanctuary closures through July 31

## SUPPORT

The Funny River, Slikok Creek, and Lower Killey River described sanctuary areas are important holding grounds for main-stem first-run king salmon. Current regulations aren't providing enough protection for these important main-stem spawning phase kings because the fishing season (from a boat) opens in these holding areas right when the run is occurring. First run spawning extends until July 29. Extending the closure on fishing for king salmon from a boat in these sanctuary areas to July 31 is needed to protect these important main-stem spawners and in particular the size-integrity of the overall population.

Sarah Pain, Governor
Dennis Hamann, Chairman
1200 Oat Street
Wasilla, Alaska 99654
phone: 373-5938
email: 66mustang@mtaonline.net

January 21, 2008


Dear Governor Paling,
The Matanuska Valley Fish and Game Advisory Committee appreciates your policy of providing clear and transparent government for the people of Alaska. As members of the public we feel better when we know what government agencies are doing, planning, or talking about. With this thought in mind, the Advisory Committee offers the following suggestion for a more clear and understandable dialog between the Public, Alaska Department of Fish and Game, Alaska Board of Fisheries, and Alaska Board of Game.

The Committee proposes a definition and distinction between the terms, "regulation," "restriction," and "liberalization," so that the Public, Department, and Boards will gain a better understanding of what each other is talking about.

While we acknowledge that a regulation by its very nature can be restrictive, we believe current regulations and / or management plans are the established rules, and thus, should mostly be viewed as neutral in the context of inseason restrictions and / or liberalizations made for conservation purposes. For example: when a management plan lists a specific action that SHALL be taken under a specific situation, we believe as part of current rules, that would be a neutral inseason adjustment.

When a management plan grants the Department discretionary authority to adjust regulations in season, however, the Committee believes such changes would best be characterized as a restriction or a liberalization. For example: when a management plan lists an action that MAY be taken under a specific situation we believe such a change should be considered a restriction if it subtracts harvest opportunity provided from the established regulations OR as a liberalization if it increases harvest opportunity from the established regulations.

Specific problems in comprehension that the Committee is experiencing include: 1. when the Department talks about following an Upper Cook Inlet salmon management plan as an inseason restriction rather than as current regulation. 2. when the Department calls an emergency order to increase harvest under its discretionary management authority a "restriction" (presumably because the Department did not use its discretionary management authority to the full extent allowable). The Matanuska Valley Fish and Game Advisory Committee believes these current practices are both confusing and misleading to the Public and the Board of Fisheries and thus requests this defining of terms used by the Alaska Department of Fish and Game prior to the February 2008 Upper Cook Inlet Board of Fisheries Meeting.

Please let us know if we can expect this change to be made in time for the above mentioned Board of Fisheries meeting.
Sincerely,


## Dennis Hamann, Chairman

cc: Commissioner Denby Lloyd, Board of Fisheries members , Mat-Su Valley legislators

# DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES DIVISION OF SPORT FISH 

MEMORANDUM



DATE: January 24, 2008
SUBJECT: Upper Cook Inlet potential management options

At the Alaska Board of Fisheries (BOF) work session in October 2006, the board received numerous Agenda Change Requests (ACRs) that asked the board to re-evaluate many aspects of the Upper Cook Inlet (UCI) salmon fishery management plans. While the board declined to accept the ACR's, they created a committee of three board members to begin a comprehensive review of the management plans in preparation for the regular, in-cycle meeting for UCI during the winter of 2007/2008. With input from the Alaska Department of Fish and Game, the committee prepared an initial "issues paper" on the UCI management plans. This initial draft was made available to the public for written comment and was intended to stimulate discussion and to solicit additional comments from the public (i.e., various users). The committee received 12 written comments from the public which were incorporated into the issues paper. This paper was presented to the full Board by the committee during the March 2007 BOF meeting.

Based on comments from the public, the committee worked toward including as many issues as possible, not wanting to necessarily "screen" anything at the time. The committee also stated that an inclusion of any issue into the document did not necessarily imply an endorsement by the committee or the full BOF. This document was not intended to be an all-encompassing issues paper, and it was assumed that other issues would be brought forward through the BOF proposal process.

Although numerous issues concerning UCI management were identified, possible options addressing these issues were not listed. This memo outlines potential options from the department addressing some of the major issues.

## 5 AAC 21.363. Upper Cook Inlet Salmon Management Plan

Issue 1: In the various management plans, the BOF has adopted optimal escapement goals (OEG), inriver run goals, and established fishing time restrictions or other management actions that are often in conflict with each other. In general, this management plan does not provide direction to or describe management actions to the department.

Option: Eliminate this umbrella management plan.

## 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan

Issue 1: In medium to larger sockeye salmon runs (over 3 million to the Kenai River), the drift gillnet fishery is a necessary tool to harvest salmon in excess of the various goals (inriver run goals and biological, sustainable, or optimal escapement goals) in the Kenai and Kasilof rivers. However, in recent years. restrictions to the drift gillnet fishery have been implemented in an attempt to achieve the Yentna River sustainable escapement goal. This goal has been exceeded once, within the range twice, and below the range 6 times since 1999. During that time the Kenai River inriver run goal has been exceeded 5 of 9 years and the Kasilof River biological escapement goal (BEG) has been exceeded 8 of 9 years, and since the Kasilof River OEG ( $150.000-300.000$ ) was adopted prior to the 2002 season, that goal has been met once and exceeded 5 of 6 years.

At run strengths greater than 2 million sockeye salmon to the Kenai River, one additional 12-hour fishing period in the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Gillnet Area I may be allowed by emergency order (EO) between July 9 and July 15 . This additional time is likely never to be used because it is allowed prior to an inseason assessment of run strength to the Kenai or Yentna rivers. Implementing this additional time could be harmful if used in years with low runs to the Susitna River based on the forecast alone because it is generally not accurate for Susitna River sockeye salmon stocks.

Since 1999, the department's forecast of Kenai River run strength has been in the correct tier when compared to postseason total run assessment only in 2007. In early to mid July the department is required to put restrictions in place for the drift fishing fleet that are based on this forecast and the tiers within these management plans. The current regulations read as follows:

Weekly fishing periods are Monday and Thursday from 7:00 am to 7:00 pm, except that these fishing periods may be modified by emergency order.

The fishing season will open the third Monday in June or June 19, whichever is later, and from July 9 through July 15. (i) fishing during the two regular fishing periods is restricted to the Kenai and Kasilof Sections and Drift Gillnet Area I; (ii) at run strengths greater than 2 million sockeye salmon to the Kenai River, the commissioner may, by emergency order, open one additional 12-hour fishing period in the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16 through July 31, (i) at run strengths of less than 2 million sockeye salmon to the Kenai River, fishing during the two regular 12-hour fishing periods is restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Area 1; (ii) at run strengths of 2 million to 4 million sockeye salmon to the Kenai River, fishing during the two regular 12-hour fishing
periods is restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Areas 1 and 2; (iii) at run strengths greater than 4 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

Option: Reconsider the current regulated fishing time/area such that a more flexible management scenario is in place to harvest stocks based on run strength. Since many of these restrictions and other limitations were put in regulation, the number of EOs issued has doubled. Reducing or eliminating the mandatory drift restrictions prior to and after July 16. and eliminating the additional third period between July 9 and 15 in Drift Area Number 1 , could provide flexibility and greatly simplify these plans. The department could then use EO authority to manage for escapement goals. Management actions taken in the drift gillnet fishery would remain dependent on meeting the Yentna River sockeye salmon sustainable escapement goal, as measured by the Yentna River sonar project.


Figure 1.-Drift gillnet boundaries for fishing areas 1 and 2.

## 5 AAC 21.358. Northern District Salmon Management Plan

For the last 17 seasons, the Northern District set gillnet fishery has been closed for one or more periods, and the drift gillnet fishery has been restricted each year for one or more periods in an attempt to meet the Yentna River sustainable escapement goal. While these restrictions have taken place in an effort to meet the Yentna River sustainable escapement goal, the Kenai River inriver run goal has been exceeded 5 out of 9 years and the Kasilof River BEG has been exceeded 8 out of 9 years, and since the OEG $(150,000-300,000)$ was adopted prior to the 2002 season, that goal has been met once and exceeded 5 of 6 years. The Yentna River sonar appears to be undercounting, by possibly a significant amount, and may be a poor indicator of abundance. The department needs to develop an alternative assessment to manage Northern District sockeye salmon fisheries and gain a better understanding of production and exploitation of Susitna River sockeye salmon stocks.

| Since 1999 <br> (8 years) | Yentna R. | Kenai R. <br> $(\mathrm{OEG})$ | Kenai R. <br> $($ IRG $)$ | Kasilof R. <br> $(\mathrm{BEG})$ | Kasilof R. <br> (OEG Est. 2002) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Below | 6 | 2 | 0 | 0 | 0 |
| Within | 2 | 4 | 4 | 1 | 1 |
| Exceeded | 1 | 3 | 5 | 8 | 5 |

Issue 1: 5 AAC 21.358(b) states "Achievement of the lower end of the Yentna River OEG shall take priority over not exceeding the upper end of the Kenai River escapement goal. When the sockeye salmon returns to the Kenai River are 4 million or greater, the OEG is 75,000 to 180,000 sockeye salmon in the Yentna River". It is unclear as to which goal in the Kenai River the plan is referencing.

Option: The BOF should provide the department clarity as to which Kenai goal (inriver run goal or OEG) should be referenced.

## 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan

Issue 1: The amount of fishing time currently allowed by regulation and the inriver run goal (at river mile 19) is determined by the preseason run projection to the Kenai River until approximately July 25 , when an inseason run assessment occurs. However since 1999, the end of season total run has matched the preseason projection only once in 11 years using the current three tier system. Given that, the amount of allowable hours by regulation has not matched the amount of hours necessary to stay within the inriver run goal. There are also windows of closure in place depending on the run strength. The combination of specified EO time and mandatory window closures are two of the primary conflicts with achieving the various goals within the plans.

| Current UCI Mgmt. Plan (3 Tiers) |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Kenai River <br> in Same Tier <br> as Forecast? |  |  |
| Year | Forecast | Actual |  |
| 1999 | 1.60 | 2.60 | No |
| 2000 | 2.50 | 1.50 | No |
| 2001 | 2.40 | 1.90 | No |
| 2002 | 1.70 | 3.10 | No |
| 2003 | 1.96 | 3.80 | No |
| 2004 | 3.20 | 5.00 | No |
| 2005 | 3.30 | 5.60 | No |
| 2006 | 1.85 | 2.53 | No |
| 2007 | 2.41 | 2.77 | Yes |
|  |  | Correct | $\mathbf{1 1 \%}$ |


| Run < 2 million | Run 2-4 million | Run > 4 million |
| :---: | :---: | :---: |
| Inriver run goal: 650.000-850,000 | Inriver run goal: $750,000-950,000$ | Inriver run goal: 850,000-1,100,000 |
| 24 hours of emergency order authority beyond the two regular periods | 51 hours of emergency order authority beyond the two regular periods | 84 hours of emergency order authority beyond the two regular periods |
| NA | 24 hour floating window closure | NA |
| NA | 36 hour window closure that has to start between 7pm Thursday and 7am Friday. | 36 hour window closure that has to start between 7pm Thursday and 7am Friday. |

Option: Based on the difficulty of accurately projecting the Kenai River sockeye salmon run, a possible solution would be to replace the current three tier system with a two tier system. Below is a plan outlining what a possible two-tiered system might resemble. Changing to a two-tier system may require modification of the inriver run goal in order to provide an allocation of fish to the inriver user. Kenai River late-run sockeye salmon sport fish harvests from 1997-2006 have averaged 224,758 fish. An inriver run goal set too low may result in restrictions or closures to the sport and personal use fisheries.

| Plan With a 2 Tier system (3 million) |  |  |  |
| :---: | :---: | :---: | :---: |
| Kenai River Run | Actual Run in <br> Same Tier as <br> Forecast? |  |  |
| Year | Forecast | Actual |  |
| 1999 | 1.60 | 2.60 | Yes |
| 2000 | 2.50 | 1.50 | Yes |
| 2001 | 2.40 | 1.90 | Yes |
| 2002 | 1.70 | 3.10 | No |
| 2003 | 1.96 | 3.80 | No |
| 2004 | 3.20 | 5.00 | Yes |
| 2005 | 3.30 | 5.60 | Yes |
| 2006 | 1.85 | 2.53 | Yes |
| 2007 | 2.41 | 2.77 | Yes |
|  |  | Correct | $\mathbf{7 8 \%}$ |


| Run less than 3 million | Run greater than 3 million |
| :--- | :--- |
| Option 1: Inriver run goal: 650-850 | Option 1: Inriver run goal: 850-1.100 |
| Option 2: Inriver run goal: 750-950 |  |
| 51 hours of emergency order authority | 84 hours of emergency order authority |
| 24 hour floating window | 24 hour floating window deleted (as it is <br> in runs greater than 4 million sockeye) |
|  | 36 hour window that can be fished into <br> if needed to control escapement into <br> the Kenai River |

Issue 2: Specify which management objective in the plan is the priority when considering escapement goals (inriver run goal or OEG), window closures, or regulated fishing time via EO.

Option 1: Specify that the Kenai River inriver run goal found in the various tiers is the inseason target and priority for the department. The prescribed window closures and EO hours will be used to achieve the inriver run goal but the inriver run goal will not be compromised by a window closure or a set number of EO hours. It is the inriver run goal for which the department has inseason information and uses that information to make management decisions.

Option 2: Specify that the prescribed window closures found in the various tiers are the priority and that achieving the inriver run goals and potentially exceeding EO fishing hours will not compromise a window closure.

Issue 3: The sport fishing bag and possession limit is set in the management plan at 3 sockeye salmon. When bag and possession limits are set in management plans, the department cannot use EO authority to increase or decease limits unless allowed by the management plan. This plan only allows a bag and possession limit increase to 6 sockeye salmon. Adding the flexibility of reducing the bag limit and possession limit by EO rather than total closure may reduce disruption to the sport fishery during years when the department projects that the inriver run goal will not be met but the OEG could be met if the sport fishing sockeye salmon bag and possession limit is lowered. In addition, when escapement goals are being exceeded. the bag and possession limit is confined to 6 fish. Increasing harvest limits beyond 6 fish may increase the opportunity to harvest fish in excess of the escapement goal.

Option: Provide the department EO authority to decrease limits rather than close the fishery and increase the bag and possession limit to increase harvest. Decreasing limits to 1 fish or 2 fish may allow the sport fishery to remain open at a very low level of harvest and effort while still achieving the OEG.

Issue: The language under 5 AAC 21.360 (b) relating to the sport and personal use fisheries is inconsistent with the language in (g) and (h). Under (b) of the management plan, it states that the Kenai River late-run sockeye salmon commercial, sport, and person use fisheries shall be managed to (1) meet an OEG of 500,000-1.000,000 sockeye salmon; (2) achieve inriver run goals; and (3) distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The plan further states under $(\mathrm{g})$ and $(\mathrm{h})$ which requirements are necessary in order to provide for sport and personal use fisheries. These two subsections essentially limit restrictions on these fisheries to those needed to ensure the lower end of the OEG is met.

Option 1: Delete the reference to sport and personal use fisheries under (b) of this section. This would be consistent with how the sport and personal use fishery have been previously managed.

Option 2: Modify (g) and (h) of this section to subject the sport and personal use fisheries to the requirement of meeting the inriver run goal instead of the OEG. This may require the personal use fishery and the sport fishery below the sonar site to be restricted or closed depending on how many fish pass the commercial fisheries and enter the river.

## 5 AAC 21.365. Kasilof River Salmon Management Plan

Issue 1: The Kasilof River BEG has been exceeded 8 of 9 years since 1999 while the OEG has been exceeded 5 of 6 years (OEG established in spring of 2002). Fishing time allotted in the current management plan prior to July 9 is not sufficient to harvest excess fish (two regular scheduled periods plus up to 48 hours of additional EO time). The 48 hour window closure has also been problematic because during that period of time large passage rates have occurred. These two factors have kept the department from being able to manage for the escapement goal. In order to meet the Kasilof River escapement goal, the above limitations also make it necessary
to use the Kasilof River Special Harvest Area (KRSHA) much more aggressively. This is also in conflict with the BOF intent to harvest salmon in fisheries that have historically harvested them including the methods, means, times, and locations of those fisheries.

Option: Reduce the 48 hour window closed to commercial fishing to a minimum of 24 hours and increase the amount of allowable EO fishing time from 48 hours to 63 hours (by 15 hours a week). This would provide the department the ability to manage for the Kasilof River sockeye salmon OEG prior to Kenai River sockeye salmon stocks entering the fishery. This change would make use of the KRSHA less likely.

Issue 2: Beginning July 9, the set gillnet fishery in the Kasilof Section is managed in concert with the Kenai and East Forelands sections. The date of July 9 may be too early to manage the Kasilof River sockeye salmon stock based on Kenai River sockeye salmon run strength.

Option: Begin managing the Kasilof River in concert with the Kenai and East Forelands sections July 15 instead of July 9. This would provide additional time to harvest Kasilof River sockeye salmon prior to the arrival of the majority of the Kenai River sockeye salmon entering the fishery. Additional Kenai River sockeye and king salmon could be harvested in the Kasilof section during this time frame. The regulations in place on June 25 in the Kasilof section would remain in effect until July 15. At that time. the Kasilof and Kenai areas would be managed in concert.

Issue 3: After July 15, if the department determines that the Kenai River late-run sockeye salmon run strength is projected to be less than 2 million fish and the 300,000 upper OEG bound for the Kasilof River sockeye salmon may be exceeded, an additional 24 -hours of fishing per week in the Kasilof Section within one-half mile of shore is allowed by regulation. This date and the additional time may not be sufficient to harvest surplus Kasilof sockeye.

Option: Provide an additional 24 hours of fishing within one-half mile in the Kasilof Scction after July 8.

January 28, 2008
Mel Morris, Chair
Board of Fisherles
917 Mill Bay Road
Kodiak, AK 99615
Dear Mr. Morris:
Thank you for the opportunity to provide comments on the proposals being considered by the Board of Fisheries.

Multi-year studies conducted by the Department of Environmental Conservation (DEC) and other organizations indicate that each July, the lower 19 miles of the Kenal River exceed Alaska's water quality standards for petroleum hydrocarbons. The water quality standards are established to protect fish and other aquatic life, especially the sensitive life stages such as the spawning. Consequently, DEC has included the lower Kenai River on its list of "impadred" waters under Section 303(d) of the Clean Water Act.

Water quality studies indicate the source of the petroleum hydrocarbon is motorboats, with the overwhelming majority of the pollution coming from gas and oll released from older, 2 -stroke boat motors. DEC supports a move to cleaner, more fuel efficient, 4-stroke or direct fuel injection 2-stroke technology.

DEC has been working with the Departments of Natural Resources (DNR) and Fish and Game (F\&G), and the Kenal River Special Management Area (KRSMA) Advisory Board to reduce the petroleum hydrocarbon contamination. Based on KRSMA Advisory Board recommendations, DNR has proposed regulations that when approved, would eliminate the use of conventional 2 -stroke motors during the month of July, beginning in 2008. However, the DNR regulations only apply to the KRSMA portion of the Kenai River and do not address the last 5 miles of the river where the personal use fishery (PUF) is located. Data on the number and types of motors used in the PUF show a higher percentage of 2 -stroke motors operating in this fishery compared to the sport fishery within the KRSMA.

DEC generally supports the proposals before the Board of Fisherres that would prohibit or reduce the use of conventional 2 -stroke motors in the PUF. Such a change in the regulations for the PUF can be an important element of the Kenai River recovery. Board of Fisheries actions that coincide with the 2008 timetable established under DNR's pending regulations may be timely, effective, and easily understood by the public. However, DEC recognizes the Board may need to consider phasing the reduction in conventional 2-stroke motors over a number of years as a matter of fairness to current participants
in the PUF. Neither DEC nor federal rules require a specific deadline for action on impaired waters and allow the phasing in of plans to make improvements to water quality over time.

If you have questions, please contact me or Nancy Sonafrank at 451-2726.

Sincerely,
Lypm fomich Thent
Lynn J. Tomich Kent
Director

# United States Department of the Interior 

U.S. FISH AND WILDLIFE SERVICE Office of Subsistence Management 3601 C Street, Suite 1030 Anchorage, Alaska 99503



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\text { JAN } 112008
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FWS/OSM/Regulatory Proposals

## RC 10

Mr. Mel Morris, Chairman
Alaska Department of Fish and Game
Board of Fisheries
1255 West $8^{\text {th }}$ Street
P.O. Box 25526

Juneau, Alaska 99802-5526
Dear Chairman Morris:
At it's upcoming meeting scheduled to begin February 1, 2008, the Alaska Board of Fisheries will deliberate 2007/2008 regulatory proposals that address Upper Cook Inlet commercial, sport, and personal use finfish fisheries. We understand that the Board will be considering approximately 285 proposals at this meeting.

The U.S. Fish and Wildlife Service, Office of Subsistence Management, working with other Federal agencies, has reviewed these proposals and developed preliminary comments on proposals which may have an impact on Federally qualified subsistence users and Federal subsistence fisheries in this area. Our comments are enclosed.

Currently, Federal regulations for subsistence fishing with rod and reel in Federal public waters in the Cook Inlet area, unless otherwise specified by harvest permit or specifically addressed by Federal subsistence regulations are the same as State regulations for sport fishing. So long as the relevant Federal regulations are the same as Alaska sport fishing regulations, by reference, changes to the sport fishing regulations would have the same effect on Federal subsistence opportunity. Your Board will address several sport fishing proposals requesting changes to area, bag/slot limits and methods and means, which if adopted could limit Federal subsistence fishing opportunities. We may wish to comment further on specific proposals if issues arise during the meeting which may have an impact on Federal subsistence users and fisheries.

We appreciate the opportunity to comment on these important regulatory matters and look forward to working with your Board and the Alaska Department of Fish and Game on these issues.


Peter J. Probasco
Assistant Regional Director

cc Denby S. Lloyd, ADF\&G<br>Michael Fleagle, Chair FSB<br>John Hilsinger, ADF\&G, Anchorage<br>Charles Swanton, ADF\&G, Juneau<br>Elizabeth Andrews, ADF\&G, Juneau<br>Rob Bentz, ADF\&G, Juneau<br>James Hasbrouck ADF\&G Anchorage<br>Patti Nelson, ADF\&G, Juneau<br>Jeff Regnart, ADF\&G, Anchorage<br>Tina Cunning, ADF\&G, Anchorage<br>Jim Fall, ADF\&G, Anchorage<br>George Pappas, ADF\&G, Anchorage<br>Jim Marcotte, ADF\&G, Juneau<br>Interagency Staff Committee<br>Federal Subsistence Board

## Conflicts Outline for Howard Delo

- The four areas initially identified as potential conflicts:

1. Outdoor columns written about Cook Inlet fisheries for the local newspaper;
2. Membership and having held the Chair position on the Matanuska Valley Fish and Game Advisory committee, which submitted proposals for this meeting;
3. Being a certified recreational boating safety instructor who charges for the instruction and classes offered; and
4. My mother-in-law owns a Cook Inlet set-net permit.

- There are two facets involved in the set-net permit conflict:

1. Deriving an income from fishing the permit; and
2. The value of the permit itself.

## Outdoor newspaper column

The first area of potential conflict arises from my outdoor newspaper column in the MatSu Valley Frontiersman. The opinions I have written are based on my personal observations and thoughts regarding fishing in the Cook Inlet area. These columns were written before my March 2007 appointment to the Board of Fisheries and none take a position on any of the regulatory proposals before this board.

I have been very careful not to write about fisheries related topics since my appointment unless the item is an explanation "after the fact" of an action by the board or is a comment or idea someone else has told me - those situations were clearly identified in the respective newspaper columns. Data presented in the newspaper columns in question were obtained from Department of Fish and Game sources. I have taken a prudent approach to my writing since my appointment to the board.

After review of this topic and a discussion with the Department of Law, the Board of Fisheries Executive Director and the BOF Chairman, this potential conflict area was determined to have no real basis.

## Matanuska Valley AC membership

Previous to my service on the Board of Fisheries I was a member of the Matanuska Valley Fish and Game Advisory Committee and held the position of Chair. I resigned my seat on the advisory committee upon my appointment to the board in March 2007. The advisory committee submitted 10 proposals for this meeting on a variety of topics. I do not have a personal or financial interest in these proposals and consider that $I$ am able to act objectively on them and act independent of any positions taken by the Matanuska Valley Advisory Committee.

After review of this topic and a discussion with the Department of Law, the Board of Fisheries Executive Director and the BOF Chairman, this potential conflict area was determined to have no real basis.

## Boater safety program instructor position

The third area of potential conflict deals directly with Proposal 300, which would require a powerboat operator's course before being able to operate powerboats on the Kenai. I am a certified recreational boating safety instructor under the state's Alaska Water Wise boating safety program. I and a partner teach the certified course with a riverboat addition to riverboaters in the Mat-Su Valley. We are allowed to charge for the course and we do. However, the Alaska Water Wise program, minus our riverboat addition, is available from other providers at no cost. In the years my partner and I have been teaching the course, we have, to our knowledge, never certified anybody whose primary recreational boating operation occurred on the Kenai River.

US Coast Guard Auxiliary boating courses are also available on the Kenai Peninsula and elsewhere statewide. If this proposal were to pass, ample opportunity for recreational boating safety classes besides the ones I am involved with exists for those operators potentially impacted by the proposal.

After review of this topic and a discussion with the Department of Law, the Board of Fisheries Executive Director and the BOF Chairman, this potential conflict area was determined to have no real basis.

## Latent set-net permit for Cook Inlet waters:

## - Income derived from fishing the permit

My 86-year old mother-in-law has owned her permit since it was originally issued by the state back in the 70's when the state started the limited entry on commercial salmon fishing in Cook Inlet. She has not fished the permit in over thirteen (13) years and her health is such that she will never fish the permit again. She can barely walk around her house, but she wants to "keep going." She does not live with my wife and I - we are in Big Lake and my mother-in-law lives in Homer.

I spoke with her about this situation during the November, 2007 BOF meeting in Homer. My impressions are that the only reasons she is keeping the permit are: 1) she has always had it - no one else has ever owned THAT permit; and 2) it is a reminder to her of earlier times in her life and a lifestyle which she wants to remember - the nostalgia factor, if you will.

Since she has not fished her permit in over 13 years and is physically unable to do so again, the issue of income derived from fishing the permit is a moot point and was no longer considered an area of conflict in the discussions referenced for the first three points.

## - Actions which may affect the value of the permit

On this aspect, the Department of Law determined that I had potential conflicts on a total of 58 proposals. These proposals were considered to be conflicts for me because action
on them could influence the value of a Cook Inlet set-net permit either positively or negatively. The proposals break down into several categories: Allocation of fishery resources between respective commercial gear types or between commercial and other user groups ( 37 proposals); Closure of areas to commercial fishing (1); Escapement goals modification (2); Fishing time extensions or reductions (2); Gear modifications, reductions or additions (4); and Season extensions or reductions for commercial fishing ( 12 proposals).

I do not dispute that actions taken by the BOF could have some influence on the value of a commercial fishing permit. However, my understanding is that for a conflict to exist, there must be SIGNIFICANT financial or personal gain or loss involved. I submit that other factors beyond the Board's control have a much greater bearing on the value of a commercial fishing permit, specifically, these other factors are market conditions and the price being paid for fish.

Compare the graph taken from page 214 of THE GREAT SALMON RUN: Competition Between Wild and Farmed Salmon, by Gunnar Knapp, et.al. 2007, with the graph of the value of a Cook Inlet set-net permit. I got the values for this graph from the Commercial Fisheries Entry Commission website.

Two things jumped out at me when I compared this graph with Knapp's ex-vessel fish price graph: first, how closely the value of a set-net permit seemed to track the price paid for fish; and the fact that the BOF has made numerous and important changes to the Cook Inlet commercial/sport fishery since 1996, yet the value of a set-net permit has actually declined until the last few years. According to Fishery Management Report (FMR) No. 07-64, Upper Cook Inlet Commercial Fisheries Annual Management Report, 2007, given to us as reference material for this meeting, on page 4, "The average price per pound paid for UCI salmon has slowly been increasing over the past few years (Appendix A11)." Again on page 20 of the same report, "The average price per pound paid to fisherman for their catch in 2007 was very similar to what they received in 2006 (Appendix A11), with both years reflecting significant increases from the average prices paid during 2000-2005."

I think that last sentence is directly reflected in the slight jump in the value of Cook Inlet set-net permits noted on the tail-end of the graph of permit values.

Another point I would like to make is that in our recent Chignik and Kodiak BOF meetings, we heard repeatedly that both of those areas held large numbers of latent commercial permits and that these permits were not being fished because of market conditions and fish prices. Not once did I hear anyone say the permits were latent because of BOF actions. We are seeing a similar situation in Cook Inlet. Again, quoting from FMR No. 07-64, on page 21, "CFEC also shows that there are 738 active set gillnet permits in Cook Inlet, with $83 \%$ being issued to Alaskan residents. From this total, 468 reported fishing in UCI in 2007."

A total of 270 set gillnet permits were not fished. There must be a reason why more than a third (36\%) of the permits are not being fished. I submit that it is because of market conditions and fish prices, not BOF actions. If market conditions and fish prices are not seen as attractive enough to fish a permit, I would expect those same factors would bear significantly on the actual value of the permit itself.

While action on the contested proposals could have a general benefit to one gear group or another, because of the large number of permits, any benefit that would accrue to me or my family members as a result of my participation on those proposals would be insignificant and negligible.

My final points involve the fact that the permit belongs to my mother-in-law, not me. As long as she lives, that permit will sit latent. If she survives beyond my tenure on this board, I will have gained nothing and will have lost the ability to have participated in a large amount of work currently before this board.

According to Bob Tkacz in his Laws for the SEA weekly report Volume 14 Bulletin - A, dated January 22, 2008 and published in Juneau, "Fish Board conflict of interest rules are among the most strict of any state regulators, including the legislature, and (Representative Paul) Seaton said the "immediate family" definition creates "a huge problem" for the board. In 2005 there were only "one or two" cases among eight other boards and commissions in which members were not allowed to participate in debates because of family member conflicts. In the same year Fish Board members were recused from deliberations due to family conflicts 103 times."

My last comment, honest! If the current bill Mr. Tkacz referenced in his statements above and recently passed by the House (HB 15) and which currently resides in Senate Resources were law today, we would not even be having this discussion about my situation.

## Conclusion

Based on these points, I do not see a conflict with my participation and deliberation on any of the UCI proposals.
and the effects of farmed salmon, vary for different wild salmon species. It is difficult to quantify the
specific effects of farmed salmon on wild salmon prices, as many other factors have also affected prices.

Figure XIII-1
Real Alaska Ex-Vessel Prices as a Percentage of Average for 1980-2005


Source: CFEC Alaska Salmon Summary Data 1980-2005. Adjusted for inflation based on Anchorage CPI.

## Overview-Economic Theory of Effects of Farmed Salmon on Wild Salmon Prices

Salmon markets are complex. To introduce this complex topic we begin by discussing price formation in a market with only wild salmon-before the introduction of farmed salmon.

Figure XIII-2 is a simplified representation of price formation in a market with only wild salmon. Numerous different factors together simultaneously determine prices at different market levels-ex-vessel, wholesale, and retail. Ultimately, prices at all levels of the market chain are driven by factors affecting both supply (shown in italics on the left side of the diagram) and demand (shown in italics at the top of the diagram).
Raw product supply is driven by fishing costs, environmental factors such as decadal ocean changes and effects of drought on spawning streams, hatchery production, natural wild salmon stocks, fisheries management programs and fishermen's preseason expectations about ex-vessel prices.
Final product demand is driven by consumer tastes,
consumer incomes, prices of salmon and prices of substitute species of fish and meat. Media and advertising, such as positive media reporting on the healthful benefits of eating salmon or negative media on endangered salmon, influence consumer tastes and preferences.
Costs and the relative market power of different players in the market determine the relationships between prices at the ex-vessel, wholesale and retail level.
At any given time, many different factors are affecting prices and there are many different potential reasons why prices may change. For example, all of the following could contribute to a decrease in wild salmon prices:

- An increase in catches due to favorable environmental factors, such as favorable ocean conditions (by increasing supply)
- An increase in hatchery production (by increasing supply)
- A decrease in the price of beef (by lowering demand for salmon)
- An increase in retail labor costs (by increasing the margin between retail prices and wholesale prices)



## MEMORANDUM

то:
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Director
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## THRU: Jeff Regnart

Regional Supervisor
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FROM: Lowell F. Fair
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Division of Commercial Fisheries
Region II - Anchorage
and
James J. Hasbrouck
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SUBJECT: Upper Cook Inlet stocks of concern follow-up on Yentna River sockeye salmon

The Sustainable Salmon Fisheries Policy (SSFP; 5 AAC 39.222) directs the department to provide the Alaska Board of Fisheries (BOF), at regular meetings, with reports on the status of salmon stocks to identify any salmon stocks that present a concern related to yield, management, or conservation. For example, a "yield concern" means a concern arising from a chronic inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above a stock's escapement needs. In the Upper Cook Inlet (UCI) Management Area no stock has been identified as a stock of concern. However, with the approaching UCI Alaska Board of Fisheries meeting in February and as a follow up to the September 2007 memorandum, we reviewed the department's stock of concern assessment of the Yentna River sockeye salmon run.

## Escapement Assessment and Trends

Initial efforts to estimate the number of sockeye salmon spawning and rearing in the Susitna watershed were limited in scope and duration. Various lakes within the drainage were visited sporadically in the 1950s and 1960s by United States Fish and Wildlife Service and Alaska Department of Fish and Game (ADF\&G) personnel to collect salmonid juvenile and adult data. Adult spawner counts were primarily the product of aerial surveys (King and Walker 1997). At various times since the early 1970s, weirs monitored sockeye salmon entering selected tributaries (Chelatna Lake, Fish Lakes, Judd Lake, Larson Lake, Shell Creek, and Talachulitna River) to spawn (King and Walker 1997).
Mark-recapture projects were conducted on the Susitna River in 1974 and 1975 as part of an effort to estimate juvenile and adult anadromous fish populations in the upper Susitna River between Devil's Canyon and the confluence of the Susitna and Chulitna rivers. These studies were part of the pre-authorization investigation for the proposed Susitna Hydroelectric Project (Barrett 1974; Friese 1975). The results of these studies indicated that the majority of sockeye salmon in the Susitna River basin were produced in the Yentna and Skwentna river drainages (Namtvedt et al. 1978). Mark-recapture projects were again conducted on the Susitna River during 1982-1985 to estimate the inriver run of sockeye salmon (Barrett et al. 1985; Thompson et al. 1986).
Adult salmon escapements into the Susitna River were monitored with sonar at Susitna Station (river kilometer [rkm] 52) from 1976 to 1980. However, changes in bottom characteristics at that sonar location precluded continuation of the project after 1980. Because no other site suitable for the existing sonar equipment was found in the mainstem of the Susitna River, the project was moved to the Yentna River, the largest tributary in the drainage. From 1981 to the present, the Yentna River daily sonar estimates have been used as an indicator of the sockeye salmon escapement into the Susitna River drainage. The sockeye salmon escapement bound for the Yentna River has been thought to be approximately one half of the total Susitna River sockeye salmon escapement based on a combination of 1981-1985 capture-recapture abundance estimates passing Sunshine (Susitna River rkm 116), and sonar abundance estimates passing Yentna (Yentna River; rkm 7) and Susitna Station (Westerman and Willette 2006).
Currently, the Yentna River sockeye salmon escapement goal, 90,000 to 160,000 fish, is a sustainable escapement goal (SEG) adopted in 2002 (Bue and Hasbrouck Unpublished). In 2007, an interdivisional salmon escapement goal team reviewed salmon escapement goals in the UCI Management Area based on the SSFP and the Policy for Statewide Salmon Escapement Goals (5 AAC 39.223). The team recommended that the current Yentna River sockeye salmon escapement goal remain unchanged (Fair et al. 2007).

Based on Bendix sonar estimates since 1981, the number of Yentna River spawners has ranged from approximately 37,000 to 181,000 sockeye salmon. The sonar estimate of sockeye salmon escapement into the Yentna River has not met the goal in 5 of the past 8 years (Table 1). Unfortunately, the accuracy of escapement enumeration based on sonar in the Yentna River has not been verified. The Yentna River is a large, dynamic glacial river that poses difficulties in assessing salmon escapement using sonar, and significant runs of other salmon species occur, requiring fish wheels to be used to apportion the total sonar count by species. Any one of these issues will create biases in the estimation of species-specific escapement. Whether any of these biases are significant, or if they vary seasonally or annually, is unknown. Additionally, a comparison of historical sockeye salmon escapements in the Yentna River and in four major rearing lakes (Chelatna, Shell, Judd, and Larson) suggests that production may have recently declined in the smaller rearing lakes in the watershed.

## Yield Assessment

The sustained-yield principal requires an understanding of the relationship between the abundance of spawning fish and the abundance of their offspring that survive to adulthood (known as a brood table) by stock. The number of offspring that survive to adulthood is calculated by adding the number of spawning fish and the number of fish harvested for each parent generation.

Accurately estimating the composition of mixed-stock catch is critical to determining the total run of each stock. Age composition has historically been used to facilitate estimation of stock composition. Stock and age specific catch and escapement data have been the basis for development of long-term brood tables used for both pre-season forecasting and for scientific estimation of escapement goals.

Unfortunately, the allocation methodology used to apportion sockeye salmon catches to component stocks in UCI represents a coarse approximation of the actual catch by stock. Historically, a series of largely untested assumptions have been used to allocate stock composition. ADF\&G currently uses age composition estimates from the harvest and escapement, and run timing to allocate the harvest to each stock (Bernard 1983). The current method assumes that the stocks present in a district are equally exploited. This untested assumption could greatly affect the estimated stock compositions. The current method probably underestimates the productivity of some stocks and overestimates the productivity of other stocks. As such, the less abundant stocks such as the Susitna River are prone to the greatest percentage error from the true stock composition of the mixture. To be accurate, the age composition method also requires a representative sampling of the harvest, and accurate estimates of escapement numbers and age composition.

In recent years (2005 to present), ADF\&G has developed a genetics program for sockeye salmon in UCI. The primary goal of the program is to develop and apply genetic methods to identify stock composition of mixtures. The first comprehensive baseline using genetic markers in UCI employed microsatellites (Habicht et al. 2007). The need to differentiate among all the stocks led to the development of methods to screen single nucleotide polymorphism (SNP) loci under selection. In a recent study of UCI sockeye salmon genetic diversity, simulations indicated that seven regional groups (Kenai River, Susitna River, Yentna River, West Cook Inlet, Kasilof River, Northeast Cook Inlet, and Knik Arm) could be identified in mixtures at high levels of precision and accuracy (Habicht et al. 2007).

Given the potential errors outlined above for estimating the harvest of Susitna stocks in UCI using catch and escapement age composition information, we are hesitant to estimate the historical yield for Yentna stocks. There are many unsubstantiated assumptions involved in the estimation procedure. Nonetheless, in the context of "stock of concern" we have examined the historical estimates of Yentna River sockeye salmon yield in both the Central and Northern districts.

## Conclusions and Recommendations

As explained in the September 2007 memorandum, the recent pattern of low sockeye salmon escapements to the Susitna River drainage has prompted the department to better understand stock productivity, errors in escapement estimation, and harvest in the mixed stock fishery of UCI using genetic markers (Habicht et al. 2007). Sockeye salmon rearing lake investigations are being conducted to estimate embryo-to-smolt survivals in the major lakes in the watershed. Additionally, we are assessing the sockeye salmon escapement into the Susitna River using new and improved methodology. ADF\&G, with participation from Cook Inlet Aquaculture Association, is estimating the adult sockeye salmon abundance in the entire Susitna River in 2006, 2007, and 2008 with a mark-recapture and radio telemetry study. Such abundance estimates will allow: (1) estimation of the total annual run of Susitna River sockeye salmon, when abundance estimates and genetics-based harvest allocation estimates are combined, (2) evaluation of the accuracy of the Yentna River sonar estimate, and (3) the proportion of Yentna River sockeye salmon in the entire Susitna River sockeye salmon escapement. Additionally, the department is evaluating the current sockeye salmon escapement assessment tool, a Bendix single beam sonar system, with a more advanced and proven hydroacoustic system known as DIDSON (Dual frequency IDentification SONar). Preliminary spawning abundance estimates based on mark-recapture and DIDSON studies suggest that traditional Bendix estimates are much lower than the actual escapements. As shown in the table below, the high variability that we have observed between the various methods has added considerably greater uncertainty to our previous assessments.

Various sockeye salmon escapement estimates for the Susitna River drainage, 2006 and 2007.

| $\mathbf{2 0 0 6}$ |  |  |  |  |
| :--- | :---: | ---: | ---: | ---: |
| System | Mark-Recapture | Weirs $^{\mathbf{a}}$ | Bendix | DIDSON |
| Yentna | Unknown | 126,000 | 93,000 | 160,000 |
| Susitna | $107,000(95 \%$ CI 59-165) | 60,000 |  |  |
| Sum |  | 186,000 |  |  |

$2007^{b}$

| System | Mark-Recapture | Weirs | Bendix | DIDSON |
| :--- | :---: | :---: | :---: | ---: |
| Yentna | 250,000 | 97,000 | 80,000 | 130,000 |
| Susitna | 85,000 | 60,000 |  |  |
| Sum |  | 157,000 |  |  |

a Weirs monitored escapement at a few select lakes and do not represent total river escapement.
${ }^{\text {b }}$ The 2007 estimates are preliminary.
Similar to escapement, an accurate assessment of Susitna/Yentna River catch has been problematic given the available methodology (age composition method) and limited resources for catch sampling. The sources of error in estimating the stock-specific catch in UCI are many, and this is especially true for the less abundant stocks such as Yentna River sockeye salmon, which are susceptible to the greatest relative errors (Bernard 1983). Although genetic markers have given us
the ability to accurately determine stock composition for portions of the past 3 years, this data will not be applied to historical harvests of UCI until the full season analyses have been completed, and we have gained a better understanding of stock vulnerability through time and space.

In the Central District drift fishery, the estimated Yentna River commercial harvest for the most recent 5 -year average (2003-2007) is $59 \%$ of the previous 10-year (1993-2002) average and 49\% of the previous 20 -year (1983-2002) average (Table 1). In the Northern District, the most recent 5 -year average is $31 \%$ of the previous 10 -year average and $22 \%$ of the previous 20 -year average. Since the total UCI commercial harvest averages 2.9 million sockeye salmon and our age composition allocation model estimate of the Yentna sockeye salmon harvest is only $8.4 \%$ of the total, we have low confidence in the accuracy of our estimate of the Yentna sockeye salmon harvest. The difference ( 53,309 fish) between the 5 -year (2003-2007) average yield and the 10 -year (19932002) average yield for the Yentna stock is only $2 \%$ of the average UCI commercial harvest. The errors in our stock composition estimates are likely greater than $2 \%$, since we know from comparisons to partial weir counts that the error in our Yentna sonar estimate is at least $28 \%$.

The department continues to treat the persistently low escapements of sockeye salmon to the Yentna River as a serious issue. At this juncture, we are hesitant to make a stock of concern recommendation for Yentna River sockeye salmon given the assumptions and unknowns outlined above, in the memo of September 2007, and in various scientific reports prepared for the BOF meeting in February. With the ongoing studies of escapement assessment and improved stock composition in the catch, we will better understand the productivity and sustainability of the stock. Partial and preliminary information from the DIDSON, mark-recapture, and lake productivity studies will be available to the Board at the Upper Cook Inlet meeting this February.

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Table 1. Yentna River sockeye salmon catch and escapement, 1983-2007.

| Year | Commercial Catch ${ }^{\text {a }}$ |  | Escapement ${ }^{\text {b }}$ | Lower <br> Escapement Goal |
| :---: | :---: | :---: | :---: | :---: |
|  | Central District | Northern District |  |  |
| 1983 | 153,417 | 34,486 | 104,414 | 100,000 |
| 1984 | 149,776 | 49,254 | 149,375 | 100,000 |
| 1985 | 150,827 | 38,473 | 107,124 | 100,000 |
| 1986 | 240,686 | 34,333 | 92,076 | 100,000 |
| 1987 | 142,040 | 18,828 | 66,054 | 100,000 |
| 1988 | 120,069 | 11,545 | 52,330 | 100,000 |
| 1989 | 3,343 | 40,549 | 96,269 | 100,000 |
| 1990 | 234,378 | 19,011 | 140,290 | 100,000 |
| 1991 | 107,291 | 25,193 | 109,632 | 100,000 |
| 1992 | 170,969 | 8,507 | 66,074 | 100,000 |
| 1993 | 193,450 | 20,689 | 141,694 | 100,000 |
| 1994 | 131,844 | 24,349 | 128,032 | 100,000 |
| 1995 | 160,320 | 21,447 | 121,220 | 100,000 |
| 1996 | 117,337 | 13,124 | 90,660 | 100,000 |
| 1997 | 136,803 | 20,814 | 157,822 | 100,000 |
| 1998 | 48,113 | 14,299 | 119,623 | 100,000 |
| 1999 | 83,812 | 12,951 | 99,029 | 100,000 |
| 2000 | 66,782 | 12,144 | 133,094 | 100,000 |
| 2001 | 46,431 | 10,774 | 83,532 | 100,000 |
| 2002 | 58,383 | 5,548 | 78,591 | 90,000 |
| 2003 | 116,154 | 11,535 | 180,813 | 90,000 |
| 2004 | 68,546 | 3,918 | 71,281 | 90,000 |
| 2005 | 32,197 | 3,572 | 36,921 | 75,000 |
| $2006{ }^{\text {c }}$ | 11,610 | 1,985 | 92,045 | 90,000 |
| $2007^{\circ}$ | 80,306 | 3,333 | 79,901 | 90,000 |
| 2003-2007 Avg. | 61,763 | 4,869 | 92,192 |  |
| 1993-2002 Avg. | 104,327 | 15,614 | 115,330 |  |
| 1983-2002 Avg. | 125,804 | 21,816 | 106,847 |  |

a Catch estimates are based on age composition methodology that (1) assumes equal exploitation of stocks in the fishery, (2) requires representative sampling of the harvest, and (3) accurate estimates of escapement numbers and age composition.
b Sonar estimates of escapement are based on Bendix.
c Preliminary estimates.

## Committee "A"

## Principals for Regulations

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans
3. Legal and Enforceable

Finite Cook Inlet Drift Association: 43961 K-Beach Road, Suite E
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Upper Cook Inlet - General

- 73. Central District Herring Management Plan
- 74. Aircraft neutral
- 75. Aircraft neutral
- 76. Blanchard Line - Less . 2 NM (Safety) oppose
- 77. Kenai / Kasilof section redefined (No need) KRSA oppose
- 78. Open South side Chinitna Bay (Allocative) oppose


## Coho -General

- 79. Later dates - Kasilof section - Aug 10-15

Earlier dates - Kenai E. Forelands support

- changed to July 1-Aug 15
- 87. Sockeye - Coho mgr $1 \%$ to $5 \%$ (KRSA) oppose


## Seasons - Sockeye

## Kenai E. Forehands

- 80. Kenai E. Foreland - July $1[8] \rightarrow$ Aug $15[10]$ support
- 81. Kenai E. Foreland - July 1 [8] $\rightarrow$ Aug $15[10] \quad$ support
- 82. Kenai E. Foreland - July $1[8] \rightarrow$ Aug $15[10]$ support
- 83. Kenai E. Foreland -- July $1[8] \rightarrow$ Aug $15[10]$ support


## Kenai E. Forelands

- 84. Kenai E. Forelands - July $1[8] \rightarrow$ Aug $15[10] \quad$ support
- 85. Kenai E. Forelands - July 1 [8] $\rightarrow$ Aug 15 [10] support
- 86. Set Net Fisheries close by EO support
- 87. Clarify transition between sockeye \& coho mgmt oppose
- 88. Kenai E. Forelands - July $1[8] \rightarrow$ Aug $15[10]$ support


## Drift Fishery

- 89. Close Drift Fishery by E.O. support
- 93. Kasilof opening - 50,000-25,000 for Set Net support
- 94. Set Net opening - June 15 support open drift


## Dates - Seasons - Drift

- 90. Mon-Thurs to Mon-Wed-Fri (Escapement Goal Mgt.) support
- 95. Mon-Thurs to Mon-Wed-Fri (Escapement Goal Mgt.) support
- 96. Mon-Thurs to Mon-Wed-Fri (Escapement Goal Mgt.) support
- 97. Mon-Thurs to Mon-Wed-Fri (Escapement Goal Mgt.) support two day a week unrestricted
- 98. 1.5 miles to 2 miles E. shore expands corridor
(KPFA) oppose
:
. 5 miles to 2 mits
(KPFA)
oppose expands corridor


## Gear - Drift/Set

## Monofilament

- 102. 50 fathom monofilament to 150 fathoms support
- 103. 50 fathom monofilament to 150 fathoms support


## Monofilament

- 104. Outlaw monofilament oppose
- 105. 150 fathoms to 200 fathoms - drift support
- 106. 45 mesh to 60 mesh deep - drift only support
- 107. Drift -2 permit holders -150 to 200 fathoms support
- 108. Set Net - 105 fathoms to 140 fathoms oppose 3 to 4 nets per permit
- 109. Set Net -3 strand gillnet webbing oppose
- ${ }^{* *} 110$. Live fish harvester no action
- 111. Set Nets -600 ft from high tide oppose
- 112. Set Net -48 hour notice to change location no action
- 113. UCI \& Kodiak - one registration no action


## Northern District - Yentna - Susitna

- 119. Conservation Corridor oppose
- 120. Chum stock of concern oppose


## Points

1. Coho are not a conservation issue
2. Coho total exploitation rate is $\sim 30 \%$
3. Additional Coho harvests can occur up to $70 \%$
4. Additional allocations in proportion to current harvests - both Sport and Commercial
5. Extending the season late in fall when water levels are low the boat wakes will increase bank erosion.
6. Earlier opening are warranted
7. Economic necessity
8. Crew \& gear training and testing
9. Close all commercial fishing by E.O. (guidelines acceptable)
10. Adaptive management - abundance based
11. Escapement goal - MSY management
12. Allow greater use of monofilament - economic issues

Committee "B"

## Principals for Regulations

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans
3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities

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

6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Upper Cook Inlet - General

- 114. Reorder plans - umbrella plan first neutral
- 115. Return to 1995 plans (1990 Regs) support
- 116. Personal use / Sport - Priority (KSRA) oppose

> - not legal

- should be a restructuring proposal
- cause serious harm to Alaska
- 124. Revise mgr plans by species oppose
- 125. +/- 3 million - in-river allocations - 2 permits support

2 permits / drift boat

## Coho - General

- 165. Repeal West Side Coho mot plan
- Sunset Clause
(KRSA) oppose


## Seasons - Sockeye

## Drift Fishery

- 91. Repeal July 17 \& 26 restrictions
support appeal to 353 A-B-C get rid of
- 162. Delete CD Drift Fishery mgt plan (Esc. goals - adaptive) support
- 163. Restrict Drift areas - buffer areas (ND Set Net) oppose
- 164. Clarify August periods, with restrictions oppose (July 16 to Aug 10 - Drift - No Comm. EO restriction)


## Kings - Set Net

- 100. Tuxedni -1000 kings -35 fathoms (area added) support
- 101. Tuxedni -2000 kings -35 fathoms
(area added)
support


## Escapement Goals - UCI

- 117. Escapement Goal mgt. - do not count hatchery fish oppose
- 126. Commissioner's E.O. authority support
- 127. Commissioner's E.O. - escapement goals support
- 128. Commissioner's E.O. - escapement goals support
- 129. Commissioner's E.O. - escapement goals support
- 130. Escapement goals priority support
- 131. Escapement goals priority support
- 132. Exceed escapement goals oppose (Compounds escapement goal management)
- 133. Commercial priority (Quality, economic issues) support
- 160. CD Plan - Manage for escapement goals support

Northern District - Yentna - Susitna

- 121. OEG - Yentna - 105 to 195,000 oppose
- 122. OEG - Yentna - 105 to 195,000 oppose
- 123. Eliminate Fish Creek stocking support


## Northern District - Yentna - Susitna

- 134. Amend NDSM plan support
- 135. Eliminate Coho discussion / restrictions support
- 136. Manage for commercial users support
- 137. Repeal Coho language support
- 138. Reinstate pre-2005 Coho restrictions oppose
- 139. Close commercial fishing - Alexander Creek oppose
- 140. Clarify - reinstate Yentna/Kenai escapement goals oppose
- 141. Larger sockeye escapements to ND oppose
- 142. Additional Coho fishing - ND support
- 143. Yentna/Kenai - limit ND commercial users oppose
- 144. ND Comfish vs. CD Drift oppose
- 145. ND Comfish vs. CD Drift oppose
- 146. ND king commercial expansion - for Drifters support
- 147. ND king commercial expansion - for Drifters support
- 148. 6 to 8 inch gillnet - kings - ND support
- 149. ND king commercial expansion support
- 150. ND king commercial expansion support
- 151. ND - king drift gillnetting support


## Big River sockeye management

- 152. Earlier sockeye fishing support


## Points

1. Return to traditional fishery
2. Provides for M-W-F patterns - economic benefit for Southcentral
3. Keep corridor as currently described
4. Provide for in-season adaptive abundance-based management
5. Drift fleet should be allowed to participate in fishery
6. Manage for escapement goals and economic returns

Priority: BEG's
SEG's
7. Describe the sport / PU allocations directly
8. Avoid in-river and OEG escapement goals
9. Don't regulate as to interfere with commissioner's E.O. authority
10. Kings - May/June - additional harvests inside current allocation of 12,000 kings
11. Additional coho harvests by ND and CD, current exploitation at $\sim 30 \%$

- can go up to $70 \%$ harvests

12. ND stocks abundant, more than escapement goals
13. ND sockeye escapement goals need formal review
14. Additional harvest on chums and pinks - economic benefit to Southcentral
15. No conservation corridor - economic issues, economic hardship
16. No conservation corridor - not needed to meet escapement goals

## Committee "C"

## Principals for Regulations

2. Adaptive Abundance Based Management Plans
3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Escapement Goals - UCI

- 118. Return to 1995 escapement goals (1990) support


## Pink Salmon Plan

- 153. Reinstate pink plan area oppose
- 154. Additional pink days support
- 155. Allow Set Nets to harvest pinks support
- 156. Allow Set Nets to harvest pinks support
- 157. Make pinks economically viable support
- 158. Set Net pink harvest support
- 159. Delete pink management plan support


## Kasilof River

- 166. Achieve in-river goals - eliminate windows $\begin{aligned} & \text { support } \\ & \text { (Confounds Escapement Goal Management) }\end{aligned}$
- 167. Remove most of plan-windows-SHA support
(Special Harvest Area)
- 168. $\begin{aligned} & \text { Delete most of Kasilof River management plan } \\ & \text { (Not adaptive in-season management) }\end{aligned}$
- 169. Increase OEG - move Blanchard Line oppose (Historic - confounds escapement goal management)


## Kasilof River

- 170. KSHA - open Kasilof section with SHA
support
- 171. Move sport regulations to SF regs. support
- 172. KSHA - rarely used wording support
- 173. Limit use of KRSHA support
- 174. Eliminate KRSHA
support
- 175. King window / corridor (Confounds esc. goal mgt.) oppose
- 176. King window / corridor (Confounds esc. goal mgt.) oppose
- 177. Manage for escapement goals support
- 178. New OEG - 175,000 to 350,000 oppose (Not Biologically or Scientifically warranted)
- 179. New OEG - 200,000 to 350,000
oppose (Not Biologically or Scientifically warranted)
- 180. Repeal management plan
support (Keep Escapement Goals - rest of plan unnecessary)


## Special Harvest Area

- 181. Set / Drift $-1200 / 1200$ oppose
- 182. Additional time -600 ft oppose
- 183. Limit Difters - 5 mile oppose
- 184. Set / Drift $-3,000 / 3,000$ oppose
- 185. Expand - redefine SHA oppose
- 186. Set / Drift - 1,200 / 1,200 oppose


## Kenai Sockeyes

## Kenai Sockeyes

- 187. OEG-400-700,000, +/- 3 million support
- 188. $\mathrm{OEG}-400-700,000,+/-3$ million support
- 189. SEG - 500-800,000, below RM 19-600-900,000 ..... support
- 190. SEG - 500-800,000, below RM 19-600-900,000 support
- 191. EG - 500-800,000, below RM 19-600-900,000 ..... support
- 192. OEG - 500-1,000,000, delete 3 tiers ..... support
- 193. Increase sport harvest ..... oppose
- 194. Spawn EG 400-700,000 ..... support
- 195. Remove restrictions, use Commissioner E.O.'s ..... support
- In-season, adaptive based management
- 196. Spawn EG-400-700,000 ..... support
- 197. Spawn EG - 400-700,000 - delete tiers ..... support
- 198. Spawn EG - 400-700,000 - delete minimize coho ..... support
- 199. Manage for 500-800,000 SEG ..... support
- In-river goal 600,000-900,000 - RM 19
- 200. Remove windows support
- 201. Escapement 450-750,000 ..... support
- 202. KRSA windows - bad for esc goal mgt ..... oppose
- 203. KRSA 1-12 hour fishing period - Monday only ..... oppose
- 204. Delete king, coho mitigations ..... support- Restricts in-season, Comm. EO authority
- 205. Equal sport / commercial ..... oppose
- Not in keeping with M/S Act


## Kenai Sockeyes

- 206. In-river below 650,000 - reduce bag limits to 1 fish oppose
- Not needed, sportfishing never closes
- 207. $>4$ million bag / possession -12 sockeyes oppose
- 208. KRSA - $>4$ million bag / possession - 18 sockeyes oppose
- 209. Kenai Special Harvest area open oppose


## Russian River Sockeye

- 210. $50 \%$ of return to commercial users support


## Points

1. Pinks can and will be harvested - need appropriate time and area opportunities - economic benefit to Southcentral Alaska
2. Provide for meaningful pink harvests by both Drift and Set Net
3. Current plans do not provide for significant harvests.
4. Rarely use KRSHA, poor quality fish, poor economic return on fish
5. Retain current sockeye escapement goal of $150,000-250,000$ in Kasilof River - economic issue
6. Delete OEG - very little harvest above sonar counter
7. Retain Blanchard Line location
8. Delete windows - Not esc goal mgt or in-season adaptive mgt
9. Provide for adaptive abundance management
10. Escapement goal 400,000-700,000 past river mile 19 sonar
11. Apply adaptive abundance-based management - remove windows
12. Establish PU harvests based on sockeye abundance and run size
13. Establish sport harvests below and above river mile 19 sonar site
14. Delete OEG - unnecessary
15. Prefer biological escapement goals
16. PU fishery should target other than sockeyes

## Principals for Regulations

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans
3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Personal Use - Kenai River Late-Run Sockeyes

- 211. Open PU after 450,000 escapement past RM 19 support
- 212. Close PU until lower escapement goal is met support
- 213. PU to share conservation burden support
- 214. Lost day added to end of PU fishery oppose
- Awkward and unnecessary - Comm. EO
- 215. Above $850,000 \mathrm{ES}-25$ to $50-10$ to 15
oppose
- Annual limits increased
- 216. If river exceeds EG increase - area and bag limits oppose
- 217. Reduce PU to 5 per person, up to 25 per household, max support
- 218. No more that $50 \%$ harvest PU from Kenai support
- 219. PU from 25 to 15 per h-o-h, 10 to 5 each additional support
- 220. PU mesh size max 2.5 inches support
- Gillnet causes mortality
- 221. Prohibit 2-stroke motors in PU support
- Water pollution problem
$\begin{array}{ll}\text { - 222. Prohibit 2-stroke motors in PU } \\ \text { - Water pollution problem } & \text { support }\end{array}$
- 223. Prohibit 2-stroke motors in PU
support - Water pollution problem


## Personal Use - Kenai River Late-Run Sockeyes

- 224. PU allow rod and reel
- 230. No PU from power vessels
- In slack tide water areas


## No Comment

- 236. Rainbows
- 237. Rainbows
- 238. Rainbows
- 239. Rainbows
- 240. Rainbows
- 241. Rainbows
- 242. Rainbows and Dolly Varden
- 243. Single Hook
- 244. Barbless hooks
- 245. Barbless hooks - < \#6 hooks
- 246. No anchoring below Skilak Lake
- 247. No size restrictions on Dolly Varden
- 248. Dolly Varden
- 249. Rainbow - Hidden Lake
- 250. Increase Pike harvests
- 251. Increase Pike harvests
- 252. Increase Pike harvests


## Points

1. PU fishery harvests must be abundance-based
2. Must reduce hydrocarbon levels in lower river, Kenai, Kasilof
3. PU Fishery "net and keep" or use smaller webbing to allow sorting of fish
4. Close until health and sanitation facilities are provided
5. PU fishery target other species - coho, pinks

## Committee "E"

## Principals for Regulations

United Cook Inlet Drift Association: 43961 K-Beach Road, Suite E

Soldotna, Alaska 99669

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans

RC 17
3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Upper Cook Inlet - General



- 278. Unintentional hooking oppose

Coho -General

- 92. Repeal Kenai River Coho mgt plan support
- 279. Increase Coho bag limits (2 to $3 \mathrm{bag} /$ possession) oppose
- 280. Increase Coho bag limits (2 to $3 \mathrm{bag} /$ possession) oppose
- 281. Increase Coho bag limits (2 to $3 \mathrm{bag} /$ possession) oppose
- 282. Extend Coho season to Nov. 30 support


## Kasilof River

- 229. No power boats above Old Kasilof Landing support


## Kasilof Kings

- 225. Increase harvest of natural kings - sport oppose
- 226. Oppose harvest of hatchery kings oppose
- 227. Prohibit Catch \& Release support
- 228. Sterling Hwy to Tustumena Lake Sanctuary support
- 231. Closed area - Kasilof River support Sterling Hwy to Slackwater


## Kasilof Kings

## - 232. Allow motorboats on Kasilof River <br> oppose

- 233. Anchor boats in Kasilof River oppose
- 234. Bag possession -3 to $6,12,24$ sockeye oppose
Kenai Kings
- 255. Increase Jack King harvest ${ }^{*}$ support
- 256. Increase Jack King harvest ..... support
- 257. Increase Jack King harvest ..... support
- 258. Increase Jack King harvest ..... support
- 259. Retain hatchery kings in Kenai ..... oppose
- 260. Retain hatchery kings in Kenai ..... support
- 261. Eliminate slot limit - early run - Kenai kings ..... oppose
- 262. Eliminate slot limit - early run - Kenai kings ..... oppose
- 263. Modify slot limit - kings - Jan 1 - July 31 ..... support
- 264. Extend slot limit - early run kings to July 14 ..... support
- 265. No filleting of salmon - Jan. 1 - July 14 ..... support
- 266. No bait - Moose to Skilak - thru June 30 ..... support - Kenai Professional Guides
- 267. Earlier use of bait - May 1 or June 1 ..... oppose
- Mel Erickson
- 268. Increase size of sanctuaries support - on small returns
- 269. Increase size of sanctuaries ..... support - on small returns


## Kenai Kings

- 270. Jan 1 - Aug 7 season, escapement goal warranted
oppose - Run timing
- 271. July 31 to Aug 10 oppose
- 272. Escapement goal to 35,000 oppose
- 273. Special provisions $->17,500$, Drift / Set Net
support
- Provisions
- 274. Deletions \& time/area provisions support
- Adaptive in-season management
- 275. Non-resident limit on kings - Illegal - M/S support
- 276. Limit non-residents - Illegal - M/S support
- 277. Limit non-residents - Illegal - M/S support


## No Comment

- 235. Rainbows
- 253. Cable crossing provisions
- 254. Youth fishing


## Points

1. Large 50" kings rarely occur, selective harvesting by sport fishery
2. King fishery should be below Soldotna bridge for guides
3. No more catch and release fishing
4. Sport harvest should not result in commercial closures
5. Extend seasons - Escapement goal related
6. Support 228 - good idea - no fishing from boats - Sterling Hwy to Slackwater

## Committee "F"

## Principals for Regulations

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans
united Cook Inlet Drift Association
3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Kenai Kings

- 297. 48 -hour king window
support
- pulses of fish for spawning purposes
- 298. Limit non-residents - Illegal - M/S support
- 299. Open Kenai River below Soldotna bridge
oppose


## Kenai River - General

- 283. Add Thursday as Drift day support
- 284. Add one drift-only day support
- 285. Additional drift-only day support
- 286. One additional non-guide day support
- 287. Add one drift-only day support
- 288. Add additional drift-only days support
- 289. Add additional drift-only days support
- 290. Drift only no action
- 291. 4-stroke or 2-stroke direct fuel injection motor support
- 292. 4 -stroke or 2 -stroke direct fuel injection motor
support


## Kenai River - General

- 293. 4-stroke or 2-stroke direct fuel injection motor support
- 294. Regulate motorized use support
- 295. Reduce hydrocarbons support
- 296. Reduce hydrocarbons support
- 300. Require powerboat course oppose
- 301. No motorized vessels on Upper Kenai support


## Kenai River Guiding

- 302. Limited entry for guides oppose-legal
- 303. Guides 6:00-6:00 to 7:00-7:00 no action
- 304. Guides 6:00-6:00, 7:00-7:00 support
- 305. Guides 6:00-6:00, 8:00-8:00 oppose
- 306. Guides 10-minute rule oppose
- 307. Prohibit guides on river $1 / 2$ hour prior to opening no action
- 308. Day \& time limits on guides support
- 309. No guides on Thursdays in June and July support
- 310. No guides on the River on Sundays support - No registered guides or guide boats on the River on Sundays
- 311. No guides on the River on Sundays
support
- No registered guides or guide boats on the River on Sundays
- 312. No guides on the River on non-guided hours/days support
- 313. One client or group per day support
- 314. One client or group per day support
- 315. One trip on Kenai or Kasilof per day support


## Kenai River Guiding

- 316. One trip anywhere in UCI per day
support
- 317. Either Kenai or Kasilof River registration
support
- 318. One trip on Kenai or Kasilof per day
support
- 319. Can't fish Kasilof if Kenai is closed
support
- 320. No guides on Kasilof River on Mondays
support
- 321. Allow guiding on Mondays oppose
- 322. Allow guiding on Mondays oppose
- 323. Allow drift guiding on Mondays oppose
- 324. Guide boats -5 to 6 clients max. oppose
- 325. One day guided only oppose
- 326. 7 guided fishing days - 5 days only per guide oppose
- 327. Open Sundays on Kasilof to guiding oppose
- 328. No guide fishing with clients present support
- 329. Un-registering guide vessels


## Points

1. Reduce hydrocarbons in the Kenai River

2 Guides have and are pushing the Alaskan public off the river
3. Most guide clients are non-residents
4. One trip per day
5. No guide fishing with clients
6. No guides or boats on the River on closed days
7. Additional Drift-only day

## Committee "G"

## Principals for Regulations

1. Escapement Goal Management MSY
2. Adaptive Abundance Based Management Plans

3. Legal and Enforceable
4. Change for Cause
5. Ensure Economic Success of Fishing Communities
6. Loss of Habitat - Eliminate Destructive Fishing Practices
7. Science Based
8. Safety for Fishermen

## Northern District - Yenta - Susitna

- 342. Increase Coho limits from 2 to 3 oppose
- 343. Delay use of bait until after Sept. 15 oppose


## Mat-Su Guiding

- 330. Reduce open periods - Alexander Creek support
- 331. Close Alexander Creek for 4 years support
- Science based - OK
- 332. Close Alexander Creek for 3-4 years support
- Science based - OK
- 333. Close Alexander Creek for a few years support
- Science based - OK
- 334. Close Alexander Creek for a few years support
- Science based - OK
- 335. 24 hour fishing - Unit 1 - Susitna oppose
- 336. Bait in Unit 1 - Susitna oppose
- 337. King bag limit -1 to 2 per day oppose
- Comm. EO, in-season abundance based
- 338. 24 hour in Deshka oppose
- 339. Extend king season downstream from weir oppose


## Mat-Su Guiding

- 340. Unit 2 - Expand king season oppose
- 341. Unit 2 - Multiple hooks for kings oppose


## Chuitna River

- 344. Close sport fishing support


## Little Susitna

- 345. Prohibit baits year-round support
- 346. Allow bait for kings July 1-13 oppose
- 347. HP restrictions - Houston to Cook Inlet support


## Eklutna Trail Race

- 348. Expand fishing area no action


## Big Lake

- 349. Use bait in Big Lake no action
- 350. Burbot closure \& bag limits no action
- 351. Burbot bag limits no action


## Northern Pike

- 352. Expand harvests of support
- 353. Expand harvest of pike in Shell Lake support
- 354. Allow up to 12 lines for northern pike in UCI support
- 355. Expand harvest of pike in UCI support


## PU in UCI

- 356. Establish PU in all UCI streams oppose
- change bag / possession limit to sport fish
- 357. Limit harvest of hooligan ..... no action
- 358. Open PU fishery near Beluga ..... no action


## Points

1. Mat-Su guiding is a new and developing fishery; control the growth of guiding in the Mat-Su as per policy
2. Oppose any expansion of the guiding industry at expense of Kenai Peninsula Commercial Fishing Community
3. Pike harvest $-365 / 7 / 24$, any means, no bag limit


Figure 3.-Upper Cook Inlet commercial fisheries statistical areas.


# UNITED COOK INLET DRIFT ASSOCIATION 

| 2005 | High Tides |  |  | Low Tides |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A.M. | FT. | P.M. | FT. | A.M. | FT. |


|  | High Tides |
| :---: | :---: |
| 2005 |  |


| JUNE 2005 |  |  | SELDOVIA DISTRICT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | Mon | $\bullet$ | 1:04 | 18.3 | 2:27 | 16.2 | 7:52 | -2.0 | 7:55 | 3.9 |
| 21 | Tues | $\bullet$ | 1:52 | 19.4 | 3:15 | 17.2 | 8:38 | -3.5 | 8:44 | 3.2 |
| 22 | Wed | - | 2:40 | 20.2 | 4:02 | 17.9 | 9:24 | -4.6 | 9:32 | 2.7 |
| 23 | Thur | - | 3:30 | 20.7 | 4:49 | 18.3 | 10:11 | -5.1 | 10:22 | 2.2 |
| 24 | Fri | - | 4:20 | 20.6 | 5:36 | 18.4 | 10:58 | -5.0 | 11:13 | 2.1 |
| 25 | Sat | - | 5:12 | 20.0 | 6:24 | 18.2 | 11:46 | -4.2 |  |  |
| 26 | Sun | - | 6:06 | 18.8 | 7:14 | 18.0 | 0:06 | 2.1 | 12:35 | -2.9 |
| 27 | Mon | - | 7:04 | 17.3 | 8:05 | 17.6 | 1:04 | 2.2 | 1:26 | -1.2 |
| 28 | Tues | - | 8:08 | 15.6 | 8:58 | 17.3 | 2:07 | 2.4 | 2:21 | 0.7 |
| 29 | Wed | - | 9:20 | 14.3 | 9:52 | 17.0 | 3:16 | 2.3 | 3:19 | 2.5 |
| 30 | Thur | - | 10:39 | 13.5 | 10:48 | 16.8 | 4:28 | 1.9 | 4:23 | 4.0 |


| JULY 2005 |  | SELDOVIA DISTRICT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Fri | 11:58 | 13.5 | 11:43 | 16.8 | 5:36 | 1.2 | 5:27 | 5.0 |
| 2 | Sat |  |  | 1:06 | 14.1 | 6:35 | 0.4 | 6:27 | 5.4 |
| 3 | Sun | 0:34 | 16.9 | 2:01 | 14.8 | 7:26 | -0.4 | 7:20 | 5.4 |
| 4 | Mon | 1:22 | 17.1 | 2:47 | 15.5 | 8:10 | -1.0 | 8:07 | 5.1 |
| 5 | Tues | 2:05 | 17.4 | 3:26 | 16.0 | 8:50 | -1.4 | 8:49 | 4.7 |
| 6 | Wed | 2:45 | 17.7 | 4:01 | 16.4 | 9:27 | -1.7 | 9:28 | 4.4 |
| 7 | Thur | 3:24 | 17.9 | 4:36 | 16.7 | 10:02 | -1.7 | 10:06 | 4.2 |
| 8 | Fri | 4:02 | 17.9 | 5:10 | 16.7 | 10:36 | -1.6 | 10:44 | 4.1 |
| 9 | Sat | 4:39 | 17.6 | 5:43 | 16.6 | $11: 10$ | -1.1 | 11:22 | 4.1 |
| 10 | Sun | 5:17 | 17.0 | 6:16 | 16.4 | 11:43 | -0.4 |  |  |
| 11 | Mon | $5: 56$ | 16.1 | 6:50 | 16.2 | 0:00 | 4.3 | 12:17 | 0.5 |
| 12 | Tues | 6:37 | 15.1 | 7:24 | 15.9 | 0:41 | 4.5 | 12:52 | 1.7 |
| 13 | Wed | 7:25 | 13.9 | 8:01 | 15.7 | 1:26 | 4.6 | 1:30 | 3.1 |
| 14 | Thur | 8:22 | 12.9 | 8:43 | 15.5 | 2:18 | 4.6 | 2:15 | 4.4 |
| 15 | Fri | 9:34 | 12.2 | 9:34 | 15.6 | 3:20 | 4.2 | 3:13 | 5.6 |


| JULY 2005 |  | SELDOVIA DISTRICT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | Sat | 10:58 | 12.2 | 10:33 | 16.0 | 4:30 | 3.4 | 4:23 | 6.4 |
| 17 | Sun | 12:18 | 13.1 | 11:37 | 16.8 | 5:39 | 2.0 | 5:36 | 6.4 |
| 18 | Mon |  |  | 1:23 | 14.4 | 6:41 | 0.3 | 6:42 | 5.7 |
| 19 | Tues | 0:39 | 17.9 | 2:17 | 15.9 | 7:36 | -1.6 | 7:40 | 4.5 |
| 20 | Wed | 1:37 | 19.3 | 3:04 | 17.4 | 8:26 | -3.3 | 8:32 | 3.2 |
| 21 | Thur | 2:32 | 20.5 | 3:48 | 18.6 | 9:13 | -4.6 | 9:22 | 1.9 |
| 22 | Fri | 3:23 | 21.3 | 4:31 | 19.5 | 9:58 | -5.2 | 10:11 | 0.9 |
| 23 | Sat | 4:14 | 21.5 | 5:14 | 20.0 | 10:42 | -5.1 | 11:00 | 0.2 |
| 24 | Sun | 5:03 | 21.0 | 5:56 | 20.1 | 11:26 | 4.2 | 11:49 | 0.1 |
| 25 | Mon | 5:5 | 19.7 | 6:38 | 19.7 | -- | -- | 12:09 | -2.6 |
| 26 | Tues | 6:46 | 18.0 | 7:22 | 18.9 | 0:41 | 0.4 | 12:54 | -0.5 |
| 27 | Wed | 7:44 | 16.0 | 8:08 | 17.9 | 1:36 | 1.0 | 1:41 | 1.9 |
| 28 | Thur | 8:49 | 14.2 | 8:58 | 16.8 | 2:37 | 1.8 | 2:34 | 4.2 |
| 29 | Fri | 10:09 | 13.0 | 9:57 | 15.9 | 3:48 | 2.4 | 3:38 | 6.0 |
| 30 | Sat | 11:43 | 12.8 | 11:05 | 15.3 | 5:06 | 2.4 | 4:55 | 7.1 |
| 31 | Sun |  | - | 1:03 | 13.4 | 6:18 | 2.0 | 6:12 | 7.2 |


| AUGUST 2005 |  |  | SELDOVIA DISTRICT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Mon | - | 0:13 | 15.4 | 1:58 | 14.4 | 7:16 | 1.2 | 7:13 | 6.6 |
| 2 | Tues | - | 1:11 | 16.0 | 2:39 | 15.3 | 8:01 | 0.4 | 8:00 | 5.8 |
| 3 | Wed | - | $1: 57$ | 16.8 | 3:12 | 16.2 | 8:39 | -0.3 | 8:39 | 4.9 |
| 4 | Thur | - | 2:37 | 17.6 | 3:42 | 16.9 | 9:12 | -0.9 | 9:15 | 4.0 |
| 5 | Fri | $\bullet$ | 3:13 | 18.3 | 4:11 | 17.5 | 9:43 | -1.3 | 9:49 | 3.3 |
| 6 | Sat | $\bullet$ | 3:48 | 18.6 | 4:39 | 18.0 | 10:13 | -1.4 | 10:23 | 2.8 |
| 7 | Sun | $\bullet$ | $4: 23$ | 18.6 | 5:07 | 18.1 | 10:42 | -1.0 | 10:57 | 2.6 |
| 8 | Mon | - | 4:58 | 18.2 | 5:34 | 18.1 | 11:12 | -0.3 | 11:31 | 2.6 |
| 9 | Tues | - | 5:33 | 17.3 | 6:02 | 17.9 | 11:42 | 0.7 |  |  |
| 10 | Wed | $\bigcirc$ | 6:11 | 16.2 | 6:31 | 17.5 | 0:06 | 2.7 | 12:13 | 2 |




Regional Information Report No. 2A03-20

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

June 2003


#### Abstract

${ }^{\top}$ The 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 (UCD) 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 ( $95 \% \mathrm{CI}$ : $2.16-2.87$ 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 ( $95 \% \mathrm{CI}$ : 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 ( $95 \% \mathrm{CI}: 1.60-40.96$ 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 ( $95 \% \mathrm{CI}: 3.30-4.47$ million). Given a commercial harvest of 0.24 million, the total escapement of chum salmon into all UCI streams was 3.64 million ( $95 \% \mathrm{CI}$ : 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.
2002


Economic losses (ex-vessel)
due to overescapencer in UCI.


Lost yield and Harvest with n from report plus years that are over the goal but not in report


| Lost | UCI |  |
| :--- | :--- | ---: |
| Yield |  | 704,278 |
| Per year |  | 6 |
| In UCI | $\$ 4,225,668$ |  |


| Lost | Kenai only |
| :--- | ---: |
| Harvest | 299,859 |
| Per year | 6 |
| Over Kena | $\$ 1,799,154$ |
|  |  |
| In 12 years | $\$ 21,589,848$ |


| Lost | CI |
| :--- | ---: |
| Yield | $-8,103,771$ |
| for all | 6 |
| Years | $-\$ 48,622,626$ |
|  |  |

Economic Losses due to yearly overescapements. in Kenai, Kas,lof and crescent Rivers
Souncer. ADF+G Reports $A D F+G$ Per. com.

Date: $\quad$ November 2, 2006
Addressee: Kurt Fredriksson, Commissioner Department of Environmental Conservation
 410 Willoughby, Ste. 303
Juneau, AK 99901-1795
RE: Kenai River Category 5 Impaired Designation
Dear Commissioner Fredriksson:
UCIDA represents the commercial salmon drift fleet in Cook Inlet comprised of 585 fishermen, deckhands and their families. We depend upon healthy and pollution-free returns of salmon to Cook Inlet. We are upset at the fact that 600 gallons of hydrocarbons per day are released into the Kenai River. The Kenai River is home to large returns of king, sockeye, coho and pink salmon. These salmon require clean, pollution-free environments. With a category 5 designation, we see that a recovery plan is required. We encourage the immediate development of the recovery plan.

We encourage you to look at these options:

1) Drift vessels only
2) No upstream motorized travel
3) Limiting the number of vessels on the river at one time
4) Lotteries for access to the river
5) Much higher fees for commercial operators
6) Total elimination of all commercial operators utilizing motorized vessels
7) Much stricter enforcement policies
8) Lowering the horsepower limits on outboards
9) Prohibiting "back trolling"

As a commercial salmon fishing industry, we have spent millions of dollars on advertising, promoting and marketing "Wild and Clean" Alaskan salmon. Having 600 gallons of hydrocarbons per day in the Kenai River that directly leads to the impaired (polluted) designation will economically harm our members, their families and crew members. We deserve and demand that the Kenai River waters be cleaned up and kept that way.

We also note that there are multiple state and federal agencies that will be involved. This is especially true of the lower five miles of the Kenai River that are not a part of the Kenai River Special Management Area.

Sincerely,
(Signed original copy)
Roland R. Maw, PhD
UCIDA Executive Director
ams
cc: DNR
ADF\&G
EPA
Governor's office
Tom Wagoner
Mike Chenault
Kurt Olsen
Paul Seaton
House Fisheries Committee
US Coast Guard
Board of Fish

# Alaska Department of Environmental Conservation Water Quality Assessment \& Reporting 2006 Proposed Integrated Water Quality Monitoring and Assessment Report (Integrated Report) <br> About the report: 

Every 2 years DEC is required to report on the condition of Alaska's waters in accordance with the Clean Water
Act. The Integrated Report categorizes known waterbodies in Alaska and includes the federal Clean Water Act
(CWA) reporting requirements for the 305(b) report and 303(d) list of Category 5 polluted waters. The
Integrated Report also helps the State prioritize waters for data gathering, watershed protection and restoration
of impaired waters. This is the public comment period for the 2006 Proposed Integrated Report.



## Matsu Valley Fish Stocks


#### Abstract

The testimony received Wednesday in Wassila left me with a number of questions, about hatchery location, and about fish stocks in the Valley. I sent those questions to a fisheries biologist and received the following comments:


- The MatSu was the \#1 location for the new "Anchorage" hatchery. Elmendorf was ranked \#2. Elmendorf was selected over the MatSu site because that is where ADF\&G decision makers wanted it. The MatSu site is near a UAF Agriculture station near Palmer (I think that is correct). The MatSu site came out on top based on a series of selection criteria.
- Rainbow trout are disappearing from the Valley because the northern pike like them for food. I have not heard of any other reasons why rainbow trout are vanishing. I've not heard about unusually thin Dolly Varden, either. Usually when fish look "snakey" it is a sign of environmental stress, disease, or inadequate food. There are lots of causes of environmental stress.
Rainbow trout eat aquatic insects, flying insects, flesh from salmon carcasses, other adult and juvenile insects, other miscellaneous small fish, snails.
- Northern pike are native to Alaska, especially the interior. But they are not native to the MatSu. They were stocked there many years ago and they have gradually expanded their range. Range expansion has accelerated recently and the pike are decimating the stocked and wild rainbow trout populations.

Northern pike eat anything that moves. They are especially fond of other fish such as rainbow trout, grayling, juvenile salmon. They also eat white fish, suckers, and other "trash" fish, .. etc.

- Dolly Varden's diet can be diverse and similar to a rainbow trout except Dollys (or ies) will target salmon smolts and other small fish. They are more of a fish eater compared to rainbow trout.


## I don't have an obvious answer to why salmon are declining BUT I have a working hypothesis.

- IF the salmon harvest level has been too high for the last several years then we will see a death spiral. When salmon return to fresh water they bring back tons and tons of nutrients that are released as their bodies decompose. Their rotting bodies are likely the major nutrient input for freshwater systems. If fewer salmon return then the nutrient level declines. Then there is less food for resident freshwater species (rainbows, Dollys) and less food for rearing juvenile salmon. Fewer salmon means fewer salmon eggs are deposited, fewer juvenile salmon survive to go to the ocean, fewer adults return to spawn, etc. This would explain some of the observations in freshwater such as snakey Dollys and declining abundance of all species. The plant, insect, and fish communities will become stressed and abundance for everyone will decline as the nutrient input declines. If you want to rebuild the freshwater system and increase the abundance of salmon then you may have to reduce the salmon harvest and allow more salmon to escape to spawn. I'm not holding my breath for this to happen. I have a lot of research
information that supports this but the ComFish guys (department and fishers) are in denial mode. Either way they will loose their fishery for some time.
- Another hypothesis is that something is happening in the oceans - temperature changes might be disrupting the food webs that salmon depend on.
- Other fishers are catching more Upper Cook Inlet fish.
- Something is degrading the freshwater habitat in the Valley.

I would probably place money on my first hypothesis.
Bonme Williams


Trip 3-Truck drives trailer and boat to launch. Car stays at take out.

Trip 4 (after fishing)-Drive car back to launch to pick up truck \& trailer.

Trip 5-One person drives truck with trailer to takeout to get boat.

Trip 6-One person drives car to takeout to help load boat.

## Trip 1\&2

One truck/trailer, one car-both drive
to takeout from home.

## Scenario

Two people go drift fishing; two vehicles must be used. Each trip, i.e., home to takeout, takeout to launch is 15 miles. Each vehicle gets 15 mpg . Eight trips in vehicles result in 120 miles driven $=8$ gallons of gas used. If power boat used, only one vehicle is needed to drive 30 miles ( 2 gals gas) and the boat uses 4 gals $=6$ gals total used for power boat fishing. Drift fishing vehicle travel results in 2 more gals gas used than power boat trip. If one more drift day is added each week and 100 additional drift boats participate each additional day, 200 more gallons of gas will be used weekly. Over a 10-week season (May 15-July 31), 2,000 more gallons of gas will be burned by these vehicles than had a power boat been used.

## Bottom Line

Adding one or more additional drift boat days will significantly increase the amount of gas used, increase air pollution on the Kenai Peninsula and negatively impact climate change. Considering there is not one launch or takeout that could hold 100 more vehicles makes these proposals untenable.

Thank you for your time as you consider these extreamly important issues that affect all Alaskans.

As the wife of a fishing guide, in the Matanuska Susitna Valley, I make reservations for our guide service. Because of the modest run of Kings and Silvers during the $\mathbf{2 0 0 7}$ season, I found myself many times, cancelling trips, refunding monies, and turning potential clients away due to lack of fish in the river.

Our season is relatively short, and every single trip counts. I'm not sure what all the facts are surrounding the problem, but from the guides first-hand experience, it looks like the greater number of fish for the commercial fisheries, results in much fewer fish in our rivers. This leads to economical hardship for us, and, all sport fishing related businesses in the Valley.

I'm asking you, The Board of Fisheries, to do what is right and fair for all Alaskans.

Thank You, Sue Riley


## BOARD OF FISHERIES

State of Alaska
To Members of the Board:
$I$ am writing with regard to the dectine of the abundance of fish in the Matanuska Valley during the preceding years. I was one of those colonists that came to the valley in 1935, actually at the age of 3 , therefore I able to tell the whole fishing story of the surrounding area of the valley. Growing up here as a kid we as family and friends were able to catch a plentiful supply of fish in any stream and lake. We fished in the Wasilla Creek and Fingerlake area, and during the salmon fishing time went out to Fish Creek. Fish has been one of our main stays of food supply, which has continued as I have grown up, married and raised a family of our own. In the 50s we did go as far as Goose Bay and set nets for our family fish supply, and later dipped netted in creeks close to the inlet. As time went on there were more and more restrictions on fishing for food and sports as well, and also less and less fish. My husband use to like to go out and try his luck at King salmon fishing, but it got rather discouraging as we witnessed the decline of fish year by year. This passed year our son traveled down to the Kenai to catch us some fish, whereas before they could be caught in the valley.

Another aspect of the decline of fish that has been discouraging to me, besides the food supply, is the fact that I now have been trying to operate a B \& B. The first year I had customers who came from others states to see Alaska and to mostly to fish. In 2006 the season seemed pretty good, but last year was a hard year as my customers were discouraged from not catching fish, and I fear and witness that we are now loosing the tourist trade which could have blossomed had we the lure of good fishing in the valley.

I have inquired into some of these situations and it seems that the public now is only allowed $2 \%$ of the available to fish, which makes the $98 \%$ available to the commercial fisherman who it seems are mostly from out of state. It just seems to me that because of the rules and regulations we are loosing what should belong to Alaskans, mainly a good food supply and as far as economics the tourist industry which should be a vitale part of our incomes. I do believe that the state laws instructs that the fisheries should be managed so that ALL Alaskans can benefit. Isn't it time to make some positive changes to make that happen and be more balanced between the commercial fisherman and the public and those working as fishing guides?


Helen F. Riley, Owner and Operator-Alaska Lakeside Cabins
7851 Southshore Drive- PO Box 870127- Wasilla, Alaska 99687
Phone: 907-745-7122

## To The Board of Fisheries Members

I first of all want to thank you for taking the time to serve on the board and taking the time to read my letter. I am a life time Alaskan I was born in Palmer and have lived here 48 years. I have been fishing in the Matanuska Valley since I was 5 years old.
My concerns are the lack of salmon Upper Cook Inlet streams I have been fishing these streams consistently for 43 years and have operated a Fish Guiding business for the last 2 years and we have had a lot of clients we operate mostly out of the Deshka Landing and some from the Little Susitna Landing. We operate 2 boats both boats take a morning and evening trip for a potential of 22 people per day. Most of the days our boats are full but last summer was tough during the king salmon season and very tough during the silver salmon season not for a lack of people wanting to go fishing but the lack of fish in the rivers. We called some of our previously booked clients and told them it was not good fishing and refunded their money and when people called to book trips we told them how poor the fishing was. Buy the end of the season we lost about $\$ 52,000.00$ dollars worth in lost or refunded trips not to include the trips we discounted or did for free because or a lack of fish in the rivers. This not only had a negative affected on our business but also many locally owned business that we support.
I am concerned not only for our business but for the potential of greater decline of fish runs and the loss of salmon to our streams. Also the high risk in the decline of tourism in our area. Because fishing is a big draw for people to come to Alaska, when they come and don't catch fish they won't want to come back. They will tell their friends that fishing in Alaska is not that good any more a bad word can go a long, long way all around the world.
I know that many commercial fishing groups are saying that the Upper Cook Inlet has plenty of fish and that Commercial nets are not affecting our
Upper Cook Inlet fish but year after year I have witnessed the decline of fish in our valley streams. There is a pattern that is taking place when the commercial fleet is fishing we are not getting fish when the commercial fleet is not fishing we are getting fish in our valley streams.
The Solution is to change the way we are managing Alaskans resource it has been mismanaged for a lot of years. In fact they need to manage to meet the mid point escapement goals by reducing the amount of fish the commercial fisheries are allowed to take before the salmon get a chance to reach us. If they need to target fish to keep from having an over escapement in the Kenai Rivers, harvest the fish in the Kenai River or raise personal use bag limits and sport fish bag limits in the rivers that are in danger of over escapement. In fact it is mandated that our resources are to be managed to have the greatest benefit for all Alaskans!!! Right now the ratio is $2 \%$ for the greater number of Alaskans and $98 \%$ for the chosen few (The Commercial Fishing Industry) this is not right. I am not going to put up with this any more I have been silent up to this point in my life in Alaska but it time for every Alaskan to have there fair share.
In closing I ask you as a Member of The Board of Fisheries to listen to the people and do what is right for the whole. These are first our fish to harvest for personal consumption and then to be divided equally for all of us to benefit financially from, per pound the fish are worth way more than we are getting by harvesting them commercially.

Think of every local and tourist dollar that is spent in sport fishing and even for personal use. This could all be lost if we keep doing what we have been doing we need change.

Thank You Howard Riley

Meeting was called to order at 7:04 pm.
Members Present: WC Casey, Robin Collman, Dianne Dubuc, John Flood, Matt Hall, Carl Locke, Jim McCracken, Bill Perdue

Members Absent Excused: Ezra Campbell, Mark Clemens, Arne Hatch, Jeff Hetrick, Jim Hubbard, Mitch McDevvitt, Doug McRae, Sr, Bill Miller

Public Present: Howard Ferren from AK Sea Life Center
ADF\&G Present: Dan Bosch, Chuck Brazil, Sherry Wright
A quorum was present.
Minutes of the October 10,2007 meeting were approved as written.
Agenda was approved as modified.
Correspondence: Copy of the letter from Mark Cloward, AK State Troopers supporting Proposal 21.

ADF\&G presented information regarding Lower Cook Inlet proposals. Dan will provide deliberation materials on the Seward AC proposals for Dianne's review prior to the BOF meeting. They had a discussion on the rock fish proposal. There is a guy from Fairbanks who has developed a release mechanism that the department is going to utilize this summer to do some research on mortality. The department has a lot of data, but lacks the time to really go over it. Department is not supporting the reduction of the rock fish bag limit, but they don't feel there is enough information at this time. This bag limit has been in place since 1989. They do intend to pay attention to the populations of these fish.

Halibut IFQ's are rumoured to go into effect in 2010.
Upper Cook Inlet - the five minute version of staff comments was given. Dan spoke with the Kenai and Mat Valley biologists for their input. There are tons of allocation oriented proposals and the department will be neutral on those.

Question on Prop 116 regarding authority to make sport fishing a priority use, similar to subsistence (and above commercial fishing).

Howard Ferren spoke on Pacific Coast Salmon recovery funding. It may be a challenge to bring some of that money to Seward, but Howard has proposals he will submit for that purpose. Addresses the three anadramous streams in the proposals, geared toward the assessment of use. Further proposals would then be recommendation for other action. The tie for the youth fishery may come into play by habitat protection measures and identifying priority use areas. If the area utilized is very visible, it could be good to educate children and families on salmon and habitat protection.

## Seward Fish \& Game Advisory Committee <br> Meeting Minutes of November 8, 2007

Sustainable Salmon fund monies were earmarked for investigating bear lake paleological data, salmon productivity. Implanted 60 adult sockeye with acoustic tagging in the lake. There is natural spawning occurring in the lake, based on fry studies. The naturally occurring fry appears to have a better survival rate. If they can learn more about the Bear Lake system, they may be able to improve or increase the natural production. Targetting for economic enhancement is not allowed, unless it has application to restoration to a wild stock. They have had some very preliminary discussion with ADF\&G regarding Resurrection River.

AK Sea Life Center's mission is understanding ecosystems, which begin at the mountaintops. Salmon are nutured and grow in the marine environment, but have relationship back in fresh waters.

Net pens near Sea Life Center - no update. Without the arrangement with the docks, that plan is not going anywhere at this time.

Otolith marking on cohos were done at Trail Lakes Hatchery. Gary Fandrei is involved with treating these fish.

Arne Hatch and Alex Branson both fish in the Chignik area, but were not present. None of the proposals were of significant importance as a seiner and Arne didn't feel a need to attend the BOF meeting regarding Chignik. The committee discussed whether or not they would like to discuss any of these and it was determined that since those who were directly involved were not present, they could pass these. The members could still present written comments as individuals.
KODIAK AREA PROPOSALS

## Proposal 72

Oppose 0-8
Create an exclusive use area in Kodiak for salt water sport fishing charter operators
Discussion: The committee opposed creating an exclusive use area for any specific user group. These are a public resource and this could set a bad precedent.

## UPPER COOK INLET PROPOSALS

Proposal 212
Oppose 0-8
Prohibit personal use dipnet fishery on Kenai River until escapement goals met Discussion: Fortunate on this side of the Kenai Peninsula that we don't have the allocative issues so heavily as the other side. Believes this proposal is back lash from the ongoing allocative issues. Understand the defensive feeling of need to put these type of proposals in. If there is a problem, we'd hear from the department in regards to that problem, or an advisory committee in the area could put forward a proposal to address this. Allowing fishing sequentially, it takes a portion of the population making a more steady fishery.

## Seward Fish \& Game Advisory Committee Meeting Minutes of November 8, 2007

Reduce personal use fishery limit to 5 salmon per person, 25 per household Discussion: The original estimate of red harvest was around 80,000 , but has heard success rate is more like 200,000 . Don't believe the limit is excessive as it stands. Personally eats more than 12 fish per year and believes the resource should be shared. Alaskans that are involved in the fishery do eat more fish.

Proposal 218
Oppose 0-8
Lower annual limits for personal use salmon harvest to 20 for head of household and 5 for each dependent and no more than $50 \%$ of limit may be taken from the Kenai River Discussion: Adamantly opposed to any change in the bag limits as they currently stand.

Proposal 219
Oppose 0-8
Lower annual limits for personal use salmon harvest to 20 for head of household and 5 for each dependent and no more than $50 \%$ of limit may be taken from the Kenai River Discussion: Same comments as 217 and 218.

Proposal 221
Oppose 0-8
Implement motor type restriction for dip net fishing from vessel
Discussion: While the committee supports the department's efforts to proactively look at water quality issues before there are bigger problems than are already present, this is discriminatory against dipnetters. The burden is not being shared equally with all fishers below the Warren Ames bridge.

Proposal 223
Oppose 0-8
Require motorized boats utilizing the personal use fishery to be anchored or without power while fishing
Discussion: This is discriminatory against specific user groups. If people don't get together on these issues, they may all live with a strategy that no one really wants. Committee is unclear what the proponents are trying to address. The issue may be the use of gas engines instead of diesel.

Proposal 224
Oppose 0-6-2
Allow rod and reel in personal use fishery/Identify consumptive users as a person fishing for winter supply
This idea is being floated as a separate class of anglers who fish for their food supply and use the sport fish license in order to do that. Using a rod and reel for consumptive use is not a viable option. It may create more tension between another fisherman from out of town who is limited to another bag limit. If the person was in a personal use area, it would be more feasible, but not throughout the watershed.

Proposal 238
Support 8-0
Expand rainbow trout spawning closure from the outlet of Skilak Lake to the Upper Killey River to include Dolly Varden
Discussion: The area below Kenai Lake is closed for rainbow, but open for Dollies year around. This proposals offers some protection for the natural stocks of rainbows. The Dollies spawn in the fall and rainbows spawn in the spring. People go there because they

## Seward Fish \& Game Advisory Committee Meeting Minutes of November 8, 2007

can't fish other places due to closures. This aligns areas and members have personally observed fishermen are not fishing for Dollies. Question was raised how this would impact king fishing in that area and it was decided it wouldn't impact that issue.

Proposal 239
Oppose 0-8
Expand rainbow trout spawning closure from the outlet of Skilak Lake to the Upper Killey River to include Dolly Varden
Discussion: The closures were set for the purpose of protecting stocks. Prefer leaving the closure of May 1.

Proposal 241
Support 8-0
Prohibit removing rainbow trout from the water during spawning closure Discussion: If you're already in a restricted time frame, to discourage people from removing the fish (for photos, etc) and protecting those spawning fish, there is support. Reference comments on Prop 238. If 238 is not adopted, they support 241.

Proposal 249
Support 8-0
Decrease the daily bag limit for lake trout in Hidden Lake
Discussion: Lake trout are pretty low productivity and need protection. Prefer the one fish limit for the reasons stated in the proposal. It is easy access when the road is plowed and gets hit pretty hard.

Proposal 250
Support 8-0
Allow up to five lines to fish for northern pike fishing in Arc Lake and Scout Lake Discussion: Support the reduction of Northern pike populations. These stocks decimate other fish populations.

Proposal 252
Support 7-1
Prohibit releasing any northern pike while fishing in the Kenai Peninsula Discussion: The committee had concern about wanton waste, if someone caught a pike but didn't want to keep it. Same reasoning as prop 250. Any reduction of the Northern pike helps.

Proposal 254
No action
Increase size of designated youth fishing area on the Kenai River
Discussion: While the committee generally supports efforts to encourage youth fishing, there is a handicap area, ferry crossing, and youth fishery currently in this area. Unless the closed area is expanded, this could cause crowding. The proposal is not clear enough. Proposal 265

Support 8-0
Restrict altering harvested king salmon to allow for length assessment
Discussion: This is a housekeeping proposal support department efforts to clean up regulations. As long as the slot limits are in place, this is a good idea. This gives enforcement a tool.

Proposal 275-276
No action
Limit non-resident permits or establish annual limits for king salmon on Kenai River

## Seward Fish \& Game Advisory Committee Meeting Minutes of November 8, 2007

Discussion: Unfairly targets one user group.

Proposal 277
Oppose 0-8
Prohibit non-residents from exporting more than 125 pounds of fish
Discussion: Prohibiting one user group over another is detrimental to harmonious fishing overall. People should be under the same umbrella. What about people buying from a commercial fisherman? In Bristol Bay, some people buy commercial licenses and take fish caught home.

Proposal 300
Oppose 0-8
Require course for powerboat operation on Kenai River Discussion: This is another level of paperwork and bureaucracy that is not needed. Just because you sit through a course doesn't guarantee you will be a better operator. If there was a practical, pehaps it would be useful, but without that it is potentially dangerous.

Proposal 301
Oppose 0-7-1
Restrict use of motorized vessel for fishing on the Upper Kenai River near Kenai Lake Discussion: This addresses clean up on the upper Kenai. That is also an airplane landing area and was set aside for that purpose. The issue the Cooper Landing AC is trying to address is fishing from a vessel, not flying. Other uses should not be impacted by this proposal. There are many guides that launch there, without use of the motor.

## Proposal 307 <br> No action

Prohibit guides with clients from being on the river prior to $1 / 2$ hour before start time Discussion: Interesting that there is so much competition on the river that people are actually clogging up fishing holes until the start time. This is another proposal that targets a specific user group. It wouldn't prohibit another user from doing the same activity. There are numerous proposals restricting guide times on the river.

Proposal 328
Support 6-0-2
Modify regulation prohibiting fishing by sport fishing guides when clients are present on the Kenai River
Discussion: This aligns the remainder of the river with the current regulation.
Proposal 329
Support 8-0
Align vessel registration regulations with DNR requirements that allow for un-registering guide vessels
Discussion: This would give a person who wanted to personally fish the ability to using their guide boat.

Proposal 356
Oppose 0-8
Establish personal use fisheries in selected Upper Cook Inlet drainages
Discussion: It's unrealistic to believe these populations could sustain a personal use fishery. It could make things more interesting.

## Seward Fish \& Game Advisory Committee <br> Meeting Minutes of November 8, 2007

There needs to be something done at Sheffler Creek culverts where the snagging is being done. If there is any special area or accommodations the AC would like to include in that project (like stabilizing banks, picnic tables, handicap access, etc) please let WC know by February 15 th. An assessment is being done as to the scope of work, potential solutions, bridge, culverts (how many). The permitting process is taking longer than anticipated. Several agencies have offered resources. There is nowhere in Seward for wheel chair access to fishing. May $15-$ July $15^{\text {th }}$ window of construction. March or April will be timeline for finalizing the plans. Request for volunteers from the Seward AC to work on a letter to the city.

Motion to approve Dianne Dubuc to attend the BOF meetings in Homer for the Lower Cook Inlet and Anchorage for the Upper Cook Inlet. She will report back at the next regularly scheduled meeting. Approved unanimous.

Elections were postponed until the next meeting, which will be held January 10th at 7 pm at the Seward City Hall to hold elections, comment on statewide game proposals and review culvert drawing, discuss drafting PWS BOF proposals.

Meeting adjourned at 10:15 pm.

February 1, 2008
Hello Members of the Alaska Board of Fisheries,
My name is Andy Couch and I am representing the Matanuska Valley Fish and Game Advisory Committee. The Advisory Committee is made up of 15 regular members and 2 alternate members. In the past we have had commercial fishermen and hunting guides on the Committee, but at present the Committee has one sport fishing guide, one trapper, and the balance of the Committee is made up of members who participate in subsistence fishing, personal use fishing, sport fishing, subsistence hunting, and sport hunting. The Committee worked on Upper Cook Inlet fisheries proposals at three meetings and the fisheries subcommittee met an additional 4 times preparing for this Board of Fisheries meeting. Rather than working through every proposal, the Committee prioritized developing specific positions we would like the Board of Fisheries to incorporate into the management of Upper Cook Inlet salmon fisheries.

The Matanuska Valley Fish and Game Advisory Committee respectfully requests the Board of Fisheries take action to address the long occurring and serious salmon conservation problems in Upper Cook Irlet. Specifically we request the Board address low escapements of all salmon species returning to Northern District drainages of Upper Cook Inlet during the month of July as measured by the Yentna River Sonar sockeye salmon escapement counts and the Fish Creek Weir sockeye salmon escapement counts.

According to past testimony before the Alaska Board of Fisheries, the Alaska Department of Fish and Game roughly figures the number of sockeye salmon going up the entire Susitna River drainage is roughly twice the number of sockeye salmon going up the Yentna River fork, and the sockeye salmon production from other Northern District drainages is roughly equal to the number of sockeye from the entire Susitna River drainage.

The significance of these numbers is that the sockeye salmon spawning escapement for Yentna River sockeye salmon represents a total Northern District sockeye salmon run that is historically 4 times larger than the Yentna River stock. Since the Commercial Fish Division no longer uses the Fish Creek sockeye count for management of the commercial fishery, the Yentna sockeye salmon goal is the only salmon escapement goal protecting spawning escapements of all stocks and species of salmon returning to the Northern District during the entire month of July. In the absence of another goal or conclusive inseason data, then, the management assumption must be made that if Yentna sockeye salmon spawning escapements are inadequate -- then spawning escapements for all other Northern District salmon species and salmon stocks returning during the month of July must also be inadequate.

The Department has failed to achieve even the minimum threshold of the Yentna River sockeye salmon escapement goal range of $90,000-160,000$ sockeye salmon in 5 of the

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past 7 years, and in the 3 years since the last Board of Fisheries meeting the minimum threshold of the goal was only achieved one time (2006), and in 2005 the Yentna River sonar recorded the lowest sockeye salmon spawning escapement count on record. In addition, since the last Board of Fisheries meetings the Department has closed sockeye salmon harvest by emergency order in both the Northern District set net fishery and the Susitna and / or Yentna drainage sport fishey on several occasions, and the only personal use fishery in the entire Northern District has never been opened for lack of sufficient sockeye salmon escapement.

After an Advisory Committee meeting specifically scheduled with the Alaska Department of Fish and Game commercial manager for Upper Cook Inlet, the Advisory Committee learned the Department: 1. currently considers maximizing commercial salmon harvests in the Central District of Upper Cook Inlet a higher priority than obtaining even adequate spawning escapements for streams in the Northern District of Upper Cook Inlet. 2. In addition, with out specific wording in any management plan directing it to do so, the Department's Commercial Fish Division, through its emergency order authority, has been making significant allocation decisions that likely greatly increase Central District commercial exploitation rates of depressed Northern bound salmon stocks, while closing Northern District commercial, sport, and personal use fisheries during the same year. These decisions have been made in spite of specific wording in Alaska's Sustainable Salmon Fisheries policy that calls for equal sharing of conservation burden according to each user group's percentage of harvest. 3. Furthermore, the Commercial Fish Division has developed a practice of describing emergency orders, specifically issued to harvest more salmon in the Central District of Upper Cook Inlet, as "RESTRICTIONS!" From our Advisory Committee's point of view, this last action is best described as an intentional effort to mislead the public and perhaps even the Board of Fisheries on how Upper Cook Inlet Fisheries are managed. 4. Despite a long history of poor escapements, Department documented declining yields in both the Northern District set net fishery, Susitna drainage sport fishery, Fish Creek personal use fishery, and Department issued harvest closures for Northern District commercial, sport, and personal use fisheries the Department continues to resist classification of troubled Northern salmon stocks with Stock of Concern status. To the Matanuska Valley Fish and Game Advisory Committee and owerwhelming majority of Matanuska and Susitna Valley resident, as represented at the January 30, 2008 Board of Fisheries hearing in Wasilla, these actions and management practices of the Commercial Fish Division of the Alaska Department of Fish and Game are unresponsible and unacceptable.

What can be done to correct this situation?

1. Stocks of Concern -- The Matanuska Valley Fish and Game Advisory Committee requests the Board of Fisheries declare Northern District sockeye salmon, and Upper Cook Inlet chum salmon as Stocks of Concern under the yield category based on the reduced harvests in the Northern District set net fishery - further data could also be
used from declining Northern District drainage sport fishery catches and harvests, and the closed Fish Creek personal use fishery. A stock of concern status would require de-

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veloping a plan to address the issue of loss of yield in the Northern District set net fishery, and would also prioritize the opportunity to obtain federal research money to find solutions.
2. Manage to Midpoint or above for all Upper Cook Inlet salmon escapement goals. The whole concept of using an escapement goal range is to manage for obtaining the midpoint of a goal range as identified in Alaska's Sustainable Salmon Fisheries Policy. ADF\&G currently seems to be managing for less than the very minimum of the Yentna River sockeye salmon escapement goal in that the Department has failed to meet even the minimum threshold of the goal most of the time in the past two Board cycles. When the Department fails to meet the minimum threshold, then there is absolutely zero harvestable surplus sockeye salmon for in river subsistence and sport fisheries as the harvest of even one sockeye salmon only further erodes the unobtained spawning escapement. Managing to pass the midpoint of the escapement range past the sonar counter on an average annual basis is good science that would also allow some upstream harvest while still maintaining spawning escapements.
3. Provide Clear Language in management plans directing how the salmon resource shall be managed and how stocks shall be allocated. The Matanuska Vallely Advisory Committee would like to see clear language from the Board of Fisheries authorizing more conservative commercial fishing opportunities within the Central District on Northern bound salmon stocks until the midpoint of the Yentna sockeye salmon sonar goal can be assured. This is a Committee priority, as the Board should be allocating the salmon resource in clear understandable
language, and this responsibility should not be conducted, without direction, and exclusively by the commercial fish manager.
4. Manage Upper Cook Inlet salmon stocks to provide significant salmon harvest opportunities for all user groups during the month of July. More than $60 \%$ of the state's population lives in the Upper Cook Inlet area, and the present system of managing for a commercial salmon harvest priority during the month of July significantly limits most common users salmon harvest opportunities. We would like to see more conservative commercial harvest opporturities that would give subsistence, personal use, and sport fishery users better and more predictable harvest opportunities throughout the entire run timing of Upper Cook Inlet salmon stocks.
5. Refocus management of less abundant stocks in May, June, August, and September for subsistence, sport, and personal use fisheries. At the 2005 Board of Fisheries meeting changes were made that expanded commercial fishing opportunities onto these less

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abundant stocks whose value is much better maximized through subsistence, sport and personal use fisheries. We would like to see commercial harvest opportunities for coho and king salmon stocks return to where they were prior to the 2005 meeting. Numbers of these salmon are simply too small to provide significant income opportunity for very many commercial fishermen in Upper Cook Inlet.
6. Return to past successful Northern District management practices with a needed adjustment for conservation an allocation. The Advisory Committee supports use of the pre 2005 Northern District Salmon Management Plan which only allowed Central District drift netting within 3 miles of the eastside beach during specific time periods with an adjustment that would change the following paraphrased provision -- Achieving lower end of the Yentna River Sockeye salmon escapement goal takes priority over remaining below the upper bounds of the Kenai River sockeye salmon escapement goal -- we support changing to: Achieving midpoint of the Yentna River sockeye salmon escapement goal range takes priority over remaining below the upper bounds of the Kenai River sockeye salmon escapement goal.
7. Carefully Consider Ecomonic Values of Upper Cook Inlet Fisheries in your Decisions. Our Advisory Committee worked hard in an effort to see the ongoing sportfish economic survey completed before the Upper Cook Inlet meeting, but as Board members know it is still a work in progress. However, the Committee supports using the best the most recent and best data available. With that thought in mind, please use the results of past economic surveys and trends compiled in a January 2008 booklet by the Kenai River Sportfishing Association. Additional economic information should also be utilized as it becomes available.
8. Hopefully you have seen the Advisory Committee letter we sent to Governor Palin with carbon copies to Commissioner Lloyd, the Board of Fisheries, and Mat-Su Valley legislators requesting definitions for use of the words: restriction, liberalization, and regulation when used by the Department of Fish and Game in describing in season management practices. For a clear and understandable Upper Cook Inlett Board meeting we hope these definitions or distinctions can be used throughout this Upper Cook Inlet meeting.

Sincerely,


Matanuska Valley Fish and Game Advisory Committee

Members Present: Keith Gain, Tim Dillon, Robert Purpurra, Walt Sonen, Warren Brown, Paul Chissus

Members Absent Excused: Mike Opheim
Members Absent Unexcused: Matthew Gallien, Keith Swick, Alvin Swick

Meeting began at 7:20 pm


It was noted by the chair that Eric Nordenson had moved from Seldovia and resigned from the committee.

Elections were held with the following results: Herman Moonin, Buck Brown and Tim Dillon for the three year seats; Mike Opheim for the one year seat; Alvin Swick and Matt Gallien for the one year alternate seats.

Officer elections were held with the following results: Chair; Vice Chair; Secretary

## Board of Fisheries Proposals




ABR 12
6-1 Support
Amendment: Clams only
Allowing subsistence harvest of clams in Kachemak Bay.
People in Port Graham are being pushed out of their own traditional areas of harvest and are looking for opportunity to continue harvesting nearby. This was originally just for clams and only the east side of Kachemak Bay. Basically, the only change would be that a person wouldn't have to purchase a sport fishing license to harvest.

Minority opinion - The committee expressed concern of impacting other fisheries and hunting. There is a concern of a huge influx of Alaska residents, who all qualify for subsistence. This may target an area that is heavily congested. It would be better for a person to just buy a sport fishing license and harvest the clams under that. Members of the committee have observed people flying in and landing on sand strips digging clams out on Kasitsna Bay.

Prop 16 7 Support
There is a concern that people have been cleaning their fish and leaving debris near the net pens, creating a health hazard and risking the enhancement projects. People are misusing the facilities. This will make the public aware of the facility.

Prop 34 \& 59
7 Support
Allow troll permits in Chignik area
Amendment: These fisheries would be open to current salmon troll permit holders statewide.

## Seldovia Fish \& Game Advisory Committee Meeting Minutes of October 15, 2007

Discussion: Members expressed interest in supporting. It is doubtful the proponents are looking for an expanded fishery, but area fishers could benefit from this type. There could be an increased pressure on that stock. Local fishermen switching gear would not cause additional harvest. They would be trying to utilize the most efficient gear and maximize harvest.

## Upper Cook Inlet Salmon Management - 6-1 Support

The current management for the Cook Inlet drift fleet met escapement goals in all monitored salmon streams and prevented the massive over escapement in the Kenai River seen in so many previous years.

The committee agreed to send the above statement to the Board of Fisheries, rather than spend an inordinate amount of time going over the Upper Cook Inlet proposals. Although the Kenai River was managed well, there may be some problems associated with the current management plan. For the greater part of the fishery, people did well. The flow of fish were good. Members saw the processing end of the fishery. There will be areas that are flat and short and will consistently be that way. The overall management plan in place did work well.

## Prop 74

7-0 Support
Amendment: Prohibit spotter planes in Cook Inlet
The proponent is a drift fisherman and a pilot. This creates an uneven playing field in an already over capitalized fishery. If the effectiveness of the drift fleet is an issue on conservation in the Northern district, this will be a way to address efficiency in time.

Prop 101
Tuxedni Bay kings proposal
This would open similar to the Copper River king opening. Our children will be smarter if this passes. Assuming these fish are going up the Russian River.

Prop 112
1-6 Oppose
People should follow current management plans, as opposed to mobile gear. One side effect of this, due to Northern District early opening for kings, would throw many Central District fishers off for the whole season. Prefer things are kept open.

Prop 113
No action
This proposal doesn't address the issue that many fishermen would like dealt with. This is an antiquated regulation, designed to keep boat builders busy. You can't take the same boat in Cook Inlet over to Prince William Sound. If a guy wanted to participate in both fisheries, they wouldn't have to buy two boats. This only pertains to Cook Inlet and Kodiak. Eliminate registration areas for vessels could open dialogue on this issue. This could create a major increase in the drift fleet effort. Will wait for the restructuring information.

## Seldovia Fish \& Game Advisory Committee Meeting Minutes of October 15, 2007

Concern of putting a lot of pressure in this bay. Committee supports equity in closures for crab fisheries.

Keith Gain will attend the Lower Cook Inlet meeting.
Robert Purpurra will attend the Upper Cook Inlet meeting

## Board of Game Statewide

Drawing permit process for bison hunt - State of AK initiate a point preference system that if you apply for a bison hunt permit, you get a point for that application. The following year, you get another point for that application (of the same exact hunt).
Unless you get drawn for a permit, your points continue to add up. This gives a hunter a better chance of obtaining a particular hunt of their interest. There were no less than six proposals that requested the board utilize this form of permitting in the past. This becomes an investment for the individual who continues to put in for the same drawing.
$75 \%$ of available bison permits would go to preference point applicants. The others would be held as a draw. Bison are a highly prized species.

Committee agreed to submit this proposal on behalf of the AC.
Tim Dillon will attend the Statewide BOG.
Meeting adjourned at 9:30 pm.


Tyonek Fish \& Game Advisory Committee


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Sarah Paling, Governor
Camel Constantine, Chair PO Box 82055
Tyonek, AK 99682

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theck out thgiscas. Konthek, defters. Kuskitan, muldre river
meeting Adjourned@3:00p.m.


Tyonek Fish \& Game Advisory Committee


Sign in short

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## RC 33



## Deliberation Materials

# Committee D (Resident Spp.) 

UCI BOF 2008
Soldotna SF Division

## Committee D: Kenai River Resident Species

Proposals: 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252.

| Category |  |  | ADF\&G: Position | Background Information |
| :---: | :---: | :---: | :---: | :---: |
| Kenai River Resident Species | 236 | Modify rainbow trout bag limits for Kenai River drainage lakes and ponds | OPPOSE | See Staff Comments |
| Kenai River Resident Species | 237 | Modify rainbow trout bag limits for Kenai River drainage lakes and ponds | OPPOSE | See Staff Comments |
| Kenai River Resident Species | 238 | Expand rainbow trout spawning closure from the outlet of Skilak Lake to the Upper Killey River to include Dolly Varden | SUPPORT | Tables 1-9 (pp. 6-23) <br> Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 239 | Reduce spawning closure season for rainbow trout | OPPOSE | Tables 1-9 (pp. 6-23) <br> Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 240 | Prohibit all sport fishing during the rainbow trout spawning closure | SUPPORT | Tables 1-9 (pp. 6-23) Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 241 | Prohibit removing rainbow trout from the water during spawning closure | SUPPORT | See Staff Comments |
| Kenai River Resident Species | 242 | Prohibit removing rainbow trout or Dolly Varden from the water in catch and release fishing | NEUTRAL | See Staff Comments |
| Kenai River Resident Species | 243 | Require single, barbless hooks in Kenai River upstream of Lower Killey River from August 21 - June 10 | OPPOSE | Tables 1-9 (pp. 6-23) Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 244 | Require barbless hooks for rainbow trout or Dolly Varden in the Kenai River | OPPOSE | Tables 1-9 (pp. 6-23) <br> Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 245 | Restrict gear for rainbow trout and Dolly Varden in portion of Kenai River | OPPOSE | Tables 1-9 (pp. 6-23) <br> Figures 1-22 (pp. 6-23) |
| Kenai River Resident Species | 246 | No fishing from anchored vessel in the swan sanctuary area, Skilak Lake /Kenai River from June 15 - December 31 | NEUTRAL | Figure 32 (p. 33) |
| Kenai River Resident Species | 247 | Eliminate size restriction on Dolly Varden for Kenai River | OPPOSE | Tables 10-11 (pp. $24 \& 30$ ) Figures 23-31 (pp. 25-32) |
| Kenai River Resident Species | 248 | Increase the bag limit for Arctic Char in the Cooper Lake to 5 per day / 5 in possession only one over 20 inch or longer | NEUTRAL | Table 12 (p. 34) Figure 33 (p. 34) |
| Kenai River Resident Species | 249 | Decrease the daily bag limit for lake trout in Hidden Lake | SUPPORT | Table 13 (p. 35) Figure 34 (p. 36) |
| Kenai River Resident Species | 250 | Allow up to five lines to fish for northern pike fishing in Arc Lake and Scout Lake | SUPPORT | Tables 14-16 (pp. 37-42) Figures 35-38 (pp. 37-42) |
| Kenai River Resident Species | 251 | Allow up to five lines to fish for northem pike fishing in Stormy Lake | SUPPORT | Tables 14-16 (pp. 37-42) <br> Figures 35-38 (pp. 37-42) |
| Kenai River Resident Species | 252 | Prohibit releasing any northern pike while fishing in the Kenai Peninsula | SUPPORT? | Tables 14-16 (pp. 37-42) Figures 35-38 (pp. 37-42) |

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Figure 1.- Map of Kenai River by river by section for rainbow trout and Dolly Varden catch and harvest reporting.


Figure 2.- Map of Kenai River by river by section for rainbow trout and Dolly Varden catch and harvest reporting.

Table 1 - Kenai River rainbow trout, number caught and number retained by river section, 1984-2006

|  | Cook Injet to Soldotna Bridge |  |  | Soldotna Bridge to Moose River |  |  | Moose River to Skilak Outlet |  |  | Skilak Inlet to Kenai Lake |  |  | Kenai River Reach Not Specified |  |  | Kenai River Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Number Caught ${ }^{2}$ | Number Retained | Percent <br> Retained | Number <br> Caught ${ }^{\prime}$ | Number Retained | Percent <br> Retained | Number Caught ${ }^{\text {a }}$ | Number Retained | Percent <br> Retained | Number <br> Caught ${ }^{\text {a }}$ | Number Retained | Percent <br> Retained | Number Caught ${ }^{\prime}$ | Number <br> Retained | Percent <br> Retained | Number Caught ${ }^{*}$ | Number Retained | Percent <br> Retained |
| $1984{ }^{\text {b }}$ | 3,464 | 710 | 20.5 | 2,911 | 1,250 | 42.9 | 5,112 | 580 | 11.3 | 4,200 | 930 | 22.1 |  |  |  | 15,687 | 3,470 | 22.1 |
| $1985{ }^{\text {b }}$ | 3,398 | 880 | 25.9 | 2,653 | 850 | 32.0 | 5,410 | 1,500 | 27.7 | 3,520 | 710 | 20.2 |  |  |  | 14,981 | 3,940 | 26.3 |
| 1986 | 2,570 | 623 | 24.2 | 2,380 | 168 | 7.1 | 1,750 | 901 | 51.5 | 2,020 | 733 | 36.3 |  |  |  | 8,720 | 2,425 | 27.8 |
| 1987 | 2,220 | 522 | 23.5 | 3,450 | 670 | 19.4 | 6,430 | 629 | 9.8 | 3,870 | 364 | 9.4 |  |  |  | 15,970 | 2,185 | 13.7 |
| 1988 | 2,780 | 295 | 10.6 | 1,560 | 216 | 13.8 | 5,880 | 1,063 | 18.1 | 7,580 | 559 | 7.4 |  |  |  | 17,800 | 2,133 | 12.0 |
| 1989 | 2,020 | 481 | 23.8 | 2,230 | 354 | 15.9 | 6,470 | 829 | 12.8 | 6,870 | 253 | 3.7 |  |  |  | 17,590 | 1,917 | 10.9 |
| 1990 | 2,624 | 510 | 19.4 | 3,571 | 943 | 26.4 | 5,366 | 937 | 17.5 | 11,995 | 1,145 | 9.5 |  |  |  | 23,556 | 3,535 | 15.0 |
| 1991 | 3,672 | 516 | 14.1 | 3,844 | 1,123 | 29.2 | 7,930 | 940 | 11.9 | 18,108 | 740 | 4.1 |  |  |  | 33,554 | 3,319 | 9.9 |
| 1992 | 4,448 | 427 | 9.6 | 3,879 | 411 | 10.6 | 15,127 | 736 | 4.9 | 28,702 | 403 | 1.4 |  |  |  | 52,160 | 1,980 | 3.8 |
| 1993 | 6,190 | 1,149 | 18.6 | 5,556 | 580 | 10.4 | 12,651 | 653 | 5.2 | 37,755 | 192 | 0.5 |  |  |  | 62,150 | 2,570 | 4.1 |
| 1994 | 3,796 | 506 | 13.3 | 3,980 | 364 | 9.1 | 10,968 | 543 | 5.0 | 35,089 | 163 | 0.5 |  |  |  | 53,833 | 1,576 | 2.9 |
| 1995 | 4,516 | 620 | 13.7 | 4,087 | 440 | 10.8 | 13,072 | 780 | 6.0 | 33,475 | 310 | 0.9 |  |  |  | 55,150 | 2,150 | 3.9 |
| 1996 | 5,513 | 304 | 5.5 | 4,777 | 646 | 13.5 | 8,650 | 373 | 4.3 | 45,471 | 237 | 0.5 |  |  |  | 64,411 | 1,560 | 2.4 |
| 1997 | 7,411 | 739 | 10.0 | 6,641 | 539 | 8.1 | 20,047 | 632 | 3.2 | 61,053 | 0 | 0.0 |  |  |  | 95,152 | 1,910 | 2.0 |
| 1998 | 5,502 | 608 | 11.1 | 5,380 | 670 | 12.5 | 12,158 | 737 | 6.1 | 42,224 | 0 | 0.0 |  |  |  | 65,264 | 2,015 | 3.1 |
| 1999 | 11,415 | 1,516 | 13.3 | 8,325 | 695 | 8.3 | 32,050 | 1,573 | 4.9 | 50,189 | 0 | 0.0 |  |  |  | 101,979 | 3,784 | 3.7 |
| 2000 | 16,477 | 1,292 | 7.8 | 9,428 | 1,083 | 11.5 | 18,990 | 1,084 | 5.7 | 78,836 | 0 | 0.0 |  |  |  | 123,731 | 3,459 | 2.8 |
| 2001 | 11,216 | 987 | 8.8 | 7,473 | 868 | 11.6 | 22,392 | 567 | 2.5 | 51,130 | 0 | 0.0 |  |  |  | 92,211 | 2,422 | 2.6 |
| 2002 | 12,641 | 995 | 7.9 | 8,157 | 944 | 11.6 | 19,355 | 864 | 4.5 | 71,753 | 0 | 0.0 | 2,269 | 216 | 9.5 | 114,175 | 3,019 | 2.6 |
| 2003 | 12,844 | 1,026 | 8.0 | 10,913 | 700 | 6.4 | 41,204 | 372 | 0.9 | 54,552 | 0 | 0.0 | 3,536 | 180 | 5.1 | 123,049 | 2,278 | 1.9 |
| 2004 | 15,080 | 1,452 | 9.6 | 13,310 | 978 | 7.3 | 34,026 | 831 | 2.4 | 91,443 | 0 | 0.0 | 5,651 | 50 | 0.9 | 159,510 | 3,311 | 2.1 |
| 2005 | 14,119 | 953 | 6.7 | 11,585 | 647 | 5.6 | 34,675 | 607 | 1.8 | 57,936 | 267 | 0.5 | 7,949 | 43 | 0.5 | 126,264 | 2,517 | 2.0 |
| 2006 | 13,168 | 588 | 4.5 | 13,683 | 1,109 | 8.1 | 33,222 | 472 | 1.4 | 67,741 | 289 | 0.4 | 4,005 | 41 | 1.0 | 131,819 | 2,499 | 1.9 |
| Mean | 7,260 | 770 | 13.5 | 6,080 | 710 | 14.4 | 16,210 | 790 | 9.5 | 37,630 | 320 | 5.1 | 4,680 | 110 | 3.4 | 68,210 | 2,610 | 7.8 |

Source: Statemide Harvest Surwe (Mills 1985-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al 2003; Jennings et al 2004, 2006 a-b, 2007, in prep.)
a Catch estimates for 1984 -1989 ant unpublished estimates from the Statewide Harvest Survey (M Mills, Alaska Department of Fish and Game, Division of Sport Fish, Rescarch and Technical Services, Anchorage
b bn 1984 and 1985, catch essimates were mistakenly reported as havest in Mills 1985 and 1986. Numbers for havest presented here are conrect.


Figure 3.-. Kenai River rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Cook Inlet to Soldotna Bridge, 1984-2006.


Figure 4.-. Kenai River rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Soldotna Bridge to Moose River, 1984-2006.


Figure 5.- Kenai River rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Cook Inlet to Moose River, 1984-2006.


Figure 6.- Kenai River rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Moose River to Skilak Lake, 1984-2006.


Figure 7.- Kenai River rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Skilak Lake to Kenai Lake, 1984-2006.

Table 2 - Rainbow Trout harvest and catch and effort for all species, Quartz Creek, Ptarmigan Creek, Kenai Lake, Russian River and Skilak Lake, 1984-2006.

|  | Ptarmigan Creek |  |  | Quartz Creek |  |  | Kenai Lake |  |  | Russian River |  |  | Skilak Lake |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Efforta | Harvest | Catch | Efforta | Harvest | Catch | Efforta | Harvest | Catch | Efforta | Harvest | Catch | Efforta | Harvest | Catch |
| 1984 | 1,857 | 237 |  | 2,530 | 87 |  | 502 | 25 |  |  | 324 |  |  | 12 |  |
| 1985 | 988 | 295 |  | 451 | 69 |  | 607 |  |  |  | 0 |  |  | 0 |  |
| 1986 | 1,483 | 474 |  | 4,146 | 122 |  | $N A^{\text {b }}$ | 15 |  |  | 0 |  |  | 0 |  |
| 1987 | 942 | 18 |  | 5,361 | 54 |  | 580 | 36 |  |  | 91 |  |  | 145 |  |
| 1988 | 1,946 | 18 |  | 3,965 | 54 |  | 855 | 36 |  |  | 91 |  |  | 72 |  |
| 1989 | 790 | 29 |  | 4,893 | 67 |  | 377 | 20 |  |  | 96 |  |  | 67 |  |
| 1990 | 2,041 | 260 | 906 | 5,655 | 198 | 500 | 1,042 | 42 | 73 |  | 198 | 4,789 |  | 115 | 458 |
| 1991 | 1,200 | 115 | 700 | 5,354 | 94 | 648 | 1,064 | 115 | 1,400 |  | 230 | 7,221 |  | 125 | 637 |
| 1992 | 1,750 | 24 | 499 | 7,906 | 237 | 1,314 | 1,536 | 87 | 135 |  | 253 | 8,312 |  | 95 | 522 |
| 1993 | 1,742 | 415 | 1,709 | 9,152 | 174 | 2,182 | 2,586 | 615 | 1,306 |  | 284 | 12,377 |  | 68 | 857 |
| 1994 | 1,425 | 311 | 912 | 7,241 | 268 | 2,088 | 2,524 | 356 | 1,189 |  | 134 | 11,744 |  | 35 | 614 |
| 1995 | 1,914 | 131 | 574 | 5,179 | 66 | 780 | 3,240 | 233 | 654 |  | 151 | 15,381 |  | 56 | 1,335 |
| 1996 | 336 | 40 | 464 | 3,018 | 53 | 914 | 878 | 90 | 90 |  | 127 | 23,041 |  | 21 | 1,536 |
| 1997 | 758 |  | 1,461 | 3,401 |  | 1,539 | 1,734 | 152 | 504 |  | 130 | 30,852 |  | 14 | 3,042 |
| 1998 | 701 |  | 2,053 | 3,166 |  | 2,252 | 520 | 43 | 183 |  | 351 | 20,088 |  | 209 | 625 |
| 1999 | 883 |  | 3,382 | 4,708 |  | 2,132 | 1,462 | 93 | 1,753 |  | 83 | 37,764 |  | 119 | 1,904 |
| 2000 | 732 |  | 1,026 | 2,423 |  | 1,212 | 1,033 | 117 | 327 |  | 44 | 34,948 |  | 181 | 2,578 |
| 2001 | 430 |  | 625 | 3,105 |  | 1,814 | 2,509 | 153 | 762 |  | 215 | 16,007 |  | 65 | 568 |
| 2002 | 888 |  | 3,268 | 4,245 |  | 2,617 | 2,502 | 58 | 1,312 |  | 16 | 29,484 |  | 63 | 939 |
| 2003 | 899 |  | 424 | 4,357 |  | 3,359 | 1,097 | 0 | 386 |  | 182 | 21,204 |  | 0 | 1,009 |
| 2004 | 687 |  | 3,027 | 6,589 |  | 7,939 | 497 | 93 | 140 |  | 49 | 42,875 |  | 436 | 911 |
| 2005 | 599 |  | 1,253 | 6,106 |  | 2,897 | 2,072 | 55 | 252 |  | 232 | 20,026 |  | 32 | 851 |
| 2006 | 1,061 |  | 3,612 | 5,582 |  | 5,698 | 619 | 52 | 52 |  | 256 | 28,059 |  | 0 | 1,045 |
| Mean | 1,133 | 182 | 1,523 | 4,719 | 119 | 2,346 | 1,356 | 113 | 619 |  | 154 | 21,422 |  | 84 | 1,143 |

From: Mills 1985-1994; Howe et al. 1995,1996, 2001a-d; Walker et al. 2003; Jennings et al 2004, 2006 a-b, 2007 In prep; except Kenai Lake 1984-1988, M. Mills, ,
Alaska Department of Fish and GameDivision of Sport Fish, Research and Technical Services, Anchorage, personal communication.
${ }^{2}$ Effort directed toward all species.


Effort directed toward all species.
Figure 8.- Rainbow trout catch, harvest and effort (angler-days) for all species, as determined by the Statewide Harvest Survey, Quartz Creek, 1984-2006.


Figure 9.- Rainbow trout catch and harvest as determined by the Statewide Harvest Survey, Russian River, 1984-2006.

Table 3. Summary of female rainbow trout maturity data, Upper Kenai River, 1999 through 2001.

| Length <br> Group <br> by Inches | Number <br> Mature | Number <br> Immature | Total <br> Number <br> Sampled | Percent <br> Mature | Percent <br> Immature | Cumulative <br> Percent <br> Mature | Cumulative <br> Percent <br> Immature |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $10-11.99$ | 1 | 3 | 4 | $25 \%$ | $75 \%$ |  |  |
| $12-13.99$ | 0 | 8 | 8 | $0 \%$ | $100 \%$ | $85 \%$ | $75 \%$ |
| $14-15.99$ | 9 | 17 | 26 | $35 \%$ | $65 \%$ | $26 \%$ | $92 \%$ |
| $16-17.99$ | 104 | 47 | 151 | $69 \%$ | $31 \%$ | $60 \%$ | $74 \%$ |
| $18-19.99$ | 258 | 38 | 296 | $87 \%$ | $13 \%$ | $77 \%$ | $40 \%$ |
| $20-21.99$ | 280 | 10 | 290 | $97 \%$ | $3 \%$ | $84 \%$ | $23 \%$ |
| $22-23.99$ | 164 | 9 | 173 | $95 \%$ | $5 \%$ | $86 \%$ | $16 \%$ |
| $24-25.99$ | 34 | 1 | 35 | $97 \%$ | $3 \%$ | $86 \%$ | $14 \%$ |
| $26>$ | 2 | 0 | 2 | $100 \%$ | $0 \%$ | $86 \%$ | $14 \%$ |
| Total | 852 | 133 | 985 |  |  |  | $14 \%$ |



Figure 10.- Upper Kenai River female rainbow trout maturity by percent of length class.


Figure 11.- Upper Kenai River female rainbow trout maturity by cumulative percent of length class.
Table 4. Summary of maturity or spawning condition by date of sample for female rainbow trout, Upper Kenai River, 1998 through 2002.

| Sample <br> Date | Number <br> Pre-spawners | Percent of <br> Pre-spawners | Number <br> Spawners | Percent of <br> Spawners | Number <br> Post-spawners | Percent of <br> Sample | Total Number <br> Sampled |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| April 1-15 | 10 | $100 \%$ | 0 | $0 \%$ | 0 | $0 \%$ | 10 |
| April 16-30 | 55 | $98 \%$ | 0 | $0 \%$ | 1 | $2 \%$ | 56 |
| Total | 65 | $98 \%$ | 0 | $0 \%$ | 1 | $2 \%$ | 66 |
| May 1-15 | 62 | $78 \%$ | 7 |  |  |  |  |
| May 16-31 | 87 | $40 \%$ | 29 | $13 \%$ | 11 | $14 \%$ | $47 \%$ |



Figure 12.- Summary of Upper Kenai River female rainbow maturity and time of spawning by percent of sample.


Figure 13.- Summary of Upper Kenai River female rainbow maturity and time of spawning by number in sample.

Table 5. Summary of rainbow trout population estimates by year and length group, Upper Kenai River, 1986 2001.

| Length Group by Inches | Estimated Population Size by Year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1986 |  | 1987 |  | 1995 |  | 2001 |  |
|  | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 12-13.99 | 821 | 33\% | 697 | 20\% | 1,449 | 26\% | 1,729 | 26\% |
| 14-15.99 | 801 | 32\% | 1,009 | 29\% | 1,277 | 23\% | 1,771 | 26\% |
| 16-17.99 | 444 | 18\% | 1,009 | 29\% | 1,070 | 19\% | 1,609 | 24\% |
| 18-19.99 | 158 | 6\% | 368 | 11\% | 1,050 | 19\% | 1,032 | 15\% |
| 20-21.99 | 143 | 6\% | 212 | 6\% | 539 | 10\% | 462 | 7\% |
| 22-23.99 | 112 | 4\% | 117 | 3\% | 146 | 3\% | 96 | 1\% |
| $24>$ | 41 | 2\% | 61 | 2\% | 66 | 1\% | 0 | 0\% |
| Estimated <br> Population |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Size | 2,520 |  | 3,473 |  | 5,597 |  | 6,698 |  |



Figure 14.- Summary of Upper Kenai River rainbow trout population estimates by number in length class 1986-2001.


Figure 15.- Summary of Upper Kenai River rainbow trout population estimates by percent of length class 1986-2001.

Table 6. Summary of rainbow trout population estimates by year and length group, Middle Kenai River, 1987 and 1999.

| Length | Estimated Population Size by Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Group <br> by Inches | Number | Proportion |  | Number | Proportion |
| $8-11.99$ | 361 | $21 \%$ |  | 2,437 | $31 \%$ |
| $12-13.99$ | 167 | $10 \%$ |  | 2,015 | $26 \%$ |
| $14-15.99$ | 361 | $21 \%$ |  | 1,115 | $14 \%$ |
| $16-17.99$ | 306 | $17 \%$ |  | 1,125 | $14 \%$ |
| $18-19.99$ | 194 | $11 \%$ |  | 703 | $9 \%$ |
| $20-21.99$ | 167 | $10 \%$ |  | 309 | $4 \%$ |
| $22-23.99$ | 83 | $5 \%$ | 131 | $2 \%$ |  |
| $24>$ | 111 | $6 \%$ | 47 | $1 \%$ |  |
| Estimated |  |  |  |  |  |
| Population |  |  |  |  |  |
| Size | 1,750 |  |  |  |  |



Figure 16.- Summary of Middle Kenai River rainbow trout population estimates by number in length class 1987 and 1999.


Figure 17.- Summary of Middle Kenai River rainbow trout population estimates by percent of length class, 1987 and 1999.

Table 7. Summary of Kenai River rainbow trout hooking injury by length group, 1998 through 2002.

| Length <br> Group <br> by Inches | Total <br> Number <br> Sampled | Number <br> Mouth <br> Damage | Percent <br> Mouth <br> Damage | Total <br> Number <br> Sampled | Number <br> Eye <br> Damage | Percent <br> Eye <br> Damage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $8-10.99$ | 152 | 31 | $20 \%$ | 102 | 7 | $7 \%$ |
| $10-11.99$ | 491 | 165 | $34 \%$ | 332 | 16 | $5 \%$ |
| $12-13.99$ | 852 | 473 | $56 \%$ | 626 | 57 | $9 \%$ |
| $14-15.99$ | 882 | 581 | $66 \%$ | 751 | 47 | $6 \%$ |
| $16-17.99$ | 955 | 701 | $73 \%$ | 832 | 48 | $6 \%$ |
| $18-19.99$ | 866 | 731 | $84 \%$ | 767 | 39 | $5 \%$ |
| $20-21.99$ | 621 | 540 | $87 \%$ | 581 | 22 | $4 \%$ |
| $22-23.99$ | 305 | 261 | $86 \%$ | 285 | 7 | $2 \%$ |
| $24-25.99$ | 67 | 54 | $81 \%$ | 56 | 0 | $0 \%$ |
| $26>$ | 11 | 8 | $73 \%$ | 11 | 0 | $0 \%$ |
|  |  |  |  |  |  |  |
| Total | 5,202 | 3,545 | $68 \%$ | 4,343 | 243 | $6 \%$ |



Figure 18.- Summary of Kenai River rainbow trout mouth damage hooking injury by length class, 1998-2002

Kenai River Rainbow Trout Hook Injury Eye Damage


Figure 19.- Summary of Kenai River rainbow trout eye damage hooking injury by length class, 1998 through 2002.

Table 8. Summary of Kenai River rainbow trout harvest by length class regulation, 1998 through 2003.

|  | Upper River |  |  | Middle River |  |  | Lower River |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Regulation ${ }^{\text {a }}$ | Harvest | Season | Regulation | Harvest | Season | Regulation | Harvest | Season |
| 1984 | 3, $1>20^{\prime \prime} 1984$ | 930 | 6/16-10/31 | $3,1>20^{\prime \prime}$ | 1,830 | 6/16-10/31 | 3, $1>20^{\prime \prime}$ | 710 | 6/16-10/31 |
| 1985 | $3,1>20^{\prime \prime}$ | 710 | " | $3,1>20^{\prime \prime}$ | 2,350 | " | $3,1>20^{\prime \prime}$ | 880 | " |
| 1986 | $3,1>20^{\prime \prime}$ | 733 | " | $3,1>20^{\prime \prime}$ | 1,069 | " | $3,1>20^{\prime \prime}$ | 623 | " |
| 1987 | $2,1>20{ }^{\prime \prime}$ | 364 | " | $2,1>20^{\prime \prime}$ | 1,299 | " | $2,1>20^{\prime \prime}$ | 522 | " |
| 1988 | $2,1>20{ }^{\prime \prime}$ | 559 | * | $2,1>20^{\prime \prime}$ | 1,279 | " | $2,1>20^{\prime \prime}$ | 295 | " |
| 1989 | $1>20{ }^{\prime \prime}$ | 253 | " | $2,1>20^{\prime \prime}$ | 1,183 | " | $2,1>20^{\prime \prime}$ | 481 | " |
| 1990 | $1>20^{\prime \prime}$ | 1,145 | " | $2,1>20^{\prime \prime}$ | 1,880 | " | $2,1>20^{\prime \prime}$ | 510 | " |
| 1991 | $1>24{ }^{\prime \prime}$ | 740 | " | $2,1>20^{\prime \prime}$ | 2,063 | " | $2,1>20^{\prime \prime}$ | 516 | " |
| 1992 | $1>24{ }^{\prime \prime}$ | 403 | " | $2,1>20^{\prime \prime}$ | 1,147 | " | $2,1>20^{\prime \prime}$ | 427 | " |
| 1993 | $1>30$ " | 192 | 6/16-4/16 | $1>20$ " | 1,233 | " | $1>20{ }^{\prime \prime}$ | 1,149 | " |
| 1994 | $1>30^{\prime \prime}$ | 163 | " | $1>20{ }^{\prime \prime}$ | 907 | " | $1>20{ }^{\prime \prime}$ | 506 | " |
| 1995 | $1>30^{\prime \prime}$ | 310 | " | $1>20{ }^{\prime \prime}$ | 1,220 | " | $1>20{ }^{\prime \prime}$ | 620 | " |
| 1996 | $1>30^{\prime \prime} 1996$ | 237 | " | $1>20$ " | 1,019 | " | $1>20^{\prime \prime}$ | 304 | " |
| 1997 | C \& R | 0 | " | $1>20{ }^{\prime \prime}$ | 1,171 | 6/15-4/15 | $1>20{ }^{\prime \prime}$ | 739 | 6/15-4/15 |
| 1998 |  | 0 | 6/15-4/15 | $1>20$ " | 1,407 | " | $1>20{ }^{\prime \prime}$ | 608 | " |
| 1999 |  | 0 | " | $1>20{ }^{\prime \prime}$ | 2,268 | " | $1>20^{\prime \prime}$ | 1,516 | " |
| 2000 |  | 0 | " | $1>20{ }^{\prime \prime}$ | 2,167 | " | $1>20{ }^{\prime \prime}$ | 1,292 | " |
| 2001 |  | 0 | " | $1>20{ }^{\prime \prime}$ | 1,435 | " | $1>20{ }^{\prime \prime}$ | 987 | " |
| 2002 |  | 0 | " | $1>20^{\prime \prime}$ | 1,808 | " | $1>20$ " | 995 | " |
| 2003 |  | 0 | " | $1>20^{\prime \prime}$ | 1,072 | " | $1>20^{\prime \prime}$ | 1.026 | " |

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Figure 20.- Summary of Upper Kenai River rainbow trout harvest by length class regulation, 1984 through 1996.


Figure 21.- Summary of Middle and Lower Kenai River rainbow trout harvest by length class regulation, 1984 through 2003.

Table 9. Summary of Upper Kenai River radio-tagged rainbow trout locations, 2000 and 2001.

| Sample <br> Period <br> Date | Number <br> Radio-tagged <br> fish in river | Number <br> Radio-tagged <br> fish in lake | Total | Percent <br> Radio-tagged <br> fish in lake |
| :---: | :---: | :---: | :---: | :---: |
| Aug Early | 12 | 0 | 12 | $0 \%$ |
| Aug Late | 90 | 7 | 97 | $7 \%$ |
| Sept Early | 136 | 1 | 137 | $1 \%$ |
| Sept Late | 106 | 16 | 122 | $13 \%$ |
| Oct Early | 65 | 44 | 109 | $40 \%$ |
| Oct Late | 58 | 45 | 103 | $44 \%$ |
| Nov Early | 47 | 43 | 90 | $48 \%$ |
| Dec Early | 12 | 59 | 71 | $83 \%$ |
| Jan Late | 19 | 37 | 56 | $66 \%$ |
| April Early | 25 | 53 | 78 | $68 \%$ |
| April Late | 31 | 52 | 83 | $63 \%$ |
| May Early | 44 | 18 | 62 | $29 \%$ |
| May Late | 81 | 13 | 94 | $14 \%$ |
| June Early | 85 | 2 | 87 | $2 \%$ |
| June Late | 79 | 3 | 82 | $4 \%$ |
| July Early | 73 | 3 | 76 | $4 \%$ |
| July Late | 74 | 2 | 76 | $3 \%$ |
| Aug Early | 73 | 1 | 74 | $1 \%$ |
| Aug Late | 67 | 0 | 67 | $0 \%$ |
| Sept Early | 57 | 0 | 57 | $0 \%$ |
| Sept Late | 45 | 3 | 48 | $6 \%$ |
| Oct Early | 22 | 14 | 36 | $39 \%$ |
| Oct Late | 25 | 18 | 43 | $42 \%$ |
| Nov Early | 19 | 16 | 35 | $46 \%$ |
| Nov Late | 17 | 27 | 44 | $61 \%$ |

${ }^{\text {a }}$ Early monthly period is $1-15$, late monthly period is 16 to month end.


Figure 22.- Locations of radio-tagged Upper River rainbow trout 2000 and 2001, shaded area represents seasonal spawning closure.

Table 10 - Kenai River Dolly Varden harvest and catch by river section as determined by Statewide Harvest Survey, 1984-2006.

| Year | Harvest |  |  |  |  |  |  |  |  |  |  | Catch |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cook Inlet to Soldotna Bridge |  | Soldotna Bridge to Moose River |  | Moose River to Skilak Lake |  | Skilak Inlet to Kenai Lake |  | Kenai River Reach Not Specified |  | Total | Cook Inlet to Soldotna Bridge |  | Soldotna Bridge to Moose River |  | Moose River to Skilak Lake |  | Skilak Inlet to Kenai Lake |  | Kenai River <br> Reach Not Specified |  | Total |
|  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number |
| 1984 | 7,506 | 23.9 | 1,966 | 6.3 | 11,211 | 35.7 | 10,724 | 34.1 |  |  | 31,407 |  |  |  |  |  |  |  |  |  |  |  |
| 1985 | 7,560 | 28.8 | 3,277 | 12.5 | 8,930 | 34.0 | 6,468 | 24.7 |  |  | 26,235 |  |  |  |  |  |  |  |  |  |  |  |
| 1986 | 1,249 | 21.6 | 771 | 13.4 | 1,928 | 33.4 | 1,827 | 31.6 |  |  | 5,775 |  |  |  |  |  |  |  |  |  |  |  |
| 1987 | 2,429 | 31.8 | 1,671 | 21.9 | 2,139 | 28.0 | 1,391 | 18.2 |  |  | 7,630 |  |  |  |  |  |  |  |  |  |  |  |
| 1988 | 3,531 | 32.2 | 1,266 | 11.5 | 3,527 | 32.1 | 2,653 | 24.2 |  |  | 10,977 |  |  |  |  |  |  |  |  |  |  |  |
| 1989 | 3,414 | 33.9 | 1,371 | 13.6 | 3,649 | 36.3 | 1,630 | 16.2 |  |  | 10,064 |  |  |  |  |  |  |  |  |  |  |  |
| 1990 | 2,738 | 22.9 | 2,424 | 20.2 | 2,741 | 22.9 | 4,079 | 34.0 |  |  | 11,982 | 7,795 | 22.5 | 5,094 | 14.7 | 7,537 | 21.8 | 14,151 | 40.9 |  |  | 34,577 |
| 1991 | 4,211 | 29.0 | 3,285 | 22.6 | 4,268 | 29.4 | 2,740 | 18.9 |  |  | 14,504 | 10,665 | 15.5 | 8,116 | 11.8 | 19,363 | 28.2 | 30,601 | 44.5 |  |  | 68,745 |
| 1992 | 3,777 | 26.1 | 2,516 | 17.4 | 4,900 | 33.9 | 3,269 | 22.6 |  |  | 14,462 | 11,822 | 15.0 | 5,899 | 7.5 | 26,348 | 33.4 | 34,754 | 44.1 |  |  | 78,823 |
| 1993 | 4,599 | 36.2 | 1,539 | 12.1 | 3,503 | 27.6 | 3,057 | 24.1 |  |  | 12,698 | 13,019 | 17.1 | 6,079 | 8.0 | 20,778 | 27.2 | 36,451 | 47.8 |  |  | 76,327 |
| 1994 | 3,276 | 38.6 | 1,107 | 13.0 | 2,051 | 24.2 | 2,052 | 24.2 |  |  | 8,486 | 8,752 | 14.2 | 5,185 | 8.4 | 14,584 | 23.6 | 33,168 | 53.8 |  |  | 61,689 |
| 1995 | 4,069 | 42.7 | 1,732 | 18.2 | 2,113 | 22.2 | 1,609 | 16.9 |  |  | 9,523 | 10,146 | 18.4 | 5,399 | 9.8 | 12,447 | 22.6 | 27,103 | 49.2 |  |  | 55,095 |
| 1996 | 2,411 | 32.2 | 1,797 | 24.0 | 1,995 | 26.7 | 1,281 | 17.1 |  |  | 7,484 | 9,787 | 17.3 | 5,973 | 10.6 | 14,506 | 25.7 | 26,245 | 46.4 |  |  | 56,511 |
| 1997 | 2,518 | 36.2 | 1,042 | 15.0 | 2,824 | 40.6 | 573 | 8.2 |  |  | 6,957 | 9,955 | 11.0 | 5,268 | 5.8 | 22,266 | 24.5 | 53,317 | 58.7 |  |  | 90,806 |
| 1998 | 1,977 | 32.5 | 1,787 | 29.4 | 1,847 | 30.4 | 468 | 7.7 |  |  | 6,079 | 7,560 | 12.4 | 5,961 | 9.8 | 11,732 | 19.3 | 35,659 | 58.5 |  |  | 60,912 |
| 1999 | 3,867 | 51.1 | 1,086 | 14.3 | 1,932 | 25.5 | 683 | 9.0 |  |  | 7,568 | 14,752 | 20.2 | 6,316 | 8.7 | 20,053 | 27.5 | 31,826 | 43.6 |  |  | 72,947 |
| 2000 | 3,916 | 52.7 | 1,759 | 23.7 | 1,403 | 18.9 | 349 | 4.7 |  |  | 7,427 | 18,261 | 17.4 | 9,122 | 8.7 | 21,291 | 20.3 | 56,375 | 53.7 |  |  | 105,049 |
| 2001 | 3,763 | 57.6 | 1,613 | 24.7 | 789 | 12.1 | 363 | 5.6 |  |  | 6,528 | 16,304 | 15.1 | 8,367 | 7.8 | 28,312 | 26.3 | 54,802 | 50.8 |  |  | 107,785 |
| 2002 | 2,191 | 37.9 | 1,431 | 24.8 | 1,105 | 19.1 | 766 | 13.3 | 288 | S. 0 | 5,781 | 16,414 | 21.2 | 7,751 | 10.0 | 13,384 | 17.3 | 38,481 | 49.7 | 1,437 | 1.9 | 77,467 |
| 2003 | 2,996 | 49.0 | 1,318 | 21.6 | 1,066 | 17.4 | 487 | 8.0 | 246 | 4.0 | 6,113 | 15,520 | 14.9 | 9,765 | 9.4 | 25,972 | 25.0 | 50,969 | 49.1 | 1,684 | 1.6 | 103,910 |
| 2004 | 1,759 | 30.2 | 2,129 | 36.6 | 1,220 | 21.0 | 452 | 7.8 | 258 | 4.4 | 5,818 | 14,386 | 9.9 | 13,591 | 9.3 | 23,833 | 16.3 | 89,318 | 61.3 | 4,660 | 3.2 | 145,788 |
| 2005 | 1,548 | 35.9 | 934 | 21.6 | 1,243 | 28.8 | 565 | 13.1 | 26 | 0.6 | 4,316 | 13,501 | 11.4 | 9,629 | 8.1 | 27,398 | 23.0 | 62,798 | 52.8 | 5,615 | 4.7 | 118,941 |
| 2006 | 971 | 30.2 | 1,061 | 33.0 | 515 | 16.0 | 414 | 12.9 | 257 | 8.0 | 3,218 | 11,405 | 11.6 | 8,135 | 8.3 | 24,499 | 24.9 | 52,048 | 52.9 | 2,211 | 2.2 | 98,298 |
| Mean | 3,420 | 35.6 | 1,720 | 19.0 | 3,020 | 27.3 | 2,160 | 17.5 | 200 | 3.5 | 10,360 | 12,410 | 15.8 | 7,340 | 9.3 | 19,360 | 23.9 | 42,250 | 50.3 | 3,350 | 2.8 | 82,210 |

Reach not specified adopled by SWHS beginning in 2002.



Figure 23.- Kenai River Dolly Varden catch and harvest as determined by the Statewide Harvest Survey, Cook Inlet to Soldotna Bridge, 1984-2006.


Figure 24.- Kenai River Dolly Varden catch and harvest as determined by the Statewide Harvest Survey, Soldotna Bridge to Moose River, 1984-2006.


Figure 25.- Kenai River Dolly Varden catch and harvest as determined by the Statewide Harvest Survey, Moose River to Skilak Lake, 1984-2006.


Figure 26.- Kenai River Dolly Varden catch and harvest as determined by the Statewide Harvest Survey, Skilak Lake to Kenai Lake, 1984-2006.


Figure 27.- Length frequency distribution of Kenai River Dolly Varden (all years, all studies).


Figure 28.- Proportion of Kenai River female Dolly Varden spawners (all years, all studies).


Figure 29.- Percent of Kenai River Dolly Varden with mouth damage (all years, all studies where data is recorded).

Table 11 - Dolly Varden harvest and catch and effort for all species for Ptarmigan Creek, Quartz Creek, Kenai Lake, Russian River and Skilak Lake, 1984 -2006.

|  | Ptarmigan Creek |  |  | Quartz Creek |  |  | Kenai Lake |  |  | Russian River |  |  | Skilak Lake |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Effort ${ }^{\text {a }}$ | Harvest | Catch | Effort ${ }^{\text {a }}$ | Harvest | Catch | Effort ${ }^{\text {a }}$ | Harvest | Catch | Effort ${ }^{\text {a }}$ | Harvest | Catch | Effort | Harvest | Catch |
| 1984 | 1,857 | 2,120 |  | 2,530 | 3,791 |  | 502 | 224 |  |  | 1,072 |  |  | 0 |  |
| 1985 | 988 | 1,387 |  | 451 | 121 |  | 607 | 69 |  |  | 399 |  |  | 0 |  |
| 1986 | 1,483 | 2,508 |  | 4,146 | 1,605 |  | $\mathrm{NA}^{\text {b }}$ | 76 |  |  | 826 |  |  | 0 |  |
| 1987 | 942 | 417 |  | 5,361 | 181 |  | 580 | 109 |  |  | 72 |  |  | 91 |  |
| 1988 | 1,946 | 527 |  | 3,965 | 1,292 |  | 855 | 546 |  |  | 473 |  |  | 110 |  |
| 1989 | 790 | 628 |  | 4,893 | 2,399 |  | 377 | 134 |  |  | 361 |  |  | 438 |  |
| 1990 | 2,041 | 1,041 | 4,081 | 5,655 | 2,842 | 8,672 | 1,042 | 302 | 926 |  | 760 | 2,290 |  | 187 | 583 |
| 1991 | 1,200 | 705 | 3,445 | 5,354 | 1,905 | 14,329 | 1,064 | 326 | 757 |  | 1,148 | 6,134 |  | 378 | 1,240 |
| 1992 | 1,750 | 1,188 | 4,342 | 7,906 | 2,441 | 9,864 | 1,536 | 98 | 236 |  | 664 | 3,629 |  | 172 | 1,352 |
| 1993 | 1,742 | 1,057 | 8,202 | 9,152 | 4,317 | 21,473 | 2,586 | 764 | 1,656 |  | 1,001 | 4,141 |  | 145 | 653 |
| 1994 | 1,425 | 296 | 1,877 | 7,241 | 2,175 | 11,702 | 2,524 | 443 | 1,017 |  | 595 | 4,443 |  | 233 | 772 |
| 1995 | 1,914 | 801 | 1,642 | 5,179 | 1,004 | 4,659 | 3,240 | 606 | 2,730 |  | 554 | 6,430 |  | 224 | 1,031 |
| 1996 | 336 | 0 | 231 | 3,018 | 339 | 3,186 | 878 | 48 | 230 |  | 135 | 5,983 |  | 146 | 1,311 |
| 1997 | 758 | 54 | 2,128 | 3,401 | 350 | 13,766 | 1,734 | 160 | 362 |  | 376 | 6,564 |  | 327 | 5,878 |
| 1998 | 701 | 185 | 4,195 | 3,166 | 396 | 16,990 | 520 | 25 | 67 |  | 73 | 5,957 |  | 17 | 214 |
| 1999 | 883 | 77 | 3,191 | 4,708 | 223 | 8,051 | 1,462 | 88 | 611 |  | 196 | 11,791 |  | 110 | 782 |
| 2000 | 732 | 44 | 821 | 2,423 | 80 | 6,318 | 1,033 | 95 | 333 |  | 168 | 11,596 |  | 175 | 1,487 |
| 2001 | 430 | 11 | 3,096 | 3,105 | 65 | 10,280 | 2,509 | 176 | 456 |  | 253 | 11,087 |  | 48 | 243 |
| 2002 | 888 | 0 | 1,242 | 4,242 | 114 | 11,510 | 2,502 | 309 | 935 |  | 175 | 8,566 |  | 134 | 1,414 |
| 2003 | 899 | 50 | 1,028 | 4,357 | 123 | 19,627 | 1,097 | 54 | 107 |  | 263 | 10,504 |  | 64 | 825 |
| 2004 | 687 | 68 | 3,609 | 6,589 | 342 | 31,267 | 497 | 13 | 40 |  | 324 | 25,713 |  | 152 | 653 |
| 2005 | 599 | 0 | 3,018 | 6,106 | 216 | 23,953 | 2,072 | 165 | 262 |  | 232 | 9,218 |  | 0 | 464 |
| 2006 | 1,061 | 0 | 4,291 | 5,582 | 219 | 31,731 | 619 | 24 | 143 |  | 261 | 11,390 |  | 39 | 321 |

From: Mills 1985-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, 2006 a-d, 2007 In prep; except Kenai Lake 1984-1988, M. Mills, Alaska Department of Fish and Game, Division of Sport Fish, Research and Technical Services, Anchorage, personal communication.
${ }^{2}$ Effort directed toward all species.
${ }^{6} \mathrm{NA}=$ not available.

Russian River Dolly Varden Catch and Harvest (1990-2006)


Figure 30.- Russian River Dolly Varden catch and harvest, 1990-2006


Figure 31. Map of Kenai River drainage showing locations of spawning Dolly Varden population aggregates.


Figure 32. Map of Skilak Lake Outlet showing seasonal drift only area, motor use prohibited March 15 through June 14.

Table 12 - Arctic Char catch, harvest and effort for Cooper Lake, 1997-2006.

| Year | Effort ${ }^{\mathbf{a}}$ |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Catch | Harvest |
| 1997 | 143 | 0 |  |
| 1998 | 104 | 0 | 0 |
| 1999 | 363 | 0 | 0 |
| 2000 | 673 | 0 | 0 |
| 2001 | 126 | 0 | 0 |
| 2002 | 309 | 984 | 0 |
| 2003 | 280 | 685 | 90 |
| 2004 | 175 | 120 | 54 |
| 2005 | 184 | 82 | 0 |
| 2006 |  | 197 | 95 |

From: Howe et al. 200 Ic cd; Walker et al. 2003; Jennings et al. 2004, 2006 a-b, 2007 In prep. ${ }^{\text {a }}$ Effort for all species fished.


Figure 33 - Cooper Lake Arctic Char harvest, catch and effort, 1997-2006.

Table 13 - Hidden Lake, fishing effort and lake trout catch and harvest as determined by Statewide Harvest Survey, 1977-2006

| Year | Effort | Catch ${ }^{\text {a }}$ | Harvest |
| :---: | :---: | :---: | :---: |
| 1977 | 7,462 |  | 1,542 |
| 1978 | 4,028 |  | 850 |
| 1979 | 5,974 |  | 1,109 |
| 1980 | 5,783 |  | 1,860 |
| 1981 | 4,761 |  | 1,069 |
| 1982 | 6,728 |  | 2,117 |
| 1983 | 6,761 |  | 1,437 |
| 1984 | 4,835 |  | 1,047 |
| 1985 | 3,676 |  | 1,405 |
| 1986 | 6,254 |  | 3,761 |
| 1987 | 12,532 |  | 1,050 |
| 1988 | 4,820 |  | 1,183 |
| 1989 | 1,152 |  | 619 |
| 1990 | 4,188 | 2,020 | 1,260 |
| 1991 | 4,426 | 2,302 | 1,494 |
| 1992 | 4,172 | 2,005 | 995 |
| 1993 | 5,030 | 2,358 | 1,449 |
| 1994 | 3,014 | 1,271 | 822 |
| 1995 | 4,443 | 1,103 | 852 |
| 1996 | 2,305 | 2,082 | 1,131 |
| 1997 | 2,575 | 1,091 | 524 |
| 1998 | 1,576 | 1,012 | 550 |
| 1999 | 2,017 | 1,452 | 545 |
| 2000 | 1,804 | 437 | 318 |
| 2001 | 1,604 | 734 | 160 |
| 2002 | 1,412 | 653 | 200 |
| 2003 | 1,761 | 443 | 285 |
| 2004 | 1,902 | 1,188 | 482 |
| 2005 | 1,548 | 728 | 216 |
| 2006 | 1,975 | 580 | 386 |
| Mean | 2,606 | 1,262 | 683 |

[^1]

Figure 34 - Hidden Lake lake trout harvest, catch and effort, 1977-2006.

Table 14 - Northern pike catch and harvest for Arc, Scout and Stormy Lakes 2000-2006.

| Year | Arc Lake ${ }^{\text {b }}$ |  | Harvest | Scout Lake ${ }^{\text {c }}$ |  |  | Stormy Lake ${ }^{\text {d }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Effort ${ }^{\text {a }}$ | Catch |  | Effort ${ }^{\text {a }}$ | Catch | Harvest | Effort ${ }^{\text {a }}$ | Catch | Harvest |
| 2000 | 145 | 10 | 10 | 661 | 0 | 0 | 232 | 0 | 0 |
| 2001 | 122 | 0 | 0 | 107 | 0 | 0 | 353 | 103 | 103 |
| 2002 | 89 | 0 | 0 | 271 | 0 | 0 | 509 | 34 | 34 |
| 2003 | 0 | 0 | 0 | 38 | 0 | 0 | 310 | 241 | 241 |
| 2004 | 0 | 0 | 0 | 42 | 0 | 0 | 165 | 45 | 15 |
| 2005 | 0 | 0 | 0 | 176 | 0 | 0 | 151 | 165 | 165 |
| 2006 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 55 | 55 |
| Mean | 51 | 1 | 1 | 195 | 0 | 0 | 256 | 92 | 88 |

From: Walker et al. 2003; Jennings et al. 2004, $2006 \mathrm{a}-\mathrm{b}, 2007$ In prep.
${ }^{\text {a }}$ Effort for all species fished.
${ }^{b}$ Northern pike verified in 2000
${ }^{\text {c }}$ Northern pike verified in 2004
${ }^{d}$ Northern pike verified in 2001


Figure 35 - Map of Tote Road, Scout and Soldotna Creek drainage lakes with pike populations.


Figure 36 - Map of Stormy Lake.


Figure 37 - Map of Soldotna Creek drainage lakes with pike populations.

Table 15-Kenai Peninsula northern pike harvest, 1981-2006.

| Year | Lakes | Kenai <br> River | Total |
| :---: | :---: | :---: | :---: |
| 1981 | 32 |  | 32 |
| 1982 | 105 |  | 105 |
| 1983 | 294 |  | 294 |
| 1984 | 187 |  | 187 |
| 1985 | 52 | 69 | 121 |
| 1986 | 0 | 0 | 0 |
| 1987 | 0 | 12 | 12 |
| 1988 | 36 | 0 | 36 |
| 1989 | 49 | 18 | 67 |
| 1990 | 30 | 10 | 40 |
| 1991 | 86 | 0 | 86 |
| 1992 | 239 | 0 | 239 |
| 1993 | 216 | 26 | 242 |
| 1994 | 36 | 0 | 36 |
| 1995 | 219 | 29 | 248 |
| 1996 | 32 | 92 | 124 |
| 1997 | 21 | 7 | 28 |
| 1998 | 114 | 0 | 114 |
| 1999 | 329 | 0 | 329 |
| 2000 | 153 | 6 | 159 |
| 2001 | 1,288 | 0 | 1,288 |
| 2002 | 368 | 12 | 380 |
| 2003 | 641 | 58 | 699 |
| 2004 | 2,263 | 58 | 2,321 |
| 2005 | 212 | 12 | 224 |
| 2006 | 55 | 0 | 55 |
| Mean | 271 | 19 | 287 |

From: Mills 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003;
Jennings et al. 2004, $2006 \mathrm{a}-\mathrm{b}, 2007$ In prep.
${ }^{\mathrm{a}}$ Number may be inflated due to one large angler report.


Figure 38 - Kenai Peninsula northern pike harvest, 1981-2006.

Table 16 - Kenai Peninsula waterbodies with confirmed populations of northern pike, 2007

| Waterbody | Year Confirmed by ADF\&G |  |
| :---: | :---: | :---: |
| Arc Lake |  | 2000 |
| Big Dog Lake / Crystal Lake | a | 1983 |
| CC Lake | a |  |
| Denise Lake |  | 2002 |
| Derks Lake |  | 1977 |
| E. Mackey Lake |  | 1977 |
| Egumen Lake |  | Strongly Suspected (1995) |
| Fred's Lake | a |  |
| Hope Lake / Stubblefield Lake | a |  |
| Kenai River |  | Unknown |
| Leisure Lake |  | 2006 |
| Moose River |  | 1985 |
| Ranchero Lake | a |  |
| Scout Lake |  | 2004 |
| Sevena Lake |  | 1977 |
| Stormy Lake |  | 2001 |
| Tree Lake |  | 2001 |
| Union Lake |  | 1995 |
| W. Mackey Lake |  | 1970's? |

[^2]

## Deliberation Materials

# Committee D (Personal Use) 

CI BOF 2008

Soldotna SF Division

## Committee D: Kenai Peninsula Personal Use Fishing

Proposals: 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224.

| Category |  | Proposal Intent/Effect | ADF\&G <br> Position | Background Information |
| :---: | :---: | :---: | :---: | :---: |
| Personal Use - Kenai Peninsula | 211 | Prohibit dipnetting on the Kenai River until BEG is met | NEUTRAL | Tables 1-9 (pp. 1-5, 7-11, 14-16) <br> Figures 1-4 (pp. 6-7, 12-13) |
| Personal Use - Kenai Peninsula | 212 | Prohibit personal use dipnet fishery on Kenai River until escapement goals met | NEUTRAL | Tables 1-9 (pp. 1-5, 7-11, 14-16) <br> Figures 1-4 (pp. 6-7, 12-13) |
| Personal Use - Kenai Peninsula | 213 | Link personal use dipnet openings to escapement numbers | neutral. | Tables 1-9 (pp. 1-5, 7-11, 14-16) <br> Figures 1-4 (pp. 6-7, 12-13) |
| Personal Use - Kenai Peninsula | 214 | Extend dipnet season on Kenai River | NEUTRAL | Tables 1-9 (pp. 1-5, 7-11, 14-16) <br> Figures 1-4 (pp. 6-7, 12-13) |
| Personal Use - Kenai Peninsula | 215 | Increased harvest opportunity in personal use fishery in Kenai and Kasilof rivers | NEUTRAL | Tables 15, 17 (pp. 26-27) |
| Personal Use - Kenai Peninsula | 216 | Increase Kasilof River personal use household limit | NEUTRAL | Tables $1-5,10-13$ (pp. 1-5, 7-9, 18 19, 22-24) Figures $1-2,6-8$ (pp. 6- $7,20-21,25)$ |
| Personal Use - Kenai Peninsula | 217 | Reduce personal use fishery limit to 5 salmon per person, 25 per household | NEUTRAL | Tables 14, 19 (pp. 26, 29) |
| Personal Use - Kenai Peninsuia | 218 | Lower annual limits for personal use salmon harvest to 20 for head of household and 5 for each dependent and no more than $50 \%$ of limit may | NEUTRAL | Tables 15-16, 19 (pp. 26-27, 29) |
| Personal Use-Kenai Peninsula | 219 | Lower annual limits for personal use salmon harvest to 15 for head of household and 5 for each dependent | NEUTRAL | Tables 18-19 (pp. 28-29) |
| Personal Use - Kenai Peninsula | 220 | Prohibit personal use dipnets with mesh size over 2 I/2 inches | NEUTRAL | See Staff Comments |
| Personal Use-Kenai Peninsula | 221 | Implement motor type restriction for dip net fishing from vessel | SUPPORT | See Staff Comments |
| Personal Use - Kenai Peninsula | 222 | Restrict 2-stroke motor boat use in personal use fishery | OPPOSE | See Staff Comments |
| Personal Use - Kenai Peninsula | 223 | Require motorized boats utilizing the personal use fishery to be anchored or without power while fishing | OPPOSE | See Staff Comments |
| Personal Use - Kenai Peninsula | 224 | Allow rod and reel in personal use fishery/Identify consumptive users as a person fishing for winter supply | OPPOSE | See Staff Comments |

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Table 1.- Effort and harvest in Upper Cook Inlet personal use salmon fisheries, 1996-2007.

|  | Days | Days Fished |  |  | Sockeye |  |  | Chinook |  |  | Coho |  |  | Pink |  |  | Chum |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Open | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP |
| Fish Creek dip net |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 22 | 3,749 | 41 | 2\% | 17,260 | 161 | 2\% | 37 | 8 | 42\% | 2,414 | 25 | 2\% | 331 | 9 | 5\% | 153 | 5 | 6\% | 20,195 | 168 | 2\% |
| 1997 | 13 | 991 | 34 | 7\% | 3,277 | 76 | 5\% | 0 | 0 |  | 63 | 5 | 16\% | 53 | 7 | 26\% | 4 | 1 | 49\% | 3,397 | 84 | 5\% |
| 1998 | 15 | 1,141 | 21 | 4\% | 4,036 | 113 | 5\% | 1 | 0 | 0\% | 649 | 19 | 6\% | 80 | 10 | 25\% | 29 | 2 | 14\% | 4,795 | 117 | 5\% |
| 1999 | 16 | 432 | 16 | 7\% | 1,083 | 138 | 25\% | 0 | 0 |  | 17 | 3 | 35\% | 12 | 7 | 114\% | 0 | 0 |  | 1,112 | 139 | 25\% |
| 2000 | 16 | 1,054 | 25 | 5\% | 6,925 | 211 | 6\% | 0 | 0 |  | 958 | 72 | 15\% | 83 | 12 | 28\% | 29 | 3 | 20\% | 7,995 | 225 | 6\% |
| 2001 | 3 | 131 | 7 | 10\% | 436 | 40 | $18 \%$ | 0 | 0 |  | 18 | 7 | 76\% | 2 | 0 | 0\% | 1 | 0 | 0\% | 457 | 41 | 18\% |
| 2002 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2003 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2004 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2005 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2006 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2007 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Min. | 0 | 131 |  |  | 436 |  |  | 0 |  |  | 17 |  |  | 2 |  |  | 0 |  |  | 457 |  |  |
| Mean | 7 | 1,250 |  |  | 5,503 |  |  | 6 |  |  | 687 |  |  | 94 |  |  | 36 |  |  | 6,325 |  |  |
| Max. | 22 | 3,749 |  |  | 17,260 |  |  | 37 |  |  | 2,414 |  |  | 331 |  |  | 153 |  |  | 20,195 |  |  |
| Kasilof River dip net |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 27 | 1,300 | 23 | 3\% | 11,197 | 127 | 2\% | 50 | 1 | 4\% | 334 | 18 | 11\% | 103 | 2 | 4\% | 17 | 0 | 0\% | 11,701 | 130 | 2\% |
| 1997 | 27 | 1,091 | 32 | 6\% | 9,737 | 150 | 3\% | 35 | 2 | 11\% | 90 | 3 | 7\% | 19 | 2 | 21\% | 19 | 1 | 10\% | 9,900 | 153 | 3\% |
| 1998 | 27 | 3,421 | 33 | 2\% | 45,161 | 525 | 2\% | 134 | 3 | 4\% | 731 | 18 | 5\% | 610 | 25 | 8\% | 74 | 32 | 85\% | 46,710 | 528 | 2\% |
| 1999 | 27 | 3,611 | 43 | 2\% | 37,176 | 507 | 3\% | 127 | 5 | 8\% | 286 | 50 | 34\% | 264 | 12 | 9\% | 52 | 8 | 30\% | 37,905 | 511 | 3\% |
| 2000 | 27 | 2,622 | 36 | 3\% | 23,877 | 403 | 3\% | 134 | 7 | 10\% | 1,004 | 16 | 3\% | 841 | 39 | 9\% | 34 | 0 | 0\% | 25,890 | 407 | 3\% |
| 2001 | 27 | 3,382 | 37 | 2\% | 37,612 | 505 | 3\% | 138 | 6 | 9\% | 766 | 25 | 6\% | 307 | 14 | 9\% | 23 | 0 | 0\% | 38,846 | 511 | 3\% |
| 2002 | 44 | 4,020 | 38 | 2\% | 46,769 | 530 | 2\% | 106 | 6 | 11\% | 1,197 | 59 | 10\% | 1,862 | 73 | 8\% | 139 | 7 | 10\% | 50,073 | 553 | 2\% |
| 2003 | 44 | 3,874 | 28 | 1\% | 43,870 | 440 | 2\% | 57 | 4 | 14\% | 592 | 49 | 16\% | 286 | 21 | 14\% | 30 | 1 | 7\% | 44,835 | 447 | 2\% |
| 2004 | 44 | 4,432 | 19 | 1\% | 48,315 | 259 | 1\% | 44 | 3 | 13\% | 668 | 21 | 6\% | 396 | 15 | 7\% | 90 | 5 | 11\% | 49,513 | 263 | 1\% |
| 2005 | 44 | 4,500 | 9 | 0\% | 43,151 | 100 | 0\% | 16 | 1 | 12\% | 538 | 16 | 6\% | 658 | 12 | 4\% | 102 | 2 | 4\% | 44,465 | 103 | 0\% |
| 2006 | 44 | 5,763 | 10 | 0\% | 56,144 | 113 | 0\% | 55 | 1 | 4\% | 1,057 | 15 | 3\% | 992 | 8 | 2\% | 105 | 4 | 7\% | 58,353 | 117 | 0\% |
| 2007 | 44 | 4,600 | 9 | 0\% | 43,293 | 105 | 0\% | 35 | 1 | 4\% | 487 | 8 | 3\% | 383 | 6 | 2\% | 136 | 2 | 7\% | 44,334 | 106 | 0\% |
| Min. | 27 | 1,091 |  |  | 9,737 |  |  | 16 |  |  | 90 |  |  | 19 |  |  | 17 |  |  | 9,900 |  |  |
| Mean | 36 | 3,551 |  |  | 37,192 |  |  | 78 |  |  | 646 |  |  | 560 |  |  | 68 |  |  | 38,544 |  |  |
| Max. | 44 | 5,763 |  |  | 56,144 |  |  | 138 |  |  | 1,197 |  |  | 1,862 |  |  | 139 |  |  | 58,353 |  |  |

Table 1.- continued.

|  | Days | Days | Fis |  |  | ckeye |  |  | inoo |  |  | Coho |  |  | Pink |  |  | Chum |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Open | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP |
| Kasilof River gillnet |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 5 | 582 | 16 | 5\% | 9,506 | 156 | 3\% | 46 | 3 | 13\% | 0 | 0 |  | 8 | 0 | 0\% | 1 | 0 | 0\% | 9,561 | 157 | 3\% |
| 1997 | 5 | 815 | 26 | 6\% | 17,997 | 231 | 3\% | 65 | 2 | 6\% | , | 0 | 0\% | 102 | 7 | 13\% | 3 | 1 | 65\% | 18,168 | 233 | 3\% |
| 1998 | 5 | 1,075 | 24 | 4\% | 15,975 | 425 | 5\% | 126 | 7 | 11\% | 0 | 0 |  | 15 | 4 | 52\% | 12 | 10 | 163\% | 16,128 | 426 | 5\% |
| 1999 | 10 | 1,287 | 39 | 6\% | 12,832 | 371 | 6\% | 442 | 27 | 12\% | 25 | 2 | 16\% | 10 | 0 | 0\% | 10 | 0 | 0\% | 13,319 | 374 | 6\% |
| 2000 | 13 | 1,252 | 23 | 4\% | 14,774 | 275 | 4\% | 514 | 15 | 6\% | 9 | 0 | 0\% | 17 | 2 | 23\% | 10 | 0 | 0\% | 15,324 | 276 | 4\% |
| 2001 | 8 | 1,001 | 20 | 4\% | 17,201 | 394 | 4\% | 174 | 6 | 7\% | 6 | 0 | 0\% | 11 | 0 | 0\% | 7 | 5 | 140\% | 17,399 | 397 | 4\% |
| 2002 | 10 | 1,025 | 16 | 3\% | 17,980 | 274 | 3\% | 192 | 5 | 5\% | 12 | 0 | 0\% | 30 | 2 | 13\% | 13 | 4 | 60\% | 18,227 | 277 | 3\% |
| 2003 | 10 | 1,206 | 17 | 3\% | 15,706 | 277 | 3\% | 400 | 13 | 6\% | 107 | 0 | 0\% | 9 | 0 | 0\% |  | 0 | 0\% | 16,226 | 284 | 3\% |
| 2004 | 10 | 1,272 | 10 | 2\% | 25,417 | 203 | 2\% | 163 | 4 | 5\% | 58 | 13 | 44\% | 6 | 1 | 33\% | 0 | 0 | 0\% | 25,644 | 205 | 2\% |
| 2005 | 11 | 1,506 | 6 | 1\% | 26,609 | 104 | 1\% | 87 | 1 | 2\% | 326 | 5 | 3\% | 16 | 1 | 12\% | 1 | 0 | 0\% | 27,039 | 104 | 1\% |
| 2006 | 10 | 1,724 | 5 | 1\% | 28,867 | 91 | 1\% | 287 | 2 | 1\% | 420 | 16 | 7\% | 11 | 0 | 0\% | 6 | 0 | 0\% | 29,591 | 94 | 1\% |
| 2007 | 10 | 1,569 | 7 | 1\% | 14,943 | 66 | 1\% | 343 | 3 | 2\% | 68 | 4 | 12\% | 2 | 0 | 0\% | 0 | 0 | 0\% | 15,356 | 66 | 1\% |
| Min. | 5 | 582 |  |  | 9,506 |  |  | 46 |  |  | 0 |  |  | 2 |  |  | 0 |  |  | 9,561 |  |  |
| Mean | 9 | 1,193 |  |  | 18,151 |  |  | 237 |  |  | 86 |  |  | 20 |  |  | 6 |  |  | 18,499 |  |  |
| Max. | 13 | 1,724 |  |  | 28,867 |  |  | 514 |  |  | 420 |  |  | 102 |  |  | 13 |  |  | 29,591 |  |  |
| Kenai River dip net |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 27 | 10,503 | 60 | 1\% | 102,821 | 367 | 1\% | 295 | 5 | 3\% | 1,932 | 29 | 3\% | 2,404 | 33 | 3\% | 175 | 10 | 11\% | 107,627 | 375 | 1\% |
| 1997 | 22 | 11,023 | 87 | 2\% | 114,619 | 439 | 1\% | 364 | 13 | 7\% | 559 | 21 | 7\% | 619 | 14 | 4\% | 58 | 5 | 17\% | 116,219 | 448 | 1\% |
| 1998 | 18 | 10,802 | 59 | 1\% | 103,847 | 716 | 1\% | 254 | 10 | 8\% | 1,011 | 62 | 12\% | 1,032 | 62 | 12\% | 85 | 3 | 7\% | 106,229 | 724 | 1\% |
| 1999 | 22 | 13,738 | 79 | 1\% | 149,504 | 1,084 | 1\% | 488 | 13 | 5\% | 1,009 | 108 | 21\% | 1,666 | 64 | 8\% | 102 | 13 | 25\% | 152,769 | 1,094 | 1\% |
| 2000 | 22 | 12,354 | 69 | 1\% | 98,262 | 752 | 1\% | 410 | 18 | 9\% | 1,449 | 62 | 8\% | 1,457 | 75 | 10\% | 193 | 31 | 31\% | 101,771 | 762 | 1\% |
| 2001 | 22 | 14,772 | 66 | 1\% | 150,766 | 909 | 1\% | 638 | 15 | 5\% | 1,555 | 105 | 13\% | 1,326 | 37 | 5\% | 155 | 19 | 24\% | 154,440 | 926 | 1\% |
| 2002 | 22 | 14,840 | 56 | 1\% | 180,028 | 844 | 1\% | 606 | 11 | 4\% | 1,721 | 64 | 7\% | 5,662 | 102 | 4\% | 551 | 36 | 13\% | 188,568 | 874 | 1\% |
| 2003 | 22 | 15,263 | 50 | 1\% | 223,580 | 891 | 1\% | 1,016 | 18 | 3\% | 1,332 | 68 | 10\% | 1,647 | 98 | 12\% | 249 | 22 | 17\% | 227,824 | 905 | 1\% |
| 2004 | 22 | 18,513 | 35 | 0\% | 262,831 | 583 | 1\% | 792 | 7 | 2\% | 2,661 | 66 | 5\% | 2,103 | 27 | 3\% | 387 | 12 | 6\% | 268,774 | 905 | 1\% |
| 2005 | 22 | 20,977 | 18 | 0\% | 295,496 | 273 | 0\% | 997 | 3 | 1\% | 2,512 | 24 | 2\% | 1,806 | 12 | 1\% | 321 | 2 | 1\% | 301,132 | 275 | 0\% |
| 2006 | 20 | 12,685 | 16 | 0\% | 127,630 | 183 | 0\% | 1,034 | 3 | 1\% | 2,235 | 15 | 1\% | 11,127 | 37 | 1\% | 551 | 9 | 3\% | 142,577 | 203 | 0\% |
| 2007 | 22 | 21,861 | 23 | 0\% | 291,270 | 335 | 0\% | 1,509 | 4 | 1\% | 2,111 | 24 | 1\% | 1,939 | 23 | 1\% | 472 | 17 | 3\% | 297,301 | 337 | 0\% |
| Min. | 18 | 10,503 |  |  | 98,262 |  |  | 254 |  |  | 559 |  |  | 619 |  |  | 58 |  |  | 101,771 |  |  |
| Mean |  | 14,778 |  |  | 175,055 |  |  | 700 |  |  | 1,674 |  |  | 2,732 |  |  | 275 |  |  | 180,436 |  |  |
| Max. |  | 21,861 |  |  | 295,496 |  |  | 1,509 |  |  | 2,661 |  |  | 11,127 |  |  | 551 |  |  | 301,132 |  |  |

Table 1.- continued.

|  | Days | Days | Fish |  |  | ckeye |  |  | inoo |  |  | Coho |  |  | Pink |  |  | Chum |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Open | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP | Est. | SE | RP |
| Unknown Fishery |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 |  | 472 | 33 | 14\% | 4.761 | 463 | 19\% | 24 | 7 | 61\% | 131 | 37 | 55\% | 127 | 37 | 57\% | 4 | 3 | 120\% | 5,047 | 467 | 18\% |
| 1997 |  | 1,003 | 50 | 10\% | 3,310 | 276 | 16\% | 0 | 0 | 0\% | 64 | 14 | 43\% | 51 | 21 | 80\% | 4 | 3 | 139\% | 3,429 | 282 | 16\% |
| 1998 |  | 921 | 39 | 8\% | 7,562 | 287 | 7\% | 34 | 5 | 29\% | 294 | 77 | 51\% | 196 | 19 | 19\% | 20 |  | 0\% | 8,106 | 301 | 7\% |
| 1999 |  | 684 | 20 | 6\% | 7.994 | 352 | 9\% | 51 | 5 | 19\% | 76 | 7 | 18\% | 126 | 2 | 3\% | 4 | 0 | 0\% | 8,251 | 353 | 8\% |
| 2000 |  | 648 | 23 | 7\% | 5.429 | 274 | 10\% | 44 | 13 | 58\% | 218 | 60 | 54\% | 84 | 11 | 26\% | 24 | 15 | 123\% | 5,799 | 282 | 10\% |
| 2001 |  | 1,339 | 34 | 5\% | 12.673 | 380 | 6\% | 188 | 17 | 18\% | 292 | 30 | 20\% | 175 | 24 | 27\% | 90 | 34 | 74\% | 13,418 | 394 | 6\% |
| 2002 |  | 1,339 | 26 | 4\% | 14.846 | 353 | 5\% | 166 | 10 | 12\% | 341 | 25 | 14\% | 916 | 81 | 17\% | 54 | 8 | 29\% | 16,323 | 380 | 5\% |
| 2003 |  | 1.325 | 21 | 3\% | 15,675 | 247 | 3\% | 238 | 25 | 21\% | 219 | 14 | 13\% | 140 | 9 | 13\% | 88 | 9 | 20\% | 16,360 | 254 | 3\% |
| 2004 |  | 1.143 | 13 | 2\% | 13,527 | 179 | 3\% | 99 | 3 | 6\% | 366 | 25 | 13\% | 210 | 10 | 9\% | 25 | 4 | 31\% | 14,227 | 185 | 3\% |
| 2005 |  | 270 | 2 | 1\% | 4,520 | 38 | 2\% | 32 | 1 | 6\% | 39 | 1 | 5\% | 40 | 2 | 10\% | 4 | 0 | 0\% | 4,635 | 38 | 2\% |
| 2006 |  | 371 | 2 | 1\% | 3,406 | 34 | 2\% | 29 | 1 | 7\% | 47 | 2 | 8\% | 304 | 16 | 10\% | 84 | 0 | 0\% | 3,870 | 41 | 2\% |
| 2007 |  | 534 | 3 | 1\% | 6,729 | 52 | 2\% | 37 | 1 | 5\% | 61 | 3 | 10\% | 28 | I | 7\% | 6 | 0 | 0\% | 6,861 | 52 | 1\% |
| Min. |  | 270 |  |  | 3,310 |  |  | 0 |  |  | 39 |  |  | 28 |  |  | 4 |  |  | 3,429 |  |  |
| Mean |  | 837 |  |  | 8,369 |  |  | 78 |  |  | 179 |  |  | 200 |  |  | 34 |  |  | 8,861 |  |  |
| Max. |  | 1,339 |  |  | 15,675 |  |  | 238 |  |  | 366 |  |  | 916 |  |  | 90 |  |  | 16,360 |  |  |
| Upper Cook Inlet Personal Use Fisheries Total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 |  | 16,606 | 85 | 1\% | 145,545 | 644 | 1\% | 452 | 12 | 5\% | 4,811 | 56 | 2\% | 2,973 | 50 | 3\% | 350 | 12 | 6\% | 154,131 | 655 | 1\% |
| 1997 |  | 14,923 | 114 | 1\% | 148,940 | 592 | 1\% | 464 | 13 | 6\% | 777 | 26 | 7\% | 844 | 27 | 6\% | 88 | 6 | 14\% | 151,113 | 604 | 1\% |
| 1998 |  | 17,360 | 84 | 1\% | 176,581 | 1,032 | 1\% | 549 | 14 | 5\% | 2,685 | 102 | 7\% | 1,933 | 70 | 7\% | 220 | 34 | 30\% | 181,968 | 1,043 | 1\% |
| 1999 |  | 19,752 | 101 | 1\% | 208,589 | 1,309 | 1\% | 1,108 | 31 | 5\% | 1,413 | 119 | 17\% | 2,078 | 66 | 6\% | 168 | 15 | 18\% | 213,356 | 1,320 | 1\% |
| 2000 |  | 17,930 | 88 | 1\% | 149,267 | 961 | 1\% | 1,102 | 28 | 5\% | 3,638 | 114 | 6\% | 2,482 | 86 | 7\% | 290 | 35 | 23\% | 156,779 | 976 | 1\% |
| 2001 |  | 20,625 | 86 | 1\% | 218,688 | 1,176 | 1\% | 1,138 | 24 | 4\% | 2,637 | 112 | 8\% | 1,821 | 46 | 5\% | 276 | 39 | 28\% | 224,560 | 1,197 | 1\% |
| 2002 |  | 21,224 | 74 | 1\% | 259,623 | 1,092 | 1\% | 1,070 | 17 | 3\% | 3,271 | 91 | 5\% | 8,470 | 149 | 3\% | 757 | 38 | 10\% | 273,191 | 1,136 | 1\% |
| 2003 |  | 21,668 | 63 | 1\% | 298,831 | 1,061 | 1\% | 1,711 | 34 | 4\% | 2,250 | 85 | 7\% | 2,082 | 101 | 9\% | 371 | 24 | 13\% | 305,245 | 1,079 | 1\% |
| 2004 |  | 25,360 | 43 | 0\% | 350,091 | 678 | 0\% | 1,098 | 9 | 2\% | 3,754 | 75 | 4\% | 2,715 | 32 | 2\% | 502 | 14 | 5\% | 358,158 | 689 | 0\% |
| 2005 |  | 27,253 | 21 | 0\% | 369,776 | 311 | 0\% | 1,132 | 3 | 1\% | 3,415 | 29 | 2\% | 2,520 | 17 | 1\% | 428 | 3 | 1\% | 377,271 | 314 | 0\% |
| 2006 |  | 20,543 | 20 | 0\% | 216,047 | 236 | 0\% | 1,405 | 4 | 1\% | 3,759 | 27 | 1\% | 12,434 | 41 | 1\% | 746 | 10 | 3\% | 234,391 | 242 | 0\% |
| 2007 |  | 28,602 | 29 | 0\% | 356,717 | 386 | 0\% | 1,924 | 5 | 1\% | 2,727 | 26 | 2\% | 2,352 | 24 | 2\% | 614 | 17 | 5\% | 364,334 | 388 | 0\% |
| Min. |  | 14,923 |  |  | 145,545 |  |  | 452 |  |  | 777 |  |  | 844 |  |  | 88 |  |  | 151,113 |  |  |
| Mean |  | 20,987 |  |  | 241,558 |  |  | 1,096 |  |  | 2,928 |  |  | 3,559 |  |  | 401 |  |  | 239,106 |  |  |
| Max. |  | 28,602 |  |  | 369,776 |  |  | 1,924 |  |  | 4,811 |  |  | 12,434 |  |  | 757 |  |  | 377,271 |  |  |

Table 2.- Sockeye salmon exploitation rate by Upper Cook Inlet personal use fisheries, 1996-2007.

| year | Harvest |  | $\begin{gathered} \text { Inriver } \\ \text { Return }^{\text {a,b,c }} \\ \hline \end{gathered}$ | Exploitation rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dip net | Gillnet |  | Dip net | Gillnet | Combined |
| Fish creek |  |  |  |  |  |  |
| 1996 | 17,260 |  | 80,488 | 21.4\% |  |  |
| 1997 | 3,277 |  | 58,434 | 5.6\% |  |  |
| 1998 | 4,036 |  | 27,055 | 14.9\% |  |  |
| 1999 | 1,083 |  | 28,261 | 3.8\% |  |  |
| 2000 | 6,925 |  | 26,479 | 26.2\% |  |  |
| 2001 | 436 |  | 43,932 | 1.0\% |  |  |
| 2002 |  |  | -fisher | osed- |  |  |
| 2003 |  |  | -fisher | osed- |  |  |
| 2004 |  |  | -fisher | osed- |  |  |
| 2005 |  |  | -fishery | osed- |  |  |
| 2006 |  |  | -fisher | osed- |  |  |
| 2007 |  |  | -fisher | osed- |  |  |
| Minimum | 436 |  | 26,479 | 1.0\% |  |  |
| Mean | 5,503 |  | 44,108 | 12.2\% |  |  |
| Maximum | 17,260 |  | 80,488 | 26.2\% |  |  |
| Kasilof River |  |  |  |  |  |  |
| 1996 | 11,197 | 9,506 | 272,524 | 4.1\% | 3.5\% | 7.6\% |
| 1997 | 9,737 | 17,997 | 296,855 | 3.3\% | 6.1\% | 9.3\% |
| 1998 | 45,161 | 15,975 | 336,936 | 13.4\% | 4.7\% | 18.1\% |
| 1999 | 37,176 | 12,832 | 366,086 | 10.2\% | 3.5\% | 13.7\% |
| 2000 | 23,877 | 14,774 | 298,903 | 8.0\% | 4.9\% | 12.9\% |
| 2001 | 37,612 | 17,201 | 366,887 | 10.3\% | 4.7\% | 14.9\% |
| 2002 | 46,769 | 17,980 | 294,749 | 15.9\% | 6.1\% | 22.0\% |
| 2003 | 43,870 | 15,706 | 423,687 | 10.4\% | 3.7\% | 14.1\% |
| 2004 | 48,315 | 25,417 | 656,901 | 7.4\% | 3.9\% | 11.2\% |
| 2005 | 43,151 | 26,609 | 422,259 | 10.2\% | 6.3\% | 16.5\% |
| 2006 | 56,144 | 28,867 | 458,730 | 12.2\% | 6.3\% | 18.5\% |
| 2007 | 43,293 | 14,943 | d |  |  |  |
| Minimum | 9,737 | 9,506 | 272,524 | 3.3\% | 3.5\% | 7.6\% |
| Mean | 37,192 | 18,151 | 381,320 | 9.6\% | 4.9\% | 14.4\% |
| Maximum | 56,144 | 28,867 | 656,901 | 15.9\% | 6.3\% | 22.0\% |
| Kenai River |  |  |  |  |  |  |
| 1996 | 102,821 |  | 941,767 | 10.9\% |  |  |
| 1997 | 114,619 |  | 1,224,567 | 9.4\% |  |  |
| 1998 | 103,847 |  | 907,035 | 11.4\% |  |  |
| 1999 | 149,504 |  | 1,000,415 | 14.9\% |  |  |
| 2000 | 98,262 |  | 782,127 | 12.6\% |  |  |
| 2001 | 150,766 |  | 853,990 | 17.7\% |  |  |
| 2002 | 180,028 |  | 1,186,846 | 15.2\% |  |  |
| 2003 | 223,580 |  | 1,469,238 | 15.2\% |  |  |
| 2004 | 262,831 |  | 1,715,315 | 15.3\% |  |  |
| 2005 | 295,496 |  | 1,734,574 | 17.0\% |  |  |
| 2006 | 127,630 |  | 1,661,142 | 7.7\% |  |  |
| 2007 | 291,270 |  | d |  |  |  |
| Minimum | 98,262 |  | 782,127 | 7.7\% |  |  |
| Mean | 175,055 |  | 1,225,183 | 13.4\% |  |  |
| Maximum | 295,496 |  | 1,734,574 | 17.7\% |  |  |

a-1996-1991 estimates from Tobias and Willette (2003).
b- 2002-2006 estimates from Terri Tobias (personal communication).
c- Inriver return calculated as sonar/weir passage+subsistance/personal use harvest+sport harvest below sonar/weir + Kenaitze educational harvest of late-run sockeye.
d-Estimates not available until Fall 2008.

Table 3.- Effort (days fished) in the Upper Cook Inlet personal use salmon fisheries, 2000-2007.

| Fishery | 2000 |  | 2001 |  | 2002 |  | 2003 |  | 2004 |  | 2005 |  | 2006 |  | 2007 |  | $\begin{array}{r} 00-07 \\ \hline \text { Average } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | SE | Estimate | SE | Estimate | SE | Estimate | SE | Estimate | SE | Estimate | SE | Estimate | SE | Estimate | SE |  |
| Kenai Dip net | 12,354 | 69 | 14,772 | 66 | 14,840 | 56 | 15,263 | 50 | 18,513 | 35 | 20,977 | 18 | 12,685 | 16 | 21,861 | 23 | 18,752 |
| Kasilof Dip net | 2,622 | 36 | 3,382 | 37 | 4,020 | 38 | 3,874 | 28 | 4,432 | 19 | 4,500 | 9 | 5,763 | 10 | 4,600 | 9 | 4,742 |
| Kasilof Gillnet | 1,252 | 23 | 1,001 | 20 | 1,025 | 16 | 1,206 | 17 | 1,272 | 10 | 1,506 | 6 | 1,724 | 5 | 1,569 | 7 | 1,508 |
| Fish Creek Dip net | 1,054 | 25 | 131 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 |
| Unrecorded Site | 648 | 23 | 1,339 | 34 | 1,339 | 26 | 1,325 | 60 | 1,143 | 13 | 270 | 2 | 371 | 2 | 534 | 3 | 996 |
| Total | 17,930 | 88 | 20,625 | 86 | 21,224 | 74 | 21,668 | 63 | 25,360 | 43 | 27,253 | 21 | 20,543 | 20 | 28,564 | 29 | 26,167 |



Figure 1.- Permit effort (days fished) for Upper Cook Inlet personal use salmon fisheries, 1996-2007.

Table 4.- Number of permits issued, permits returned and those that did not fish in the Upper Cook Inlet personal use salmon fishery, 1996-2007.

| Year | 1996-2007 Statistics |  |  |  | Did Not Fish | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | SE | Number | \% | Number |  |
| 1996 | 14,576 | 0 | 13,452 | 92 | 4,408 | 30 |
| 1997 | 14,919 | 0 | 13,756 | 92 | 6,248 | 42 |
| 1998 | 15,535 | 19 | 13,190 | 85 | 5,539 | 36 |
| 1999 | 17,197 | 25 | 14,216 | 83 | 5,643 | 33 |
| 2000 | 16,107 | 11 | 13,582 | 84 | 5,745 | 36 |
| 2001 | 16,915 | 1 | 14,398 | 85 | 3,528 | 21 |
| 2002 | 17,568 | 1 | 14,284 | 81 | 4,858 | 28 |
| 2003 | 19,110 | 2 | 15,726 | 82 | 3,577 | 19 |
| 2004 | 21,910 | 2 | 17,748 | 82 | 4,001 | 18 |
| 2005 | 21,905 | 1 | 19,081 | 88 | 3,840 | 18 |
| 2006 | 18,563 | 1 | 16,532 | 89 | 4,695 | 25 |
| 2007 | 23,046 | 1 | 20,312 | 88 | 4,190 | 18 |

${ }^{\text {a }}$ Estimated Numbers

## Upper Cook Inlet Personal Use Permits 1996-2007


igure 2.- Number of permits issued in the Upper Cook Inlet personal use salmon fishery, 1996-2007.

Table 6.- Kenai River cumulative daily sonar counts of sockeye salmon, 1996-2007.

| Year |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Average Cum. Daily Count |
| 1-Jul | 834 | 3,451 | 1,774 | 1,082 | 1,744 | 1,209 | 4,943 | 8,820 | 3,164 | 5,393 | 1,764 | 3,740 | 3,160 |
| 2-Jul | 1,644 | 8,514 | 4,992 | 2,106 | 3,396 | 6,680 | 12,788 | 13,292 | 6,591 | 13,427 | 4,501 | 8,207 | 7,178 |
| 3-Jul | 2,495 | 14,565 | 7,674 | 2,929 | 6,651 | 10,885 | 17,470 | 19,681 | 10,151 | 20,680 | 7,036 | 12,067 | 11,024 |
| 4-Jul | 3,681 | 22,108 | 10,208 | 3,712 | 9,866 | 14,797 | 26,271 | 24,841 | 12,509 | 32,346 | 9,653 | 14,738 | 15,394 |
| $5-\mathrm{Jul}$ | 5,559 | 31,270 | 13,268 | 4,783 | 11,815 | 18,495 | 53,529 | 28,007 | 14,334 | 45,821 | 12,410 | 17,654 | 21,412 |
| 6-Jul | 8,087 | 36,034 | 19,130 | 6,628 | 14,089 | 21,192 | 79,876 | 31,982 | 16,379 | 58,152 | 15,715 | 20,976 | 27,353 |
| $7-\mathrm{Jul}$ | 9,666 | 39,884 | 25,341 | 9,426 | 18,191 | 24,819 | 132,931 | 36,769 | 20,127 | 68,010 | 19,148 | 26,137 | 35,871 |
| 8-Jul | 13,124 | 46,564 | 31,351 | 13,013 | 22,165 | 30,125 | 169,261 | 43,203 | 26,140 | 79,985 | 22,025 | 34,021 | 44,248 |
| 9-Jul | 15,208 | 50,332 | 39,873 | 17,533 | 29,070 | 36,120 | 192,839 | 53,388 | 28,975 | 107,091 | 25,684 | 42,654 | 53,231 |
| 10-Jul | 17,013 | 72,153 | 49,916 | 21,071 | 37,715 | 40,644 | 211,799 | 77,506 | 31,663 | 129,463 | 29,879 | 46,572 | 63,783 |
| 11-Jul | 20,125 | 124,497 | 54,402 | 23,209 | 42,257 | 45,630 | 223,788 | 137,726 | 33,887 | 167,639 | 32,754 | 51,189 | 79,759 |
| 12-Jul | 23,063 | 182,427 | 57,262 | 25,359 | 46,717 | 48,641 | 230,764 | 178,650 | 37,128 | 216,433 | 34,623 | 56,114 | 94,765 |
| 13-Jul | 25,285 | 248,446 | 60,219 | 27,448 | 71,631 | 52,213 | 238,567 | 207,884 | 43,144 | 242,769 | 37,282 | 58,906 | 109,483 |
| 14-Jul | 51,542 | 311,028 | 63,437 | 31,631 | 162,433 | 62,476 | 248,819 | 229,462 | 157,250 | 258,885 | 39,212 | 63,434 | 139,967 |
| 15-Jul | 168,838 | 329,537 | 67,923 | 39,319 | 241,242 | 91,356 | 273,005 | 318,655 | 295,462 | 272,948 | 43,242 | 70,330 | 184,321 |
| 16-Jul | 275,914 | 368,651 | 78,449 | 43,178 | 286,574 | 121,858 | 309,527 | 427,545 | 390,382 | 318,219 | 56,544 | 77,241 | 229,507 |
| 17-Jul | 318,960 | 442,645 | 114,900 | 53,625 | 309,888 | 163,409 | 336,822 | 520,840 | 438,760 | 379,930 | 72,019 | 82,669 | 269,539 |
| 18-Jul | 345,861 | 526,755 | 140,663 | 78,173 | 340,491 | 191,794 | 381,145 | 592,114 | 470,854 | 430,293 | 80,983 | 91,550 | 305,890 |
| 19-Jul | 371,916 | 533,957 | 160,248 | 111,075 | 364,879 | 226,341 | 475,906 | 623,936 | 491,511 | 505,512 | 86,982 | 134,199 | 340,539 |
| 20-Jul | 395,555 | 556,022 | 177,635 | 131,878 | 377,358 | 252,875 | 537,957 | 655,918 | 501,700 | 541,565 | 94,450 | 149,979 | 364,408 |
| 21-Jul | 422,061 | 577,282 | 189,169 | 160,346 | 389,663 | 267,041 | 570,978 | 723,034 | 532,184 | 562,504 | 110,461 | 181,575 | 390,525 |
| 22-Jul | 440,821 | 587,786 | 208,828 | 200,433 | 401,555 | 282,398 | 594,661 | 788,676 | 627,654 | 588,014 | 142,747 | 228,372 | 424,329 |
| 23-Jul | 470,565 | 620,976 | 255,659 | 247,603 | 420,032 | 302,953 | 621,160 | 843,099 | 656,900 | 640,512 | 176,110 | 267,450 | 460,252 |
| 24-Jul | 508,733 | 690,530 | 300,885 | 289,253 | 446,026 | 339,758 | 647,439 | 873,619 | 689,087 | 696,036 | 219,805 | 301,579 | 500,229 |
| 25-Jul | 566,375 | 701,823 | 332,835 | 358,989 | 469,929 | 387,914 | 672,273 | 905,092 | 723,806 | 725,956 | 269,604 | 335,714 | 537,526 |
| 26-Jul | 600,066 | 708,821 | 352,904 | 413,995 | 491,640 | 439,484 | 703,956 | 929,562 | 765,397 | 744,400 | 352,858 | 382,201 | 573,774 |
| 27-Jul | 614,623 | 712,966 | 375,858 | 472,990 | 509,858 | 474,483 | 715,724 | 969,171 | 800,513 | 756,137 | 408,458 | 442,461 | 604,437 |
| 28-Jul | 624,079 | 717,969 | 417,171 | 519,477 | 525,697 | 493,151 | 726,184 | 997,552 | 842,523 | 765,322 | 466,552 | 484,839 | 631,710 |
| 29-Jul | 630,337 | 725,304 | 461,789 | 549,926 | 542,014 | 508,476 | 738,767 | 1,015,442 | 877,735 | 778,298 | 531,695 | 516,454 | 656,353 |
| 30-Jul | 636,473 | 732,239 | 494,084 | 572,539 | 550,946 | 526,167 | 749,889 | 1,033,715 | 902,956 | 809,677 | 589,795 | 536,403 | 677,907 |
| 31-Jul | 643,859 | 739,081 | 532,782 | 587,474 | 557,832 | 541,110 | 763,767 | 1,052,908 | 922,454 | 845,402 | 638,656 | 555,525 | 698,404 |
| 1-Aug | 658,761 | 743,158 | 588,182 | 606,365 | 565,146 | 555,313 | 776,184 | 1,075,605 | 935,937 | 870,106 | 698,006 | 574,961 | 720,644 |
| 2-Aug | 681,523 | 745,992 | 656,002 | 625,550 | 570.265 | 570,134 | 789,954 | 1,095,870 | 953,775 | 885,158 | 747,366 | 589,383 | 742,581 |
| 3-Aug | 699,958 | 750,231 | 668,764 | 639,732 | 579,041 | 581,245 | 805,317 | 1,111,115 | 992,784 | 906,507 | 789,197 | 598,124 | 760,168 |

-continued-

Table 6.- continued.

| Year |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Average |
| 4-Aug | 716,638 | 754.090 | 677,227 | 653,718 | 588,750 | 594,159 | 821,790 | 1,121,817 | 1,036,568 | 924,070 | 833,128 | 610,664 | 777,718 |
| 5-Aug | 730,966 | 757,723 | 685,839 | 665,635 | 596,778 | 602,948 | 839,071 | 1,139,644 | 1,065,584 | 939,564 | 879,388 | 629,143 | 794,357 |
| 6-Aug | 740,711 | 770,558 | 701,281 | 678,944 | 603,766 | 612,154 | 853,372 | 1,153,324 | 1,093,109 | 977,229 | 909,551 | 652,588 | 812,216 |
| 7-Aug | 748,541 | 784,528 | 713,064 | 698,282 | 609,780 | 621,868 | 868,529 | 1,162,694 | 1,114,652 | 1,010,843 | 931,541 | 668,269 | 827.716 |
| 8-Aug | 760,369 | 806,700 | 723,661 | 717,041 | 614,679 | 630,954 | 887,706 | 1,171,598 | 1,126,729 | 1,024,891 | 945,401 | 681,403 | 840,928 |
| 9-Aug | 771,878 | 824,184 | 731,142 | 732,320 | 619,240 | 635,503 | 911,722 | 1,181,309 | 1,156,990 | 1,036,415 | 958,698 | 705,832 | 855,436 |
| 10-Aug | 783,195 | 835,043 | 738,435 | 739,524 | 624,578 | 640,621 | 930,304 | 1,181,309 | 1,203,397 | 1,046,364 | 969,763 | 720,111 | 867,720 |
| 11-Aug | 790,699 | 856,771 | 747,839 | 747,334 | 624,578 | 642,753 | 942,711 | 1,181,309 | 1,247,872 | 1,061,514 | 984,717 | 741,683 | 880,815 |
| 12-Aug | 797,847 | 874,725 | 756,446 | 758,150 | 624,578 | 648,424 | 948,521 | 1,181,309 | 1,293,975 | 1,113,980 | 1,009,139 | 763,985 | 897,590 |
| 13-Aug | 797,847 | 895,485 | 767,558 | 764,283 | 624,578 | 650,036 | 953,858 | 1,181,309 | 1,323,366 | 1,175,253 | 1,030,297 | 778,447 | 911,860 |
| 14-Aug | 797,847 | 911,367 | 767,558 | 773,065 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,343,481 | 1,213,075 | 1,050,379 | 789,057 | 921,640 |
| 15-Aug | 797,847 | 924,360 | 767,558 | 783,771 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,359,167 | 1,255,963 | 1,081,926 | 799,982 | 932,035 |
| 16-Aug | 797,847 | 933,814 | 767,558 | 790,811 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,369,085 | 1,295,659 | 1,117,682 | 809,952 | 941,355 |
| 17-Aug | 797,847 | 951,079 | 767,558 | 797,212 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,379,539 | 1,323,220 | 1,150,017 | 819,282 | 949,967 |
| 18-Aug | 797,847 | 965,028 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,339,438 | 1,182,233 | 827,488 | 956,900 |
| 19-Aug | 797,847 | 979,050 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,348,442 | 1,220,657 | 838,032 | 962,899 |
| 20-Aug | 797,847 | 992,129 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,364,220 | 1,257,566 | 848,198 | 969,227 |
| 21-Aug | 797,847 | 1,005,041 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,282,704 | 854,756 | 973,964 |
| 22-Aug | 797,847 | 1,018,118 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,317,024 | 861,008 | 978,435 |
| 23-Aug | 797,847 | 1,032,415 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,346,925 | 867,572 | 982,665 |
| 24-Aug | 797,847 | 1,049,287 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,367,808 | 867,572 | 985,811 |
| 25-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,389,715 | 867,572 | 988,931 |
| 26-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,412,845 | 867,572 | 990,858 |
| 27-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,441,030 | 867,572 | 993,207 |
| 28-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,466,404 | 867,572 | 995,322 |
| 29-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,482,409 | 867,572 | 996,655 |
| 30-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,493,029 | 867,572 | 997,540 |
| 31-Aug | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,499,692 | 867,572 | 998,096 |
| Total | 797,847 | 1,064,818 | 767,558 | 803,379 | 624,578 | 650,036 | 957,924 | 1,181,309 | 1,385,981 | 1,376,452 | 1,499,692 | 867,572 |  |

Cumulative average, 1996-2007 998,096
Last day of sonar counts


Figure 3.- Kenai River sockeye salmon average cumulative daily sonar counts, 1996-2007.


Figure 4.- Kenai River sockeye salmon cumulative sonar counts, 1996-2007,

Table 7.- Kenai River personal use sockeye salmon dip net fishery summary, 1981-2007.

| Year | Date and <br> Time <br> Opened | Date and Time Closed | Total Days | Sockeye <br> Harvest ${ }^{\text {a }}$ | Total <br> Sockeye <br> Salmon <br> Return to <br> Mile 19 | Percent of Return Harvested | Fishery Participation (Days Fished) ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | No Fishery | ND | ND | ND | 407,639 | ND | ND |
| 1982 | 7/26 18:00 | 8/5 24:00 | 9.3 | Unknown | 619,831 | ND | ND |
| 1983 | 7/20 18:00 | 8/5 24:00 | 15.3 | 7,562 | 630,340 | 1.2 | 3,203 |
| 1984 | No Fishery | ND | ND | ND | 344,571 | ND | ND |
| 1985 | No Fishery | ND | ND | ND | 502,820 | ND | ND |
| 1986 | No Fishery | ND | ND | ND | 501,157 | ND | ND |
| 1987 | 7/23 12:00 | 8/5 24:00 | 13.5 | 24,086 | 1,596,871 | 1.5 | 22,547 |
| 1988 | 7/22 18:00 | $8 / 5$ 24:00 | 14.3 | 16,880 | 1,021,469 | 1.7 | 29,013 |
| 1989 | 7/21 00:01 | 8/5 24:00 | 15.0 | 48,976 | 1,599,959 | 3.1 | 31,312 |
| 1990 | No Fishery | ND | ND | ND | 659,520 | ND | ND |
| 1991 | Subsistence | ishery only | ND | ND | 647,597 | ND | ND |
| 1992 | 7/27 12:00 | 8/5 24:00 | $6.5{ }^{\text {d }}$ | 12,189 | 994,798 | 1.2 | 10,371 |
| 1993 | 7/17 14:00 | 7/31 24:00 | 14.4 | 33,467 | 813,617 | 4.1 | 14,896 |
| 1994 | Subsistence | ishery only | ND | ND | 1,003,446 | ND | ND |
| 1995 | 7/25 06:00 | 7/31 24:00 | $4.8{ }^{\text {d }}$ | 14,352 | 630,447 | 2.3 | 11,122 |
| 1996 | 7/10 00:01 | 8/5 24:00 | 27.0 | 102,821 | 797,847 | 12.9 | 10,503 |
| 1997 | 7/10 00:01 | 7/31 24:00 | 22.0 | 114,619 | 1,064,818 | 10.8 | 11,023 |
| 1998 | 7/1000:01 | 7/2800:01 | 18.0 | 103,847 | 767,558 | 13.5 | 10,802 |
| 1999 | 7/10 00:01 | 7/31 24:00 | 22.0 | 149,504 | 803,379 | 18.6 | 13,738 |
| 2000 | 7/10 00:01 | 7/31 24:00 | 22.0 | 98,262 | 624,578 | 15.7 | 12,354 |
| 2001 | 7/10 00:01 | 7/31 24:00 | 22.0 | 150,766 | 650,036 | 23.2 | 14,722 |
| 2002 | 7/10 06:00 | 7/31 23:00 | 22.0 | 180,028 | 957,924 | 18.8 | 14,840 |
| 2003 | 7/1006:00 | 7/31 23:00 | 22.0 | 223,580 | 1,181,309 | 18.9 | 15,263 |
| 2004 | 7/10 06:00 | 7/31 23:00 | 22.0 | 262,831 | 1,385,981 | 19.0 | 18,513 |
| 2005 | 7/1006:00 | 7/31 23:00 | 22.0 | 295,496 | 1,376,452 | 21.5 | 20,977 |
| 2006 | 7/10 06:00 | 8/10 23:01 | $13.0{ }^{\text {ef }}$ | 127,630 | 1,499,692 | 8.5 | 12,685 |
| 2007 | g 7/10 06:00 | 7/31 23:00 | 22.0 |  | 867,572 |  |  |

Note: $\mathrm{ND}=$ no data collected.
${ }^{3}$ Harvest not known in 1982; 1983-1995 from Statewide Harvest Survey (Mills 1983-1994; Howe et al. 1995, 1996). 1996-2006 reported harvest from expanded to include permits not returned.
${ }^{\text {b }}$ 1981-1995 is individual days fished. 1996-2006 is household days fished. Each household day fished may include fishing effort by more
than one household member named on the household's permit'
${ }^{c}$ A subsistence dip net fishery also occurred in 1992.
${ }^{d}$ Fishery closed on Wednesday and Saturday to avoid conflict with concurrent subsistence permit fishery. Total days reflects this closure.
${ }^{\text {e }}$ By Emergency Order - the personal use fishery closed on July 21 at 11:00 PM; it reopened on July 31 from 6:00 AM to 11:00 PM; and it
reopened a final time from August 3 at 5:00 PM until August 10 at 11:59 PM. Total days reflect this closure.
${ }^{\text {r Fish passing sonar during personal use fishing closures are not included in sockeye available during dip net fishery. }}$
${ }^{5} 2007$ harvest and participation numbers not available.

Table 8.- Effort and harvest in the Kenai River personal use dip net fishery, 1996-2007.

| Year | All Upper Cook Inlet Personal Use Salmon Fisheries ${ }^{\text {a }}$ |  |  | Kenai River |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Permits <br> Issued | Permits <br> Returned | Did Not Fish | Days Fished | Sockeye | Chinook | Coho | Pink | Chum |
| 1996 | 14,576 | 13,452 | 4,408 | 10,503 | 102,821 | 295 | 1,932 | 2,404 | 175 |
| 1997 | 14,919 | 13,756 | 6,248 | 11,023 | 114,619 | 364 | 559 | 619 | 58 |
| 1998 | 15,535 | 13,190 | 5,539 | 10,802 | 103,847 | 254 | 1,011 | 1,032 | 85 |
| 1999 | 17,197 | 14,216 | 5,643 | 13,738 | 149,504 | 488 | 1,009 | 1,666 | 102 |
| 2000 | 16,107 | 13,582 | 5,745 | 12,354 | 98,262 | 410 | 1,449 | 1,457 | 193 |
| 2001 | 16,915 | 14,398 | 3,528 | 14,772 | 150,766 | 638 | 1,555 | 1,326 | 155 |
| 2002 | 17,568 | 14,284 | 4,858 | 14,840 | 180,028 | 606 | 1,721 | 5,662 | 551 |
| 2003 | 19,110 | 15,726 | 3,576 | 15,263 | 223,580 | 1,016 | 1,332 | 1,647 | 249 |
| 2004 | 21,910 | 17,748 | 4,001 | 18,513 | 262,831 | 792 | 2,661 | 2,103 | 387 |
| 2005 | 21,905 | 19,081 | 3,839 | 20,977 | 295,496 | 997 | 2,512 | 1,806 | 321 |
| 2006 | 18,563 | 16,532 | 4,695 | 12,685 | 127,630 | 1,034 | 2,235 | 11,127 | 551 |
| 2007 | 23,046 | 20,312 | 4,190 | 21,861 | 291,270 | 1,509 | 2,111 | 1,939 | 472 |
| Mean | 18,113 | 15,523 | 4,689 | 14,778 | 175,055 | 700 | 1,674 | 2,732 | 275 |

[^3]Table 9.- Cumulative harvest timing for the Kenai River personal use dip net fishery, 2001-2006.

| Sockeye |  |  |  |  |  |  | Chinook |  |  |  |  |  | Coho |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| $7 / 10$ | 0.6 | 2.1 | 1.3 | 0.7 | 1.9 | 1.0 | 2.1 | 2.5 | 3.1 | 2.4 | 2.9 | 1.5 | 1.0 | 6.2 | 2.8 | 0.1 | 1.2 | 0.9 |
| 7/11 | 1.0 | 2.6 | 5.2 | 1.1 | 3.8 | 1.8 | 4.2 | 6.2 | 7.0 | 4.8 | 6.2 | 2.8 | 2.0 | 6.6 | 5.7 | 1.7 | 4.7 | 1.4 |
| 7/12 | 1.6 | 4.1 | 10.4 | 1.7 | 6.7 | 2.7 | 5.7 | 14.6 | 15.5 | 6.3 | 11.9 | 5.1 | 3.6 | 7.1 | 8.9 | 2.6 | 5.6 | 1.6 |
| 7/13 | 3.4 | 7.1 | 16.1 | 6.4 | 9.3 | 3.5 | 10.9 | 25.4 | 23.8 | 8.6 | 16.9 | 7.6 | 7.2 | 8.7 | 10.9 | 3.9 | 6.5 | 5.4 |
| 7/14 | 6.9 | 10.3 | 18.7 | 16.2 | 11.4 | 6.1 | 16.6 | 32.0 | 29.4 | 13.2 | 21.4 | 11.8 | 8.6 | 12.8 | 11.4 | 8.7 | 7.5 | 12.8 |
| 7/15 | 12.2 | 17.4 | 26.9 | 25.0 | 19.3 | 14.5 | 23.8 | 38.3 | 38.4 | 17.3 | 28.7 | 23.9 | 16.9 | 14.5 | 16.0 | 11.4 | 8.6 | 14.8 |
| 7/16 | 19.6 | 23.4 | 37.2 | 34.0 | 31.1 | 24.2 | 27.0 | 44.5 | 43.3 | 24.4 | 33.9 | 36.2 | 25.0 | 15.4 | 17.2 | 16.7 | 15.9 | 15.8 |
| $7 / 17$ | 28.0 | 32.1 | 46.9 | 41.4 | 38.1 | 29.3 | 33.6 | 51.8 | 48.2 | 37.4 | 40.4 | 43.7 | 29.0 | 17.3 | 22.3 | 20.2 | 17.1 | 15.8 |
| 7/18 | 39.3 | 40.4 | 54.4 | 44.7 | 45.9 | 33.8 | 46.4 | 54.5 | 59.0 | 43.1 | 45.4 | 54.2 | 34.4 | 20.3 | 24.5 | 26.4 | 23.3 | 17.1 |
| $7 / 19$ | 45.4 | 51.3 | 60.8 | 46.7 | 50.2 | 39.9 | 50.9 | 61.1 | 70.6 | 49.4 | 52.2 | 65.0 | 39.6 | 24.1 | 31.7 | 27.1 | 25.0 | 18.6 |
| $7 / 20$ | 51.2 | 60.0 | 65.1 | 52.8 | 55.5 | 52.6 | 60.9 | 68.4 | 77.6 | 60.5 | 59.9 | 74.3 | 43.3 | 27.8 | 39.0 | 30.8 | 26.2 | 26.0 |
| 7/21 | 57.0 | 66.7 | 71.9 | 67.6 | 59.5 | 81.4 | 69.8 | 73.2 | 80.0 | 67.2 | 64.3 | 89.0 | 49.9 | 33.5 | 44.0 | 38.1 |  | 39.1 |
| 7/22 | 61.5 | 71.4 | 77.2 | 70.6 | 69.2 | - | 76.2 | 76.7 | 83.5 | 72.3 | 69.2 | - | 55.4 | 36.1 | 48.0 | 40.8 |  | - |
| $7 / 23$ | 67.2 | 77.1 | 82.0 | 75.6 | 79.2 | - | 80.2 | 80.5 | 87.0 | 77.8 | 74.7 | - | 58.1 | 43.4 | 50.8 | 48.1 |  | - |
| 7/24 | 77.5 | 83.1 | 85.2 | 82.0 | 83.6 | - | 83.0 | 84.2 | 88.0 | 84.3 | 79.8 | - | 62.2 | 49.7 | 56.4 | 53.1 |  | - |
| 7/25 | 86.8 | 88.8 | 88.0 | 86.2 | 86.1 | - | 85.8 | 87.9 | 90.6 | 87.6 | 82.5 | - | 67.2 | 56.0 | 64.8 | 60.6 |  | - |
| $7 / 26$ | 89.6 | 91.3 | 91.2 | 88.4 | 87.8 | - | 87.9 | 90.9 | 93.6 | 88.4 | 86.6 | - | 69.5 | 61.7 | 80.0 | 63.5 |  | - |
| $7 / 27$ | 92.8 | 94.5 | 93.9 | 91.0 | 88.8 | - | 93.0 | 93.1 | 95.2 | 90.5 | 88.5 | - | 76.6 | 67.6 | 84.5 | 68.8 |  | - |
| 7/28 | 95.9 | 96.8 | 95.8 | 93.9 | 90.3 | - | 95.7 | 96.9 | 96.4 | 92.2 | 91.0 | - | 86.3 | 76.3 | 89.2 | 76.1 |  | - |
| 7/29 | 97.8 | 98.0 | 97.1 | 96.1 | 93.9 | - | 97.7 | 98.1 | 97.1 | 94.1 | 94.0 | - | 88.0 | 84.2 | 92.6 | 84.2 |  | - |
| 7/30 | 99.2 | 99.4 | 98.9 | 98.0 | 98.6 | - | 98.7 | 99.8 | 98.0 | 97.3 | 98.9 | - | 92.7 | 94.3 | 95.3 | 91.4 |  | - |
| 7/31 | 100 | 100 | 100 | 100 | 100 | 87.1 | 100 | 100 | 100 | 100 | 100 | 92.4 | 100 | 100 | 100 | 100 | 100 | 43.6 |
| 8/01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8/02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8/03 | - | - | - | - | - | 87.2 | - | - | - | - | - | 92.5 | - | - | - | - |  | 44.1 |
| 8/04 | - | - | - | - | - | 88.3 | - | - | - | - | - | 93.2 | - | - | - | - |  | 46.8 |
| 8/05 | - | - | - | - | - | 91.9 | - | - | - | - | - | 95.3 | - | - | - | - |  | 56.8 |
| 8/06 | - | - | - | - | - | 93.9 | - | - | - | - | - | 96.1 | - | - | - | - |  | 66.0 |
| 8/07 | - | - | - | - | - | 95.5 | - | - | - | - | - | 97.6 | - | - | - | - |  | 71.8 |
| 8/08 | - | - | - | - | - | 96.6 | - | - | - | - | - | 98.5 | - | - | - | - |  | 77.2 |
| 8/09 | - | - | - | - | - | 97.9 | - | - | - | - | - | 99.4 | - | - | - | - |  | 84.8 |
| 8/10 | - | - | - | - | - | 100 | - | - | - | - | - | 100 | - | - | - | - |  | 100 |



Figure 5.- Map of the Kenai River personal use shoreline and boat dip net area.

Table 10.- Kasilof River cumulative daily sonar counts of sockeye salmon, 1996-2007.

|  |  |  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

Table 10.continued.

|  | Year |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | Average Cum. Daily Count |
|  | Date | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Count 1915 |
|  | 17-Jul | 181,894 | 178,923 | 156,684 | 156,576 | 165,662 | 196,954 | 135,272 | 242,635 | 376,882 | 242,101 | 164,711 | 100,419 | 191,559 |
|  | 18-Jul | 184,252 | 181,410 | 164,849 | 161,394 | 168,288 | 211,734 | 140,674 | 254,052 | 384,765 | 249,190 | 167,767 | 124,427 | 199,400 |
|  | 19-Jul | 189,533 | 183,397 | 175,423 | 167,006 | 174,978 | 217,221 | 145,627 | 259,538 | 390,314 | 254,405 | 172,816 | 143,228 | 206,124 |
|  | 20-Jul | 194,260 | 185,227 | 183,354 | 176,056 | 182,828 | 220,406 | 153,770 | 264,028 | 394,785 | 259,043 | 175,162 | 151,315 | 211,686 |
|  | 21-Jul | 197,404 | 186,310 | 187,814 | 193,416 | 186,042 | 224,083 | 155,808 | 272,322 | 410,919 | 262,618 | 178,149 | 175,102 | 219,166 |
|  | 22-Jul | 201,525 | 188,202 | 194,685 | 212,184 | 193,392 | 225,475 | 160,494 | 283,183 | 418,377 | 266,433 | 180,606 | 197,206 | 226,814 |
|  | 23-Jul | 205,672 | 193,519 | 202,107 | 225,284 | 201,887 | 229,333 | 163,798 | 294,765 | 427,884 | 273,182 | 183,259 | 209,775 | 234,205 |
|  | 24-Jul | 212,393 | 197,126 | 211,202 | 236,783 | 209,911 | 246,084 | 170,473 | 299,958 | 436,241 | 279,138 | 185,524 | 223,347 | 242,348 |
|  | 25-Jul | 218,780 | 199,399 | 218,325 | 247,715 | 214,342 | 277,232 | 179,408 | 306,505 | 443,991 | 284,426 | 190,492 | 245,355 | 252,164 |
|  | 26-Jul | 220,595 | 201,207 | 223,996 | 258,998 | 218,602 | 280,145 | 184,116 | 310,572 | 450,489 | 288,717 | 193,929 | 264,270 | 257,970 |
|  | 27-Jul | 222,447 | 203,023 | 229,248 | 270,418 | 223,037 | 285,051 | 186,528 | 317,219 | 455,235 | 291,413 | 197,641 | 275,766 | 263,086 |
|  | 28-Jul | 223,912 | 205,573 | 237,776 | 275,466 | 226,899 | 287,899 | 189,168 | 323,988 | 461,304 | 294,310 | 217,334 | 280,516 | 268,679 |
|  | 29-Jul | 224,885 | 207,671 | 243,913 | 281,417 | 231,100 | 292,165 | 193,028 | 329,771 | 465,914 | 299,512 | 248,667 | 285,663 | 275,309 |
|  | 30-Jul | 225,829 | 210,907 | 249,528 | 285,442 | 233,441 | 297,385 | 195,420 | 333,972 | 470,621 | 306,190 | 259,508 | 290,631 | 279,906 |
|  | 31-Jul | 226,822 | 213,460 | 256,205 | 289,068 | 235,530 | 301,375 | 197,909 | 337,593 | 474,526 | 309,461 | 272,126 | 296,872 | 284,246 |
|  | 1-Aug | 230,581 | 215,592 | 262,234 | 292,233 | 237,077 | 303,798 | 201,174 | 340,735 | 477,452 | 311,828 | 283,691 | 301,081 | 288,123 |
|  | 2-Aug | 234,444 | 218,216 | 264,603 | 296,305 | 239,584 | 305,369 | 205,840 | 343,773 | 481,297 | 314,013 | 296,616 | 304,196 | 292,021 |
|  | 3-Aug | 238,000 | 220,403 | 266,051 | 300,514 | 242,413 | 307,570 | 209,754 | 346,455 | 487,189 | 316,948 | 305,005 | 306,710 | 295,584 |
| $\because$ | 4-Aug | 242,085 | 222,315 | 267,647 | 303,760 | 245,431 | 307,570 | 213,027 | 347,924 | 498,912 | 318,281 | 314,780 | 310,749 | 299,373 |
|  | 5-Aug | 244,595 | 226,192 | 269,812 | 305,925 | 247,328 | 307,570 | 215,143 | 349,948 | 506,597 | 321,074 | 320,083 | 313,677 | 302,329 |
|  | 6-Aug | 245,993 | 231,962 | 271,112 | 308,139 | 249,116 | 307,570 | 217,219 | 352,059 | 512,521 | 324,672 | 323,756 | 316,142 | 305,022 |
|  | 7-Aug | 247,886 | 238,452 | 272,360 | 310,424 | 251,160 | 307,570 | 219,597 | 354,212 | 517,856 | 325,872 | 326,159 | 319,843 | 307,616 |
|  | 8-Aug | 249,944 | 245,950 | 273,213 | 312,587 | 252,623 | 307,570 | 221,599 | 355,906 | 523,174 | 327,106 | 328,308 | 323,956 | 310,161 |
|  | 9-Aug | 249,944 | 251,347 | 273,213 | 312,587 | 254,273 | 307,570 | 223,701 | 357,625 | 532,956 | 328,335 | 331,575 | 328,081 | 312,601 |
|  | 10-Aug | 249,944 | 255,865 | 273,213 | 312,587 | 256,053 | 307,570 | 225,273 | 359,633 | 539,887 | 329,564 | 334,764 | 330,280 | 314,553 |
|  | 11-Aug | 249,944 | 261,791 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 546,327 | 332,026 | 339,846 | 333,272 | 316,579 |
|  | 12-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 552,515 | 336,793 | 345,933 | 335,682 | 318,553 |
|  | 13-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 559,967 | 341,195 | 352,026 | 336,866 | 320,147 |
|  | 14-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 567,101 | 345,030 | 355,656 | 336,866 | 321,363 |
|  | 15-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 573,072 | 348,012 | 360,005 | 336,866 | 322,472 |
|  | 16-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 577,581 | 348,012 | 363,228 | 336,866 | 323,116 |
|  | 17-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 577,581 | 348,012 | 365,843 | 336,866 | 323,334 |
|  | 18-Aug | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 577,581 | 348,012 | 368,092 | 336,866 | 323,522 |
|  | Total | 249,944 | 266,025 | 273,213 | 312,587 | 256,053 | 307,570 | 226,682 | 359,633 | 557,581 | 348,012 | 368,092 | 336,866 |  |

Cumulative average, 1996-2007
321,855
Last day of sonar counts


Figure 6.- Kasilof River sockeye salmon average cumulative daily sonar counts, 1996-2007.

Kasilof River Cumulative Sonar Counts, 1996-2007


Figure 7.- Kasilof River sockeye salmon cumulative sonar counts, 1996-2007.

Table 11.- Kasilof River personal use dip net fishery summary, 1981-2007.

| Year | Date and Time Opened | Date and <br> Time <br> Closed | Total <br> Days |  | Sockeye <br> Harvest ${ }^{\text {a }}$ | Total <br> Sockeye <br> Salmon <br> Return to <br> Mile 8 | Percent of Return Harvested | Fishery <br> Participation (Days Fished) ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | $7 / 4$ 12:00 | 7/31 24:00 | 27.50 |  | 10,300 | 256,625 | 4.0 | 5,370 |
| 1982 | 7/21 12:00 | 8/5 24:00 | 15.50 |  | 1,800 | 180,239 | 1.0 | 2,580 |
| 1983 | 7/15 24:00 | 8/5 24:00 | 21.00 |  | 11,124 | 210,271 | 5.3 | 4,417 |
| 1984 | 7/16 12:00 | 8/5 24:00 | 20.50 |  | 12,771 | 231,685 | 5.5 | 5,956 |
| 1985 | 7/15 18:00 | 8/5 24:00 | 21.25 |  | 16,284 | 505,049 | 3.2 | 9,260 |
| 1986 | 7/15 06:00 | 8/ 5 24:00 | 21.75 |  | 38,674 | 275,963 | 14.0 | 13,929 |
| 1987 | 7/10 12:00 | 8/5 24:00 | 25.50 |  | 18,454 | 249,250 | 7.4 | 8,910 |
| 1988 | 7/22 18:00 | 8/5 24:00 | 14.25 |  | 3,547 | 204,000 | 1.7 | 6,930 |
| 1989 | No Fishery | ND | ND |  | ND | 158,206 | ND | ND |
| 1990 | No Fishery | ND | ND |  | ND | 144,136 | ND | ND |
| 1991 | Subsistence | ishery | ND |  | ND | 238,269 | ND | ND |
| 1992 | Subsistence | Fishery | ND |  | ND | 184,178 | ND | ND |
| 1993 | No Fishery | ND | ND |  | ND | 149,939 | ND | ND |
| 1994 | 7/22 12:00 | 8/5 23:59 | 10.50 | d | 3,679 | 205,117 | 1.8 | 2,361 |
| 1995 | 7/17 18:00 | 7/31 24:00 | 10.25 | d | 4,160 | 204,935 | 2.0 | 2,845 |
| 1996 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 11,197 | 249,944 | 4.5 | 1,300 |
| 1997 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 9,737 | 266,025 | 3.7 | 1,091 |
| 1998 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 45,161 | 273,213 | 16.5 | 3,421 |
| 1999 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 37,176 | 312,587 | 11.9 | 3,611 |
| 2000 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 23,877 | 256,053 | 9.3 | 2,622 |
| 2001 | 7/1000:01 | 8/5 24:00 | 27.00 |  | 37,612 | 307,570 | 12.2 | 3,382 |
| 2002 | 6/25 00:01 | 8/7 24:00 | 44.00 |  | 46,769 | 226,682 | 20.6 | 4,020 |
| 2003 | 6/25 00:01 | 8/7 24:00 | 44.00 |  | 43,870 | 359,633 | 12.2 | 3,874 |
| 2004 | 6/25 00:01 | 8/7 24:00 | 44.00 |  | 48,315 | 577,581 | 8.4 | 4,432 |
| 2005 | 6/25 00:01 | 8/7 24:00 | 44.00 |  | 43,151 | 348,012 | 12.4 | 4,500 |
| 2006 | 6/25 00:02 | 8/7 24:01 | 44.00 |  | 56,144 | 368,092 | 15.3 | 5,763 |
| 2007 | e 6/25 00:01 | 8/7 24:00 | 44.00 |  |  | 336,866 |  |  |

Note: $\mathrm{ND}=$ no data collected.

[^4]Table 12.- Effort and harvest in the Kasilof River personal use dip net fishery, 1996-2007.

| Year | All Upper Cook Inlet Personal Use Salmon Fisheries ${ }^{\text {a }}$ |  |  | Kasilof River Dip Net Fishery |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Permits <br> Issued | Permits <br> Returned | Did Not Fish | Days Fished | Sockeye | Chinook | Coho | Pink | Chum |
| 1996 | 14,576 | 13,452 | 4,408 | 1,300 | 11,197 | 50 | 334 | 103 | 17 |
| 1997 | 14,919 | 13,756 | 6,248 | 1,091 | 9,737 | 35 | 90 | 19 | 19 |
| 1998 | 15,535 | 13,190 | 5,539 | 3,421 | 45,161 | 134 | 731 | 610 | 74 |
| 1999 | 17,197 | 14,216 | 5,643 | 3,611 | 37,176 | 127 | 286 | 264 | 52 |
| 2000 | 16,107 | 13,582 | 5,745 | 2,622 | 23,877 | 134 | 1,004 | 841 | 34 |
| 2001 | 16,915 | 14,398 | 3,528 | 3,382 | 37,612 | 138 | 766 | 307 | 23 |
| 2002 | 17,568 | 14,284 | 4,858 | 4,020 | 46,769 | 106 | 1,197 | 1,862 | 139 |
| 2003 | 19,110 | 15,726 | 3,576 | 3,874 | 43,870 | 57 | 592 | 286 | 30 |
| 2004 | 21,910 | 17,748 | 4,001 | 4,432 | 48,315 | 44 | 668 | 396 | 90 |
| 2005 | 21,905 | 19,081 | 3,839 | 4,500 | 43,151 | 16 | 538 | 658 | 102 |
| 2006 | 18,563 | 16,532 | 4,695 | 5,763 | 56,144 | 55 | 1,057 | 992 | 105 |
| 2007 | 23,046 | 20,312 | 4,190 | 4,600 | 43,293 | 35 | 487 | 383 | 136 |
| Mean | 18,113 | 15,523 | 4,689 | 3,551 | 37,192 | 78 | 646 | 560 | 68 |

${ }^{\text {a }}$ One permit is issued for all four Upper Cook Iniet personal use salmon fisheries (Kenai River dip net, Kasilof River dip net, Kasilof River gill net, and Fish Creek dip net).

Table 13.- Cumulative harvest timing for the Kasilof River personal use dip net fishery, 2001-2006.

|  | Sockeye |  |  |  |  |  | Chinook |  |  |  |  |  | Coho |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| 6/25 | 0.0 | 0.8 | 0.9 | 1.7 | 6.2 | 1.6 | 0.0 | 0.0 | 0.0 | 34.7 | 10.0 | 7.4 | 0.0 | 0.0 | 0.7 | 1.2 | 0.9 | 0.0 |
| $6 / 26$ | 0.0 | 1.8 | 1.4 | 2.6 | 8.2 | 2.8 | 0.0 | 0.0 | 3.6 | 8.3 | 10.0 | 18.5 | 0.0 | 0.3 | 0.7 | 1.2 | 1.9 | 1.0 |
| $6 / 27$ | 0.0 | 2.5 | 1.6 | 4.4 | 8.9 | 4.0 | 0.0 | 11.8 | 3.6 | 12.5 | 10.0 | 22.2 | 0.0 | 0.7 | 0.7 | 1.4 | 1.9 | 1.7 |
| 6/28 | 0.0 | 3.3 | 2.0 | 5.3 | 10.9 | 4.5 | 0.0 | 23.5 | 3.6 | 12.5 | 20.0 | 25.9 | 0.0 | 0.8 | 0.7 | 1.4 | 1.9 | 1.7 |
| 6/29 | 0.0 | 3.7 | 3.1 | 7.3 | 12.1 | 5.2 | 0.0 | 23.5 | 3.6 | 12.5 | 20.0 | 25.9 | 0.0 | 0.8 | 1.2 | 1.4 | 1.9 | 1.7 |
| 6/30 | 0.0 | 4.5 | 3.8 | 8.0 | 13.2 | 5.5 | 0.0 | 23.5 | 3.6 | 12.5 | 20.0 | 25.9 | 0.0 | 1.1 | 1.2 | 1.4 | 2.5 | 1.7 |
| $7 / 01$ | 0.0 | 5.4 | 5.3 | 9.6 | 18.0 | 7.0 | 0.0 | 23.5 | 3.6 | 12.5 | 20.0 | 33.3 | 0.0 | 1.1 | 1.4 | 1.4 | 3.8 | 2.2 |
| 7/02 | 0.0 | 6.8 | 6.7 | 11.5 | 20.8 | 8.6 | 0.0 | 23.5 | 3.6 | 16.7 | 20.0 | 33.3 | 0.0 | 1.1 | 1.6 | 4.2 | 8.8 | 2.7 |
| 7/03 | 0.0 | 9.0 | 8.1 | 13.8 | 23.9 | 9.2 | 0.0 | 23.5 | 7.1 | 16.7 | 20.0 | 33.3 | 0.0 | 1.1 | 1.6 | 4.6 | 11.6 | 4.0 |
| 7/04 | 0.0 | 10.8 | 9.1 | 15.5 | 26.6 | 11.2 | 0.0 | 23.5 | 7.1 | 25.0 | 20.0 | 37.0 | 0.0 | 3.8 | 3.2 | 4.6 | 23.8 | 13.3 |
| 7/05 | 0.0 | 11.6 | 10.2 | 16.4 | 28.9 | 12.3 | 0.0 | 23.5 | 7.1 | 37.5 | 20.0 | 37.0 | 0.0 | 3.8 | 4.6 | 4.8 | 24.7 | 13.3 |
| 7/06 | 0.0 | 14.8 | 12.5 | 18.3 | 30.7 | 14.4 | 0.0 | 23.5 | 7.1 | 37.5 | 30.0 | 40.7 | 0.0 | 3.8 | 4.6 | 4.8 | 25.0 | 15.0 |
| 7/07 | 0.0 | 17.5 | 13.6 | 20.9 | 31.7 | 15.7 | 0.0 | 23.5 | 7.1 | 37.5 | 40.0 | 40.7 | 0.0 | 3.8 | 4.6 | 4.8 | 25.6 | 16.1 |
| 7/08 | 0.0 | 18.4 | 15.4 | 22.1 | 33.3 | 17.5 | 0.0 | 23.5 | 7.1 | 37.5 | 40.0 | 40.7 | 0.0 | 4.7 | 7.4 | 5.0 | 27.8 | 16.2 |
| 7/09 | 0.0 | 20.6 | 16.8 | 23.5 | 35.5 | 18.5 | 0.0 | 23.5 | 7.1 | 37.5 | 40.0 | 40.7 | 0.0 | 4.9 | 7.4 | 8.3 | 28.1 | 17.8 |
| 7/10 | 1.7 | 22.8 | 19.6 | 24.7 | 37.4 | 20.0 | 0.9 | 23.5 | 7.1 | 41.7 | 40.0 | 40.7 | 0.1 | 9.6 | 7.4 | 10.7 | 28.1 | 20.6 |
| $7 / 11$ | 2.9 | 24.1 | 28.0 | 26.5 | 40.1 | 20.8 | 1.8 | 23.5 | 7.1 | 50.0 | 40.0 | 40.7 | 0.1 | 9.6 | 7.4 | 11.3 | 28.1 | 21.7 |
| 7/12 | 3.9 | 28.2 | 34.6 | 28.4 | 43.2 | 22.0 | 4.4 | 29.4 | 39.3 | 58.3 | 40.0 | 40.7 | 0.6 | 10.5 | 8.8 | 11.7 | 28.4 | 22.3 |
| 7/13 | 9.3 | 33.7 | 40.2 | 35.6 | 45.7 | 23.3 | 8.8 | 35.3 | 39.3 | 58.3 | 40.0 | 44.4 | 1.0 | 11.9 | 14.8 | 13.1 | 29.1 | 23.3 |
| $7 / 14$ | 15.5 | 40.4 | 43.2 | 44.8 | 47.6 | 29.1 | 15.0 | 41.2 | 39.3 | 58.3 | 40.0 | 48.1 | 3.6 | 13.2 | 16.9 | 19.4 | 30.6 | 25.2 |
| 7/15 | 23.8 | 44.0 | 50.2 | 49.3 | 51.0 | 43.4 | 28.3 | 52.9 | 46.4 | 58.3 | 40.0 | 51.9 | 3.9 | 14.4 | 23.6 | 23.0 | 32.2 | 27.4 |
| 7/16 | 30.9 | 49.0 | 55.5 | 55.3 | 58.4 | 46.6 | 30.1 | 64.7 | 57.1 | 62.5 | 40.0 | 59.3 | 6.8 | 20.5 | 32.6 | 23.0 | 40.3 | 27.4 |
| 7/17 | 38.7 | 54.2 | 60.1 | 60.9 | 62.3 | 48.9 | 36.3 | 70.6 | 60.7 | 66.7 | 40.0 | 59.3 | 7.2 | 23.2 | 38.6 | 30.3 | 42.5 | 27.5 |
| 7/18 | 45.0 | 58.8 | 65.3 | 64.6 | 64.8 | 51.0 | 40.7 | 70.6 | 64.3 | 66.7 | 40.0 | 59.3 | 15.5 | 24.7 | 49.9 | 33.5 | 44.7 | 27.6 |
| 7/19 | 48.8 | 66.0 | 71.6 | 66.3 | 67.7 | 52.6 | 40.7 | 70.6 | 71.4 | 75.0 | 40.0 | 59.3 | 17.7 | 34.9 | 52.9 | 33.9 | 46.9 | 27.6 |
| 7/20 | 56.4 | 72.4 | 74.3 | 72.0 | 70.2 | 55.4 | 53.1 | 70.6 | 82.1 | 83.3 | 40.0 | 59.3 | 22.7 | 36.3 | 55.2 | 36.4 | 47.2 | 27.7 |
| 7/21 | 62.7 | 76.8 | 77.3 | 77.2 | 72.8 | 57.9 | 59.3 | 70.6 | 82.1 | 95.8 | 40.0 | 70.4 | 28.2 | 38.8 | 59.8 | 46.5 | 47.5 | 28.8 |
| 7/22 | 67.9 | 78.9 | 81.6 | 79.3 | 76.1 | 59.9 | 61.1 | 70.6 | 85.7 | 95.8 | 70.0 | 70.4 | 30.8 | 39.9 | 62.4 | 46.5 | 49.4 | 30.8 |
| 7/23 | 72.7 | 82.6 | 83.9 | 81.6 | 81.1 | 61.2 | 62.8 | 76.5 | 92.9 | 95.8 | 70.0 | 70.4 | 41.2 | 44.7 | 64.2 | 46.5 | 52.5 | 36.1 |
| 7/24 | 79.2 | 85.4 | 85.5 | 84.6 | 83.8 | 64.1 | 64.6 | 76.5 | 100 | 95.8 | 70.0 | 70.4 | 44.0 | 48.0 | 64.2 | 48.5 | 53.8 | 36.7 |
| 7/25 | 82.1 | 87.8 | 87.4 | 86.5 | 85.6 | 66.4 | 64.6 | 76.5 | 100 | 95.8 | 70.0 | 70.4 | 46.8 | 50.4 | 67.4 | 50.1 | 54.4 | 36.8 |
| 7/26 | 84.3 | 89.3 | 90.5 | 87.3 | 86.8 | 67.9 | 66.4 | 76.5 | 100 | 95.8 | 70.0 | 74.1 | 47.9 | 52.7 | 74.6 | 50.1 | 57.2 | 36.8 |
| 7/27 | 87.3 | 91.9 | 92.2 | 88.3 | 87.6 | 69.6 | 69.9 | 76.5 | 100 | 95.8 | 70.0 | 74.1 | 54.8 | 55.4 | 75.8 | 51.1 | 57.2 | 39.0 |
| 7/28 | 89.5 | 93.9 | 92.9 | 89.4 | 88.7 | 77.4 | 77.0 | 82.4 | 100 | 95.8 | 70.0 | 74.1 | 56.1 | 62.3 | 76.0 | 52.5 | 58.8 | 50.4 |
| 7/29 | 92.3 | 94.5 | 93.3 | 90.3 | 90.0 | 81.2 | 81.4 | 82.4 | 100 | 95.8 | 90.0 | 74.1 | 60.4 | 63.8 | 76.9 | 57.0 | 66.9 | 58.9 |
| 7/30 | 94.0 | 95.3 | 94.2 | 91.8 | 92.1 | 88.7 | 83.2 | 82.4 | 100 | 95.8 | 90.0 | 74.1 | 64.9 | 65.1 | 77.8 | 64.0 | 70.9 | 81.1 |
| 7/31 | 94.8 | 95.6 | 94.9 | 92.9 | 93.2 | 90.7 | 83.2 | 82.4 | 100 | 95.8 | 90.0 | 92.6 | 67.1 | 65.5 | 79.2 | 66.7 | 71.9 | 85.0 |
| 8/01 | 95.9 | 95.9 | 95.9 | 94.0 | 93.9 | 93.2 | 84.1 | 82.4 | 100 | 100 | 90.0 | 92.6 | 70.9 | 67.9 | 80.6 | 78.8 | 72.2 | 88.6 |
| 8/02 | 96.9 | 96.7 | 97.5 | 94.8 | 95.1 | 94.6 | 85.8 | 94.1 | 100 | 100 | 90.0 | 92.6 | 75.0 | 75.5 | 85.5 | 82.4 | 72.5 | 89.0 |
| 8/03 | 98.2 | 98.0 | 98.1 | 96.5 | 95.9 | 96.3 | 92.0 | 94.1 | 100 | 100 | 90.0 | 92.6 | 82.7 | 82.9 | 85.9 | 84.8 | 79.4 | 90.4 |
| 8/04 | 99.3 | 98.8 | 98.5 | 97.4 | 96.4 | 97.5 | 99.1 | 100 | 100 | 100 | 90.0 | 92.6 | 88.5 | 90.4 | 88.7 | 87.3 | 81.3 | 92.8 |
| 8/05 | 100 | 99.2 | 98.9 | 98.0 | 98.3 | 98.6 | 100 | 100 | 100 | 100 | 90.0 | 100 | 100 | 92.6 | 89.6 | 90.3 | 85.3 | 96.4 |
| 8/06 | 100 | 99.7 | 99.3 | 98.8 | 99.6 | 99.5 | 100 | 100 | 100 | 100 | 90.0 | 100 | 100 | 97.3 | 95.6 | 96.4 | 96.9 | 99.6 |
| 8/07 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |



Figure 8.- Map of the Kasilof River personal use set gillnet and dip net area

Table 14.- Percent of personal use permit holders that would have exceeded a 5 salmon per person bag limit by year (Proposal 217).

|  | At or Under Limit |  | Over Limit |  |
| :---: | :---: | :---: | :---: | ---: |
| Yumber of | \% of <br> Pear <br> Permits | Number of <br> Permits | $\%$ of <br> Permits | Permits |
| 2001 | 8,903 | $62.1 \%$ | 5,442 | $37.9 \%$ |
| 2002 | 7,817 | $54.7 \%$ | 6,464 | $45.3 \%$ |
| 2003 | 8,425 | $53.6 \%$ | 7,301 | $46.4 \%$ |
| 2004 | 9,394 | $52.9 \%$ | 8,354 | $47.1 \%$ |
| 2005 | 9,720 | $50.9 \%$ | 9,361 | $49.1 \%$ |
| 2006 | 10,507 | $63.8 \%$ | 5,957 | $36.2 \%$ |

Table 15.- Percent of personal use permit holders that would have exceeded a 25 salmon per household bag limit by year.

|  | At or Under Limit |  | Over Limit |  |
| :---: | :---: | :---: | :---: | ---: |
| Year | Number of <br> Permits | \% of <br> Permits | Number of <br> Permits | \% of <br> Permits |
| 2001 | 11,330 | $79.0 \%$ | 3,015 | $21.0 \%$ |
| 2002 | 10,651 | $74.6 \%$ | 3,630 | $25.4 \%$ |
| 2003 | 11,541 | $73.4 \%$ | 4,185 | $26.6 \%$ |
| 2004 | 12,895 | $72.7 \%$ | 4,853 | $27.3 \%$ |
| 2005 | 13,735 | $72.0 \%$ | 5,346 | $28.0 \%$ |
| 2006 | 13,307 | $80.8 \%$ | 3,157 | $19.2 \%$ |

Table 16.- Percent of personal use permit holders that would have exceeded a 20 (head of household) -5 (each dependent) bag limit by year (proposal 218).

|  | At or Under Limit |  | Over Limit |  |
| :---: | :---: | ---: | :---: | ---: |
| Year | Number of <br> Permits | \% of <br> Permits | Number of <br> Permits | \% of <br> Permits |
| 2001 | 2,887 | $20.1 \%$ | 11,458 | $79.1 \%$ |
| 2002 | 3,467 | $24.3 \%$ | 10,814 | $75.7 \%$ |
| 2003 | 4,095 | $26.0 \%$ | 11,631 | $74.0 \%$ |
| 2004 | 4,867 | $27.4 \%$ | 12,881 | $72.6 \%$ |
| 2005 | 5,081 | $26.6 \%$ | 14,000 | $73.4 \%$ |
| 2006 | 2,985 | $18.1 \%$ | 13,558 | $82.4 \%$ |

Table 17.- Percent of personal use permit holders that would have harvested over $50 \%$ of their bag limit from the Kenai River by year.

|  | $<50 \%$ from Kenai |  | $>50 \%$ from Kenai |  |
| :---: | :---: | :---: | :---: | ---: |
| Year | Number of <br> Permits | \% of <br> Permits | Number of <br> Permits | \% of <br> Permits |
| 2001 | 2,580 | $26.9 \%$ | 7,024 | $73.1 \%$ |
| 2002 | 2,801 | $27.5 \%$ | 7,403 | $72.5 \%$ |
| 2003 | 2,792 | $25.0 \%$ | 8,385 | $75.0 \%$ |
| 2004 | 2,967 | $23.3 \%$ | 9,749 | $76.7 \%$ |
| 2005 | 4,998 | $34.8 \%$ | 9,356 | $65.2 \%$ |
| 2006 | 3,712 | $35.3 \%$ | 6,804 | $64.7 \%$ |

${ }^{1}$ Includes data only from permits that harvested at least one salmon

Table 18.- Percent of personal use permit holders that would have exceeded a 15 (head of household) - 5 (each dependent) bag limit by year (proposal 219).

|  | At or Under Limit |  | Over Limit |  |
| :---: | :---: | ---: | ---: | ---: |
| Year | Number of <br> Permits | \% of <br> Permits | Number of <br> Permits | \% of <br> Permits |
| 2001 | 3,679 | $25.6 \%$ | 10,666 | $74.4 \%$ |
| 2002 | 4,468 | $31.3 \%$ | 9,813 | $68.7 \%$ |
| 2003 | 5,164 | $32.8 \%$ | 10,562 | $67.2 \%$ |
| 2004 | 6,068 | $34.2 \%$ | 11,680 | $65.8 \%$ |
| 2005 | 6,608 | $34.6 \%$ | 12,473 | $65.4 \%$ |
| 2006 | 3,906 | $23.7 \%$ | 12,547 | $76.3 \%$ |

Table 19.- Estimated reduction in harvest with proposed bag limits from proposal 217, 218 and 219.

| Year | Estimated Reported Harvest |  |  |  |  | Estimated Reduction in Harvest |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Reported Harvest ${ }^{1}$ | Maximum of 5 Salmon/ Person | Maximum of 25 Salmon/ Household | Maximum of 20 Head of Household, 5/ Dependent | Maximum of 15 Head of Household, 5/ Dependent | 5 Salmon / Person | Maximum of 25 Salmon/ Household | Maximum of 20 Head of Household, $5 /$ Dependent | Maximum of 15 Head of Household, 5/ Dependent |
| 2001 | 210,685 | 34,604 | 77,849 | 114,441 | 134,366 | 83.6\% | 63.0\% | 45.7\% | 36.2\% |
| 2002 | 256,868 | 35,625 | 86,228 | 136,725 | 162,122 | 86.1\% | 66.4\% | 46.8\% | 36.9\% |
| 2003 | 288,885 | 37,234 | 94,116 | 161,034 | 187,679 | 87.1\% | 67.4\% | 44.3\% | 35.0\% |
| 2004 | 343,931 | 40,586 | 104,975 | 194,085 | 224,066 | 88.2\% | 69.5\% | 43.6\% | 34.9\% |
| 2005 | 372,636 | 48,366 | 120,995 | 202,649 | 240,418 | 87.0\% | 67.5\% | 45.6\% | 35.5\% |
| 2006 | 230,521 | 39,754 | 39,084 | 118,005 | 140,530 | 82.8\% | 83.0\% | 48.8\% | 39.0\% |
| 2001-2006 Avg. | 283,921 | 39,362 | 87,208 | 154,490 | 181,530 | 86.1\% | 69.3\% | 45.6\% | 36.1\% |
| Proposals: |  | 217 | 217 | 218 | 219 | 217 | 217 | 218 | 219 |

[^5]

# Deliberation Materials 

## Committee F

## UCI BOF 2008

Soldotna SF Division

| Category | Prop: ${ }^{\text {F }}$ | Proposal Intent/Effect | ADF\&G <br> Position | Background Information |
| :---: | :---: | :---: | :---: | :---: |
| Kenai River Spor Fishing Vessels | 283 | Add one drift boat only day on the Kenai River | NEUTRAL | Tables 1-3 (pp.6\&8-9) <br> Figures I-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 284 | Add one drift boat only day on the Kenai River | NEUTRAL | Tables 1-3 (pp. 6 \& 8-9) Figures 1-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 285 | Add one drift boat only day on the Kenai River | NEUTRAL | Tables 1-3 (pp. 6 \& 8-9) Figures 1-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 286 | Add one additional non-guided drift only day on the Kenai River | NEUTRAL | Tables 1-3 (pp.6 \& 8-9) <br> Figures 1-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 287 | Add one drift boat only day on the Kenai River | NEUTRAL | Tables I-3 (pp.6\&8-9) Figures 1-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 288 | Make Sunday, Wednesday, and Friday dritt-only days on Kenai River | NEUTRAL | Tables I-3 (pp. 6 \& 8-9) Figures 1-2 (pp.6-7) |
| Kenar River Sport Fishing Vessels | 289 | Phase-in additional drift boats only days on Kenai River | NEUTRAL | Tables 1-3 (pp.6 \& 8-9) <br> Figures 1-2 (pp.6-7) |
| Kenai River Sport Fishing Vessels | 290 | Prohibit fishing from motorized vessel in Kenai River | OPPOSE | See Staff Comments |
| Kenai River Sport Fishing Vessels | 291 | Require 4-stroke or direct fuel injection motors on the Kenai River | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 292 | Require 4-stroke or direct firel injection motors on the Kenai River | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 293 | Require 4-stroke or direct fuel injection motors on the Kenai River | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 294 | Reguiate motorized use for fishing on the Kenal River to reduce hydrocarbon pollution | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 295 | Reduce fishing hours or restrict motorized use to reduce hydrocarbon discharge into Kenai River | NEUTRAL | See Staff Comments |
| Kenai River Sport Fishing Vessels | 296 | Restrict outboard motors to 35 hp on the Kenai River | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 297 | Prohibit king saimon fishing from boats during a 48 hour period on lower Kenai River | NEUTRAL | Tables 4-5 (pp. 10 \& 12) Figures 3-6 (pp. $11 \&$ 13-15) |
| Kenai River Sport Fishing Vessels | 298 | Prohibit non-residents from fishing from a vessel unless accompanied be a relative between 6 pm and 6 am on the Kenai River | NEUTRAL | See Staff Comments |
| Kenai River Sport Fishing Vessels | 299 | Open Kenai River below Soldotna Bridge to fishing from boats during king salmon season | NEUTRAL | Figure 7 (p.16) |
| Kenai River Sport Fishing Vessels | 300 | Require course for powerboat operation on Kenai River | NO ACTION | See Staff Comments |
| Kenai River Sport Fishing Vessels | 301 | Restrict use of motorized vessel for fishing on the Upper Kenai River near Kenai Lake | NEUTAL | Figure 8 (p.17) |


| Category | Prop \# | Proposal Intent/Effect | ADF\&G <br> Position | Background Information |
| :---: | :---: | :---: | :---: | :---: |
| Guides - Kenai \& Kasilof Rivers | 302 | Institute limited entry program for guides on Kenai and Kasilof rivers | NEUTRAL | Table 6 (p.18) <br> Figure 9 (p.18) |
| Guides - Kenai \& Kasilof Rivers | 303 | Modify existing Kenai River guide hours from 6am - 6 pm , to 7arn 7pm. | NEUTRAL | See Staff Comments |
| Guides - Kenai \& Kasilof Rivers | 304 | Modify existing Kenai River guide hours from 6am * 6pm, to 7am 7pm. | NEUTRAL | See Staff Comments |
| Guides - Kenai \& Kasilof Rivers | 305 | Modify existing Kenai River guide hours from 6am - 6 pm , to 8 am 8pm. | NEUTRAL. | See Staff Comments |
| Guides - Kenaı \& Kasilof Rivers | 306 | Prohibit guide boats with clients in fishing holes 10 minutes prior to opening times. | NEUTRAL | No Information |
| Guides - Kenai \& Kasil of Rivers | 307 | Prohibit guides with clients from being on the river prior to $1 / 2$ hour before start time | NEUTRAL | No Information |
| Guides - Kenai \& Kasilof Rivers | 308 | Separate the guided and unguided sport tishers in the lower Kenai river by day and time | NEUTRAL | See Staff Comments |
| Guides - Kenai \& Kasilof Rivers | 309 | Prohibit Kenai River guiding on Thursdays in June and July | NEUTRAL | See Staff Comments |
| Guides - Kenai \& Kasilof Rivers | 310 | Prohibit guides from fishing on Kenai River on Sundays | NO ACTION | No Information |
| Guides - Kenai \& Kasilof Rivers | 311 | Prohibit guides from fishing on Kenai River on Sundays | NO ACTION | No Information |
| Guides - Kenai \& Kasilof Rivers | 312 | Restrict licensed guides while fishing during non-guide hours on Kenai River | NEUTRAL | No Information |
| Guides - Kenai \& Kasilof Rivers | 313 | Limit guides on the Kenai River to only one client or group of clients per day during July | NEUTRAL | Table 7 (p.19) |
| Guides - Kenai \& Kasilof Rivers | 314 | Restrict Kenai River guiding to one trip per day | NEUTRAL | Table 7 (p.19) |
| Guides - Kenai \& Kasilof Rivers | 315 | Restrict Kenai River and Kasilof River guides to one trip per day on either river | NEUTRAL | Table 7 (p.19) |
| Guides - Kenai \& Kasilof Rivers | 316 | Limit guides to only one client or group of clients per day for Upper Cook Inlet Rivers | NEUTRAL | Table 7 (p.19) |
| Guides - Kenai \& Kasilof Rivers | 317 | Require guides to register for either the Kenai River or the Kasilof River | NEUTRAL | Table 9 (p.20) |
| Guides - Kenai \& Kasilof Rivers | 318 | Restrict same day guiding on both Kenai and Kasilof rivers | NEUTRAL | Table 8 (p.20) |
| Guides - Kenai \& Kasilof Rivers | 319 | Prohibit Kasilof River guided fishing when the Kenai River is closed to guided fishing. | NEUTRAL | Tables 10-12 (pp.21, 23 \& 26) <br> Figure 10 (p.22) |
| Guides - Kenai \& Kasilof Rivers | 320 | Prohibit Kasilof River guided tishing on Mondays | NEUTRAL | Tables 10-12 (pp.21, $23 \& 26$ ) Figure 10 (p.22) |
| Guides - Kenai \& Kasilof Rivers | 321 | Allow Kenai River guides to operate on Sundays in May and June, and no hour restrictions in May | NEUTRAL | Figures II-12 (pp.24-25) |
| Guides - Kenai \& Kasılof Rivers | 322 | Repeal the guide boat prohibition on Mondays in the Kenai River | NEUTRAL | Figures 11-12 (pp.24-25) |
| Guides - Kenai \& Kasilof Rivers | 323 | Allow guides to fish from drift boats on the Kenai River in July | NEUTRAL | Figures 11-12 (pp.24-25) |
| Guides - Kenai \& Kasilof Rivers | 324 | Allow a guide boat on the Kenai River to carry six persons instead of five during the month of July | NEUTRAL | Figures II-12 (pp.24-25) |
| Guides - Kenai \& Kasilof Rivers | 325 | Designate one day per week on the Kenai River late sun to guided angiers only | NEUTRAL | Figures 11-12 (pp. 24-25) |
| Guides - Kenaı \& Kasilof Rivers | 326 | Allow guided fishing 7 days per week with each individual guide allowed 5 days per week on the Kena: River | NEUTRAL | Figures II-12 (pp. 24-25) |
| Gutdes - Kenai \& Kasilof Rivers | 327 | Eliminate Sunday closure for guides on the Kasilof River | NEUTRAL | Tables 0 0-12 (pp.21, 23 \& 26) Figure 10 ( $p .2$ 2) |
| Guides - Kenaj \& Kasilof Rivers | 328 | Modify regulation prohibiting fishing by sport fishing guides when clients are present on the Kenai River | SUPPORT | See Staff Comments |
| Guides - Kenaı \& Kasilof Rivers | 329 | Align vessel registration regulations with DNR requirements that allow for un-registering guide vessels | SUPPORT | See Staff Comments |

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Table 1.- Monday drift boat counts on the Kenai River, Soldotna Bridge to Warren Ames Bridge, from May 16 to July 31, 2005-2007.

| Count \# | 2005 |  |  | 2006 |  |  | 2007 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Date | Time | Boats | Date | Time | Boats | Date | Time | Boats |
| 1 | 16-May | 1534 | 3 | 22-May | 1345 | 0 | 21-May | 1235 | 0 |
| 2 | 23-May | 1548 | 7 | 29-May | 1230 | 3 | 28-May | 1230 | 2 |
| 3 | 6 -Jun | 1403 | 8 | 5 -Jun | 1030 | 10 | 4-Jun | 1030 | 8 |
| 4 | 13-Jun | 1425 | 7 | 12-Jun | 1200 | 7 | 11-Jun | 1200 | 7 |
| 5 | 20-Jun | 1508 | 10 | 19-Jun | 1300 | 19 | 18-Jun | 1300 | 13 |
| 6 | 27-Jun | 1009 | 21 | 26-Jun | 1045 | 24 | 25-Jun | 1045 | 17 |
| 7 | 4-Jul | 1600 | 9 | 3-Jul | 1230 | 27 | 2-Jul | 1230 | 21 |
| 8 | 11-Jul | 1131 | 46 | 10-Jul | 1131 | 37 | 9 9-Jul | 1600 | 54 |
| 9 | 18-Jui | 1400 | 58 | 17-Jul | 1400 | 57 | $16-\mathrm{JuI}$ | 1200 | 87 |
| 10 | 25 -Jul | 1200 | 53 | 24-Jul | 1330 | 69 | 23-Jul | 1330 | 107 |
| 11 |  |  |  | 31-Jul | 1300 | 84 | 30-Jul | 1300 | 92 |

Figure 1.- Monday drift boat counts on the Kenai River, Soldotna Bridge to Warren Ames Bridge, from May 16 to July 31, 2005-2007.


Figure 2.- Monday unguided drift boat catch, harvest and angler effort in the Kenai River late-run king salmon fishery, Soldotna Bridge to Warren Ames Bridge, 1999-2007.


Error bars show $+/$ - Standard Error.

Table 2.- Comparison of effort, catch and harvest between weekdays and weekends in the Kenai River king salmon fishery, Soldotna Bridge to Warren Ames Bridge, 2005-2007.

Early Run Summary

| Year | Weekdays |  |  |  | Weekends |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# days | Effort | Catch | Harvest | \# days | Effort | Catch | Harvest |
|  |  |  |  |  |  |  |  |  |
| 2005 | 27 | 54,142 | 3,363 | 2,225 | 12 | 25,350 | 1,067 | 651 |
| 2006 | 30 | 25,350 | 1,067 | 651 | 13 | 15,540 | 655 | 403 |
| 2007 | 25 | 15,540 | 655 | 403 | 13 | 16,952 | 521 | 248 |
| 05-07 Mean |  | 31,677 | 1,695 | 1,093 |  | 19,280 | 748 | 434 |
|  | Weekday Daily average |  |  |  |  | Weekend Daily average |  |  |
|  |  | Effort | Catch | Harvest |  | Effort | Catch | Harvest |
| 2005 |  | 2,005 | 125 | 82 |  | 2,112 | 89 | 54 |
| 2006 |  | 845 | 36 | 22 |  | 1,195 | 50 | 31 |
| 2007 |  | 622 | 26 | 16 |  | 1,304 | 40 | 19 |
| 05-07 Mean |  | 1,157 | 62 | 40 |  | 1,537 | 60 | 35 |

Late Run Summary

| Year | Weekdays |  |  |  | Weekends |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# days | Effort | Catch | Harvest | \# days | Effort | Catch | Harvest |
|  |  |  |  |  |  |  |  |  |
| 2005 | 18 | 154,392 | 17,403 | 10,006 | 10 | 76,393 | 8,260 | 5,307 |
| 2006 | 16 | 173,118 | 12,786 | 8,950 | 10 | 84,582 | 7,002 | 4,241 |
| 2007 | 17 | 153,339 | 9,573 | 6,692 | 9 | 65,880 | 3,835 | 2,566 |
| 05-07 Mean |  | 160,283 | 13,254 | 8,549 |  | 75,618 | 6,366 | 4,038 |
|  | Weekday Daily average |  |  |  |  | Weekend Daily average |  |  |
|  |  | Effort | Catch | Harvest |  | Effort | Catch | Harvest |
| 2005 |  | 8,577 | 967 | 556 |  | 7,639 | 826 | 531 |
| 2006 |  | 10,820 | 799 | 559 |  | 8,458 | 700 | 424 |
| 2007 |  | 9,020 | 563 | 394 |  | 7,320 | 426 | 285 |
| 05-07 Mean |  | 9,472 | 776 | 503 |  | 7,806 | 651 | 413 |

Table 3.- Comparison of effort, catch and harvest on weekdays and weekends, between guided and unguided anglers in the Kenai River king salmon fishery, Soldotna Bridge to Warren Ames Bridge, 2005-2007.

|  | Early Run |  |  | Late Run |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 |  |  |  |  |  |  |
|  | Effort | Catch | Harvest | Effort | Catch | Harvest |
| Guided weekdays | 36,416 | 2,638 | 1,743 | 88,144 | 6,964 | 5,476 |
| Guided weekends | 8,380 | 389 | 191 | 18,500 | 1,171 | 929 |
| Total | 44,796 | 3,027 | 1,934 | 106,644 | 8,135 | 6,405 |
| Unguided weekdays | 12,690 | 455 | 366 | 65,195 | 2,609 | 1,216 |
| Unguided weekends | 12,770 | 462 | 344 | 47,380 | 2,664 | 1,636 |
| Total | 25,460 | 917 | 710 | 112,575 | 5,273 | 2,853 |
| Grand Total | 70,256 | 3,944 | 2,645 | 219,219 | 13,408 | 9,258 |
| 2006 |  |  |  |  |  |  |
|  | Effort | Catch | Harvest | Effort | Catch | Harvest |
| Guided weekdays | 36,848 | 2,732 | 2,309 | 92,768 | 7,994 | 5,816 |
| Guided weekends | 7,938 | 372 | 254 | 24,442 | 2,277 | 1,480 |
| Total | 44,786 | 3,104 | 2,564 | 117,210 | 10,272 | 7,295 |
| Unguided weekdays | 15,480 | 771 | 425 | 80,350 | 4,792 | 3,134 |
| Unguided weekends | 12,505 | 648 | 409 | 60,140 | 4,724 | 2,761 |
| Total | 27,985 | 1,419 | 833 | 140,490 | 9,516 | 5,895 |
| Grand Total | 72,771 | 4,523 | 3,397 | 257,700 | 19,788 | 13,190 |
| 2005 |  |  |  |  |  |  |
|  | Effort | Catch | Harvest | Effort | Catch | Harvest |
| Guided weekdays | 38,602 | 2,708 | 1,823 | 84,842 | 10,468 | 6,320 |
| Guided weekends | 8,398 | 546 | 403 | 20,708 | 2,948 | 2,100 |
| Total | 47,000 | 3,254 | 2,226 | 105,550 | 13,416 | 8,419 |
| Unguided weekdays | 15,540 | 655 | 403 | 69,550 | 6,935 | 3,686 |
| Unguided weekends | 16,952 | 521 | 248 | 55,685 | 5,312 | 3,207 |
| Total | 32,492 | 1,176 | 651 | 125,235 | 12,248 | 6,893 |
| Grand Total | 79,492 | 4,430 | 2,876 | 230,785 | 25,663 | 15,313 |

Table 4.- Catch and harvest of early-run king salmon by Kenai River section, 1996-2006.

| Year | Cook Inlet to Soldotna Bridge |  | Soldotna Bridge to Moose River |  | Moose River to Skilak Outlet |  | Kenai River reach Not Specified |  | Kenai River Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Catch | Harvest | Catch | Harvest | Catch | Harvest | Catch | Harvest | Catch | Harvest |
| 1996 | 8,593 | 3,782 | 4,162 | 1,836 | 929 | 321 |  |  | 13.684 | 5,939 |
| 1997 | 9,110 | 3,805 | 3,111 | 1,178 | 1,724 | 305 |  |  | 13,945 | 5,288 |
| 1998 | 3,894 | 1,193 | 2,259 | 451 | 649 | 71 |  |  | 6,802 | 1,715 |
| 1999 | 9,883 | 4,732 | 3,294 | 1,835 | 1,501 | 760 |  |  | 14,678 | 7,327 |
| 2000 | 5,623 | 1,723 | 1,362 | 512 | 539 | 157 |  |  | 7,524 | 2,392 |
| 2001 | 5,861 | 1,757 | 2,075 | 591 | 1,144 | 343 |  |  | 9,080 | 2,691 |
| 2002 | 3,598 | 943 | 1,092 | 377 | 424 | 146 | 84 | 31 | 5,198 | 1,497 |
| 2003 | 8,075 | 1,982 | 2,046 | 782 | 3,331 | 97 | 958 | $466{ }^{\text {a }}$ | 14,410 | 3,327 |
| 2004 | 9,522 | 2,853 | 3,046 | 1,064 | 290 | 0 | 0 | $0^{\text {a }}$ | 12,858 | 3,917 |
| 2005 | 11,802 | 3,790 | 2,266 | 774 | 393 | 145 | 751 | $311^{\text {a }}$ | 15,212 | 5,020 |
| 2006 | 8,942 | 3,528 | 2,473 | 1,121 | 519 | 175 | 373 | $107{ }^{\text {a }}$ | 12,307 | 4,931 |
| Mean | 7,718 | 2,735 | 2,471 | 956 | 1,040 | 229 | 433 | 183 | 11,427 | 4,004 |

"Adopted by SWHS beginning in 2002.

Figure 3.- Catch and harvest of early-run king salmon by Kenai River section, 1996-2006.


Table 5.- Catch and harvest of late-run king salmon by Kenai River section, 1996-2006.

| Year | $\begin{gathered} \text { Cook Inlet } \\ \text { to } \\ \text { Soldotna Bridge } \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { Soldotna Bridge } \\ \text { to } \\ \text { Moose River } \\ \hline \end{gathered}$ |  | Moose River to$\qquad$ |  | Kenai River reach Not Specified |  | Kenai RiverTotal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Catch | Harvest | Catch | Harvest | Catch | Harvest | Catch | Harvest | Catch | Harvest |
| 1996 | 13,253 | 7,373 | 3,013 | 1,562 | 1,445 | 491 |  |  | 17,711 | 9,426 |
| 1997 | 13,410 | 7,439 | 4,188 | 1,898 | 1,953 | 517 |  |  | 19,551 | 9,854 |
| 1998 | 8,957 | 4,201 | 2,995 | 1,200 | 1,357 | 334 |  |  | 13,309 | 5,735 |
| 1999 | 18,096 | 8,250 | 2,819 | 1,258 | 1,397 | 310 |  |  | 22,312 | 9,818 |
| 2000 | 20,091 | 11,064 | 4,269 | 2,597 | 1,542 | 549 |  |  | 25,902 | 14,210 |
| 2001 | 18,671 | 9,717 | 3,923 | 2,163 | 2,030 | 421 |  |  | 24,624 | 12,301 |
| 2002 | 15,220 | 7,428 | 2,261 | 926 | 729 | 198 | 442 | 304 | 18,652 | 8,856 |
| 2003 | 29,343 | 11,253 | 5,727 | 2,611 | 3,995 | 471 | 575 | 206 | 39,640 | 14,541 |
| 2004 | 24,550 | 10,893 | 5,125 | 2,263 | 1,502 | 481 | 1,165 | 555 | 32,342 | 14,192 |
| 2005 | 32,280 | 12,830 | 5,133 | 2,356 | 1,856 | 460 | 2,108 | 1,020 ${ }^{\text {a }}$ | 41,377 | 16,666 |
| 2006 | 28,226 | 11,391 | 4,581 | 2,176 | 1,148 | 418 | 1,418 | $694{ }^{\text {a }}$ | 35,373 | 14,679 |
| Mean | 20,191 | 9,258 | 4,003 | 1,910 | 1,723 | 423 | 1,142 | 556 | 26,436 | 11,843 |

${ }^{3}$ Adopted by SWHS beginning in 2002.

Figure 4.- Catch and harvest of late-run king salmon by Kenai River section, 1996-2006.


Figure 5.- Estimated harvest of king salmon between the king salmon sonar site (rm 8.5) and Warren Ames Bridge, 1996-2007 (rm 5.1).


Figure 6.- Summary of total boat counts during the late-run king salmon fishery by Kenai River section between Soldotna Bridge and Warren Ames Bridge, 2003-2007.


Figure 7.- Map of the Kenai River with detail of the seasonal closure to fishing from boats downstream of the Soldotna Bridge.


Figure 8.- Map of the Upper Kenai River with detail of the unrestricted horsepower, no wake zone downstream of the Kenai Lake Bridge.


Table 6.- Summary of Kenai River fishing guides registered with Alaska State Parks, 19822006.

| Year | Businesses <br> Registered | Guides Registered | Vessels Registered |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Powered |  | Drift | Total |
| 1982 | 125 | 207 |  |  |  | 179 |
| 1983 | 123 | 198 |  |  |  | 185 |
| 1984 | 115 | 214 |  |  |  | 199 |
| 1985 | 107 | 160 | 131 |  | 40 | 171 |
| 1986 | 130 | 187 | 138 |  | 60 | 198 |
| 1987 | 145 | 222 | 154 |  | 77 | 231 |
| 1988 | 162 | 252 | 180 |  | 79 | 259 |
| 1989 | 202 | 292 | 225 |  | 101 | 326 |
| 1990 | 230 | 310 | 229 |  | 126 | 355 |
| 1991 | 176 | 290 | 198 |  | 112 | 310 |
| 1992 | 194 | 238 | 251 |  | 134 | 385 |
| 1993 | 191 | 222 | 169 |  | 127 | 296 |
| 1994 | $\square$ | 257 | 182 |  | 157 | 339 |
| 1995 | « | 314 | 236 |  | 177 | 413 |
| 1996 | $\cdots$ | 335 | 326 |  | 124 | 450 |
| 1997 | a | 354 | 314 |  | 158 | 472 |
| 1998 | a | 325 | 326 |  | 137 | 463 |
| 1999 | - | 329 | 286 |  | 140 | 426 |
| 2000 | 0 | 341 | 403 | b | 111 | 514 |
| 2001 | a | 335 | 403 |  | 109 | 512 |
| 2002 | a | 348 | 304 |  | 174 | 478 |
| 2003 | $\cdots$ | 339 | 301 |  | 164 | 465 |
| 2004 | $\square$ | 352 | 310 |  | 150 | 460 |
| 2005 | c | 365 | 354 |  | 158 | 512 |
| 2006 | c | 396 | 353 | d | 172 | 525 |
| Note: Data provided by Alaska State Parks. <br> a Data not available. <br> 1" Incfudes 25 motorized rafts/drift boats. <br> ${ }^{\text {c }}$ A percentage of these boats are used in other areas. <br> ${ }^{d}$ Includes 13 motorized rafts/drift boats. |  |  |  |  |  |  |

Figure 9.- Summary of Kenai River guides and vessels registered with Alaska State Parks, 1982-2006.


Table 7.- Number of Kenai River fishing guides that conducted more than one trip per day during July, 2006-2007.

| Date | 2006 |  |  | 2007 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total \# of Guides on the River | Total \# of Guides that conducted 2 trips | Percent | Total \# of Guides on the River | Total \# of Guides that conducted 2 trips | Percent |
| 7/1 | 185 | 23 | 12.43\% | a | , | a |
| $7 / 2$ | a | a | a | a | a | a |
| 7/3 | a | a | a | 191 | 20 | 10.47\% |
| 7/4 | 219 | 28 | 12.79\% | 145 | 19 | 13.10\% |
| $7 / 5$ | 178 | 28 | 15.73\% | 163 | 19 | 11.66\% |
| $7 / 6$ | 188 | 27 | 14.36\% | 172 | 23 | 13.37\% |
| $7 / 7$ | 206 | 26 | 12.62\% | 180 | 16 | 8.89\% |
| 7/8 | 209 | 30 | 14.35\% | a | a |  |
| 7/9 | a | a | , | a | $a$ | a |
| 7/10 | a | a | a | 231 | 36 | 15.58\% |
| 7/11 | 257 | 55 | 21.40\% | 234 | 28 | 11.97\% |
| 7/12 | 247 | 41 | 16.60\% | 238 | 32 | 13.45\% |
| $7 / 13$ | 243 | 47 | 19.34\% | 246 | 39 | 15.85\% |
| 7/14 | 266 | 50 | 18.80\% | 229 | 37 | 16.16\% |
| 7/15 | 252 | 45 | 17.86\% | a | , | a |
| 7/16 | , | a | , | a | a | a |
| $7 / 17$ | a | $a$ | a | 275 | 70 | 25.45\% |
| 7/18 | 277 | 70 | 25.27\% | 268 | 59 | 22.01\% |
| 7/19 | 269 | 72 | 26.77\% | 262 | 59 | 22.52\% |
| 7/20 | 268 | 64 | 23.88\% | 254 | 54 | 21.26\% |
| 7/21 | 258 | 65 | 25.19\% | 239 | 46 | 19.25\% |
| 7/22 | 238 | 50 | 21.01\% | , | a | a |
| 7/23 | a | a | a | $a$ | a | a |
| $7 / 24$ | $a$ | a | a | 266 | 64 | 24.06\% |
| 7/25 | 264 | 71 | 26.89\% | 266 | 66 | 24.81\% |
| 7/26 | 247 | 52 | 21.05\% | 259 | 58 | 22.39\% |
| 7/27 | 229 | 50 | 21.83\% | 248 | 49 | 19.76\% |
| 7/28 | 244 | 56 | 22.95\% | 222 | 45 | 20.27\% |
| 7/29 | 212 | 31 | 14.62\% | a | a | a |
| 7/30 | a | a | a | a | a | a |
| $7 / 31$ | a | a | ${ }^{\text {a }}$ | 225 | 53 | 23.56\% |
| Average | 236 | 47 | 19.32\% | 229 | 42 | 17.90\% |

${ }^{\text {a }}$ Days when fishing from guide boats was prohibited (Sundays and Mondays)

Table 8.- Number of fishing guides with effort on both the Kenai and Kasilof Rivers on the same day during June and July, 2006-2007.

| 2006 |  | 2007 |  |
| :---: | :---: | :---: | :---: |
| Date | Total \# of Guides with effort on both the Kenai and Kasilof Rivers | Date | Total \# of Guides with effort on both the Kenai and |
| 6/1/2006 | 1 | 6/1/2007 | 1 |
| 6/3/2006 | 1 | 6/5/2007 | 1 |
| 6/6/2006 | 3 | 6/6/2007 | 1 |
| 6/7/2006 | 2 | 6/8/2007 | 2 |
| 6/8/2006 | 1 | 6/9/2007 | 1 |
| 6/10/2006 | 2 | 6/10/2007 | 1 |
| 6/11/2006 | 1 | 6/12/2007 | 3 |
| 6/13/2006 | 1 | 6/13/2007 | 2 |
| 6/14/2006 | 2 | 6/14/2007 | 2 |
| 6/15/2006 | 2 | 6/15/2007 | 1 |
| 6/16/2006 | 2 | 6/16/2007 | 1 |
| 6/17/2006 | 3 | 6/19/2007 | 3 |
| 6/18/2006 | 2 | 6/20/2007 | 1 |
| 6/20/2006 | 3 | 6/21/2007 | 1 |
| 6/21/2006 | 1 | 6/22/2007 | 1 |
| 6/22/2006 | 2 | 6/23/2007 | 2 |
| 6/23/2006 | 2 | 6/24/2007 | 1 |
| 6/24/2006 | 4 | 6/25/2007 | I |
| 6/25/2006 | 2 | 6/26/2007 | 2 |
| 6/27/2006 | 1 | 6/27/2007 | 2 |
| 6/29/2006 | 1 | 6/28/2007 | 1 |
| 6/30/2006 | 1 | 6/29/2007 | 1 |
| 7/1/2006 | 1 | 6/30/2007 | 1 |
| 7/4/2006 | 2 | 7/2/2007 | 2 |
| 7/10/2006 | 1 | 7/3/2007 | 1 |
| 7/12/2006 | 2 | 7/4/2007 | 1 |
| 7/14/2006 | 1 | 7/10/2007 | 1 |
| 7/17/2006 | 3 | 7/18/2007 | 1 |
| 7/18/2006 | 2 | 7/20/2007 | 2 |
| 7/19/2006 | 2 | 7/24/2007 | 2 |
| 7/20/2006 | 1 | 7/25/2007 | 1 |
| 7/21/2006 | 1 | 7/27/2007 | 2 |
| 7/22/2006 | 1 | 7/30/2007 | 1 |
| 7/25/2006 | 1 | Total | 47 |
| 7/26/2006 | 1 |  |  |
| 7/27/2006 | 1 |  |  |
| 7/29/2006 | 1 |  |  |
| Total | $61$ |  |  |

Note: Effort on both during the same day.

Table 9.- Number of fishing guides with effort on both the Kenai and Kasilof Rivers in the same year, 2006-2007.

Number of Guides Operating
on both Kenai and Kasilof

| Year | Rivers in the Same Year |
| :---: | :---: |
| 2006 | 133 |
| 2007 | 128 |

Table 10.- Summary of creel survey data by day of week in the Kasilof River early-run king salmon fishery, 2004-2007.

| $\mathbf{2 0 0 4}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Day of <br> Week | Number <br> Anglers | Number <br> Angler Hours | Boat <br> Anglers | Shore <br> Anglers |
| Guided Anglers | 236 | 1,269 | 235 | 0 |
| Sunday | 177 | 972 | 177 | 0 |
| Monday | 107 | 652 | 107 | 0 |
| Tuesday | 179 | 1,114 | 179 | 0 |
| Wednesday | 126 | 567 | 126 | 0 |
| Thursday | 150 | 845 | 150 | 0 |
| Friday | 187 | 1,116 | 187 | 0 |
| Sarurday | $\mathbf{1 , 1 6 2}$ | $\mathbf{6 , 5 3 3}$ | $\mathbf{1 , 1 6 1}$ | 0 |


| Unguided Anglers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sunday | 235 | 758 | 64 | 171 |
| Monday | 200 | 688 | 92 | 108 |
| Tuesday | 122 | 343 | 16 | 106 |
| Wednesday | 118 | 454 | 26 | 92 |
| Thursday | 217 | 725 | 33 | 184 |
| Friday | 232 | 779 | 34 | 198 |
| Saturday | 317 | $\mathbf{1 , 2 3 7}$ | 151 | 166 |
|  | $\mathbf{1 , 4 4 1}$ | $\mathbf{4 , 9 8 4}$ | $\mathbf{4 1 6}$ | $\mathbf{1 , 0 2 5}$ |
| Total: | $\mathbf{2 , 6 0 3}$ | $\mathbf{1 1 , 5 1 7}$ | $\mathbf{1 , 5 7 7}$ | $\mathbf{1 , 0 2 5}$ |


| 2005 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Day of | Number | Number | Boat | Shore |
| Week | Anglers | Angler Hours | Anglers | Anglers |


| Guided Anglers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sunday | $\mathbf{4 1 6}$ | 2,869 | 416 | 0 |
| Monday | 447 | 2,980 | 447 | 0 |
| Tuesday | 191 | 1,330 | 191 | 0 |
| Wednesday | 96 | 676 | 96 | 0 |
| Thursday | 128 | 890 | 128 | 0 |
| Friday | 55 | 355 | 55 | 0 |
| Saturday | 152 | 1,190 | 140 | 0 |
|  | $\mathbf{1 , 4 8 5}$ | $\mathbf{1 0 , 2 8 9}$ | $\mathbf{1 , 4 7 3}$ | 0 |


| Unquided Anglers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sunday | 191 | 864 | 121 | 73 |
| Monday | 197 | 1,043 | 160 | 37 |
| Tuesday | 578 | 2,146 | 76 | 504 |
| Wednesday | 15 | 60 | 14 | 1 |
| Thursday | 111 | 402 | 27 | $\mathbf{8 7}$ |
| Friday | 23 | 122 | 23 | 0 |
| Saturday | 680 | 2,319 | 152 | 562 |
|  | $\mathbf{1 , 7 9 5}$ | $\mathbf{6 , 9 5 5}$ | $\mathbf{5 7 3}$ | $\mathbf{1 , 2 6 4}$ |
|  |  |  |  |  |
| Total: | $\mathbf{3 , 2 8 0}$ | $\mathbf{1 7 , 2 4 4}$ | $\mathbf{2 , 0 4 6}$ | $\mathbf{1 , 2 6 4}$ |


| $\mathbf{2 0 0 6}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Day of <br> Week | Number <br> Anglers | Number <br> Angler Hours | Boat <br> Anglers | Shore <br> Anglers |
| Guided Anglers |  |  |  |  |
| Sunday | 266 | 1,872 | 267 | 0 |
| Monday | 328 | 2,260 | 328 | 0 |
| Tuesday | 234 | 1,729 | 234 | 0 |
| Wednesday | 43 | 293 | 43 | 0 |
| Thursday | 278 | 1,848 | 278 | 0 |
| Friday | 134 | 950 | 134 | 0 |
| Saturday | 301 | 2.171 | 302 | 0 |
|  | $\mathbf{I , 5 8 4}$ | $\mathbf{I I , 1 2 2}$ | $\mathbf{1 , 5 8 6}$ | 0 |


| $\mathbf{2 0 0 7}$ |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Day of <br> Week | Number <br> Anglers | Number <br> Angler Hours | Boat <br> Anglers | Shore <br> Anglers |  |
| Guided Anglers | 119 | 823 | 119 | 0 |  |
| Sunday | 119 | $\mathbf{8 2 3}$ | 230 | 0 |  |
| Monday | 230 | 1.477 | 281 | 0 |  |
| Tuesday | 281 | 1,820 | 113 | 0 |  |
| Wednesday | 113 | 813 | 113 | 0 |  |
| Thursday | 290 | 1,895 | 290 | 0 |  |
| Friday | 153 | 993 | 153 | 0 |  |
| Saturday | $\mathbf{3 7 0}$ | 2,644 | 369 | 1 |  |
|  | $\mathbf{1 . 5 5 6}$ | $\mathbf{1 0 , 4 6 4}$ | $\mathbf{1 , 5 5 5}$ | $\mathbf{1}$ |  |


| Unguided Anglers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sunday | 233 | 748 | 47 | 188 |
| Monday | 73 | 333 | 48 | 25 |
| Tuesday | 544 | 1,965 | 121 | 427 |
| Wednesday | 276 | 835 | 18 | 259 |
| Thursday | 350 | 1,201 | 106 | 251 |
| Friday | 23 | 122 | 23 | 0 |
| Saturday | 604 | 2,404 | 241 | 366 |
|  | 2,103 | 7,607 | 604 | $\mathbf{1 , 5 1 6}$ |
| Total: | $\mathbf{3 , 6 8 7}$ | $\mathbf{1 8 , 7 3 0}$ | $\mathbf{2 , 1 9 0}$ | $\mathbf{1 , 5 1 6}$ |


| Unguided Anelers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sunday | 197 | 626 | 34 | 163 |
| Monday | 21 | 130 | 20 | 1 |
| Tuesday | 535 | 1,919 | 85 | 452 |
| Wednesday | 102 | 411 | 77 | 25 |
| Thursday | 486 | 1,564 | 57 | 430 |
| Friday | 101 | 339 | 29 | 72 |
| Saturday | 599 | 2,421 | 229 | 371 |
|  | $\mathbf{2 , 0 4 1}$ | $\mathbf{7 , 4 0 8}$ | $\mathbf{5 3 1}$ | $\mathbf{1 , 5 1 4}$ |
| Total: | $\mathbf{3 , 5 9 7}$ | $\mathbf{1 7 , 8 7 2}$ | $\mathbf{2 , 0 8 6}$ | $\mathbf{1 , 5 1 5}$ |

Figure 10.- Creel survey data summary of guided and unguided boat anglers by day of week in the Kasilof River early-run king salmon fishery, 2004-2007.




$=$ signifies days when naturally produced king salmon were allowed to be retained.

Table 11.- Early-run Kasilof River king salmon creel summary, estimated Chinook salmon catch, harvest, and effort by angler category, May 16 through June 30, 2007.

| Angler Category | Hatchery Catch | Hatchery Harvest | Wild Catch | Wild Harvest | Angler Hours | Number Anglers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guided | 1,214 | 1,123 | 1,635 | 758 | 30,930 | 4,659 |
| SE | 170 | 162 | 188 | 132 | 3,062 | 457 |
| Proportion | 0.738 | 0.788 | 0.711 | 0.707 | 0.546 | 0.378 |
| Unguided | 431 | 302 | 665 | 314 | 25,696 | 7,654 |
| SE | 63 | 41 | 116 | 40 | 3,353 | 1,180 |
| Proportion | 0.262 | 0.212 | 0.289 | 0.293 | 0.454 | 0.622 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,313 |
| Shore | 248 | 148 | 430 | 161 | 17,376 | 6,003 |
| SE | 64 | 39 | 118 | 39 | 3,499 | 1,219 |
| Proportion | 0.151 | 0.104 | 0.187 | 0.150 | 0.307 | 0.488 |
| Boat | 1,397 | 1,277 | 1,870 | 911 | 39,250 | 6,310 |
| SE | 190 | 177 | 208 | 151 | 3,557 | 551 |
| Proportion | 0.849 | 0.896 | 0.813 | 0.850 | 0.693 | 0.512 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,313 |
| Guided-Shore | 3 | 0 | 3 | 3 | 13 | 3 |
| SE | 2 | 0 | 2 | 2 | 11 | 2 |
| Proportion | 0.002 | 0.000 | 0.001 | 0.003 | 0.000 | 0.000 |
| Guided-Boat | 1,211 | 1,123 | 1,632 | 755 | 30,917 | 4,657 |
| SE | 170 | 162 | 188 | 132 | 3,061 | 457 |
| Proportion | 0.736 | 0.788 | 0.710 | 0.704 | 0.546 | 0.378 |
| Unguided-Shore | 245 | 148 | 427 | 158 | 17,363 | 6,001 |
| SE | 64 | 39 | 118 | 40 | 3,500 | 1,219 |
| Proportion | 0.149 | 0.104 | 0.186 | 0.147 | 0.307 | 0.487 |
| Unguided-Boat | 186 | 154 | 238 | 156 | 8,333 | 1,653 |
| SE | 36 | 29 | 37 | 30 | 1,083 | 197 |
| Proportion | 0.113 | 0.108 | 0.103 | 0.146 | 0.147 | 0.134 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,314 |
| SE | 167 | 162 | 187 | 132 | 2,932 | 978 |

Figure 11.- Historic harvest and angler effort for the early-run Kenai River king salmon fishery between the Soldotna Bridge and the Warren Ames Bridge, 1977-2007.


Note: Prior to 1981, there was no distinction between guided and unguided anglers.

Figure 12.- Historic harvest and angler effort for the late-run Kenai River king salmon fishery between the Soldotna Bridge and the Warren Ames Bridge, 1977-2007.



Note: Prior to 1981, there was no distinction between guided and unguided anglers.

Table 12.- Summary of early and late-run Kasilof River king salmon catch, harvest and effort by angler category as estimated by the Statewide Harvest Survey, 1996-2006.

|  | Guided |  |  | Non-Guided |  |  | Shore Fishing |  |  | Boat Fishing |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Carch |  | Effort | Catch | Harvest | Effor | Catch | Havest | Effort | Calch | Harest | Effor | Catch | Harvest | Effort |
| Early Run |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 3,969 | 2.147 | 8,070 | 7,200 | 3,148 | 25,515 | 7,040 | 3.063 | 25,454 | 4,129 | 2,232 | 8,131 | 11,169 | 5,295 | 33,585 |
| 1997 | 4,739 | 2,616 | 7,418 | 8,530 | 3,011 | 24,869 | 7,292 | 2,443 | 22,341 | 5,977 | 3,184 | 9,946 | 13,269 | 5,627 | 32,287 |
| 1998 | 2,575 | 1,748 | 7,261 | 6,137 | 2,454 | 19,226 | 5,702 | 2,140 | 16,773 | 3,010 | 2,062 | 9,714 | 8,712 | 4,202 | 26,487 |
| 1999 | 4,977 | 3,200 | 8,091 | 10,023 | 4,397 | 32,172 | 8.701 | 3,494 | 28,650 | 6,299 | 4,103 | 11,613 | 15,000 | 7,597 | 40,263 |
| 2000 | 6,049 | 3,800 | 10,205 | 13,167 | 5,015 | 36,449 | 11.071 | 3,850 | 30,585 | 8,145 | 4,965 | 16,069 | 19,216 | 8,815 | 46,654 |
| 2001 | 6,252 | 4,206 | 10,246 | 10.237 | 3,282 | 28,788 | 8,761 | 2,552 | 25,129 | 7,728 | 4,936 | 13,905 | 16,489 | 7,488 | 39,034 |
| 2002 | 5,228 | 2,483 | 9,005 | 9.546 | 2,308 | 26,193 | 7,618 | 1,754 | 20,863 | 7,099 | 2,980 | 14,129 | 14,774 | 4,791 | 35,198 |
| 2003 | 4,116 | 1,380 | 7,054 | 10,251 | 1,710 | 23,771 | 8,709 | 1,269 | 18,773 | 5,609 | 1,798 | 11,780 | 14,367 | 3.090 | 30.825 |
| 2004 | 3,038 | 1,405 | 6,753 | 6,672 | 1,890 | 23,064 | 4,635 | 1,331 | 19,509 | 4,990 | 1,928 | 10,101 | 9,710 | 3,295 | 29.817 |
| 2005 | 4,175 | 1,725 | 8,214 | 5,240 | 1,743 | 22,190 | 3,752 | 1,079 | 18,994 | 5,509 | 2,277 | 11,028 | 9,415 | 3.468 | 30,404 |
| 2006 | 2,828 | 1,498 | 7,684 | 3,872 | 923 | 18,639 | 2,993 | 567 | 16,058 | 3,691 | 1,838 | 9,978 | 6,700 | 2,421 | 26,323 |
| Mean | 4,359 | 2,383 | 8,182 | 8,261 | 2,716 | 25,534 | 6,934 | 2,140 | 22,103 | 5,653 | 2,937 | 11.490 | 12,620 | 5,099 | 33,716 |
| Late Run |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1996 | 540 | 181 | 8,070 | 1,804 | 652 | 25,515 | 1,398 | 364 | 25,454 | 946 | 469 | 8,131 | 2,344 | 833 | 33,585 |
| 1997 | 1,374 | 500 | 7,418 | 1,809 | 601 | 24,869 | 2,045 | 551 | 22,341 | 1,138 | 550 | 9,946 | 3,183 | 1,101 | 32,287 |
| 1998 | 616 | 448 | 7,261 | 434 | 189 | 19,226 | 167 | 112 | 16,773 | 883 | 525 | 9,714 | 1,050 | 637 | 26,487 |
| 1999 | 767 | 315 | 8.091 | 792 | 343 | 32.172 | 550 | 241 | 28,650 | 1,009 | 417 | 11,613 | 1,559 | 658 | 40,263 |
| 2000 | 789 | 461 | 10,205 | 1,722 | 625 | 36,449 | 1,278 | 480 | 30,585 | 1,233 | 606 | 16,069 | 2,511 | 1,086 | 46,654 |
| 2001 | 789 | 379 | 10,246 | 2,083 | 999 | 28,788 | 1,388 | 561 | 25,129 | 1,484 | 817 | 13,905 | 2,872 | 1,378 | 39,034 |
| 2002 | 474 | 300 | 9,005 | 1,924 | 151 | 26,193 | 874 | 140 | 20,863 | 1,524 | 311 | 14,129 | 2,398 | 451 | 35,198 |
| 2003 | 1,716 | 749 | 7,054 | 1,303 | 395 | 23,771 | 582 | 109 | 18,773 | 2.437 | 1,035 | 11,780 | 3,019 | 1,144 | 30,825 |
| 2004 | 1,298 | 532 | 6,753 | 1,699 | 506 | 23,064 | 1.439 | 297 | 19,509 | 1,522 | 729 | 10,101 | 2,997 | 1,038 | 29,817 |
| 2005 | 1,695 | 650 | 8,214 | 764 | 402 | 22,190 | 452 | 120 | 18,994 | 1,976 | 901 | 11,028 | 2,459 | 1,052 | 30,404 |
| 2006 | 994 | 659 | 7,684 | 447 | 224 | 18,639 | 128 | 43 | 16,058 | 1,297 | 824 | 9,978 | 1.441 | 883 | 26,323 |
| Mean | 883 | 417 | 8,419 | 1,484 | 494 | 27,123 | 1,035 | 320 | 23,571 | 1,332 | 591 | 11,911 | 2.367 | 911 | 35,542 |

Note: Angler effort is angler days for both early and late run Chinook and for all species for the entire year.

## $R C 36$



# Deliberation Materials 

## Committee E

UCI BOF 2008

SF Division Soldotna

| Category |  |  |  | Background Information |
| :---: | :---: | :---: | :---: | :---: |
| Kasilof River - Salmon | 225 | Increase days allowed to retain naturally-produced king salmon in the Kasilof River | SUPPPORT | Tables 1\&2 (pp. 7\&8) Figures 1\&2 (pp. 6\&9) |
| Kasilof River - Salmon | 226 | Increase bag limit for hatchery stock king salmon on Kasilof River | SUPPORT | Tables 1\&2 (pp. 7\&8) Figures 1\&3 (pp. 6\&9) |
| Kasilof River - Salmon | 227 | Prohibit fishing after retaining a king salmon | OPPOSE | See Staff Comments |
| Kasilof River - Salmon | 228 | Designate portion of Kasilof River as a king salmon spawning sanctuary | SUPPORT | Tables 3\&4 (pp. 14\& 15) <br> Figures 4-8 (pp. 10-14) |
| Kasilof River - Salmon | 229 | Prohibit power boats on Kasilof River | OPPOSE | See Staff Comments |
| Kasilof River - Salmon | 230 | Restrict motorized use on portion of Kasilof River | NEUTRAL | See Staff Comments |
| Kasilof River - Salmon | 231 | Prohibit fishing from boat July l-Aug. IS in upper portion of Kasilof River | SUPPORT | Tables 3\&4 (pp. 14\& 15) Figures 4-8 (pp. 10-14) |
| Kasilof River-Salmon | 232 | Allow motorized use during king salmon season on the Kasilof River | OPPOSE | See Staff Comments |
| K asilof River - Salmon | 233 | Allow anchoring of boats in portion of Kasilof River | NEUTRAL | Figure 9 (p.16) |
| Kasilof River - Salmon | 234 | Increase Kasilof River sockeye bag limit | NEUTRAL | Figures 10-11 (p.17) |
| Chickaloon River - Salmon | 235 | Open Chickaloon River to king salmon fishing | OPPOSE | Figure 12 (p.18) |
| Russian River | 253 | Close fishing from 100 yards above Ferry Cable to 25 yards below cable on Kenai River | OPPOSE | Figure 13 (p.19) |
| Russian River | 254 | Increase size of designated youth fishing area on the Kenai River | OPPOSE | Figure 13 (p.19) |
| Kenai River King Salmon | 255 | Increase size and bag limits for jack kings in Kenai River | OPPOSE | Tables 5-8 (pp. 21-28) Figures 14-27 (pp. 20-37) |
| Kenai River King Salmon | 256 | Delete bag limit for king salmon under 28 inches on Kenai River | OPPOSE | Tables 5-8 (pp. 21-28) <br> Figures 14-27 (pp. 20-37) |
| Kenai River King Salmon | 257 | Increase size and bag limits for jack kings in Kenai River | OPPOSE | Tables 5-8 (pp. 21-28) <br> Figures $14-27$ (pp. 20-37) |
| Kenai River King Salmon | 258 | Increase the jack king salmon size limit from $20^{\prime \prime}$ to $\mathbf{2 5 "}$ in Cook Inlet freshwaters | OPPOSE | Tables 5-8 (pp. 21-28) <br> Figures 14-27 (pp. 20-37) |
| Kenai River King Salmon | 259 | Modify bag limit to allow retention of hatchery stock king salmon in the Kenai River drainage | OPPOSE | See Staff Comments |
| Kenai River King Salmon | 260 | Modify bag limit to allow retention of hatchery stock king salmon in the Kenai River drainage | OPPOSSE | See Staff Comments |
| Kenai River King Salmon | 261 | Eliminate Kenai River early-run king salmon slot limit | OPPȮSE | Tables 5 \& 6 (pp. $21 \& 24$ ) Figures $14-18$ \& 20 \& 28-30 (pp.20-26 \& $30 \& 38-40$ ) |
| Kenai River King Salmon | 262 | Eliminate Kenai River early-run king salmon slot limit | OPPOSE | Tables 5 \& 6 (pp. 21 \& 24) Figures 14-18 \& 20 \& 28-30 (pp.20-26 \& $30 \& 38-40$ ) |
| Kenai River King Salmon | 263 | Amend the slot limit season for early-run king salmon on the Kenai River | OPPOSE | Tables $5 \& 6$ (pp. 21\& 24) Figures $14-18$ \& 20 \& 28-30 (pp.20-26 \& $30 \& 38-40$ ) |
| Kenai River King Salmon | 264 | Extend early-run king salmon slot limit below the Soldotna Bridge through July I4 | OPPOSE | Tables $5 \& 6$ (pp. 21\& 24) Figures $14-18 \& 20 \& 28-30$ (pp.20-26 \& 30 \& 38-40) |
| Kenai River King Salmon | 265 | Restrict altering harvested king salmon to allow for length assessment | SUPPORT | See Staff Comments |
| Kenai River King Salmon | 266 | Restrict use of bait for early-run kings on portion of Kenai River | OPPOSE | Tables 5 \& 6 (pp. 21 \& 24) <br> Figures 14-18 (pp. 20-26) |
| Kenai River King Saimon | 267 | Allow use of bait in the early run Kenai River king salmon fishery starting May I or June 1. | OPPOSE | Tables 5 \& 6 (pp. 21 \& 24) Figures 14-18 (pp. 20-26) |
| Kenai River King Salmon | 268 | Extend Funny River, Slikok C̄reek, and Lower Killey River sanctuary closures through July 31 | OPPOSE | Tables 5 \& 6 (pp. 21\& 24) Figures 14-18 \& 31-34 (pp. 2026 \& 41 -44) |
| Kenai River King Salmon | 269 | Extend Funny River, Slikok Creek, and Lower Killey River sanctuary closures through July 31 and expand Killey area | OPPOSE | Tables 5 \& 6 (pp. 21\& 24) Figures 14-18 \& 31-34 (pp, 2026 \& 41-44) |
| Kenaı River King Salmon | 270 | Extend Kenai River king salmon season through August 7 | OPPOSE | Table 6 (p. 24) Figures <br> $17 \& 18 \& 35$ (pp. $25 \& 26 \&$  <br> $45)$  |
| Kenai River King Salmon | 271 | Extend Iate-run king salmon spor fishing season through August 10 | OPPOSE | Table 6 (p. 24) Figures <br> $17 \& 18 \& 35$ (pp. $25 \& 26 \&$  <br> 4  |
| Kenai River King Salmon | 272 | Increase escapement goal for Kenai River late-run king salmon | NO ACTION | Table 6 (p. 24) Figures <br> $17 \& 18$ (pp. $25 \& 26$ )  |
| Kenai River King Salmon | 273 | Delete portions of Kenai River Late-Run King Salmon plan | NEUTRAL | Table 6 (p. 24) Figures <br> 17 \& 18 (pp. $25 \& 26$ ) |
| Kenai River King Salmon | 274 | Delete section (e) of Kenai River late-run king salmon management plan | NEUTRAL | Table 6 (p. 24) Figures <br> $17 \& 18$ (pp. $25 \& 26)$  |
| Kenai River King Salmon | 275 | Limit non-resident permits for king salmon on Kenai River | NEUTRAL | See Staff Comments |
| Kenai River King Salmon | 276 | Establish annual limits for salmon fishing by non-resident anglers | NEUTRAL | See Staff Comments |
| Kenai River King Salmon | 277 | Prohibit non-residents from exporting more than 125 pounds of fish | OPPOSE | See Staff Comments |
| Kenai River Sockeye and Coho | 278 | Allow retention of sockeye salmon unintentionally hooked in the Kenai, Kasilof, and Russian Rivers | OPPOSE | See Staff Comments |
| Kenai River Sockeye and Coho | 279 | Increase bay limit for coho salmon in Kenai Peninsula freshwater streams | OPPOSE | Tables 9-12 (pp. 46-53) <br> Figures 36-40 (pp. 47-52) |
| Kenai River Sockeye and Coho | 280 | Increase coho bag limit in Cook Inlet area rivers | OPPOSE | Tables 9-12 (pp. 46-53) Figures 36-40 (pp. 47-52) |
| Kenai River Sockeye and Coho | 281 | Increase bay limit for coho salmon in the Kenai River | OPPOSE | Tables 9.12 (pp. 46-53) Figures 36-40 (pp. 47-52) |
| Kenai River Sockeye and Coho | 282 | Extend the coho salmon fishing season through November on Lower Kenai River and Skilak Lake | NEUTRAL | Tables 9-12 (pp. 46-53) Figures 36-41 (pp. 47-53) |

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Figure 1.- Kasilof River Chinook salmon fishery.


Table 1.- Historical summary of Early Run Kasilof River/Crooked Creek Chinook salmon stocks, 1996-2007.

| Year | Harvest ${ }^{\text {a }}$ |  |  | Return to the weir ${ }^{\text {b }}$ |  |  | Total Return |  |  | Spawning Escapement ${ }^{\text {b }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Natural | Hatchery | Total | Natural | Hatchery | Total | Natural | Hatchery | Total | Natural | Hatchery |
| 1996 | 5,295 | $\mathrm{n} / \mathrm{a}$ | n/a | 2,224 | $n / \mathrm{a}$ | n/a | 7,519 | n/a | n/a | 764 | $\mathrm{n} / \mathrm{a}$ | n/a |
| 1997 | 5,627 | $n / \mathrm{a}$ | $\pi / \mathrm{a}$ | d |  |  |  |  |  |  |  |  |
| 1998 | 4,202 | n/a | $\mathrm{n} / \mathrm{a}$ | d |  |  |  |  |  |  |  |  |
| 1999 | 7,597 | n/a | n/a | 2,358 | 1,918 | 440 | 9,955 | n/a | n/a | 1,963 | 1,557 | 406 |
| 2000 | 8,815 | $\mathrm{n} / \mathrm{a}$ | n/a | 1,416 | 1,183 | 233 | 10,231 | n/a | $\mathrm{n} / \mathrm{a}$ | 1,074 | 896 | 178 |
| 2001 | 7,488 | n/a | n/a | 2,584 | 2,122 | 462 | 10,072 | n/a | n/a | 2,316 | 1,898 | 418 |
| 2002 | 4,791 | 0 | 4,791 | 3,303 | 2,506 | 797 | 8,094 | 2,506 | 5,588 | 2,674 | 1,906 | 768 |
| 2003 | 3,078 | 0 | 3,078 | 4,127 | 2,976 | 1,151 | 7,205 | 2,976 | 4,229 | 3,597 | 2,554 | 1,043 |
| 2004 | 2,421 ${ }^{\text {' }}$ | 0 | 2,421 | 4,873 | 2,64I | 2,232 | 7,294 | 2,641 | 4,653 | 4,356 | 2,196 | 2,160 |
| 2005 | 2,624 ${ }^{\text {c }}$ | 576 | 2,048 | 3,162 | 2,107 | 1,055 | 5,786 | 2,683 | 3,103 | 2,927 | 1,903 | 1,024 |
| 2006 | 2,461 ${ }^{\text {' }}$ | 1,055 | 1,406 | 2,645 | 1,589 | 1,056 | 5,106 | 2,644 | 2,462 | 2,568 | 1,516 | 1,052 |
| 2007 | 2,497 ${ }^{\text {' }}$ | 1,072 | 1,425 | 1,523 | 1,038 | 485 | 4,020 | 2,110 | 1,910 | 1,447 | 964 | 483 |
| Mean | 4,741 |  |  | 2,822 | 2,009 | 879 | 7,528 | 2,593 | 3,658 | 2,369 | 1,710 | 837 |

[^6]Table 2.- Early-run Kasilof River creel summary, estimated Chinook salmon catch, harvest, and effort by angler category, May 16 through June 30, 2007.

| Angler Category | Hatchery Catch | Hatchery Harvest | Wild Catch | $\begin{gathered} \text { Wild } \\ \text { Harvest } \end{gathered}$ | Angler Hours | Angler Days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guided | 1,214 | 1,123 | 1,635 | 758 | 30,930 | 4,659 |
| Proportion | 0.738 | 0.788 | 0.711 | 0.707 | 0.546 | 0.378 |
| Unguided | 431 | 302 | 665 | 314 | 25,696 | 7,654 |
| Proportion | 0.262 | 0.212 | 0.289 | 0.293 | 0.454 | 0.622 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,313 |
| Shore | 248 | 148 | 430 | 161 | 17,376 | 6,003 |
| Proportion | 0.151 | 0.104 | 0.187 | 0.150 | 0.307 | 0.488 |
| Boat | 1,397 | 1,277 | 1,870 | 911 | 39,250 | 6,310 |
| Proportion | 0.849 | 0.896 | 0.813 | 0.850 | 0.693 | 0.512 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,313 |
| Guided-Shore | 3 | 0 | 3 | 3 | 13 | 3 |
| Proportion | 0.002 | 0.000 | 0.001 | 0.003 | 0.000 | 0.000 |
| Guided-Boat | 1,211 | 1,123 | 1,632 | 755 | 30,917 | 4,657 |
| Proportion | 0.736 | 0.788 | 0.710 | 0.704 | 0.546 | 0.378 |
| Unguided-Shore | 245 | 148 | 427 | 158 | 17,363 | 6,001 |
| Proportion | 0.149 | 0.104 | 0.186 | 0.147 | 0.307 | 0.487 |
| Unguided-Boat | 186 | 154 | 238 | 156 | 8,333 | 1,653 |
| Proportion | 0.113 | 0.108 | 0.103 | 0.146 | 0.147 | 0.134 |
| Total | 1,645 | 1,425 | 2,300 | 1,072 | 56,626 | 12,314 |

Figure 2.- Kasilof River escapement of early run naturally produced Chinook salmon, 2003-2007.


Figure 3.- Kasilof River escapement of early run hatchery produced Chinook salmon, 2003-2007.


Figure 4.- Daily catch per unit effort (using drift gill nets) of wild, age-. $2+$ Chinook salmon in the lower Kasilof River (rm 3-5) after June 20, 2005, 2006, and 2007.


Note - includes a small number of naturally produced Crooked Creek bound Chinook Salmon in late June.

Figure 5.- Kasilof River late run Chinook salmon spawning distribution, 2005.

Kasilof River Chinook salmon spawning condition versus coho salmon CPUE by rivermile and date, 2005


Data from Mark-recapture gillnet caught fish

Figure 6.- Kasilof River late run Chinook salmon spawning distribution, 2006.

Kasilof River Chinook salmon spawning condition versus coho salmon CPUE by rivermile and date, 2006


Data from Mark-recapture gillnet caught fish

Figure 7.- Kasilof River late run Chinook salmon spawning distribution, 2007.

Kasilof River Chinook salmon spawning condition versus coho salmon CPUE by rivermile and date, 2007


Data from Mark-recapture gillnet caught fish

Table 3.- Estimated abundance ${ }^{a}$ of wild, age-. $2+$ Chinook salmon returning to the Kasilof River after June 20, 2005, 2006, and 2007.

| Year | Abundance | $80 \%$ interval $^{\text {b }}$ |
| :--- | :---: | :---: |
| 2005 | 11,304 | $6,571-20,605$ |
| 2006 | 8,653 | $6,944-10,945$ |
| 2007 | 8,391 | $6,921-10,364$ |

a - estimates are considered preliminary until published in an FDS report
b-80\% probability that the true abundace falls between these two values

Figure 8.- Figure of estimated abundance ${ }^{\text {a }}$ with associated variance of wild, age-. $2+$ Chinook salmon returning to the Kasilof River after June 20, 2005, 2006, and 2007

## Probability distributions for abundance of wild, age.2+ Chinook salmon

 reuming to spavn in the the Kasilol Huer after June 20, 2005-2007

Note - estimates are considered preliminary until published in an FDS report

Table 4.- Historical summary of Late Run Kasilof River Chinook salmon harvest, 1996-2006.

| Year | Estimated <br> Abundance | Sport Harvest ${ }^{\text {a }}$ | Commercial <br> Harvest |
| :---: | :---: | :---: | :---: |
| 1996 |  | 833 | Unknown |
| 1997 |  | 1,101 | Unknown |
| 1998 | 637 | Unknown |  |
| 1999 |  | 658 | Unknown |
| 2000 |  | 1,086 | Unknown |
| 2001 |  | 1,378 | Unknown |
| 2002 |  | 1,144 | Unknown |
| 2003 | 11,304 | 1,038 | Unknown |
| 2004 | 8,653 | 883 | Unknown |
| 2005 | 8,391 |  | Unknown |
| 2006 |  | 961 | Unknown |
| 2007 |  |  |  |
| Mean |  |  |  |

[^7]Figure 9.- Map of the "Peoples Hole" on the Kasilof River near the confluence of Crooked Creek.


Figure 10.- Kasilof River sockeye salmon sonar counts, 1979-2007.


Figure 11.- Kasilof River sockeye salmon catch and harvest as determined by the Statewide Harvest Survey, 1990-2006.


Figure 12.- Map of the Chickaloon River drainage.


Figure 13,- Map of the Russian River sockeye salmon recreational fishing areas and fishing access locations.


Figure 14.- Map of the Kenai River Chinook salmon fishery.

## To protect staging Chinook salmon:

Tributaries and the entire Upper Kenai are closed year round to Chinook fishing
Tributary confluences are closed seasonally
The entire river is closed after July 31

City of Kenai
Red areas are closed areas


Beginning:1970 Funny River confluence closed 1/1-7/14
1993 Slikok Creek confluence closed 1/1-7/14
1997 Killey River confluence closed 6/25-7/14

0
24
8
$12 \quad 1$
16 Miles


Table 5.- Early-run Kenai River Chinook salmon population data, 1986-2006.

| Year | Deep Creek Marine Harvest | Eastside <br> Set Net <br> Harvest | Drift Gillnet Harvest | Subsistence | Inriver <br> Return | Kenai River Hook-and- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Total Return | Sport Harvest | Release Mortality | Spawning Escapement |
| 1986 | Unknown | Closed | Closed |  | 27,080 | 27,080 | 8,156 | 242 | 18,682 |
| 1987 | Unknown | Closed | Closed |  | 25,643 | 25,643 | 13,557 | 306 | 11,780 |
| 1988 | Unknown | Closed | Closed |  | 20,880 | 20,880 | 15,209 | 340 | 5,331 |
| 1989 | Unknown | Closed | Closed | 73 | 17,992 | 18,065 | 8,394 | 149 | 9,449 |
| 1990 | Unknown | Closed | Closed | 40 | 10,679 | 10,719 | 1,807 | 378 | 8,494 |
| 1991 | Unknown | Closed | Closed | 2 | 10,931 | 10,933 | 1,945 | 152 | 8,834 |
| 1992 | Unknown | Closed | Closed | 73 | 10,087 | 10,160 | 2,241 | 236 | 7,610 |
| 1993 | Unknown | Closed | Closed | 118 | 19,921 | 20,039 | 9,342 | 286 | 10,293 |
| 1994 | Unknown | Closed | Closed | 56 | 18,403 | 18,459 | 8,171 | 285 | 9,947 |
| 1995 | Unknown | Closed | Closed | 37 | 21,884 | 21,921 | 10,217 | 357 | 11,310 |
| 1996 | Unknown | Closed | Closed | 14 | 23,505 | 23,519 | 6,623 | 287 | 16,595 |
| 1997 | Unknown | Closed | Closed | 141 | 14,963 | 15,104 | 6,429 | 349 | 8,185 |
| 1998 | Unknown | Closed | Closed | 122 | 9,184 | 9,306 | 1,170 | 254 | 7,760 |
| 1999 | Unknown | Closed | Closed | 114 | 25,666 | 25,780 | 8,129 | 261 | 17,276 |
| 2000 | Unknown | Closed | Closed | 124 | 12,479 | 12,603 | 1,818 | 185 | 10,476 |
| 2001 | Unknown | Closed | Closed | 198 | 16,676 | 16,874 | 1,428 | 266 | 14,982 |
| 2002 | Unknown | Closed | Closed | 64 | 7,162 | 7,226 | 899 | 78 | 6,185 |
| 2003 | Unknown | Closed | Closed | 46 | 13,325 | 13,371 | 2,839 | 389 | 10,097 |
| 2004 | Unknown | Closed | Closed | 89 | 15,498 | 15,587 | 3,386 | 257 | 11,855 |
| 2005 | Unknown | Closed | Closed | 76 | 20,450 | 20,526 | 3,810 | 253 | 16,387 |
| 2006 | Unknown | Closed | Closed | 65 | 23,326 | 23,391 | 4,693 | 205 | 18,428 |
| 2007 | Unknown | Closed | Closed |  | 16,000 | 16,000 | 4,000 |  | 12,000 |

Figure 15.- Historic harvest and angler effort for the early-run Kenai River Chinook salmon fishery between the Soldotna Bridge and the Warren Ames Bridge, 1977-2007.




Note: Prior to 1981, there was no distinction between guided and unguided anglers.

Figure 16.- Spawning escapements of early-run Kenai River Chinook salmon, with associated historical escapement goals.


Table 6.- Late-run Kenai River Chinook salmon population data, 1986-2006.

| Year | Deep <br> Creek <br> Marine <br> Harvest | Set <br> Gillnet <br> Harvest | Drift <br> Gillnet <br> Harvest | Pers. <br> Use | Subsist. | Sonar | Sport Harvest below $\qquad$ sonar | Total <br> Run | Sport Harvest above sonar | Release <br> Mort. | Escapement |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986 | 630 | 19,810 | 1,834 |  |  | 57,563 |  | 79,837 | 9,872 | 316 | 47,375 |
| 1987 | 1,218 | 20,588 | 4,551 |  |  | 48,123 |  | 74,480 | 13,100 | 123 | 34,900 |
| 1988 | 1,487 | 12,870 | 2,217 |  |  | 52,008 |  | 68,582 | 19,695 | 176 | 32,137 |
| 1989 | 1,368 | 10,919 | 0 |  | 22 | 29,035 |  | 41,344 | 9,691 | 88 | 19,256 |
| 1990 | 1,605 | 4,139 | 621 | 91 | 13 | 33,474 |  | 39,943 | 6,897 | 69 | 26,508 |
| 1991 | 1,705 | 4,891 | 241 | 130 | 288 | 34,614 |  | 41,869 | 7,903 | 16 | 26,695 |
| 1992 | 2,115 | 10,718 | 543 | 50 | 402 | 30,314 |  | 44,142 | 7,556 | 234 | 22,524 |
| 1993 | 2,834 | 13,977 | 751 | 129 | 27 | 51,991 |  | 69,709 | 17,775 | 478 | 33,738 |
| 1994 | 1,869 | 15,885 | 460 | 13 | 392 | 53,474 |  | 72,093 | 17,837 | 572 | 35,065 |
| 1995 | 2,069 | 12,032 | 523 | 36 | 646 | 44,336 |  | 59,642 | 12,609 | 472 | 31,255 |
| 1996 | 2,038 | 11,521 | 365 | 45 | 294 | 39,356 |  | 53,619 | 8,112 | 337 | 30,907 |
| 1997 | 2,931 | 11,281 | 489 | 339 | 26 | 39,622 |  | 54,688 | 12,755 | 570 | 26,297 |
| 1998 | 1,784 | 5,039 | 332 | 271 | 2 | 34,878 |  | 42,306 | 7,515 | 595 | 26,768 |
| 1999 | 1,004 | 9,463 | 575 | 488 | 4 | 48,069 | 1,170 | 60,773 | 12,425 | 682 | 34,962 |
| 2000 | 1,052 | 3,684 | 270 | 410 | 6 | 44,517 | 831 | 50,770 | 14,391 | 499 | 29,627 |
| 2001 | 920 | 6,009 | 619 | 638 | 8 | 33,916 | 1,336 | 43,446 | 15,144 | 825 | 17,947 |
| 2002 | 427 | 9,478 | 415 | 606 | 6 | 41,807 | 1,929 | 54,668 | 10,678 | 665 | 30,464 |
| 2003 | 200 | 14,810 | 1,240 | 1,016 | 11 | 41,659 | 823 | 59,759 | 16,120 | 1,803 | 23,736 |
| 2004 | 1,660 | 21,683 | 1,526 | 792 | 10 | 56,205 | 2,386 | 84,262 | 14,988 | 1,019 | 40,198 |
| 2005 | 1,040 | 21,472 | 1,839 | 775 | 11 | 43,240 | 2,287 | 70,664 | 15,927 | 1,267 | 26,046 |
| 2006 | 938 | 8,696 | 1,051 | 1,034 | 11 | 37,743 | 3,322 | 52,795 | 12,490 | 830 | 24,423 |
| 2007 | 1,000 | 11,996 | 865 | 1,000 | 6 | 42,979 | 1,700 | 59,546 | 9,200 | 650 | 33,129 |


| Year | Deep Creek Marine Harvest ${ }^{\text { }}$ | Eastside <br> Setnet <br> Harvest ${ }^{\text {b }}$ | Drift Gillnet Harvest ${ }^{4}$ | Cornmercial <br> Personal Use <br> - | Kenaitze Educational | Subsistence ${ }^{\text {e }}$ | Personal Use ${ }^{\text {r }}$ | Inriver Return | Kenai River Sport Haryest ${ }^{\text {b }}$ | Hook-andRelease Mortality ${ }^{\text {b }}$ | Spawning <br> Escapement | Total Retum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986 | 630 | 19,824 | 1,834 |  |  |  |  | 57,563 | 9,872 | 316 | 47,375 | 79,837 |
| 1987 | 1,218 | 2I,150 | 4,552 |  |  |  | 235 | 48,123 | 13,100 | 123 | 34,900 | 74,480 |
| 1988 | 1,487 | 12,859 | 2,237 |  |  |  | 0 | 52,008 | 19,695 | 176 | 32,137 | 68,582 |
| 1989 | 1,368 | 10,926 | $0^{\text {d }}$ | 4 |  |  | 0 | 29,035 | 9,691 | 88 | 19,256 | 41,344 |
| 1990 | 1,605 | 4,139 | 621 | 91 |  |  |  | 33,474 | 6,897 | 69 | 26,508 | 39,943 |
| 1991 | 1,705 | 4,893 | 246 | 130 |  | 413 |  | 34,614 | 7,903 | 16 | 26,695 | 41,869 |
| 1992 | 2,115 | 11,841 | 615 | 50 |  | 621 | 0 | 30,314 | 7,556 | 234 | 22,524 | 44,142 |
| 1993 | 2.834 | 13.977 | 765 | 110 |  |  | 0 | 51,991 | 17,775 | 478 | 33,738 | 69,709 |
| 1994 | 1.869 | 15,563 | 464 | 13 | 1 | 797 |  | 53,474 | 17.837 | 572 | 35,065 | 72,093 |
| 1995 | 2,069 | 12,032 | 594 | 36 | 3 | 753 | 772 | 44,336 | 12,609 | 472 | 31,255 | 59,642 |
| 1996 | 2,038 | 11.521 | 389 | 43 | 1 |  | 295 | 39,356 | 8,112 | 337 | 30,907 | 53,619 |
| 1997 | 2,931 | 11,281 | 627 | 44 | 20 |  | 364 | 39,622 | 12,755 | 570 | 26,297 | 54,688 |
| 1998 | 1,784 | 5,039 | 335 | 48 | 2 |  | 254 | 34,878 | 7,515 | 595 | 26,768 | 42,306 |
| 1999 | 1,004 | 9,389 | 575 | 73 | 4 |  | 488 | 48,069 | 13,595 | 682 | 34,962 | 60,773 |
| 2000 | 1,052 | 3,651 | 270 | 33 | 6 |  | 410 | 44,517 | 15,222 | 499 | 29,627 | 50,770 |
| 2001 | 920 | 5,904 | 619 | 105 | 8 |  | 638 | 33,916 | 16,480 | 825 | 17.947 | 43,446 |
| 2002 | 427 | 9.468 | 415 | 14 | 6 |  | 606 | 41,807 | 12,607 | 665 | 30,464 | 54,668 |
| 2003 | 200 | 14,772 | 1,240 | 48 | 11 |  | 1,016 | 41,659 | 16,943 | 1,803 | 23,736 | 59.759 |
| 2004 | 1,660 | 21,683 | 1,526 | 255 | 10 |  | 792 | 56,205 | 17,374 | 1,019 | 40,198 | 84,195 |
| 2005 | 1,040 | 21,472 ${ }^{\text {b }}$ | 1,839 ${ }^{\text {n }}$ | 867 | 11 |  | 997 | 43,240 | 18,214 | 1,267 | 26,046 | 70,783 |
| 2006 | 938 | 8,696 ${ }^{\prime \prime}$ | $1,051{ }^{\text {n }}$ | 47 | 11 |  | 1,034 | 37,743 | 15,811 | 830 | 24,423 | 52,795 |
| 2007 | n/a | 11,996 ${ }^{\text {² }}$ | $865{ }^{\text {" }}$ | n/a | $6^{\text {n }}$ |  | n/a | 42,979 | n/a | n/a | n/a | n/a |

[^8]Figure 17.- Historic harvest and angler effort for the late-run Kenai River Chinook salmon fishery between the Soldotna Bridge and the Warren Ames Bridge, 1977-2007.


Note: Prior to 1981, there was no distinction between guided and unguided anglers.

Figure 18.- Spawning escapements of late-run Kenai River Chinook salmon, with associated historical escapement goals.


Table 7.- Kenai River early run Chinook salmon estimates by age class, 1986-2007.

| Year | Age Class |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.2 | 1.3 | 1.4 | 1.5 | Total |
| 1986 | 4,191 | 11,384 | 9,349 | 2,116 | 27,040 |
| 1987 | 393 | 9,859 | 14,683 | 577 | 25,512 |
| 1988 | 373 | 3,302 | 14,888 | 2,237 | 20,800 |
| 1989 | 749 | 2,791 | 12,819 | 1,706 | 18,065 |
| 1990 | 775 | 2,851 | 6,409 | 684 | 10,719 |
| 1991 | 801 | 2,451 | 7,116 | 566 | 10,933 |
| 1992 | 826 | 2,891 | 5,906 | 537 | 10,160 |
| 1993 | 792 | 5,604 | 12,669 | 731 | 19,795 |
| 1994 | 651 | 3,700 | 13,051 | 773 | 18,174 |
| 1995 | 1,072 | 4,482 | 15,296 | 974 | 21,824 |
| 1996 | 1,847 | 6,750 | 14,424 | 497 | 23,519 |
| 1997 | 638 | 5,260 | 9,046 | 159 | 15,104 |
| 1998 | 1,763 | 3,429 | 3,820 | 294 | 9,306 |
| 1999 | 2,069 | 13,845 | 9,707 | 80 | 25,700 |
| 2000 | 1,056 | 5,470 | 5,865 | 73 | 12,465 |
| 2001 | 2,727 | 4,687 | 8,948 | 341 | 16,704 |
| 2002 | 1,133 | 2,692 | 2,857 | 260 | 6,943 |
| 2003 | 4,192 | 2,641 | 6,261 | 129 | 13,223 |
| 2004 | 2,309 | 5,196 | 7,238 | 666 | 15,409 |
| 2005 | 2,541 | 6,196 | 10,829 | 726 | 20,293 |
| 2006 | 7,150 | 4,540 | 10,552 | 865 | 23,107 |
| 2007 | 4,264 | 4,492 | 7,005 | 457 | 16,217 |

Total Avg期



Table 8.- Early run Kenai River Chinook salmon percent less than or equal to total length in inches in the run, 1986-2007.

| Age |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Total length (inches) | 1.2 | 1.3 | 1.4 | 1.5 |
| 19 | 0.1\% | 0.0\% | 0.0\% | 0.0\% |
| $20.54 x^{\text {a }}$ | 0.4\% < | 0.0\% | 0.0\% W | 0.0\%等娄 |
| 21 | 0.6\% | 0.0\% | 0.0\% | 0.0\% |
| 22 | 1.2\% | 0.0\% | 0.0\% | 0.0\% |
| 23 | 2.5\% | 0.0\% | 0.0\% | 0.0\% |
| 24 | 3.7\% | 0.0\% | 0.0\% | 0.0\% |
| 25 | 6.2\% | 0.0\% | 0.0\% | 0.0\% |
| 26 | 10.8\% | 0.0\% | 0.0\% | 0.0\% |
| 27 | 18.5\% | 0.1\% | 0.0\% | 0.0\% |
| 28 | 31.8\% | 0.4\% | 0.0\% | 0.0\% |
| 29 | 54.4\% | 1.1\% | 0.0\% | 0.0\% |
| 30 | 74.8\% | 2.4\% | 0.1\% | 0.0\% |
| 31 | 90.7\% | 4.4\% | 0.1\% | 0.0\% |
| 32 | 96.7\% | 8.2\% | 0.2\% | 0.0\% |
| 33 | 98.8\% | 15.7\% | 0.3\% | 0.0\% |
| 34 | 99.5\% | 25.2\% | 0.5\% | 0.0\% |
| 35 | 99.6\% | 38.1\% | 1.0\% | 0.0\% |
| 36 | 99.7\% | 51.9\% | 2.2\% | 0.0\% |
| 37 | 99.8\% | 66.9\% | 4.9\% | 0.0\% |
| 38 | 99.8\% | 79.3\% | 8.4\% | 0.0\% |
| 39 | 99.9\% | 86.2\% | 12.2\% | 0.4\% |
| 40 | 100.0\% | 91.8\% | 19.5\% | 1.3\% |
| 41 | 100.0\% | 95.1\% | 26.6\% | 1.9\% |
| 42 | 100.0\% | 97.7\% | 38.4\% | 3.9\% |
| 43 | 100.0\% | 98.8\% | 48.2\% | 7.1\% |
|  |  |  |  |  |
| 45 | 100.0\% | 99.6\% | 67.0\% | 19.2\% |
| 46 | 100.0\% | 99.7\% | 73.9\% | 28.3\% |
| 47 | 100.0\% | 99.8\% | 82.5\% | 42.8\% |
| 48 | 100.0\% | 99.9\% | 87.7\% | 52.5\% |
| 49 | 100.0\% | 99.9\% | 91.9\% | 63.1\% |
| 50 | 100.0\% | 100.0\% | 95.1\% | 73.0\% |
| 51 | 100.0\% | 100.0\% | 97.8\% | 85.5\% |
| 52 | 100.0\% | 100.0\% | 98.8\% | 89.8\% |
| 53 | 100.0\% | 100.0\% | 99.5\% | 94.8\% |
| 54 | 100.0\% | 100.0\% | 99.8\% | 96.1\% |
| 55 | 100.0\% | 100:0\% | 99:9\%\% | 96.8\% |
| 56 | 100.0\% | 100.0\% | 100.0\% | 98.1\% |
| 57 | 100.0\% | 100.0\% | 100.0\% | 99.1\% |
| 58 | 100.0\% | 100.0\% | 100.0\% | 99.6\% |
| 59 | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| 60 | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| 61 | 100.0\% | 100.0\% | 100.0\% | 100.0\% |

Figure 19.- Number (gray bars) and percent (lines) of early run Kenai River Chinook salmon aged 1.2 and 1.3 in the total return.



Figure 20.- Number (gray bars) and percent (lines) of early run Kenai River Chinook salmon aged 1.4 and 1.5 in the total return.



Figure 21.- Age-length-sex frequency relationships for Kenai River early run Chinook salmon age 1.2 and 1.3, 1986-2007.


Figure 22.- Funny River Chinook salmon weir counts, 2006 \& 2007.


Figure 23.- Kenai River Chinook salmon average age and mean length.



Figure 24.- Hindcast of early run 2-ocean Chinook salmon ( $</=\mathbf{2 8}$ ") harvests on the Kenai River, 1986-2007.

| Year | \# 2-ocean in run | 2-ocean fish $<28^{\prime \prime}$ inriver | Hindcast of additional harvest at 50\% exploit. | Actual 2-o harvest | Actual escapement (all ages) | \# above OEG of 5,300 w/additional harvest | Actual \% 2-ocean |  |  | Hindcast of 2-ocean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Run | Escape. | \% escape. <br> /\% run | $\begin{gathered} \text { escape. } \\ \text { w/50 } \% \text { expl } \end{gathered}$ | $\%$ escape. <br> $/ \%$ run |
| 1986 | 4,191 | 1,318 | 659 | 583 | 18,682 | 12,723 | 15\% | 19\% | 1.2 | 16\% | 1.0 |
| 1987 | 393 | 124 | 62 | 116 | 11,780 | 6,418 | 2\% | $2 \%$ | 1.5 | 2\% | 1.2 |
| 1988 | 373 | 117 | 59 | 291 | 5,331 | -27 | 2\% | 1\% | 0.8 | 0\% | 0.2 |
| 1989 | 749 | 236 | 118 | 275 | 9,449 | 4,031 | 4\% | 5\% | 1.2 | 4\% | 0.9 |
| 1990 | 775 | 244 | 122 | 102 | 8,494 | 3,072 | 7\% | 8\% | 1.0 | 6\% | 0.9 |
| 1991 | 801 | 252 | 126 | 0 | 8,834 | 3,408 | 7\% | 9\% | 1.2 | 8\% | 1.0 |
| 1992 | 826 | 260 | 130 | 94 | 7,610 | 2,180 | 8\% | 9\% | 1.1 | 8\% | 1.0 |
| 1993 | 792 | 249 | 125 | 290 | 10,293 | 4,869 | 4\% | 5\% | 1.2 | 4\% | 0.9 |
| 1994 | 651 | 205 | 102 | 303 | 9,947 | 4,544 | 4\% | 3\% | 1.0 | 2\% | 0.7 |
| 1995 | 1,072 | 337 | 169 | 0 | 11,310 | 5,842 | 5\% | 9\% | 1.9 | 8\% | 1.6 |
| 1996 | 1,847 | 581 | 291 | 414 | 16,595 | 11,004 | 8\% | 8\% | 1.1 | 7\% | 0.9 |
| 1997 | 638 | 201 | 100 | 200 | 8,185 | 2,785 | 4\% | 5\% | 1.2 | 4\% | 0.9 |
| 1998 | 1,763 | 555 | 277 | 15 | 7,760 | 2,182 | 19\% | 22\% | 1.1 | 19\% | 1.0 |
| 1999 | 2,069 | 651 | 325 | 677 | 17,276 | 11,651 | 8\% | 8\% | 1.0 | 6\% | 0.8 |
| 2000 | 1,056 | 332 | 166 | 19 | 10,476 | 5,010 | 8\% | 10\% | 1.2 | 8\% | 1.0 |
| 2001 | 2,727 | 858 | 429 | 181 | 14,075 | 8,346 | 16\% | 16\% | 1.0 | 15\% | 0.9 |
| 2002 | 1,133 | 357 | 178 | 116 | 6,185 | 706 | 16\% | 16\% | 1.0 | 14\% | 0.9 |
| 2003 | 4,192 | 1,319 | 659 | 506 | 10,097 | 4,138 | 31\% | 35\% | 1.1 | 31\% | 1.0 |
| 2004 | 2,309 | 726 | 363 | 372 | 11,855 | 6,192 | 15\% | 16\% | 1.1 | 13\% | 0.9 |
| 2005 | 2,541 | 799 | 400 | 252 | 16,387 | 10,688 | 12\% | 14\% | 1.1 | 12\% | 0.9 |
| 2006 | 7,150 | 2,249 | 1,125 | 781 | 18,428 | 12,003 | 31\% | 34\% | 1.1 | 30\% | 1.0 |
| 2007 | 4,264 | 1,341 | 671 | 668 | 12,011 | 6,040 | 26\% | 30\% | 1.1 | 25\% | 1.0 |

Figure 25.- Hindcast of late run 2-ocean Chinook salmon ( $</=28$ ") harvests on the Kenai River, 1986-2007.

| Year | $\begin{gathered} \text { \# 2-ocean } \\ \text { in run } \end{gathered}$ | 2-ocean fish $<28^{\prime \prime}$ inriver | Hindcast of additional harvest at 50\% exploit. | Actual 2-o harvest | Actual escapement (all ages) | \# above OEG <br> of 17,800 <br> w/additional harvest | Actual \% 2-ocean |  |  | Hindcast of 2-ocean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Run | Escape. | $\%$ escape. <br> $1 \%$ run | escape. w/50\% expl | \% escape. <br> /\% run |
| 1986 | 11,973 | 2,313 | 1,156 | 6,023 | 47,375 | 28,419 | 15\% | 13\% | 0.8 | 10\% | 0.7 |
| 1987 | 4,229 | 298 | 149 | 3,466 | 34,900 | 16,951 | 6\% | 2\% | 0.4 | 2\% | 0.3 |
| 1988 | 2,284 | 220 | 110 | 1,668 | 32,137 | 14,227 | 3\% | 2\% | 0.6 | 2\% | 0.5 |
| 1989 | 4,655 | 989 | 494 | 1,771 | 19,256 | 961 | 11\% | 15\% | 1.3 | 13\% | 1.1 |
| 1990 | 5,686 | 1,361 | 680 | 2,248 | 26,508 | 8,028 | 14\% | 13\% | 0.9 | 11\% | 0.7 |
| 1991 | 4,045 | 854 | 427 | 1,856 | 26,695 | 8,469 | 10\% | 8\% | 0.8 | 7\% | 0.7 |
| 1992 | 3,840 | 677 | 338 | 1,962 | 22,524 | 4,386 | 9\% | 8\% | 0.9 | 7\% | 0.8 |
| 1993 | 6,148 | 1,376 | 688 | 2,363 | 33,738 | 15,250 | 9\% | 11\% | 1.3 | 9\% | 1.0 |
| 1994 | 5,213 | 983 | 491 | 2,603 | 35,065 | 16,774 | 7\% | 7\% | 1.0 | 6\% | 0.8 |
| 1995 | 13,287 | 3,276 | 1,638 | 4,449 | 31,255 | 11,817 | 23\% | 28\% | 1.3 | 24\% | 1.1 |
| 1996 | 5,436 | 1,000 | 500 | 2,926 | 30,907 | 12,607 | 10\% | 8\% | 0.8 | 7\% | 0.6 |
| 1997 | 3,470 | 544 | 272 | 2,171 | 26,297 | 8,225 | 7\% | 5\% | 0.8 | 4\% | 0.6 |
| 1998 | 6,718 | 1,721 | 860 | 2,514 | 26,768 | 8,108 | 16\% | 16\% | 1.0 | 13\% | 0.8 |
| 1999 | 8,949 | 1,978 | 989 | 4,415 | 34,962 | 16,173 | 15\% | 13\% | 0.9 | 10\% | 0.7 |
| 2000 | 2,331 | 577 | 288 | 1,024 | 29,627 | 11,538 | 5\% | 4\% | 1.0 | 3\% | 0.7 |
| 2001 | 7,256 | 1,349 | 674 | 5,075 | 17,947 | -528 | 17\% | 12\% | 0.7 | 9\% | 0.5 |
| 2002 | 10,674 | 2,443 | 1,221 | 3,948 | 30,464 | 11,443 | 20\% | $22 \%$ | 1.1 | 19\% | 0.9 |
| 2003 | 21,260 | 4,070 | 2,035 | 11,922 | 23,736 | 3,900 | 30\% | 39\% | 1.3 | 34\% | 1.1 |
| 2004 | 14,054 | 2,606 | 1,303 | 7,646 | 40,198 | 21,095 | 14\% | 16\% | 1.1 | 13\% | 0.9 |
| 2005 | 9,564 | 986 | 493 | 7,077 | 26,046 | 7,753 | 7\% | 10\% | 1.4 | 8\% | 1.1 |
| 2006 | 14,296 | 3,318 | 1,659 | 5,884 | 24,423 | 4,964 | 27\% | 34\% | 1.3 | 30\% | 1.1 |
| 2007 | 15,614 | 3,193 | 1,597 | 8,564 | 33,129 | 13,732 | 26\% | 26\% | 1.0 | 17\% | 0.7 |

Figure 26.- Proportion of 2-ocean fish in the escapement divided by the proportion of fish in the run, as a relative measure of the effect of harvest on the age composition of the escapement, early run Kenai River Chinook salmon, actual and hindcast with $\mathbf{5 0 \%}$ exploitation on fish under $\mathbf{2 8} \mathbf{2 月}^{\prime \prime}$. Estimates of 1 equate to an equal representation for that age class; values of less than 1 equate to an under-representation of the age class in the escapement; values greater than 1 equate to an over-representation of that age class in the escapement.

Early run Kenai River Chinook salmon


Figure 27.- Proportion of 2-ocean fish in the escapement divided by the proportion of fish in the run, as a relative measure of the effect of harvest on the age composition of the escapement, late run Kenai River Chinook salmon, actual and hindcast with $50 \%$ exploitation on fish under $28^{\prime \prime}$. Estimates of 1 equate to an equal representation for that age class; values of less than 1 equate to an under-representation of the age class in the escapement; values greater than 1 equate to an over-representation of that age class in the escapement.

Late run Kenai River Chinook salmon













Age

Figure 28.- Age-length-sex frequency relationships for Kenai River early run Chinook salmon age 1.4 and 1.5, 1986-2007.


Figure 29.- Cumulative proportion of early-run Kenai River Chinook salmon that aged 1.4 that are smaller (solid line), and those aged 1.5 that are larger (dotted line), than each 1 inch increment between 40 and 60 inches in total length.


Figure 30.- Relative harvest selectivity by age for early run Kenai River Chinook salmon, pre-(1986-2002) and post-implementation (2003-2006) of the slot limit. Selectivity estimates less than 1 equate to no selectivity for that age class, 1 equates to no selectivity or neutral for that age class, and values greater than 1 equates to selectivity for that age class.


Figure 31.- Map of the Slikok Creek Chinook salmon sanctuary closure on the Kenai River.


Figure 32.- Map of the Funny River Chinook salmon sanctuary closure on the Kenai River.


Figure 33.- Map of the Killey River Chinook salmon sanctuary closure on the Kenai River.


Figure 34.- Map of the Kenai River Chinook salmon sanctuary closures.


Figure 35.- Historical Late Run Kenai River Chinook Salmon Passage Estimates, 1998-2007.

Historical Late Run Kenai River Chinook Salmon Passage Estimates

|  | 1998 |  | 1999 |  | 2000 |  | 2001 |  | 2002 |  | 2003 |  | 2004 |  | 2005 |  | 2006 |  | 2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Daty | Cum | Daily | Cum | Daily | Cum | Daily | Cum | Daily | Cum | Daily | Cum | Daily | Cum | Daily | Cum | Daily | C.um | Daily | Cum |
| 7/1 | 4)1 | 4)1 | 453 | 453 | 461 | 461 | 697 | 697 | 563 | 563 | 727 | 727 | 1,167 | 1,167 | 1,283 | 1,283 | 580 | 580 | 609 | 609 |
| 7/2 | 597 | 1.088 | 612 | 1,065 | 373 | 834 | 766 | 1,463 | 1,596, | 2,159 | 735 | 1.462 | I,125 | 2,292 | 1,109 | 2,392 | 343 | 923 | 401 | 1,010 |
| 7/3 | 480 | 1,568 | 486 | 1,551 | 370 | 1,204 | 1,075 | 2,538 | 2,456 | 4,615 | 982 | 2,444 | 1,053 | 3,345 | 1,204 | 3.596 | 269 | 1,192 | 450 | 1,460 |
| 7/4 | 450 | 2,018 | 396 | 1,947 | 488 | 1,692 | 714 | 3,252 | 1,455 | 6,470 | 1,212 | 3,656 | 715 | 4,060 | 778 | 4,374 | 844 | 2, 1136 | 501 | 1,961 |
| $7 / 5$ | $60 \%$ | 2,624 | 369 | 2,316 | 787 | 2,480 | 676 | 3,928 | 1,949 | 8,419 | 1,684 | 5,340 | 842 | 4,922 | 1,454 | 5,828 | 953 | 2,989 | 506 | 2,467 |
| 7/6 | 612 | 3,236 | 683 | 2,999 | 778 | 3,258 | 645 | 4,573 | 1,205 | 9,624 | 1,462 | 6,802 | 1,231 | 6,133 | 1,020 | 6,848 | 718 | 3,707 | 510 | 2.977 |
| 7/7 | 660 | 3,896 | 936 | 3,935 | 1,020 | 4,278 | 887 | 5,460 | 1,241 | 10,865 | 1,322 | 8,124 | 1,932 | 8,065 | 863 | 7,711 | 828 | 4,535 | 578 | 3,555 |
| 7/8 | 462 | 4,358 | 1,030 | 4,965 | 1,713 | 5,991 | 751 | 6,211 | 1,069 | 11,934 | 1,666 | 9,790 | 1,287 | 9,352 | 882 | 8,593 | 1,269 | 5,4014 | 1,051 | 4,606 |
| 7/9 | 480 | 4,838 | 1,047 | 6,012 | 1,632 | 7,623 | 568 | 6,779 | 1,618 | 13,552 | 1,183 | 10,973 | 815 | 10,167 | 1,687 | 10,280 | 814 | 6,618 | 601 | 5,207 |
| 7/10 | 450 | 5,287 | 717 | 6,729 | 1,461 | 9,084 | 908 | 7,687 | 1,533 | 15,085 | 1,880 | 12,853 | 757 | 10,224 | 1,616 | 11,896 | 446 | 7,064 | 500 | 5,707 |
| 7/11 | 171 | 5,459 | 1,059 | 7,788 | 1,038 | 10,122 | 858 | 8,545 | 1,369 | 16,454 | 1,693 | 14,546 | 1,06t | 11,985 | 1,475 | 13,371 | 310 | 7,374 | 927 | 6,634 |
| 7/12 | 192 | 5,651 | 560 | 8,348 | 1,506 | 11,628 | 575 | 9,120 | 1.245 | 17,699 | 1,289 | 15,835 | 1,208 | 1,3,193 | 2,557 | 15,928 | 4.31 | 7,805 | 710 | 7,344 |
| 7/13 | 262 | 5,912 | 401 | 8,749 | 2,327 | 13,955 | 1,148 | 10,268 | 1,288 | 18,987 | 1,227 | 17,(162 | 2,567 | 15,760 | 1,643 | 17,571 | 376 | 8,181 | 527 | 7,671 |
| 7/14 | 368 | 6.280 | 969 | 9,718 | 2,709 | 16,664 | 1,448 | 11,716 | 1,034 | 20,021 | 697 | 17,759 | 2,577 | 18,337 | 1,203 | 18,774 | 644 | 8,825 | 1,037 | 8.908 |
| 7/15 | 1,118 | 7.398 | 636 | 10,354 | 2,808 | 19,472 | 1,338 | 13,054 | 450 | 20,471 | 1,212 | 18,971 | 1,943 | 20,280 | 1,427 | 20,201 | 1,925 | 10,750 | 1,282 | 10,190 |
| 7/16 | 1,416 | 8,814 | 927 | 11,281 | 2,264 | 21,735 | 1,201 | 14,255 | 1,25.3 | 21,724 | 1,107 | 20,078 | 2,718 | 22,998 | 1,811 | 22,012 | 2,260 | 13.016 | 6.67 | 10,857 |
| 7/17 | 1,424 | 10,238 | 3,558 | 14,839 | 1,915 | 23,650 | 2,415 | 16,670 | 1,481 | 23,205 | 1,482 | 21,560 | 2,262 | 25,260 | 1,710 | 23,720 | 1,116 | 14,132 | 776 | 11,633 |
| 7/18 | 1,638 | 11,876 | 2,784 | 17,623 | 2,154 | 25,804 | 2,065 | 18,735 | 1,(K)1 | 24,206 | 1,731 | 23,291 | 2,008 | 27,268 | 1.142 | 24,864 | 1,207 | 15,339 | 1,729 | 13,362 |
| 7/19 | 1,146 | 13,022 | 1,869 | 19,492 | 1,919 | 27,722 | 1,568 | 20,303 | 915 | 25,121 | 1,773 | 25,064 | 1,753 | 29, (21 | 1,780 | 26,650 | 1,307 | 16,646 | 1,754 | 15,116 |
| 7/20 | 741 | 13,763 | 3,471 | 22,963 | 1,155 | 28,877 | 994 | 21,297 | 964 | 26,185 | 1,384 | 26,448 | 1,566 | 30,587 | 1,091 | 27,741 | 1,575 | 18,221 | 2,153 | 17,269 |
| $7 / 21$ | 1,608 | 15,370 | 3,354 | 26,317 | 933 | 29,810 | 786 | 22,083 | 970 | 27,055 | 1,153 | 27,601 | 1,757 | 32,344 | 847 | 28,588 | 1,259 | 19,480 | 1,677 | 18,946 |
| 7/22 | 1,411 | 16,781 | 1,998 | 28,315 | 702 | 30,512 | 497 | 22,580 | 845 | 27,9(H) | 2,159 | 29,760 | 1,401 | 33,745 | 752 | 20,340 | 1,017 | 20,497 | 2,751 | 21,697 |
| 7/23 | 408 | 17,500 | 1,875 | 30,190 | 760 | 31,272 | 520 | 23,106 | 1,637 | 29,537 | 1,693 | 31,453 | 1,812 | 35,557 | 712 | 30,052 | 933 | 21.430 | 1,901 | 23,598 |
| 7/24 | 933 | 18,523 | 1,748 | 31,939 | 1,868 | 33,140 | 529 | 23,635 | 1,175 | 30,712 | 1,774 | 33,227 | 2,044 | 37,601 | 662 | 30,714 | 639 | 22,169 | 3.008 | 26,606 |
| 7/25 | 542 | 19,065 | 1,937 | 33,675 | 1,761 | 34,901 | 676 | 24,311 | 974 | 31,686 | 1.525 | 34,752 | 1,107 | 38,708 | 782 | 31,496 | 958 | 23,127 | 3,400 | 30,096 |
| 7/26 | 723 | 19,788 | 1,098 | 34,973 | 1,034 | 35,935 | 667 | 24,978 | 930 | 32,616 | 1,149 | 35,901 | 941 | 39.649 | 1,050 | 32,546 | 874 | 23,901 | 2,659 | 32,755 |
| 7/27 | 807 | 20,595 | 3,060 | 38,039 | 992 | 36,927 | 776 | 25,754 | 591 | 33,207 | 1,449 | 37,350 | 2,277 | 41,926 | 985 | 3, 3,531 | 1,073 | 24,974 | 3,357 | 36,112 |
| 7/28 | 954 | 21,549 | 1,358 | 39,398 | 999 | 37,926 | 1,069 | 26,823 | 707 | 33,914 | 909 | 38,259 | 1,540 | 43,466 | 814 | 34,345 | 1,291 | 26,265 | 1,779 | 37,891 |
| 7/29 | 1.255 | 22,803 | 1,185 | 40,583 | 1,029 | 38,955 | 929 | 27,752 | 406 | 34,320 | 808 | 39,667 | 1,724 | 45,190) | 989 | 35,334 | 1,602 | 27,867 | 859 | 38,750 |
| 7/30 | 1,556, | 24,300) | 969 | 41,551 | 577 | 39,533 | 508 | 28,260 | 571 | 34,891 | 691 | 39,758 | 1,523 | 46,713 | 1,059 | 36,393 | 1,225 | 29,092 | 922 | 39,672 |
| 7/31 | 1,344 | 25,704 | 1,308 | 42,859 | 549 | 40,082 | 883 | 29,143 | 540 | 35,431 | 751 | 40,509 | 1,480 | 48,193 | 819 | 37,212 | 762 | 29,854 | 1,341) | 41,012 |
| 8/1 | 909 | 26,613 | 591 | 43,450 | 695 | 40,777 | 455 | 29,598 | 642 | 36,073 | 377 | 40,886 | 1,678 | 49,271 | 689 | 37,901 | 669 | 30,523 | 866 | 41,878 |
| 8/2 | 1,512 | 28,125 | 468 | 43,919 | 421 | 41,198 | 459 | 30,057 | 553 | 36,626 | 394 | 41,280 | 688 | 49,959 | 682 | 38,583, | 605 | 31,128 | 330 | 42,208 |
| 8/3 | 1,006 | 29,130 | 642 | 44,561 | 294 | 41,492 | 504 | 30,561 | 752 | 37,378 | 379 | 41,659 | 722 | 50,681 | 660 | 39,243 | 576 | 31,704 | 397 | 42,605 |
| 8/4 | 1,131 | 30,261 | 444 | 45,005 | 453 | 41,945 | 840 | 31,401 | 995 | 38,373 |  |  | 754 | 51,435 | 587 | 39,830 | 769 | 32,473 | 374 | 42,979 |
| 8/5 | 1,694 | 31,355 | 436 | 45,440 | 489 | 42,434 | 581 | 31,982 | 575 | 38,948 |  |  | 940 | 52,375 | 464 | 40,294 | 1,632 | 34,105 |  |  |
| 8/6 | 864 | 32,219 | 654 | 46,094 | 504 | 42,938 | 417 | 32,399 | 754 | 39,702 |  |  | 1,(0) | 53,384 |  |  | 912 | 35,017 |  |  |
| 8/7 | 84.3 | 33,062 | 678 | 46,772 | 366 | 43,304 | 618 | 33,017 | 676 | 40,378 |  |  | 905 | 54,289 |  |  | H80 | 35,897 |  |  |
| 8/8 | 750 | 33,812 | 8174 | 47,576 | 417 | 43,721 | 467 | 33,484 | 636 | 41,014 |  |  | 854 | 55,142 |  |  |  |  |  |  |
| 8/9 | 570 | 34,382 | 328 | 47,904 | 399 | 44,120 | 232 | 33,716 | 456 | 41,470 |  |  | 611 | 55,754 |  |  |  |  |  |  |
| 8/10 | 496 | 34,878 | 165 | 48,069 | 397 | 44,517 | 200 | 33,916 | 3.37 | 41,807 |  |  | 451 | 56,205 |  |  |  |  |  |  |
| 8/11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8/12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8/13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8/14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8/15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  | 34,878 |  | 48,069 |  | 44,517 |  | 33,916 |  | 41,807 |  | 41,659 |  | 56,205 |  | 40,294 |  | 35,897 |  | 42,979 |

Table 9.- Estimated sport harvest of Kenai River coho salmon by river section, 1977-2006.

|  | Lower Section ${ }^{\text {a }}$ |  |  | Middle Section ${ }^{\text {8 }}$ |  |  | Upper Section ${ }^{\text {a }}$ |  |  | Inter-Lake ${ }^{\text {d }} \quad$Kenai River Reach Not <br> Specified $^{\text {e }}$ |  |  |  |  |  | All Sections |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Early Run | $\begin{aligned} & \text { Late } \\ & \text { Run } \\ & \hline \end{aligned}$ | Total | Early <br> Run | $\begin{aligned} & \text { Late } \\ & \text { Run } \end{aligned}$ | Total | Early <br> Run | Late <br> Run | Total | Early <br> Run | Late <br> Run | Total | Early <br> Run | Late <br> Run | Total | Early <br> Run | $\begin{aligned} & \text { Late } \\ & \text { Run } \end{aligned}$ | Total |
| 1977 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9,537 |
| 1978 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10,823 |
| 1979 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 15,276 |
| 1980 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 26,838 |
| 1981 |  |  | 12,280 |  |  | 3,326 |  |  | 6,178 |  |  | 540 |  |  |  |  |  | 22,324 |
| 1982 |  |  | 26,582 |  |  | 3,904 |  |  | 7,200 |  |  | 1,729 |  |  |  |  |  | 39,415 |
| 1983 |  |  | 12,231 |  |  | 4,007 |  |  | 4,867 |  |  | 1,573 |  |  |  |  |  | 22,678 |
| 1984 |  |  | 40,173 |  |  | 7,596 |  |  | 8,065 |  |  | 3,810 |  |  |  |  |  | 59,644 |
| 1985 |  |  | 22,579 |  |  | 6.781 |  |  | 12,774 |  |  | 2,401 |  |  |  |  |  | 44,535 |
| 1986 |  |  | 38,338 |  |  | 10,336 |  |  | 8,348 |  |  | 3,088 |  |  |  |  |  | 60,110 |
| 1987 |  |  | 19,612 |  |  | 6,222 |  |  | 4,077 |  |  | 3,299 |  |  |  |  |  | 33,210 |
| 1988 |  |  | 34,690 |  |  | 4,863 |  |  | 5,714 |  |  | 3,427 |  |  |  |  |  | 48,694 |
| 1989 |  |  | 36,668 |  |  | 7,921 |  |  | 8,236 |  |  | 2,434 |  |  |  |  |  | 55,259 |
| 1990 |  |  | 40,567 |  |  | 8,446 |  |  | 7,281 |  |  | 4,031 |  |  |  |  |  | 60,325 |
| 1991 |  |  | 49,499 |  |  | 13,438 |  |  | 9,520 |  |  | 3,699 |  |  |  |  |  | 76,156 |
| 1992 |  |  | 33,175 |  |  | 7,579 |  |  | 7,547 |  |  | 4,009 |  |  |  |  |  | 52,310 |
| 1993 |  |  | 29,135 |  |  | 9,677 |  |  | 6,771 |  |  | 4,955 |  |  |  |  |  | 50,538 |
| 1994 |  |  | 46,345 |  |  | 15,249 |  |  | 12,286 |  |  | 12,831 |  |  |  |  |  | 86,711 |
| 1995 | 20,031 | 11,808 | 31,839 | 4,842 | 1,131 | 5,973 | 2,785 | 2,794 | 5,579 | 2,065 | 727 | 2,792 |  |  |  | 29,723 | 16,460 | 46,183 |
| 1996 | 17,551 | 5,010 | 22,561 | 8,347 | 2,076 | 10,423 | 4,371 | 1,682 | 6,053 | 2,457 | 799 | 3,256 |  |  |  | 32,726 | 9,567 | 42,293 |
| 1997 | 5,570 | 1,293 | 6,863 | 2,858 | 1,319 | 4,177 | 1,752 | 1,330 | 3,082 | 1,587 | 455 | 2,042 |  |  |  | 11,767 | 4,397 | 16,164 |
| 1998 | 9,955 | 5,506 | 15,461 | 3,667 | 1,430 | 5,097 | 2,373 | 1.833 | 4,206 | 1,764 | 439 | 2,203 |  |  |  | 17,759 | 9,208 | 26,967 |
| 1999 | 14,413 | 6,029 | 20,442 | 4,732 | 654 | 5,386 | 1,268 | 1,812 | 3,080 | 1,951 | 778 | 2,729 |  |  |  | 22,364 | 9,273 | 31,637 |
| 2000 | 22,392 | 8,444 | 30,836 | 8,185 | 1,880 | 10,065 | 3,894 | 1,159 | 5,053 | 1.652 | 913 | 2,565 |  |  |  | 36,123 | 12,396 | 48,519 |
| 2001 | 23,501 | 8,977 | 32,478 | 7,381 | 1,947 | 9,328 | 3,565 | 1,986 | 5,551 | 1,672 | 753 | 2,425 |  |  |  | 36,119 | 13,663 | 49,782 |
| 2002 | 27,062 | 9,641 | 36,703 | 8,220 | 2,630 | 10,850 | 2,663 | 2,406 | 5,069 | 3,965 | 886 | 4,851 | 1,552 | 625 | 2,177 | 43,462 | 16,188 | 59,650 |
| 2003 | 20,093 | 5,963 | 26,056 | 8,961 | 2,029 | 10,990 | 3,160 | 1,517 | 4,677 | 2,690 | 490 | 3,180 | 1,367 | 352 | 1,719 | 36,271 | 10,351 | 46,622 |
| 2004 | 29,606 | 12,010 | 41,616 | 9,145 | 4,055 | 13,200 | 3,492 | 2,234 | 5,726 | 2,733 | 868 | 3,601 | 1,135 | 637 | 1,772 | 46,111 | 19,804 | 65,915 |
| 2005 | 17,331 | 7,810 | 25,141 | 10,793 | 3,563 | 14,356 | 1,697 | 2,739 | 4,436 | 2,310 | 2,103 | 4,413 | 1,699 | 366 | 2,065 | 33,830 | 16,581 | 50,411 |
| 2006 | 13,817 | 7,132 | 20,949 | 4,800 | 2,331 | 7,131 | 1,890 | 2,939 | 4,829 | 2,638 | 890 | 3,528 | 797 | 405 | 1,202 | 23,942 | 13,697 | 37,639 |
| Mean | 18,444 | 7.469 | 28,955 | 6,828 | 2,087 | 8,320 | 2,743 | 2,036 | 6,393 | 2,290 | 842 | 3,439 | 1,310 | 477 | 1,787 | 30,850 | 12,632 | 43,206 |

[^9]Figure 36.- Estimated sport harvest of coho salmon on the Kenai River, 1977-2006.

Estimated Sport Harvest of Kenai River Coho Salmon, 1977-2006


Figure 37.- Various harvests of Kenai River coho salmon by fishery, 1993-2005.


Table 10.- Estimated abundance of coho salmon in the Kenai, 1999 through 2004, with estimates of escapement.

| Year ${ }^{1}$ | Estmate Type | Estimate Interval ${ }^{2}$ | Estimated Total Abundance at Fish Wheels | Standard <br> Error | Estimated <br> Capture/ <br> Tagging <br> Mortality ${ }^{3}$ | Standard <br> Error | Discounted <br> Fish Count ${ }^{+}$ | Estimated Live Abundance at Fishwheels | Standard <br> Error | Estimated Upstream Sport Harvest ${ }^{3.6}$ | Standard <br> Error | Estimated <br> Escapement | Standard <br> Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | Pooled Petersen | 8/6-9/30 | 23,001 | 5,154 | 175 | 18 | 18 | 22,808 | 5,157 | 15,112 | 1,171 | 7,696 | 5,288 |
| 2000 | Pooled Petersen | 8/1-10/6 | 89,918 | 9,295 | 515 | 93 | 40 | 89,363 | 9,322 | 16,621 | 1,165 | 72,742 | 9,395 |
| 2001 | ML Darroch | 8/2-9/30 | 93,524 | 16,502 | 528 | 88 | 12 | 92,984 | 16,502 | 17,862 | 1,540 | 75,122 | 16,574 |
| 2002 | ML Darroch | 8/2-9/30 | 156,960 | 20,256 | 942 | 235 | 26 | 155,992 | 20,255 | 22,380 | 1,442 | 133,612 | 20,306 |
| 2003 | ML Darroch | 8/4-9/30 | 99,309 | 36,085 | 190 | 74 | 19 | 99,100 | 36,085 | 19,185 | 1,372 | 79,915 | 36,111 |
| 2004 | ML Darroch | 8/1-9/30 | 120,489 | 9,008 | 2,097 | 372 | 9 | 118,383 | 9,000 | 22,989 | 2,692 | 95,394 | 9,394 |



- Estimutes of ahurdence pentuin to his lempryal interval.





Table 11.- Estimates of total return, exploitation, and marine survival for coho salmon from the Kenai River, 1999 through 2004.

| Year ${ }^{1}$ | Estimated Total Abundance at Fish Wheels ${ }^{1}$ | Standard <br> Error | Estimated Downstream Sport Harvest ${ }^{2,3}$ | Standard <br> Error | Estimated Personal Use Harvest | Standard <br> Error | Estimated Commercial Harvest ${ }^{4}$ | Standard <br> Error | Estimated Total Run | Standard <br> Error | $\begin{gathered} \hline \text { Estimated } \\ \text { Grand } \\ \text { Total } \\ \text { Harvest }{ }^{5} \\ \hline \end{gathered}$ | Standard <br> Eттг | Estimated Exploitation Rate ${ }^{\text {E }}$ | Standard <br> Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | 23,001 | 5,154 | 20,442 | 1,454 | 1,009 | 108 | 3,894 | 326 | 48.346 | 5,366 | 40,457 | 1,898 | 0.84 | 0.05 |
| 2000 | 89,918 | 9,295 | 35,868 | 1,740 | 1,449 | 62 | 2,965 | 255 | 130,200 | 9,460 | 56,903 | 2,110 | 0.44 | 0.02 |
| 2001 | 93,524 | 16,502 | 37.142 | 1,878 | 1,555 | 105 | 1,934 | 176 | 134,155 | 16,610 | 58,493 | 2,438 | 0.44 | 0.04 |
| 2002 | 156,960 | 20,256 | 43,724 | 2.516 | 1,721 | 96 | 6,115 | 499 | 208,520 | 20,418 | 73,940 | 2,934 | 0.35 | 0.02 |
| 2003 | 99,309 | 36,085 | 32,759 | 1,908 | 1,332 | 68 | 2.578 | 263 | 135,978 | 36,137 | 55.854 | 2,366 | 0.41 | 0.09 |
| 2004 | 120,489 | 9,008 | 49.576 | 10.577 | 2,661 | 66 | 11,149 | 1,232 | 183,875 | 13.948 | 86.375 | 10,984 | 0.47 | 0.02 |

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Figure 38.- Kenai River fish wheel abundance index results, 2005-2007.


A Kenai River fish wheel-based coho salmon abundance index was conducted during 2005-2007, the index estimated abundance to be average (between 50K and 120K) in 2005 and 2006 and low ( $>50 \mathrm{~K}$ ) in 2007. Confidence in the index is poor.

Figure 39.- Russian River weir coho salmon escapement through Sept. 4th, 1990-2007.

Cumulative Russian River Coho Salmon Escapement on September 4, 1990-2007


Figure 40.- Kenai River coho salmon smolt abundance, 1992-2007.


Kenai River coho salmon smolt estimates, 1992-2007.

Drainage-wide

| Year | Drainage-wide <br> Smolt Abundance |
| ---: | ---: |
| 1992 | 879,290 |
| 1993 | 977,964 |
| 1994 | 628,909 |
| 1995 | 465,075 |
| 1996 | 534,323 |
| 1997 | 374,255 |
| 1998 | 797,798 |
| 1999 | 578,355 |
| 2000 | 601,236 |
| 2001 | 641,693 |
| 2002 | 626,335 |
| 2003 | $1,196,310$ |
| 2004 | $1,066,324$ |
| 2005 | 841,876 |
| 2006 | 648,400 |
| 2007 | not avail. |
| Average | 723,876 |

Table 12.- Estimated harvest, total return and exploitation of Kenai River coho salmon (2000-2004) with hypothetical effects of increasing the bag limit from 2 to 3 fish.

| Run Component | 2000 | 2001 | 2002 | 2003 | 2004 | Average number of fish | Average 2000-2004 percent of total run |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Escapement ${ }^{\text {b }}$ | 72,742 | 75,122 | 133,612 | 79,915 | 95,394 | 91,357 | 57.6\% |
| Research mortality and discounted fish | 555 | 540 | 968 | 209 | 2,106 | 876 | 0.6\% |
| Sport harvest: two fish limit ${ }^{\text {f }}$ | 52,489 | 55,004 | 66,104 | 51,944 | 72,565 | 59,621 | 37.6\% |
| Personal use harvest | 1,449 | 1,555 | 1,721 | 1,332 | 2,661 | 1,744 | 1.1\% |
| Commercial harvest ${ }^{\text {d }}$ | 2,965 | 1,934 | 6,115 | 2,578 | 11,149 | 4,948 | 3.1\% |
| Total run ${ }^{\text {e }}$ | 130,200 | 134,155 | 208,520 | 135,978 | 183,875 | 158,546 |  |
| Total harvest | 56,903 | 58,493 | 73,940 | 55,854 | 86,375 | 66,313 |  |
| Average 2000-2004 exploitation rate ${ }^{\text {f }}$ |  |  |  |  |  |  | 42.2\% |
| 1999 exploitation rate ${ }^{\text {1,g }}$ |  |  |  |  |  |  | 83.7\% |
| Average 1999-2004 exploitation rate ${ }^{\text {f. }}$ |  |  |  |  |  |  | 49.1\% |
| Additional harvest due to bag limit increase (entire season) | 8,032 | 8,417 | 10,115 | 7,949 | 11,104 | 9,123 | 5.8\% |
| Additional harvest due to bag limit increase (Sept. only) | 2,206 | 2,311 | 2,778 | 2,183 | 3,049 | 2,505 | 1.6\% |

Note: 1991-1993 and 1998 Kenai River coho salinon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991-1993 due to the lack of data from shore anglers; sho a Kenai River coho salmon total returns ere estimated during 1999-2004, 1999 was not included here because it appears the run was atypically low.
b Sources: Carlon and Evans 2007, Massengill and Evans 2007.
c Source: Statewide Harvest Survey.
d Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.
e Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).
$f$ (Estimated Grand Total Harvest) / (Estimated Total Return).
g 1999 exploitation was $84 \%$ and is included here to show how a exploitation on a weak return.

Figure 41.- Analysis for extension of Kenai River mainstem coho salmon sport fishery season into November.



Table 13.- Estimated daily harvest of Kenai River coho salmon in some Upper Cook Inlet fisheries under differing fishery participation scenarios.a,b,c.

| Upper Cook Inlet Fisheries | Scenario if August participation is similar to 1990s average |  | Scenario if August participation is similar to 05-07average |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Average Daily harvest | Daily exploitation increase | Average Daily harvest | Daily exploitation increase |
| ESSN Set Net ${ }^{\text {d }}$ | 1,976 | 1.25\% | 1,205 | 0.76\% |
| Regular drift ${ }^{\text {e }}$ | 295 | 0.19\% | 186 | 0.12\% |
| Corridor only drift ${ }^{\text {f }}$ | 52 | 0.03\% | 33 | 0.02\% |
| Combined Fisheries |  |  |  |  |
| Regular drift and ESSN | 2,271 | 1.43\% | 1,392 | 0.88\% |
| Corridor and ESSN | 2,028 | 1.28\% | 1,238 | 0.78\% |

[^10]Statement to BOF on January 30, 2008
By Dave Carey, Soldotna Mayor

## Good Afternoon:

As Mayor of Soldotna, I wish to welcome each of you to Soldotna and express my appreciation for your presence here today. As you know, many of the Board of Fish proposals deal with the Kenai Peninsula and your decisions will influence the livelihoods of many of us and well as our economic future and that of our children.

I also represent the City of Soldotna on the Kenai River Special Management Area Board of which I am currently President.

For many people, the Kenai River and associated waterways and habitat are the reason we choose to live here. The quality of life we wish to enjoy is critically linked to the sustainability and health of the Kenai River. Last year's ice damage and floods cost many of us a great deal and we continue to restore the damage done.

Most importantly though, is the recent decision to list the Kenai River as an impaired water body. Without specific and direct mitigation, we could see the federal government use this determination as the reason for the feds taking over control of the Kenai River. We do not need people in Washington, D.C. making decisions for us about our resource and our livelihood. Please adopt proposals that will reasonably correct the hydrocarbon issue. July is obviously the critical month and now is the time to set in motion real and specific remedies.

For our local Peninsula people, the Kenai River is the single most important economic engine we have. For the City of

Soldotna, over 90\% of our tax revenue comes from Sales Taxes and the economic influence from tourism, related to all types of fishing, is the single stronger driver of that engine. You should not and must not restrict that engine of economic wellbeing.

At the same time, please assure local and state residents access to the River and it's resources. We are the ones committed to a healthy, sustainable resource. We are the ones who take care of the River and we are the ones who should be allowed to enjoy it the most frequently.

In the past year alone, the City of Soldotna has spent or budgeted $\mathbf{\$ 1 , 2 6 5 , 0 0 0}$ on the River. It is our most valuable resource and all of us must prudently protect it and assure it's sustainability.

Thank you again for coming down here.

Dave Carey, Mayor


[^0]:    ${ }^{\text {a }} \mathrm{C} \& \mathrm{R}$ - Catch and Release only, retention of rainbow trout not allowed.

[^1]:    From: Mills 1979-1980, 1981 a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d;
    Walker et al. 2003: Jennings et al. 2004, 2006 a-b, 2007, In prep.
    " Catch data not available until 1990.

[^2]:    ${ }^{\text {a }}$ Commonly referred to as the Tote Road Lakes
    Derks Lake was likely point of introduction, confirmed presence in 1977.

[^3]:     and Fish Creek dip net).

[^4]:    ${ }^{\text {a }}$ Harvest and participation during first 2 years of fishery are field creel survey estimates. 1983-1995 data are from Statewide Harvest Survey (Mills [9831994, Howe et al. 1995, 1996). 1996-2006 total reported harvest from retumed permits, expanded to include permits not returned.
    ${ }^{\text {b }}$ 1981-1995 is individual days fished. 1996-2006 is household days fished. Each household day fished may include fishing effort by more than one household member named on the household's permit.
    c The tishery was closed from July 14 at 6:00 a.m. to July 15 at 6:00 p.m. as a precautionary measure due to possible oil contamination.
    ${ }^{\text {d }}$ Fishery ciosed on Wednesday and Saturday due to subsistence/personal use permit fishery. Total days reflect this closure.

    - 2007 harvest and participation numbers not available.

[^5]:    ${ }^{1}$ Reported from the Kenai River dip net, Kasilof River dip net, and Kasilof River gill net personal use fisheries; excludes Fish Creek (open only in 2001) and harvests reported from unknown fisheries.

[^6]:    "Data from Howe et al. (200 la), Walker et al. (2003) and Jennings et al. (2004, 2006 a-b, 2007, im prep)
    ${ }^{1}$ Excludes age-. I fish 1999-2007.
    "Numbers taken from an inseason creel survey.
    ${ }^{4}$ Weir nor operational.

[^7]:    ${ }^{\text {a }}$ Data from Howe et al. (2001a), Walker et al. (2003) and Jennings et al. (2004, 2006 a-b, 2007, in prep ).
    ${ }^{\mathrm{b}}$ data will be available from the SWHS in fall 2008.

[^8]:    ${ }^{3}$ Source Hammarstrom and Timmons 2001b. Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the statewide harvest survey for Soldotna Bridge to the outke of Kenal Lake.
    ${ }^{6}$ Some Harvest is below sonar and not counted against escapement
    ' Eastside set net personal use.
    "Total number of chinook salmon harvested in fisherv. No commercial drift net fishery conducted in 1989 due to Ercon Valdez oil spill.
    ${ }^{\text {c }}$ Source Brannian and Fox 1996.
    ${ }^{5}$ Souce 1986-1993 Bramian and Fox 1996: 1995 Ruesch and Fox 1996; 1996-2000) are estimates from retumed permits.
    ${ }^{*}$ Sonar counts for 1996 and 1997 were 49.755 and 49,933 . respectively (Bunven and Bosch 1998, Bosch and Burwen 1999). Escapement and total return estimates are calculated usians radiotelemetry taggiag estimates shown here (Hammarstrom and Timmons 2001b)
    ${ }^{\text {h }}$ Harvest estimate does not include Kasilof River terminal fishery.
    i Prelinary numbers.

[^9]:    All data from Statewide Harvest Survey (Mills 1979-1980, 1981a-b. 1982-1994, Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006 a-b. 2007, in prep)
    "Cook !nlet to Soldotna Bridge.
    "Soldotna Bridge to Moose River.

    - Moose River to Skilak Lake
    ${ }^{4}$ Skilak Lake to Kenni Lake.
    "Kenai River Reach Not Specifled. Adopted by the SWHS beginning in 20012.

[^10]:    * Note: The actual number of days during an extension when fishing is allowed is unknown, but is calculated by multiplying the average daily harvest of all
    b Commercial coho salmon harvest data source: ADF\&G Commercial Fish Division Fish Ticket Database for Salmon (Zephyr) 1993-1999.
    c Source data for Kenai River coho salmon contribution rates: Carlon and Hasbrouck 1994-1998; Carlon 2000 and 2003.
    d ESSN = Statistical areas 24421, 24422, 24431, 24432, 2444 I and 24442
    e Regular Drift = Statistical areas 24450, 24460, 24470, 24570, 24580, and 24590.
    f Corridor Drift $=$ Statistical areas 24451, 24455 and 24461.

