

# STATE OF ALASKA



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MEMORANDUM

**TO:** Mel Morris, Chairman - Alaska Board of Fisheries

**FROM:** John Hilsinger   
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And  
Charles O. Swanton   
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**DATE:** January 24, 2008

**SUBJECT:** Upper Cook Inlet potential management options

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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 1 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 1; (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.

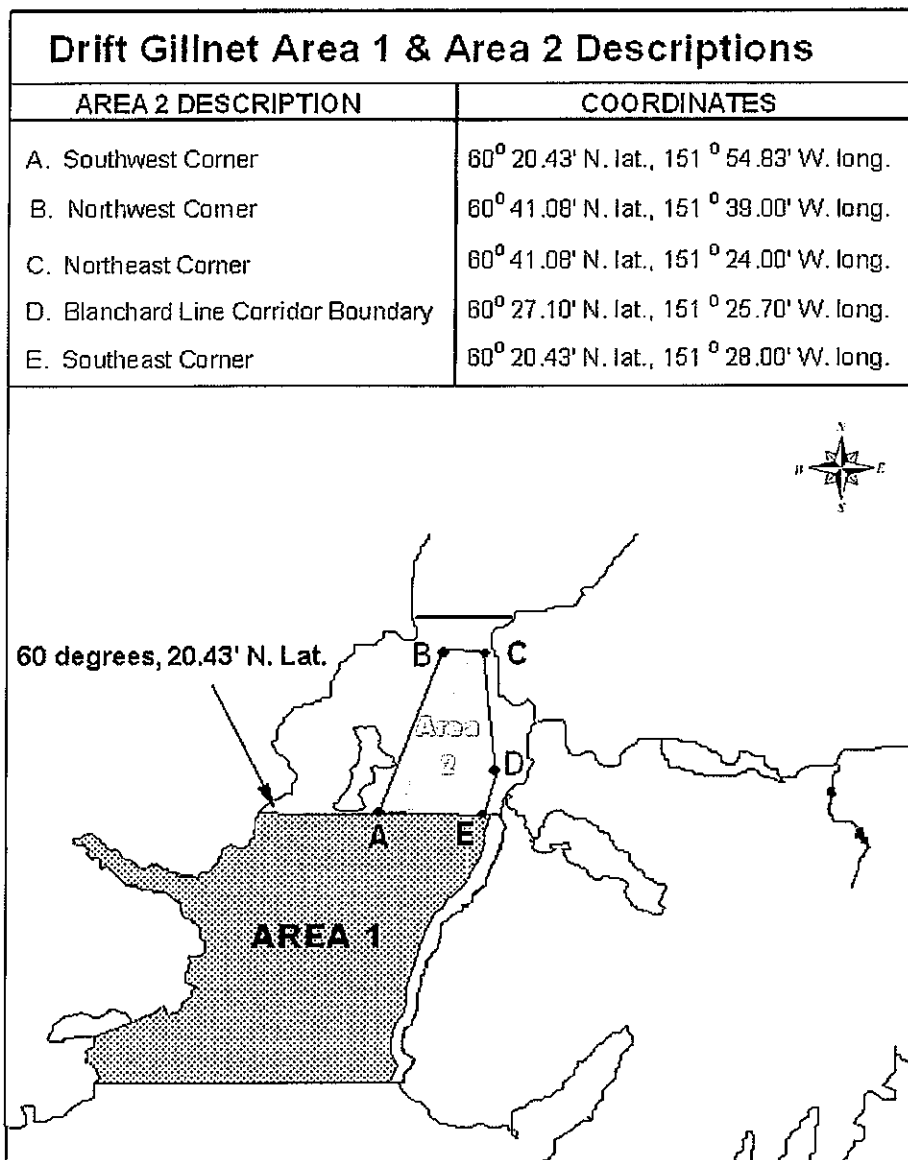


Figure 1.—Drift gillnet boundaries for fishing areas 1 and 2.

## 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 (8 years)	Yentna R.	Kenai R. (OEG)	Kenai R. (IRG)	Kasilof R. (BEG)	Kasilof R. (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.

<b>Current UCI Mgmt. Plan (3 Tiers)</b>			
Kenai River			Actual Run in Same Tier 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
<b>Correct</b>			<b>11%</b>

<b>Run &lt; 2 million</b>	<b>Run 2–4 million</b>	<b>Run &gt; 4 million</b>
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.

<b>Plan With a 2 Tier system (3 million)</b>			
Kenai River Run			Actual Run in Same Tier as 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
<b>Correct</b>			<b>78%</b>

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 in runs greater than 4 million sockeye)
36 hour fixed window	36 hour window that can be fished into if needed to control escapement into 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 decrease 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 (g) and (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 Section after July 8.