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Chum Salmon Bycatch Avoidance Measures for addition to Existing Chinook Salmon IPAs

The following chum salmon IPA program has been developed in cooperation by all 3 IPA groups for universal implementation in each of the three Amendment 91 Chinook salmon Incentive Plan Agreements. Consistent with chum protection measures currently in place, the industry has modified the current RHS program with two primary objectives in mind.

- I. Provide a higher level of bycatch reduction for mature chum salmon during the months of June and July than provided by the current Amendment 84 RHS program.
- II. From August 1st on, the IPA/RHS program continues to provide chum salmon bycatch avoidance while allowing for increased pollock harvest opportunities intended to reduce the bycatch of Chinook salmon that normally increases on or around September 1st of each B season.

The chum salmon IPA/RHS elements, along with reference comparisons to the current Amendment 84 RHS program, are as follows:

1. A modified rolling hot spot (RHS) program that utilizes industry-wide pollock harvest and chum salmon bycatch data with closure area classifications that are applied at the coop level.

- *Both the IPA chum program and the current Amendment 84 program operate using industry-wide data with closures applied at the coop level. There has been much discussion regarding coop vs. individual vessel application of closure area assignments. On one hand there is a concern that some vessels in coops not closed out of areas (Tier One) could fish in high bycatch areas under the "clean fishing cover" provided by other coop members. On the other hand, a program run at the individual vessel level offers an opportunity for Tier One vessels within a coop to rotate their fishing between clean and dirty areas in a manner that always maintains their Tier One status.*

While there are offsetting gaming possibilities under both scenario, in practice vessels generally avoid high bycatch areas regardless of their Tier assignment. Therefore, the single best reason to run an RHS program at the coop level is to avoid confusion within the fleet regarding closure areas and to what vessels the closures are applied. It is far easier for a captain to maintain awareness of closures when all vessels within the cooperative are managed similarly.

2. Closure announcements begin on June 17th of each B season.

- *Under A-84 there is no set start date; the addition of a "date certain" for the commencement of RHS announcements assures a set start to the program.*

3. Tier Level assignments.

- a. The program would operate with two Tier levels; Tier 1 coops are able to fish inside a closure for an entire week. Tier 2 coops are not allowed to fish in closures for the entire week.
- b. Coops assigned to Tier 1 have a 2 week average bycatch that is less than 75% of Base Rate,
- c. Coops assigned to Tier 2 have a 2 week average bycatch at or above 75% of Base Rate.

➤ *This is a more conservative Tier assignment measure than found in the current A-84 program which utilizes a 3 Tier system. Tier 1 coops in both programs have the same qualifications; a bycatch rate that is less than 75% of the Base Rate. Currently Tier 2 coops, those coops with a bycatch rate between 75% and 125% of the Base Rate, are closed out of the closure areas for 4 days each week. Tier 3 coops, those with a bycatch rate above 125% of the Base Rate, are closed out for the entire week. Under this proposed IPA chum RHS program, all coops are closed out of the areas for the entire week unless they meet the 75% qualification for Tier 1.*

4. All coops are initially assigned to Tier 2 (those closed out for an entire week) until they have accumulated and maintained 2 consecutive weeks of fishing data.

➤ *The current Amendment 84 rules allow coops to initially start in Tier 1, and retain Tier 1 status until they have accumulated 2 consecutive weeks of bycatch data. This reversal of initial Tier assignment status requires a cooperative to meet the Tier 1 qualification (bycatch below 75% of Base Rate) before being assigned to it.*

5. Bering Sea chum bycatch is managed by 2 regions; the portion of the Bering Sea east of 168° west longitude is the East Region and the portion of the Bering Sea west of 168° west longitude is the West Region.

➤ *No change from current RHS program.*

6. June and July Base Rate Characteristics.

- a. The Base Rate is calculated using industry-wide chum salmon bycatch numbers (numerator) and pollock harvest data (denominator).

➤ *Consistent with the current RHS program.*

- b. Initially set at 0.19 until 2 full weeks of data is available, the Base Rate is then calculated as a 2 week rolling average.

- *Both programs utilize an initial predetermined Base Rate of 0.19, however the current RHS program is calculated as a 3 week rolling average. This change has been made in response to NMFS analysis of the RHS program.*
- c. From June 17th through July 31st the Base Rate shall not increase by more than 20% from one week to the next (Base Rate Collar).
- *Under the current A-84 RHS rules the Base Rate is a straight forward calculation of current fleet bycatch as determined by recent chum and pollock catch. During times of increasing chum salmon bycatch, as typically encountered in June and July, rates may climb so quickly that some coops will qualify for Tier 1 simply due to a rapidly increasing Base Rate. Additionally, a rapidly rising Base Rate may fail to qualify an appropriate range of areas be considered for closure. The "Collar" keeps the Base Rate lower than it may have otherwise been resulting in a more conservative bycatch reduction program.*
- d. From June 17 through July 31, the Base Rate may not go below 0.1 (the "floor").
- *The addition of a 0.1 floor to the Base Rate will eliminate ineffective closures from occurring during times of low chum encounters by the fleet. Without the floor, low encounter closures simply move the fleet away from the best pollock fishing with little to no gain in chum conservation.*
 - *Maximizing pollock harvest during times of low chum encounters in June and July plays a key role in reducing Chinook bycatch in the B season.*
7. On August 1st the RHS/IPA chum salmon bycatch reduction program shifts from maximized mature chum salmon protection to a program aimed at minimizing high chum bycatch while increasing pollock fishing CPUE.
- a. Beginning August 1st the 20% Base Rate Collar is dropped. Future Base Rate calculations will be the 2 week rolling average of the coops' actual bycatch rate.
 - i. *Eliminating the "Collar" restores the IPA/RHS back in line with the A-84 chum RHS program, directs closures to areas of high chum encounters while allowing higher pollock harvest opportunities.*
 - b. Base Rate Floor Adjustments for identifying closure area candidates.
 - 1. From Aug. 1 until Sept. 1st, for the purpose of determining areas eligible for closure, the Base Rate floor limit is raised to 0.5

- *The current A-84 RHS, as mentioned previously, has no floor limits. Increasing the floor for purposes of determining area eligible for closure will continue to protect areas of moderate to high chum encounters.*
2. Beginning Sept. 1st, for the purpose of determining areas eligible for closure, the Base Rate floor limit is raised to 1.0
- *Raising the floor to 1.0 will protect areas of high chum bycatch at a time in the B season when Chinook salmon typically enter the pollock grounds. At this time Chinook protection becomes the highest priority along with increased pollock harvest conditions.*
- c. Beginning August 1st and thereafter Tier assignments will be calculated using the normal Base Rate calculation (fleet's 2 week rolling average bycatch rate) and are not impacted by the 0.5 and 1.0 Base Rate floors.
- *This is consistent with the current A-84 RHS program with the exception of utilizing the two week rolling average (instead of a three week rolling average as previously mentioned) and does not let the 0.5 and 1.0 floor ease Tier qualifications.*

8. Chinook protection priority.

- a. Beginning August 1st, whenever a Chinook bycatch rate of at least 0.035 is encountered in any ADF&G stat area (the "Chinook Protection Trigger") within a Region, chum salmon RHS closures for that Region are exchanged for the applicable Chinook IPA measures specific to an IPA Group fishing in that Region.
- b. The Chinook Protection Trigger operates as an "on/off" switch for chum measures, chum closures may resume if the Chinook Protection Trigger is not reached in a subsequent week).
- c. The Chinook Protection Trigger operates specific to each Region (east and west of 168°)
 - *Chinook protection priorities were included in A-84 prior to the implementation of Amendment 91. Originally the A-84 RHS program shifted from chum closure measures to Chinook closures once the 0.035 Chinook bycatch rate was reached in an ADF&G stat area. Under A-91 all the Chinook provisions were stripped from the A-84 regulations, creating an overlap of both chum and Chinook protection measures at the same time. The "double closure" result forces the fleet into lower*

pollock harvest rates which ultimately increase the bycatch of Chinook salmon.

9. Announcements.

- a. The weekly Base Rate, Tier assignment, and closure announcement is made Thursday for implementation at 10:00 pm Alaska time on the following Friday.
- b. Updated closure area announcements are made on Mondays for implementation at 10:00 pm Alaska time on the following Tuesday.

➤ *Making announcements on Mondays and Thursdays for implementation on Tuesdays and Fridays is consistent with the A-84 RHS program. The implementation time has been changed from 6:00 pm to 10:00 pm as a way to fit closure area changes with pollock fishing characteristics. Typically pollock remained schooled until dusk at which point vessels often haul back around dusk before setting out a night tow. Therefore implementing closure changes that correspond with general fishing practices provides for a more efficient use of each fishing day.*

10. Closure area Designation Criteria – same as in current ICA - provides Sea State discretion determining if the pollock harvest in an area is sufficient to warrant a closure (utilizes a 2% guideline pollock harvest before qualifying an area for closure).

11. Maximum amount of closure area that may be implemented at any one time.

- a. Beginning June 17th until Aug. 1st
 - i. 3,000 sq. in the Eastern Region
 - ii. 1,000 sq. miles in the West Region
 - iii. No more than 2 closure areas in each Region at any one time
- b. Beginning August 1st through the end of the B Season
 - i. 1,500 in the East Region
 - ii. 500 in the West Region
 - iii. No more than 2 closure areas in each Region at any one time

➤ *The June/July closure area limits are consistent with A-84. The reduced area limits beginning in August are intended to further promote pollock harvest while maintaining a substantial level of chum protection.*

14. Enforcement Provisions – would be covered by enforcement provisions already found in each group's IPA.

15. Monitoring and Management would be covered by existing IPA components specific to each IPA.