

SELECTIVE COHO FISHERIES AND ALLOCATION IN THE NORTH OF CAPE FALCON SALMON FISHERIES

The Council's Pacific Coast Salmon Plan (FMP) has historically divided the coho salmon north of Cape Falcon among non-Indian gear sectors by a percentage of landed catch. The percentages given to each sector has changed over time, but the current allocation schedule is as follows:

5.3.1.2 Allocation Schedule Between Gear Types

Initial commercial and recreational allocation will be determined by the schedule of percentages of total allowable harvest as follows:

TABLE 5-1. Initial commercial/recreational harvest allocation schedule north of Cape Falcon.

Coho			Chinook		
Harvest (thousands of fish)	Percentage ^{a/}		Harvest (thousands of fish)	Percentage ^{a/}	
	Troll	Recreational		Troll	Recreational
0-300	25	75	0-100	50	50
>300	60	40	>100-150	60	40
			>150	70	30

a/ The allocation must be calculated in additive steps when the harvest level exceeds the initial tier.

Without selective fishing the landed catch represented the vast majority of mortalities in the fishery. With the advent of mark-selective fishing for coho, release mortality becomes a much larger percent of the total mortality. Although both sectors accrue release mortality with selective fishing, a higher hooking mortality rate is used for modeling the troll fishery (26%) compared to the sport fishery (14%). This difference means that if the fisheries change from non-selective to selective, the sport fishery will expand up to a larger percentage of the total landed catch than when both fisheries were non-selective.

The first mark selective coho fishery in the ocean fisheries north of Cape Falcon was in the Columbia River Area from Cape Falcon, Oregon to Leadbetter Point, Washington in 1998. Using the FMP to allocate coho north of Cape Falcon, the Council adopted a season that allowed the non-Indian troll fishery to trade its coho quota (4,000) to the recreational fishery for chinook, and fish for chinook only in May and June. The sixteen thousand coho in the total allowable catch (TAC) was then split according to the FMP allocation schedule with eight thousand to the Columbia River subarea, seven thousand

four hundred to the Westport subarea and the remaining six hundred to La Push and Neah Bay subareas. Representatives from Neah Bay agreed to give the six hundred coho all to La Push in exchange for a state waters 4B add-on fishery for eight thousand coho. The eight thousand coho quota for the Columbia River subarea was converted to a mark-selective coho fishery by reducing the quota to seven thousand marked coho to account for additional hooking mortality.

In 1999 the non-Indian troll fishery was nonselective for coho, but all four recreational subarea fisheries were mark selective for coho. The coho were distributed between sectors and sport subareas using landed catch (marked coho) according to the FMP allocation schedule.

During 1998 and 1999 the Council worked on and adopted Amendment 14 to the FMP. Included in the new amendment was language governing selective fisheries allocation north of Cape Falcon. The following language is what is currently contained in the FMP:

6.5.3 Species-Specific and Other Selective Fisheries

6.5.3.1 Guidelines

In addition to the all-species and single or limited species seasons established for the commercial and recreational fisheries, other species-limited fisheries, such as "ratio" fisheries and fisheries selective for marked or hatchery fish, may be adopted by the Council during the preseason regulatory process. In adopting such a fishery, the Council will consider the following guidelines:

- 1. Harvestable fish of the target species are available.*
- 2. Harvest impacts on incidental species will not exceed allowable levels determined in the management plan.*
- 3. Proven, documented, selective gear exists (if not, only an experimental fishery should be considered).*
- 4. Significant wastage of incidental species will not occur or a written economic analysis demonstrates the landed value of the target species exceeds the potential landed value of the wasted species.*
- 5. The species specific or ratio fishery will occur in an acceptable time and area where wastage can be minimized and target stocks are maximally available.*
- 6. Implementation of selective fisheries for marked or hatchery fish must be in accordance with U.S. v. Washington stipulation and order concerning co-management and mass marking (Case No. 9213, Subproceeding No. 96-3) and any subsequent stipulations or orders of the U.S. District Court, and consistent with international objectives under the Pacific Salmon Treaty (e.g., to ensure the integrity of the coded-wire tag program).*

6.5.3.2 Selective Fisheries Which May Change Allocation Percentages North of Cape Falcon

As a tool to increase management flexibility to respond to changing harvest opportunities, the Council may implement deviations from the specified port area allocations and/or gear allocations to increase harvest opportunity through fisheries that are selective for marked salmon stocks (e.g., marked hatchery salmon). The benefits of any selective fishery will vary from year to year

and fishery to fishery depending on stock abundance, the mix of marked and unmarked fish, projected hook-and-release mortality rates, and public acceptance. These factors should be considered on an annual and case-by-case basis when utilizing selective fisheries. The deviations for selective fisheries are subordinate to the allocation priorities in Section 5.3.1.1 and may be allowed under the following management constraints:

- 1. Selective fisheries will first be considered during the months of August and/or September. However, the Council may consider selective fisheries at other times, depending on year to year circumstances identified in the preceding paragraph.*
- 2. The total impacts within each port area or gear group on the critical natural stocks of management concern are not greater than those under the original allocation without the selective fisheries.*
- 3. Other allocation objectives (i.e., treaty Indian, or ocean and inside allocations) are satisfied during negotiations in the North of Cape Falcon Forum.*
- 4. The selective fishery is assessed against the guidelines in Section 6.5.3.1.*
- 5. Selective fishery proposals need to be made in a timely manner in order to allow sufficient time for analysis and public comment on the proposal before the Council finalizes its fishery recommendations.*

If the Council chooses to deviate from the specified port and/or gear allocations, the process for establishing a selective fishery would be as follows:

- 1. Allocate the TAC among the sectors and port areas according to the basic FMP allocation process described in Section 5.3.1 without the selective fishery.*
- 2. Each gear group or port area may utilize the critical natural stock impacts allocated to its portion of the TAC to access additional harvestable, marked fish, over and above the harvest share established in step one, within the limits of the management constraints listed in the preceding paragraph.*

6.5.4 Procedures for Calculating Quotas

Quotas will be based on the total allowable ocean harvest and the allocation plan as determined by the procedures of Chapter 5.

To the extent adjustable quotas are used, they may be subject to some or all of the following inseason adjustments:

- 1. For coho, private hatchery contribution to the ocean fisheries in the OPI area.*
- 2. Unanticipated loss of shakers (bycatch mortality of undersized fish or unauthorized fish of another species that have to be returned to the water) during the season. (Adjustment for coho hooking mortality during any all-salmon-except-coho season will be made when the quotas are established.)*
- 3. Any catch that take place in fisheries within territorial waters that are inconsistent with federal regulations in the EEZ.*
- 4. If the ability to update inseason stock abundance is developed in the future, adjustments to total allowable harvest could be made where appropriate.*

5. *The ability to redistribute quotas between subareas depending on the performance toward achieving the overall quota in the area.*

Changes in the quotas as a result of the inseason adjustment process will be avoided unless the changes are of such magnitude that they can be validated by the STT and Council, given the precision of the original estimates.

The basis for determining the private hatchery contribution in (1) above will be either coded-wire tag analysis or analysis of scale patterns, whichever is determined by the STT to be more accurate, or another more accurate method that may be developed in the future, as determined by the STT and Council.

In reference to (4) and (5) above, if reliable techniques become available for making inseason estimates of stock abundance, and provision is made in any season for its use, a determination of techniques to be applied will be made by the Council and discussed during the preseason regulatory process.

In 2000 through 2004 the non-Indian troll fishery, as well as all four recreational subarea fisheries were planned as mark-selective coho fisheries. The marked coho landed catch was distributed between sectors and sport subareas using the FMP allocation schedule. The Council and the Salmon Technical Team (STT) continued to allocate the marked coho landed catch in this manner while all sectors were proposing selective fisheries because of the difficulty of using the new FMP selective fishery rules. During the preseason process, the ocean fisheries options are constantly being expanded, reduced, or otherwise changed to meet various conservation and allocation objectives. If all non-Indian sectors are using the same selective "currency" it is much easier to apply the allocation schedule to the new selective TC than to recalculate the selective quotas from a non-selective TAC. If the STT has to model based on critical natural stock impacts allocated to each sector and sport subarea, then it becomes an iterative process requiring many more model runs. The negative side to not modeling based on critical natural stock impacts is that because the sectors have different hooking mortality rates, the allocation of non-selective impacts do not meet the FMP schedule. By applying the FMP allocation schedule to a non-selective TAC, fish are reallocated from one sector to another.

A modeling exercise was done using the final model run from the 2003 preseason process. The TAC for the non-Indian fisheries north of Cape Falcon was a landed catch of 300,000 marked coho, and all fisheries were selective. The coho were allocated 75% to recreational (225,000) and 25% to non-Indian troll (75,000). If allocated according to the new language in the FMP for selective fisheries, the TAC would be calculated assuming non-selective fisheries. The non-selective fishery with roughly the same impacts on critical natural stock impacts would be 112,500 nonselective coho. The coho would then be allocated with 75% to recreational (84,500) and 25% to non-Indian troll (28,000). If these fisheries were then expanded back to selective fisheries with equivalent impacts, the resulting quotas would be 250,000 for sport (83%) and 50,000 for troll (17%). The difference is the higher hooking mortality rate used for modeling the troll fishery (26%) as compared to sport (14%).

The deviation from the FMP has not been much of a problem in the last five years of selective fisheries for two main reasons: 1) all the fisheries have been mark-selective; and 2) there have been enough coho to allow each sector to have a full season, although trades have been used to achieve this objective. This situation may be changing with both sport and commercial fisheries exploring the possibility of non-selective coho fisheries north of Cape Falcon in 2004. With sectors and sport subareas exploring non-selective and/or selective fisheries (even both in the same season), the fairness of coho allocation will become more of an issue as each group tries to stretch its share, and trades between selective and non-selective quotas are proposed. The STT needs clear direction from the Council in order to carry out its task of modeling impacts in fisheries without becoming embroiled in allocation issues.

There seem to be three alternatives:

1. Continue to use the landed catch method as in the last few years to allocate coho to the sectors based on selective fisheries. The STT feels this should only be done with clear explanation to the representatives for each gear and sport subarea that this changes the allocation percentages. Unless all fisheries are selective, this will no longer be a shortcut; and for that reason and the allocation issues, the STT does not favor this alternative.
2. Change the framework plan to better match the method used the last few years to allocate coho to the sectors based on selective fisheries. This could be done by changing the allocation percentages to something near 17% for troll and 83% for recreational. This is not the STT preferred alternative either because there is really no advantage to starting with all selective fisheries unless all fisheries are going to stay selective. It does not appear that in the future fisheries north of Cape Falcon will remain all selective.
3. The fisheries could be modeled the way the FMP currently states regarding selective fishery considerations. The fisheries would start out as all non-selective, and each sector and/or sport subarea could then propose a selective fishery if they choose. The fisheries would then be modeled as a mix, or all one way or the other. Although this creates a lot more work for the STT during the preseason process, it is the STT's preferred alternative at this time. The STT feels this method would meet the intent of the FMP and the historical allocation schedule, and should be tried at least for one management cycle.

Once the allowable impacts on constraining stocks has been estimated for each sector and sport subarea, inseason trades would have to be conducted in that currency, then converted to selective on non-selective landed catch for implementation. It may be desirable to clarify this process in Chapter 10 of the FMP (Inseason Management Actions and Procedures)

The STT may request some limitation on season proposals to allow adequate time to model season alternatives.