



YUKON RIVER DRAINAGE FISHERIES ASSOCIATION

February 23, 2009

Robert D. Mecum, Acting Administrator
Alaska Region, NMFS, NOAA
P.O. Box 21668
Juneau, AK 99802

Re: Bering Sea Chinook Salmon Bycatch Management Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis

Dear Mr. Mecum:

The Yukon River Drainage Fisheries Association (YR DFA) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) on salmon bycatch reduction measures in the Bering Sea management area. YR DFA is an association of commercial and subsistence fishers on the Yukon River, Alaska's longest river. The region we represent is home to some of the world's most prolific salmon resources, and the world's furthest migrating salmon runs on the Yukon River. These salmon provide a primary source of food for humans and the dogs which are essential to the continued viability of the subsistence way of life in Western Alaska. For many residents the commercial salmon harvest also provides the only means of income for those who live in the remote villages of Western Alaska. The incredibly high bycatch numbers of recent years pose a grave threat to Western Alaska's salmon and the Western Alaskan people who depend on these salmon for vital subsistence needs and commercial harvests. To this end we recommend the following measures be implemented immediately:

1. Adopt a hard cap of no more than 32,500 salmon (Alternative 2, Suboption vii) immediately with the following options and suboptions;
 - a. A/B Season split: 58/42 (Seasonal Distribution Option 1-2);
 - b. Allocation to the co-op level with allocation based pro rata on pollock allocation (Sector Apportionment Option 1);
2. Establish a stair-stepped approach which further reduces the hard cap over time;
3. Develop and secure funding for research about Western Alaska salmon throughout their lifecycles.

We urge NMFS and the Council to select a hard cap of 32,500 salmon. This cap level will provide protections to salmon populations while allowing the pollock fishery to operate. It will also reduce bycatch to levels experienced before the Yukon River Salmon Agreement (discussed below) was signed, honoring our international commitments under this treaty and providing necessary protections to Chinook salmon throughout Western Alaska. The recommended A/B season split provides essential protections to maturing salmon which are bound for their natal rivers in the coming summer.

According to the DEIS, “there is a tendency for the number of AEQ Chinook released to natal rivers to increase as the A season allocation is reduced.”¹ An allocation of bycatch caps to the co-op level should be based on pollock allocation because this ensures that bad actors are not rewarded for their historically high bycatch rates. This concern for awarding bad actors was noted in our scoping comments.

In addition, the hard cap should be a declining cap, reducing salmon bycatch to levels below 32,500 over time while allowing the pollock fishery time to adapt their operations to these expectations. The Council and NMFS should include in this action a commitment to develop and secure funding for research about Western Alaska salmon, including but not limited to genetic stock identification of salmon caught as bycatch, marine research such as the BASIS program and in-river management and enumeration. Research planning must involve Western Alaska and tribal groups and can provide a scientific basis from which to inform future actions as we learn more about Western Alaska Chinook salmon throughout their lifecycle.

We urge NMFS and the Council to reject the Preferred Preliminary Alternative (PPA). The PPA raises several process concerns. First, under the National Environmental Policy Act (NEPA), the purpose of an EIS is to “provide a full and fair discussion of significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.”² The PPA allows a higher cap level *if* an industry incentive program is developed which meets a specific set of criteria. These industry incentive programs, however, are not analyzed in the DEIS nor is the purported ability of these incentive programs to reduce salmon bycatch at all levels of abundance analyzed. Without presenting the full alternatives in the DEIS neither the public nor decision makers can assess their impacts on the environment. If industry incentive plans are to be considered, and selection of a higher hard cap is selected based on performance under the incentive programs, NEPA requires that they be analyzed as alternatives within the EIS. In addition, if PPA1 is selected, the Council has no guarantee that the industry incentive programs upon which they make their decision will be the same plans which are ultimately submitted to NMFS, nor that they are equally effective. The NMFS review is largely an administrative one:

NMFS would not judge the adequacy of the incentives described or whether these incentive measures would, in fact, successfully provide the incentives intended by the Council. Judgments about the efficacy or outcomes of the proposed incentive program would be subjective and the regulations would not provide a legal basis for NMFS to disapprove the proposed ICA because it did not believe that the proposed measures would work as intended.³

¹ North Pacific Fishery Management Council and National Marine Fisheries Service, Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis, December 2008 at 481 [hereinafter DEIS].

² 40 CFR § 1502.1 (2005).

³ DEIS at 94.

Under this review process, only the Council is addressing the efficacy of the incentive programs, yet the incentive programs submitted to NMFS may not be the same programs submitted to the Council. In effect, no one, including the public, NMFS and the Council, has the opportunity to assess the efficacy of the final incentive programs submitted to NMFS.

Beyond the process concerns, the numbers embodied in the PPA are simply too high. In 2003, which was an average to high bycatch year on a broad historical scale, neither PPA 1 nor 2 resulted in a reduction in bycatch.⁴ Except in the very highest bycatch years of 2006 and 2007, the PPA 1 cap level of 68,000 is essentially status quo, resulting in no salmon bycatch reductions and no forgone pollock revenue⁵ The stated goal of this action, in compliance with National Standard 9 of the Magnuson-Stevens Act (MSA),⁶ is to reduce salmon bycatch: “the purpose of the proposed action is to minimize non-Chinook and Chinook bycatch to the extent practicable.”⁷ A 68,000 hard cap does not reduce bycatch, but maintains bycatch levels which are in fact higher than historical averages. In addition a 68,000 hard cap calls into question the United States’ compliance with its treaty obligation under the Yukon River Salmon Agreement to “increase the in-river run of Yukon River origin salmon by reducing marine catches and by-catches of Yukon River salmon.”⁸

Beyond our specific recommendations for a final preferred alternative, the following problems with the DEIS must be addressed:

- I. The DEIS underestimates the impacts of bycatch on Western Alaska Chinook salmon stocks and overestimates foregone pollock revenue;
 - A. Section 3.2: Estimating Chinook salmon saved and forgone pollock catch;

The impact of Chinook salmon bycatch measures (and forgone pollock revenue) is based on a historical analysis using bycatch data from 2003 to 2007. We recognize that changes in catch accounting make this time period the most “consistent and uniform” for analytical purposes,⁹ however, these years represent the highest 5-year average bycatch in recent history, and include the all time high bycatch year. To accurately characterize the impacts, and the forgone revenue, the analysis should include a broader range of years which better represents historical bycatch patterns. In particular, if the high year of 2007 is included as a basis for analysis, the low year of 2000 should also be included.

- B. Section 3.3 Estimating Chinook salmon adult equivalent (AEQ) bycatch;

We appreciate the great efforts undertaken to develop an AEQ model for this impact analysis. However, the accuracy of the model is limited by the underlying genetics¹⁰ used as the input for the

⁴ DEIS at 284.

⁵ *Id.* at 662.

⁶ Magnuson-Stevens Fishery Management and Conservation Act, 16 U.S.C. §1851(a)(9) (2000).

⁷ Notice of Intent to Prepare an EIS, 72 Fed. Reg. 72996 (Dec. 26, 2007).

⁸ Pacific Salmon Treaty, Annex IV Chapter 8 (27)(Yukon River Salmon Agreement)(2002).

⁹ DEIS at 108.

¹⁰ *Id.* at 124-125 (referencing Seeb et. al. (2008) and Templin et. al. (2008)).

stock distribution component of the model. The study used opportunistically collected samples without a sampling protocol designed for this purpose. The samples in 2007 were collected on a vessel operating under an EFP only, and are likely unrepresentative of fleetwide bycatch patterns. We are therefore concerned that given the limited sampling, these stock contributions may not accurately represent the stock composition actually being harvested by the pollock fishery.

The model and underlying genetic analysis do seem to be capable of predicting general trends in salmon bycatch. The proportion of Western Alaska stocks present in the bycatch, for example, does comport generally with the stock composition estimates from earlier studies by Myers et. al. (2003) and Myers and Rogers (1988). However, when broken out to specific stocks (i.e. Upper Yukon, Middle Yukon, North Alaskan Peninsula), the stock composition estimates do not make sense in relation to run sizes throughout Western Alaska. For instance, the stock composition estimate for the Middle Yukon River is 3 percent, and the Upper Yukon is also estimated at 3 percent.¹¹ The middle and upper Yukon stocks generally comprise 75 percent of the Yukon River run, and thus these numbers do not match up with the overall Western Alaska stock composition and known run strength. On the other end, the stock composition estimate for North Alaska Peninsula stocks is 13%. These stocks are incredibly small in number, and if this stock composition estimate is true, then 8,455 North Alaska peninsula Chinook salmon were taken as bycatch in 2006 and 9,814 in 2007¹², which seems highly unlikely given the overall sizes of these runs.

Overall, while the total Western Alaska stock composition remains relatively steady throughout the three studies examined in the DEIS, the composition of other stocks is not. In addition to those mentioned above, the stock composition estimates for Pacific Northwest, Cook Inlet and Russian stocks varies greatly between these studies. Without the benefit of examining the genetics work, we cannot determine if these inconsistencies are due to assignment or sampling error. However, these inconsistencies when looking at stock composition of discrete river systems are to be expected with insufficient sampling. The genetics analysis should therefore be used only to indicate trends across broad stock groups, such as Western Alaska, and should not be used for smaller stock groupings. The earlier, peer-reviewed work by Myers et. al. (2003) should be used to break out the Coastal Western Alaska aggregate grouping. While these problems are noted in the DEIS, the stock composition estimates are still used to analyze the specific number of upper Yukon Chinook salmon which will be “saved” under the various alternatives. Given the importance of these stocks for treaty obligations, we cannot assume that the stock compositions from the spatially and temporally limited samples analyzed by Seeb et. al. are indicative of the overall presence of these stocks in the bycatch.

C. Section 3.4 Consideration of Future Actions;

This important section fails to consider several reasonably foreseeable future actions which will have impacts on Chinook salmon in the affected region. The “Other Federal State and international agencies” category should include future exploration and development of onshore mineral and oil and gas resources and development of hydrokinetic power resources in river. A number of Federal Energy

¹¹ DEIS at 125.

¹² *Id.* at 300-301.

Regulatory Commission (FERC) preliminary permits have already been issued for the development of hydrokinetic projects in rivers throughout the region, thus these qualify as reasonably foreseeable future actions. These in-river turbines may have impacts on Chinook salmon throughout the affected area.

Section 3.4.4.3 states that Chinook salmon consumption *can be* an important part of regional diets (emphasis added).¹³ Chinook salmon are in fact the staple of many regional diets, and the most important subsistence food in many of the regions discussed. This statement should be modified to more accurately characterize the importance of Chinook salmon as a subsistence resource.

Section 3.4.4.5 mentions increasing mining activities in Alaska in coming years. Donlin Creek mine, a proposed open-pit gold mine located between the Kuskokwim and Yukon River watersheds should be specifically mentioned in this section as is the proposed Pebble mine.¹⁴

D. Section 5.3 Impacts on Chinook salmon.

The analysis of the impacts of the various alternatives on Chinook salmon depends on a retrospective analysis of salmon bycatch and pollock fleet behavior to assess what the impacts of the alternatives would have been.¹⁵ This methodology relies on several assumptions which impact its reliability. First, as noted above, the choice of the years 2003-2007 has a great impact, since imposing a cap on these high bycatch years, while it shows benefits for Chinook salmon, also shows a high degree of impact on the pollock fishery. Over a longer time frame which included lower bycatch years, the impact on the pollock fishery would have been much lower since bycatch levels were in fact below most of the cap alternatives in these years. Further, the analysis assumes that pollock fishers make no changes in their behavior in response to a hard cap. In reality, it is highly likely that given the punishment of a fishery closure if a hard cap level is reached, the pollock fishery would modify behavior to avoid hitting that hard cap. While it is hard to predict precisely what adaptations will occur, these impacts must be viewed as a worse case scenario. While we can't predict precise behavioral changes, this analysis would be improved by assuming a set percent reduction in historical levels to account for the behavioral change a hard cap will produce, for example, a 20% bycatch reduction could be applied across the board to assessments of foregone pollock revenue to account for reductions from using salmon excluder devices, which would likely be utilized more frequently under a hard cap.

In addition, the DEIS states, "Relative impacts to individual river systems are highly dependent upon where the fleet fished in a given year, as a river system's proportional contribution to bycatch varies spatially."¹⁶ This statement calls into question the premise of the retrospective analysis used to predict impacts. Since fishing locations may change in future years, the impact results from past history may not be indicative of future impacts.

¹³ DEIS at 154.

¹⁴ *Id.* at 155.

¹⁵ *Id.* at 249.

¹⁶ *Id.* at 285.

Finally, as noted above, the genetics and AEQ model provide reliable aggregate stock trend information, but do not accurately assess stock-specific impacts. Tables 5-47, 5-48, 5-49, 5-50 and 5-51¹⁷ should be amended to present information on an aggregate level.

II. The DEIS does not adequately analyze the environmental justice implications of the action;

Reducing salmon bycatch is of vital importance to the primarily Native Alaskan communities who depend on salmon for their sustenance and their livelihoods. Increased salmon bycatch places a disproportionately high burden on these communities because of the central importance of this resource to Native Alaskan communities. Under Executive Order 12898, federal agencies are required to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions.”¹⁸ The DEIS does identify the impacted minority populations. It is severely inadequate, however, in assessing the disproportionate impacts placed on these populations.

A. Section 9.4.2 Subsistence Harvests;

Subsistence harvests are inadequately analyzed given their irreplaceable significance to Western and Interior Alaska Native communities. The DEIS cites only public comments for evidence that Chinook salmon are important to the cultural, spiritual and nutritional needs of Alaska Native people, and that strong returns of healthy salmon are critical to the future human and wildlife uses of those fish and to the continuation of the subsistence way of life. There are numerous books and peer-reviewed papers examining this essential role of subsistence in both qualitative and quantitative means.¹⁹

The analysis focuses on the amount of fish consumed, which does not begin to assess the overall importance of this resource. Beyond the amount consumed, it is essential to note that Chinook salmon are irreplaceable for many communities – without these fish people quite simply do not have food to eat. The cost of replacement protein sources is extremely high in many of these remote communities. In communities where other subsistence resources such as moose and caribou have decreased, the value of salmon as the *only* subsistence resource is even greater. Further, the harvesting of Chinook salmon is an age-old tradition, and the cultural act of catching, processing and eating Chinook simply cannot be replaced. Reductions in subsistence harvest impact the subsistence way of life and the culture and traditions of Native Alaskan Communities throughout Western Alaska. A qualitative analysis of these wide-ranging impacts from reductions in subsistence harvest must be included in the analysis to accurately assess the disparate impacts of the proposed action on Alaska Native populations.

¹⁷ DEIS at 297-301.

¹⁸ Executive Order 12898 (February 11, 1994) § 1-101.

¹⁹ See for further references, Robert Wolfe, *People and Salmon of the Arctic, Yukon, and Kuskokwim Regions in Alaska – Socioeconomic Dimensions: Fishery Harvests, Culture Change, and Local Knowledge Systems*; and Robert Wolfe, *Human Systems and Sustainable Salmon: Social, Economic and Cultural Linkages* (Trustees for Alaska comments Exhibits A and B).

B. Section 9.4.3 Commercial harvests of Chinook salmon;

From the outset, this section understates the importance of commercial harvests to minority populations in the region. Commercial fishing should be described as very important, not that it “may” be very important.²⁰ While reliance on commercial fishing income varies between regions, it is essential to characterize the importance of commercial fishing as the *only* source of income in some communities, certainly many of those on the Yukon River. If quantitative data is not available a qualitative description of this reliance should be included. Additionally, the interdependence of subsistence and commercial fisheries should be explained. As Robert Wolfe highlights:

Even within the region’s commercial fisheries, salmon typically is caught by small-holder fishermen who play dual roles on the water: they subsistence fish for their families and they commercial fish for sale on export markets using similar gear, commonly in the same areas, though usually during different openings.²¹

C. Section 9.4.7 Chum salmon;

Our comments on the importance of subsistence and commercial Chinook salmon harvests apply to chum salmon as well. It is important to note that in years of low Chinook salmon returns chum salmon are a vital subsistence resource, and the primary marketable fish on the Yukon River. In addition, low Chinook salmon returns also impact chum fisheries, as they are limited and delayed to allow Chinook salmon to pass up river in years of low returns.

D. Section 9.4.9 Pollock deliveries to shoreside processors.

The ultimate goal under E.O. 12898 is to identify disparate impacts to minority populations. It is important to note the significantly different impacts on Native populations who depend on salmon for sustenance and livelihood as opposed to non-resident processing workers for whom neither livelihood nor culture is tied to pollock processing communities. Further, in assessing disparate impacts the median family incomes, which far exceed those in Western Alaska salmon-dependent communities, must be addressed.

III. The DEIS does not adequately analyze the United States’ obligations under the Yukon River Salmon Agreement.

The DEIS fails to adequately analyze the United State’s obligations under the Yukon River Salmon Agreement. While the treaty is mentioned and described in § 1.7313, nowhere are the specific obligations, and the degree to which the proposed alternatives meet those obligations, discussed.

²⁰ DEIS at 457.

²¹ Robert Wolfe, Human Systems and Sustainable Salmon: Social, Economic and Cultural Linkages (Trustees for Alaska comments Exhibit B) (forthcoming, Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative Symposium proceedings, American Fisheries Symposia).

Under the terms of the Yukon River Salmon Agreement, which was ratified in 2002, the United States agreed to “increase the in-river run of Yukon River origin salmon by reducing marine catches and by-catches of Yukon River salmon.”²² The United States is further bound by this treaty to pass a set number of Chinook and fall chum salmon across the Canadian border to provide for Canadian harvests and escapement needs. In 2008, estimated Chinook salmon spawning escapement into Canada was only 32,700 fish, 27 percent below the Yukon River Panel agreed upon goal of 45,000 fish required for harvest sharing and Canadian escapement. To try and meet this escapement goal, in 2008 subsistence fishing time was reduced by half in Alaska part way through the season, and people met 40 percent or less of their subsistence needs in some places. In Canada, subsistence (aboriginal) fishers voluntarily restricted themselves to half of their historic take. In one community these voluntary restrictions resulted in a total Chinook harvest of only 160 Chinook salmon. The aboriginal harvest for the entire Canadian portion of the run was 2,766 fish, based on preliminary data. There was no directed commercial Chinook salmon fishery on the Yukon in 2008, and the commercial chum fishery was delayed to allow Chinook to pass through, reducing the chum salmon harvest as well.

NMFS must analyze the impacts each alternative will have on compliance with the United States’ obligations under the YRSA and identify other actions that may be necessary to ensure compliance with the agreement. Any cap numbers which exceed pre-2002 bycatch numbers may violate the United States’ treaty obligations in the Yukon River Salmon Agreement. Further, as commercial fisheries are eliminated and subsistence fisheries reduced in-river to meet our treaty obligations, NMFS must restrict the take of these same salmon in the pollock fishery.

IV. Regulatory Impact Review

In addition to our comments of the DEIS, we also have several concerns with the Regulatory Impact Review (RIR):

The importance of subsistence harvests, and the benefits of reductions in salmon bycatch, are well characterized on page 531:

any substantial reduction in losses of salmon, but particularly Chinook salmon, would make a very significant contribution to the economic, social, cultural and quality of life of (in particular, but not exclusively) western Alaska’s salmon subsistence users, families, villages and social communities.²³

This type of qualitative description accurately describes the potential impacts in a manner which many of the quantitative analyses miss. This type of description should be repeated and stressed throughout the analysis.

The choice of time period (2003 through 2007) for the cost/benefit analysis is inappropriate as discussed above, and should be increased to more accurately represent historical bycatch, rather than

²² Pacific Salmon Treaty, Annex IV Chapter 8 (27)(Yukon River Salmon Agreement)(2002).

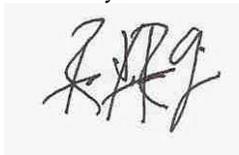
²³ DEIS at 531.

the highest five years. In addition, the revenue at risk should be viewed as an upper bound. While this is noted in a footnote,²⁴ this analytical problem should be addressed quantitatively as well by providing revenue at risk with a set percent reduction in historical levels to account for the behavioral change a hard cap will produce, for example, a 20% bycatch reduction could be applied across the board to account for reductions from using salmon excluder devices, which would likely become more prominent under a hard cap.

Table 10-59²⁵ is incorrect. The “windows” subsistence fishing schedule²⁶ has been in place since 2000 on the Yukon River. This schedule restricts subsistence fishing time throughout the Yukon. Commercial fisheries were greatly reduced from 2003-2007, with harvests well below historical averages. In 2007 the commercial harvest was 33,629 Chinook, 30 percent below the recent 10-year average. These same comments apply to the text on page 633.

Thank you for your consideration of these comments. Similar issues are discussed in comments submitted today by Oceana and Trustees for Alaska on behalf of the Association of Village Council Presidents (AVCP). We agree with and incorporate those comments. We urge you to move forward quickly with this action and put management measures in place to reduce salmon bycatch in the Bering Sea pollock fishery.

Sincerely,



Rebecca Robbins Gisclair
Policy Director

²⁴ *DEIS* at 653.

²⁵ *Id.* at 632.

²⁶ 5 AAC 01.210 (2008).