

PROPOSAL 217 – 5 AAC 21.358. Northern District Salmon Management Plan. Remove the Eastern Subdistrict of the Northern District from commercial set gillnet restrictions that apply July 20–August 6, as follows:

5 AAC 21.358 Northern District Salmon Management Plan

(c) From July 20 through August 6, if the department's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the commissioner may, by emergency order, close the commercial set gillnet fishery in **the General District of** the Northern District and immediately reopen a season during which the number of set gillnets that may be used is limited to the following options selected at the discretion of the commissioner, except that from July 31 through August 6, the commissioner may allow the use of two set gillnets in that portion of the General District south of the Susitna River:

- (1) three set gillnets that are not more than 105 fathoms in aggregate length;
- (2) two set gillnets that are not more than 70 fathoms in aggregate length;
- (3) one set gillnet that is not more than 35 fathoms in length.

Other solutions considered:

1) Break down the GSI data further by each Northern District statistical area and de-couple specific statistical areas that catch a minority of Susitna sockeye stock. There are data reported in *Genetic Stock Identification of Upper Cook Inlet Sockeye Salmon Harvest, 2010* (Barclay, Habicht, Tobias, Willette. pp 12-13), showing that statistical areas 247-41, 247-42, and 247-43 in the General District (all three adjacent, and to the northeast of the mouth of the Susitna River) also harvest a minimal percentage of Susitna sockeye, as low as 3% of their annual catch. However, I only found these data reported for 2010.

2) Repeal subsection (c) of the NDSMP completely, based on the GSI data that show the very small percentage of Susitna drainage sockeye stocks harvested by all Northern District commercial fishermen (Total Harvest, Table 1).

3) Change the language of subsection (c) to give the commissioner more specific direction regarding the use of options (1), (2), and (3), so that option (2) may be a more realistic possibility - seeing as how it has never been used. This specific direction may come from specific conditions being met at the three weirs (JCL) the year before, or some averaging or combinations of several years past. And/or, it may need to involve specific direction from "other salmon abundance indices" as stated in the preamble to the NDSMP.

What is the issue you would like the board to address and why?

Background: The Alaska Department of Fish and Game (ADF&G) manages the Northern District commercial set gillnet fishery primarily through provisions found in 5 AAC 21.358, Northern District Salmon Management Plan (NDSMP). The preamble of this plan states that the department shall manage the chum, pink, and sockeye salmon stocks primarily for commercial uses while at the same time minimizing the harvest of Northern District coho salmon. Furthermore, the plan

states that the department shall manage the Northern District commercial sockeye salmon fisheries based on the abundance of sockeye salmon counted through the weirs on Larson, Chelatna, and Judd lakes (in the Susitna River drainage), or other salmon abundance indices as the department deems appropriate.

Currently, the entire Northern District setnet fishery, both the Eastern Sub-district and the General (western) Sub-district (AKA General District) (Figure 1), with all of their many distinct statistical areas, are generally both lumped together for most management actions. In other words, if the department needs to close or restrict one statistical area in the Northern District for conservation purposes, the regulations are such that the restriction or closure will be enforced for the entire Northern District set gillnet fishery.

(Point for clarification: Set gillnetting is the only commercial salmon fishery allowed in the Northern District. There is no drift gillnet fishery in the Northern District.)

The Issue and Proposal: In 2008, Susitna River sockeye salmon were classified as a stock of yield concern. As a result of this designation, the Board adopted the Susitna River Sockeye Salmon Action Plan that contained restrictive provisions to commercial fisheries to conserve this stock. These actions were later placed into subsection (c) of the NDSMP (5AAC 21.358 (c)). Every year since the adoption of subsection (c), the entire Northern District has been subject to gear restrictions from July 20th to August 6th, which is the peak of the sockeye salmon run. Here is the current version of subsection (c).

From July 20 through August 6, if the department's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the commissioner may, by emergency order, close the commercial set gillnet fishery in the Northern District and immediately reopen a season during which the number of set gillnets that may be used is limited to the following options selected at the discretion of the commissioner, except that from July 31 through August 6, the commissioner may allow the use of two set gillnets in that portion of the General District south of the Susitna River:

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Since the adoption of this plan, the most restrictive option (3), the one-net-per-permit restriction, has been implemented every season. This 2/3 gear reduction occurs during the peak of the sockeye salmon run, negatively impacting the economic viability of the fishery for all Northern District fishermen.

Based on Genetic Stock Identification (GSI) data from sockeye salmon harvests in the Northern District which show the very low percentages of Susitna River sockeye harvested in the Eastern Sub-district (Table 1), this proposal seeks to provide ADF&G with more flexibility in their management of the Northern District setnet fishery by allowing them to de-couple the Eastern Sub-

district from the General Sub-district for management actions, specifically with regard to 5AAC 21.358 (c).

Supporting Information and Data:

Table 1. GSI estimate of the number of Susitna River sockeye commercially harvested in the Eastern Sub-district of the Northern District, 2006-2013.

Year	Eastern Sub-district				General Sub-district				Total Susitna Run
	SusYen/J CL	Total Harvest	%	Harvest Rate	SusYen/J CL	Total Harvest	%	Harvest Rate	
2006	1,716	9,305	18%	0.40%	ND	3,159	30%	-	476,723
2007	1,260	9,222	14%	0.20%	ND	8,265	30%	-	595,276
2008	3,612	16,652	22%	0.80%	3,044	9,578	32%	0.70%	462,179
2009	1,139	18,057	6%	0.30%	5,866	22,595	26%	1.80%	332,279
2010	1,219	15,051	8%	0.40%	4,981	25,126	20%	1.60%	311,265
2011	696	9,945	7%	0.10%	10,610	25,515	42%	1.90%	548,799
2012	1,399	10,765	13%	0.40%	2,035	11,815	17%	0.60%	327,150
2013	1,205	11,037	11%	0.30%	5,526	12,386	45%	1.30%	426,647
Averages	1,531	12,504	12%	0.36%	5,344	14,805	30%	1.32%	435,040

The Susitna River is at the head of the General (western) Sub-district, entering Cook Inlet in its north-western corner. The Eastern Sub-district is on the other side of the inlet and is not geographically aligned with the Susitna river. This has long led Eastern sub-district fisherman to believe that they catch a minority of Susitna fish. GSI data of the commercial sockeye salmon harvest from 2006-2013 (Table 1) confirm this.

From 2006 to 2013 the average annual harvest of Susitna River sockeye salmon in the Eastern Sub-district of the Northern District was approximately 1,500 fish, representing only 12% of the Eastern Sub-district's total harvest. This means 88% of the fish caught in the Eastern Sub-district are bound for streams other than the Susitna - the system upon which the entire Northern District is currently being managed.

The same GSI data show that in the General Sub-district the average annual harvest of Susitna sockeye was approximately 5,300 fish – about 3.5 times the harvest of the Eastern Sub-district. However, within the NDSMP, restrictive actions to conserve Susitna River sockeye salmon lump the Eastern Sub-district together with the General Sub-district.

Additionally, and perhaps more pertinent, the GSI data show that on average, the Eastern Sub-district's total catch of Susitna River sockeye represents only 0.36% of the Susitna River's annual sockeye return (see Harvest Rate, Table 1).

Conclusion: Based on these GSI data, there should be allowance within the NDSMP for ADF&G to manage the Eastern and General sub-districts independently from each other, specifically with regard to subsection (c) of the plan. Since its adoption, this regulation has been used each season to require the Eastern Sub-district to be restricted to fishing with only 1 net/permit from July 20th

through Aug 6th, which is the peak of the sockeye salmon run. The reason for this restriction is to conserve Susitna River sockeye salmon. However, as just noted, the GSI data in Table 1 show that the Eastern Sub-district harvests a statistically small number of sockeye salmon bound for the Susitna River, both as measured against Eastern Sub-district total harvests, or as the Harvest Rate of the total Susitna run.

The data are clear: The majority of the sockeye harvested by Eastern Sub-district fishermen are bound for other systems (88%) and the impact of the Eastern Sub-district on the Susitna sockeye run is miniscule (0.36%).

Therefore, Eastern Sub-district fishermen should not be held to the restrictions outlined in subsection (c) to conserve a stock of which they harvest only a very small portion.

This is why I am proposing that with regard to subsection (c), the Eastern Sub-district should be de-coupled from the General Sub-district, removing this restriction and allowing these fishermen to simply continue to fish their two, regularly scheduled 12-hr periods per week with a full complement of gear.

PROPOSED BY: Trevor E. Rollman

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