



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Fish and
Game

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To: Marit Carlson-Van Dort
Chair, Alaska Board of Fisheries

Date: October 21, 2022

From: Doug Vincent-Lang
Commissioner, Alaska Department
of Fish and Game

Subject: Petition requesting the Alaska Board of Fisheries adopt regulations restricting commercial salmon fishing in the North Peninsula area of Registration Area M.

The Nelson Lagoon Advisory Committee (NLAC) submitted a petition to the Alaska Board of Fisheries (board) on September 25, 2022. Since the petition was received within 30 days before a regularly scheduled board meeting, the board's policy provides that the board will schedule the petition for hearing during the Work Session.

This letter provides information from the Alaska Department of Fish and Game (department) concerning matters raised in the petition and assessing the petition policy criteria.

Action Requested

NLAC requests that the Alaska Board of Fisheries adopt regulations that would close or restrict North Peninsula commercial salmon fisheries. The request seeks mandatory closure windows of four days per week in the Bear River, Ilnik, and Outer Port Heiden Sections for the conservation of Nelson Lagoon salmon stocks, closure of the Ilnik and Outer Port Heiden Sections during the month of June, a complete season-wide closure of the Port Moller Bight and Three Hills Sections, and a reduction of gillnet maximum depth from 70 meshes deep to a maximum of 45 meshes deep.

Background

Northern District Management Plan

In the North Alaska Peninsula portion of the Alaska Peninsula Management Area (NAP), the *Northern District Management Plan* (5 AAC 09.369) commercial salmon fishery is managed based on salmon abundance as determined by escapements estimated by weir counts and aerial surveys, catch-per-unit-effort abundance indicators, and salmon abundance determined during the department test fishery and other information when available. The Northern District is subdivided into eleven sections of codified regulation on which specific salmon stocks are managed, except for Caribou Flats which is closed to commercial salmon fishing. These sections are: Black Hills, Caribou Flats, Nelson Lagoon, Herendeen-Moller Bay, Port Moller Bight, Bear River, Three Hills, Ilnik, Inner Port Heiden, Outer Port Heiden, and Cinder River Sections. The department manages each section of the Northern District as specified by the *Northern District Management Plan* and

5 AAC 09.320 using weir counts at Nelson Bear, Sandy, and Ilnik Rivers, as well as aerial surveys on other river systems such as North Creek (in the Black Hills Section), and Meshik River.

Nelson Lagoon Section

The Nelson River biological escapement goal range (BEG) is 97,000 to 219,000 sockeye salmon (Table 1). The Nelson Lagoon fishery is managed based on interim escapement objectives at the Nelson River weir (Table 1). Commercial salmon fishery harvests will also be used to evaluate run strength. Sockeye salmon escapement may be increased if escapement quality is poor due to a high percentage of net-marked fish, high percentage of jack salmon (length \leq 400 mm from mid eye to fork of tail, or age-.1), or a low female to male sex ratio. The estimated number of female sockeye salmon in the escapement should comprise approximately half the total escapement goal range by July 25 (50,000–110,000 female sockeye salmon).

Table 1.–Nelson River sockeye salmon escapement interim objectives.

Date	Escapement for period	Cumulative escapement
30-Jun	30,000 – 60,000	30,000 – 60,000
5-Jul	20,000 – 45,000	50,000 – 105,000
10-Jul	20,000 – 50,000	70,000 – 155,000
15-Jul	15,000 – 30,000	85,000 – 185,000
20-Jul	10,000 – 25,000	95,000 – 210,000
25-Jul	2,000 – 9,000	97,000 – 219,000
Total	97,000 – 219,000	

The BEG range for king salmon in the Nelson River system is 2,400 to 5,000 fish. In 2022, 3,785 king salmon were passed through the weir meeting the BEG. To provide adequate escapement for king salmon in Nelson Lagoon, weekly fishing periods through June 15 are limited in duration from 6:00 a.m. Monday to midnight Wednesday. From June 16 to August 15, four fishing days per week may be allowed. Additional fishing time may be allowed if daily sockeye salmon catches are large or cumulative weir counts exceed interim objectives. However, if it is evident in June that the king or sockeye salmon runs are weak, the number of fishing days can be reduced, but factors such as sockeye salmon run strength and harvest of king salmon will be evaluated. The amount of effort directed at harvesting king salmon in the fishery (e.g., mesh size of fishing gear used) will be considered when evaluating sockeye salmon escapement strategy.

During July, fishing time will be dependent upon sockeye salmon escapements and daily catches. If escapement data from the Nelson River weir cannot be determined due to high water events, then daily catch rates (primarily) and daily catch per boat (secondarily) will be used to evaluate run strength. Beginning August 16, the Nelson Lagoon fishery is managed on coho salmon run strength. No more than three fishing days will be allowed per week unless coho salmon escapement in the Nelson River is expected to exceed the sustainable escapement goal range (SEG) lower bound of 18,000 fish, or if the fishing effort has minimal impact on achieving adequate escapement. In 2022, 21,500 coho salmon were counted which met the SEG. There are no Nelson

River chum or pink salmon escapement goals since these fish are present but not numerous, and no directed fishery occurs on them in Nelson Lagoon.

Nelson Lagoon 2022 Sockeye Salmon Return and Management Actions

In the NAP, the 2022 Nelson Lagoon total sockeye salmon return (escapement and harvest) was approximately 157,000 fish and was the lowest total return since 1974. The Nelson Lagoon sockeye salmon return was slow to develop as the weir was installed during the first week of June and failed to meet escapement objectives throughout the season, the first escapement objective was on June 30, and the Nelson Lagoon weir had only passed 7,227 sockeye salmon, well below the weekly escapement objective of 30,000-60,000 sockeye salmon. This trend of missed weekly objectives continued into July. However, aerial surveys starting in mid-July indicated that a significant number of sockeye salmon were holding downriver of the weir due to low water and that the lower end of the escapement goal was likely to be achieved. Commercial fishing within the Nelson Lagoon Section was consistent with the weekly fishing periods described in regulation. The department only restricted one weekly fishing period by reducing the fishing period by 24 hours, and another weekly period was delayed by 48 hours to allow a longer closure window for additional escapement.

The Western Alaska Salmon Stock Identification Program, conducted from 2006-2008, showed that Nelson Lagoon sockeye salmon are harvested in outer sections of the Northern District. The percentage of Nelson Lagoon return caught during those years in the Bear River, Three Hills, Ilnik, and Outer Port Heiden sections were approximately 15% in 2006, 14% in 2007, and 5% in 2008. The bulk of the harvest typically occurs in the Bear River, Three Hills, Ilnik, and Outer Port Heiden Sections where predominantly the drift gillnet fleet of about 140-150 vessels combined participate. However, in 2022 commercial fishing opportunities within the Bear River, Three Hills, and a southern portion of the Ilnik sections of the Northern District were closed until July 8 which meant that there was a closure of almost 60 miles of coastline with no large-scale salmon fisheries occurring near Nelson Lagoon. Additionally, the Bear River, Three Hills, Ilnik and Outer Port Heiden Sections of the Northern District were closed for 60 hours on July 1, 2, 3, and another 60 hours on July 15, 16, and 17 even though escapement goals at other, adjacent NAP rivers, such as Ilnik and Bear Rivers were exceeded when these closures occurred. These management actions were aimed at allowing Nelson Lagoon sockeye salmon to traverse through the Northern District fishery and escape through the Nelson River weir. These closures did not appear to affect the escapement or harvest of sockeye salmon within the Nelson Lagoon Section.

Discussion

Under criteria listed in the Joint Board Petition Policy used by the board in determining whether or not an emergency exists, paragraph (f) of 5 AAC 96.625 reads, in pertinent part:

...In this section, an emergency is an unforeseen, unexpected event that either threatens a fish or game resource, or an unforeseen, unexpected resource situation where a biologically allowable resource harvest would be precluded by delayed regulatory action and such delay would be significantly burdensome to the petitioners because the resource would be unavailable in the future.

In this petition, NLAC suggests an unforeseen, unexpected resource situation that threatens a fish resource. Sockeye salmon total return in the Nelson River Section over the last five years (2018-2022) has averaged approximately 273,800 fish and is well below the 10- and the 20-year average of 446,000 and 490,000 fish. These historically low returns have not been seen since the 1970s and it is reasonable to assert that the low 2022 Nelson River sockeye salmon return is an unforeseen event. However, it does not represent an event that threatens a fish resource, as the escapement goal for the Nelson River has only been missed once since 1974, in 2011. In 2022 the escapement goal was met, and escapement was not below a level at which the stock's ability to sustain itself is jeopardized.

The department recognizes the 2022 Nelson River return, as well as the returns over the last five years, have been poor and below the long-term average. However, even though harvests have been below average in recent years, escapements have been adequate to continue to provide directed commercial sockeye salmon harvest opportunities in the Nelson Lagoon Section. The department does not believe that harvests of Nelson Lagoon-origin sockeye salmon in the Northern District are at a level that threatens the long-term sustainability of this stock.