




THE STATE
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MEMORANDUM

TO: Members
Alaska Board of Fisheries

DATE: September 20, 2015

FROM: Jeff Regnart, Director 
Division of Commercial Fisheries

SUBJECT: Bristol Bay
Management Area
Stock of Concern
Recommendations

and

Thomas Brookover, Director 
Division of Sport Fish

The *Policy for the Management of Sustainable Salmon Fisheries* (SSFP; 5 AAC 39.222) directs the department to report to the Alaska Board of Fisheries (board) on the status of salmon stocks and identify any stocks that present a concern related to yield, management, or conservation during regular board meetings. This memorandum summarizes the results of the stock of concern (SOC) evaluation for the Bristol Bay Management Area (BBMA) salmon stocks for the 2015 board regulatory cycle. The evaluation includes input from headquarters, regional, and area management staff from both fishery divisions.

Currently there are 15 escapement goals in the BBMA. Counting towers are used to monitor the majority of sockeye salmon stocks in the BBMA. However, sonar is used to assess Nushagak River sockeye, king, chum, coho, and pink salmon spawning escapements. Spawning escapements for Naknek and Alagnak River king salmon have been assessed periodically with single aerial surveys. Based on SOC evaluation, no BBMA stock has chronically failed to meet its established escapement goal (Table 1); therefore, we recommend that no stocks of concern be established.

Literature Cited

Munro, A.R., E.C. Volk. 2014. Summary of Pacific salmon escapement goals in Alaska, with a review of escapements from 2005 to 2013. Alaska Department of Fish and Game, Fisheries Manuscript Series No. 14-01, Anchorage.

Bristol Bay Management Area Stock of Concern Memo

Table 1.—Bristol Bay Management Area king, sockeye, coho, and pink salmon escapement goals and escapements, from 2006 to 2015 (modified from Munro and Volk,2014).

| System | Escapement Goal | Enumeration Method | Goal Type | Initial Year | Escapement | | | | | | | | | |
|----------------------------------|------------------------|----------------------|------------------|--------------|------------|-----------|-----------|--------------------|-----------|-----------|-----------|-----------|-----------|--------------------|
| | | | | | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 ^a |
| KING SALMON | | | | | | | | | | | | | | |
| Nushagak River | 55,000 – 120,000 | sonar | SEG | 2013 | 117,364 | 50,960 | 91,364 | 74,781 | 56,088 | 102,258 | 167,618 | 107,602 | 70,482 | 98,019 |
| Naknek River | 5,000 | single aerial survey | lower-bound SEG | 2007 | NS | 5,498 | 6,559 | 3,305 ^b | NS | NS | NS | NS | NS | 3,060 ^c |
| Alagnak River | 2,700 | single aerial survey | lower-bound SEG | 2007 | 4,278 | 3,455 | 1,825 | 1,957 | NS | NS | NS | NS | NS | 917 ^c |
| CHUM SALMON | | | | | | | | | | | | | | |
| Nushagak River | 200,000 | sonar | lower-bound SEG | 2013 | 661,002 | 161,483 | 326,300 | 438,481 | 273,914 | 248,278 | 360,768 | 602,300 | 493,821 | 288,929 |
| COHO SALMON | | | | | | | | | | | | | | |
| Nushagak River | 60,000 – 120,000 | sonar | SEG | 2013 | | | | | | | 329,946 | 207,222 | 483,219 | NS |
| PINK SALMON | | | | | | | | | | | | | | |
| Nushagak River (even years only) | 165,000 | sonar | lower-bound SEG | 2013 | | | | | | | 1,348,606 | | 2,277,430 | |
| SOCKEYE SALMON | | | | | | | | | | | | | | |
| Kvichak River ^d | 2,000,000 – 10,000,000 | tower count | SEG | 2010 | 3,068,226 | 2,810,208 | 2,757,912 | 2,266,140 | 4,207,410 | 2,264,352 | 4,164,444 | 2,088,576 | 4,458,540 | 7,341,612 |
| Alagnak River ^e | 320,000 | tower count | lower-bound SEG | 2007 | 1,773,966 | 2,466,414 | 2,180,502 | 970,818 | 1,187,730 | 883,794 | 861,747 | 1,095,950 | 200,524 | 5,770,650 |
| Naknek River | 800,000 – 2,000,000 | tower count | SEG | 2015 | 1,953,228 | 2,945,304 | 2,472,690 | 1,169,466 | 1,463,928 | 1,177,074 | 900,312 | 938,160 | 1,474,428 | 1,920,954 |
| Egegik River | 800,000 – 2,000,000 | tower count | SEG | 2015 | 1,465,158 | 1,432,500 | 1,259,568 | 1,146,276 | 927,054 | 961,200 | 1,233,900 | 1,113,630 | 1,382,466 | 2,160,792 |
| Ugashik River | 500,000 – 1,400,000 | tower count | SEG | 2015 | 1,003,158 | 2,599,186 | 596,332 | 1,364,338 | 830,886 | 1,029,853 | 670,578 | 898,110 | 640,158 | 1,564,638 |
| Wood River | 700,000 – 1,800,000 | tower count | SEG | 2015 | 4,008,102 | 1,528,086 | 1,724,676 | 1,319,232 | 1,804,344 | 1,098,006 | 764,202 | 1,183,348 | 2,764,614 | 1,941,474 |
| Igushik River | 150,000 – 400,000 | tower count | SEG | 2015 | 305,268 | 415,452 | 1,054,704 | 514,188 | 518,040 | 421,380 | 193,770 | 387,036 | 340,590 | 651,172 |
| Nushagak River | 370,000 – 900,000 | sonar | SEG | 2015 | 548,410 | 518,041 | 492,546 | 484,149 | 468,696 | 428,191 | 432,438 | 894,148 | 618,477 | 796,684 |
| | 260,000 – 760,000 | sonar | OEG ^f | 2012 | | | | | | | | | | |
| Togiak River | 120,000 – 270,000 | tower count | SEG | 2007 | 312,126 | 269,646 | 205,680 | 313,946 | 188,298 | 190,970 | 203,148 | 128,000 | 151,934 | 218,700 |

Note: NS = no survey.

^a Preliminary escapement estimates.

^b In 2009, aerial surveys were only flown on Big Creek (2,834 king salmon) and King Salmon River (471 king salmon). Mainstem Naknek River and Paul's Creek were not surveyed in 2009.

^c In 2015, the survey observer for many of the previous years had retired and the current survey observer's efficiency is likely different.

^d Prior to 2010 Kvichak River had a pre-peak/peak-cycle escapement goal of 6 – 10 million sockeye and an off-peak escapement goal of 2 – 10 million fish. Between 2001 and 2009 only one year (2004) was classified as either a pre-peak or peak year.

^e Goal was developed from tower counts. Estimates from 2012-2015 are expanded from post season aerial assessment.

^f Nushagak River has an OEG of 260,000–760,000 sockeye salmon when the preseason forecast for the Nushagak River is less than 1 million sockeye salmon and the ratio of Wood River to Nushagak River sockeye salmon is projected to be greater than 3 to 1.