## Summary of the 2011 Bristol Bay Sockeye Salmon Processing Capacity Survey

# Alaska Department of Fish and Game Division of Commercial Fisheries

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#### SUMMARY OF SURVEY RESULTS

The Alaska Department of Fish and Game (ADF&G) recently completed a survey of 16 salmon processors intending to buy sockeye salmon in Bristol Bay during the 2011 season. The response rate was high, with 15 of the 16 surveyed processors submitting a response. All the processors surveyed had purchased salmon in Bristol Bay during the 2010 season; and taken together, accounted for 99.0% of the sockeye salmon purchased in Bristol Bay during the 2010 season. Individual processor's salmon capacities are protected as confidential information under Alaska statute (AS 16.05.815(a)).

Results of the processing capacity survey should be viewed in relationship to the sockeye salmon forecast released by ADF&G. There is always uncertainty in forecasting salmon returns and the 2011 forecast is no different in this regard than previous years. The primary function of the salmon forecast has always been to provide processors and harvesters an indication of what ADF&G is anticipating in salmon returns for the coming season.

## **Bristol Bay Sockeye Salmon Processing Capacity**

The 2011 commercial sockeye salmon harvest for Bristol Bay is forecasted by ADF&G to be 28.52 million fish. The total return to Bristol Bay has a point estimate of 38.5 million sockeye salmon within a range of 29.17 to 47.82 million fish. Escapement goals for all Bristol Bay systems are calculated to be 8.83 million sockeye salmon. Forecasted harvest represents a decrease of approximately 0.54 million sockeye salmon compared to the actual 2010 harvest. If the 2011 forecast is accurate, it would be the 8<sup>th</sup> consecutive year where total run is close to or exceeds 40 million sockeye salmon.

The 15 processors indicated that they are prepared to purchase and process 33.7 million sockeye salmon next summer, which is 5.2 million fish higher than the forecasted harvest of 28.52 million fish. This estimated processing capacity surplus translates to 30.2 million pounds of salmon. Daily processing capacity is an important consideration, especially in Bristol Bay, and the survey asked processors to estimate daily capacity. Total daily processing capacity of surveyed processors is 2.07 million fish per day, up slightly from the 2010 estimated daily capacity.

Peak daily harvests in Bristol Bay can exceed 2.0 million fish. In addition to a slightly higher daily processing capacity compared to the 2010 survey, the processors indicated an 8.1%

increase in the "in-Bristol Bay" tender fleet capacity.

Limited excess harvesting capacity exists within the Bristol Bay sockeye salmon fishery. Even though processing capacity appears to be sufficient in the Bristol Bay sockeye salmon fisheries, this does not guarantee that all fishermen will have a buyer at all times during this season. Processors may choose to limit the number of fishermen from whom they purchase salmon and still processes the number of fish available for harvest.

The capacity survey is also an estimate of the aggregate capacity for the entire season. Individual processors may still impose limits per period, or for some limited time, because of quality concerns, tendering limitation, daily processing capacity limitation at specific plants, or other operational considerations.

### **Ugashik:**

Surveyed processors were asked if their company intended to purchase sockeye salmon in the Ugashik District in 2011, and if so, would their company be purchasing more sockeye salmon than compared to the 2010 season. Surveyed processors bought an aggregated 100.0% of the total 2010 sockeye salmon harvest from the Ugashik District.

While the exact number of processors that will purchase and process sockeye salmon in the Ugashik District is unknown at this early date, 13 of the companies surveyed reported that their companies intend to operate in the Ugashik District in 2011, 9 of the companies surveyed intend to purchase more salmon than in 2010, while 4 of the companies were unsure if they would purchase more salmon than in 2010.

## Change in Tenders

Surveyed processors were asked if their company intends to provide tenders during the 2011 season, their tender fleet's "in-Bristol Bay" holding capacity, the daily capacity of their long haul tender fleet, and season capacity of their long haul tender fleet. All but two of the responding processors indicated their company will provide tenders in 2011.

The reported "in-Bristol Bay" tender fleet holding capacity is 37.1 million pounds, an increase of 2.79 million pounds from the 2010 survey. The estimated daily capacity of the long haul tender fleet is 4.65 million pounds, and the reported season capacity of the long haul tender fleet is 16.58 million pounds.

#### BACKGROUND

While the Bristol Bay salmon forecast for 2011 is for a slightly smaller harvest than the 2010 harvest, it still would be among the larger harvests taken in Bristol Bay and concerns remain among fishermen about the inability to fully utilize the available harvest because of a shortage of

processing capacity. For this reason, the ADF&G agreed to conduct a survey of 2011 Bristol Bay processing capacity. This survey is the fourth year ADF&G has conducted the Bristol Bay sockeye salmon capacity survey independently, rather than as part of a statewide salmon processing capacity survey.

In addition, should the governor receive a request to bring foreign processing ships into the internal waters of the state to process salmon in Bristol Bay in 2011, information from this survey would be considered by the governor, along with other information, in determining whether foreign vessels should be allowed to enter the internal waters of the State of Alaska to process salmon. The Magnuson-Stevens Fishery Conservation and Management Act requires the governor to determine whether adequate domestic processing capacity exists, and whether that capacity will be used to process the available harvest, before allowing any foreign processors into state waters.

Capacity is measured as a combination of actual physical processing capacity and the intent of buyers and processors to purchase and process salmon during the season in aggregate. Processors are asked in the survey to report the maximum amount of fish in pounds, or numbers of fish, that they intend to purchase and process during the upcoming fishing season. Information collected in this survey helps ADF&G plan for the expected return of salmon in each area of the state and is used for management purposes during the commercial fishing season.

Results of the 2011 Bristol Bay sockeye salmon capacity survey should be interpreted as a snapshot of anticipated processing capacity prior to the opening of the first salmon fishery in Bristol Bay. The 2011 Bristol Bay sockeye salmon forecast was released on November 12, 2010. Processors were asked to provide their best estimate of their capacity by March 2, 2011, several months before the summer salmon fishing season begins. As processors finalize operational plans and assess the domestic and world markets for salmon, their plans may change between the time of the survey and the salmon fishing season. The salmon capacity estimated in this report is not guaranteed, nor is there an implied guarantee that all fishermen will have buyers for all of their salmon.

#### **METHODS**

Processors and buyers were selected to receive survey forms based on two sources of information: the ADF&G 2009 Commercial Operators Annual Reports (COAR) and ADF&G 2010 fish tickets. Processors were selected for inclusion in the survey if the processor reported buying more than 100,000 pounds of salmon on their 2009 COAR reports or, if according to fish ticket records, the processor bought more than 100,000 pounds of salmon during 2010. In the survey, processors were asked to estimate the amount of sockeye salmon they intended to purchase during the 2011 season from the Bristol Bay area of the state. A copy of the ADF&G 2011 Bristol Bay sockeye salmon forecast was provided with the survey forms.

These criteria identified 16 commercial salmon processor companies to receive surveys. Surveys were mailed on February 10, 2011 and processors were requested to return completed surveys by

March 2, 2011. Compilation and analysis of the information received from processors began on March 18, 2011.

The majority of processors that responded to the survey reported their capacity in pounds. To compare the survey capacity with the forecasted harvest (in numbers of fish), the survey capacity in pounds was divided by the average weight per fish of 5.8 pounds per fish for sockeye salmon to convert capacity to numbers of fish. After the survey capacity was converted to numbers of fish, the projected capacity was compared to the forecasted return.

Other questions in the survey asked about anticipated daily processing capacity, the number of days a company could sustain their daily processing capacity throughout the 2011 season, estimated tender capacity for both the "in-Bristol Bay" and "long haul" tender fleet, and if a company intends to purchase more sockeye salmon specifically in the Ugashik fishing district in 2011 compared to the 2010 season. The survey also asked if there are additional factors that would affect a company's ability to increase average daily capacity and to sustain that capacity at peak level.

## 2011 Bristol Bay Sockeye Salmon Capacity Survey

Alaska Department of Fish and Game

The forecast for sockeye salmon returning to Bristol Bay during the 2011 season is 38.5 million fish. A return of this size is expected to produce a harvestable surplus of 28.52 million sockeye salmon. This volume of fish converts to approximately 165.4 million pounds.

Table 1. Alaska Department of Fish and Game 2011 Bristol Bay sockeye salmon projected harvest.<sup>a, b</sup>

Number of fish <sup>b</sup>	Pounds of fish
28,520,000	165,416,000

<sup>&</sup>lt;sup>a</sup> The pounds of fish are based on an average weight of 5.8 pounds per fish.

Table 2. Estimated 2011 Bristol Bay sockeye salmon processing capacity from the 2011 survey.

Number of fish	Pounds of fish
33,718,966	195,570,000

Table 3. Estimated 2011 Bristol Bay sockeye salmon processing capacity above the 2011 forecast.

Number of fish	Pounds of fish
5,198,966	30,154,000

Table 4. Percent of total 2010 Bristol Bay sockeye salmon purchased by 2011 survey respondents.

Area	Sockeye salmon
Bristol Bay	99.0%

Table 5. Estimated Bristol Bay sockeye salmon daily processing capacity from the 2011 survey.

Number of Fish	Pounds of fish
2,068,793	11,999,000

Table 6. Estimated average number of days the daily processing capacity will be sustained from the 2011 survey.

Area	Number of days
Bristol Bay	23

<sup>&</sup>lt;sup>b</sup> The rounded official forecast is listed in number of fish.

Table 7. Estimated number of processing companies that will provide tenders from the 2011 survey.<sup>c</sup>

Area	Number of Companies
Bristol Bay	13

<sup>&</sup>lt;sup>c</sup> 15 companies responded.

Table 8. Estimated Tender fleet holding capacity for "in-Bristol Bay" processing from the 2011 survey.

Number of Fish	Pounds of Fish
6,396,552	37,100,000

Table 9. Estimated daily capacity of the long haul Tender fleet from the 2011 survey.

Number of Fish	Pounds of Fish
801,724	4,650,000

Table 10. Estimated season capacity of the long haul Tender fleet from the 2011 survey.

Number of Fish	Pounds of Fish
2,858,621	16,580,000

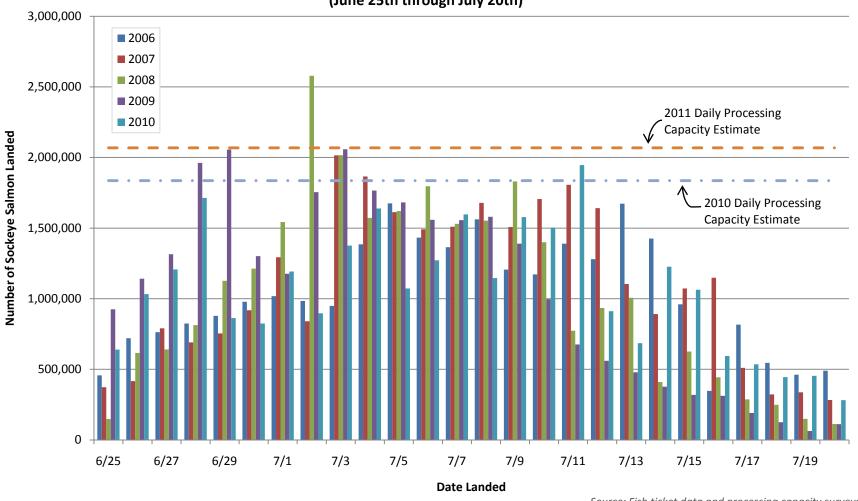
Table 11. Estimated number of companies surveyed that intend to purchase more sockeye salmon in the Ugashik District compared to 2010 from the 2011 survey.<sup>d</sup>

Area	Number of Companies
Bristol Bay	9

<sup>&</sup>lt;sup>d</sup> 15 companies responded.

## Daily Sockeye Salmon Landings in Bristol Bay, 2006-2010

(June 25th through July 20th)



Source: Fish ticket data and processing capacity surveys

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