UPPER COOK INLET 2019 OUTLOOK FOR COMMERCIAL SALMON FISHING

SOCKEYE SALMON

A run of approximately 6.0 million sockeye salmon is forecasted to return to Upper Cook Inlet (UCI) in 2019, with an expected harvest by all user groups of 4.0 million. The commercial fishery harvest in 2019 is estimated to be approximately 3.0 million sockeye salmon, which is 200,000 fish more than the 20-year average annual commercial sockeye salmon harvest.

The run forecast for the Kenai River is approximately 3.8 million, which is 200,000 greater than the 20-year average run of 3.6 million. In 2019, the predominant age classes are projected to be age 1.3 (71%), age 1.2 (10%), age 2.2 (6%) and age 2.3 (12%). The 10-year mean absolute percent error (MAPE) for the set of models used for the 2019 Kenai River sockeye salmon forecast is 19%.

The Kasilof River sockeye salmon run forecast is 873,000 fish, which is 11% less than the 20-year average of 979,000. The predominant age classes in the run forecast are age 1.3 (37%), age 1.2 (27%), age 2.2 (23%), and age 2.3 (11%). The 10-year MAPE for this set of models used for the 2019 Kasilof sockeye salmon run forecast is 19%.

The Susitna River sockeye salmon run forecast is 343,000, which is 16% less than the 20-year average of 409,000. This forecast was derived using mean return per spawner by age class and mark-recapture estimates of spawner abundance for brood years 2006–2014. Sonar estimates of spawner abundance were not used, because mark-recapture studies have shown that the Yentna sonar project underestimated sockeye salmon escapement causing estimates of adult returns to also be underestimated. The 10-year MAPE for this forecast method is 32%. The predominant age classes in the 2019 Susitna sockeye salmon run forecast are age 1.2 (45%) and age 1.3 (40%).

The Fish Creek sockeye salmon run forecast is 124,000, which is 50% greater than the 20-year average run of 83,000. The predominant age classes in the 2019 Fish Creek run forecast are age
1.2 (58%) and age 1.3 (22%). The 10-year MAPE for the Fish Creek sockeye salmon run forecast is 69%.

Forecast runs to individual freshwater systems are as follows:

<table>
<thead>
<tr>
<th>System</th>
<th>Run</th>
<th>Goals⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenai River</td>
<td>3,814,000</td>
<td>1,000,000–1,300,000</td>
</tr>
<tr>
<td>Kasilof River</td>
<td>873,000</td>
<td>160,000–340,000</td>
</tr>
<tr>
<td>Susitna River</td>
<td>343,000</td>
<td></td>
</tr>
<tr>
<td>Larson Lake</td>
<td>N/A</td>
<td>15,000–35,000⁵</td>
</tr>
<tr>
<td>Chelatna Lake</td>
<td>N/A</td>
<td>20,000–45,000⁵</td>
</tr>
<tr>
<td>Judd Lake</td>
<td>N/A</td>
<td>15,000–40,000⁵</td>
</tr>
<tr>
<td>Fish Creek</td>
<td>124,000</td>
<td>15,000–45,000⁵</td>
</tr>
<tr>
<td>Unmonitored Systems</td>
<td>881,000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,556,000</td>
<td></td>
</tr>
</tbody>
</table>

⁴ Goals listed here are as follows: Kenai River: Inriver; Kasilof River: Biological Escapement Goal (BEG); Susitna River: SEG (weir goals); and Fish Creek: Sustainable Escapement Goal (SEG).

⁵ These goals were modified at the 2017 Alaska Board of Fisheries meeting; original goals were: Fish Creek (20,000–70,000); Larson Lake (15,000–50,000); Chelatna Lake (20,000–65,000); and Judd Lake (25,000–55,000).

Northern District Set Gillnet

- Since 2011, management actions in the Northern District directed king salmon set gillnet fishery have included area closures, time restrictions, and/or regularly scheduled fishing period closures in order to reduce the harvest of northern Cook Inlet king salmon. However, even with restrictions in sport and commercial fisheries in 2018, the Deshka River failed to achieve its king salmon escapement goal, with a total passage of 8,500 fish. The 2019 Deshka River preseason forecast suggests a total run that will not provide enough fish for the SEG to be achieved. Based on this low forecast, and recent low king salmon production throughout the Susitna Drainage, the Division of Sport Fish issued an Emergency Order (EO) prohibiting all fishing for king salmon in the entire Susitna River drainage. In response to the poor Deshka River king salmon forecast and paired with actions taken in the Susitna River drainage king salmon sport fisheries, the Division of Commercial Fisheries released EO 2S-01-19 closing the Northern District directed king salmon commercial fishery for the 2019 season. The fishing periods affected by this closure are May 27, and June 3, 10, 17 and 24. Escapement of king salmon in the Deshka and Little Susitna rivers will be closely monitored during the 2019 season. If runs are better than expected and the Deshka River SEG is projected to be achieved with moderate levels of harvest, reopening the directed king salmon commercial fishery will be considered.
• Beginning Monday, June 25, the Northern District set gillnet fishery will be managed per provisions found in the *Northern District Salmon Management Plan*. This plan provides for two 12-hour weekly fishing periods with a full complement of gear and a normal separation between nets of at least 600 feet.

• Susitna River sockeye salmon remain a stock of yield concern. As a result of this designation, restrictive actions to fisheries that harvest this stock were retained in regulation at the 2017 Alaska Board of Fisheries (board) meeting. According to the *Northern District Salmon Management Plan*, the department may reduce the legal complement of gear in the Northern District set gillnet fishery to either one or two nets per permit from July 20 through August 6 to conserve Susitna River sockeye salmon. However, in that portion of the General Subdistrict south of the Susitna River, restrictive options for gear reduction are limited to two nets per permit after July 30. In 2019, five different fishing periods could be affected by a reduction of gear. All areas in the Northern District will return to a full complement of gear beginning on Thursday, August 8.

**Central District Fisheries**

**Upper Subdistrict Set Gillnet Fishery – Overview**

The 2019 Kenai River late-run king salmon forecast projects a total run of approximately 21,746 “large” (>75cm mid-eye to tail fork) fish. The SEG for Kenai River late-run king salmon is 13,500–27,000 large fish. If the run returns as forecasted, it would rank as the 4th lowest run, measured as 31st out of 34 years, but would be approximately 20% greater than the 2018 run estimate of 17,571 large fish. Based on the run-size forecast, and if harvest rates are average in both sport and commercial fisheries, the Kenai River late-run king salmon large fish SEG should be met. Thus, to begin the season, fishing time allowed in the Upper Subdistrict Set Gillnet (ESSN) fishery will be based on inseason assessment of sockeye salmon abundance, while ensuring adequate king salmon escapement relative to the SEG.

According to 5 AAC 21.360 (b) *Kenai River Late-Run Sockeye Salmon Management Plan*, the Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to:

1. meet a sustainable escapement goal (SEG) range of 700,000–1,200,000 late-run sockeye salmon;
2. achieve inriver goals as established by the board and measured at the Kenai River sonar counter located at river mile 19; and
3. distribute the escapement of sockeye salmon evenly within the SEG range, in proportion to the size of the run.

All three of these management objectives are complementary to each other. Because the harvest of sockeye salmon by inriver users (sport and federal subsistence) above the sonar counter is not known inseason (although it is estimated for total run projection purposes), the primary inseason management objectives are the abundance-based sockeye salmon inriver goals in the Kenai River and the BEG/OEG in the Kasilof River. The Kenai River sockeye salmon SEG will be assessed after inriver sport and federal subsistence harvests above the sonar counter are accounted for.
Achievement of the inriver goal ranges should result in meeting the SEG and distributing the escapement of sockeye salmon evenly within the SEG range, in proportion to the size of the run.

**Upper Subdistrict Set Gillnet Fishery – Management**

**Kasilof Section Prior to July 8**

- The Kasilof Section opens on the first regular period on or after June 25, unless the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to that date, at which time the commissioner may open the fishery by EO, however, the fishery may not open earlier than June 20. From the beginning of the season through July 7, this fishery will be open for regular 12-hour periods on Mondays and Thursdays and must close for 36 consecutive hours per week, which is to begin between 7:00 p.m. Thursday and 7:00 a.m. Friday. Additionally, the department may allow up to 48 hours of additional fishing time per week (Sunday through Saturday).

**Kasilof, Kenai and East Forelands Sections after July 8th**

- The Kenai and East Forelands sections fishing season opens on or after July 8.

- Management of the Kasilof, Kenai and East Foreland sections (Upper Subdistrict) set gillnet fishery will be based on the projected run size of Kenai River sockeye salmon and passage levels of sockeye salmon in both the Kenai and Kasilof rivers, as well as the abundance of Kenai River late-run large king salmon. From July 1–31, if the run of Kenai River late-run king salmon is projected to meet or exceed the minimum large-fish SEG, then management of the Upper Subdistrict set gillnet fishery is to follow provisions in the *Kenai River Late-Run Sockeye Salmon Management Plan*. For the 2019 season, the Kenai River sockeye salmon run projection is 3.8 million fish. Therefore, the season will be managed following guidelines outlined for run strengths between 2.3 and 4.6 million fish, which includes an inriver goal range of 1,000,000–1,300,000 fish. The Kenai River sockeye salmon run will be reassessed after July 20 to determine inseason run strength.

- At the 2019 statewide finfish meeting the board adopted Proposal 181 that exempted the North K-Beach stat area (244-32) when opened within 600 feet of mean high tide from the hourly restrictions found in 5AAC 21.359 and 5AAC 21.360. This provision will apply to the 2019 fishing season.

- For run strengths between **2.3 and 4.6 million Kenai River sockeye salmon**, the ESSN fishery will be open for regular Monday and Thursday 12-hour fishing periods. The fishery will be closed for one continuous 36-hour period per week between 7:00 p.m. Thursday and 7:00 a.m. Friday and for one continuous 24-hour period per week beginning between 7:00 p.m. Monday and 7:00 a.m. Wednesday. The department may allow no more than 51 hours of additional fishing time per week. From July 1–31, if the Kenai River late-run king salmon sport fishery is restricted to no bait or to no bait and no retention of king salmon in order to meet the SEG, management actions in the Upper Subdistrict set gillnet fishery will be “paired” as described in *Kenai River Late-Run King Salmon Management Plan*. However, in 2017 the board modified this management plan exempting the East Foreland Section set gillnet fishery from the “paired” restrictive provisions in the plan.
From August 1–15, management of the ESSN fishery is based upon meeting Kenai and Kasilof River sockeye salmon escapement objectives as well as achieving the Kenai River late-run large king salmon SEG. If the king salmon SEG is projected to be met, the ESSN fishery will follow the same provisions in August that applied in July. Paired restrictive provisions in the ESSN fishery are not in effect beginning August 1; however, the fishery is managed per the Kenai River Late-Run Sockeye Salmon Management Plan to meet sockeye and king salmon escapement objectives in both the Kenai and Kasilof rivers.

According to the Kenai River Late-Run Sockeye Salmon Management Plan, the ESSN fishery closes no later than August 15, but from August 11–15, only Monday and Thursday regular 12-hour fishing periods are allowed. However, the season may close any time after August 7 if during two consecutive fishing periods the sockeye salmon harvest is less than one-percent of the season total. The one-percent rule applies separately to the Kasilof Section and the Kenai/East Foreland sections, which means one of the areas could close under the one-percent rule, while the other area remains open.

Central District Drift Gillnet Fishery – Overview

The department manages the UCI drift gillnet fleet primarily under the guidance of 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan. The purpose of this management plan is to ensure adequate escapement of salmon into Northern Cook Inlet drainages and to provide the department with management guidelines.

Central District Drift Gillnet Fishery – Management

- The drift gillnet fishery opens the third Monday in June or June 19, whichever is later.

- From July 9 through July 15:
  a. Drift gillnet fishing is restricted for both regular fishing periods to the Expanded Kenai and Expanded Kasilof sections (Figures 1), and Drift Gillnet Area 1 (Figure 2).
  b. At run strengths greater than 2.3 million to the Kenai River, one additional 12-hour fishing period may be allowed in the Expanded Kenai and Expanded Kasilof sections, and Drift Gillnet Area 1.
  c. All additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections.

- From July 16 through July 31:
  a. For runs between 2.3 and 4.6 million Kenai River sockeye salmon, fishing during one regular 12-hour fishing period per week will be restricted to one or more of the following sections: The Expanded Kenai or Expanded Kasilof sections of the Upper Subdistrict, the Anchor Point Section of the Lower Subdistrict, or Drift Gillnet Area 1. The remaining weekly 12-hour fishing period and all additional fishing time outside regular fishing periods is allowed only in one or more of the following: The Expanded Kenai Section, the Expanded Kasilof Section, or the Anchor Point Section.
  b. One regular 12-hour fishing period during this time period may be fished in all waters of the Central District instead of in Drift Gillnet Area 1.
• From August 1 through August 15:
  a. Fishing is open in all waters of the Central District for Monday and Thursday regular 12-hour fishing periods. Additional fishing time outside regular fishing periods and the areas fished will be dependent upon meeting king, sockeye, and coho salmon escapement objectives.
  b. Two one-percent rules apply during this time period, the Upper Subdistrict set gillnet one-percent rule and the Central District drift gillnet one-percent rule (see 5 AAC 21.310(b)(2)(C)(iii) and 5 AAC 21.353(e)). If either one-percent rule is triggered, regular drift fishing periods will be restricted to Drift Areas 3 and 4 (Figure 3)

• From August 16 until closed by EO:
  a. Drift Areas 3 and 4 are open for regular periods.
  c. Chinitna Bay may be opened by EO if chum salmon escapement objectives are achieved in Clearwater Creek.

SEASON OPENING DATES

Season opening dates in 2019 for the various fisheries around the inlet are as follows:

• Northern District King Salmon Fishery: Closed. As explained earlier in this document, because the preseason projection for Deshka River king salmon run is much below average, the Division of Commercial Fisheries released an EO closing the Northern District directed king salmon commercial fishery for the 2019 season.

• Big River Fishery: June 3 and continuing through June 24. Weekly fishing periods are Mondays, Wednesdays, and Friday from 7:00 a.m. to 7:00 p.m.

• Western Subdistrict Set Gillnet Fishery: June 17.

• Drift Gillnet Fishery: June 20.

• All remaining set gillnet fisheries, except the Upper Subdistrict: June 27.

• Upper Subdistrict Set Gillnet Fishery: June 27 for the Kasilof Section (that portion south of the Blanchard Line). This fishery may be opened earlier by EO based on an inriver estimate of 50,000 sockeye salmon in the Kasilof River but may not open before June 20. The Kenai and East Forelands sections (that portion of the Upper Subdistrict north of the Blanchard Line) will open on Monday, July 8. All Sections of the Upper Subdistrict close by regulation in 2019 on August 15.
SET NET REGISTRATION AND BUOY STICKERS

All Cook Inlet setnet fishermen are required to register prior to fishing for one of three areas of Cook Inlet: 1) the Upper Subdistrict of the Central District; 2) the Northern District; or, 3) all remaining areas of Cook Inlet (Greater Cook Inlet). Once registered for one of these three areas, fishermen may fish only in the area for which they are registered for the remainder of the year. No transfers will be permitted. Dual set gillnet permit holders are required to register both permits in the same registration area. Set gillnet permit holders fishing in the Northern District or the Greater Cook Inlet area can register at ADF&G offices in Soldotna, Homer, or Anchorage or by mail. Forms are available at area offices or on the department’s homepage at: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.salmon#/management.

Fishermen wishing to register in person for the Upper Subdistrict must register in the Soldotna ADF&G office only and must purchase buoy stickers at the time of registering. Electronic registration with the option to pay for buoy stickers online may be accessed at http://www.adfg.alaska.gov/uciera/. Electronic registration is available for all three set gillnet fishing areas in UCI.

GENERAL INFORMATION

The UCI commercial fisheries information line will again be available by calling 262-9611. The most recent EO announcement is always available on the recorded message line and catch, escapement and test fishing information is included whenever possible. The same recording may be accessed at http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.main and clicking on the UCI Commercial Fisheries Information Recording player.

All EO announcements are also faxed or emailed to processors as quickly as possible and posted at http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.main. If you would like all EO and News Releases emailed to you as soon as they are released, you can subscribe at this website for that service. For very general information, we invite you to visit the Commercial Fisheries web page on the Internet at http://www.adfg.alaska.gov/index.cfm?adfg=fishingCommercial.main.

If, during the summer, fishermen have information or questions concerning the commercial fishery, the Soldotna Division of Commercial Fisheries staff can be reached by phone at 262-9368, by fax at 262-4709, or by mail at 43961 Kalifornsky Beach Road, Suite B, Soldotna, 99669.
Figure 1.—Map of drift gillnet statistical areas.
Latitude and Longitude are based on the North American Datum of 1983 (NAD 83), equivalent to the World Geodetic System 1984 (WGS 84).

Figure 2.—Map of drift gillnet areas 1 and 2.
Latitude and Longitude are based on the North American Datum of 1983 (NAD 83), equivalent to the World Geodetic System 1984 (WGS 84).

Figure 3.—Map of the drift gillnet areas 3 and 4; open after August 15.