Alaska Management
2018 Review and Considerations

Presented by:

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YRP meeting, Anchorage, AK, December 2018
2018 Management and Inseason Assessment Review
Team Outreach

• Meetings held inseason: Alakanuk, Kotlik, Tanana, Rampart and Eagle
• Visits funded by TCC: Grayling, Anvik, Shageluk, Holy Cross, Russian mission
• Hosted Educational Exchange from Canada
2018 Pre-season Chinook Outlook

• Chinook outlook: 71,000 – 103,000 Canadian-origin

• Drainage-wide: 173,000 – 251,000 Chinook
## 2018 Potential Allowable Catch Ranges

**Canadian-Origin Chinook**

<table>
<thead>
<tr>
<th></th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Allowable Catch</td>
<td>16,000</td>
<td>60,500</td>
</tr>
<tr>
<td>Canadian Allowable Catch (23% harvest share)</td>
<td>3,700</td>
<td>14,000</td>
</tr>
<tr>
<td>US Allowable Catch (77% harvest share)</td>
<td><strong>12,300</strong></td>
<td><strong>47,000</strong></td>
</tr>
</tbody>
</table>

**JTC forecast:** 71,000-103,000  
**Escapement Goal (IMEG):** 42,500 – 55,000

**2017 US harvest of Canadian-origin Chinook:** 21,000

Conservative management approach with potential for subsistence harvest similar to 2017

*numbers rounded to nearest 100
2018 Summer Chum Outlook

- Run outlook: 2.5 M
- Similar to last year’s run size
- Sufficient for escapement goals and subsistence needs
- Potential surplus for commercial harvest of up to 1.4M fish
- Harvest will be affected by Chinook run strength
2018 Preseason Planning Meeting

An all-day meeting with fishermen, where we can share data, outlook and objectives. Information shared:

• Canadian-origin outlook and the need to provide a harvest share for Canada

• The outlook from Bering Sea juvenile research indicating need for continued conservation and harvest restrictions

• Data addressing concerns such as customary trade and changes to gear types through regulatory process

• Generation of ideas of ways fishermen can take conservative actions on their own—release of older fish, e.g. shift harvest to other species
Fishermen work together and provide feedback that shapes management strategy and creates “buy-in”

- Need to allow Chinook-directed subsistence openings if abundance warrants

- Offer Chinook opportunity earlier in the run

- Less short/surgical openings, use reduced regulatory schedule and give plenty of notice

- Traditional knowledge shared with agency staff
2018 Inseason Run Assessment

Lower Yukon Test Fishery

• Started early in anticipation of early run

• high debris loads likely affected CPUE for first two pulses

• Fishermen reported challenging fishing conditions

• Relied more on Pilot Station sonar which was operating well and experiencing less problems with test fishery
2018 Subsistence Management Actions

Early season:
- Reduced regulatory subsistence fishing schedule (half of regulatory schedule in each district)
- Fishing periods cancelled and/or reduced to 6-inch gillnets (once first pulse detected at Pilot)

Once abundance indicated run above lower end of forecast:
- Some periods open with 7.5-inch to allow limited Chinook harvest with the exception of District 5

Once run timing indicated majority of run had passed:
- Regulatory schedule with 7.5-inch gillnets
2018 Summer Chum Commercial Management

• Use of selective gear for most of the season, but catch efficiency was low due to high water, debris, so longer periods were offered.

• Delayed use of 6-inch and smaller mesh gillnets until July (95% of Chinook had passed).

• No sale of Chinook allowed
2018 Pilot Station Sonar

- Chinook estimate: 161,800
- C.I. range: 137,300 – 186,400
- Summer Chum: 1.6 million
  - C.I. range: 1.5 – 1.7 million
- Genetic Stock ID in test fishery (Funded by YRP R&E) sampled approximately 553 Chinook
- Chinook run timing at Pilot was about 2 days later than average, and at Eagle 2 days later than average
Cumulative Chinook Passage at Pilot Station Sonar

- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018

Date Range:
- 28-May
- 2-Jun
- 7-Jun
- 12-Jun
- 17-Jun
- 22-Jun
- 27-Jun
- 2-Jul
- 7-Jul
- 12-Jul
- 17-Jul
- 22-Jul
- 27-Jul

Year Range:
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
# Mainstem Summer Chum Commercial Harvest

<table>
<thead>
<tr>
<th>Gear</th>
<th>Summer Chum Harvested</th>
<th>Chinook Released Alive</th>
<th>Chinook Kept for Personal Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dip Net &amp; Beach Seine and Y4 wheels (selective)</td>
<td>370,700</td>
<td>12,300</td>
<td></td>
</tr>
<tr>
<td>Gillnet</td>
<td>202,600</td>
<td></td>
<td>3,100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>573,300</strong></td>
<td></td>
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(not including any salmon caught in Fall, or the Tanana River)
## 2018 Summer Chum Escapement

<table>
<thead>
<tr>
<th>Escapement project</th>
<th>Current goal</th>
<th>2018 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EF Andreafsky River Weir</td>
<td>&gt;40,000</td>
<td>36,300</td>
</tr>
<tr>
<td>Anvik River Sonar</td>
<td>350,000 – 750,000</td>
<td>305,000</td>
</tr>
<tr>
<td>Drainage-wide</td>
<td>500,000 – 1,200,000</td>
<td>~1.5 Million +</td>
</tr>
</tbody>
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Mixed stock analysis indicates Lower summer chum stocks were weaker than normal, and the middle and Tanana stocks were stronger than average and possibly later than average.
Chinook Age Composition
Chinook Age Composition Pilot Station

- Includes Lower River, Middle River, Upper US and Canadian stocks

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Age-3</td>
<td>0.8</td>
</tr>
<tr>
<td>Age-4</td>
<td>12.1</td>
</tr>
<tr>
<td>Age-5</td>
<td>49.6</td>
</tr>
<tr>
<td>Age-6</td>
<td>36.9</td>
</tr>
<tr>
<td>Age-7</td>
<td>0.6</td>
</tr>
<tr>
<td>%</td>
<td>48.2</td>
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</table>
Chinook Age Composition at Eagle Sonar

- Slightly above average female composition
- Chinook were about 11 mm smaller than 2005-2017 average length
## 2018 Chinook Escapement

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<tr>
<td>EF Andreafsky River Weir</td>
<td>2,100 – 4,900</td>
<td>3,972</td>
</tr>
<tr>
<td>WF Andreafsky River Aerial</td>
<td>640 – 1,600</td>
<td>455</td>
</tr>
<tr>
<td>Anvik River Index Aerial</td>
<td>1,100 – 1,700</td>
<td>1,109</td>
</tr>
<tr>
<td>Nulato River Aerial</td>
<td>940 – 1,900</td>
<td>870</td>
</tr>
<tr>
<td>Chena River Tower</td>
<td>2,800 – 5,700</td>
<td>4,227*</td>
</tr>
<tr>
<td>Salcha River Tower</td>
<td>3,300 – 6,500</td>
<td>4,053*</td>
</tr>
</tbody>
</table>

* Preliminary inseason tower count expanded with sonar for missed days.
## 2018 Chinook Border Objective

<table>
<thead>
<tr>
<th>Current IMEG</th>
<th>2018 Eagle Sonar Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>42,500 – 55,000</td>
<td>57,839</td>
</tr>
<tr>
<td></td>
<td>(43% ♀, ~ 24,900 ♀)</td>
</tr>
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</table>

**Border passage** = sonar count, minus AK harvest above  
e.g. 500-1,000

Pre-season Estimated Canadian harvest share (20-26%) TAC  
e.g. 3,700 – 14,000

**Border objective** = Border passage required to meet IMEG range and provide 20% -26% Canadian Harvest share  
e.g. 46,200 - 69,000
Results to Come…

• Harvest estimates

• 2018 Canadian spawning escapement estimate

• 2018 Total Canadian-origin Chinook run

• Stock and age composition of Chinook subsistence harvest

• 2019 forecast
Stories from the river...

Cultural vibrancy

Holy Cross - Photo by Dave Walker
Stories from the river...

Changing practices
Stories from the river...

Providing for the whole community
With gratitude to our fishermen, tribes and agencies for working together to sustain our salmon for the future
Questions?