### Kuskokwim Area Fisheries Oral Report

By Aaron Poetter

AYK Board of Fisheries Meeting

January 2016

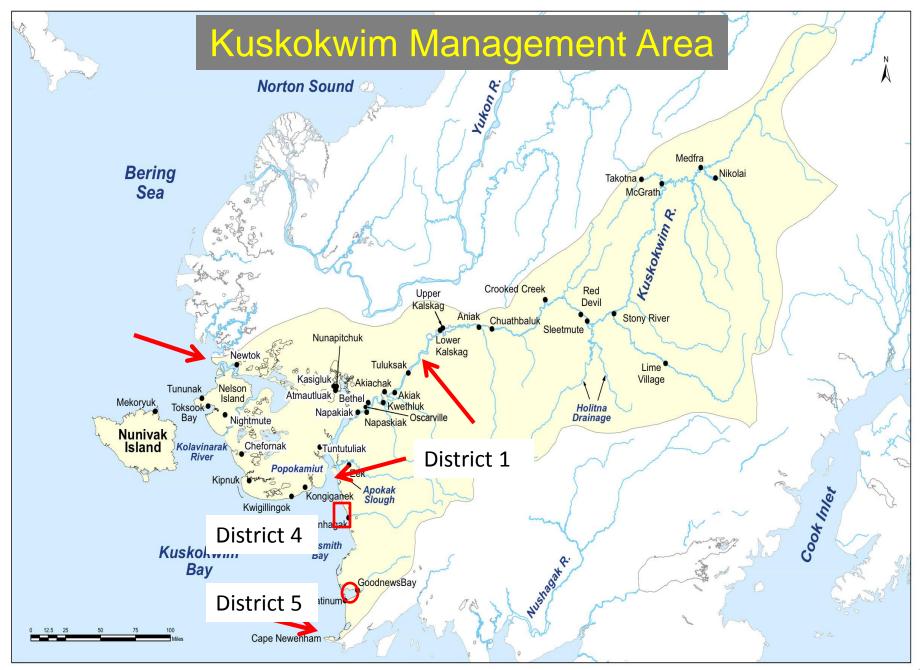


Written Report: RC 3; Tab 4 Oral Report: RC 3; Tab 4

### **Outline**

### Topics to be covered:

- 1. Area background
- 2. Stock status and recent fishery performance
- 3. Management Tools
- 4. Overview of proposals and issues

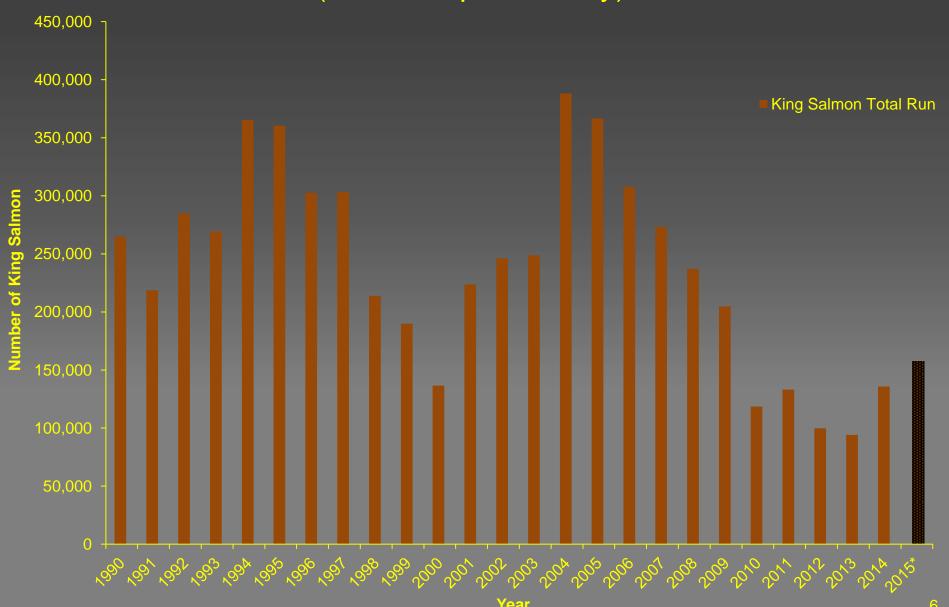




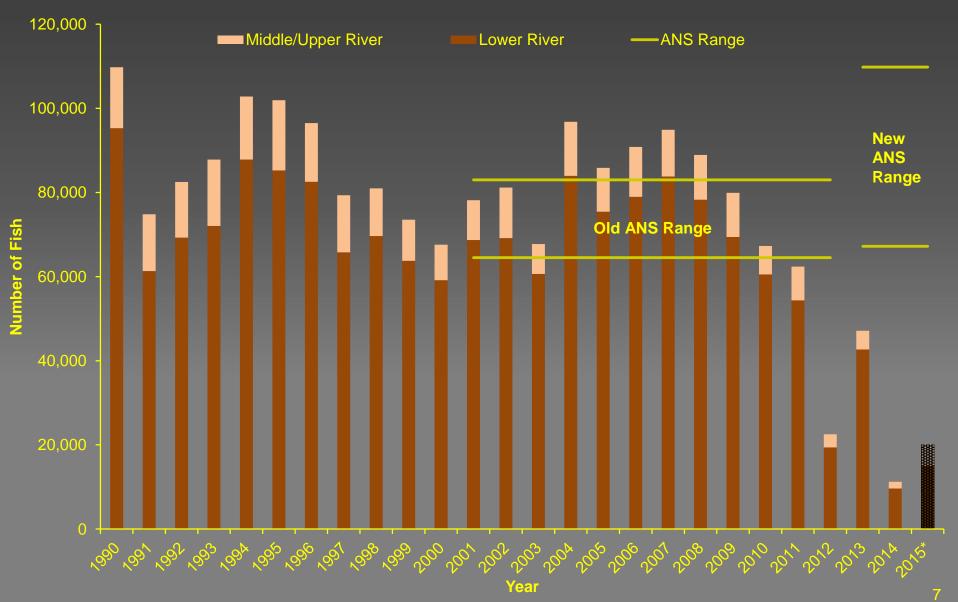
### Stock Status and Recent Fishery Performance

- Kuskokwim River
  - Poor king salmon runs
    - Restricted subsistence fishery (time/area/gear)
    - Subsistence harvests below ANS
    - Exceeded drainagewide escapement goal in 2014 and 2015
  - Chum, sockeye, and coho salmon relatively stable
    - Consistently met escapement goals
    - ANS met for all species except 2013 coho and 2015 chum salmon

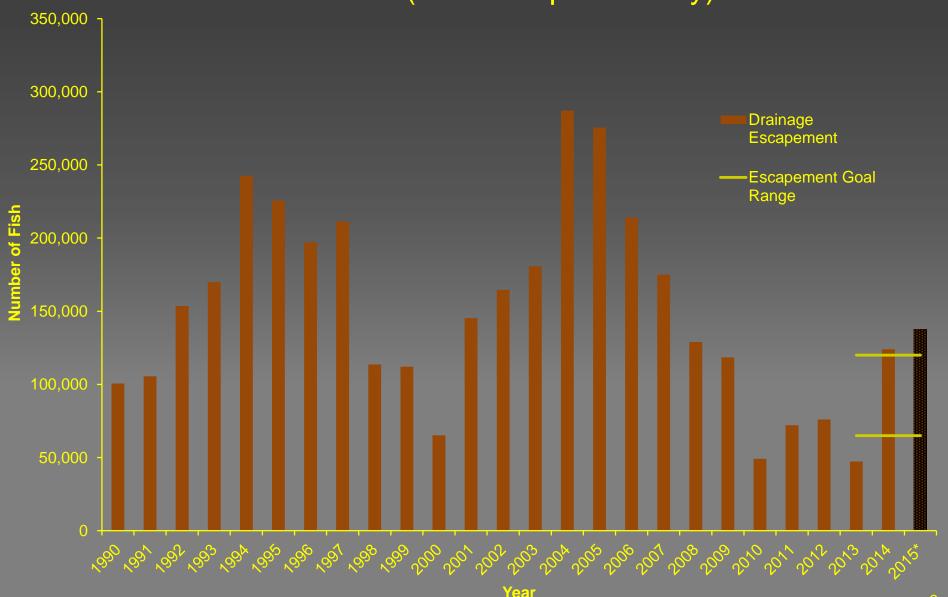
### Total Run of Kuskokwim River King Salmon, 1990–2015 (\* 2015 is preliminary)



## Kuskokwim River King Salmon Subsistence Harvest, 1990–2015 (\* 2015 is preliminary)



### Kuskokwim River King Salmon Escapement, 1990–2015 (\* 2015 is preliminary)





#### Stock Status and Recent Fishery Performance

- Kuskokwim Bay
  - Poor king salmon runs
    - Restricted subsistence fishery (time/gear)
    - Chum and coho salmon relatively stable
  - Sockeye salmon runs above average
  - Salmon ANS met or exceeded annually

#### Districts 4 and 5 Management

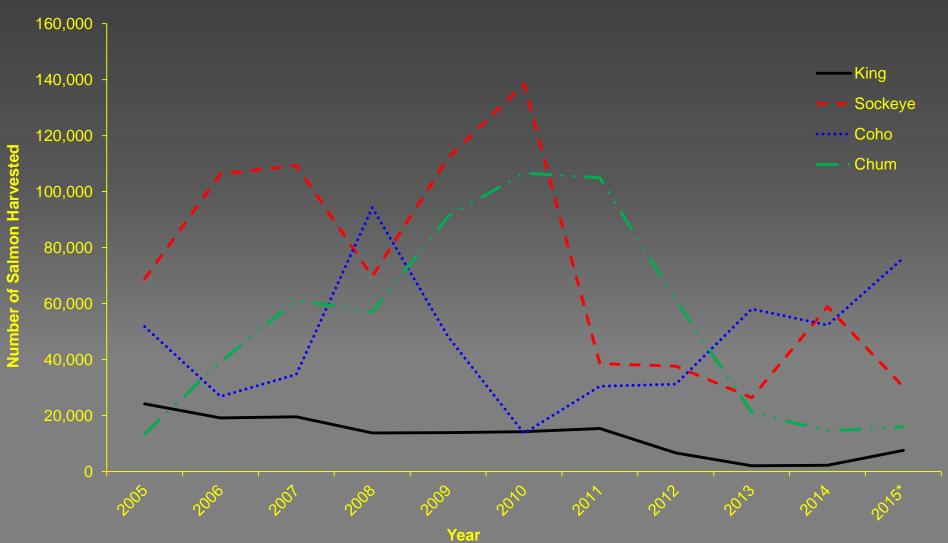
#### Subsistence

- Subsistence fishing restrictions implemented in Districts 4 and 5
  - Four days a week fishing schedule
  - Gillnets restricted to six inches or less
  - Gillnets restricted to marine waters only
- Subsistence closed during commercial periods

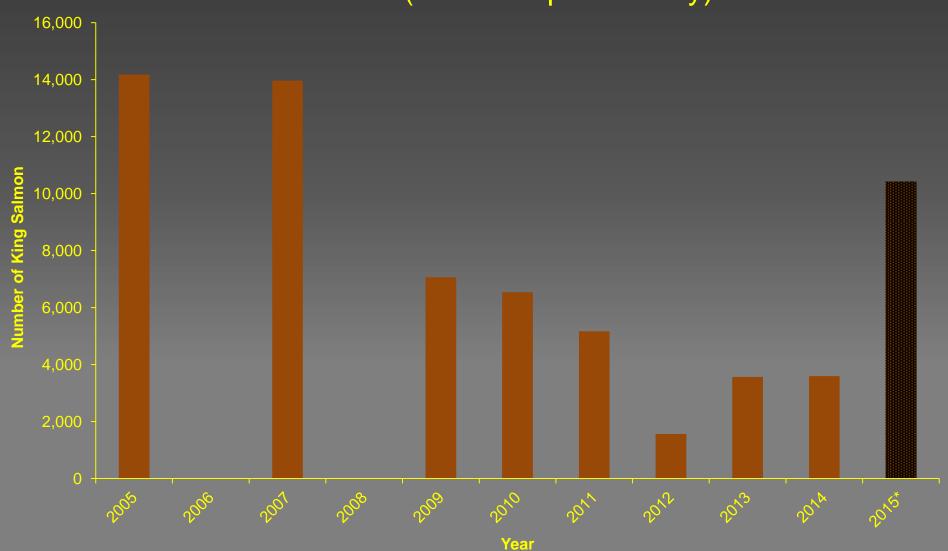
#### Commercial

- District 4 Salmon Management Plan
- Delayed first opening until late June or early July, 2013–2015
- Half district closure in Goodnews Bay in 2013 and 2015
- Commercial fishery restricted to 6-inches or less gillnet mesh
- Assessment using catch statistics and weir escapements

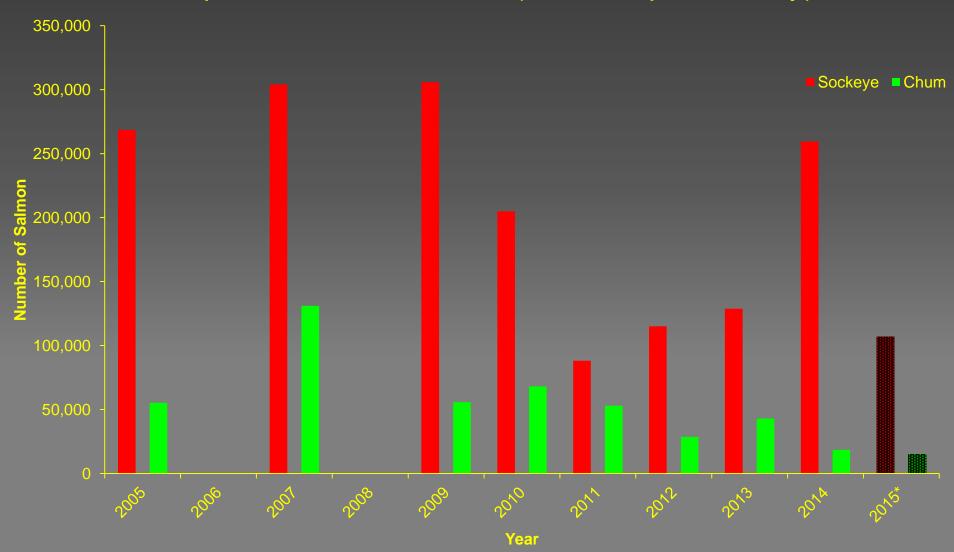
# District 4 Commercial Salmon Harvests, 2005–2015 (\*2015 is preliminary)



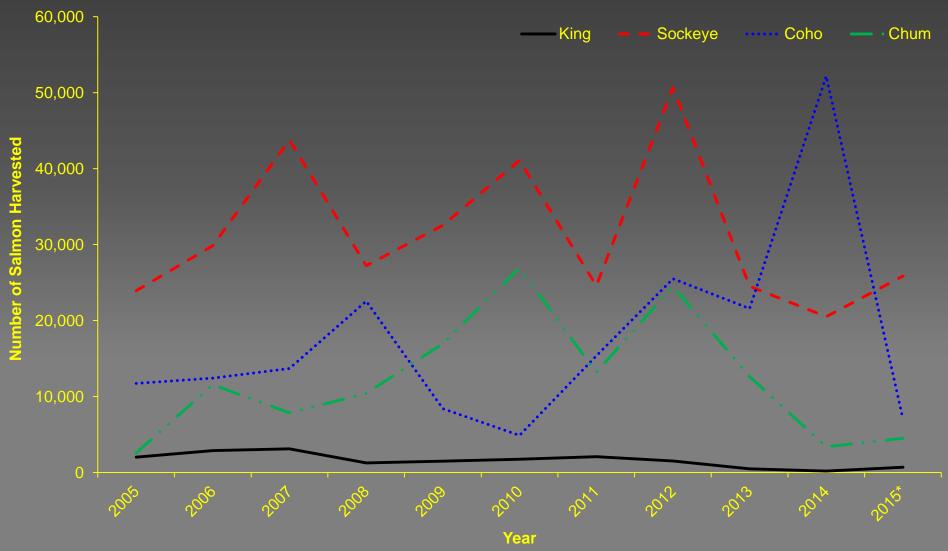
## Kanektok River Weir King Salmon Escapement, 2005–2015 (\* 2015 is preliminary)



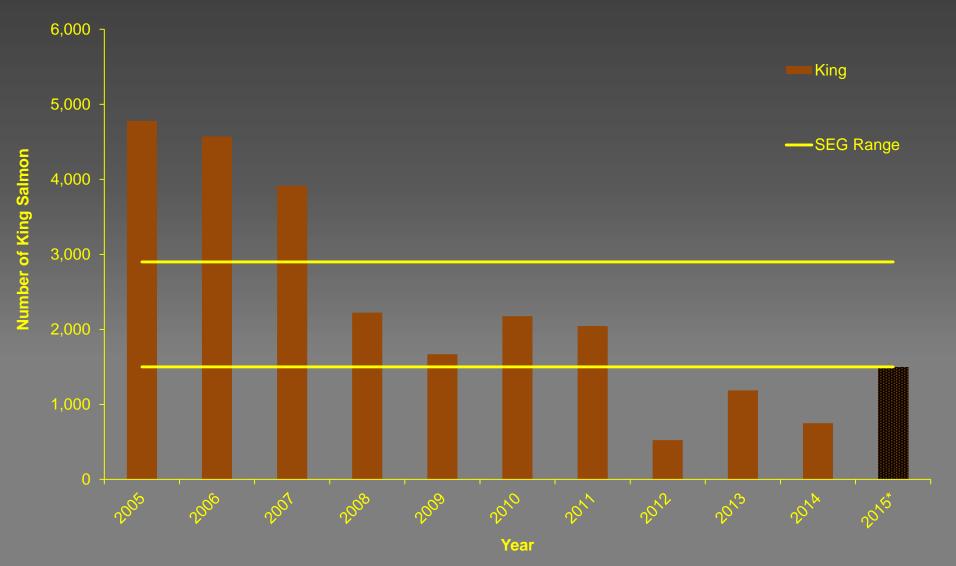
## Kanektok River Weir, Sockeye and Chum Salmon Escapements, 2005–2015 (\*2015 is preliminary)



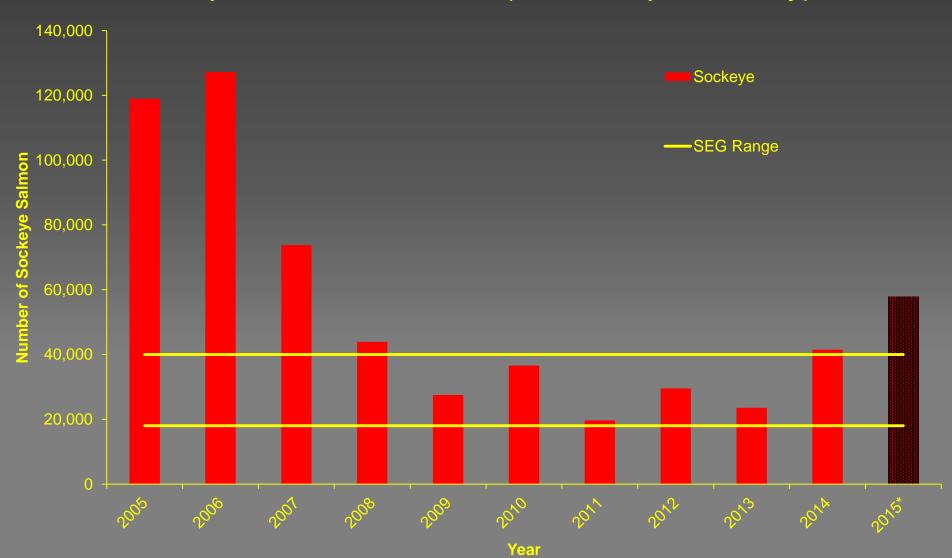
# District 5 Commercial Salmon Harvests, 2005–2015 (\* 2015 is preliminary)



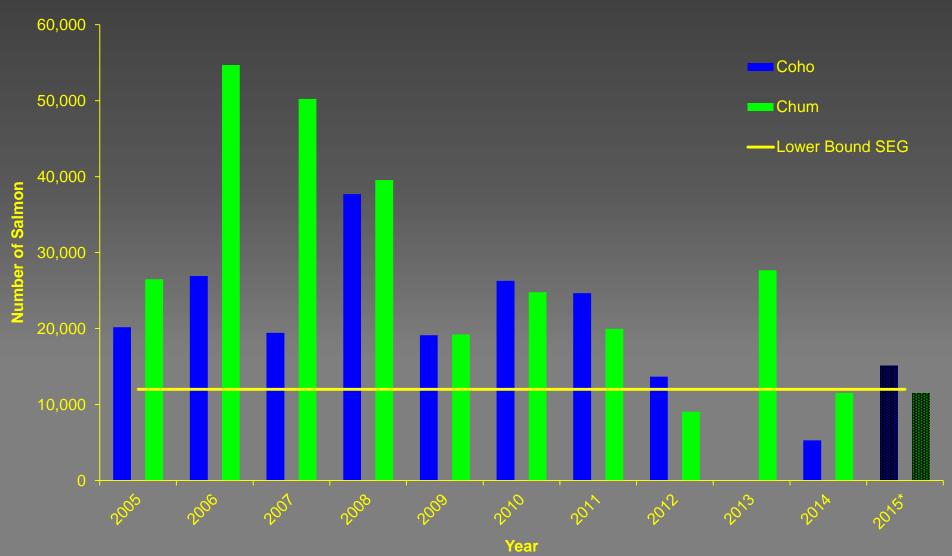
## Middle Fork Goodnews River Weir King Salmon Escapement, 2005–2015 (\*2015 is preliminary)



## Middle Fork Goodnews River Weir Sockeye Salmon Escapement, 2005–2015 (\* 2015 is preliminary)



## Middle Fork Goodnews River Weir Coho and Chum Salmon Escapements, 2005–2015 (\* 2015 is preliminary)



### Kuskokwim Bay Aerial Survey Escapements, 2005–2015

|      | Kanektok R. |  | North Fork Goodnews R. |              |  |  |  |  |
|------|-------------|--|------------------------|--------------|--|--|--|--|
| Year | King        | Sockeye                                    | King                   | Sockeye      |  |  |  |  |
| 2005 | 14,202      | 110,730                                    |                        |              |  |  |  |  |
| 2006 | 8,433       | 382,800                                    |                        |              |  |  |  |  |
| 2007 |             |  |                        |              |  |  |  |  |
| 2008 | 3,659       | 38,900                                     | 2,155                  | 32,500       |  |  |  |  |
| 2009 |             |  |                        |              |  |  |  |  |
| 2010 | 1,228       | 16,950                                     |                        |              |  |  |  |  |
| 2011 |             |  | 853                    | 14,140       |  |  |  |  |
| 2012 |             |  | 382                    | 16,710       |  |  |  |  |
| 2013 | 2,346       | 64,802                                     |                        |              |  |  |  |  |
| 2014 | 1,871       | 148,800                                    | 630                    |              |  |  |  |  |
| 2015 | 4,919       | 39,970                                     | 992                    | 38,390       |  |  |  |  |
|      | 3,500-      | 14,000–                                    |                        |              |  |  |  |  |
| SEG  | 8,000       | 34,000                                     | 640–3,300              | 5,500–19,500 |  |  |  |  |
|      |             | Escapement goal was either met or exceeded |                        |              |  |  |  |  |

### Current Kuskokwim River Management Tools

- Time and Area (EO authority)
- Gear Restriction
  - Six inch or less mesh size gillnets
  - Live release of king salmon
    - Fish wheels
    - Dip nets
    - Beach seines
  - Four inch setnets with bank orientation
  - Gillnet length as specified by the department
- Alaska residents 60 years of age or older (Elder fishery)

### Kuskokwim Area proposals

#### Kuskokwim Salmon Management Plan

Proposal 92 – Manage the subsistence salmon fishery based on Bethel Test Fish

Proposals 93 and 94 – Establish inriver run goal for king salmon

#### Subsistence

Proposal 95, 96, 97, 222 – Subsistence fishery

Proposal 98 – Establish descriptions of subsistence fishing sections

Proposal 99 – Limit four inch mesh gillnets to one per household

Proposal 100 – Beach seine specifications

#### Kuskokwim Area Proposals cont.

#### Commercial

- Proposal 101 Repeal depth specifications for gillnets greater than six inches
- Proposal 102 Reduce gillnet mesh size to five and three quarters inches of smaller in District 4
- Proposal 103 Include District 5 into the *District 4 Salmon Management Plan*
- Proposal 104 Increase the commercial fishing area in District 5
- Proposal 106 Extend the Nelson Island District (Herring)

#### **Sport**

Proposal 105 – Modify sport fishing gear specifications in the Kanektok and Arolik rivers

#### **Acknowledgements**

#### Kuskokwim River

- Kuskokwim River Salmon Management Working Group
- National Park Service
- Office of Subsistence Management
- McGrath, Takonta, Nikolai, and Telida (MTNT)
- Yukon Delta National Wildlife Refuge
- Native Village of Napimute
- Orutsaramiut Native Council
- Association of Village Council Presidents

#### Kuskokwim Bay

- Togiak National Wildlife Refuge
- Coastal Villages Regional Fund
- Native Village of Kwinhagak

### Kuskokwim Area proposals

Kuskokwim Salmon Management Plan

Proposal 92 – Manage the subsistence salmon fishery based on Bethel Test Fish

Proposal 93 and 94 – Establish inriver run goal for king salmon

## Kuskokwim River total run, subsistence harvest, and drainage escapement of King salmon, 1990–2015

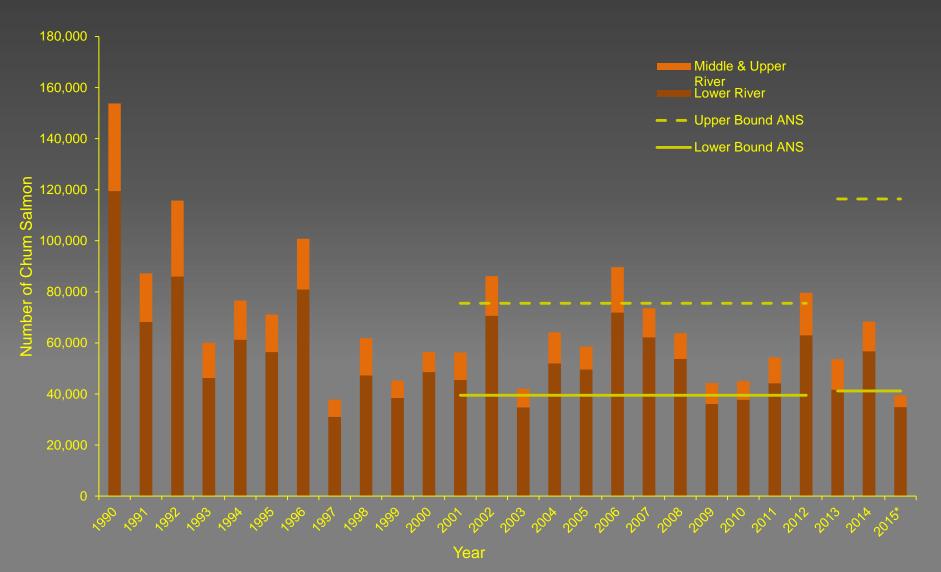
| - <del></del>     |           | Lower   | Middle  | Upper   | Combined    |         |            |
|-------------------|-----------|---------|---------|---------|-------------|---------|------------|
|                   |           | River   | River   | River   | Middle &    | Total   | Drainage   |
| Year              | Total Run | Harvest | Harvest | Harvest | Upper River | Harvest | Escapement |
| 1990              | 264,802   | 95,284  | 9,871   | 4,623   | 14,494      | 109,778 | 100,614    |
| 1991              | 218,705   | 61,327  | 9,613   | 3,880   | 13,493      | 74,820  | 105,589    |
| 1992              | 284,846   | 69,276  | 8,621   | 4,584   | 13,205      | 82,481  | 153,573    |
| 1993              | 269,305   | 72,039  | 11,379  | 4,412   | 15,791      | 87,830  | 169,816    |
| 1994              | 365,246   | 87,815  | 10,111  | 4,891   | 15,002      | 102,817 | 242,616    |
| 1995              | 360,513   | 85,248  | 11,955  | 4,717   | 16,672      | 101,920 | 225,595    |
| 1996              | 302,603   | 82,524  | 9,074   | 4,879   | 13,953      | 96,477  | 197,092    |
| 1997              | 303,189   | 65,767  | 8,888   | 4,679   | 13,567      | 79,334  | 211,247    |
| 1998              | 213,873   | 69,649  | 7,544   | 3,777   | 11,321      | 80,970  | 113,627    |
| 1999              | 189,939   | 63,739  | 7,034   | 2,765   | 9,799       | 73,538  | 112,082    |
| 2000              | 136,618   | 59,144  | 6,306   | 2,146   | 8,452       | 67,596  | 65,180     |
| 2001              | 223,707   | 68,694  | 6,965   | 2,515   | 9,480       | 78,174  | 145,232    |
| 2002              | 246,296   | 69,144  | 8,161   | 3,864   | 12,025      | 81,169  | 164,635    |
| 2003              | 248,789   | 60,627  | 5,126   | 1,984   | 7,110       | 67,737  | 180,687    |
| 2004              | 388,136   | 83,956  | 8,971   | 3,861   | 12,832      | 96,788  | 287,178    |
| 2005              | 366,601   | 75,408  | 6,840   | 3,615   | 10,455      | 85,863  | 275,598    |
| 2006              | 307,662   | 78,957  | 8,362   | 3,494   | 11,856      | 90,813  | 214,004    |
| 2007              | 273,060   | 83,779  | 7,710   | 3,409   | 11,119      | 94,899  | 174,943    |
| 2008              | 237,074   | 78,273  | 8,055   | 2,584   | 10,639      | 88,912  | 128,978    |
| 2009              | 204,747   | 69,424  | 7,228   | 3,244   | 10,472      | 79,896  | 118,478    |
| 2010              | 118,507   | 60,502  | 5,339   | 1,445   | 6,784       | 67,286  | 49,073     |
| 2011              | 133,059   | 54,350  | 5,655   | 2,361   | 8,016       | 62,366  | 72,097     |
| 2012              | 99,807    | 19,422  | 2,117   | 1,005   | 3,122       | 22,544  | 76,074     |
| 2013              | 94,166    | 42,667  | 3,656   | 790     | 4,446       | 47,113  | 47,315     |
| 2014              | 130,144   | 9,619   | 975     | 640     | 1,615       | 11,234  | 123,987    |
| 2015 <sup>a</sup> | 157,585   | 15,000  | 3,000   | 2,000   | 5,000       | 20,000  | 137,585    |
| Average           |           |         |         |         |             |         |            |
| 2000–2009         | 263,269   | 72,741  | 7,372   | 3,072   | 10,444      | 83,185  | 175,491    |
| Average           |           |         |         |         |             |         |            |
| 2010–2014         | 115,137   | 37,312  | 3,548   | 1,248   | 4,797       | 42,108  | 73,709     |

<sup>&</sup>lt;sup>a</sup> All 2015 data are Preliminary.

### King salmon travel speeds and timing

- Chinook salmon speed is variable
  - Lower River tagging project
  - Travel speed increases as they move up river
  - Five days from Bethel Test Fishery (BTF) to Kalskag tagging site
- Run timing is assessed at BTF
  - Chinook begin entering the river in late May and early June
  - Second week of June abundance increases
  - Run tails off in mid July

## Kuskokwim River Chum Salmon Subsistence Harvest, 1990–2015



### Kuskokwim River Sockeye Salmon Subsistence Harvest, 1990–2015



### Kuskokwim River Coho Salmon Subsistence Harvest, 1990–2015



#### **Early Season Closure**

Median Percent of the King Salmon Run Past Bethel Test Fishery by Date, 1984–2015

#### **Cumulative Percent Passage**

