

Chinook Salmon Research Initiative Overview and Update

March 5, 2014

Kevin Brooks

Deputy Commissioner



Ed Jones

CSRI Coordinator

Chinook Salmon Research Initiative

\$30 Million over Five Years

- \$7.5 million appropriated in FY14
- \$10 million requested in FY15

12 Indicator Stocks from the Yukon to Southeast Alaska

2014 Projects

- Adult and Juvenile Abundance
- Subsistence Local Traditional Knowledge, Harvests, and Patterns and Trends
- Harvest, Genetics and Coded Wire Tags

Details Online at:

- <http://www.adfg.alaska.gov/index.cfm?adfg=chinookinitiative.main>

STATEWIDE CHINOOK SALMON RESEARCH INITIATIVE

	Projected Calendar Year Budget					
	2014	2015	2016	2017	2018	Total
Adult Spawning Abundance						
Unuk River	100.0	100.0	100.0	100.0	100.0	500.0
Stikine River	120.0	120.0	120.0	120.0	120.0	600.0
Taku River	120.0	120.0	120.0	120.0	120.0	600.0
Chilkat River	120.0	120.0	120.0	120.0	120.0	600.0
Copper River	150.0	50.0	50.0	50.0	50.0	350.0
Susitna River		100.0	500.0	500.0	500.0	1,600.0
Kenai River		250.0				250.0
Chignik River	18.5	50.0	50.0	50.0	50.0	218.5
Karluk River	18.5	50.0	50.0	50.0	50.0	218.5
Nushagak River	670.0	450.0	450.0			1,570.0
Kuskokwim River	471.3	400.0	400.0			1,271.3
Yukon River		500.0	500.0	500.0		1,500.0
Subtotal	1,788.3	2,310.0	2,460.0	1,610.0	1,110.0	9,278.3
Juvenile Abundance						
Unuk River	100.0	100.0	100.0	100.0	100.0	500.0
Stikine River	80.0	80.0	80.0	80.0	80.0	400.0
Taku River	80.0	80.0	80.0	80.0	80.0	400.0
Chilkat River	145.0	145.0	145.0	145.0	145.0	725.0
Copper River	73.0	325.0	325.0	325.0	325.0	1,373.0
Susitna River		25.0	325.0	325.0	325.0	1,000.0
Kenai River		200.0	200.0	200.0	200.0	800.0
Chignik River		50.0	50.0	50.0	50.0	200.0
Karluk River	79.1	100.0	100.0	100.0	100.0	479.1
Nushagak River	25.0		500.0	500.0	500.0	1,525.0
Kuskokwim River				200.0	200.0	400.0
Yukon River	85.0	546.0	546.0	532.0		1,709.0
Subtotal	667.1	1,651.0	2,451.0	2,637.0	2,105.0	9,511.1

STATEWIDE CHINOOK SALMON RESEARCH INITIATIVE

	Calendar					
	2014	2015	2016	2017	2018	Total
Adult Harvest, Genetics, and Coded Wire Tags						
Southeast Alaska Marine Sampling		350.0	350.0	350.0	350.0	1,400.0
Copper River Area Marine Sampling	11.4	150.0	150.0	150.0	150.0	611.4
Cook Inlet Area Marine Sampling	105.2	191.2	333.0	333.0	333.0	1,295.4
Westward Area Marine Sampling	232.8	330.0	330.0	330.0	330.0	1,552.8
Subtotal	349.4	1,021.2	1,163.0	1,163.0	1,163.0	4,859.6
Stock-Specific Local, Traditional Knowledge and Subsistence Harvest Assessments						
Stikine River Local, Traditional Knowledge	50.0	50.0				100.0
Chilkat River Local, Traditional Knowledge	25.0	25.0				50.0
Copper River Local, Traditional Knowledge	50.0	50.0				100.0
Kenai River Local, Traditional Knowledge	37.5	37.5				75.0
Chignik Local, Traditional Knowledge, Subs Harvest	25.0	25.0				50.0
Nushagak River Local, Traditional Knowledge	75.0	75.0				150.0
Kuskokwim River Local, Traditional Knowledge	100.0	100.0	100.0			300.0
Kuskokwim River Subsistence Harvest	25.0	25.0	25.0			75.0
Kuskokwim River Subsistence Patterns and Trends	37.5	37.5	37.5			112.5
Yukon River Local, Traditional Knowledge	100.0	100.0	100.0			300.0
Yukon River Subsistence Harvest	55.0	55.0	55.0			165.0
Yukon River Subsistence Patterns and Trends	37.5	37.5	37.5			112.5
Subtotal	617.5	617.5	355.0	-	-	1,590.0
University of Alaska Projects Funded Via RSA						
Subtotal	625.0	600.0	600.0	600.0	600.0	3,025.0
Genetic Baseline and Marker Development						
Subtotal	215.0	285.0	100.0	100.0	100.0	800.0
Programmatic Support						
ADF&G Coded Wire Tag Lab Capacity		50.0	50.0	50.0	50.0	200.0
Biometric and Other Support	150.0	150.0	150.0	150.0	150.0	750.0
Subtotal	150.0	200.0	200.0	200.0	200.0	950.0
Statewide						
Grand total	4,412.3	6,684.7	7,329.0	6,310.0	5,278.0	30,014.0

DEVELOPMENT OF RESEARCH PLAN

Declines in King Salmon Productivity

- Widespread declines

Knowledge Gaps

- Basic abundance and rate information during key periods
- When and where productivity has been changing
- What is changing productivity
- Adapting Chinook life history into escapement based management strategies

Research Team

Symposium

- Public and professional input

DEVELOPMENT OF RESEARCH PLAN

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DEVELOPMENT OF RESEARCH PLAN

Declines in King Salmon Productivity

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Knowledge Gaps

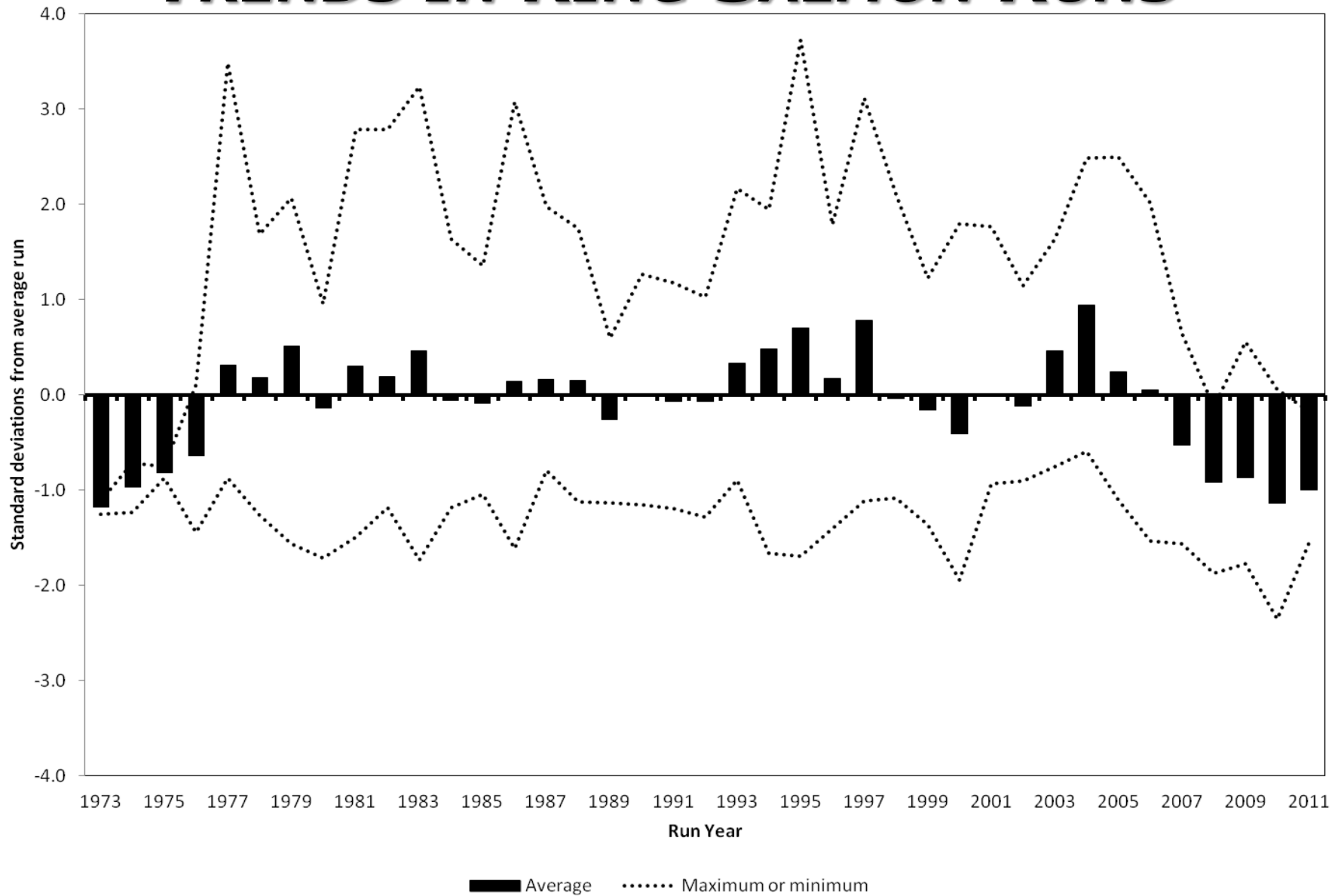
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TRENDS IN KING SALMON RUNS



RESEARCH PLAN

Goals

- Review of king salmon life history in Alaska
- Evidence for abundance and productivity declines
- Knowledge gaps
- Suggested methods and studies
- Specific research recommendations
- Guidance on funding

FY14 PROJECTS

Adult Abundance

- 9 indicator stocks, \$1.79M

Juvenile Abundance

- 8 indicator stocks, \$0.67M

Harvest, Genetics, and Coded Wire Tags

- 3 main harvest areas, \$0.35M



Subsistence Local and Traditional Knowledge, Harvest, and Patterns and Trends

- 8 indicator stocks, \$0.62M

Other Projects

- Genetic baseline and marker development (\$0.22M)
- Process studies by UAF (\$0.63M)

Chinook Salmon Research Initiative

12 Statewide Indicator Stocks



Yukon River

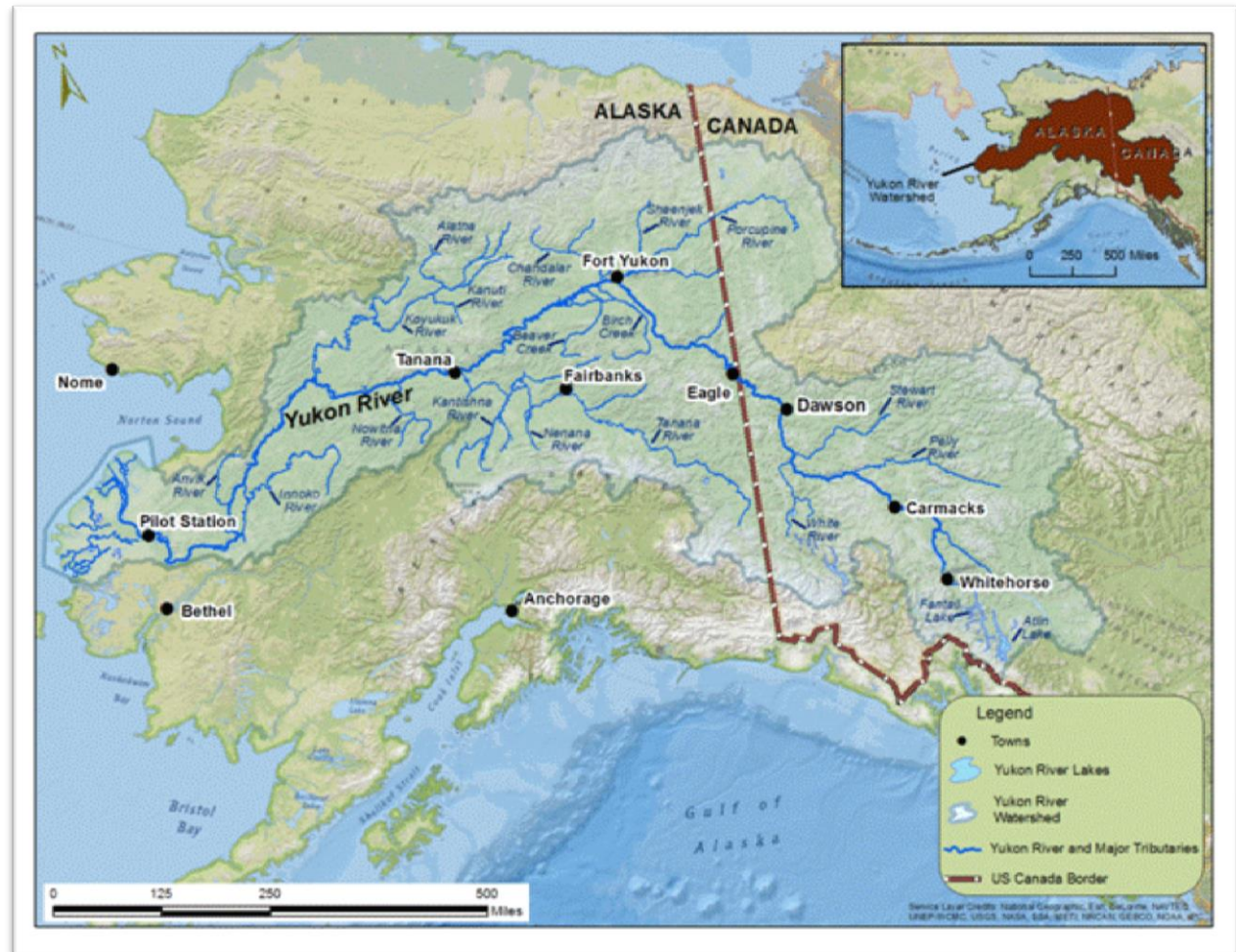
Adult Abundance

Juvenile Abundance

Local and Traditional
Knowledge Survey

Subsistence Harvest
Estimates

Patterns and Trends in
Subsistence Fishing



Kuskokwim River

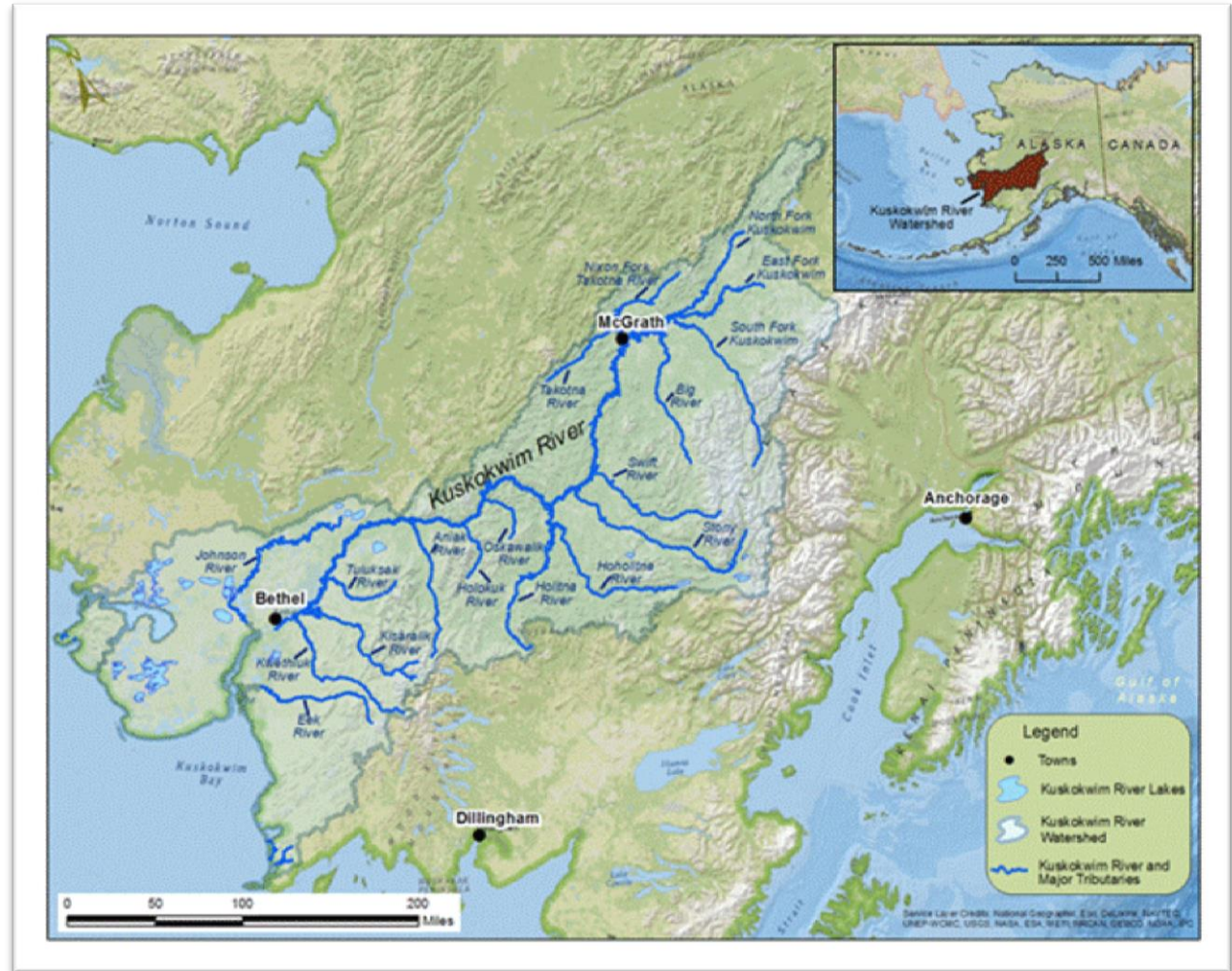
Adult Abundance

Juvenile Abundance

Local and Traditional Knowledge Survey

Subsistence Harvest Estimates

Patterns and Trends in Subsistence Fishing

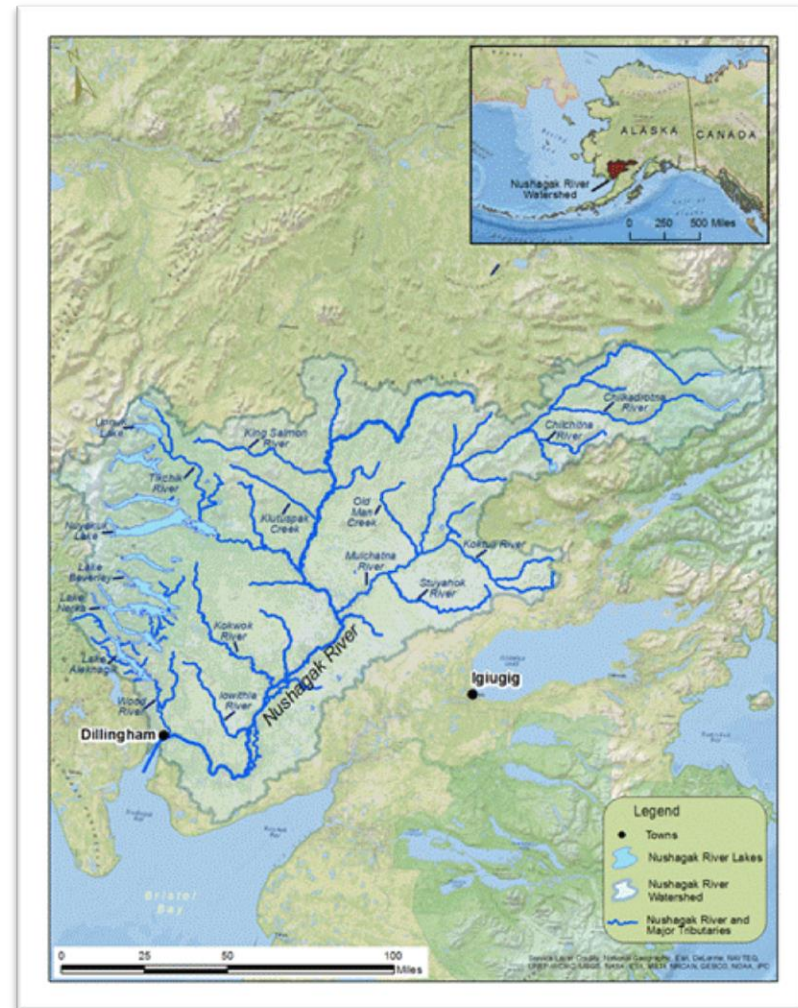


Nushagak River

Adult Abundance

Juvenile Abundance

Local and Traditional
Knowledge Survey



Chignik River

Adult Abundance

Harvest, Genetics, and
Coded Wire Tags

Local and Traditional
Knowledge Survey and
Harvest

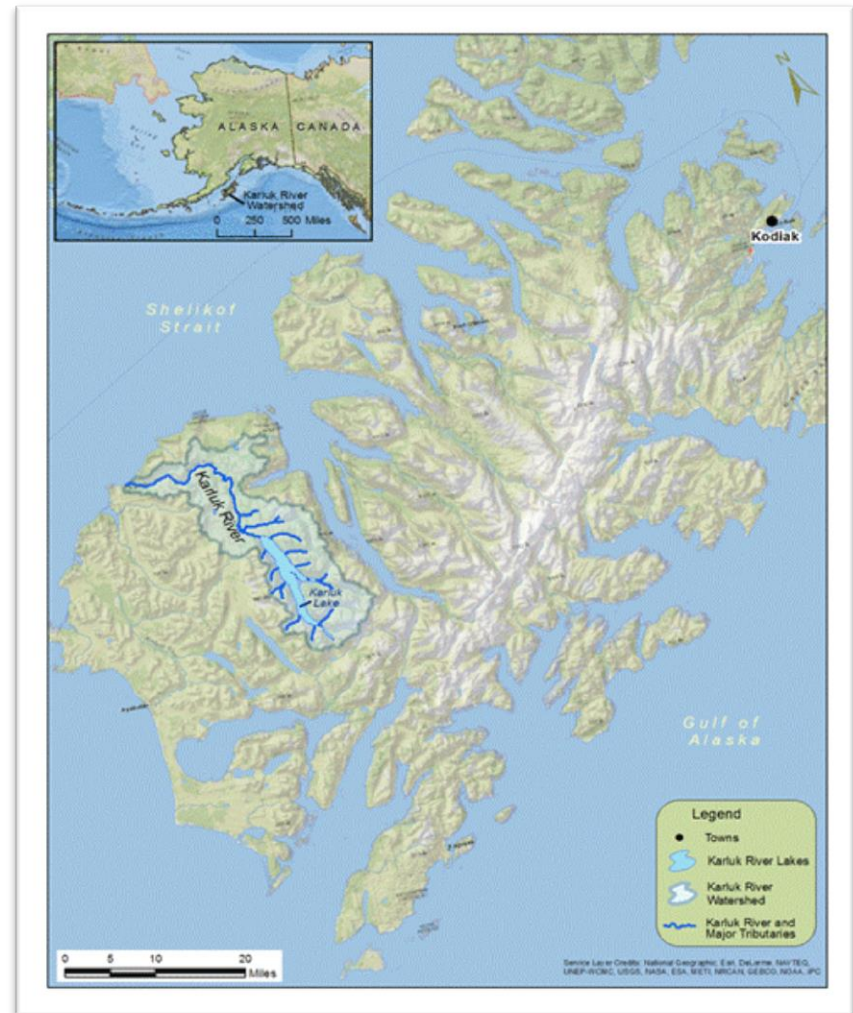


Karluk River

Adult Abundance

Juvenile Abundance

Harvest, Genetics, and
Coded Wire Tags



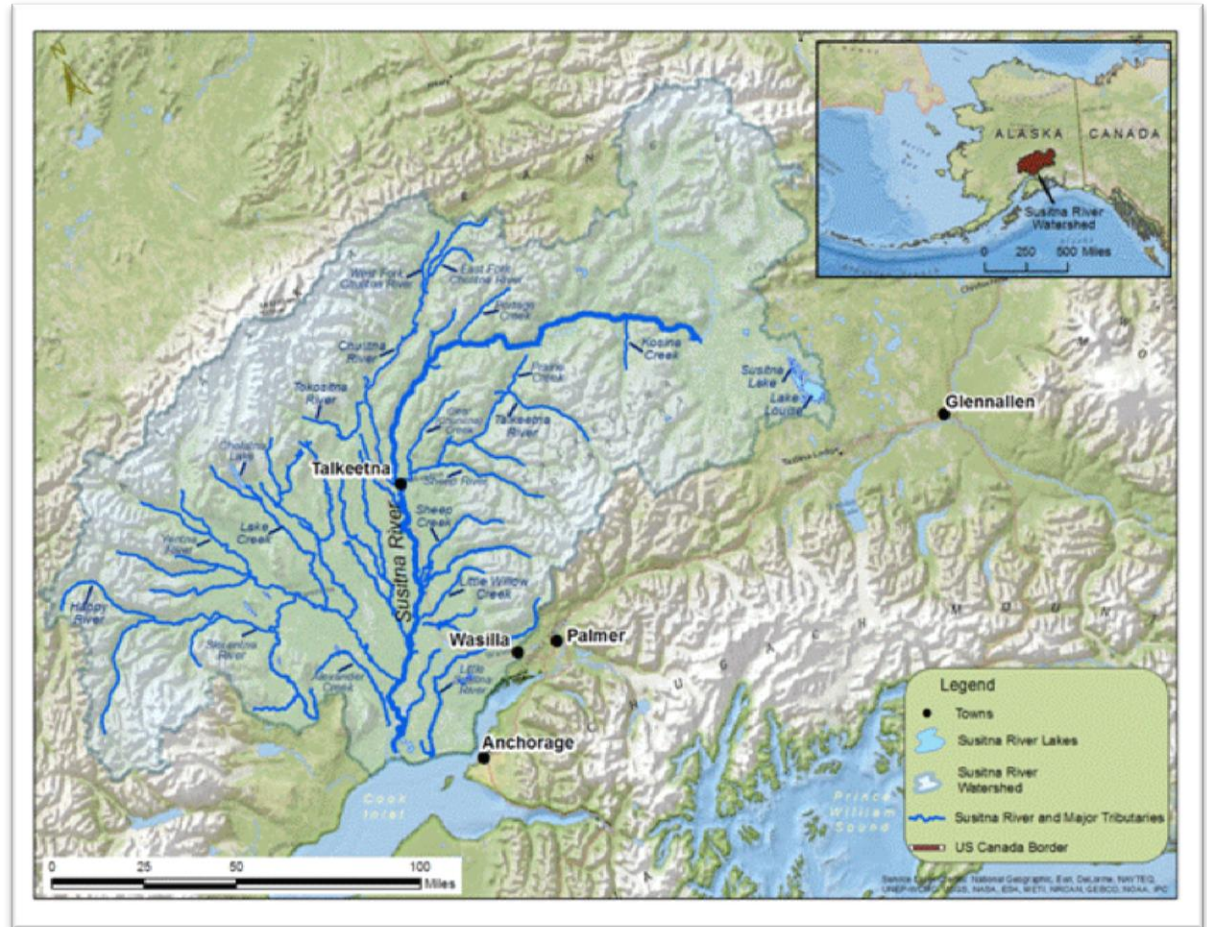
Susitna River

Adult Abundance

Juvenile Abundance

Harvest, Genetics, and
Coded Wire Tags

Local and Traditional
Knowledge Survey



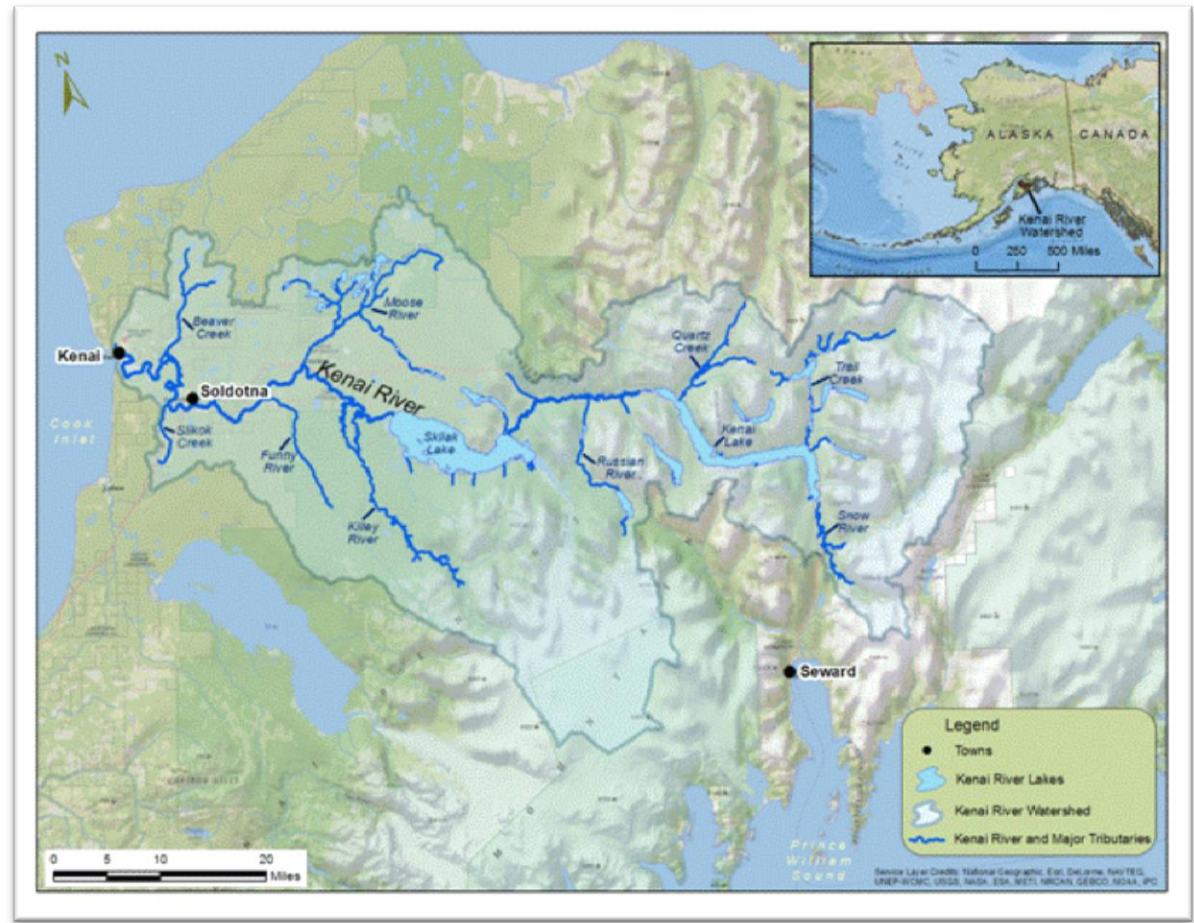
Kenai River

Adult Abundance

Juvenile Abundance

Harvest, Genetics, and
Coded Wire Tags

Local and Traditional
Knowledge Survey



Copper River

Adult Abundance

Juvenile Abundance

Harvest, Genetics, and
Coded Wire Tags

Local and Traditional
Knowledge Survey

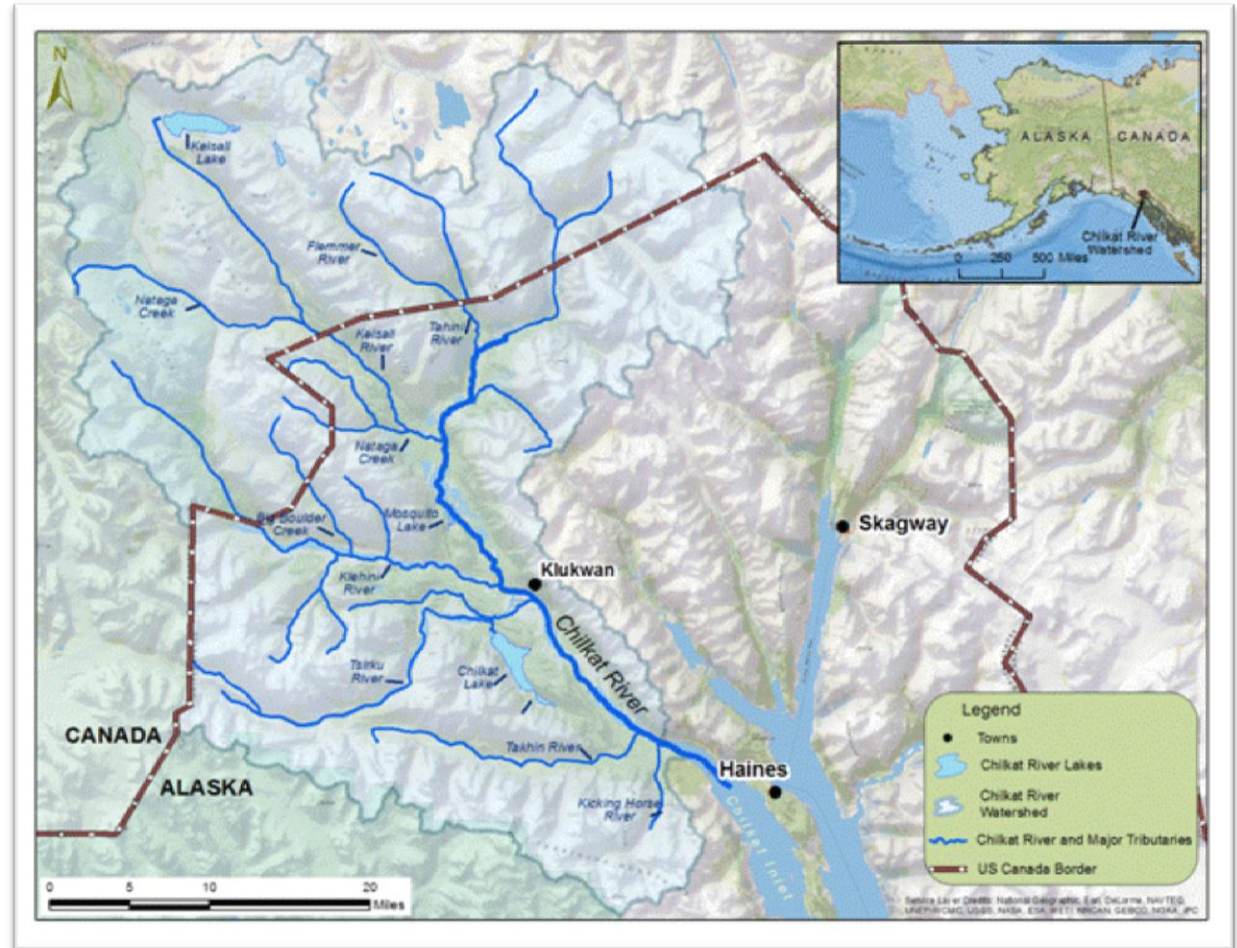


Chilkat River

Adult Abundance

Juvenile Abundance

Local and Traditional Knowledge Survey



Taku River

Adult Abundance

Juvenile Abundance

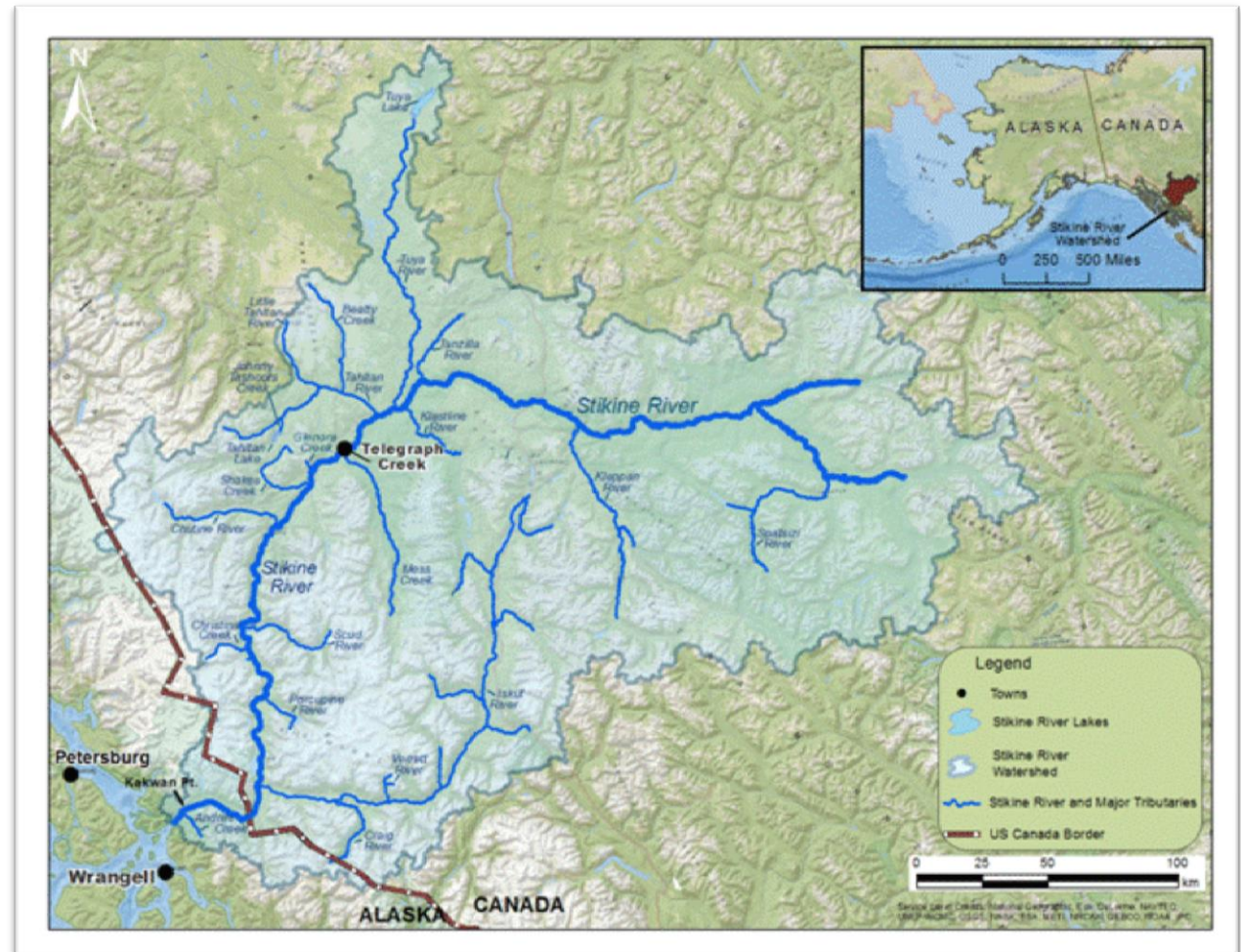


Stikine River

Adult Abundance

Juvenile Abundance

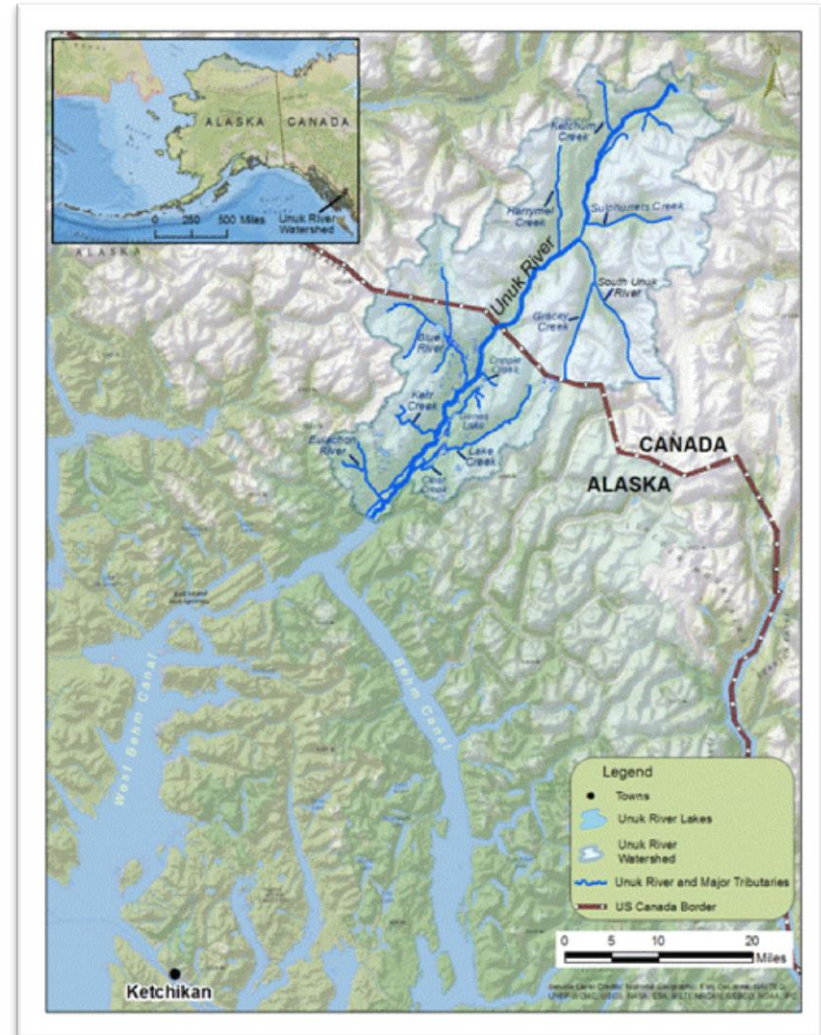
Local and Traditional Knowledge Survey



Unuk River

Adult Abundance

Juvenile Abundance



KEY POINTS

- The primary objective of this work is to increase confidence in estimates of adult spawning abundance, especially in the face of poor production.
- Marine genetic stock identification and coded wire tag sampling projects improve run reconstruction and enhance our understanding of stock-specific harvest rates and improve abundance-based management.



KEY POINTS

- Juvenile abundance and coded wire tagging projects allow marine survival, stock-specific harvest, and production estimates by indicator stock.
- Outreach and collaborative research with locals, federal and state agencies, and non-government organizations is a priority.



QUESTIONS?

