

Oral Report to the Alaska Board of Fisheries 2019

Review of Salmon Escapement Goals in the Alaska Peninsula/ Aleutian Islands and Chignik Management Areas



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Oral Report: RC 3, Tab 1

Presentation Objectives

- Identify policies
- Identify escapement goals and review methods
- Present recommendations



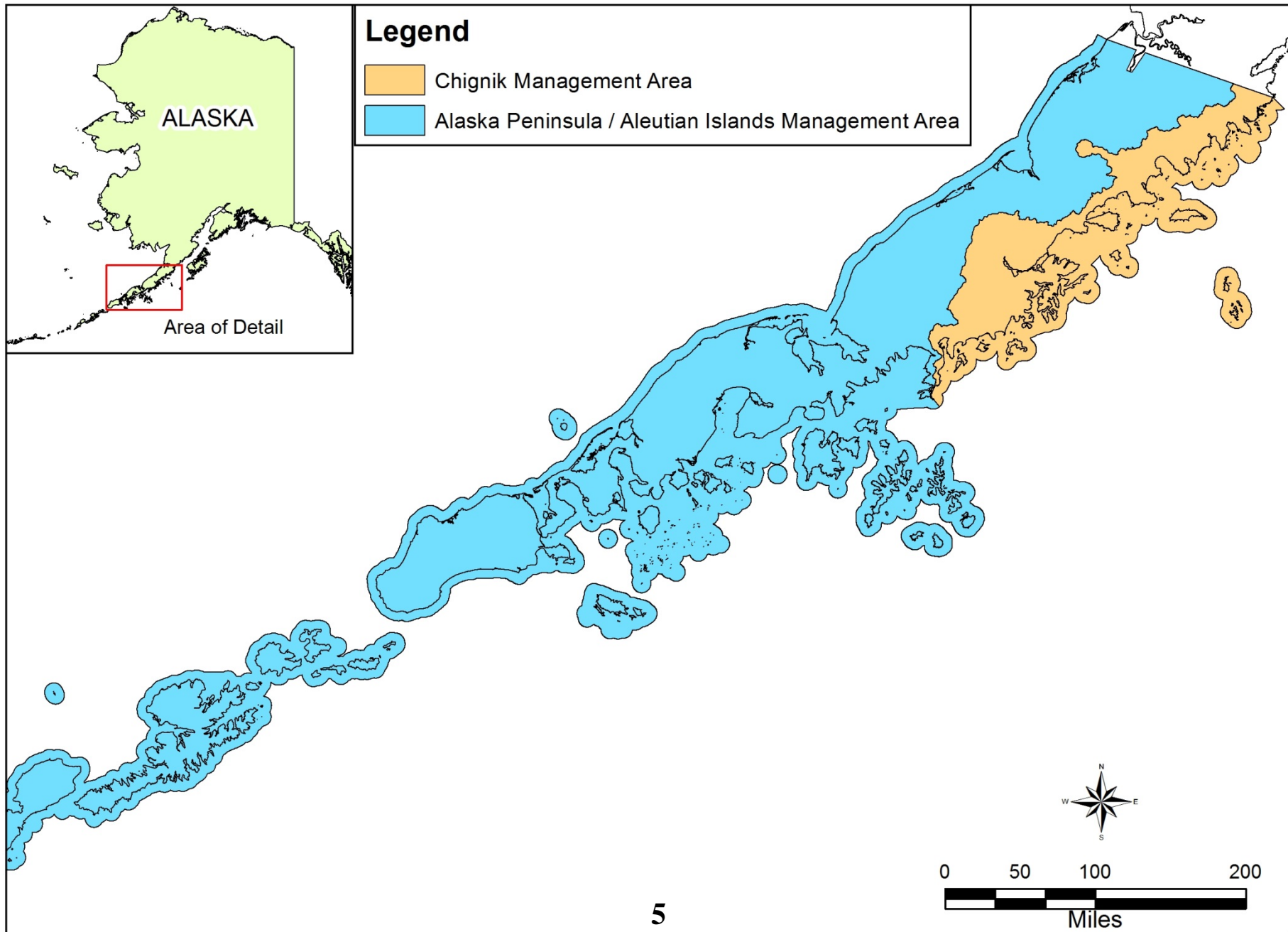
Policy and Escapement Goal Definition

This review was based on

- Policy for the Management of Sustainable Salmon Fisheries (SSFP; 5 AAC 39.222)
- Policy for Statewide Salmon Escapement Goals (EGP; 5 AAC 39.223)
- Important terms defined in the SSFP are
 - biological escapement goal (BEG)
 - sustainable escapement goal (SEG)
 - lower-bound SEG (LB SEG)

Review Approach and Process

- Three-year interval
- Review stock data quality and availability
- Determine appropriate goal type and methods
- Perform analysis, assess goal range, team review
- Develop draft recommendations for directors of Commercial Fisheries and Sport Fish Divisions
- Post-meeting memo signed by both directors



Alaska Peninsula – Aleutian Islands Management Area

Summary: Recommendations by Goal

Recommendations: No Change

- Sockeye Salmon

Stock	Goal Type	Range
Orzinski River	SEG	15,000 to 20,000
Thin Point Lake	SEG	14,000 to 28,000
Mortensens Lagoon	SEG	3,200 to 6,400
Christianson Lagoon	SEG	25,000 to 50,000
Nelson River	SEG	97,000 to 219,000
Bear Lake Early-run	SEG	176,000 to 293,000
Bear Lake Late-run	SEG	117,000 to 195,000
Sandy River	SEG	34,000 to 74,000
Ilnik River	SEG	40,000 to 60,000
Meshik River	SEG	48,000 to 86,000
Cinder River	SEG	36,000 to 94,000

Alaska Peninsula – Aleutian Islands Management Area

Summary: Recommendations by Goal

Recommendations: No Change

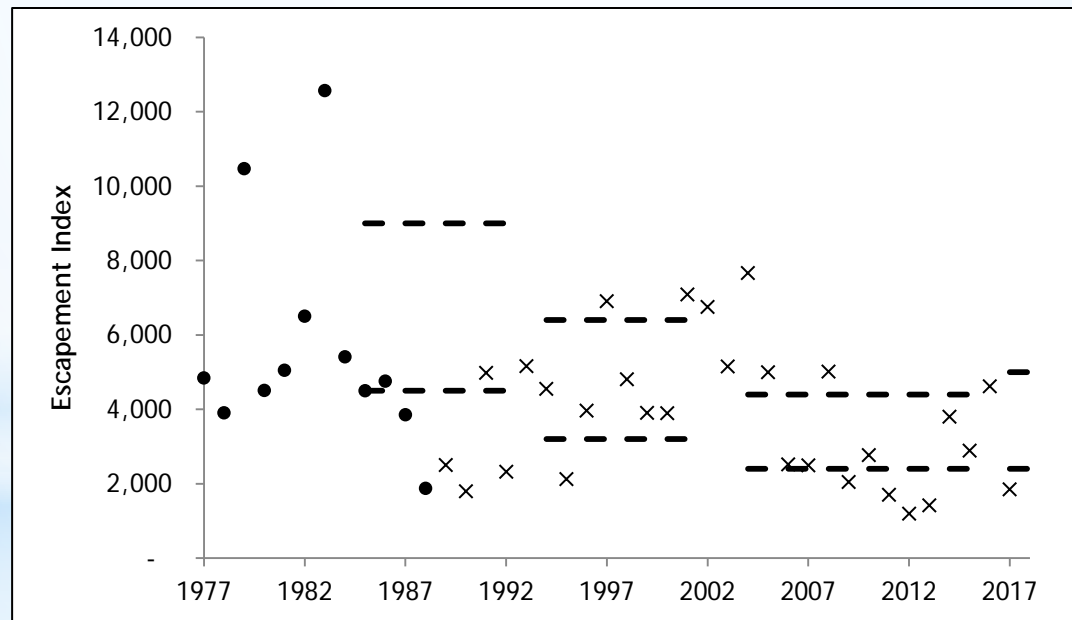
Species/Stock	Goal Type	Range
Coho Salmon		
Nelson River	Lower Bound SEG	>18,000
Ilnik River	Lower Bound SEG	>9,000
Pink Salmon		
South Peninsula Annual Aggregate	SEG	1,750,000 to 4,000,000
Chum Salmon		
Northern District	SEG	119,600 to 239,200
Northwestern District	SEG	100,000 to 215,000

Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- King salmon
 - Nelson River – current BEG 2,400 to 4,400
 - Recommendation – Revision to BEG: 2,400 to 5,000
 - Recent escapement and total run data added to Spawner Recruit analysis



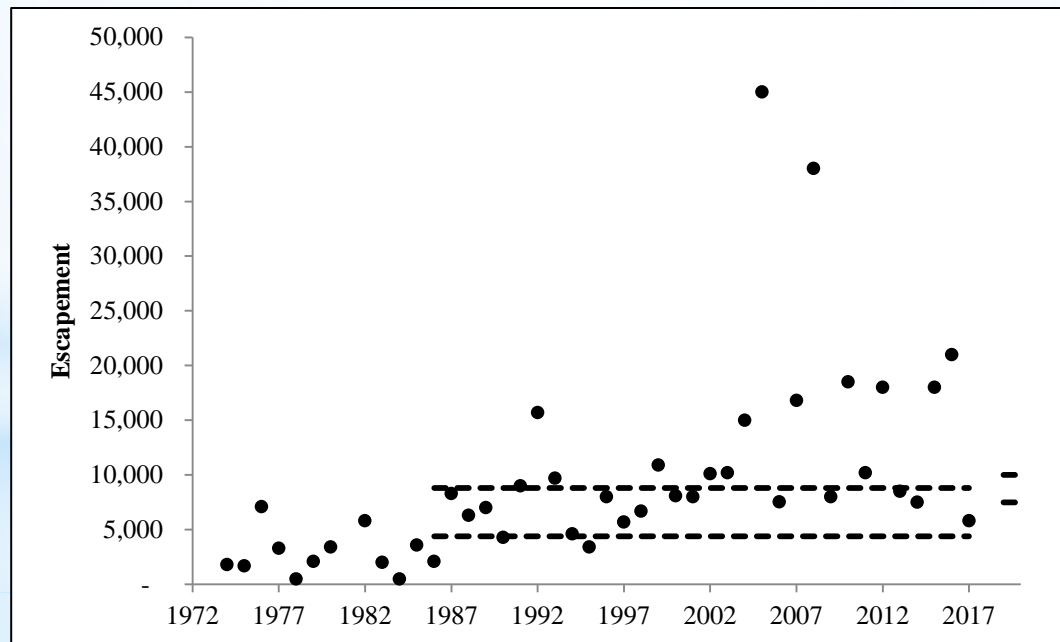
Solid circles represent tower counts, X-symbols represent weir counts, and dashed lines are the historic and recommended goals .

Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- Sockeye Salmon
 - North Creek – current SEG 4,400 to 8,800
 - Recommendation – Revision to SEG: 7,500 to 10,000
 - Recent escapement data was assessed with the 3-tier Percentile Approach (20th to 60th percentiles)
 - Moderate harvest rate
 - Contrast = 13

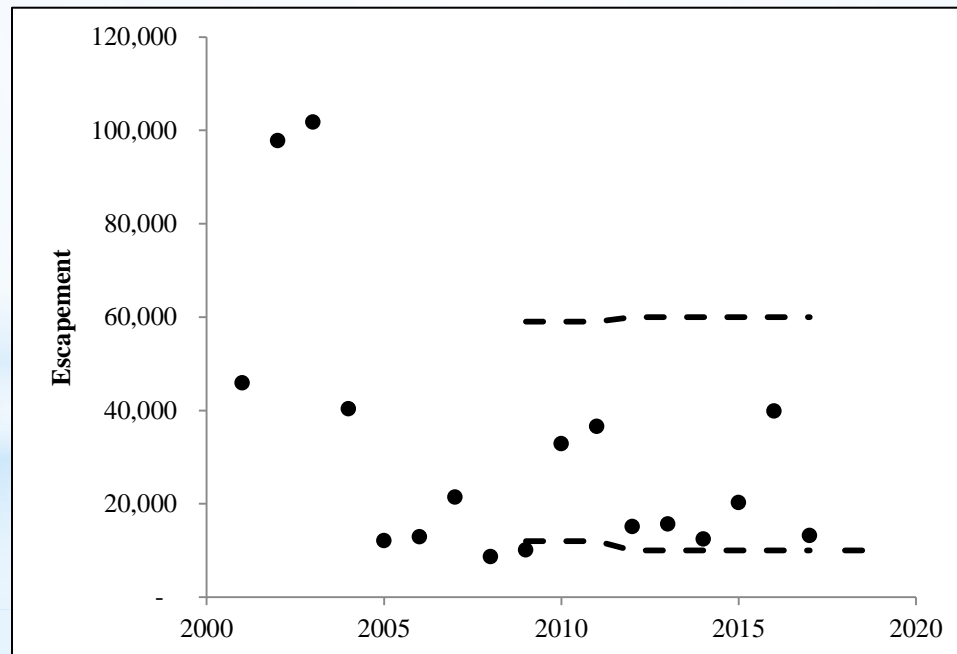


Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- McLees Lake – current SEG 10,000 to 60,000
 - Recommendation – Revision to LB SEG: >10,000
 - Recent escapement data was assessed with the 3-tier Percentile Approach (15th to 65th percentiles)
 - Minimal Harvest Rate
 - Contrast = 11.8
 - Lack of directed harvest limits ability to manage for the upper end of a range.

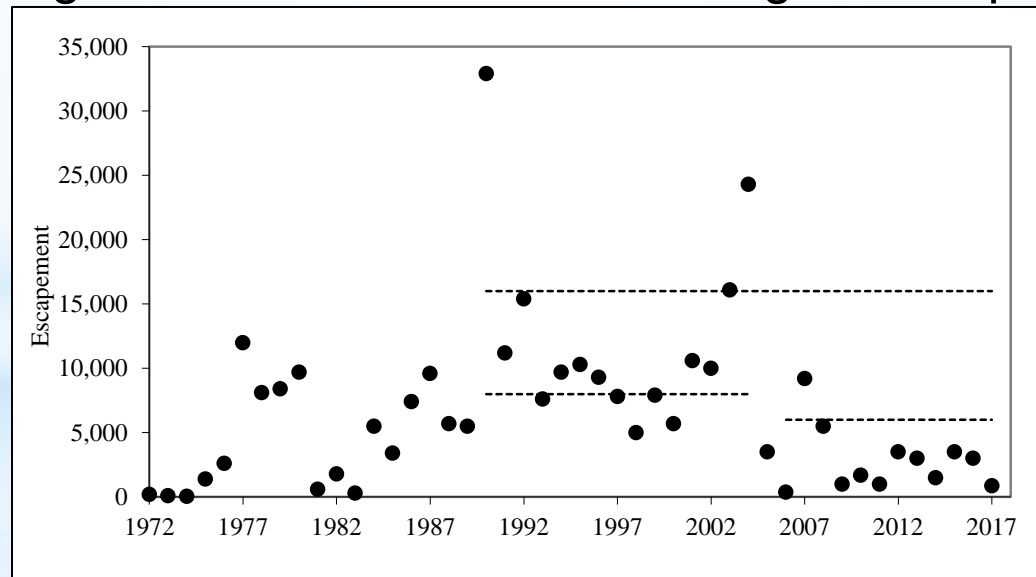


Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- Sockeye Salmon (cont.)
 - Swanson Lagoon – current SEG: 6,000 to 16,000
 - Recommendation: Discontinue
 - Shifting morphology of channel dictates escapement results more than management or stock production
 - Adjacent fishing section is closed by regulation, and this regulation will continue whether goal is in place or not



Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

- Swanson Lagoon Sockeye Salmon cont.
- ***Stock of Management Concern Recommendation: Discontinue***
 - Stock of Management Concern from 2013-present
 - Inability to predict or manage the shifting sand berm that obstructs salmon passage into and out of the lagoon
 - 5 of last 10 years have some unknown duration of blockage to lagoon
 - No harvest in adjacent section since 2011, regulatory closure starting in 2013 (Open by EO only)

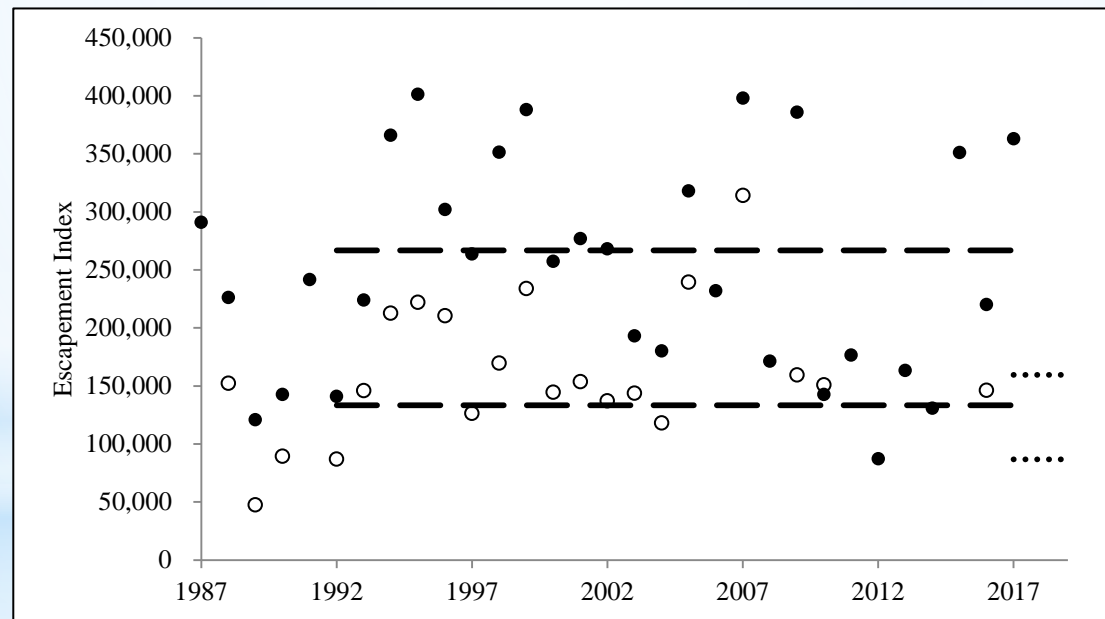


Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Methods

- Chum Salmon
 - Consistency of data
 - Single Peak aerial survey from within the river with good or fair survey conditions
 - Only systems that are consistently surveyed successfully (>29 of 31 years)



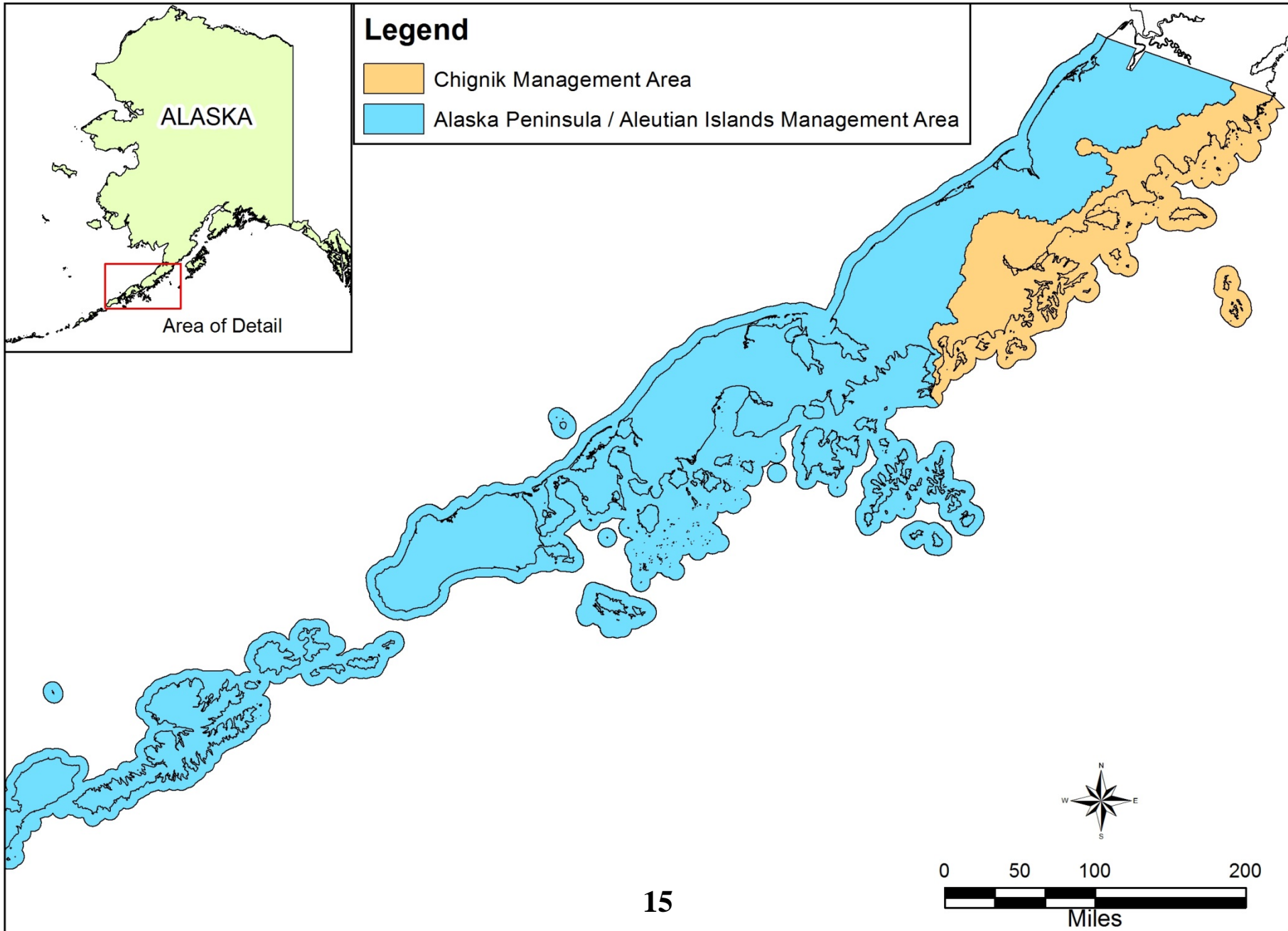
Southwestern District Chum Salmon: Observed escapement by year using the All PAS Index (solid circles) and revised District Index (open circles), and historical (dashed line) and recommended SEG (dotted line).

Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- Chum Salmon
 - Southeastern District – current SEG 106,400 to 212,800
 - Recommendation – Revision to SEG 62,500 to 151,900
 - 26 Index streams
 - South Central District – current SEG 89,800 to 179,600
 - Recommendation – Revision to SEG 68,900 to 99,200
 - 10 Index streams
 - Southwestern District – current SEG 133,400 to 266,800
 - Recommendation – Revision to SEG 86,900 to 159,500
 - 19 Index streams



Chignik Management Area

Summary: Methods and Recommendations by Goal

Recommendations: No Change

- King Salmon
 - Chignik River BEG: 1,300 to 2,700
- Sockeye Salmon
 - Chignik River Early-Run BEG: 350,000 to 450,000
 - Chignik River Late-Run SEG: 200,000 to 400,000
 - Late run also has an Inriver Run Goal of 25,000 additional fish in August and 50,000 in September (75,000 total)
- Pink Salmon
 - Even-year aggregate SEG: 170,000 to 280,000
 - Odd-year aggregate SEG: 260,000 to 450,000

Chignik Management Area

Summary: Methods and Recommendations by Goal

Recommendations: No Change

- Chum Salmon
 - Aggregate SEG: 45,000 to 110,000
- Coho Salmon
 - No goals in CMA

Questions?

