Oral Report to the Alaska Board of Fisheries 2016

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

by
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and
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Oral Report: RC 3, Tab 1
Written Reports: Supplemental Orange
& Red dividers

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

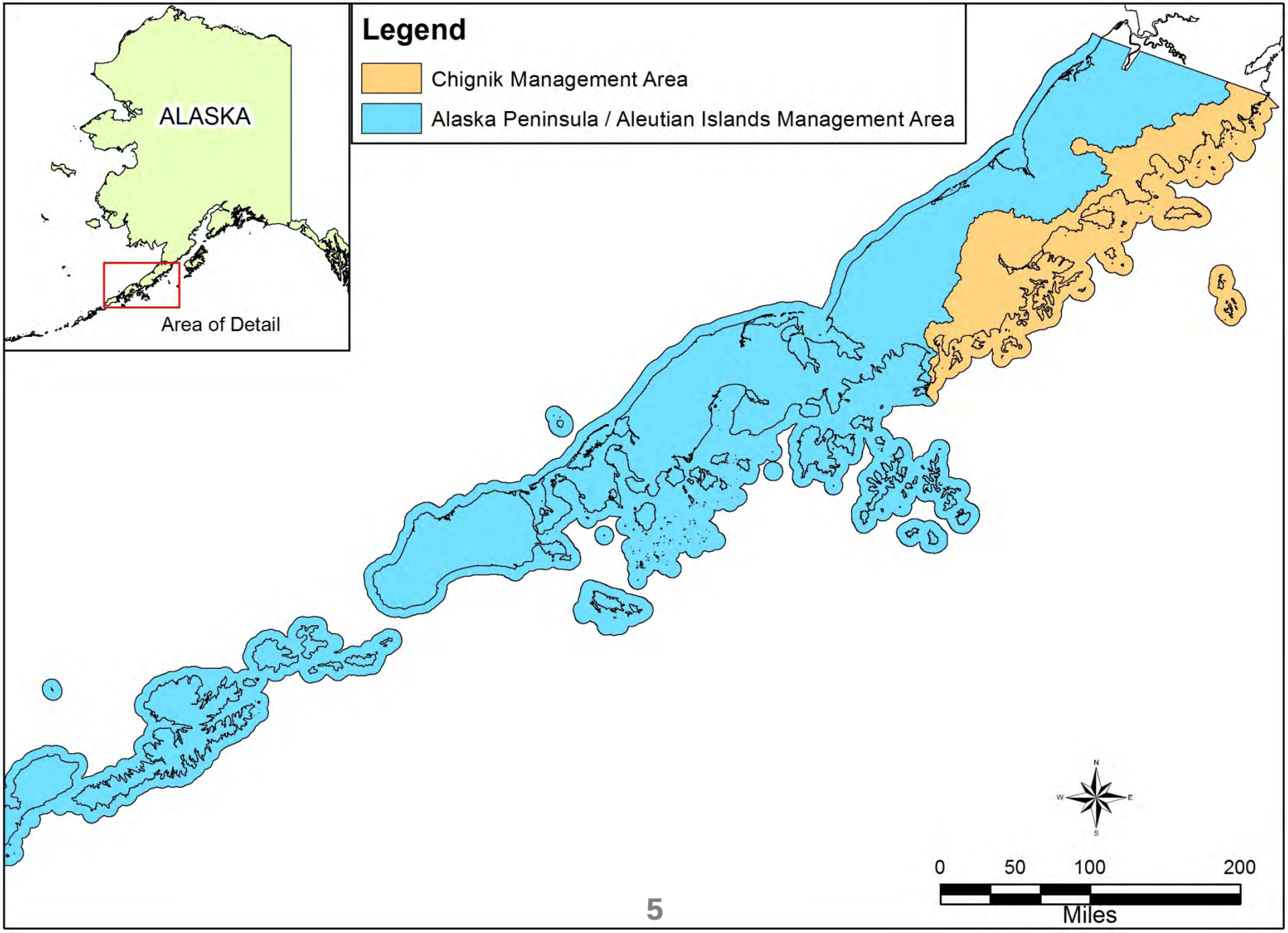
  biological escapement goal (BEG)

  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
- Post-meeting memo signed by directors


ALASKA
Area of Detail
Legend
Chignik Management Area
Alaska Peninsula / Aleutian Islands Management Area
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Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations: No Change

• King salmon		
• Nelson River	BEG:	2,400 to 4,400
• Sockeye salmon		
• 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
• Swanson Lagoon*	SEG:	6,000 to 16,000
• North Creek	SEG:	4,400 to 8,800
• 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
• McLees Lake	SEG:	10,000 to 60,000

Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations: No Change

- Coho Salmon
  - Nelson River — LB-SEG: 18,000
  - Ilnik River — LB-SEG: 9,000
- Chum Salmon (District Aggregates)
  - Southeastern District — SEG: 106,400 to 212,800
  - South Central District — SEG: 89,800 to 179,600
  - Southwestern District — SEG: 133,400 to 266,800
  - Northwestern District — SEG: 100,000 to 215,000
  - Northern District — SEG: 119,600 to 239,200

Alaska Peninsula – Aleutian Islands Management Area

Summary: Methods and Recommendations by Goal

Recommendations

- Sockeye Salmon
  - Meshik River – current SEG 25,000 to 100,000

  - Recommendation- Revision to SEG: 48,000 to 86,000
    - Included Red Bluff and Yellow Bluff creeks in the enumeration
    - Percentile Method; Tier I (20^{th} to 60^{th} percentile of historically observed surveys)

  - Cinder River – current SEG 12,000 to 48,000

  - Recommendation- Revision to SEG: 36,000 to 94,000
    - Mud Creek included in the enumeration
    - Percentile Method; Tier I (20^{th} to 60^{th} percentile of historically observed surveys)

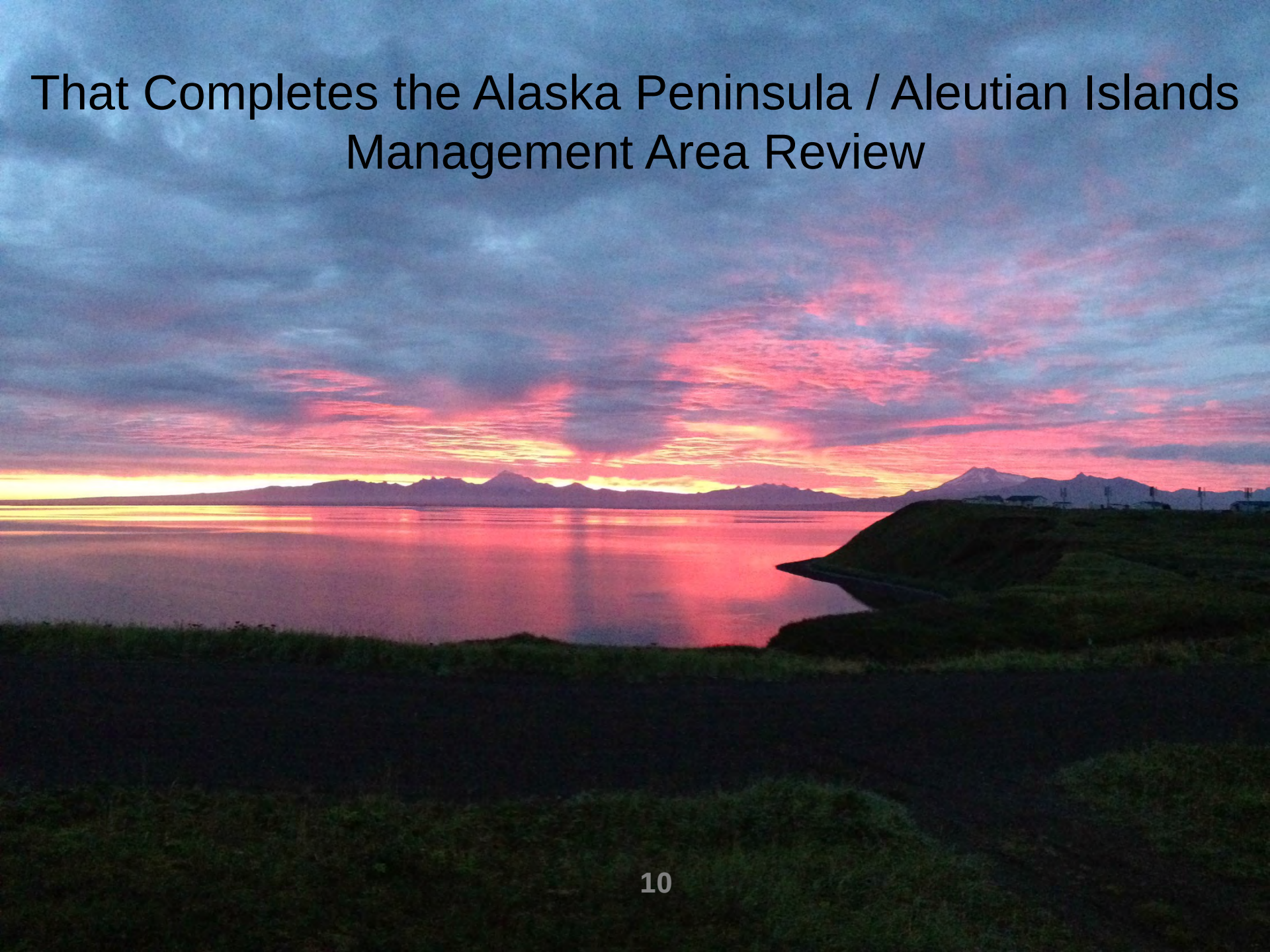
Alaska Peninsula – Aleutian Islands Management Area

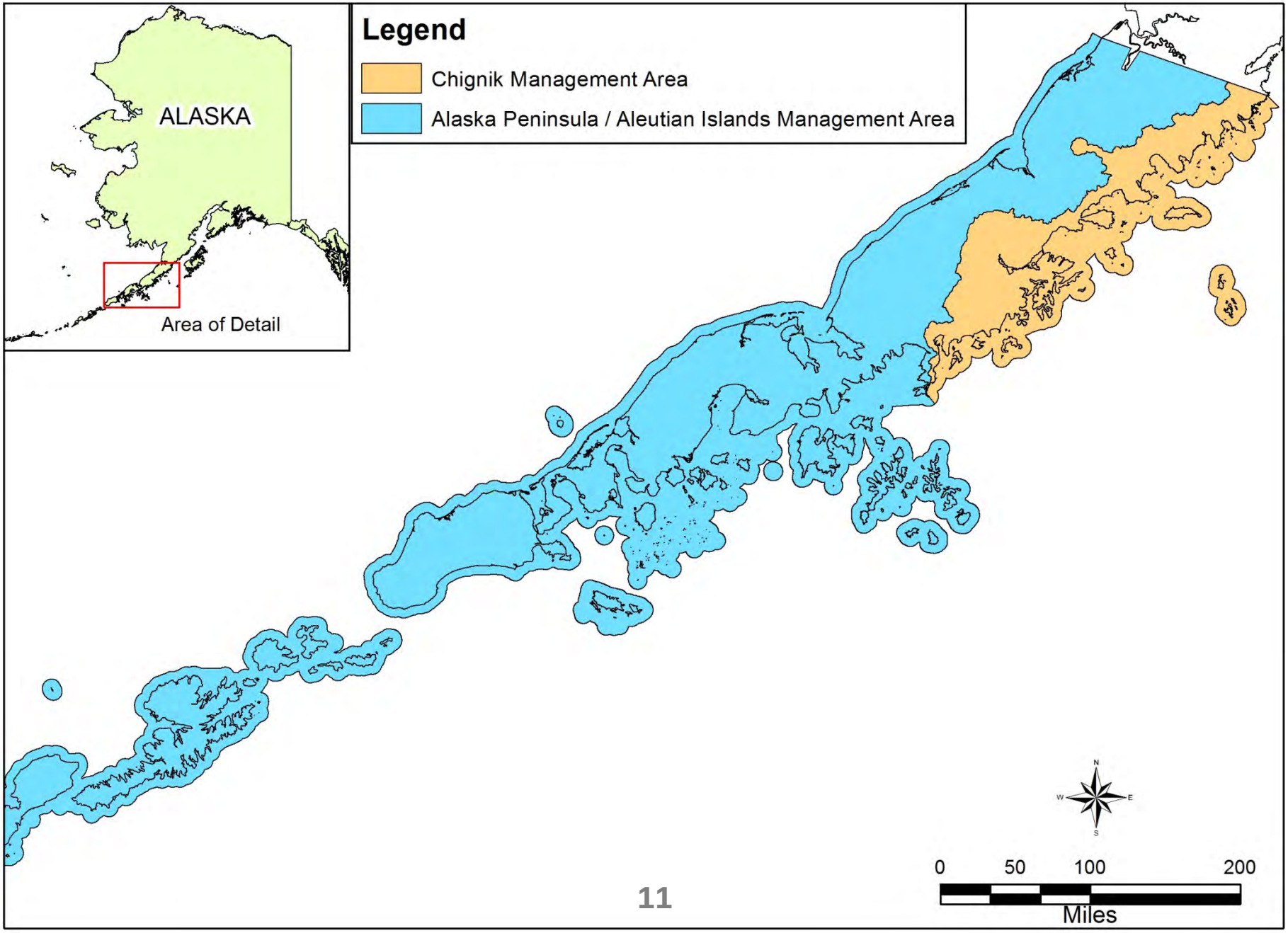
Summary: Methods and Recommendations by Goal

Recommendations

- Pink Salmon
  - Current aggregate even-year SEG 1.86 to 3.73 million
  - Current aggregate odd-year SEG 1.64 to 3.28 million
    - Defined total harvest of South Peninsula pink salmon as that occurring after July 15 to avoid mixed stock inclusions
    - Evaluated spawner-recruit models for even-year, odd-year, and combined years
  - Recommendation- Revision and consolidation of even-year and odd-year SEGs: 1.75 to 4.0 million pink salmon annually

That Completes the Alaska Peninsula / Aleutian Islands Management Area Review

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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 each of August and September 1-15 (50,000 total)
- Coho Salmon
  - No goals in CMA

Chignik Management Area
Summary: Methods and Recommendations by Goal

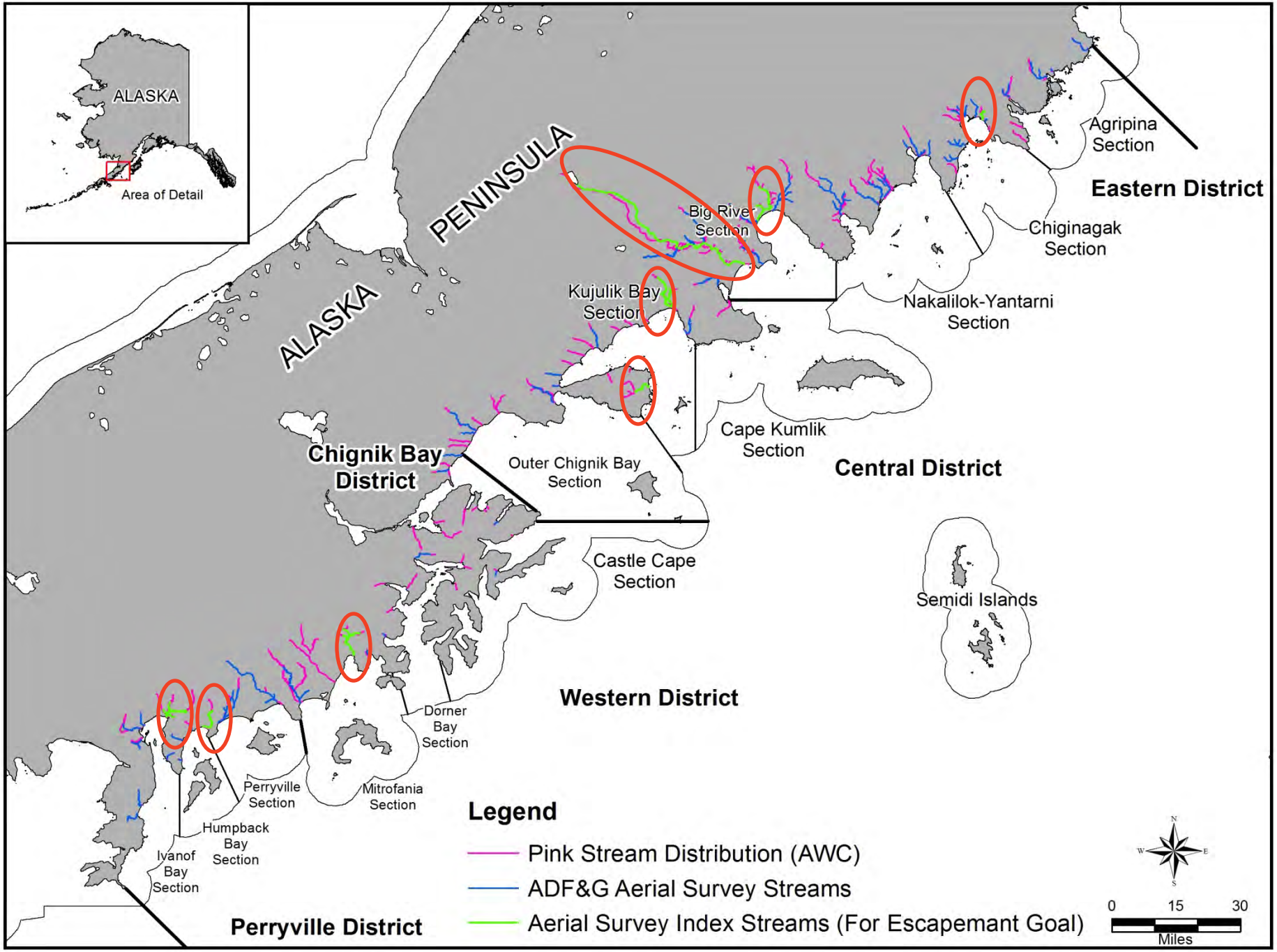
Pink Salmon

- Current aggregate even-year SEG 200,000 to 600,000
- Current aggregate odd-year SEG 500,000 to 800,000
  - Previous SEGs aggregated 49 aerially surveyed streams
  - Difficult to evaluate escapement trends if several systems are not included in a year

Chignik Management Area
Summary: Methods and Recommendations by Goal

Pink Salmon cont.

- Methods
  - Consistency of data
    - Single Peak aerial survey from within the river with good or fair survey conditions
    - Only systems that are consistently successful (>30 of 35 years)
    - Ideally one index system in each commercial fishing district
  - 8 index systems (Aniakchak River, Ivan River, Ivanof River, North Fork River, Main Creek, Chiginagak Bay East, Kumliun Creek, and Humpback Creek)
  - 4 of 5 districts have index systems (not Chignik Bay District)
  - These 8 systems comprise 53% of the escapement of the previous 49 stream aggregate


ALASKA
Area of Detail
PENINSULA
ALASKA
Agripina Section
Eastern District
Big River Section
Chiginagak Section
Kujulik Bay Section
Nakalilok-Yantarni Section
Cape Kumlik Section
Central District
Chignik Bay District
Outer Chignik Bay Section
Castle Cape Section
Semidi Islands
Western District
Dorner Bay Section
Mitrofania Section
Perryville Section
Humpback Bay Section
Ivanof Bay Section
Perryville District
Legend
Pink Stream Distribution (AWC)
ADF&G Aerial Survey Streams
Aerial Survey Index Streams (For Escapemant Goal)
N
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Miles

Chignik Management Area
Summary: Methods and Recommendations by Goal

Pink Salmon cont.

- Current aggregate even-year SEG 200,000 to 600,000
- Current aggregate odd-year SEG 500,000 to 800,000

- Percentile Method; Tier I (20th to 60th percentile of historically observed surveys)

- Recommendation- Revision to area wide odd- and even-year aggregate SEGs:
  - Even-year SEG: 170,000 to 280,000
  - Odd-year SEG: 260,000 to 450,000

Chignik Management Area
Summary: Methods and Recommendations by Goal

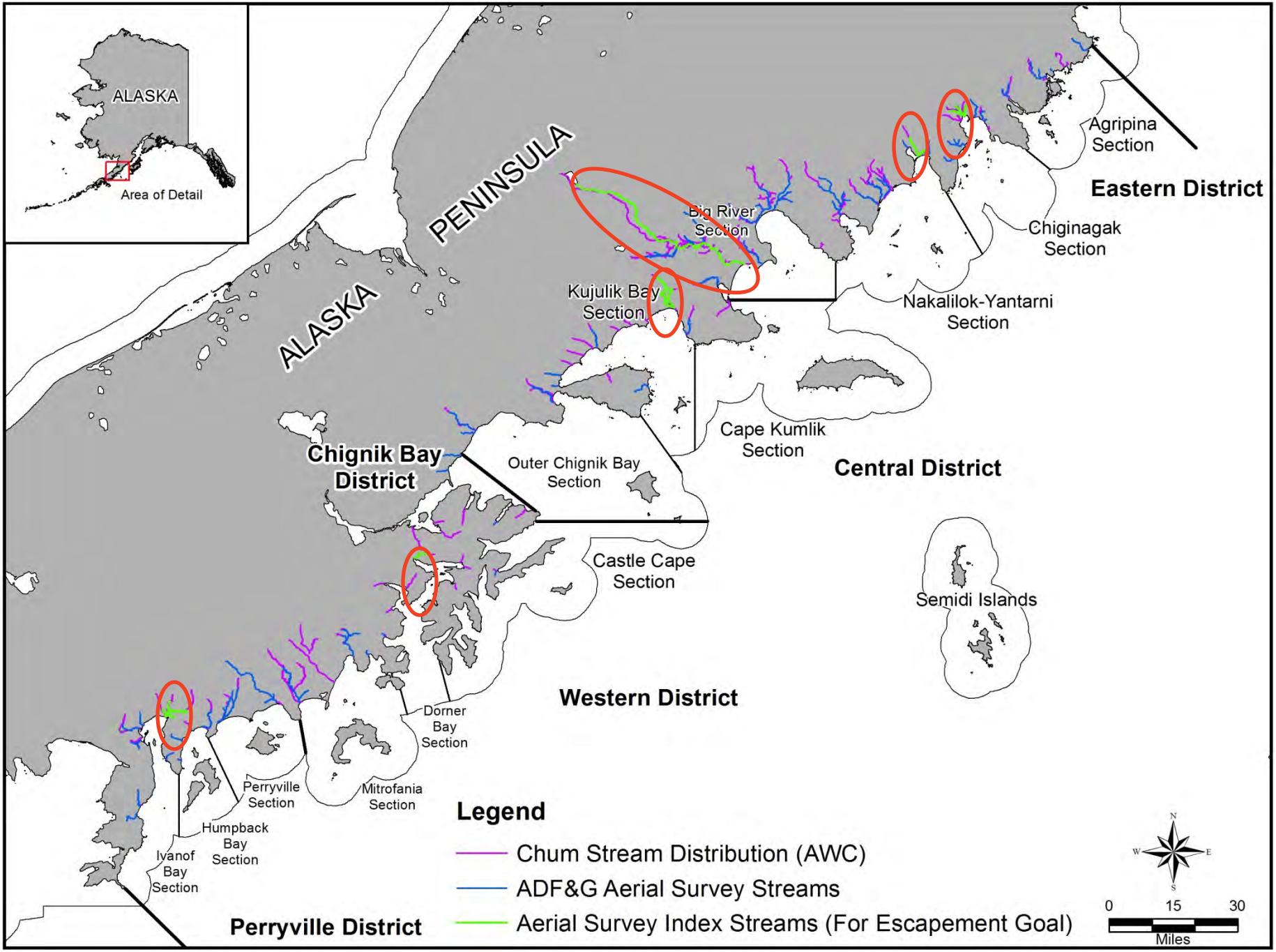
Chum Salmon

- Current aggregate LB-SEG >57,400
  - Previous SEG aggregated 49 aerial survey streams
  - Difficult to evaluate escapement trends if several systems are not included in a year

Chignik Management Area
Summary: Methods and Recommendations by Goal

Chum Salmon cont.

- Methods
  - Consistency of data
    - Single peak aerial survey from within the river with good or fair survey conditions
    - Only systems that are consistently successful (>30 of 35 years)
    - Ideally one index system in each commercial fishing District
  - 6 index systems (Aniakchak River, Small Nakalilok River, Ivanof River, North Fork River, Chiginagak River, and Portage Creek)
  - 4 of 5 districts have index systems (not Chignik Bay District)
  - These 6 systems comprise 57% of the escapement of the previous 49 stream aggregate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Castle Cape Section
Semidi Islands
Western District
Dorner Bay Section
Perryville Section
Mitrofania Section
Humpback Bay Section
Ivanof Bay Section
Perryville District
Legend
Chum Stream Distribution (AWC)
ADF&G Aerial Survey Streams
Aerial Survey Index Streams (For Escapement Goal)
N
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Chignik Management Area
Summary: Methods and Recommendations by Goal

Chum Salmon cont.

- Current aggregate LB-SEG >57,400

- Recommendation- Revision to area wide aggregate SEG: 45,000 to 110,000
  - Percentile Method; Tier I (20^{th} to 60^{th} percentile of historically observed surveys)


Questions?