COOK INLET SALMON FMP AMENDMENT: SSC REVIEW

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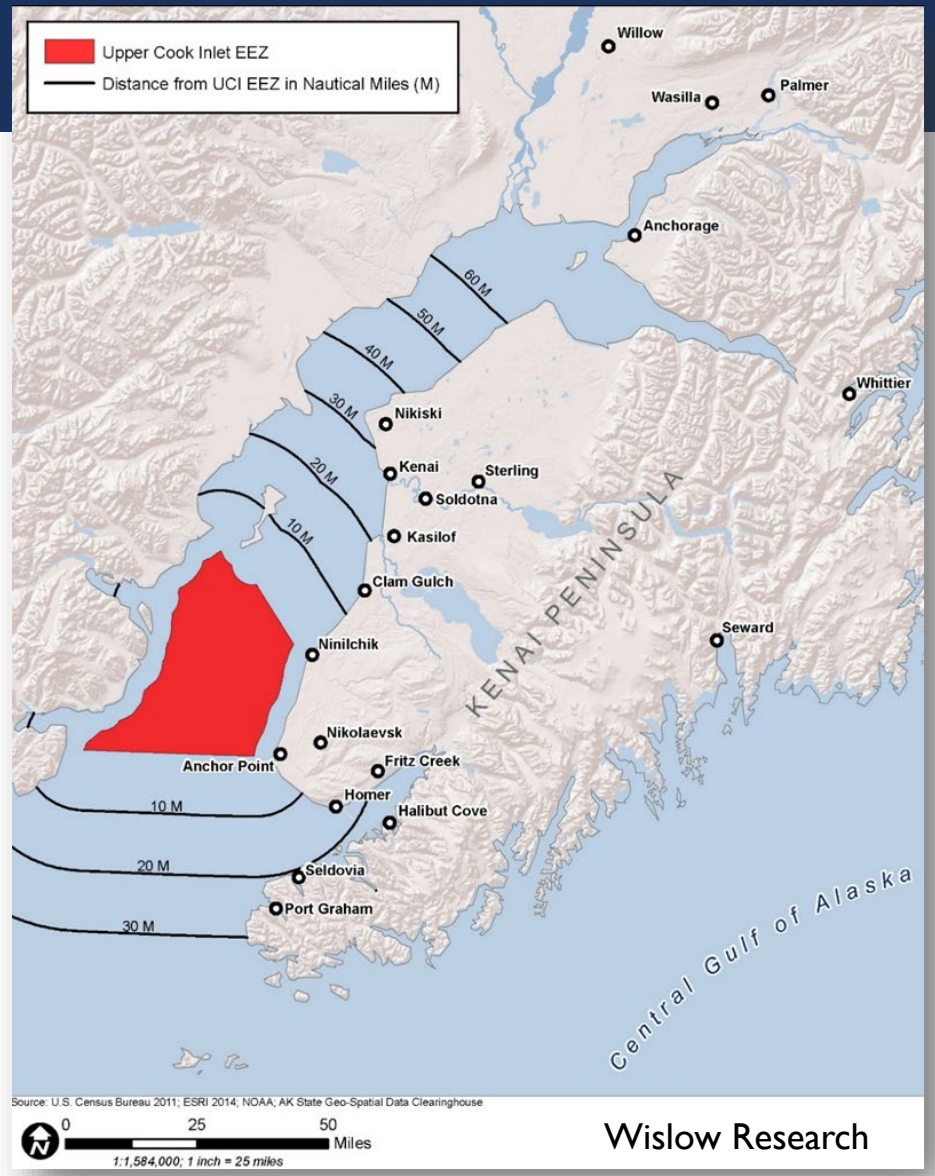
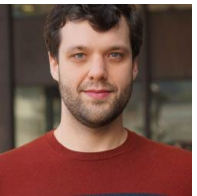
Patrick Dixon Fine Art Photography

FINAL ACTION

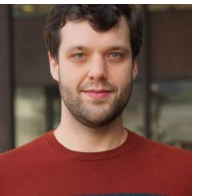
- Amend the Salmon FMP and Federal regulations to include the upper Cook Inlet EEZ salmon fishery
  - SSC Review
  - Enforcement Committee
  - AP Review
  - Council Final Action





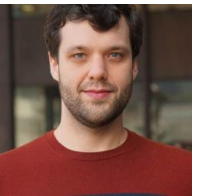
ACTION HISTORY AND UPDATES

- The Cook Inlet EEZ was excluded from the Salmon FMP
- *UCIDA et al., v. NMFS* held that the Cook Inlet EEZ must be included
- Council worked on this from 2017 to 2020
- Recommended closure to commercial salmon fishing in Dec. 2020
- Implemented as Amendment 14 (86 FR 60568, November 3, 2021)



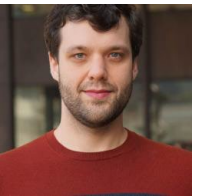
ACTION HISTORY AND UPDATES

- Amendment 14 was challenged and vacated in June 2022
  - Inconsistent with MSA to the extent it relied on State management to achieve FMP goals, no Fed. management to achieve OY
  - Did not include Cook Inlet EEZ recreational fishery
- A new amendment must be implemented by May 1, 2024
  - December 2022 Council initial review
  - April 2023 Council final action
  - NMFS rulemaking ~1 year



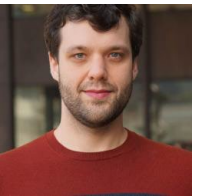
REQUESTS FOR TRIBAL CONSULTATION

- Request for formal Tribal Consultation
  - Chickaloon Village Traditional Council 3/17
- Tribal requests for information
  - Tikahtnu Forum 2/24
  - Kenaitze/Salamatof Hunting Fishing and Gathering Commission 3/7
  - Cook Inlet Tribal Fisheries Group 3/30



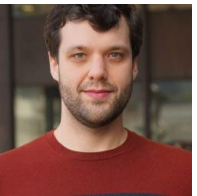
TRIBAL PERSPECTIVES

- The perspectives shared here are intended to characterize the range of discussion and feedback received at these meetings. They do not indicate consensus, and may not be representative of all groups.



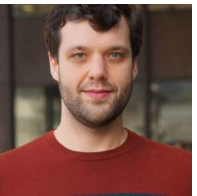
TRIBAL PERSPECTIVES

- Tribes throughout the Cook Inlet region are diverse and may have different perspectives, interests, and/or priorities
- Tribal members and representatives indicated that they did not have sufficient time to organize for consultations and develop formal positions on the issues
- At least two tribal groups said that Council and NMFS outreach was not adequate and requested the decision be delayed to allow for substantive tribal consultation



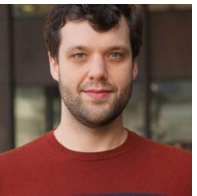
TRIBAL PERSPECTIVES

- **Cultural importance of salmon**
- Concerns about salmon stock health across Cook Inlet
- Sockeye stocks healthy, other stocks struggling
- Cook Inlet salmon fisheries complex and challenging
- Tribal members participate in all Cook Inlet salmon fisheries
- Discussion of what amount of salmon is needed



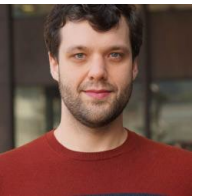
TRIBAL PERSPECTIVES

- Concerns about existing State management
- Difficulty getting concerns addressed by State
  - Ninilchik Subsistence fishery
- Concerns that Federal management would not be better
- General support for Alts 3 and 4 – federal trust responsibility
- Acknowledgement of Federal MSA process shortcomings
- Federal responsibility to improve salmon stock health



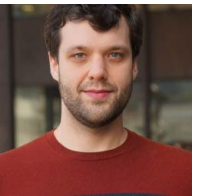
PURPOSE AND NEED (PG. 6)

The Council intends to amend the Salmon FMP to manage salmon fishing in the Federal waters of upper Cook Inlet. *Federal management must be consistent with the Magnuson-Stevens Act, including the required provisions for an FMP specified in section 303(a). This proposed action is necessary to bring the Salmon FMP into compliance with the Magnuson-Stevens Act consistent with the 2016 Ninth Circuit decision and the recent summary judgment opinion of the Alaska District Court in UCIDA et al. v. NMFS.*



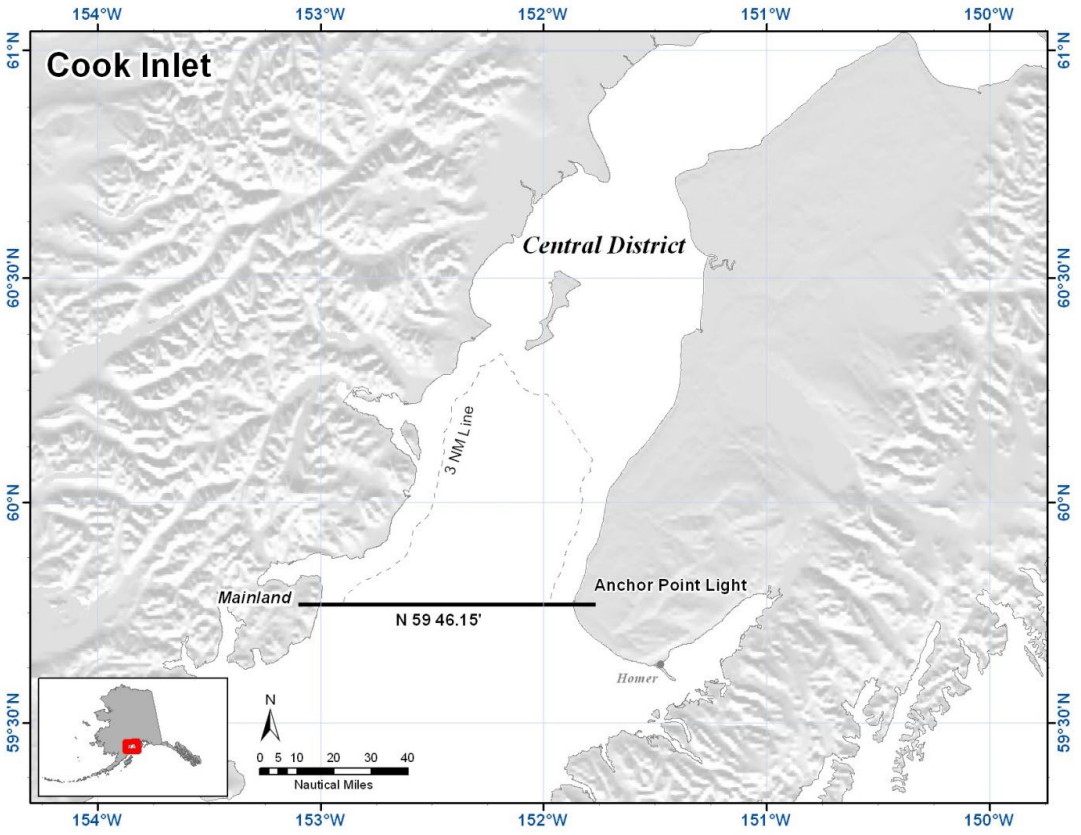
NINTH CIRCUIT DECISION

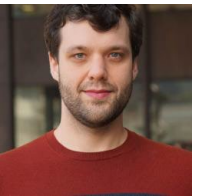
- "The North Pacific Council has jurisdiction over the federal waters of Cook Inlet."
- "But, the federal government cannot delegate management of the fishery to a State without a plan, because a Council is **required to develop FMPs for fisheries within its jurisdiction** requiring management and then to manage those fisheries "through" those plans."
- "The Magnuson-Stevens Act unambiguously requires a Council to create an FMP for each fishery under its authority that requires conservation and management."



ALTERNATIVES (PG. 6)

- ~~***Alternative 1:*** *No Action.*~~
- ***Alternative 2:*** *Federal management of the EEZ with specific management measures delegated to the State.*
- ***Alternative 3:*** *Federal management of the EEZ without delegation.*
- ~~***Alternative 4:*** *Federal management of the EEZ, closed to commercial salmon fishing.*~~

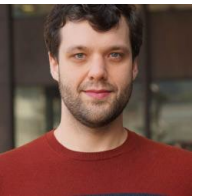




ALTERNATIVES CONSIDERED BUT NOT MOVED FORWARD FOR ANALYSIS (2.7, PG. 137)

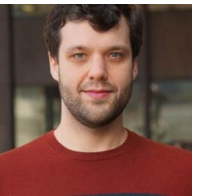
- Cook Inlet Salmon Committee, stakeholders worked 2018 to 2020
- Final amendment recommendation (1.4.1, pg. 48)
- Delegated management that extended Federal management into State waters

- The Council did not adopt this alternative because:
  - Outside of Council/NMFS jurisdiction
  - Outside of action scope



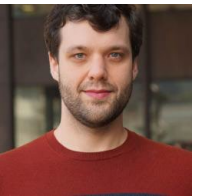
PREVIOUS SSC REVIEW OF THIS ACTION

- October 2020
- June 2020
- April 2019



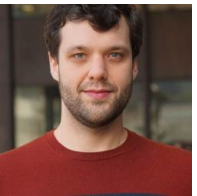
NEW AND CHANGED ELEMENTS

- Data from 2019, 2020, and 2021
- Alternative elements and analysis for the saltwater recreational fishery
- Options for defining Maximum Sustainable Yield (MSY) and Optimum Yield (OY)
- Options for the Annual Process for Determining the Status of Stocks
  - Plan Team or a different approach
- Refined description of Alternative 3 and consolidated elements
- Option for a date certain fishery closure for Alternative 3



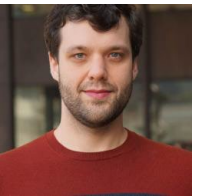
WHAT IS THE SAME

- Big picture management approach of Alternatives 2 and 3
- Status Determination Criteria (SDC) and Annual Catch Limit (ACL) methodology
- Accountability measures



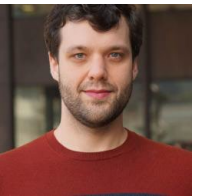
ALTERNATIVE 1 – NO ACTION / STATUS QUO (2.3, PG. 69)

- No changes to existing management of the fishery
  - not in FMP, management deferred to the State
- **Not a viable Council choice**
- Will be in place for 2023 fishing season



ALTERNATIVE 2 – DELEGATED MANAGEMENT (2.4, PG. 77)

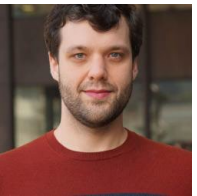
- Delegates specific management authorities to the State
- Retains federal management responsibilities
- Regular Council management cycle
- The State carries out inseason management
- Process for MSA consistency review
- Applicable only to the EEZ



- ¾ majority Council vote required, State must accept

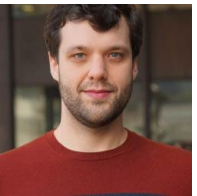
ALTERNATIVE 2 – MANAGEMENT MEASURES DELEGATED TO THE STATE (2.4.3, PG. 79)

- Escapement Goals
- Fishing Seasons
- Closed Waters
- Management Area, District, Subdistrict
- Legal Gear (drift net configuration)
- Inseason Management
- Limited Entry Permits
- Recordkeeping and Reporting
- Recreational Management
- Recreational Limits
- Other



ALTERNATIVE 2 – FEDERAL MANAGEMENT MEASURES

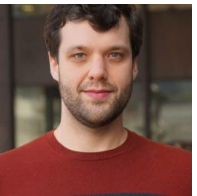
- **Status Determination Criteria – Tier System**
- **Annual Catch Limits**
- Accountability Measures
- Essential Fish Habitat
- Recordkeeping and Reporting
- Standardized Bycatch Reporting
- Legal Gear (drift gillnet)



(2.4.2, pg. 81)

FEDERAL MANAGEMENT TERMS – ALTS 2 AND 3

- Status Determination Criteria (SDC)
  - Overfishing – fishing mortality rate too high
  - Overfished – stock too small
  - Overfishing limit (OFL)
  - Acceptable biological catch (ABC)
- Annual Catch Limits (ACL)
- Elements above common to Alternatives 2 and 3
- Total Allowable Catch (TAC) – ALTERNATIVE 3 ONLY



"reference points" or "harvest specifications"

ALTERNATIVES 2 AND 3 – SDC, MSY, AND OY

- I will be discussing:

- The proposed tier system used to categorize stocks/stock complexes to set Status Determination Criteria and Harvest Specifications.
- Pre-season Forecasts
- Considerations for MSY and OY

ALTERNATIVES 2 AND 3 – TIER SYSTEM

- Proposed **Tiers** for stocks: same as previously presented to SSC

- Tier I: Stocks for which there is a relatively complete accounting of spawners and subsequent returns. (e.g. Kenai and Kasilof sockeye salmon; Late-Run Kenai Chinook).

- Tier II: Stocks managed as a complex. Generally, escapement indices exists for an indicator stock in the complex, but there is insufficient data to construct a spawner-recruitment analysis or complex-wide run forecasts (e.g., "Other" sockeye salmon; coho salmon).

- Tier III: No reliable large-scale estimates of escapements or stock-specific harvests (e.g., pink and chum salmon).

ALTERNATIVES 2 AND 3 – TIER SYSTEM

Preseason Forecasts

- Pre-season forecasts used for annual Status Determination Criteria and to inform annual harvest specifications.
- Example: Proposed ABC
- $ABC_{\text{pre-season (EEZ)}}$ = (Pre-season forecast run size) – (Predicted State harvest based pre-season forecast and harvest rate during recent generation) – (lower bound of escapement goal)
- A range of options for constructing pre-season forecasts depending upon available data
- Plan Team or SSC may wish consider various options other than lower bound of escapement goal

ALTERNATIVES 2 AND 3 – TIER SYSTEM

Preseason Forecasts….a range of options

- Most informed: (Tier 1 stocks): Sibling-based forecast models. Requires complete harvest, age, and escapement estimates.
- Most naïve: (Tier 3 stocks). Only harvest estimates available. Harvest-based forecasts (e.g., 5-yr avg.).
- If necessary, Tier 3 (naïve forecast) approach could be applied to all stocks.
  - See Appendix 9 for example
- Hybrid options: E.g., estimated harvests, escapements, and age comps used in sibling models.

ALTERNATIVES 2 AND 3 – MSY AND OY

MSY and OY Considerations for Alternative 3

- Section 2.4.6 and 2.5.4
- Definitions of MSY and OY do not affect calculations of ABC or OFL, etc.
- Definitions are a requirement of Regional Council as established by Magnuson-Stevens Act.

ALTERNATIVES 2 AND 3 – MSY

- Option 1: Define MSY <u>in the EEZ</u> for each stock or stock complex

- $MSY = Y_{EEZ} = \max(0, R_t - G_t - C_{state,t})$
- R_t = annual run size of a stock or stock complex
- G_t = escapement goal for a stock (e.g., lower bound of escapement goal)
- C_{state} = Catch in state fisheries

- Pros: Stock-specific MSY; EEZ-specific
- Cons: Fishery is mixed stock; Only a portion of stock harvest in EEZ

ALTERNATIVES 2 AND 3 – MSY

- Option 2: Define MSY for all of Upper Cook Inlet (not just EEZ) for each stock/complex.

- MSY = $Y_t = \max(0, R_t - G_t)$

- Pros: Stock-specific MSY; Considers the stock throughout Upper Cook Inlet
- Cons: Fishery is mixed stock;

ALTERNATIVES 2 AND 3 – MSY

- Sub-Option: Aggregate MSY across all stocks (and tiers). Could be for EEZ or entire Upper Cook Inlet.
- National Standard 1 :"Stocks may be grouped into complexes for various reasons, including where stocks in a multispecies fishery cannot be targeted independent of one another."

- Pros: Acknowledges mixed-stock fishery.
- Cons: Not stock specific and may not be comparable to ABC/OFL; Sums across tiers and a range of un-certainty about run size and escapements.

ALTERNATIVES 2 AND 3 – MSY

- MSY could be median, max, or percentile (e.g., 80th percentile) based on historical yield.

ALTERNATIVES 2 AND 3 – OY

- **Optimum Yield**
- Defined on the basis of MSY, as reduced by any relevant social, ecological, or economic factors.
- Both MSY and OY are defined on the basis of achieving spawning escapement goals
- Stocks cannot be targeted individually in the EEZ; OY must be reduced (from MSY) to account for these various factors and specified for the EEZ fishery as a whole.

ALTERNATIVES 2 AND 3 – OY

- OY Option 1:

- The OY range for the Cook Inlet EEZ salmon fishery could be the fishery's catch which, when combined with the catch from all other salmon fisheries in Cook Inlet, results in a post-harvest abundance within the escapement goal range for each applicable stock or stock complex.

ALTERNATIVES 2 AND 3 – OY

- OY Option 2:

- The OY range for the Cook Inlet EEZ salmon fishery could be the range of sum ACLs established for the Cook Inlet EEZ fishery across years. ACLs incorporate the OFL control rule established for each stock as well as the yield potentially available to EEZ over time based on historical fishing patterns in upper Cook Inlet.

ALTERNATIVES 2 AND 3 – OY

- OY Option 3:

- The OY range for the Cook Inlet EEZ salmon fishery could be the range between the average of the three lowest years of total estimated EEZ salmon harvest and the three highest years of total estimated EEZ salmon harvest from 1999 to 2021. Represents a broad range of recent conditions in the fishery that may also be reasonably foreseeable in the future. This results in an OY range of approximately 370,000 to 1,795,000 salmon of all species.

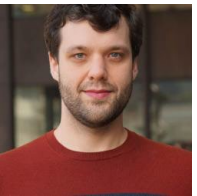
CHALLENGES ASSOCIATED WITH MSY AND OY

- Additional considerations for Plan Team/SSC/NMFS (uncertainty) :

- Pre-season forecast estimates.
- Currently, no accounting for harvests outside of UCI (Shedd et al. 2016).
- Uncertainty about yields at higher escapements (e.g., Kenai and Kasilof sockeye).
- No historical EEZ-specific harvests, only estimates from state districts.

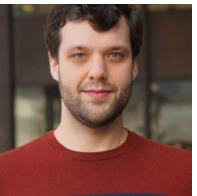
ALTERNATIVE 2 – DELEGATED MANAGEMENT

- Recreational management and bag limits
- Could not be different for AK residents and non-residents
- Harvest accounted for in SDC
- Standardized bycatch reporting methodology
  - statewide harvest survey
  - creel surveys
  - charter logbooks



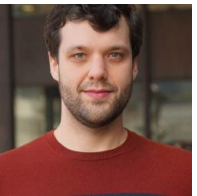
ALTERNATIVE 2

- **Options before the Council**



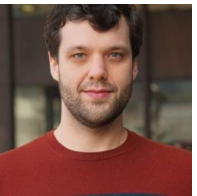
ALTERNATIVE 2 – NEW OPTION (2.4.7, PG. 93)

- Annual process for determining the status of stocks
  - Option 1: Establish a Salmon Plan Team
  - Option 2: Establish a Peer Review Process that works in conjunction with the Council's Scientific and Statistical Committee (SSC)



ALTERNATIVE 2 – NEW OPTION (2.4.7, PG. 93)

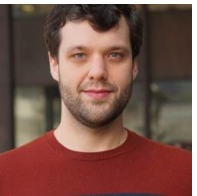
- Option 2: Establish a Peer Review Process that works in conjunction with the SSC
  - Under the MSA, the Council's SSC and/or a Peer Review process must evaluate the scientific information used to manage the fishery (i.e., harvest limits)
  - Peer Review leverages existing State processes with routine SSC review of scientific information
  - SSC review applicable to Federal reference points for the EEZ fishery



ALTERNATIVE 2 – STREAMLINING (2.4.7, PG. 98)

- Evaluate other options to streamline the annual process
  - **A multi-year plan to establish harvest specifications**
  - A multi-year plan to evaluate overfishing status
  - Alternative approach to establishing ACLs
  - Delegating additional authority to the State

  - Would require projecting additional years of salmon returns
  - Could not be fully developed
  - Remains a future management option

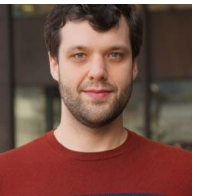


ALTERNATIVE 2 – ELEMENTS AND OPTIONS (2.4.8, PG. 99)

If the Council selects Alternative 2, it will need to specify:

- Monitoring, recordkeeping, and reporting (update)
  - Option 1: Federal Fisheries Permit (FFP), Federal Logbook, Fish ticket or eLandings reporting
  - Option 2: add additional measures to Option 1

- (Sub-option) Retention of groundfish
  - Sub-option 1: Full retention of groundfish
  - Sub-option 2: No retention of groundfish

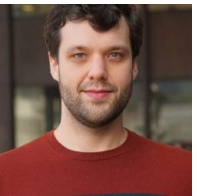


Logbook and fish ticket or eLandings reporting to fufill SBRM requirement for EEZ commercial fishery

		Nov. – Mar.	April	Jun. – Oct.
Next fishing year	**Plan Team or Agency**	Develop SAFE, preseason ABC/OFL based on forecasts or tier 3 (number of meetings as needed)		
	SSC		Recommend ABC/OFL	
	AP/Council		Adopt ABC/OFL	
	ADFG			Manage EEZ fishery
Previous fishing year	**Plan Team or Agency**	Determine final ABC/OFL/SDC based on realized runs (number of meetings as needed)		
	SSC		Review final ABC/OFL/SDC	

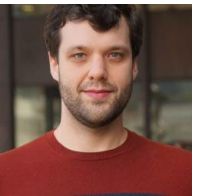
ALTERNATIVE 3 – FEDERAL MANAGEMENT (2.5, PG. 106)

- Direct management of EEZ by NMFS & Council
- Annual Council process – SDC and harvest specifications
- EEZ TAC set preseason by Council for commercial fishery
- EEZ bag limits set by Council for recreational fishery
- EEZ harvests reduced if State harvests increase
- Annual EEZ fishery expected, but EEZ could be closed for conservation or management concerns (2.5.2.3, pg. 115)
  - Applicable only to the EEZ



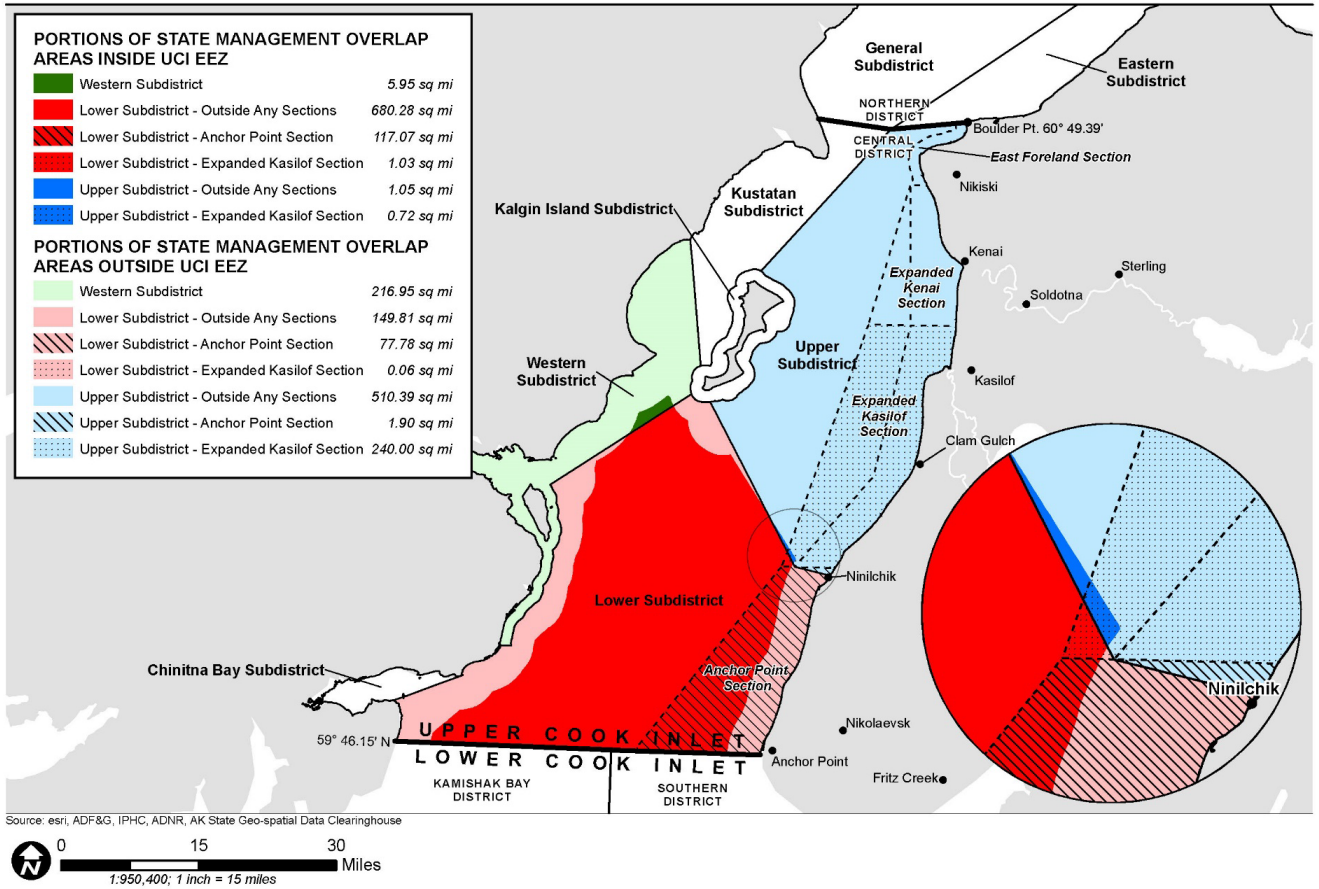
ALTERNATIVE 3 – FIXED ELEMENTS

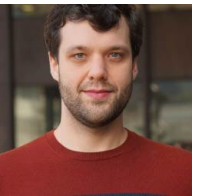
- Management Policy and Objectives (2.5.1, pg. 106)
  - Specific to Cook Inlet, adapted from existing Salmon FMP approach (updated)
- SDC and ACL through Tier system (2.5.2, pg. 109)
- Accountability Measures (2.5.3, pg. 117)
  - Inseason management tools and postseason management review



ALTERNATIVE 3 – FIXED ELEMENTS

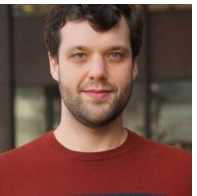
- Management Area and Statistical Area Boundaries (2.5.10, pg. 129)
  - Entire UCI EEZ
  - Add EEZ identifier to existing State stat areas





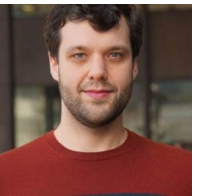
ALTERNATIVE 3 –ELEMENTS

- Legal Commercial Fishing Gear (2.5.11, pg. 129)
  - Targeting consistency with State regs
- Prohibitions (2.5.12, pg. 130)
  - No existing federal gillnet regulations for AK
  - Focus on catch accounting
- Commercial Fishery Inseason Management (2.5.13, pg. 130)
- Use of the Join Protocol Committee (2.5.14, pg. 132)



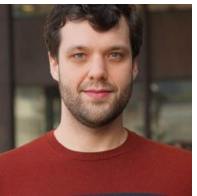
ALTERNATIVE 3 – TAC SETTING (2.5.2.1, PG. 113)

- Set at the species level
- Use information about stock harvest composition
- Account for management uncertainty, social, economic, and other ecological factors
- Set at or below ABC
- Fishery closed when TAC for one or more species projected to be exceeded by another opening – mixed stock fishery, weak stock management



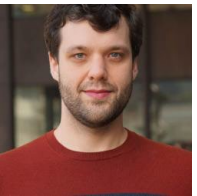
ALTERNATIVE 3 – FEDERAL MANAGEMENT

- **Options before the Council for Federal management measures**



ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.5, PG. 122)

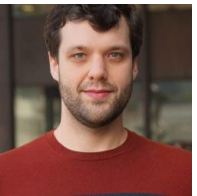
- Annual process for determining the status of stocks
  - Option 1: The Council would establish a Salmon Plan Team to produce a SAFE Report.
  - Option 2: Do not establish a plan team. NMFS would prepare a SAFE Report.



ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.6, PG 125)

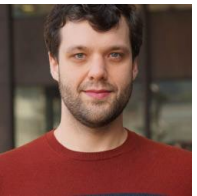
If the Council selects Alternative 3, it will need to specify:

- Commercial monitoring, recordkeeping, and reporting measures
  - Option 1: FFP, Federal Processor Permit, Federal Salmon Buyer Permit, Federal Logbook, eLandings, vessel monitoring system. Optional retention of groundfish.
  - Option 2: add additional measures to Option 1



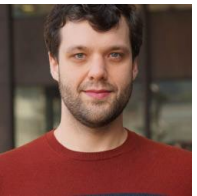
ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.7, PG 127)

- Standardized bycatch reporting methodology
  - Commercial fishery
    - Federal logbook
    - eLandings
  - Recreational fishery
    - creel surveys
    - statewide harvest survey
    - charter logbooks



ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.8, PG. 127)

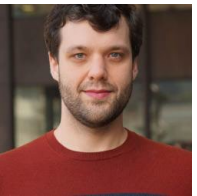
- Recreational salmon fishery management
  - Option 1: Delegate management to the State (ADF&G)*
  - Option 2: Federal management
    - Sub-Option 1: Adopt current State bag limits
    - Sub-Option 2: Define separate Federal bag limits
    - Sub-Option 3: Authority to close the sport fishery, if required



*¾ majority Council vote required, State must accept

ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.9, PG. 128)

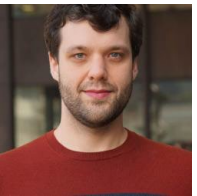
- Commercial fishing periods
  - Option 1: Mondays 7am to 7pm and Thursdays 7am to 7pm beginning the third Monday in June or June 19 whichever is later. (same days as State drift gillnet fishery) Closed when a TAC is reached.
  - Option 2: Establish independent Federal fishing periods and specify that the Cook Inlet EEZ salmon drift gillnet fishery could not be open concurrently with the adjacent State waters salmon drift gillnet fishery. Closed when a TAC is reached.
- Fix a EEZ commercial fishery season closure date (optional)
  - Option 1: July 9
  - Option 2: other date



ALTERNATIVE 3 – STREAMLINING (2.5.5.1, PG. 125)

- Evaluate other options to streamline the annual process
- These could include
  - **A multi-year plan to establish harvest specification**
  - A multi-year plan to evaluate overfishing status
  - Alternative approach to establishing ACLs

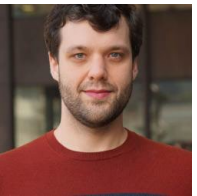
  - Could not be fully developed in time available
  - Concern about uncertainty in initial years of management



ALTERNATIVE 3 – ELEMENTS WITH OPTIONS (2.5.15, PG 132)

- Federal commercial limited entry*
  - Option 1: FFP to participate
  - Option 2: FFP and intent to develop a limited entry program

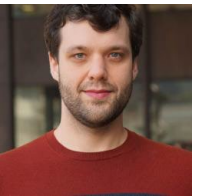
* a CFEC S03H permit would still be required to land fish in AK



		Nov. – Jan.	Feb.	Mar.	April	May	Jun. – Oct.
Next fishing year	**Plan Team or Agency**	Develop SAFE, preseason ABC/OFL based on forecasts or Tier 3					
	SSC		- Review SAFE - Recommend ABC/OFL		Recommend ABC/OFL		
	AP/Council		Recommend proposed TAC		Recommend final TAC		
	NMFS			Publish proposed harvest specifications		Publish final harvest specifications	Manage EEZ fishery
Previous fishing year	**Plan Team or Agency**	Determine final ABC/OFL/SDC based on realized runs					
	SSC		Review post-season ABC/OFL/SDC				

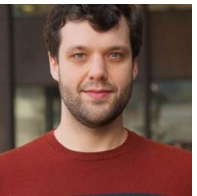
ALTERNATIVE 4 – COOK INLET EEZ CLOSED TO COMMERCIAL SALMON FISHING (2.6, PG. 104)

- Would apply West Area prohibition on commercial fishing to the Cook Inlet EEZ
- Cook Inlet EEZ closed to commercial salmon fishing
- Commercial salmon fishing would continue in State waters where State management processes continue without Federal involvement
- **Not viable**



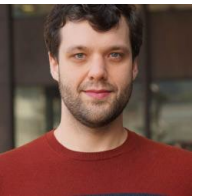
ENVIRONMENTAL ASSESSMENT (3, PG. 134)

- Updated Section 3.1.1 with most recent years of escapement
  - Tables 3-2 and 3-3
  - Kenai late-run Chinook below escapement goals from 2019 to 2021
  - Coho indicator stock below goal in 2019
  - Other sockeye indicator stock below goal in 2019 and 2020
- Updated Section 3.1.2 with proposed SDC for most recent years
  - Tables 3-5 to 3-12
  - Coho exceeded ACL and overfishing threshold in 2021



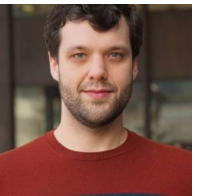
ENVIRONMENTAL ASSESSMENT (3, PG. 134)

- Consideration of recreational removals in Alts 1, 2, and 3
  - Less than 0.01% of EEZ harvests (estimated annual average harvest of 66 salmon)
  - Addition would not change SDC or escapement conclusions (already accounted)



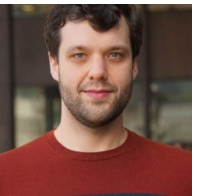
ENVIRONMENTAL ASSESSMENT

- Expanded discussion of impacts of Alt 3 in Section 3.1.3, pg. 169
- Challenging to analyze with certainty
  - Difficulty forecasting TACs
  - Current EEZ harvest proportions are estimates
  - Variability in salmon run timing and size
  - Forgoing EEZ fishing or focusing on EEZ fishing?
- Salmon surplus to escapement expected to be harvested in State water fisheries when possible



ENVIRONMENTAL ASSESSMENT

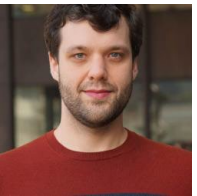
- ESA-listed salmon (3.2, pg. 173)
- Marine mammals (3.3, pg. 175)
  - Continued concern about Cook Inlet belugas
    - Salmon are important prey
    - Vessel traffic potential disturbance and displacement
    - Generally, seasonality of fisheries limits overlap



ENVIRONMENTAL ASSESSMENT

- Habitat (3.5, pg. 198)
  - No new impacts from the commercial EEZ fishery
  - No additional impacts from the recreational EEZ fishery

- Cumulative effects (3.6, pg. 199)
  - No new impacts
  - No significant impacts expected



OVERVIEW OF THE RIR (SECTION 4, PG. 210 – 368)

- Section 4.1 (pg. 210): **Statutory Authority**—no revisions were undertaken
- Section 4.2 (pg. 211): **Purpose and Need**—no revisions were undertaken
- Section 4.3 (pg. 211): **Alternatives**—minor text edits
- Section 4.4 (pg. 211): **Methodology**—minor text edits
- Section 4.5 (pg. 212): **Salmon Fisheries Utilizing the EEZ**—revised to include both the Drift Gillnet Fishery and Saltwater Sport Fishery
- Section 4.6 (pg. 314): **Other Potentially Affected Fisheries**—updated to include data through 2021
- Section 4.7 (pg. 328): **Analysis of Impacts**—updated
- Appendix 15 (pg. 506): **Community Fisheries Engagement Indices**—updated
- Appendix 16 (pg. 519): **Upper Cook Inlet Exclusive Economic Zone Harvest**—new appendix added.

FIGURE 4-1. AVERAGE HARVEST PERCENTAGES IN THE UCI SALMON DRIFT GILLNET FISHERY BY DATE AND SPECIES, 2009–2021 (PG. 216)

- Vertical lines show weekly intervals — June 25, July 1, July 8, July 15, etc.
- On average by July 15:
  - 68% of Chinook harvested
  - 39% of Sockeye harvested
  - 28% of Chum harvested
  - 22% of Pinks harvested
  - 14% of Coho harvested

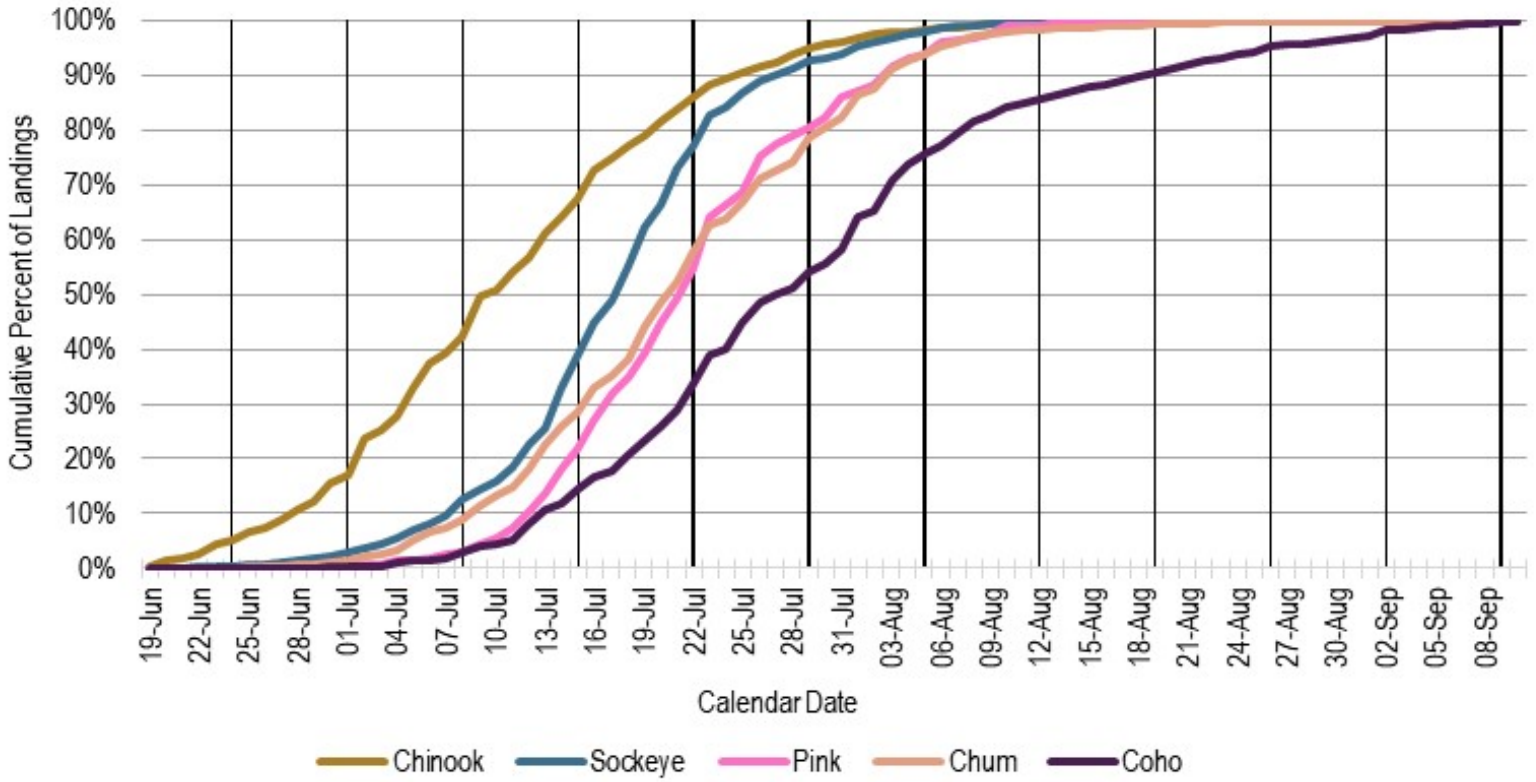


FIGURE 4-5. HARVEST (IN NUMBERS OF FISH) IN THE UCI SALMON DRIFT GILLNET FISHERY BY SPECIES, 1966–2021. (PG. 223)

- 3 years don't indicate a trend
- 2020 appears to be an anomaly
  - 2020 had the lowest total harvest (651,610 fish)
  - 2020 had the highest percentage of pinks (45%)
  - 2020 had the lowest percentage of sockeye harvest (44%) since 1981 (38%).
- 2019 and 2021 were more typical with respect to species mix

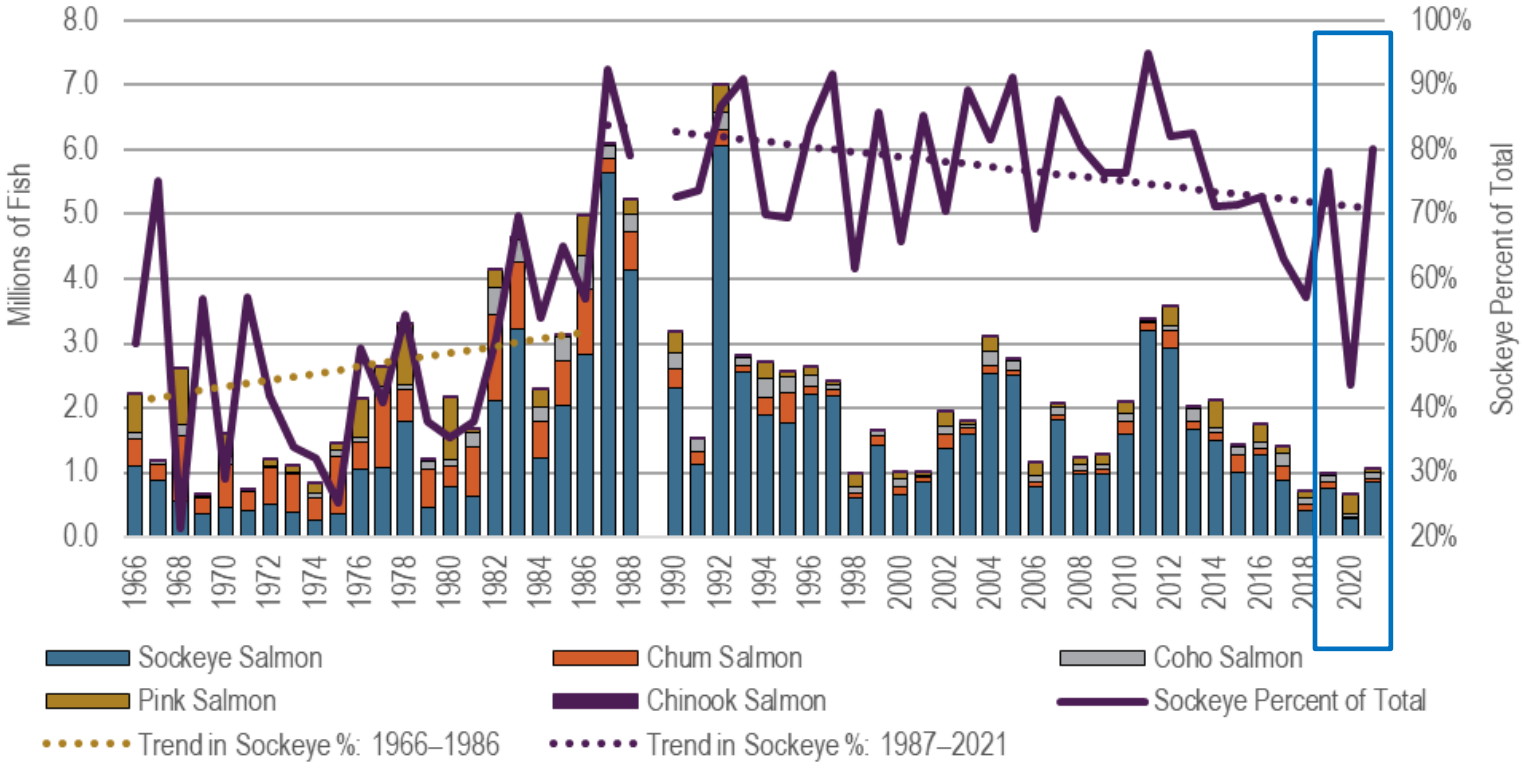
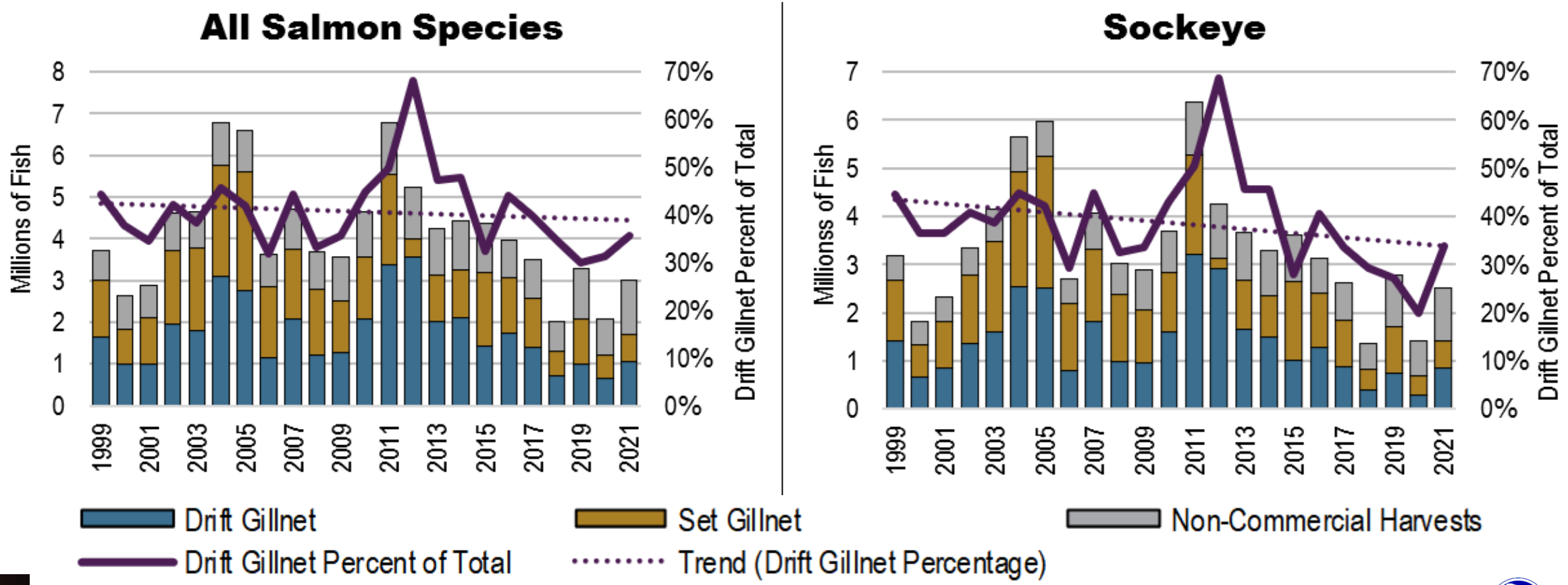
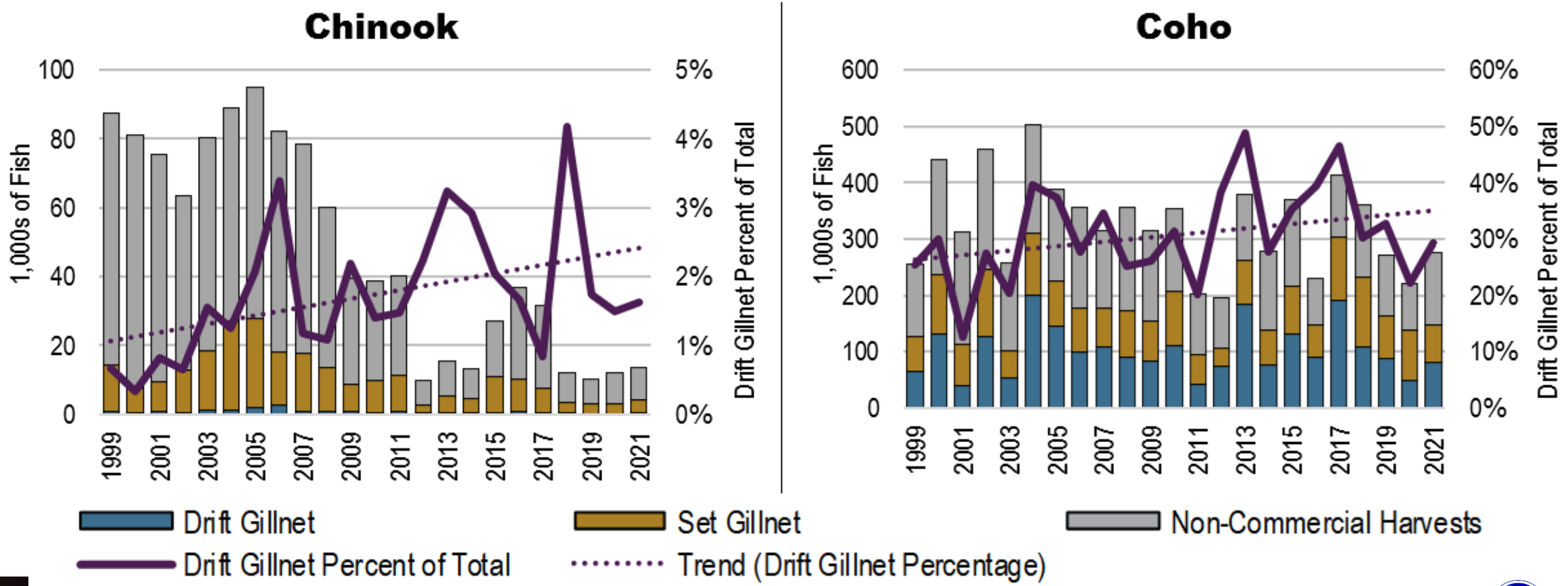


FIGURE 4-6. SALMON HARVEST (IN NUMBERS OF FISH) IN UPPER COOK INLET BY FISHERY AND SPECIES, 1990-2021 (PG. 224)



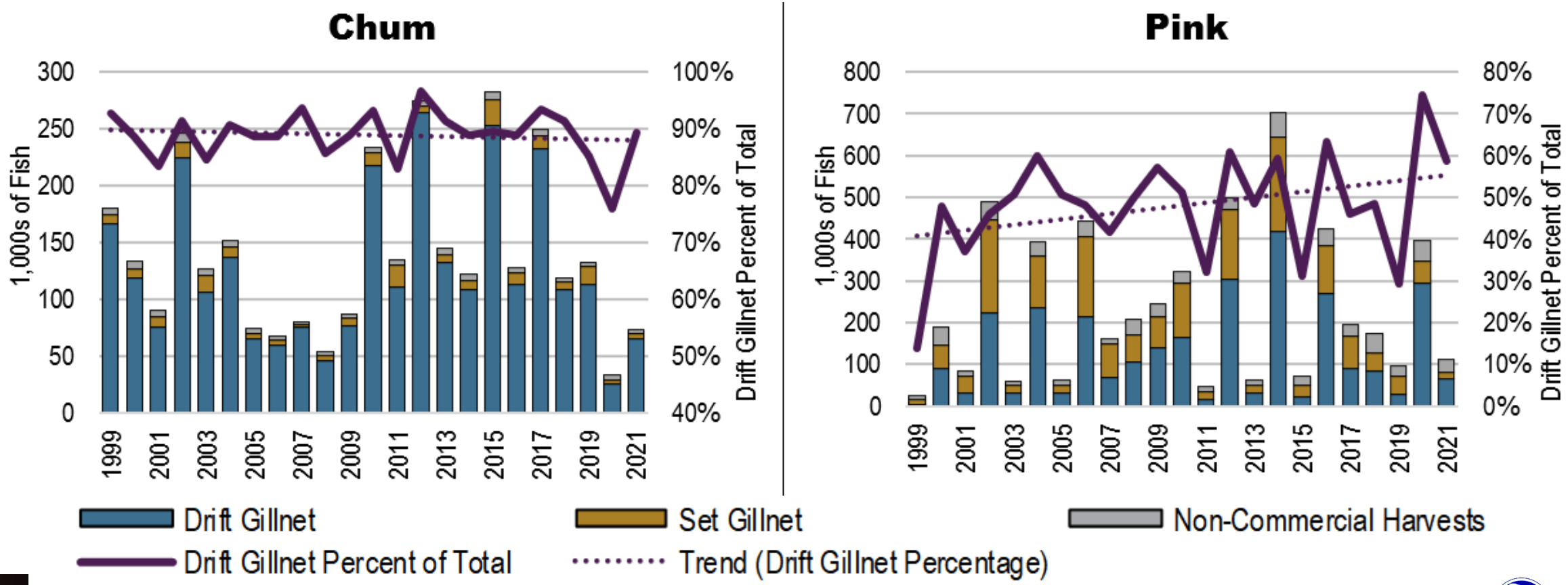
Note: Non-commercial salmon fisheries include the sport, personal use, and subsistence/educational fisheries in both salt and fresh water north of the Anchor Point line.

FIGURE 4-6. SALMON HARVEST (IN NUMBERS OF FISH) IN UPPER COOK INLET BY FISHERY AND SPECIES, 1990-2021 (CONTINUED)



Note: Non-commercial salmon fisheries include the sport, personal use, and subsistence/educational fisheries in both salt and fresh water north of the Anchor Point line.

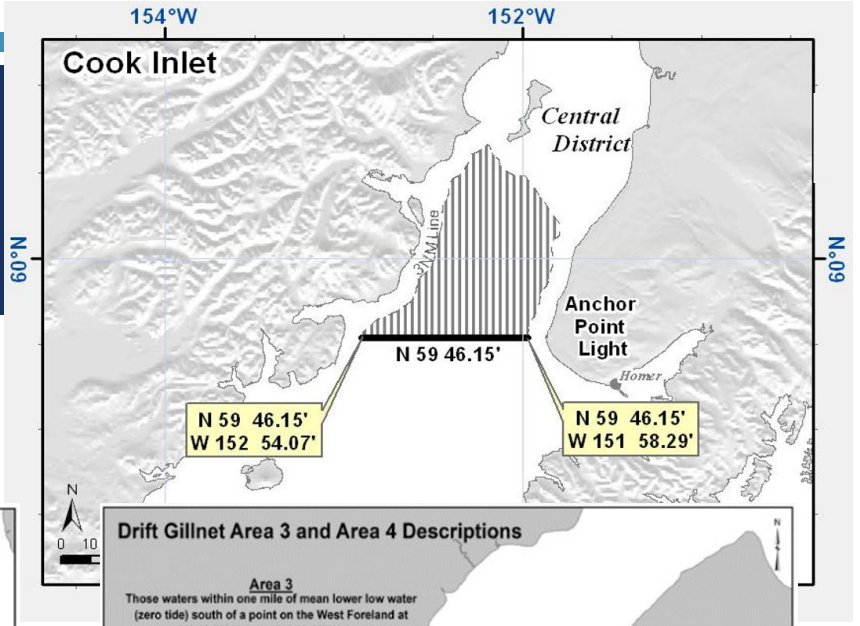
FIGURE 4-6. SALMON HARVEST (IN NUMBERS OF FISH) IN UPPER COOK INLET BY FISHERY AND SPECIES, 1990-2021 (CONTINUED)

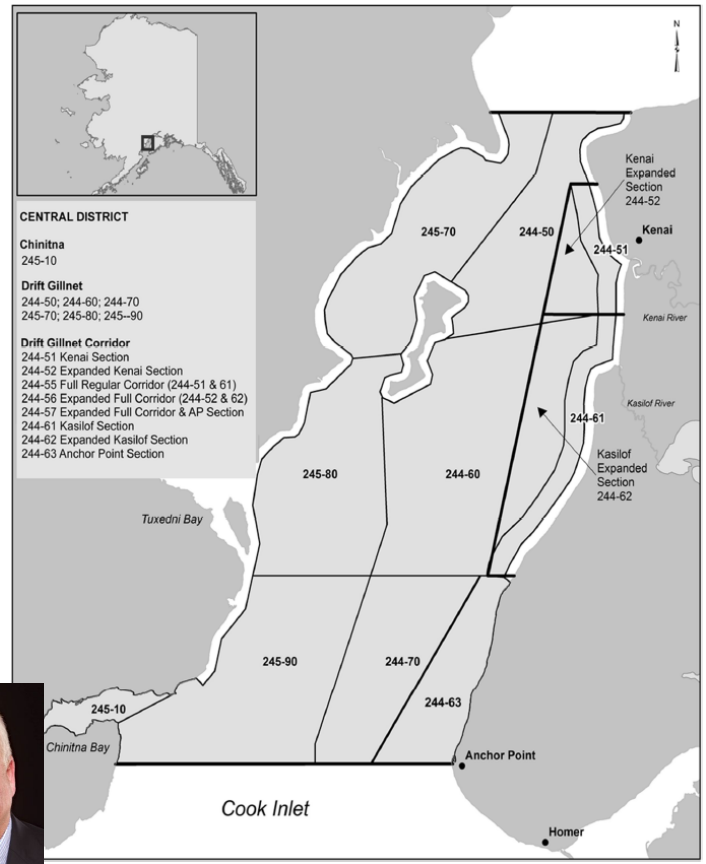


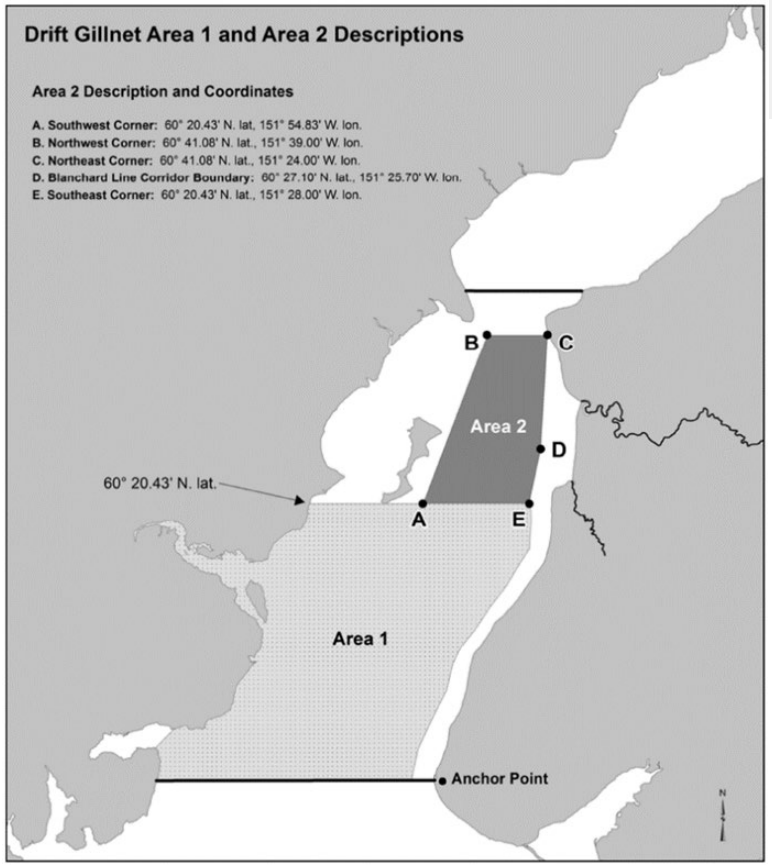
Note: Non-commercial salmon fisheries include the sport, personal use, and subsistence/educational fisheries in both salt and fresh water north of the Anchor Point line.

UCI DRIFT GILLNET MANAGEMENT AREA DO NOT MATCH NEATLY TO THE BOUNDARIES OF THE EEZ

- See Figure 1-2 on page 35, Figure 4-3 on page 220, and Figure 4-4 on page 221. See also Figure 4-35 on page 258







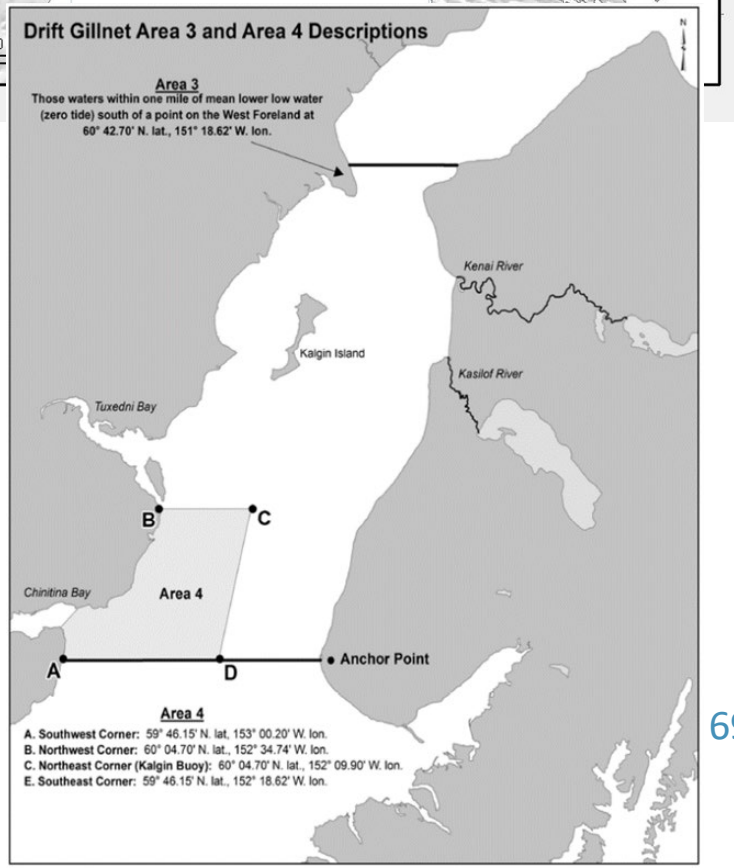


TABLE 4-4. ASSUMED PERCENT OF THE UCI SALMON DRIFT GILLNET FISHERY HARVEST IN STATE WATERS VERSUS THE EEZ BY STATISTICAL AREA. (PG. 226)

Statistical Area	Name/Description	Locale Code	State Water Percent	EEZ Percent
24426	Kasilof Special Harvest Area	All	100%	0%
24451	Kenai Section	All	100%	0%
24455	Full Corridor	All	100%	0%
24456	Expanded Full Corridor	All	100%	0%
24457	Expanded Kenai/Kasilof & Anchor Point Section	0	94%	6%
		1	25%	75%
24460 (District Wide)	All areas available	0	50%	50%
	Fishing Limited to Drift Area 1	1	25%	75%
	Fishing Limited to Drift Area 3	3	100%	0%
	Fishing Limited to the Drift Areas 3 & 4	4	75%	25%
	Fishing Limited to Drift Areas 1 & 2	5	50%	50%
24461	Kasilof Section	All	100%	0%
24510	Chinitna Bay	All	100%	0%

FIGURE 4-9. APPROXIMATE PERCENT OF TOTAL SALMON HARVESTS (IN POUNDS) IN THE UCI SALMON DRIFT GILLNET FISHERY INSIDE THE EEZ, 1999–2021. (PG. 227)

- EEZ splits are approximated based on percentage estimates in Table 4-4.
- Blue outline shows the updated data.
  - EEZ Percentage 2020 was the lowest recorded (18.5%)
- Overall percentage harvested in the EEZ has been declining since 1999.
  - Average since 1999 = 47.2%
  - Average 2007–2014 = 52.4%
  - Average since 2015 = 41.0%
  - Average since 2019 = 39.1%

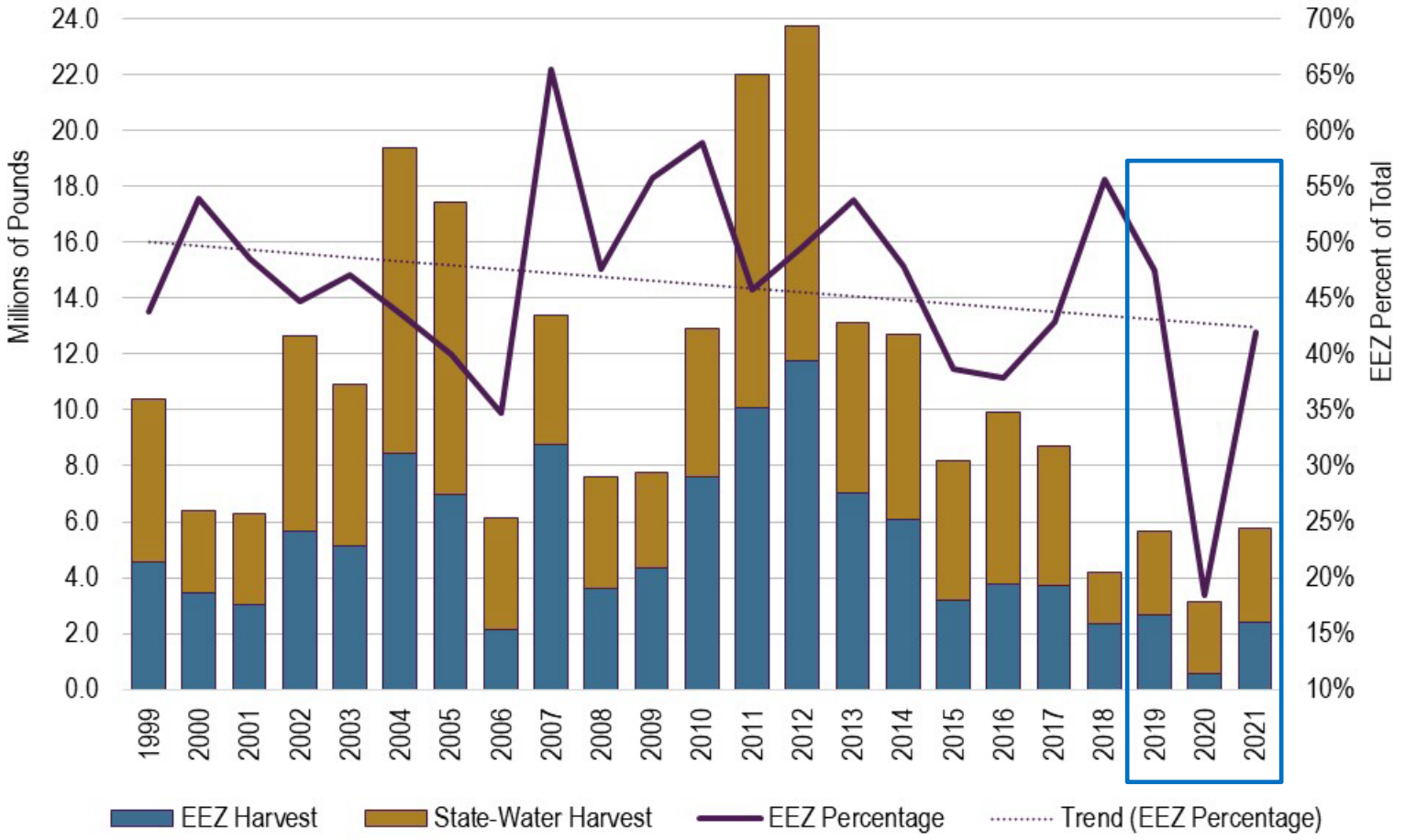
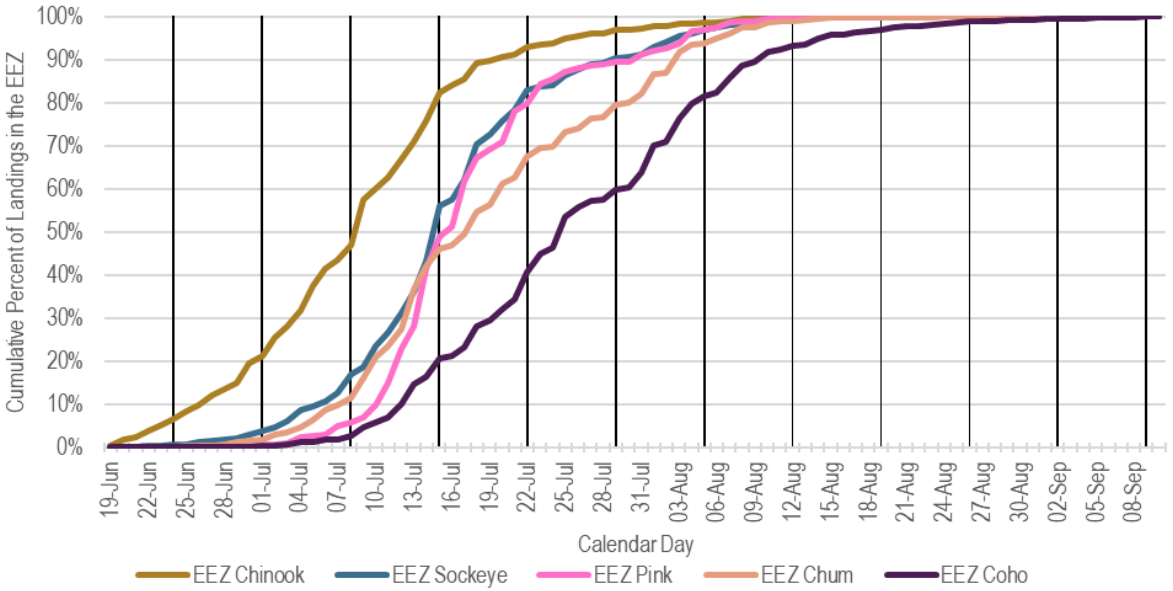


FIGURE 4-12. AVERAGE CUMULATIVE LANDINGS IN THE EEZ (2013 TO 2021) BY SEASON DAY AS A PERCENTAGE OF TOTAL EEZ LANDINGS. (PG. 230)

- Figure 4-12 (above) only includes harvests in the EEZ.
  It is similar to Figure 4-1 (below) which includes all harvests in the UCI.
- In an average year milestone percentages are realized a few days sooner in the EEZ than in the UCI fishery as a whole
  - 75% of EEZ Chinook are taken by July 14th v. July 17th in all waters
  - 75% of EEZ Sockeye are taken by July 20th v. July 22nd in all waters
  - 75% of EEZ Pink are taken by July 21st v. July 25th in all waters
  - 75% of EEZ Chum are taken by July 27th v. July 26th in all waters
  - 75% of EEZ Coho are taken by Aug 3rd v. Aug 4th in all waters

Average cumulative landings in the EEZ (2013 to 2021)



Average cumulative landings in the UCI (2009 to 2021)

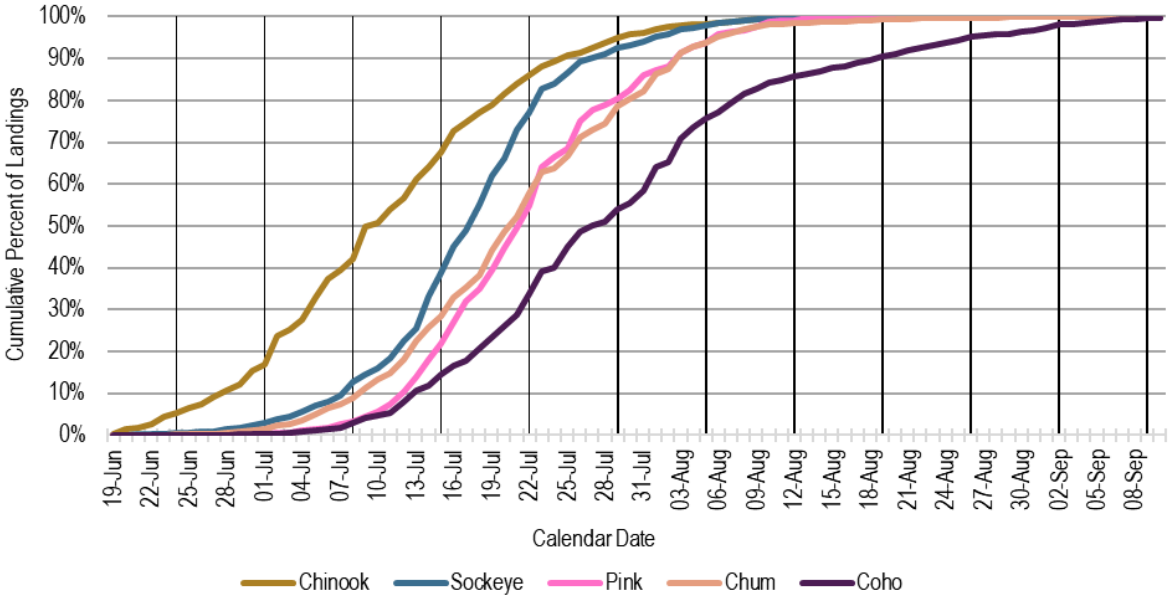


FIGURE 4-14. NUMBER OF ACTIVE S03H PERMITS BY RESIDENT TYPE, 1975–2021. (PG. 232)

- Blue outline shows the updated data.
- The number of active permits in 2020 (364) and 2021 (343) were the lowest since the beginning of limited entry.
- In 2020, residents as a percent of total active permits were the highest since 1975 at 77.2%
  - 2021 saw a slightly lower level (76.4%)—2nd highest percentage

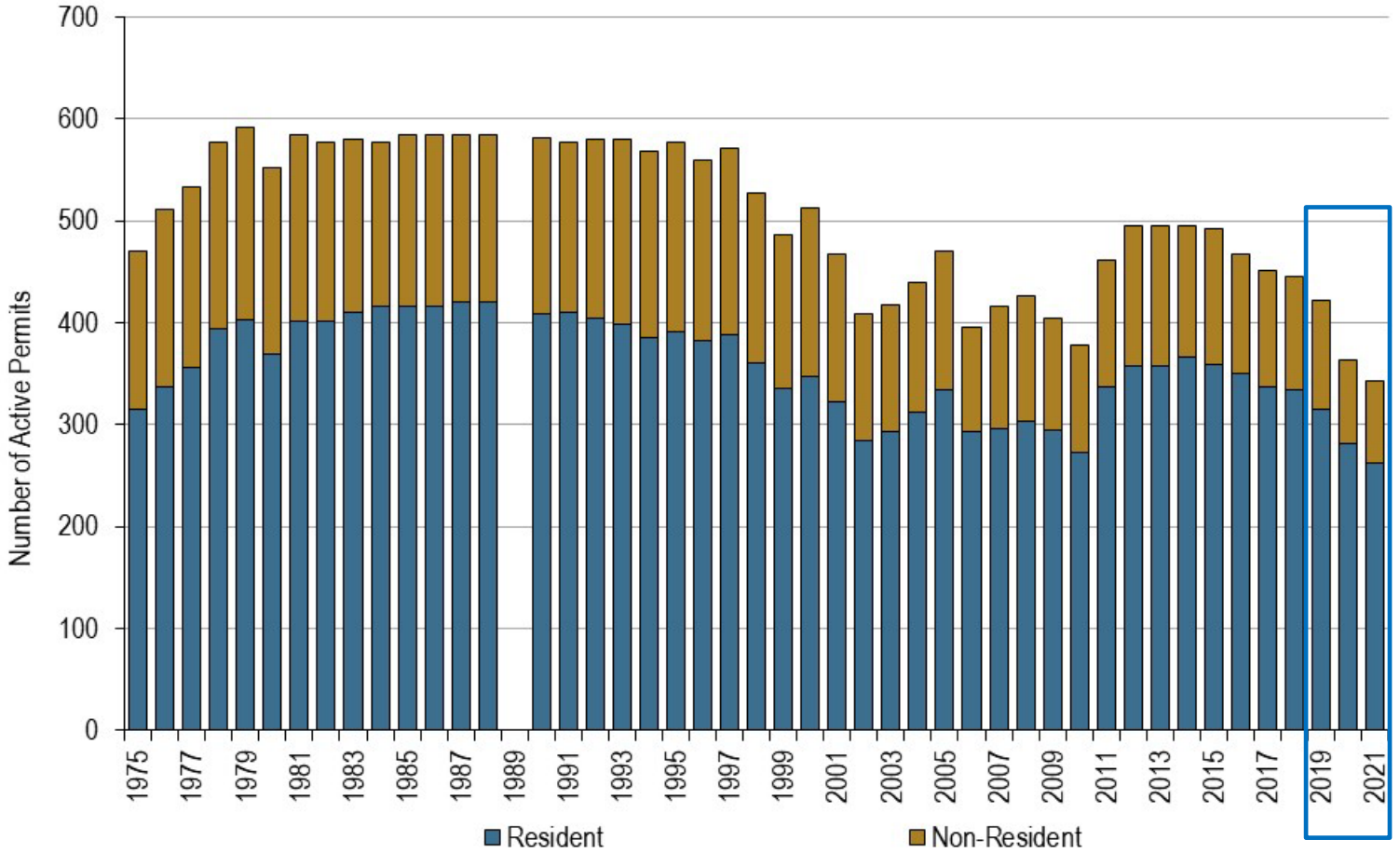


FIGURE 4-21. AVERAGE ANNUAL EX-VESSEL PRICE (INFLATION ADJUSTED) OF SALMON HARVESTED IN UPPER COOK INLET SALMON FISHERIES BY SPECIES, 1975–2021. (PG. 230)

- Blue outline shows the updated data.
- Compared to inflation adjusted prices from 2009–2018 average prices from 2019–2021 were:
  - 23% higher for Chinook
  - 8% lower for Sockeye
  - 1% lower for Coho
  - 1% lower for Chum
  - 8% lower for Pinks

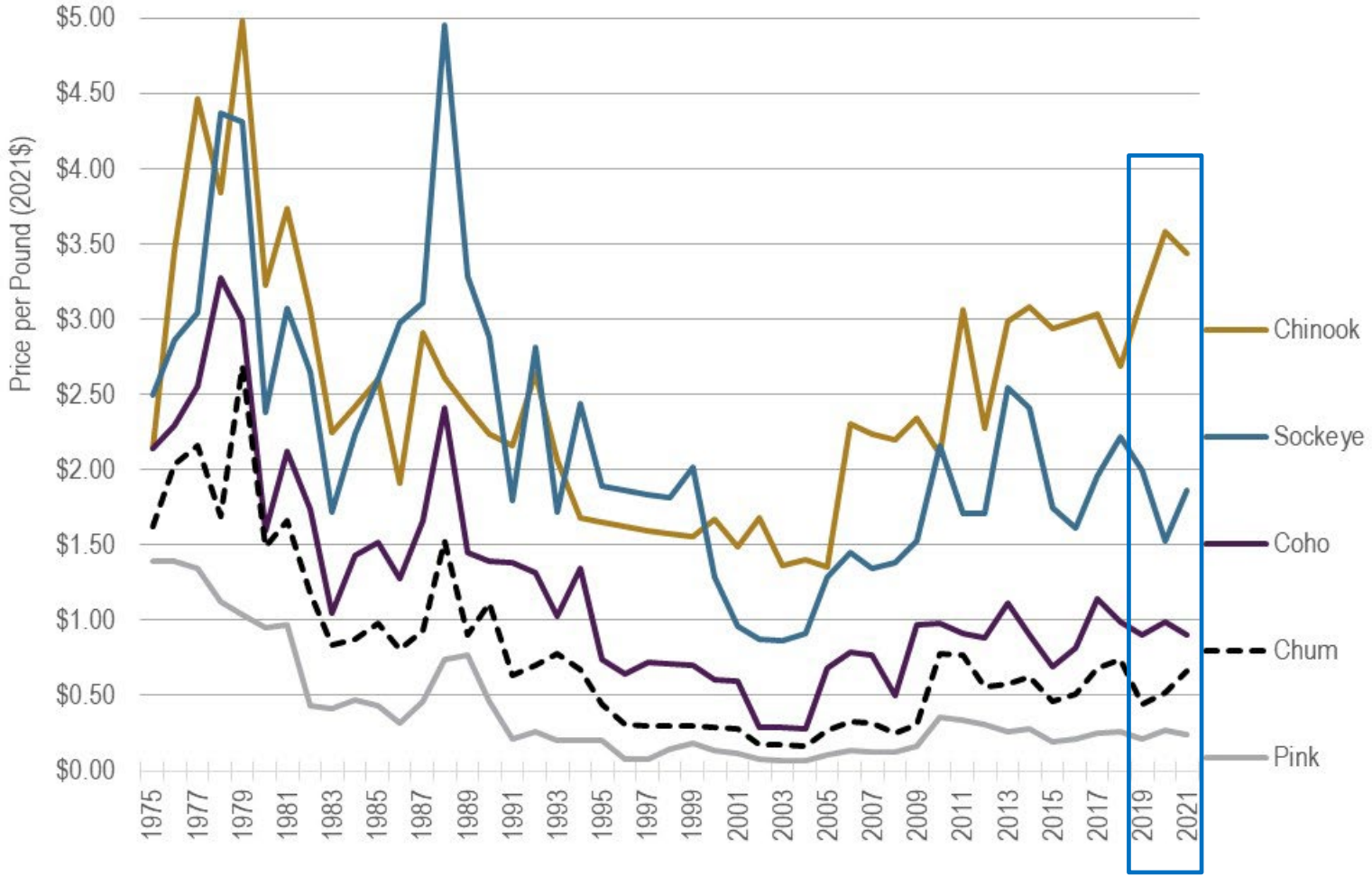
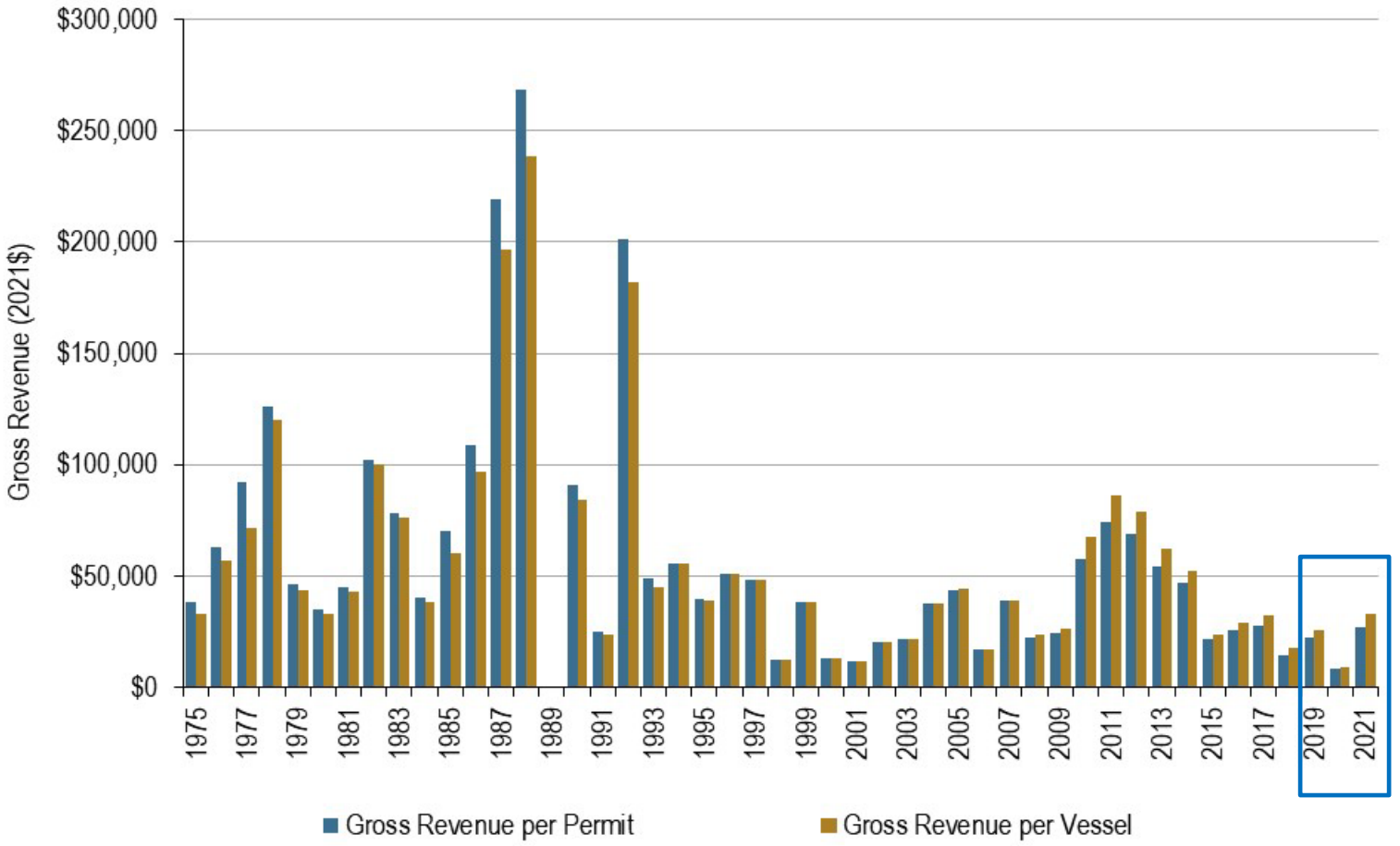


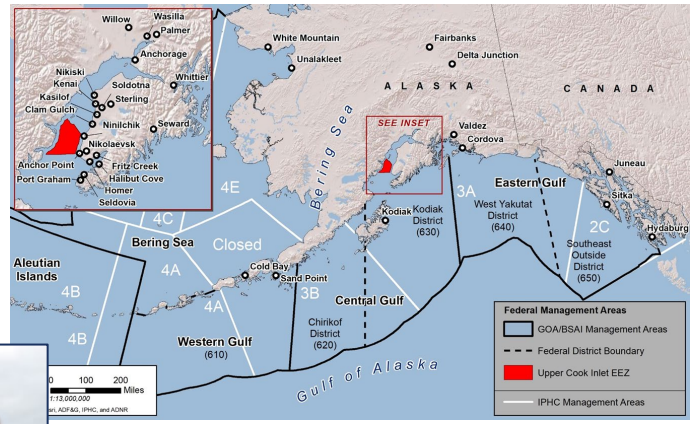
FIGURE 4-22. GROSS REVENUE (INFLATION ADJUSTED) PER ACTIVE PERMIT AND VESSEL IN THE UCI SALMON DRIFT GILLNET FISHERY, 1975–2021 (PG. 228)

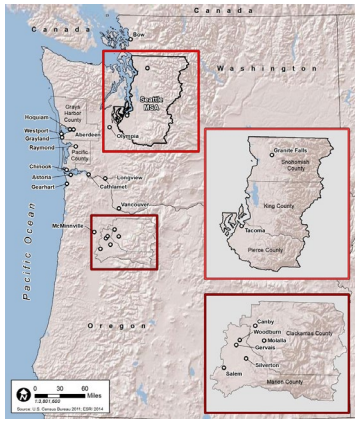
- Blue outline shows the updated data.
- Revenue is adjusted for inflation to 2021$
- Average revenues in 2020 were the lowest since limited entry began in 1975.
- Average revenues in 2019 and 2021 were comparable to average revenue since 2004 if the high revenue years from 2010–2014 are excluded.

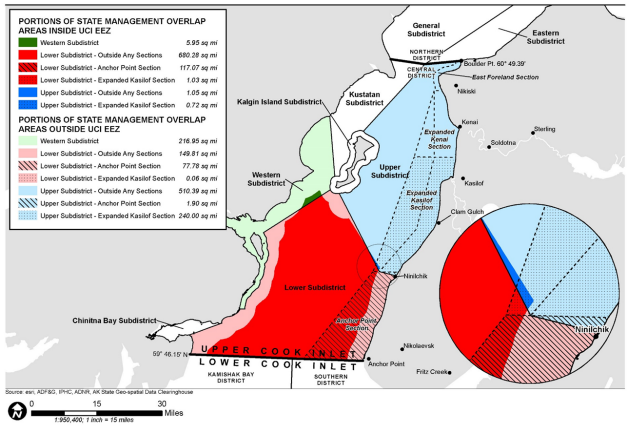


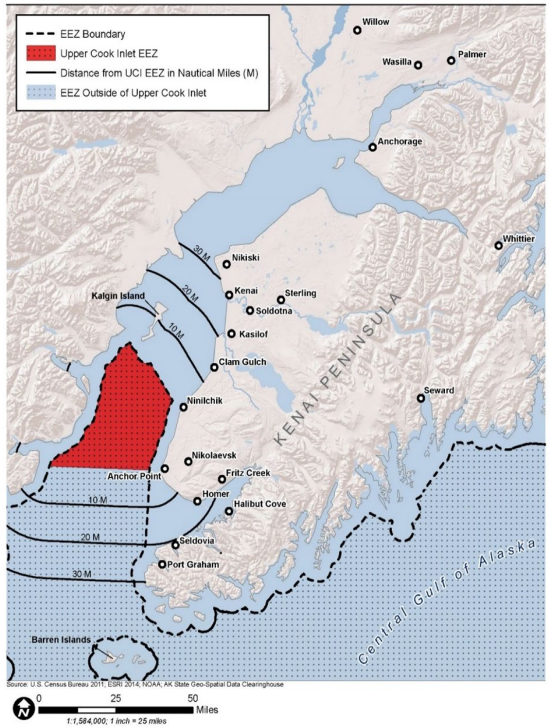
UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (PG. 254)

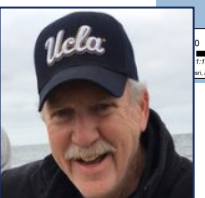
- Maps, figures, tables, and text have been updated based on the inclusion of 2019–2021 quantitative fisheries data
  - Maps of geographic footprint of participation
    - Alaska and Pacific Northwest communities (Figures 4-33 and 4-34, Pg. 257-258)
    - Proximity to Upper Cook Inlet EEZ (Figures 4-35 and 4-36, Pg. 259-260)





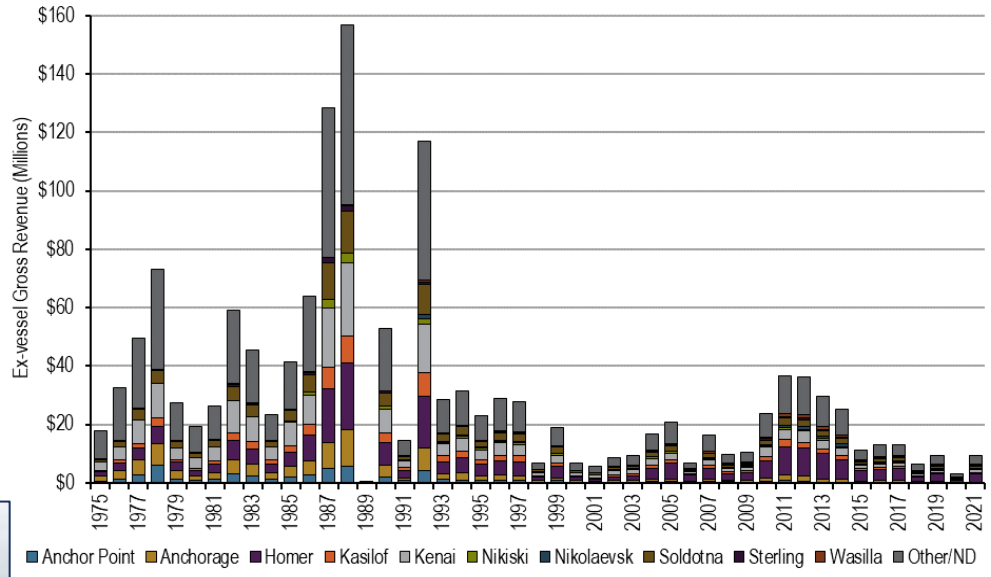


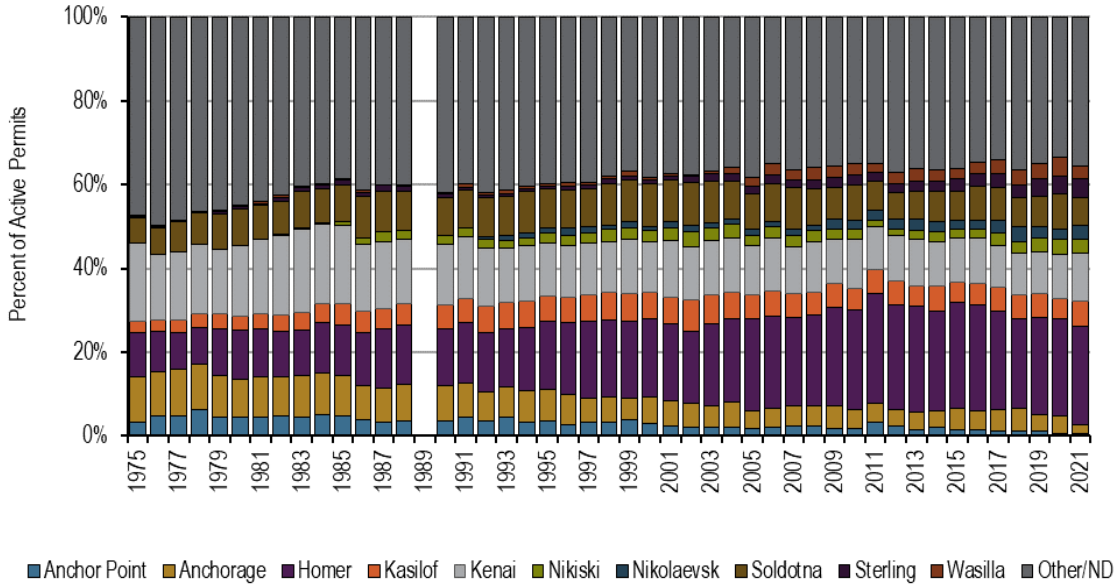




UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (CONT.)

- Maps, figures, tables, and text have been updated based on the inclusion of 2019–2021 quantitative fisheries data (continued)
  - Figures illustrating trends 1970s-present (Figures 4-37 through 4-40, Pg. 260-262)





UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (CONT.)

- Maps, figures, tables, and text have been updated based on the inclusion of 2019–2021 quantitative fisheries data (continued)
  - Quantitative indicators of fishery engagement and dependency 2009–2021 (Pg. 263–270)
    - Participating catcher vessel counts by community by year (Table 4-14)
    - Ex-vessel gross revenue from the UCI salmon drift gillnet fishery by community by year (Table 4-15)
    - Annual average ex-vessel gross revenue diversity by community for vessels participating in the UCI salmon drift gillnet fishery, including EEZ/State waters split (Table 4-16)
    - Annual average ex-vessel gross revenue diversity by community for overall community fleet (all gear, area, and species fisheries), including EEZ/State waters split (Table 4-17)
  - Analogous information has been updated for:
    - Shore-based processors (Tables 4-18 through 4-21, Pg. 270–274)
    - S03H permit holders (Tables 4-22 and 4-23, Pg. 274–276)
- Revenue information has been adjusted for inflation to 2021 dollars

UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (CONT.)

- Alaska community demographic indicators updated with 2020 decennial census data (Table 4-24, Pg. 277)
  - Total population, Alaska Native residents, minority residents, residents living in group quarters
  - Per capita, median household, and median family income; low-income residents as percent of total population
  - Seldovia Census Designated Place (CDP) data have been added
- Alaska community institutional indicators updated with 2022 Alaska Department of Commerce, Community, and Economic Development data (Table 4-25, Pg. 278)
  - Type of municipal government, ANCSA regional and village corporation affiliation, and federally recognized Tribe and Tribal government
  - Salamatof Tribe and CDP notes have been added

UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (CONT.)

- Other sections updated based on the inclusion of 2019–2021 data
  - Principal components factor analysis (Table 4-26, Pg. 279 and throughout Appendix 15, Pg. 506-518).
  - Fishery related tax revenue (Tables 4-27 through 4-32, Pg. 288–292, and Figure 4-41, Pg. 292)
- Other minor updates and edits have been made in the following discussions:
  - Community Characterizations (Section 4.5.1.5.3.3, Pg. 281–286)
    - Example: addition of new NOAA Fisheries Annual Community Engagement and Participation Overview [ACEPO] data
  - Community Engagement in Subsistence and Personal Use Salmon Fisheries in or near Upper Cook Inlet (Section 4.5.1.5.5, Pg. 292–295)
    - Example: addition of more detailed cross-references to specific permit holders noted in other sections of the RIR)

UPDATES TO SECTION 4.5.1.5: FISHING COMMUNITIES (CONT.)

- **Bottom line on Fishing Communities section updates**:
  - Following updates, there are ***no obvious differences in overall patterns of community engagement or dependency compared to those described in the previous analysis reviewed by the SSC in October 2020***.
  - However, data now include: (1) the early pandemic years and (2) an historically low volume and value year with the 2020 Upper Cook Inlet federal fishery disaster.

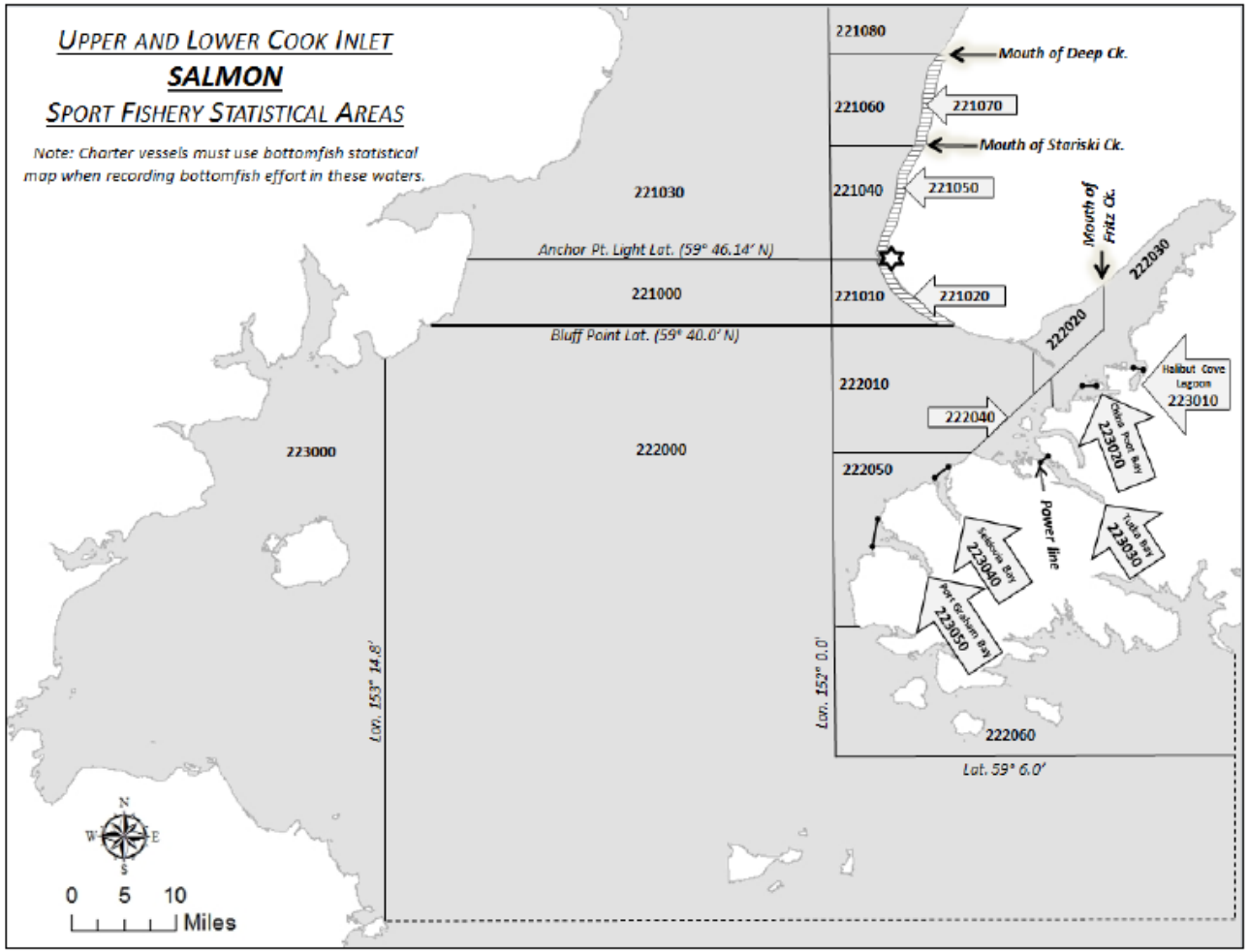
SECTION 4.5.2 SALTWATER SPORT SALMON FISHERY IN THE UCI

- Saltwater Sport Salmon Fishery in the UCI is now considered directly affected by the action.
- Section 4.5.2 describes:
  - Management of sport fisheries
  - Estimates of saltwater sport harvest in the UCI and participation
  - Describes communities involved in the vessel-based sport harvest of salmon in the UCI

OVERVIEW OF PARTICIPATION AND HARVEST REPORT IN THE UCI SALTWATER SPORT FISHERY (SEE FIGURE 4.46 ON PAGE 302)

- Reporting areas do not differentiate between State and Federal waters
- Figure shows ADF&G Salmon Sport Fishing Statistical Areas for guides/charter operators who report harvest via logbooks
- Non-guided sport fishing data in the UCI use the Statewide Harvest Survey, which defines UCI as:

  "North of Bluff Point and Chinitna Point, including saltwaters by Anchor River, Whiskey Gulch, Deep Creek, Ninilchik River"



METHODOLOGY USED TO ESTIMATE VESSEL-BASED HARVESTS OF SALMON IN THE UCI

- Methodology relies heavily on logbook data from 2015–2021, and was developed by ADF&G's Sportfish Division. See Appendix 16 (pg. 519)
  - Annual guided vessel-based harvests of Chinook, Coho, Sockeye and "other salmon" is reported in logbooks and is assumed to be reliable.
    - Only includes harvests from statistical areas north of the Anchor Point Line.
  - Calculate the **UCI ratio** of guided harvest north of Anchor Point from logbook data to all guided harvests north of the Bluff Point line.
  - Multiply the **UCI ratio** by non-guided vessel-based harvest estimates from the SFHS to obtain the estimate of non-guided vessel-based harvest in the UCI.
- A similar methodology to estimate shoreline harvests in the UCI was unavailable
  - Shoreline harvests as reported in SFHS are taken as actual harvest, noting that the shoreline between Anchor Point and Bluff Point is virtual inaccessible by land.

SUMMARY OF TABLE 4-33. ESTIMATES OF SALTWATER SPORTFISH SALMON HARVESTS IN THE UCI BY ACTIVITY TYPE, 2015–2021 (PG. 303)

Angler Type	Years	Chinook	Coho	Sockeye	Other	Total
Guided Vessel-Based Harvests	Average 2015–2021	549	52	2	28	631
Unguided Vessel-Based Harvests	Average 2015–2021	598	26	4	26	653
Shoreline Harvests (unguided)	Average 2015–2021	53	340	410	174	978
All Saltwater Sport Harvests	**Average 2015–2021**	**1,200**	**418**	**417**	**228**	**2,262**

TABLE 4-34. ESTIMATES OF SALTWATER SPORTFISH SALMON IN THE EEZ OF UPPER COOK INLET, 2015 –2021 (PG. 304)

Year	2015	2016	2017	2018	2019	2020	2021	Average
Chinook	59	60	71	125	28	36	30	58
Coho	15	3	13	12	5	0	0	7
Sockeye	0	0	0	0	3	0	0	0
Total	**74**	**63**	**84**	**137**	**36**	**36**	**30**	**66**

- Estimates of EEZ harvests of salmon include both guided and unguided trips and use EEZ catch percentages from charter logbook data from 2006–2014
  - Charter logbook from 2006–2014 used "groundfish stat-areas" which differentiated between State water and the EEZ.
- As shown in Table 4-35 (pg. 304)
  - EEZ harvests of Chinook in the UCI are ≈ 4.7% of total saltwater sport harvest of Chinook
  - EEZ harvests of Coho in the UCI are ≈ 1.9% of total saltwater sport harvest of Coho
  - EEZ harvests of Sockeye in the UCI are ≈ 0.1% of total saltwater sport harvest of Sockeye

TABLE 4-36. NUMBER OF GUIDES IN THE UPPER COOK INLET SALMON GUIDE POOL BY YEAR (2015–2021) (PG 304)

- Guides/Charter Operators that made trips that actively targeted salmon (a "Salmon Trip") in the UCI are defined as member of the **UCI Salmon Guide Pool.**
- There were an average of 74 Guide Pool members from 2015-2021 all of which (by definition) made salmon trips in the UCI during the years they were included.
- In an average year, 89% of guide pool members made non-salmon trips in the UCI—a non-salmon trip is a trip in which is not actively targeted
- In an average year, 39% of guide pool members made "Salmon-Only" trips in the UCI
- In an average year, 75% of Guide Pool members made saltwater salmon trips outside of the UCI
- In an average year, 65% of guide pool members made saltwater non-salmon trips outside of the UCI.

(Note: Data for freshwater trips were not available after 2019 and have not been included.)

TABLE 4-37. NUMBERS OF TRIPS OF UPPER COOK INLET GUIDE POOL MEMBERS BY TRIP TYPE AND YEAR (2015–2021) (PG 305)

- An average of 477 guided salmon trips in the UCI were taken from 2015–2021
  - Only 9% of these trips were "Salmon-Only" Trips
- Guide-Pool Members averaged 1,901 guided non-salmon trips in the UCI
  - Non-salmon trips comprised 80% of all Guide-Pool trips in the UCI
- Guide-Pool Members made an average of 769 Salmon Trips and 423 Non-Salmon Trips outside of the UCI.
  - Trips outside the UCI accounted for 33% of all trips made by Guide-Pool Members
- An annual average of 994 "Non-Salmon" charter trips were made in the UCI by guides that were not part of the UCI Salmon Guide Pool.

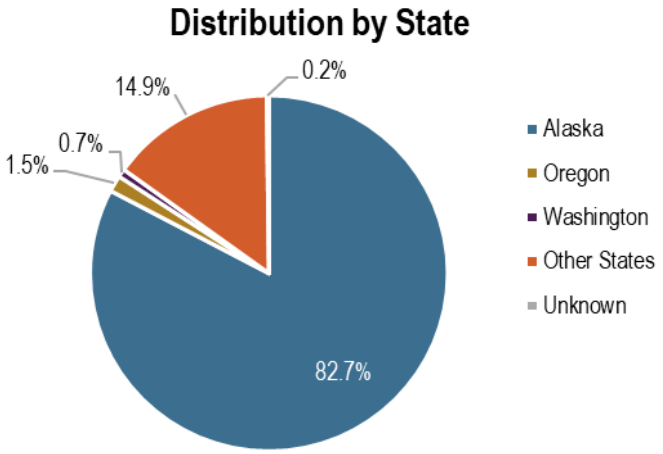
TABLE 4-38. NUMBERS OF RESIDENT AND NON-RESIDENT ANGLER-DAYS IN THE UPPER COOK INLET BY TRIP TYPE AND YEAR (2015–2021) (PG 305)

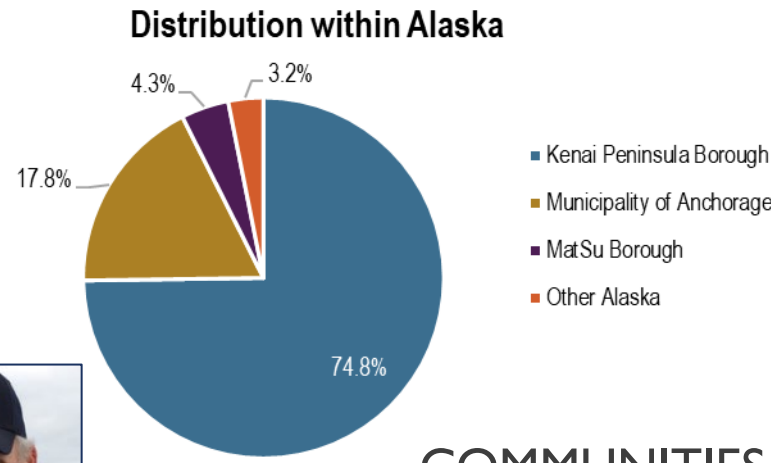
- From 2015–2021 there was an annual average of 2,240 guided salmon angler-days in the UCI.
  - 35% of guided salmon days in the UCI were Alaska residents and 65% were non-residents
  - 180 of the guided salmon angler-days were on "salmon-only" trips (8%)
- Guide Pool Members had annual average of 10,549 angler days on non-salmon trip from 2015–2021
  - 15% of these non-salmon angler-day were Alaska residents and 85% were non-residents
- In an average year, there were 6,157 angler-days on non-salmon trips in the UCI operated by guides that were not Guide-Pool Members.

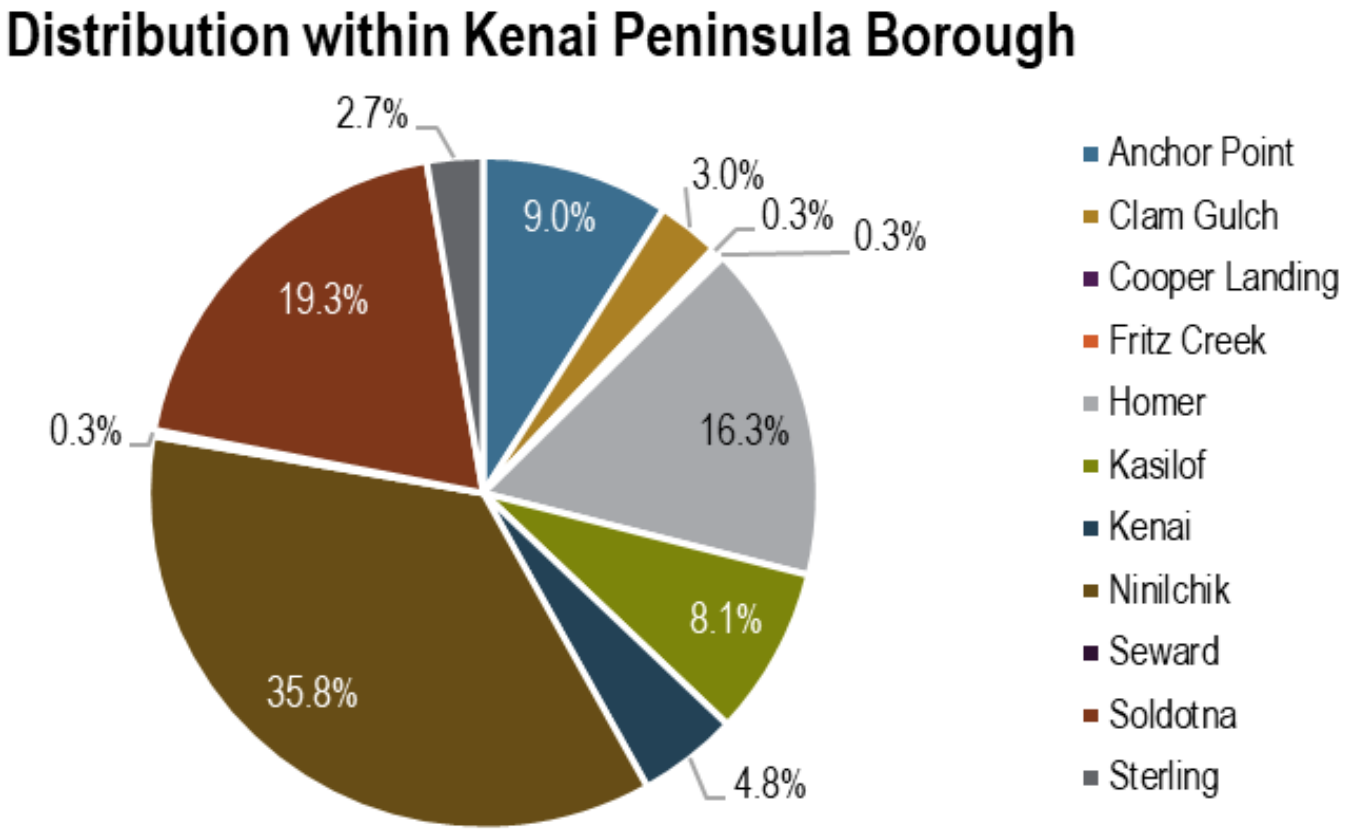
NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (PG. 306)

- This section focuses on:
  - The communities of residence of individuals in the guide pool
    - **Guide pool =** all guides who had **at least one salmon trip (salmon effort)** in the UCI charter salmon fishery in one or more of **the charter logbook salmon statistical areas that include portions of the UCI EEZ** (areas 221030, 221040, 221060, or 221080) **or that are located between the western shore of the Kenai Peninsula** from Deep Creek to Anchor Point **and the charter logbook salmon statistical areas that include the UCI EEZ in part** (areas 221050 and 221070) in one or more years 2015–2021.
  - Trip-ending communities or ports of landing for relevant UCI saltwater salmon sport charter fishery trips that appear in the data during the 2015–2021 period

NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)



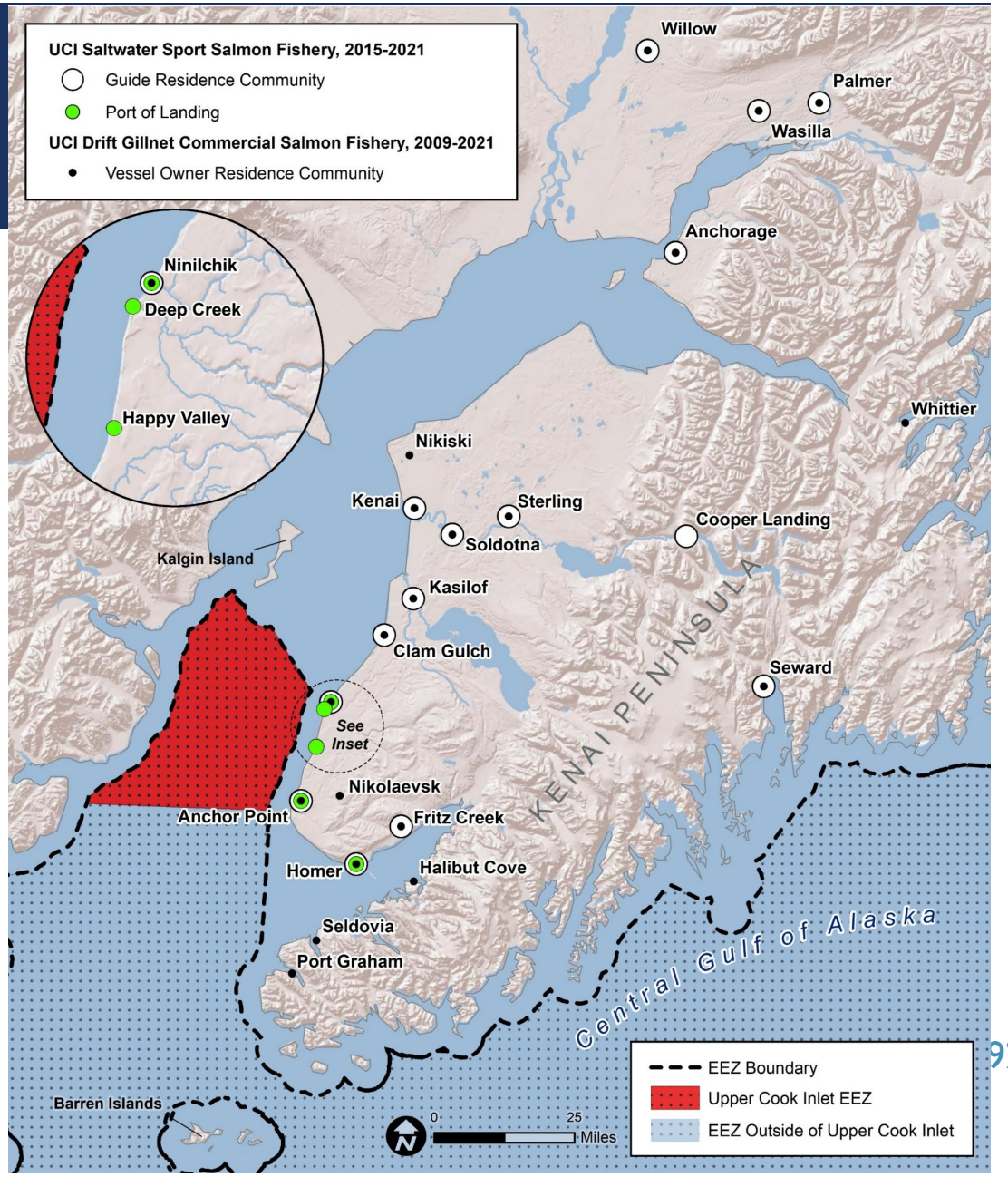




COMMUNITIES OF RESIDENCE OF GUIDE POOL GUIDES (Fig. 4-47, Pg. 308)

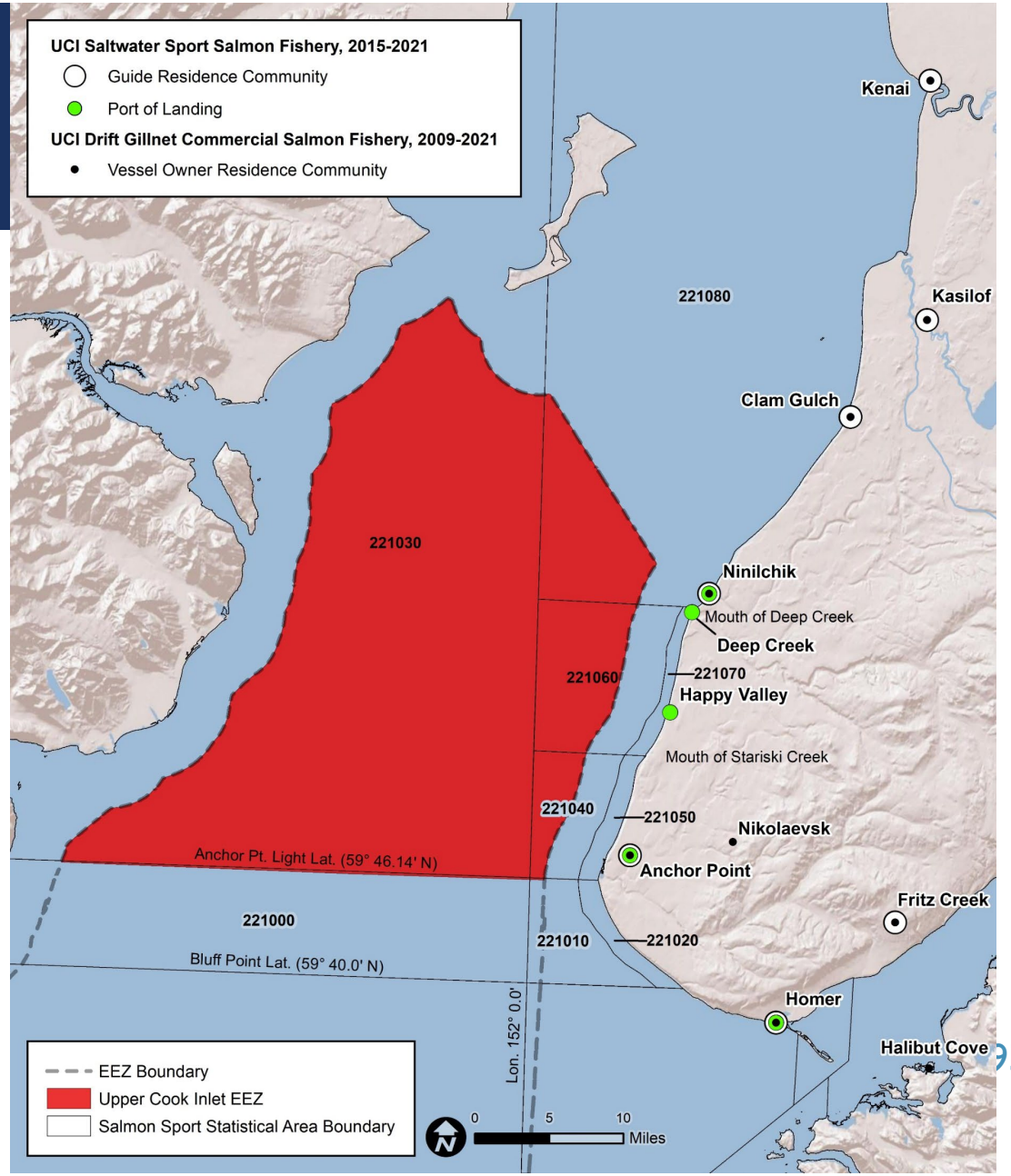
NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)

- Of the 15 communities shown within the map extent of Figure 4-48 (Pg. 310):
  - All but one that are UCI saltwater salmon sport charter fishery guide pool residence communities are also UCI drift gillnet commercial salmon fishery vessel ownership address communities (white circle, no black dot = Cooper Landing)
  - Conversely, five communities that are UCI drift gillnet commercial salmon fishery vessel ownership address communities are not UCI saltwater salmon sport charter fishery guide pool residence communities (black dot, no white circle = Halibut Cove, Nikiski, Port Graham, Seldovia, and Whittier)



NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)

- Figure 4-49 (Pg. 311) shows the trip-ending communities/ports of landing for relevant saltwater sport salmon trips:
  - Three of the five trip ending communities/ports of landing are also UCI drift gillnet commercial salmon fishery vessel ownership address communities and are UCI saltwater salmon sport charter fishery guide residence communities (white circle, green ring, black dot = Anchor Point, Homer, and Ninilchik)
  - The other two trip ending communities/ports of landing are neither (solid green only = Deep Creek and Happy Valley)



NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)

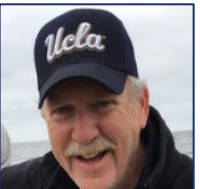
- A series of tables provide information on level of guide participation and distribution of trip ending location across communities:
  - The number of guide pool member UCI saltwater salmon sport charter fishery trips by place of guide residence (Table 4-41, Pg. 312).
    - As shown, the guide residence communities with greatest number of trips (excluding the "other states" aggregate category) on an annual average basis 2015-2021 include Ninilchik (110,) Anchorage (77), Kasilof (54), and Soldotna (49).
  - Over half of all guides (53 out of 95) used Deep Creek as a UCI salmon trip-ending community on an annual average basis 2015–2021 (Table 4-42, Pg. 313).

NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)

- The five trip ending communities/ports of landing vary widely in their port infrastructure and local availability of fishery support service providers:
  - Homer has extensive port facilities that support a large multi-fishery and multi-area fleet.
  - Ninilchik has a small boat harbor.
  - At Anchor Point, Happy Valley, and Deep Creek, sport charter boats are launched by tractor across the beach.

NEW SECTION 4.5.2.3: UCI SALTWATER SPORT SALMON FISHERY RELATED COMMUNITIES (CONTINUED)

- The five trip ending communities/ports of landing vary widely in their port infrastructure and local availability of fishery support service providers (continued):
  - The Anchor Point and Deep Creek beach launch areas are part of Anchor River State Recreational Area and Deep Creek State Recreational Area, respectively, that both include campgrounds (and tractor-assisted launching services that are provided under permit by a private firm).
  - The unincorporated communities of Anchor Point and Happy Valley are CDPs, Deep Creek is not.
  - Despite the relative lack of port or other adjacent community infrastructure, 60 percent of all UCI saltwater sport salmon trips ended at Deep Creek (334 out of 557) on an annual average basis 2015–2021 (Table 4-43, Pg. 313).
  - Together, Deep Creek and Happy Valley were the trip ending communities/ports of landing for over 80 percent of all UCI saltwater sport salmon trips (456 out of 557) made on an annual average basis 2015-2021 (Table 4-43, Pg. 313).



IMPACTS OF ALTERNATIVE 1
(SEE SECTION 4.7 STARTING AT PAGE 328)

- Alternative 1 would not change State management of the UCI salmon drift gillnet fishery in either Federal or State waters
- Harvest levels will likely fluctuate from year to year due to the inherent annual variability in salmon runs (Figure 4-5, pg. 223)
- **Not viable**

IMPACTS OF ALTERNATIVE 2

- Annual Council process
- If no post-season ACLs are exceeded and no overfishing is occurring, then harvests are not expected to differ from Alternative 1
- If ACLs are exceeded or overfishing is occurring, the Council would request the State to take remedial measures
- Requests for MSA consistency review
- Participants in the EEZ will need a Federal Fishing Permit and use Federal logbooks

IMPACTS OF ALTERNATIVE 3

- Annual Council process
- Forecast based TACs set conservatively to account for increased uncertainty
- EEZ will be closed when a TAC is reached, even if reached before a date-certain closure (if selected)

TABLE 4-45. AVERAGE CUMULATIVE CATCH IN THE EEZ (2013 TO 2021) ON SELECTED DAYS AS A PERCENTAGE OF TOTAL EEZ LANDINGS (PG 331)

Potential Impacts of Date-Certain Closures of the EEZ

Date	% of EEZ Chinook	% of EEZ Sockeye	% of EEZ Coho	% of EEZ Chum	% of EEZ Pink
July 7	28.1%	6.2%	0.5%	0.9%	3.6%
July 9	57.6%	18.7%	4.8%	6.9%	16.1%
July 15	82.3%	56.0%	20.5%	48.9%	46.1%
July 21	91.2%	78.3%	34.2%	77.9%	62.8%
July 27	95.9%	88.9%	57.2%	88.5%	76.3%

- Lower harvest levels for the UCI drift gillnet fleet are likely on average, with increases in State waters salmon harvests

IMPACTS OF ALTERNATIVE 3 (CONTINUED)

- Federal Fishing Permits (FFP), Federal Logbooks and a working Vessel Monitoring System (VMS) transponder would be required of vessels that operate in the EEZ.
  - As shown in Table 4-48 (pg. 341) 16% of active vessels from 2015–2021 have an FFP
  - As shown in Table 4-51 (pg. 341) 8% of active vessels from 2015–2021 have a VMS
    - Installation of a certified VMS transponder is expected to cost nearly $4,000, but ≈ 75% of these costs would likely be eligible for reimbursement.
- Processor\Buyers accepting landings from vessels fishing in the EEZ would need to …
  - have an FPP or a Federal Registered Buyer Permit.
  - utilize the Elandings System for transmitting fish-ticket data.

IMPACTS OF ALTERNATIVE 4

- No commercial fishing in the Cook Inlet EEZ
- **Alternative 4 has been deemed "Not viable"**

QUESTIONS?

- **Workgroup staff available for questions** – Doug Duncan (NMFS), Richard Brenner (NMFS), Marcus Hartley (Northern Economics), Mike Downs (Wislow Research)




Thank you

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