
PRELIMINARY DRAFT REGULATORY IMPACT REVIEW FOR THE COOK INLET DRIFT SALMON FMP AMENDMENT

MARCUS HARTLEY, JUNE 3, 2020



PRESENTATION OUTLINE

- Organization of Regulatory Impact Review
- Existing Conditions in the UCI Drift Gillnet Salmon Fishery (Sections 4.5.1 – 4.5.4)
- Existing Conditions in UCI Drift Gillnet Fishing Communities (Section 4.5.5 by Dr. Mike Downs)
- Existing Conditions in other UCI Salmon Fisheries (Section 4.6)
- Impacts of Alternatives (Section 4.7)

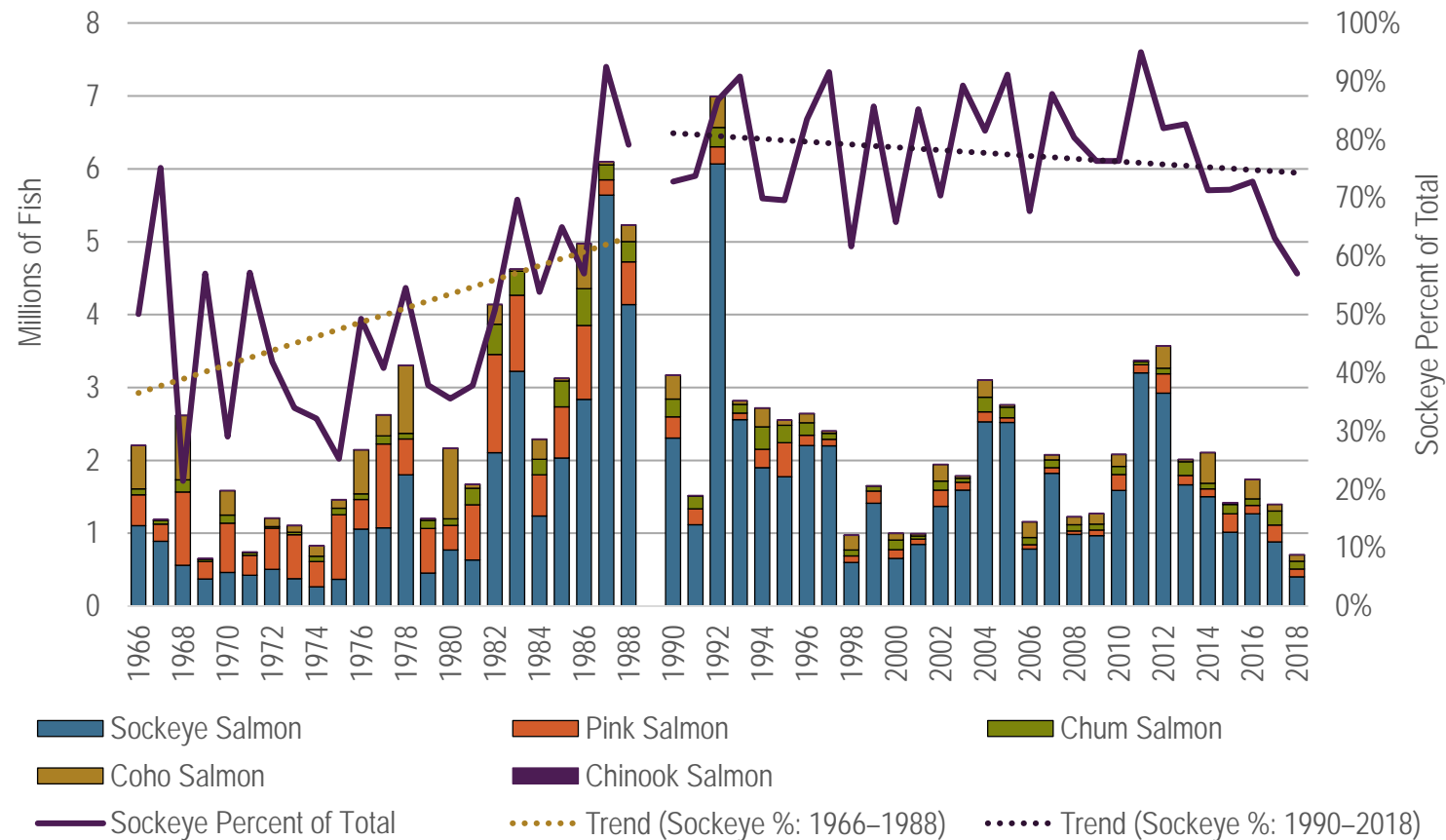
LEVEL 2 HEADINGS OF THE RIR (SECTION 4)

- 4.1. Statutory Authority
- 4.2. Purpose and Need for Action
- 4.3. Preliminary Alternatives
- 4.4. Methods Used for the Impact Analysis
- 4.5. Description of the Upper Cook Inlet Salmon Drift Gillnet Fishery
- 4.6. Description of Other Potentially Affected Salmon Fisheries
- 4.7. Analysis of Impacts
- 4.8. Management and Enforcement Considerations
- 4.9. Affected Small Entities (Regulatory Flexibility Act Considerations)
- 4.10. Summation of the Alternatives with Respect to Net Benefit to the Nation

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FIGURE 4-5. ANNUAL HARVESTS IN THE UCI DRIFT GILLNET FISHERY BY SPECIES, 1966–2019



SECTION 4.5 DESCRIPTION OF THE UPPER COOK INLET SALMON DRIFT GILLNET FISHERY

- 4.5.1. Management
- 4.5.2. Harvest
- 4.5.3. Harvesting Vessels
- 4.5.4. Processors/Buyers
- 4.5.5. Fishing Communities
- 4.5.6. Target Products and Markets
- 4.5.7. Safety Considerations

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4.5.4. Processors/Buyers

4.5.5. Fishing Communities

4.5.6. Target Products and Markets

4.5.7. Safety Considerations

SECTION 4.5.1 MANAGEMENT

- NPFMC and NMFS have excluded the Cook Inlet EEZ Salmon Fishery from their Salmon FMP
- State of Alaska
 - Board of Fish (BOF): Sets policies and regulations and determines allocations. Forecasts and run sizes factor into BOF policies.
 - ADF&G: Manages the fisheries in-season based on policies set by the Board of Fish.
 - Commercial Fisheries Entry Commission (CFEC): Administers limited entry programs in commercial fisheries
 - Drift gillnet salmon fishery (S03H – Salmon; Drift Gillnet; Cook Inlet)
 - Set gillnet salmon fishery (S04H – Salmon; Set Gillnet; Cook Inlet)

TABLE 4-2. SUMMARY OF KEY TIME AND AREA PROVISIONS OF THE CENTRAL DISTRICT DRIFT GILLNET MANAGEMENT PLAN

Dates	Kenai Sockeye Run Strength Triggers	District Wide	Drift Gillnet Area 1	Expanded Kenai and Kasilof Sections	Anchor Point Section	Drift Gillnet Area 3 and 4
Jun 19 – Jul 8*		Two 12-hr periods/week				
July 9–15	> 2.3 million		Both 12-hr periods			
			One additional 12-hr period may be allowed by emergency order			
July 16–31	< 2.3 million			Two 12-hr periods/week		
	2.3-4.6 million		One 12-hr period/week			
	> 4.6 million	One 12-hr period/week		One 12-hr period/week	One 12-hr period/week	
August 1–15			Two 12-hour periods/week**			Two 12-hour periods if there is a 1% closure
After Aug 16						Two 12-hour periods/week until closed by emergency order

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FIGURE 4-1. AVERAGE HARVEST PERCENTAGES IN THE UCI SALMON DRIFT GILLNET FISHERY BY DATE AND SPECIES, 2009–2018

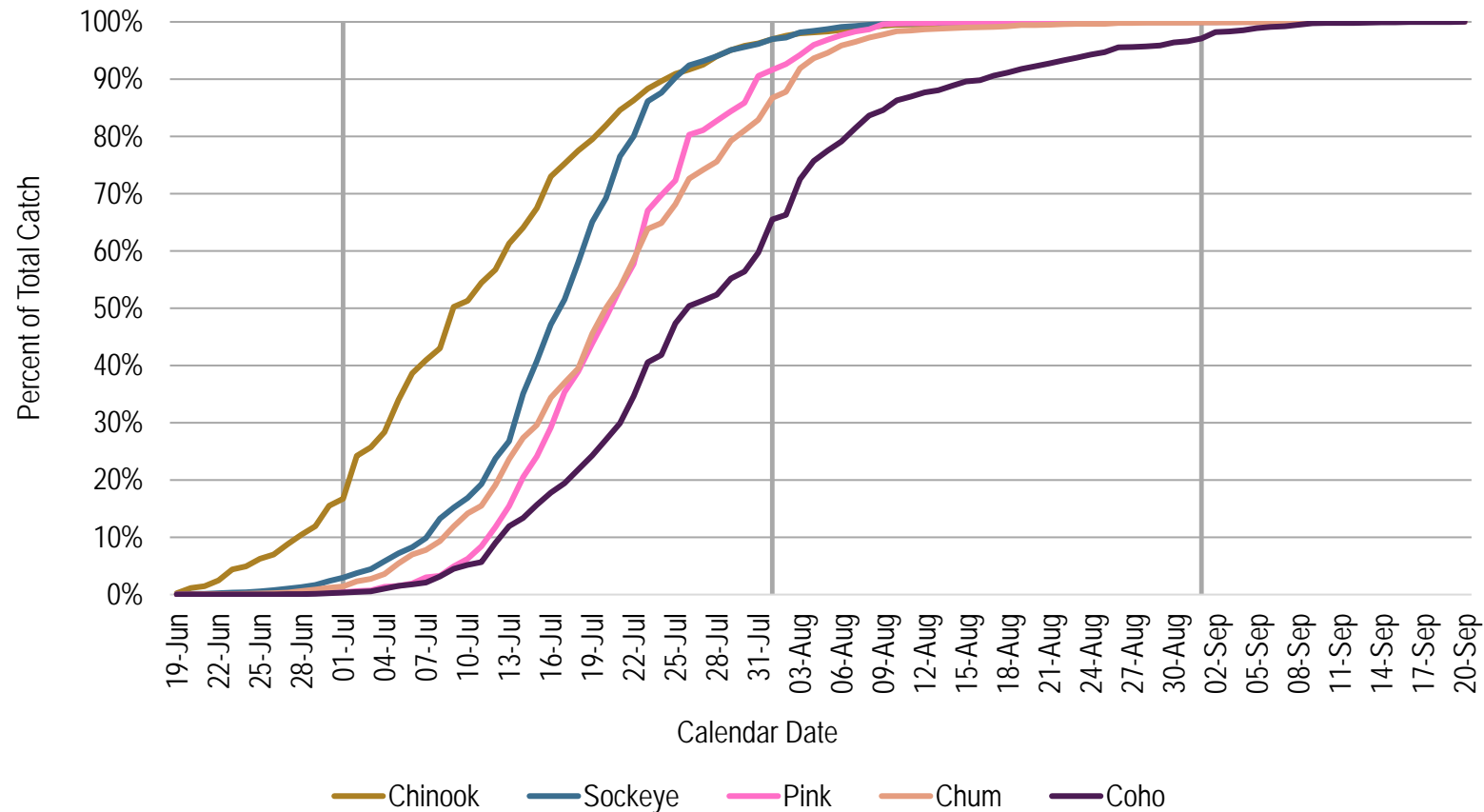


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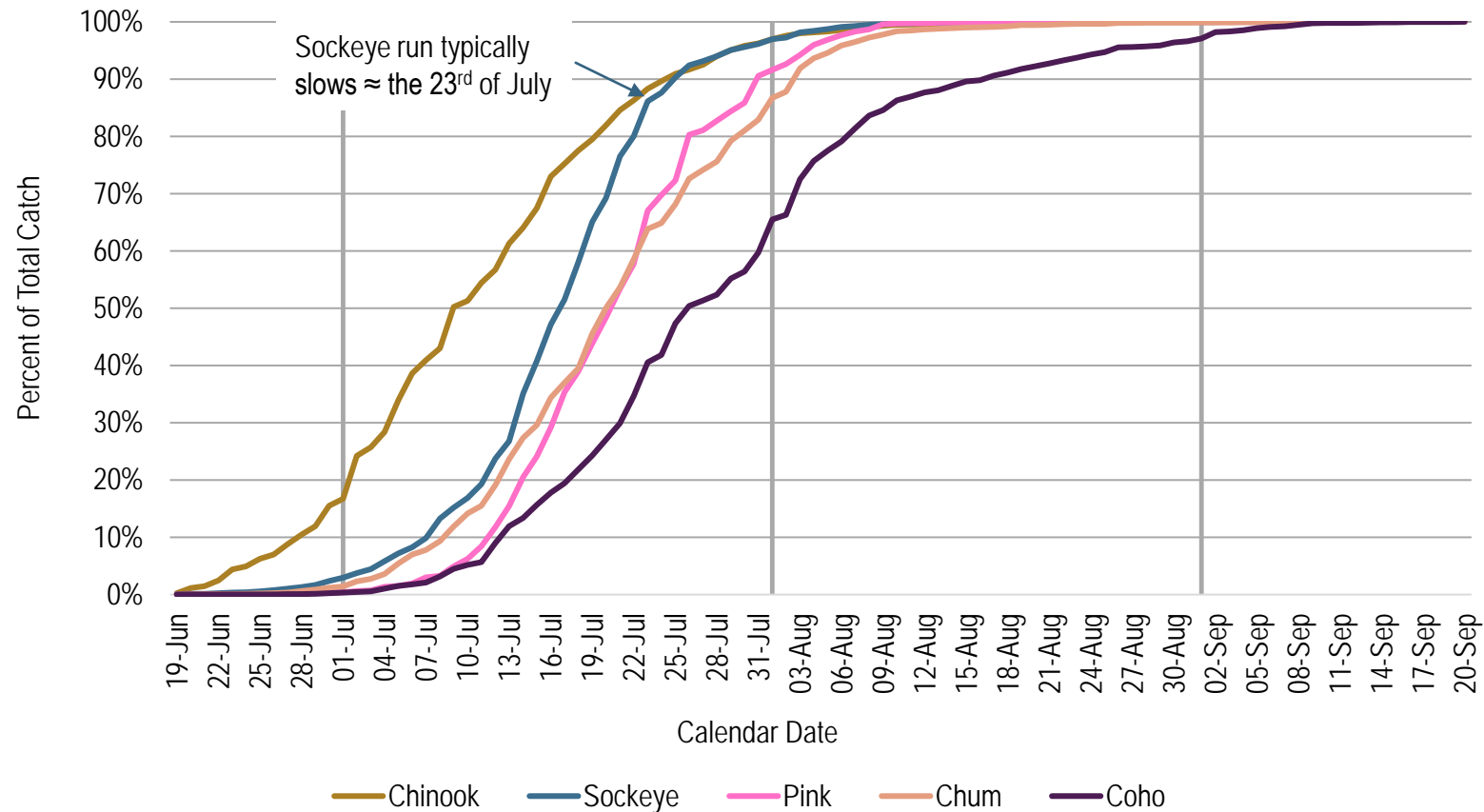


FIGURE 4-34. COOK INLET EEZ WITH ADF&G MANAGEMENT AREAS AND COMMUNITIES ENGAGED IN THE UCI SALMON DRIFT GILLNET FISHERY

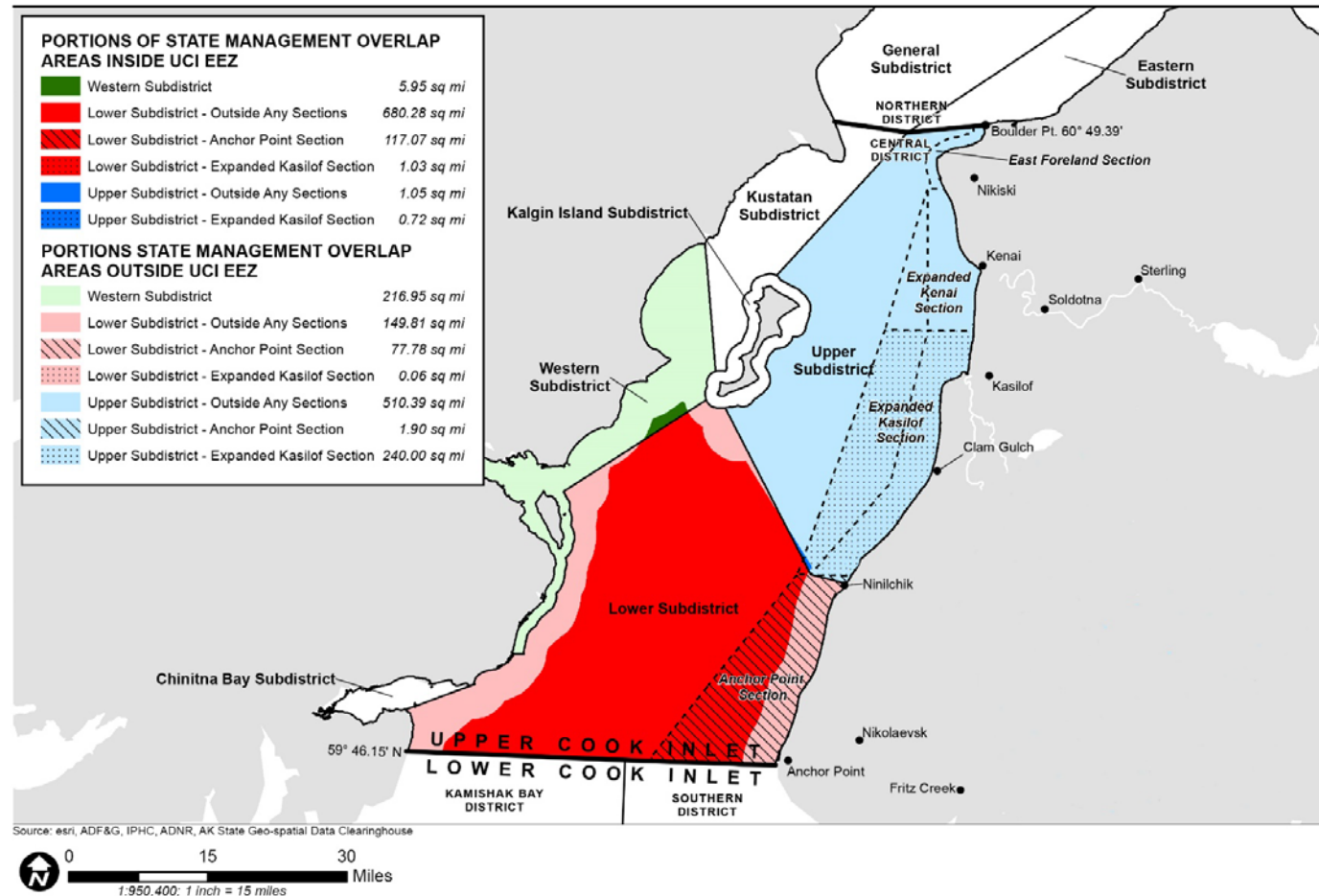


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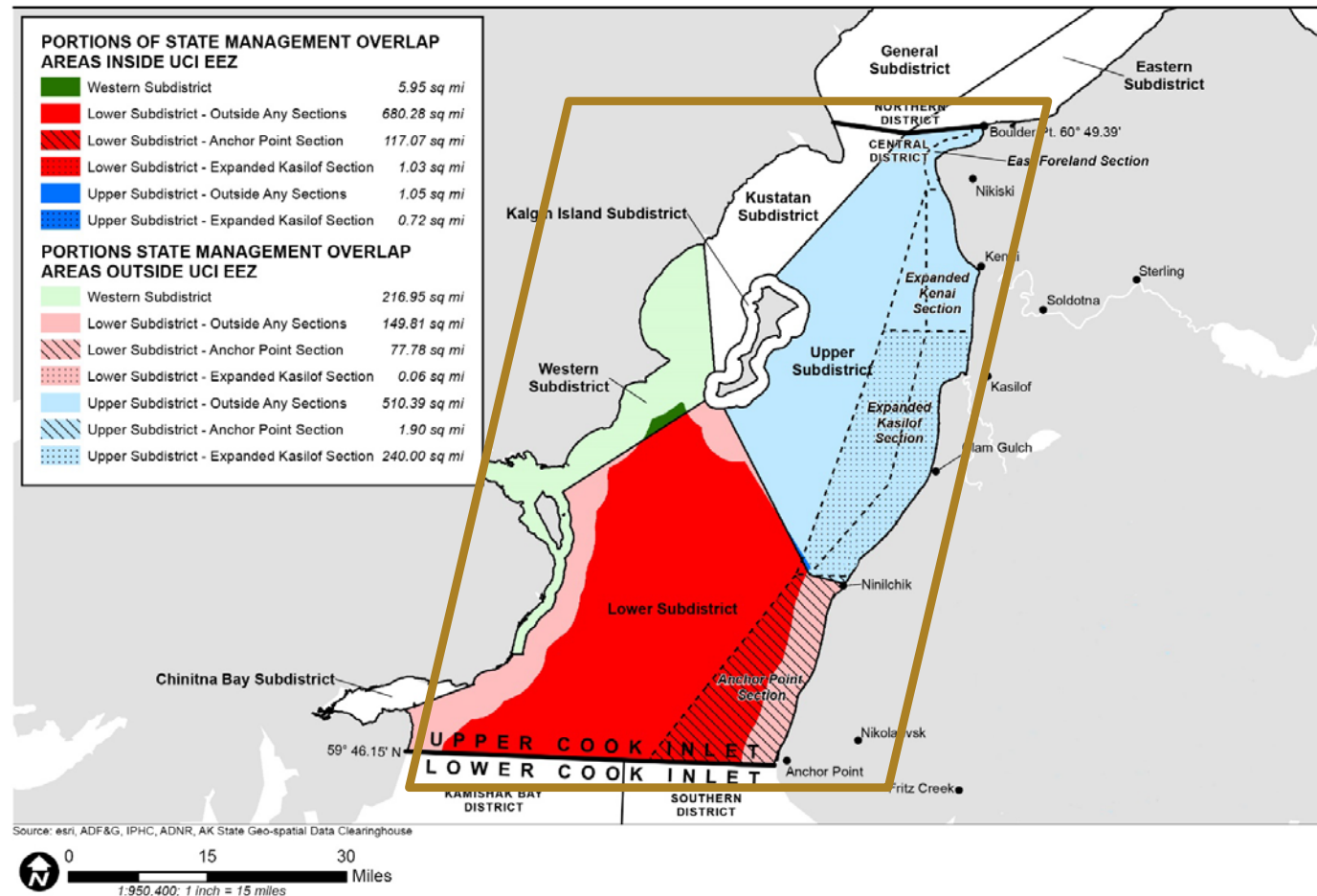


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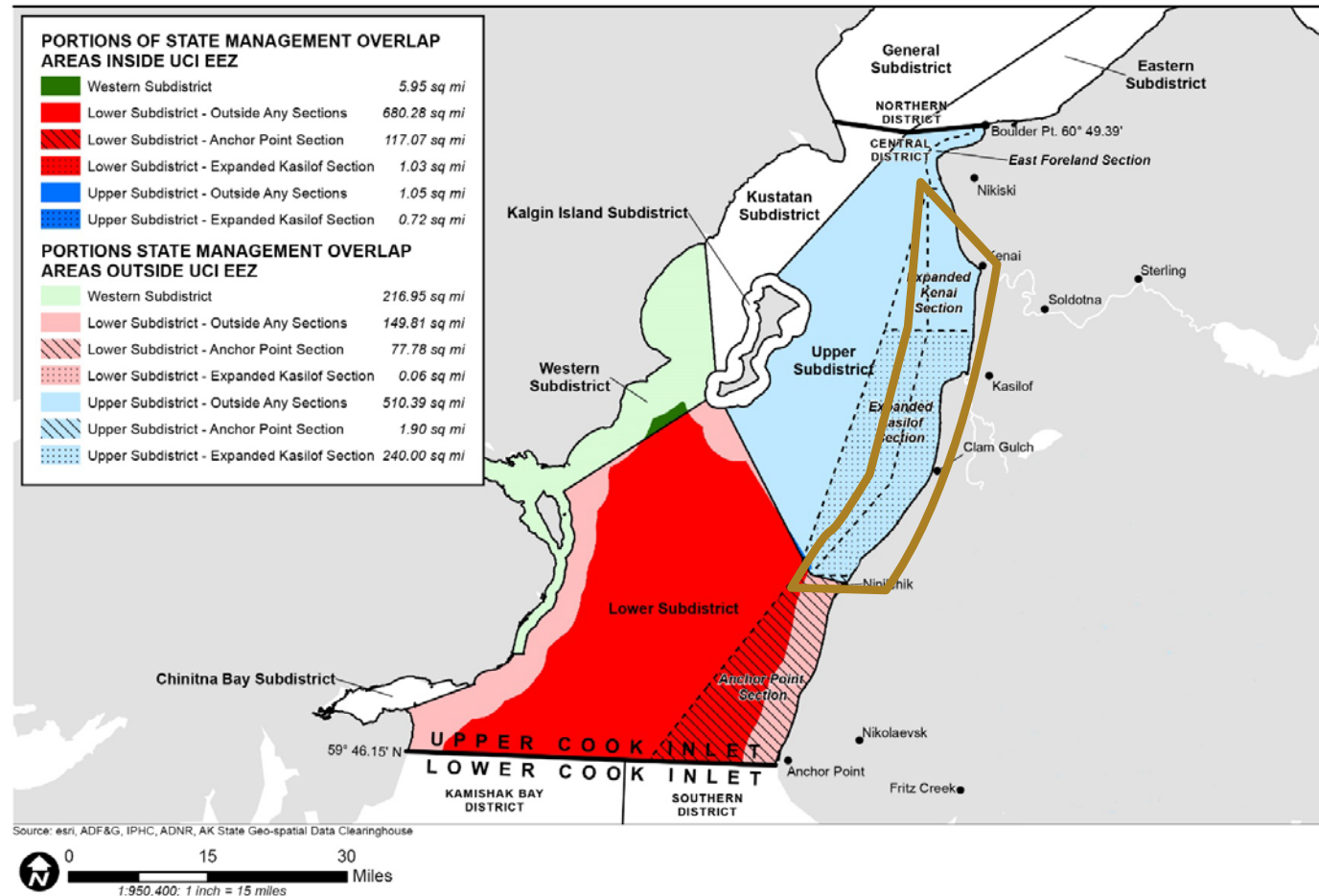


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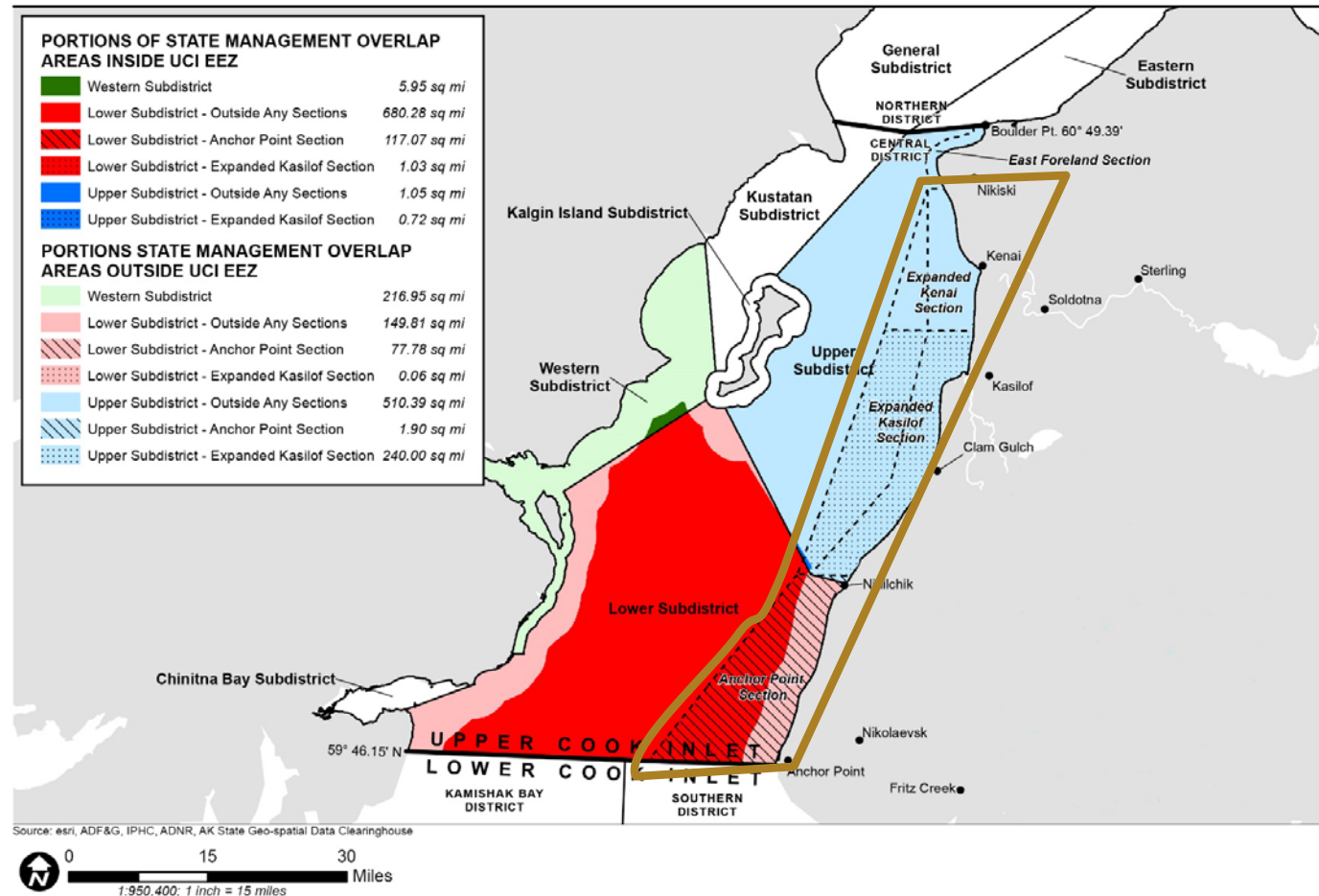


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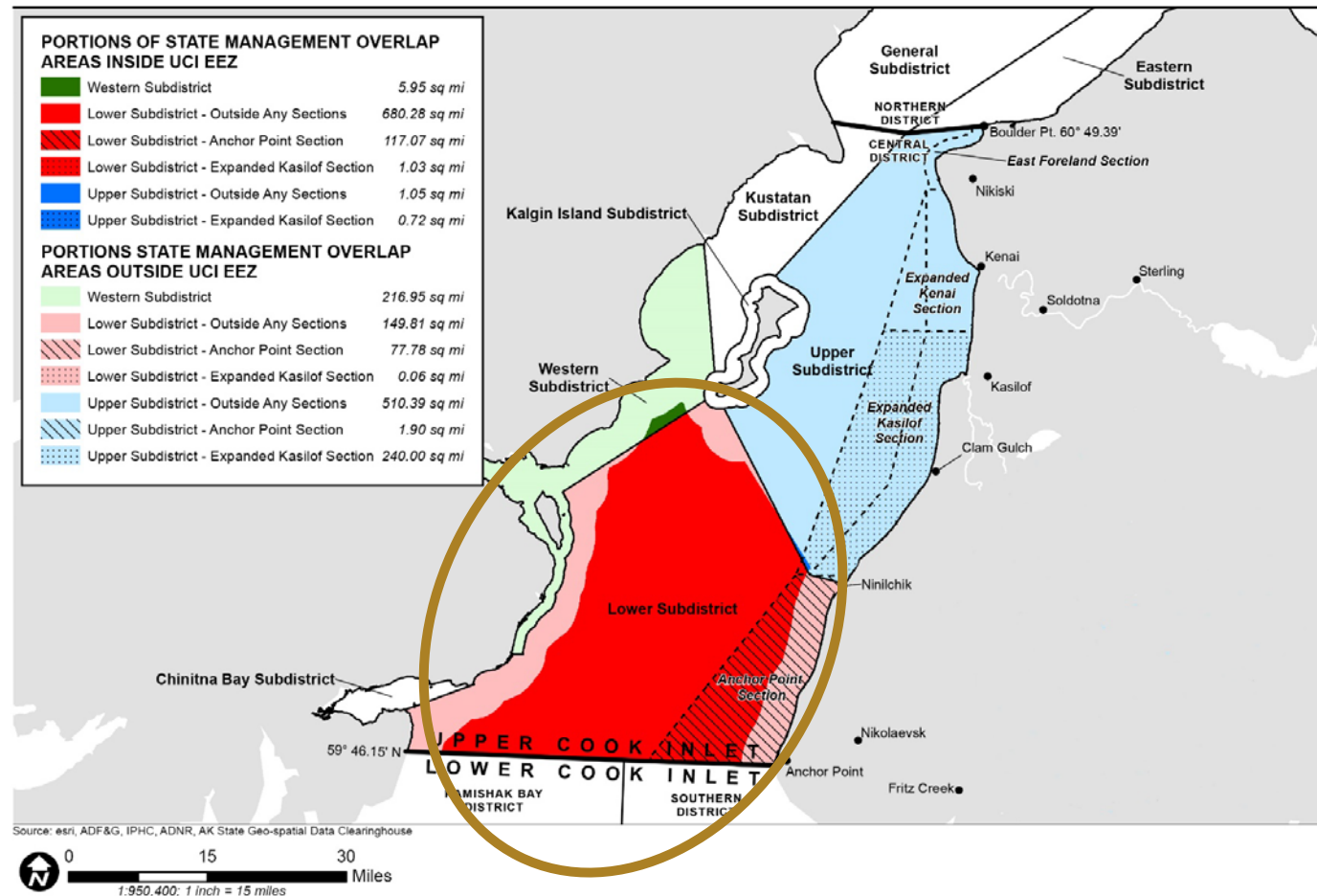


FIGURE 4-4. MAP OF UCI DRIFT GILLNET AREAS

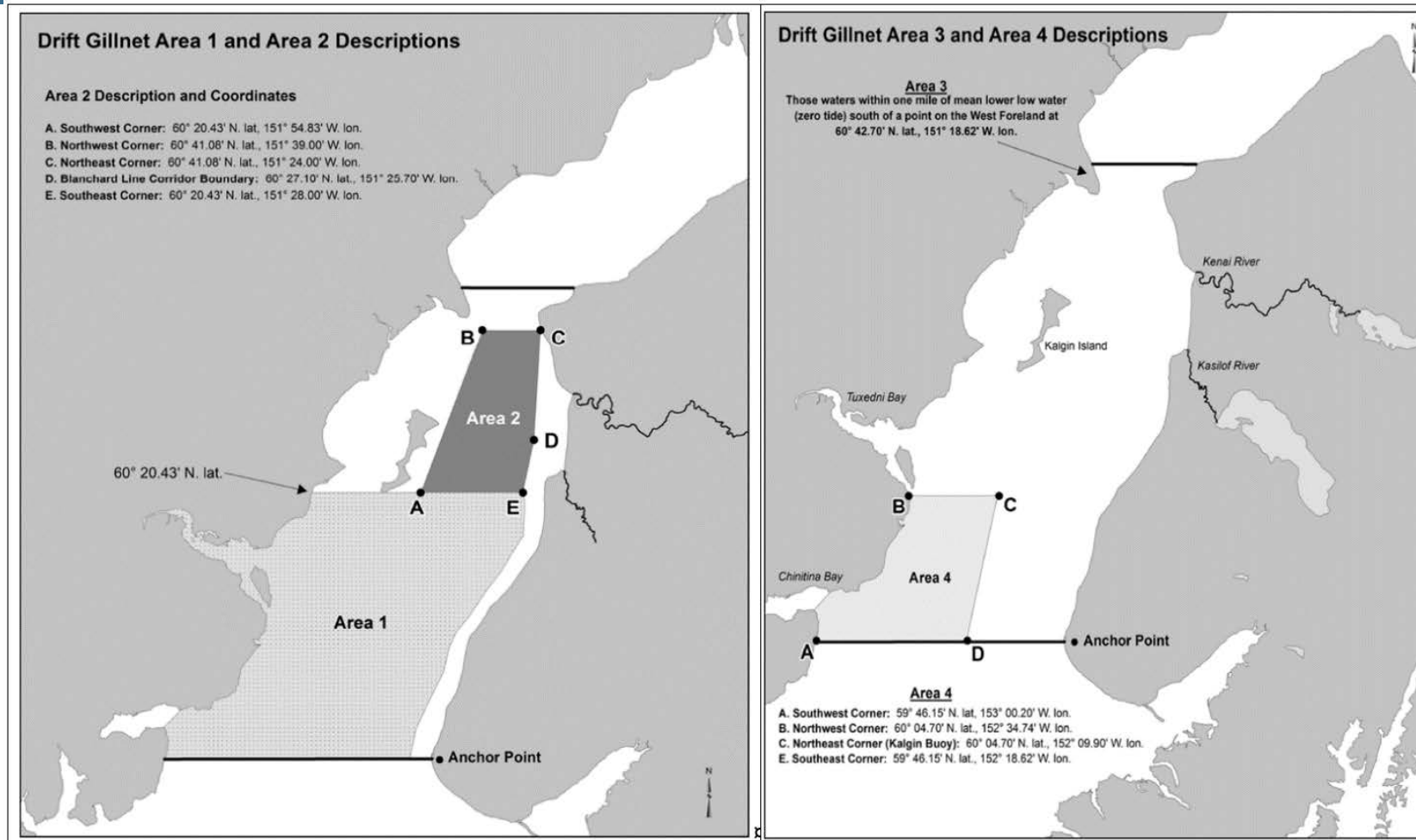


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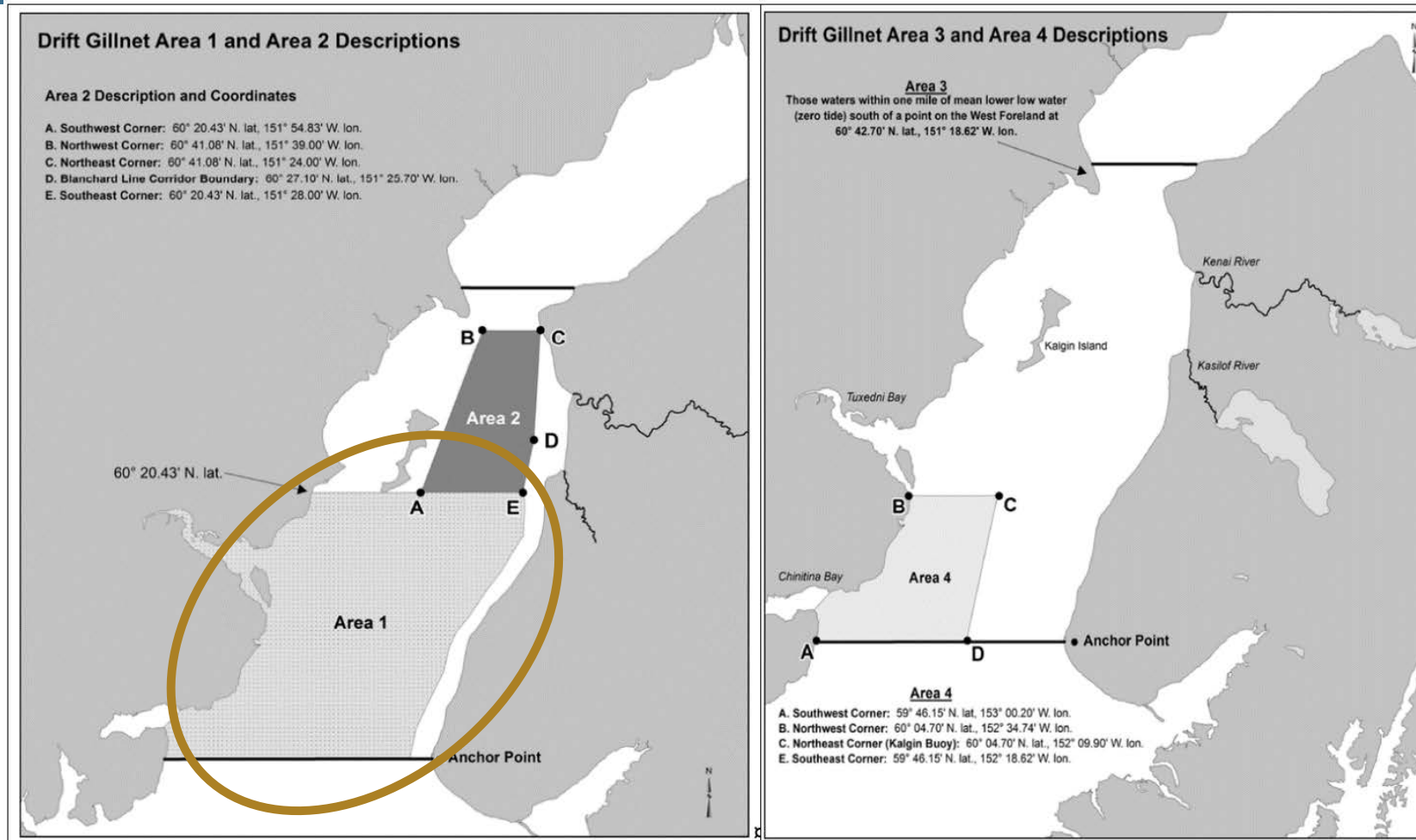


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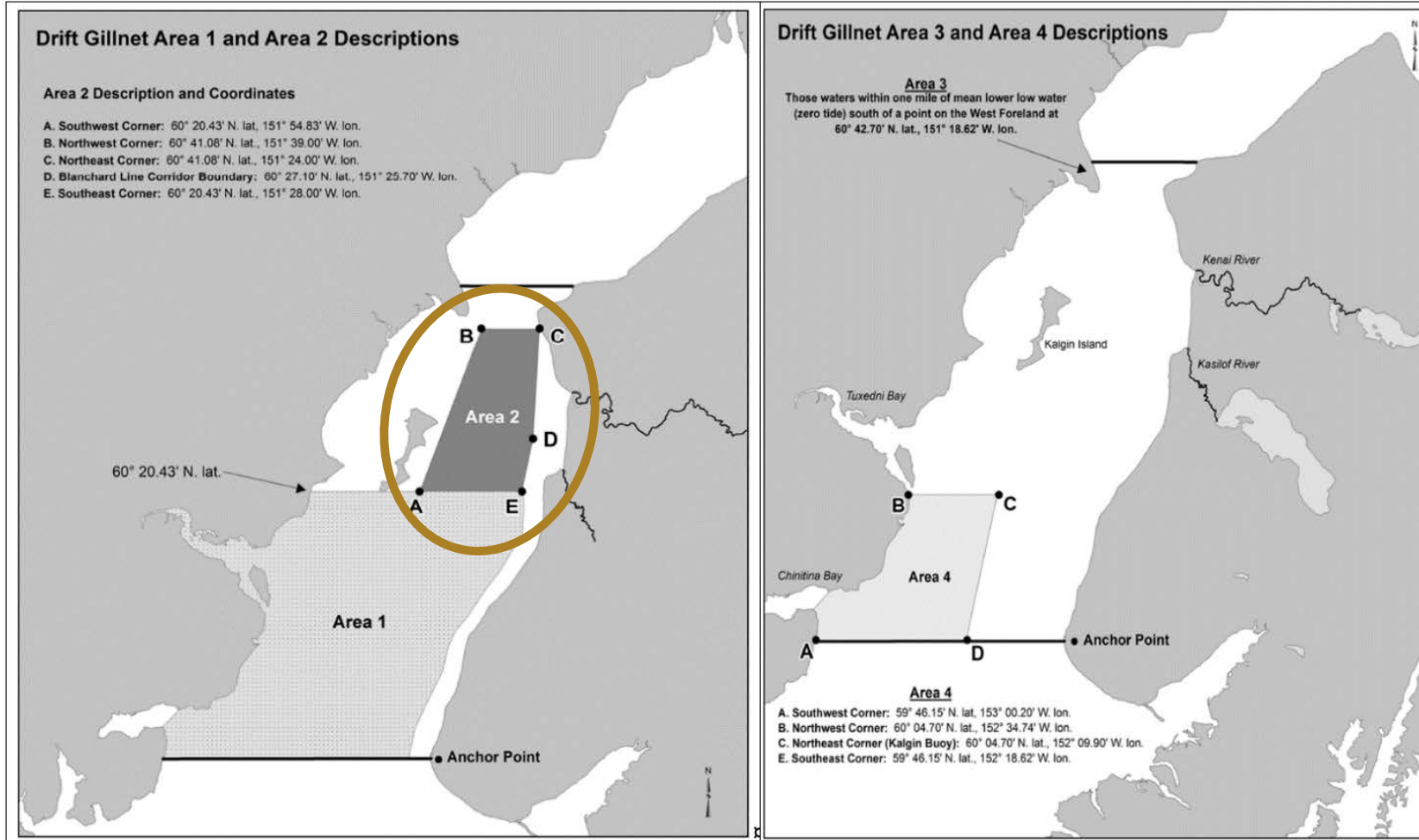


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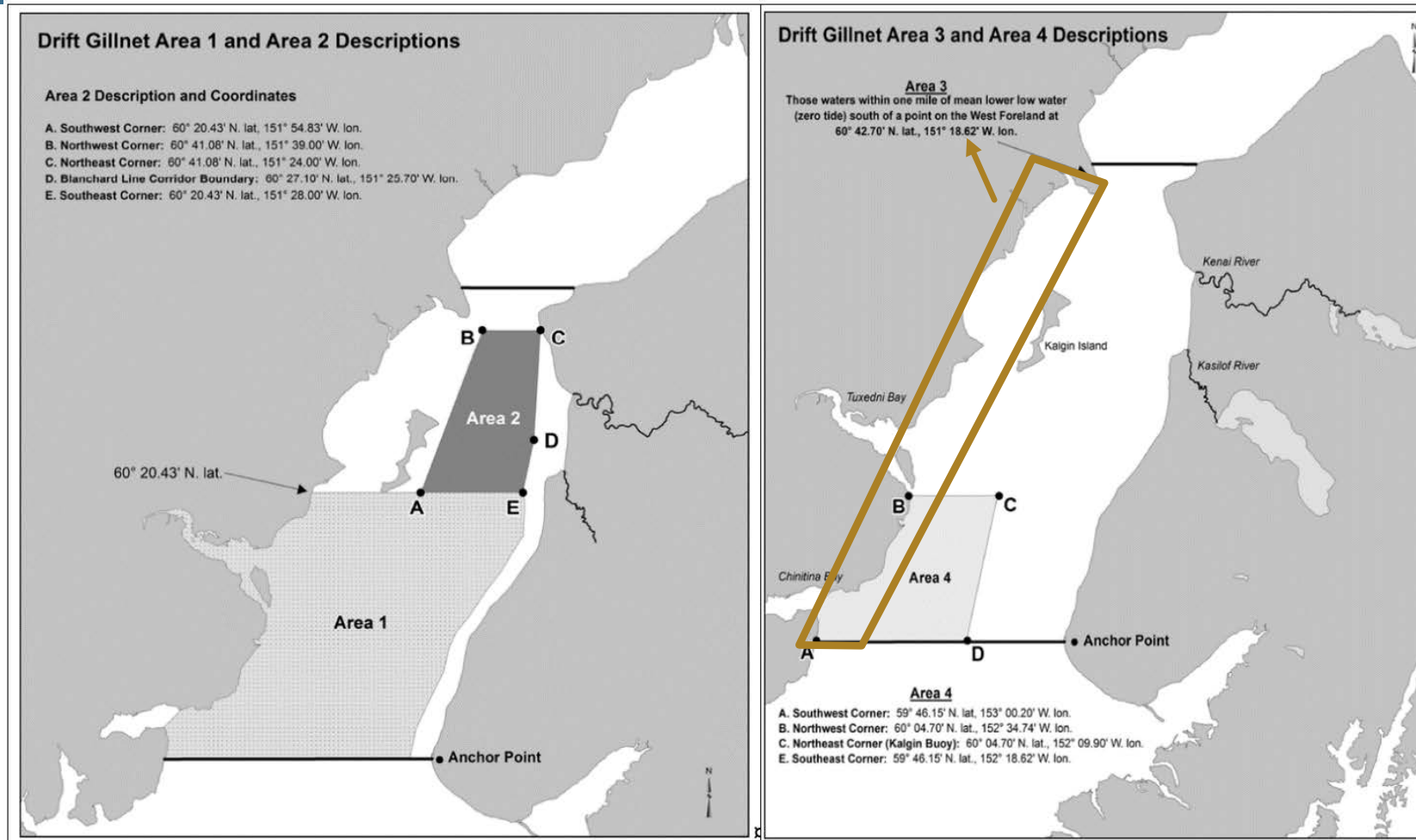
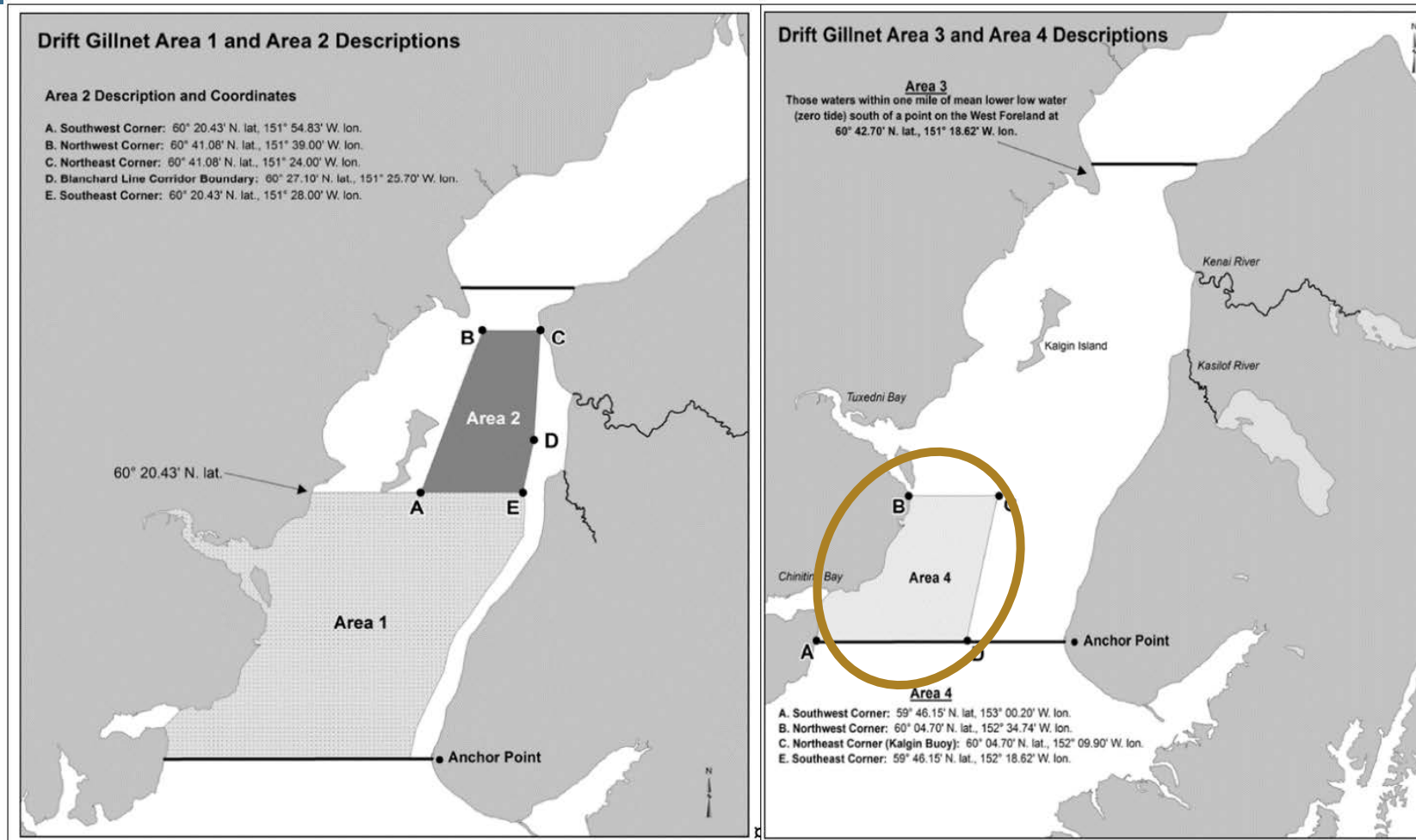


FIGURE 4-4. MAP OF UCI DRIFT GILLNET AREAS



ESTIMATING HARVEST IN FEDERAL WATER (EEZ)

1. ADF&G records a single combination of Stat-Area and Locale Code for each opening.
2. ADF&G has assigned an EEZ percentage to each Stat-Area|Locale Code combination.
3. Percentages are based on the experience and expertise of ADF&G managers.
4. EEZ percentages for Stat-area|Locale Code combinations do not vary by date, run-timing, or run strength—they are long-run averages.
5. The estimation of EEZ harvests multiplies total harvest in the opening by the assigned EEZ percentage for the Stat-Area|Locale Code combination.

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Note:The current EEZ estimation algorithm does not rely on the Stat-Areas reported by permit holders on fish-tickets.

TABLE 4-4. ASSUMED EEZ PERCENTAGES OF THE UCI SALMON DRIFT GILLNET FISHERY SALMON HARVEST BY STAT-AREA|LOCALE CODE

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	0	100	0
		1	25	75
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	75	25
	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	Chitina Bay	All	100	0

FIGURE 4-11. APPROXIMATE PERCENT OF SALMON HARVESTS IN THE UCI SALMON DRIFT GILLNET FISHERY INSIDE THE EEZ BY SPECIES

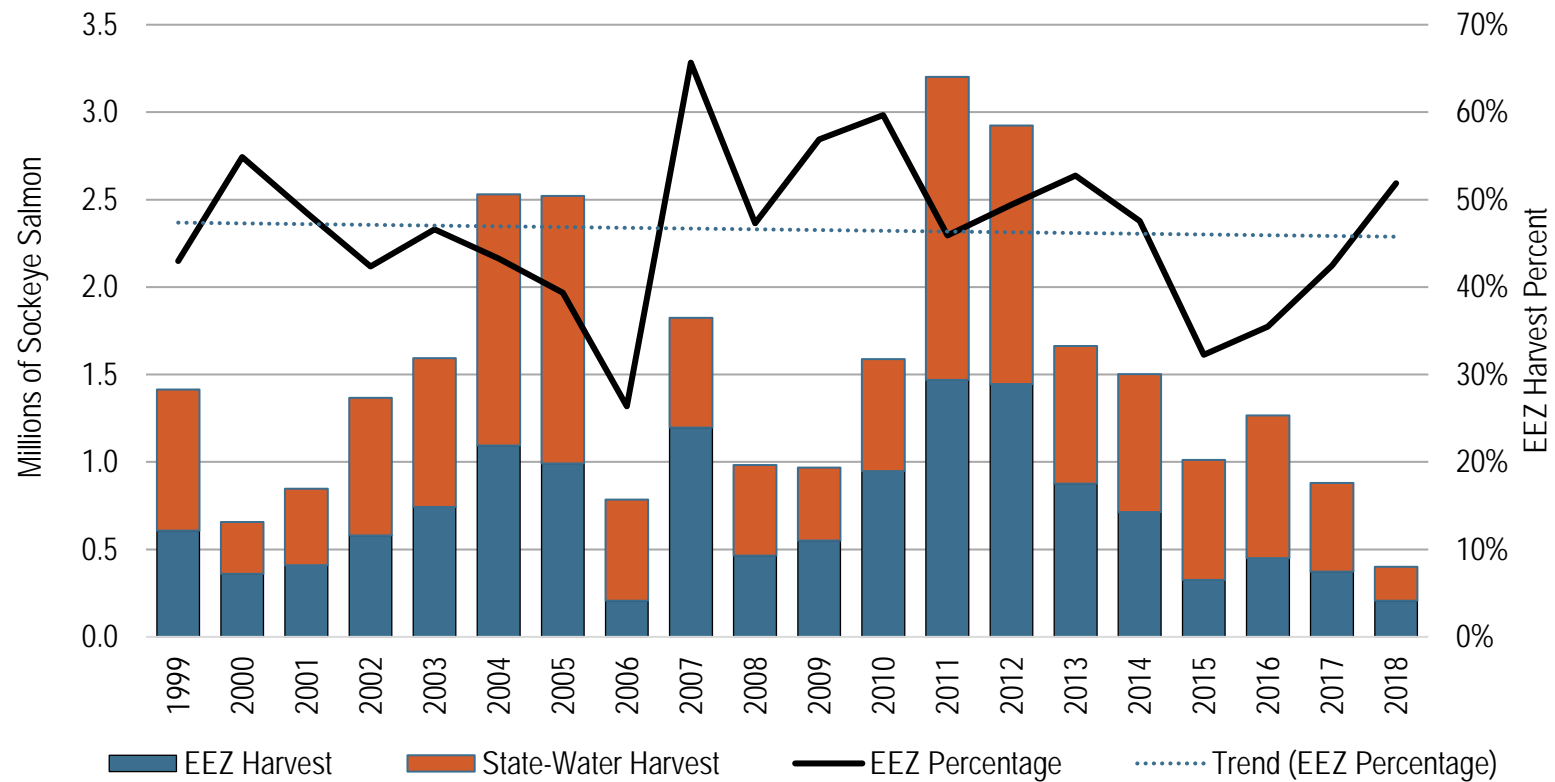


FIGURE 4-11. APPROXIMATE PERCENT OF SALMON HARVESTS IN THE UCI SALMON DRIFT GILLNET FISHERY INSIDE THE EEZ BY SPECIES, *CONTINUED*



SECTION 4.5.2 HARVEST

- 4.5.2.1. Overview of UCI Salmon Drift Gillnet Fishery
- 4.5.2.2. Salmon Harvest in the UCI Salmon Drift Gillnet Fishery
- 4.5.2.3. Salmon Harvest in the UCI Salmon Drift Gillnet Fishery Inside the EEZ
- 4.5.2.4. Non-target Harvest in the UCI Salmon Drift Gillnet Fishery

SECTION 4.5.2.5 NON-TARGET HARVEST IN THE UCI SALMON DRIFT GILLNET FISHERY

- Non-target catches consist primarily of groundfish.
- ADFG Regs currently allow, but don't require, retention of incidental catches of bycatch.
- Reported landings of groundfish from 2002–2015 by seven vessels in total ranged from 3 to 962 pounds.
- Discarded groundfish is not reported.

SECTION 4.5.3

- 4.5.3.1. Harvester Participation
- 4.5.3.2. Age of Harvesters
- 4.5.3.3. Vessel Characteristics
- 4.5.3.4. Vessel Dependency
- 4.5.3.5. Harvester Employment

FIGURE 4-13. NUMBER OF ACTIVE S03H PERMITS BY RESIDENT TYPE, 1975–2018

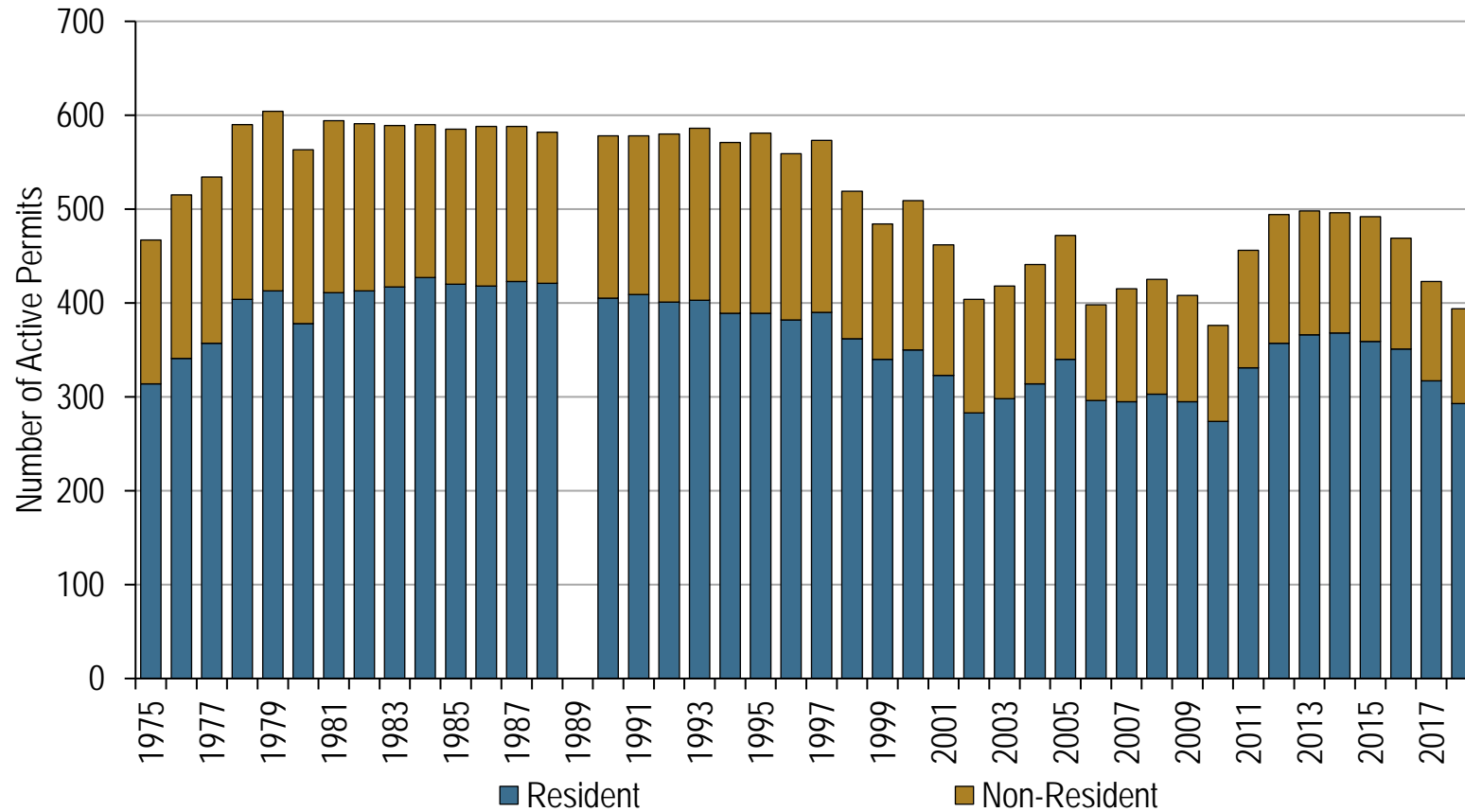


FIGURE 4-62 (UPDATED). CUMULATIVE PROPORTION OF VESSEL LENGTHS IN THE UCI DRIFT GILLNET FISHERY, 2014–2018

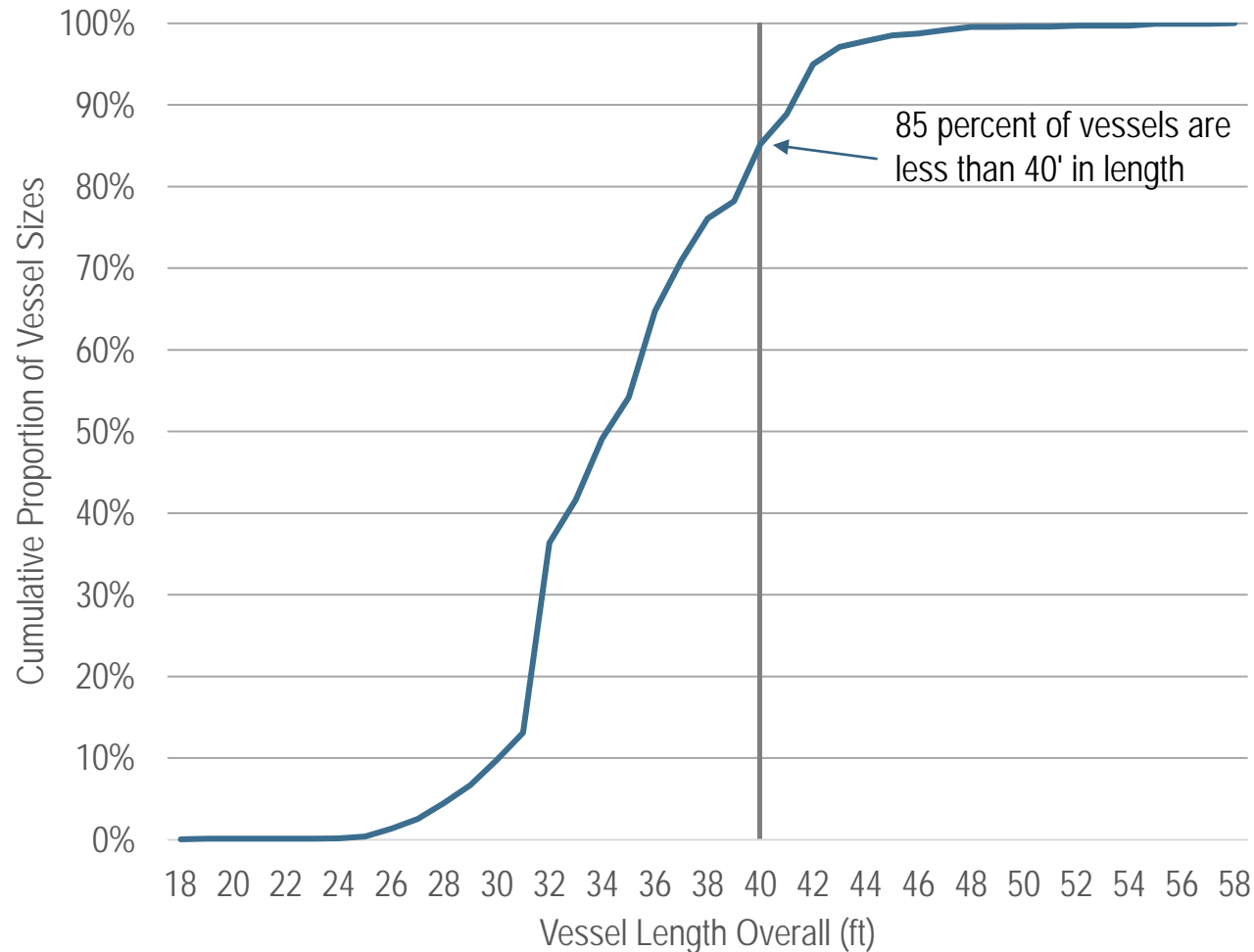


FIGURE 4-18. DISTRIBUTION OF UCI DRIFT GILLNET HARVESTS BY CATCH PERCENTILE GROUP, 2008–2018

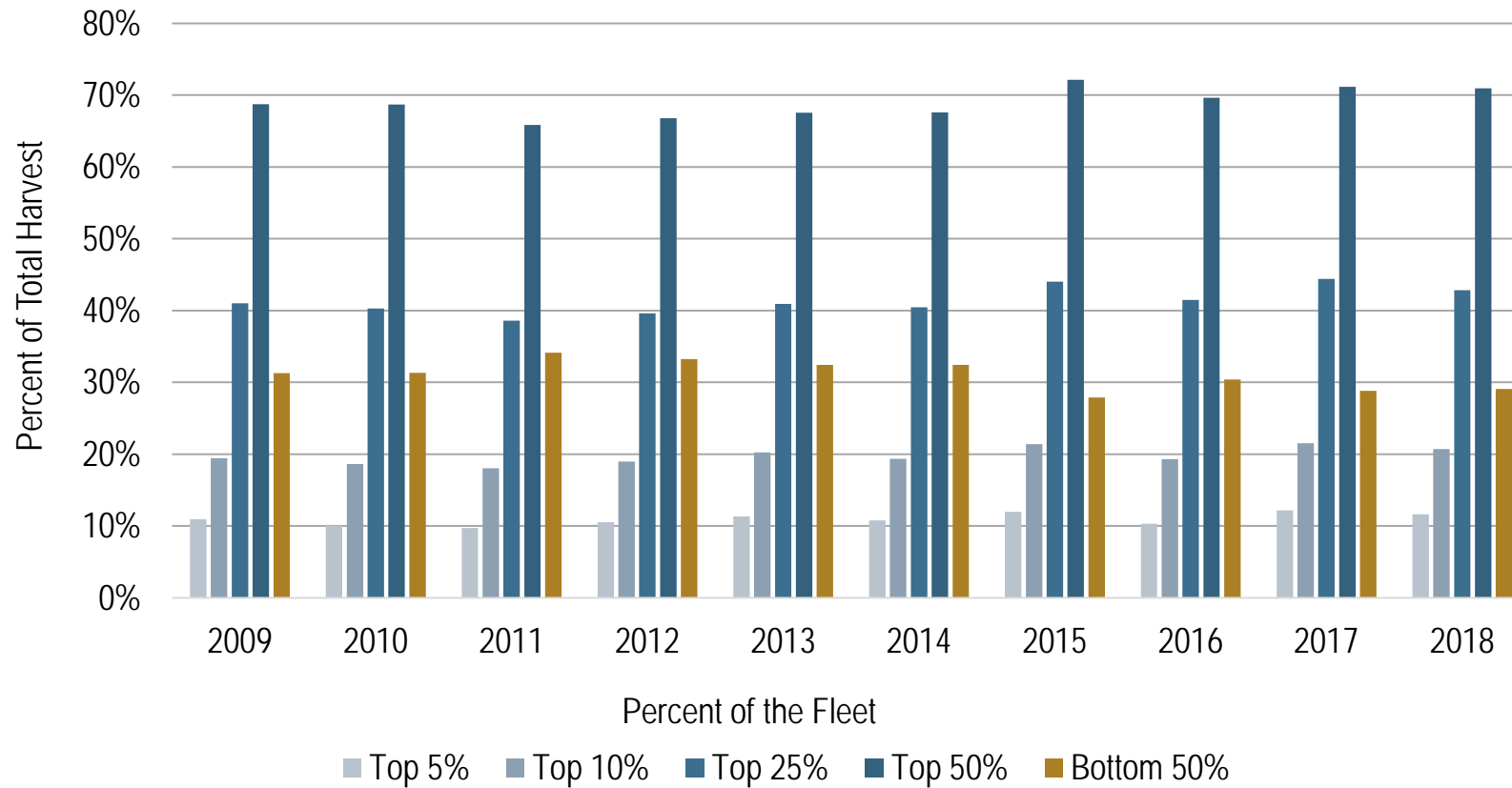


FIGURE 4-20. GROSS REVENUE (INFLATION ADJUSTED) FROM SALMON HARVESTS IN THE UCI DRIFT GILLNET FISHERY, 1975–2018

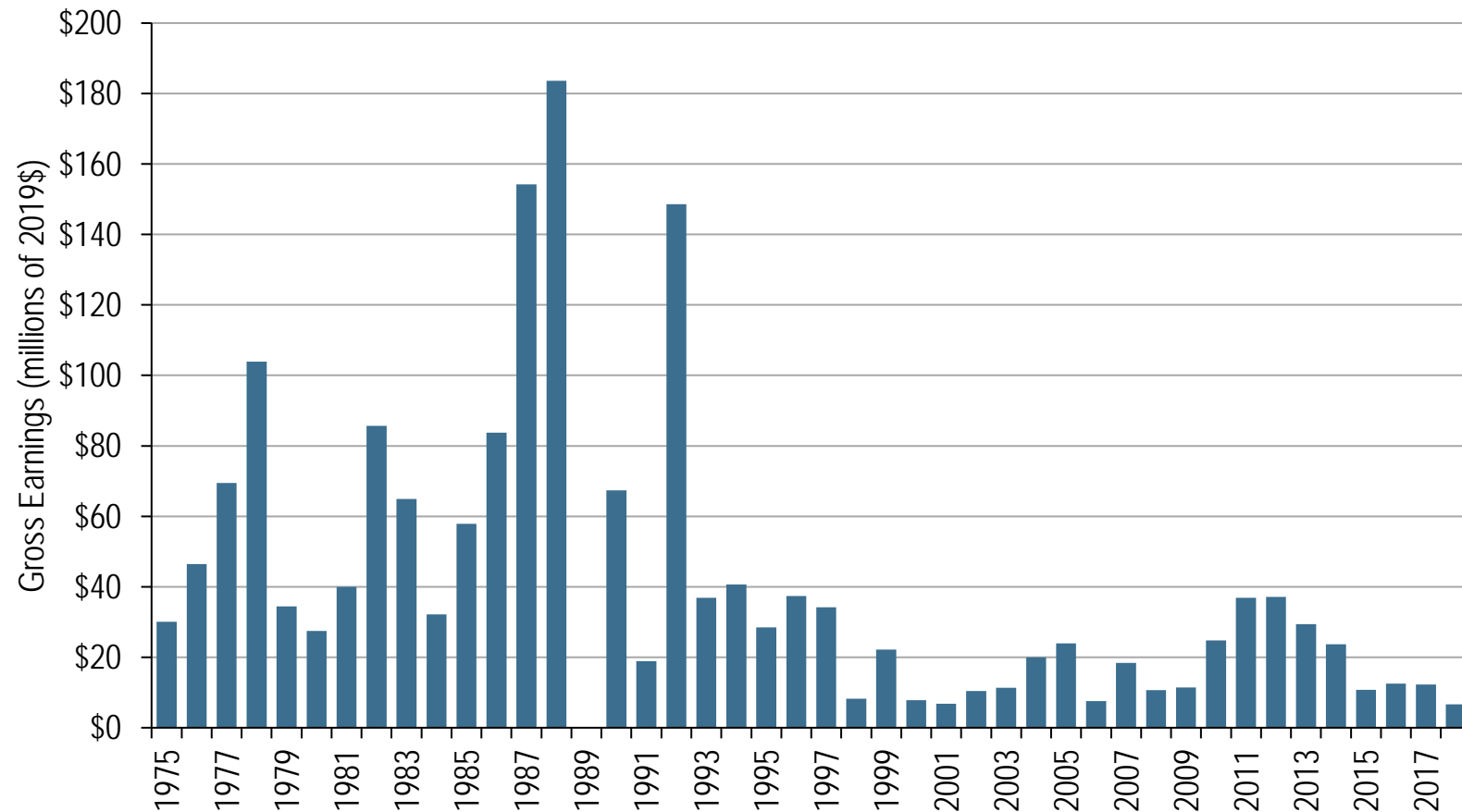


FIGURE 4-25. GROSS REVENUE DEPENDENCE OF ACTIVE S03H PERMIT HOLDERS ON THE UCI SALMON DRIFT GILLNET FISHERY BY DEPENDENCE PERCENTILE GROUP, 2009–2018

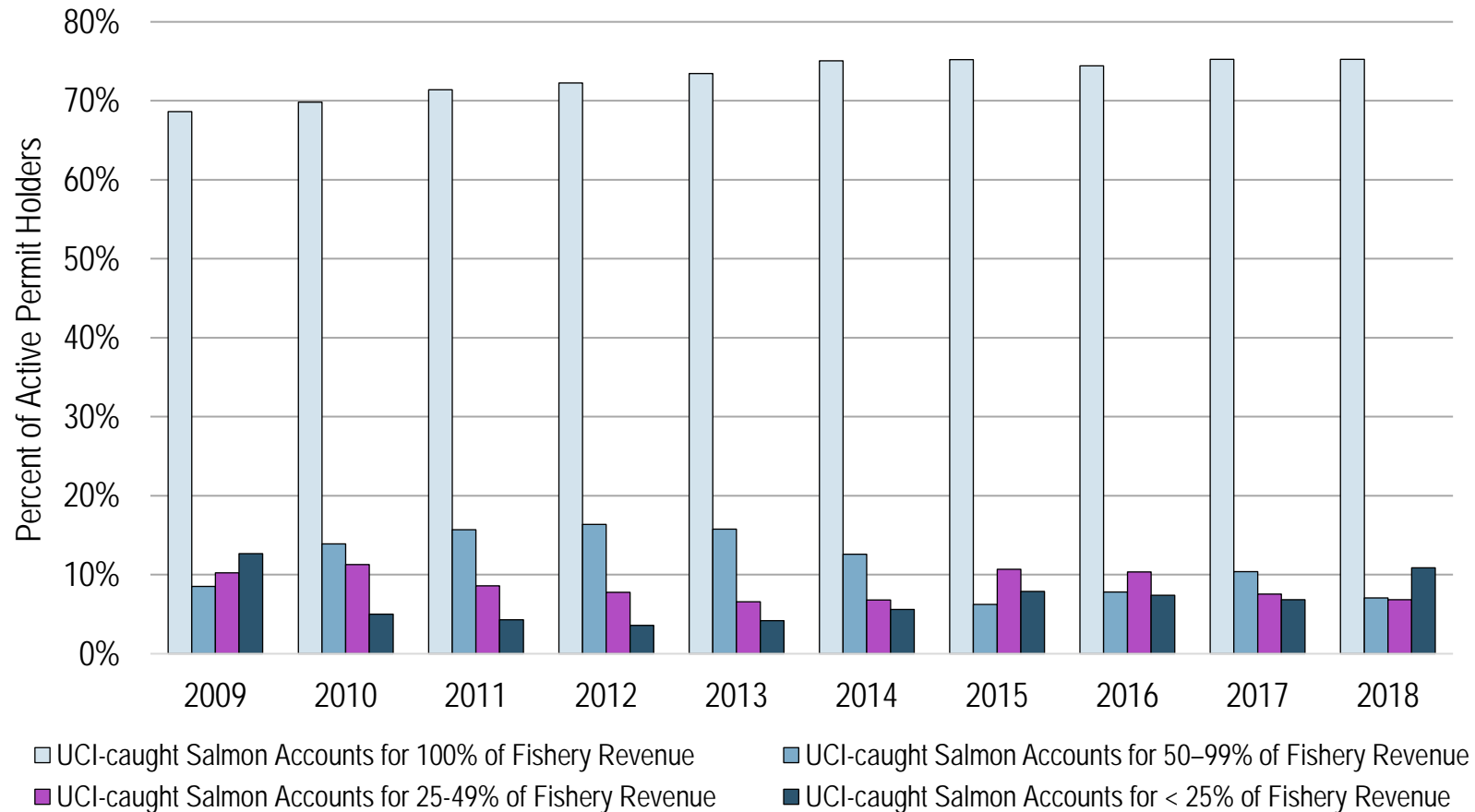


FIGURE 4-27. INFLATION ADJUSTED VALUE OF DRIFT GILLNET PERMITS BY FISHERY, 1982–2018

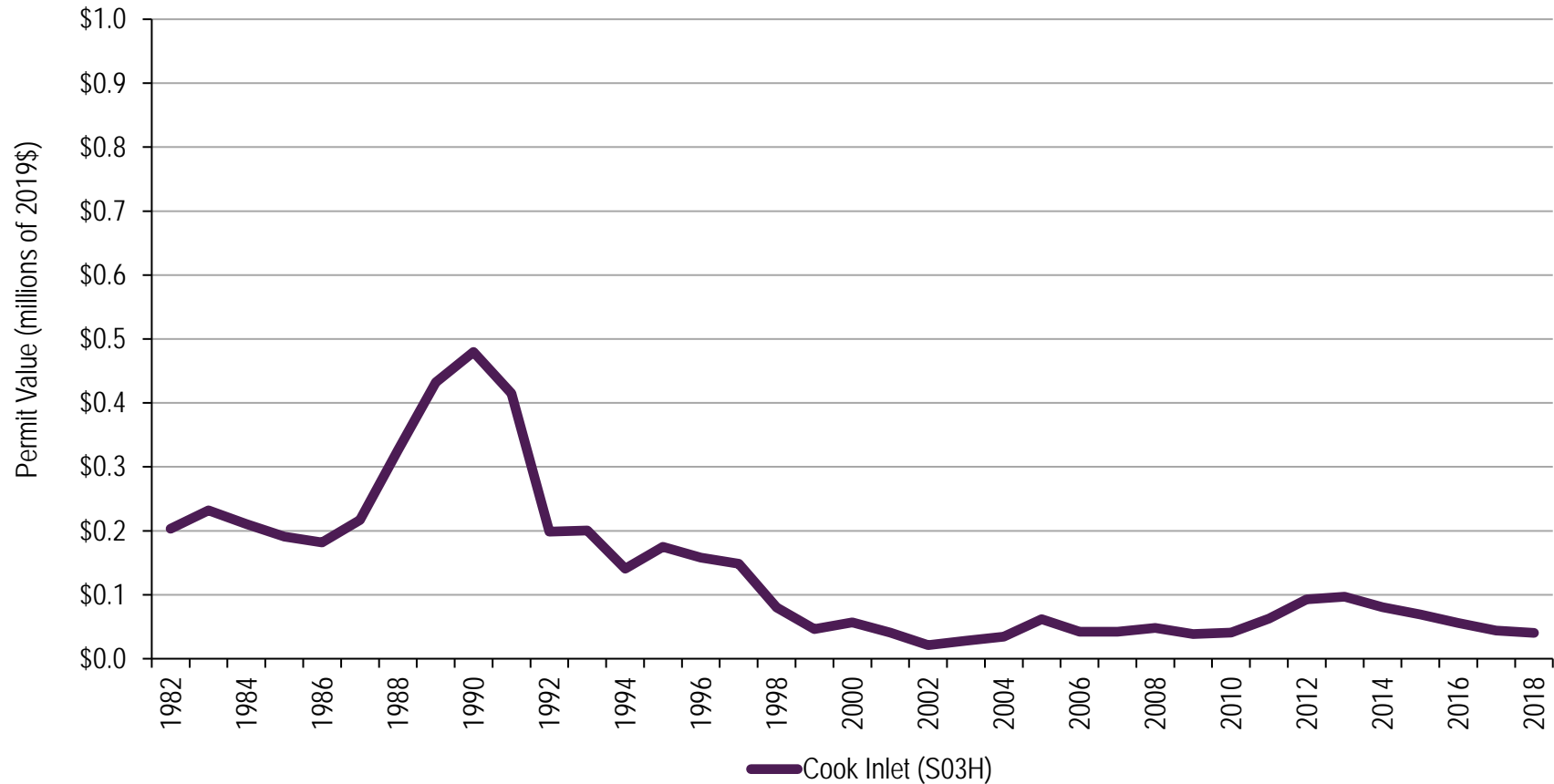
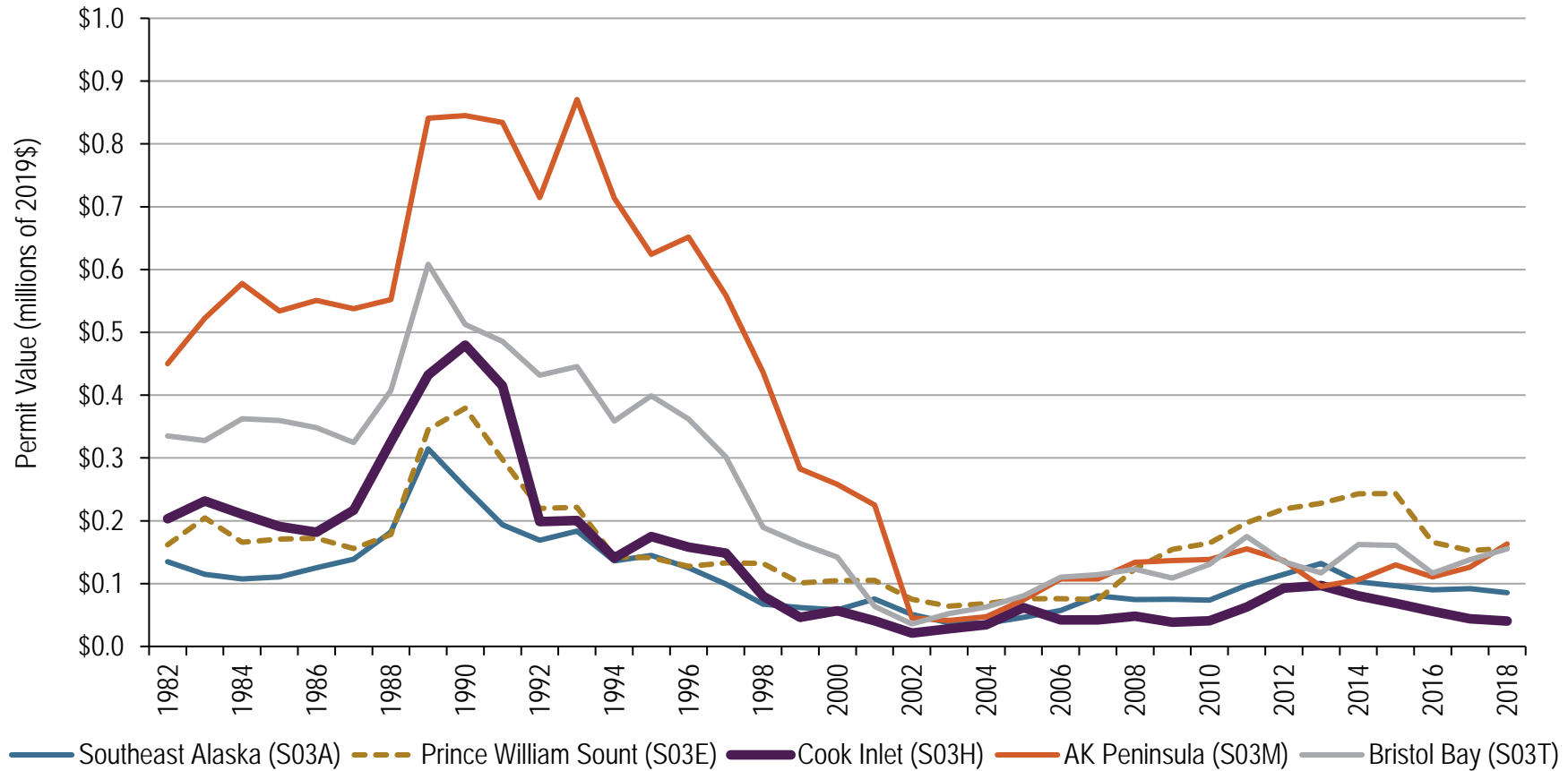


FIGURE 4-27. VALUE (INFLATION ADJUSTED) OF DRIFT GILLNET PERMITS BY FISHERY, 1982–2018



SECTION 4.5.4 PROCESSORS AND BUYERS

Table 4-10. Number of shorebased processors active in the UCI salmon drift gillnet fishery, 2009–2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2009– 2018 Average
Number of Shorebased Processors Active in the UCI Salmon Drift Gillnet Fishery											
	16	16	13	11	14	12	12	11	12	11	13
Number of Shorebased Processors Active in the UCI Salmon Drift Gillnet Fishery that are Also Active in Other Fisheries											
Fishery											
Other Salmon	15	15	12	11	13	12	12	11	12	9	12
Halibut	9	9	8	7	8	7	6	6	6	4	7
Groundfish	5	8	8	6	7	5	5	5	7	5	6
All Other Fisheries	9	11	10	7	8	6	5	6	7	6	7

FIGURE 4-30. EX-VESSEL GROSS PAYMENTS (INFLATION ADJUSTED) BY SHOREBASED PROCESSORS ACCEPTING DELIVERIES OF UCI DRIFT GILLNET-CAUGHT SALMON, 2009–2018

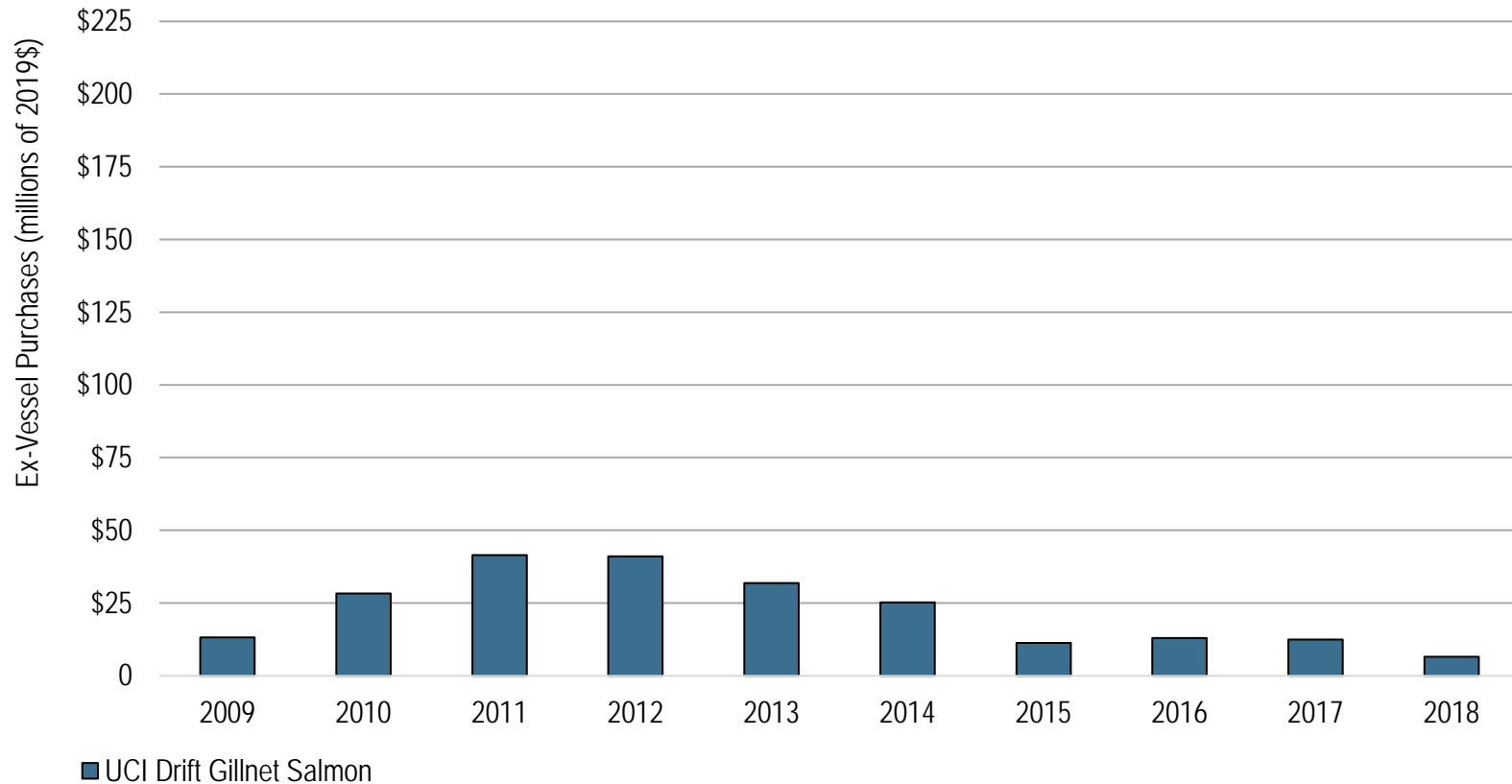
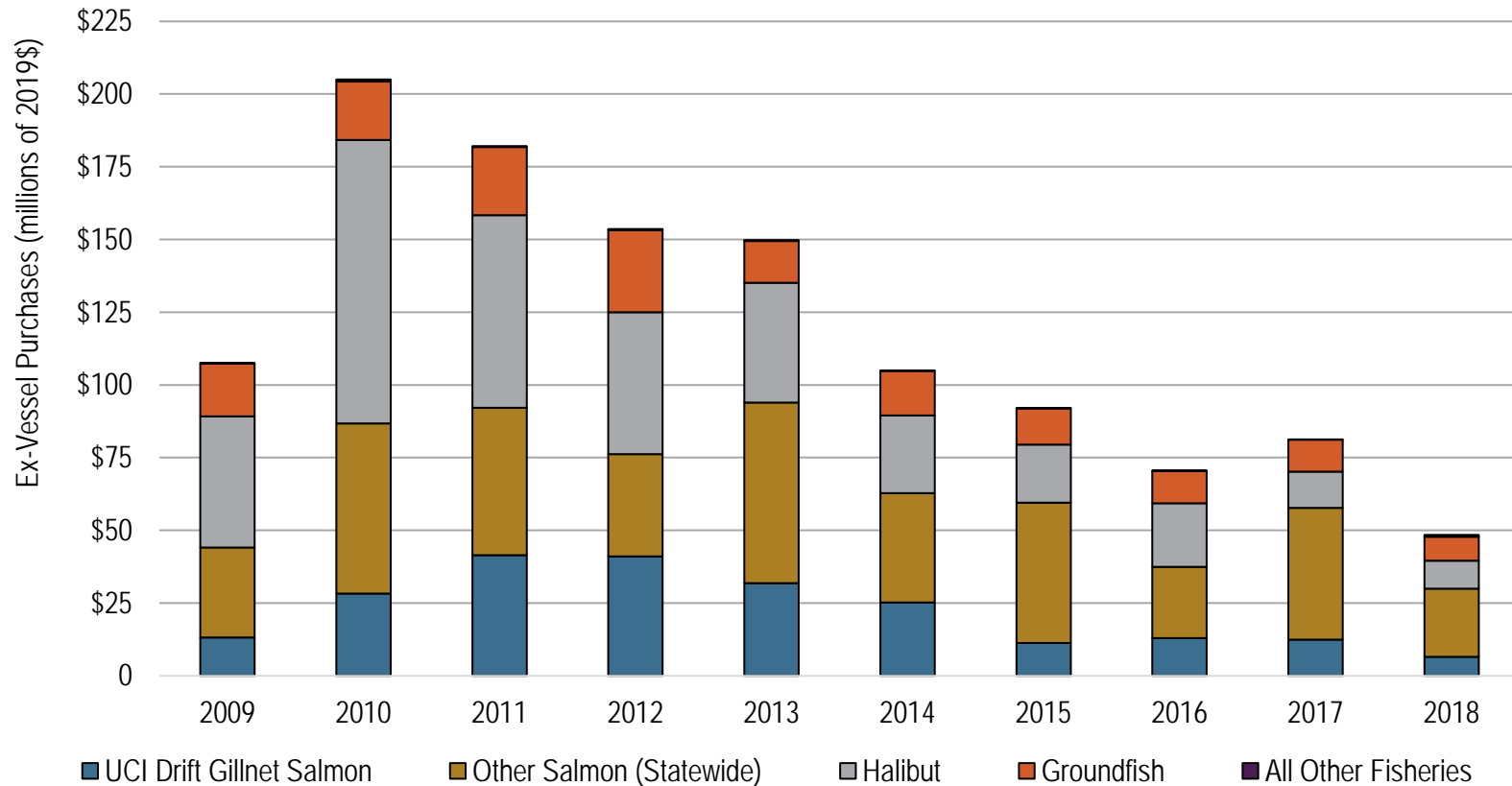


FIGURE 4-30. EX-VESSEL GROSS PAYMENTS (INFLATION ADJUSTED) BY SHOREBASED PROCESSORS ACCEPTING DELIVERIES OF UCI DRIFT GILLNET-CAUGHT SALMON, 2009–2018



SECTION 4.5.4 PROCESSORS AND BUYERS

Table 4-11. Number and ex-vessel value (inflation-adjusted) of catcher-sellers and direct marketers active in the UCI salmon drift gillnet fishery, 2009–2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2009–2018 Average
Number of Operations Active in the UCI Salmon Drift Gillnet Fishery											
Catcher-Sellers	NA	4	5	5	5	5	10	7	5	4	6
Direct Marketers	9	5	4	3	6	6	8	8	10	8	7
Ex-Vessel Value from UCI Salmon Drift Gillnet Fishery (\$millions)											
Catcher-Sellers	NA	0.06	0.01	0.01	0.02	0.02	0.03	0.01	0.01	0.01	0.02
Direct Marketers	0.05	0.10	0.08	0.06	0.09	0.11	0.06	0.05	0.11	0.06	0.08

SECTION 4.5.5 FISHING COMMUNITIES

- Provided by Dr. Mike Downs of Wislow Research in a separate PowerPoint presentation.

SECTION 4.6 DESCRIPTION OF OTHER POTENTIALLY AFFECTED FISHERIES

- 4.6.1. Commercial Set Gillnet Fishery
- 4.6.2. Sport Fisheries
- 4.6.3. Personal Use Fisheries
- 4.6.4. Subsistence and Educational Fisheries

FIGURE 4-46. HARVEST IN THE UCI SET GILLNET FISHERY BY SPECIES, 1966–2018

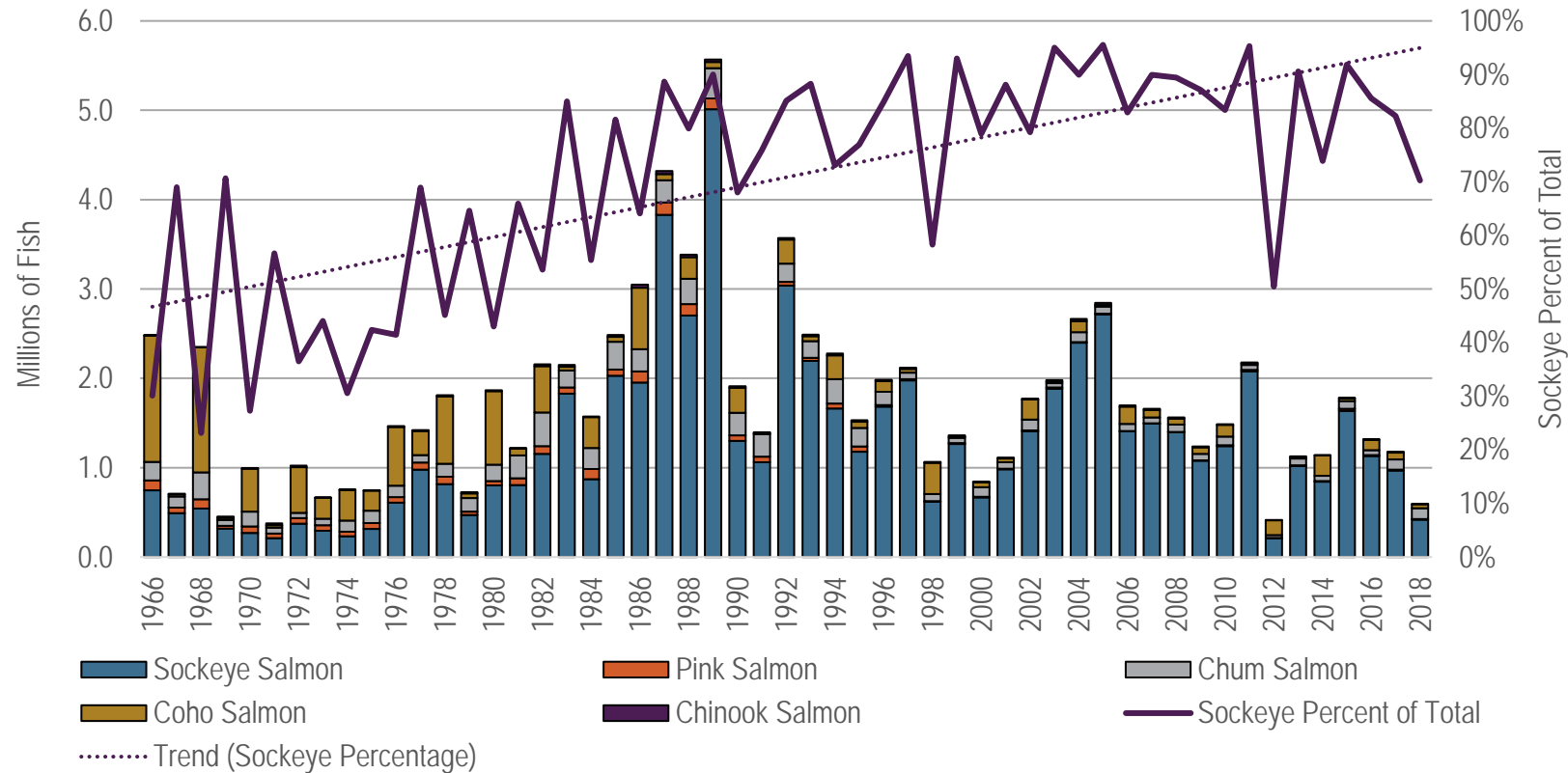


FIGURE 4-48. SALMON HARVEST IN UCI FRESHWATER SPORT SALMON FISHERIES BY AREA FISHED, 1999–2018

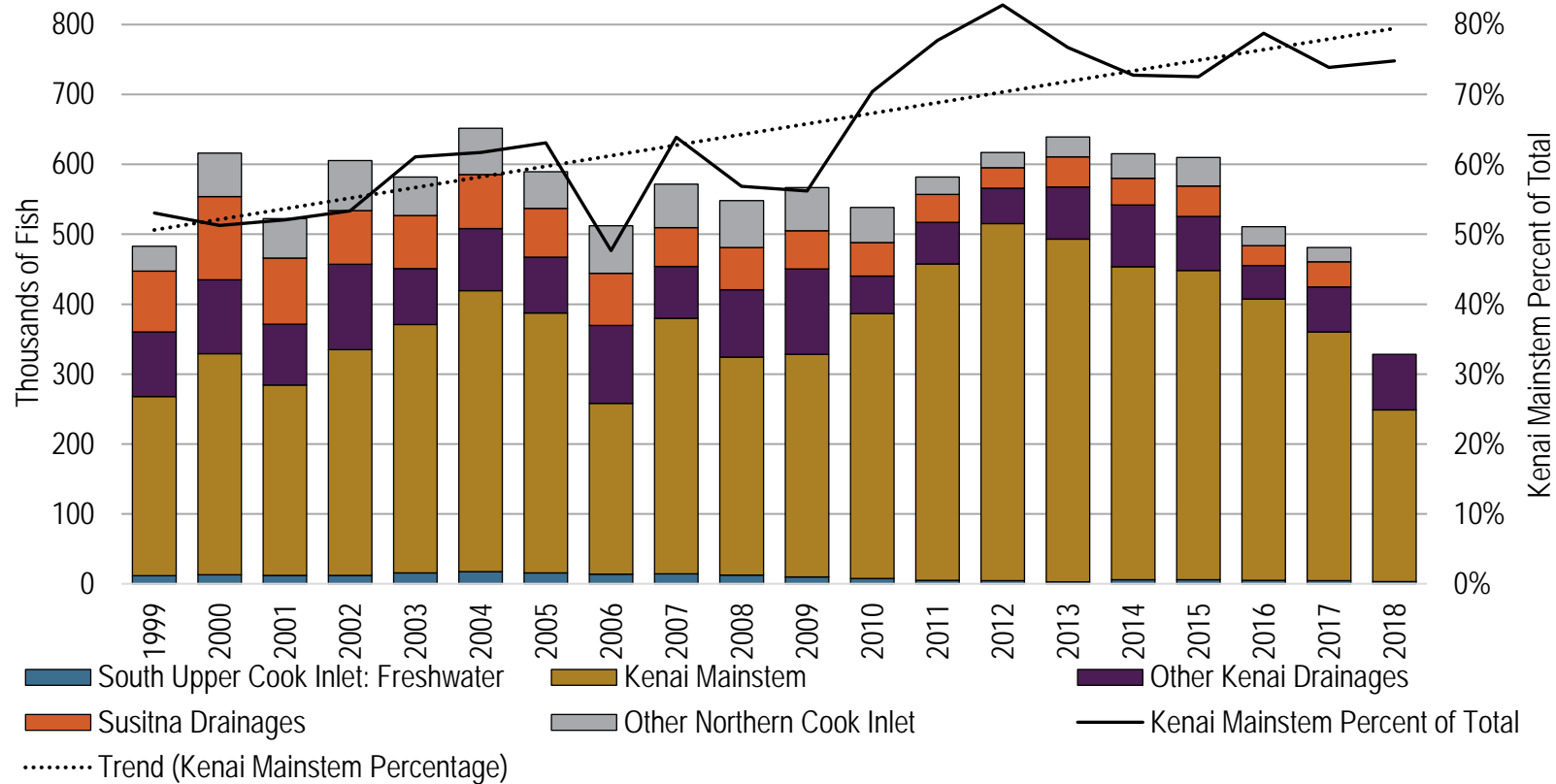
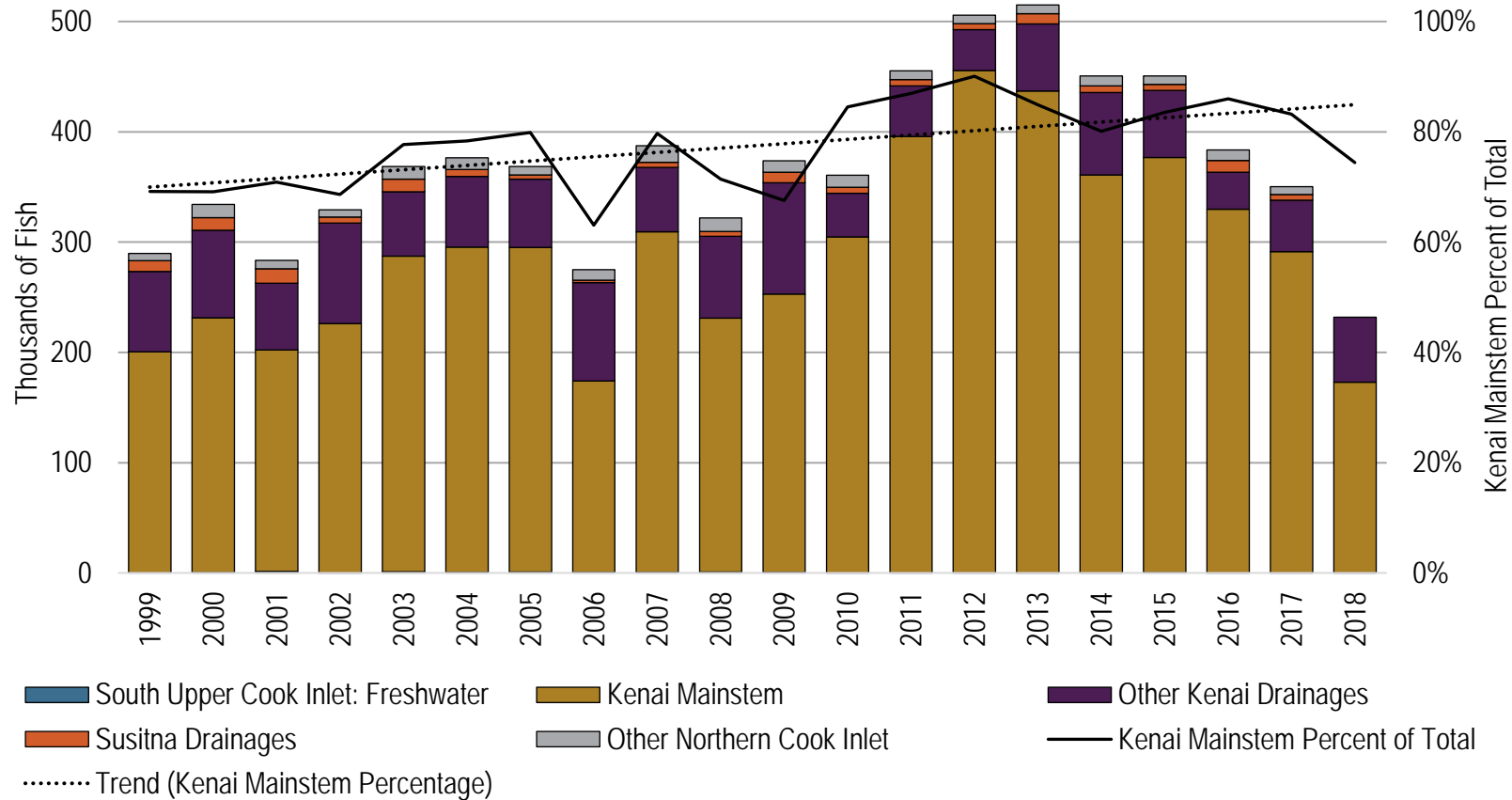


FIGURE 4-49. SOCKEYE HARVEST IN UCI FRESHWATER SPORT SALMON FISHERIES BY AREA FISHED, 1999–2018



UCI Freshwater sport harvests of other salmon species are shown in Figure 4-50

FIGURE 4-52. SALMON HARVEST (IN NUMBERS OF FISH) IN UCI SALTWATER SPORT FISHERIES BY SPECIES, 1999–2018

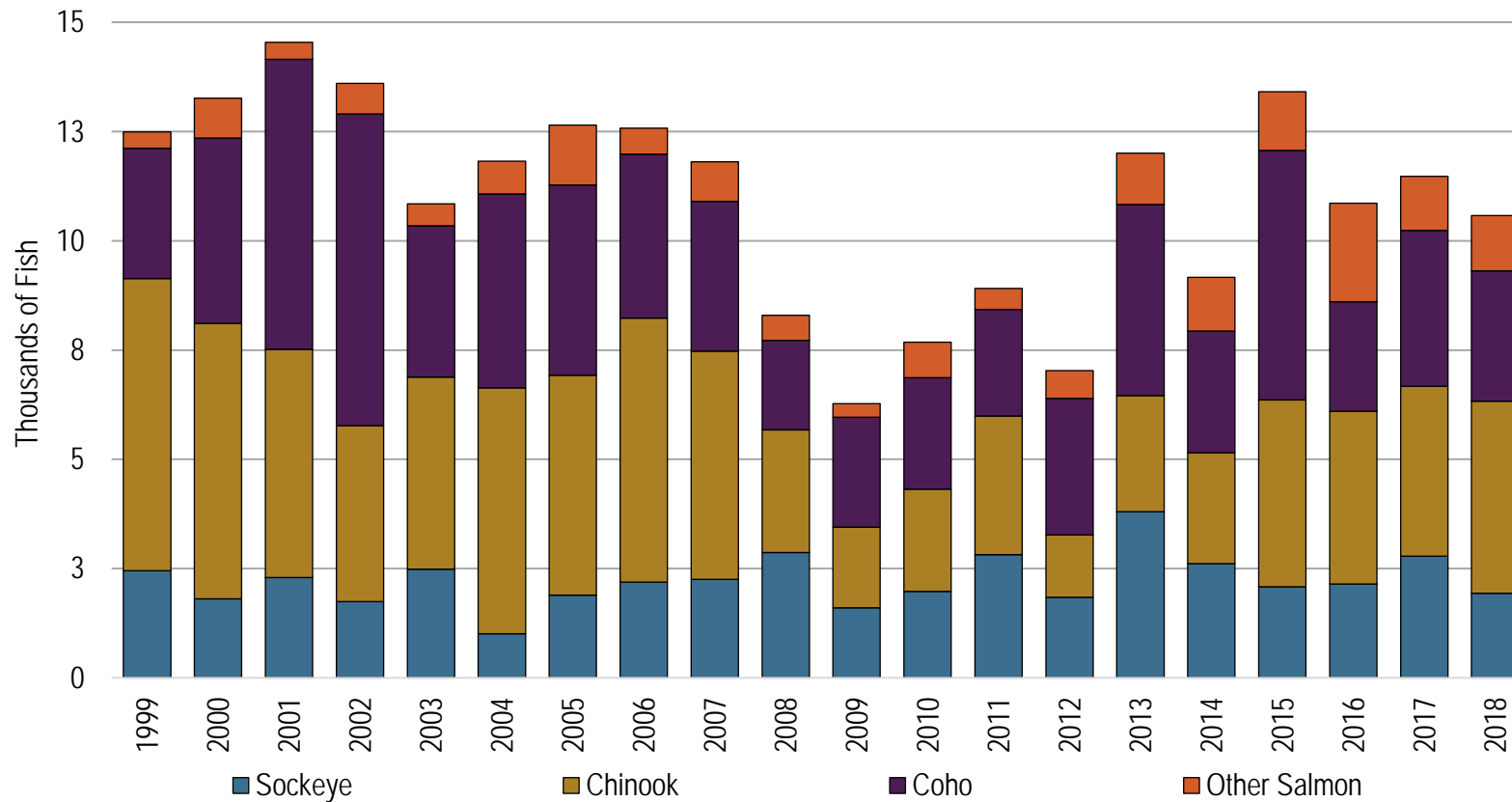


FIGURE 4-54. APPROXIMATE PERCENT OF HARVESTS IN THE UCI SALTWATER SPORT FISHERY IN THE EEZ BY SPECIES, 2004–2018

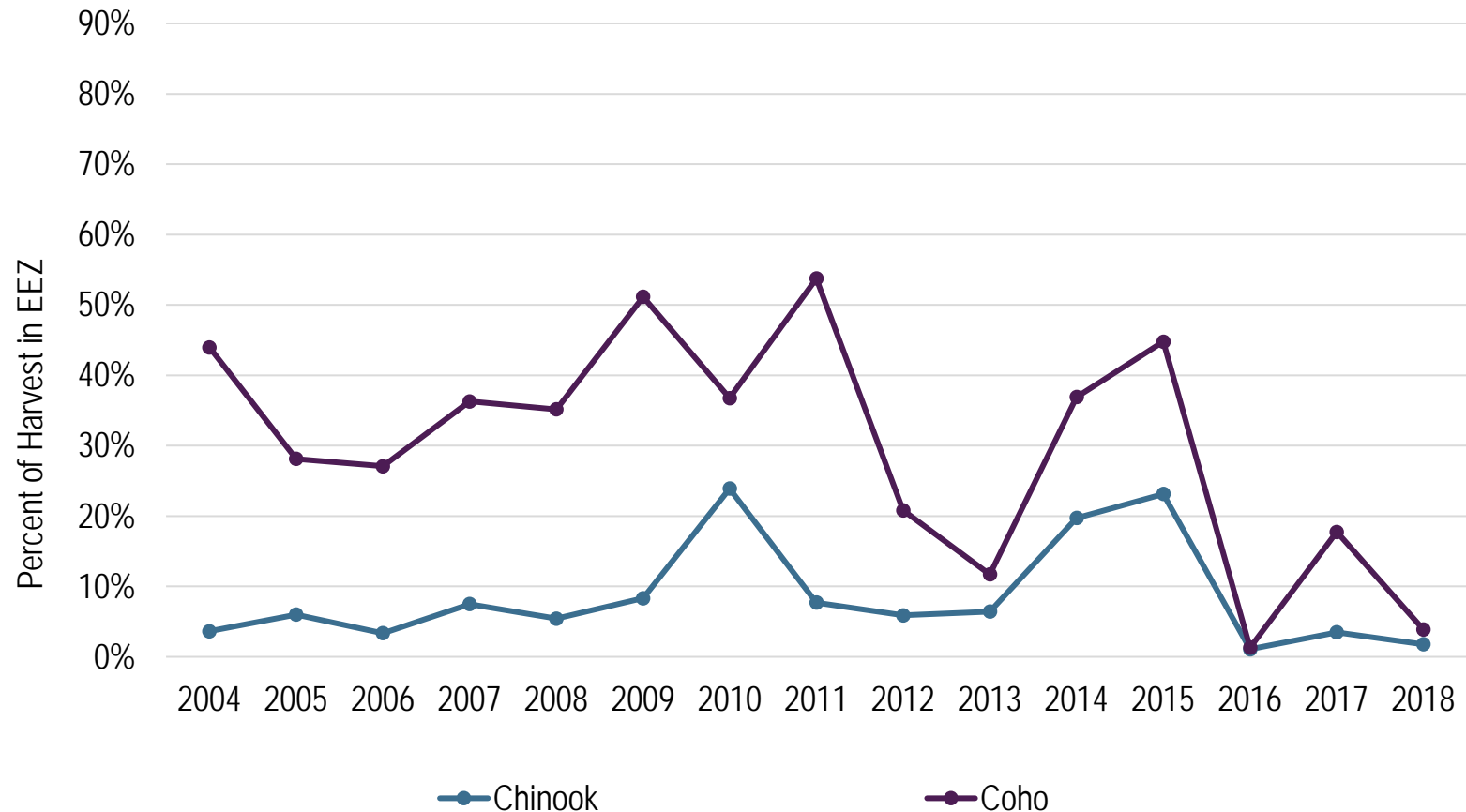
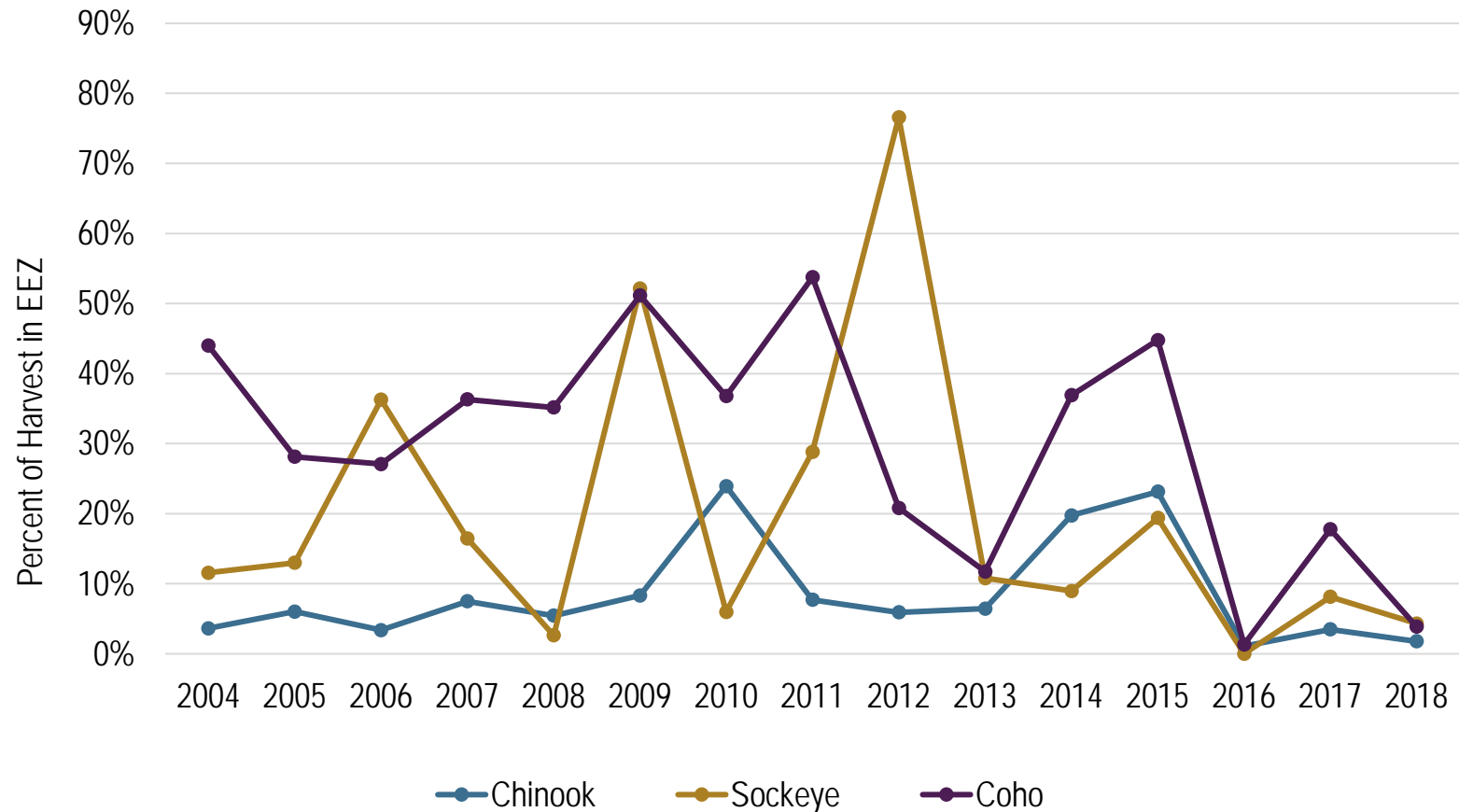


FIGURE 4-54. APPROXIMATE PERCENT OF HARVESTS IN THE UCI SALTWATER SPORT FISHERY IN THE EEZ BY SPECIES, 2004–2018



SPORT FISH DATA SOURCES

- ADF&G Annual Sport Fish Survey
 - Primary source of harvest totals
 - Preliminary data could be available in May the following year
 - Final data available in September/October the following year
- Sport Fish Guide Logbook Data
 - Saltwater Logbook Data are the primary source for determining percentages of harvest in the EEZ

SECTION 4.6.3 PERSONAL USE FISHERIES

Personal use fisheries are summarized in Figures 4-55 and 4-56. Number of Fish Harvested are summarized below. All harvests are in state waters

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Kenai Sockeye	339,993	389,552	537,765	526,992	347,222	379,823	377,532	259,057	297,049	165,028
Kasilof Sockeye	99,681	92,698	76,546	89,057	99,967	111,080	116,567	84,812	100,187	106,424
All Other Sockeye	10,038	23,752	5,373	9	30	5,861	19,325	52	4,920	18,696
All Sockeye	449,712	506,002	619,684	616,058	447,219	496,764	513,424	343,921	402,156	290,148
All Chinook	1,360	1,044	1,436	159	75	50	127	805	1,327	138
All Coho	4,060	8,242	6,679	5,339	4,965	9,242	10,385	4,557	1,623	2,636
All Chum	509	1,078	1,134	587	1,047	1,782	1,885	1,071	1,956	980
All Pink	0	0	0	0	0	0	0	0	0	0

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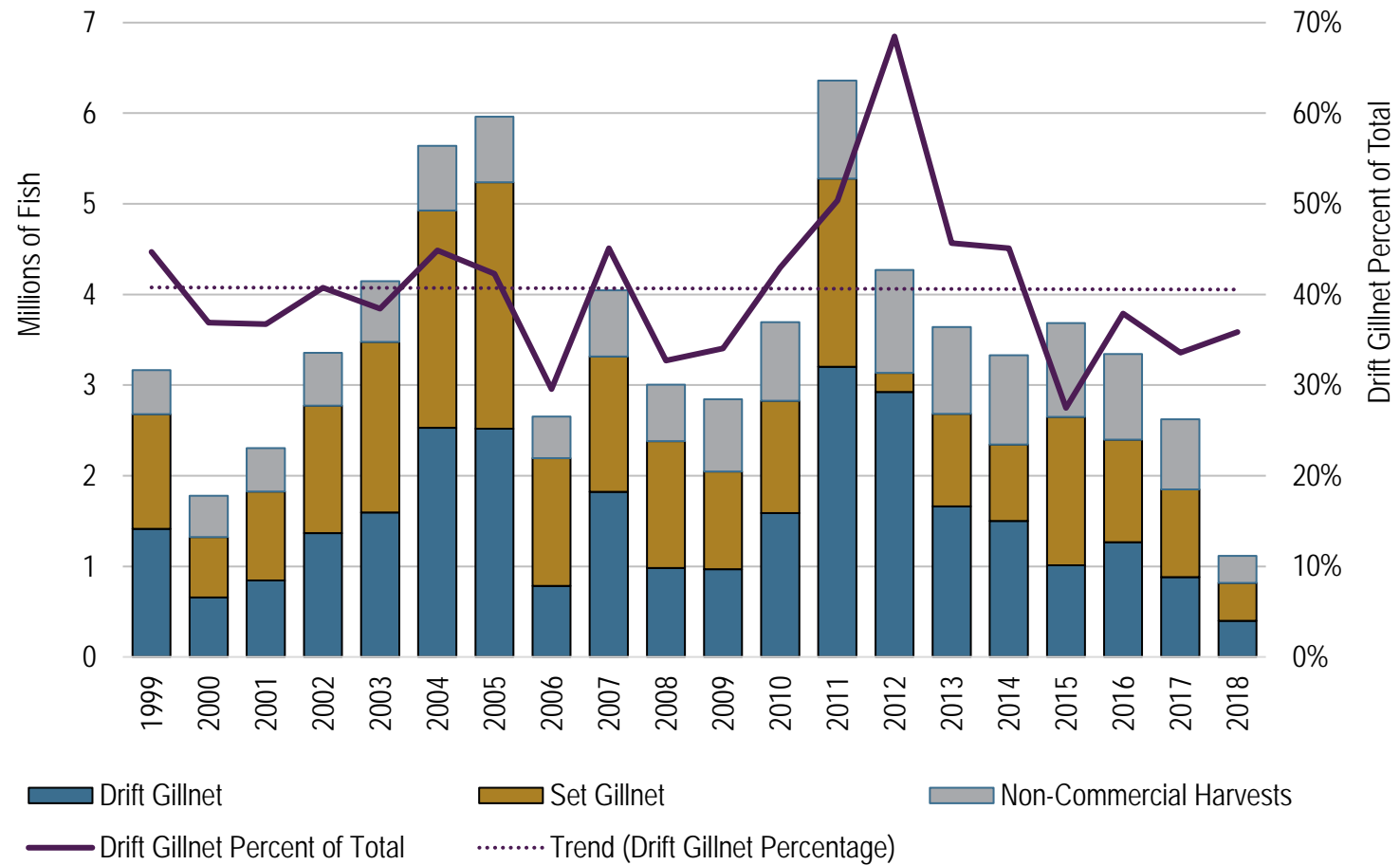
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Kasilof Sockeye	99,681	92,698	76,546	89,057	99,967	111,080	116,567	84,812	100,187	106,424
All Other Sockeye	10,038	23,752	5,373	9	30	5,861	19,325	52	4,920	18,696
All Sockeye	449,712	506,002	619,684	616,058	447,219	496,764	513,424	343,921	402,156	290,148
All Chinook	1,360	1,044	1,436	159	75	50	127	805	1,327	138
All Coho	4,060	8,242	6,679	5,339	4,965	9,242	10,385	4,557	1,623	2,636
All Chum	509	1,078	1,134	587	1,047	1,782	1,885	1,071	1,956	980
All Pink	0	0	0	0	0	0	0	0	0	0

SECTION 4.6.4 SUBSISTENCE & EDUCATIONAL FISHERIES

Subsistence & Educational fisheries are summarized in Figures 4-57 to 4-61. Number of fish harvested are shown below. All harvests are in state waters.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
All Sockeye	7,625	7,385	8,912	4,714	6,506	8,406	10,145	8,027	11,721	7,114
All Chinook	939	1,274	1,000	1,213	1,472	1,011	1,270	1,308	1,408	44
All Coho	2,530	2,409	1,361	1,178	1,748	1,540	1,321	1,480	1,483	1,863
All Chum	37	148	397	103	241	63	125	92	108	39
All Pink	265	507	244	868	200	700	211	532	470	471

FIGURE 4-8. SOCKEYE SALMON HARVEST IN UPPER COOK INLET BY FISHERY, 1999–2018



SECTION 4.7 ANALYSIS OF IMPACTS

- 4.7.1. Impacts of Measures Restricting Target Species Harvest
- 4.7.2. Impacts of Monitoring, Recordkeeping, and Reporting Requirements
- 4.7.3. Administrative Impacts
- 4.7.4. Impacts to Vessel Safety

SECTION 4.7.1. IMPACTS OF MEASURES RESTRICTING TARGET SPECIES HARVEST: ALTERNATIVE 2

- ACLs & OFLs are non-binding during the fishing season.
- If exceeded, NMFS consults with ADF&G and BOF.
- Impacts to harvests for all users could result if BOF policies are changed to reduce overfishing.
- If rebuilding is necessary, then a plan amendment would be required.

SECTION 4.7.1. IMPACTS OF MEASURES RESTRICTING TARGET SPECIES HARVEST: ALTERNATIVE 3

- OFLs are non-binding during the fishing season.
- Binding species-level ACLs for the EEZ will be set before fishing begins.
 - ACLs for the EEZ apply to only to the UCI drift gillnet salmon fishery.
- If the EEZ-ACL for any species is exceeded, then the EEZ will be closed to further fishing during the year.
- It is presumed that ADF&G managers will work within BOF guidelines to allow the state-water drift gillnet salmon fishery to continue.
 - Impact to drift gillnet salmon fishery will depend on closure dates and BOF policies
 - If the EEZ is closed before the end of the 3rd week in July, then it is less likely that state-water harvests could make up for reductions in EEZ harvests.

SECTION 4.7.2. IMPACTS OF MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

- Require Federal Fisheries Permits
- Require Federal Daily Fishing Logbook (eLogbook)
- Require Full Retention of Groundfish
- Require Onboard Observers
- Require Electronic Monitoring System (camera-based)
- Require Vessel Monitoring System (VMS)
- Require use of eLandings Electronic Reporting System

TABLE 4-33. NUMBER OF ACTIVE VESSELS IN THE UCI SALMON DRIFT GILLNET FISHERY WITH A FEDERAL FISHERIES PERMIT, 2005–2018

Year	Number of Active Vessels	Vessels with an FFP		Vessels with an FFP for One or More Years from 2005–2018	
		Number	Percent	Number	Percent
2005	467	157	34%	176	38%
2006	392	104	27%	145	37%
2007	414	113	27%	150	36%
2008	415	113	27%	149	36%
2009	388	90	23%	142	37%
2010	353	84	24%	134	38%
2011	420	99	24%	150	36%
2012	457	90	20%	153	33%
2013	471	94	20%	161	34%
2014	478	99	21%	161	34%
2015	463	81	17%	152	33%
2016	455	84	18%	148	33%
2017	404	79	20%	138	34%
2018	385	57	15%	130	34%

TABLE 4-32. POTENTIAL MONITORING, RECORDKEEPING, AND REPORTING MEASURES UNDER ALTERNATIVES 2 AND 3

Monitoring, Recordkeeping, and Reporting Measure	Purpose	Application to UCI Salmon Drift Gillnet Fishery	Costs to the Industry of Compliance	Level of Effort to Implement	Information Gaps
Federal Fisheries Permit	Identify vessels fishing in Federal waters	<ul style="list-style-type: none"> Federal monitoring, recordkeeping, and reporting requirements can be tied to the permit 	Low	Easier	
Federal Daily Fishing Logbook (eLogbook)	<ul style="list-style-type: none"> Estimate effort levels Estimate catch location Estimate haul weight for each set by species Estimate level of discards by species Estimate total catch by species 	<ul style="list-style-type: none"> Inseason management catch estimates Bycatch level monitoring 	Low	Medium	Relies on self-reporting of data. Information can be verified by additional data collection efforts.
Full Retention of Groundfish	Prohibit discards of groundfish	<ul style="list-style-type: none"> Bycatch prohibition enforcement 	Low	Medium (Compliance monitoring may be expensive)	
Onboard Observers	<ul style="list-style-type: none"> Estimate level of discards by species Estimate haul weight for each set by species Estimate interactions with protected species Estimate interactions with protected species 	<ul style="list-style-type: none"> Bycatch level monitoring Bycatch prohibition enforcement Protected species interaction monitoring 	High	Difficult (Deployment may be expensive and logistically challenging since most drift gillnet vessels are smaller than 40 ft LOA)	

TABLE 4-32. POTENTIAL MONITORING, RECORDKEEPING, AND REPORTING MEASURES..., *CONTINUED*

Monitoring, Recordkeeping, and Reporting Measure	Purpose	Application to UCI Salmon Drift Gillnet Fishery	Costs to the Industry of Compliance	Level of Effort to Implement	Information Gaps
Electronic Monitoring System (camera-based)	Estimate level of discards by species	<ul style="list-style-type: none"> • Bycatch level monitoring • Bycatch prohibition enforcement 	Medium or High	Difficult (Technology may be expensive to develop for drift gillnet vessels)	
Vessel Monitoring System	Track vessel movement and catch location	<ul style="list-style-type: none"> • Inseason management catch estimates • Area closure enforcement 	Medium	Medium (Need to create algorithm to provide fishing effort information)	
ADF&G Fish Tickets and eLandings Electronic Reporting System	Measure total landings by species <hr/> Estimate catch location <hr/> Estimate level of discards by species	<ul style="list-style-type: none"> • Inseason management catch estimates • Bycatch level monitoring 	Low or Medium	Easier (Already in place for most processors; may need modification to account for EEZ/State waters line)	Relies on self-reporting of data. Information can be verified by additional data collection efforts.

THANK YOU!

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