

Catcher Vessel IPA Reports and Chum Avoidance Proposal

INSHORE AND MOTHERSHIP CATCHER VESSEL SECTORS

PRESENTED BY

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2023 Inshore IPA Report • ISSIP

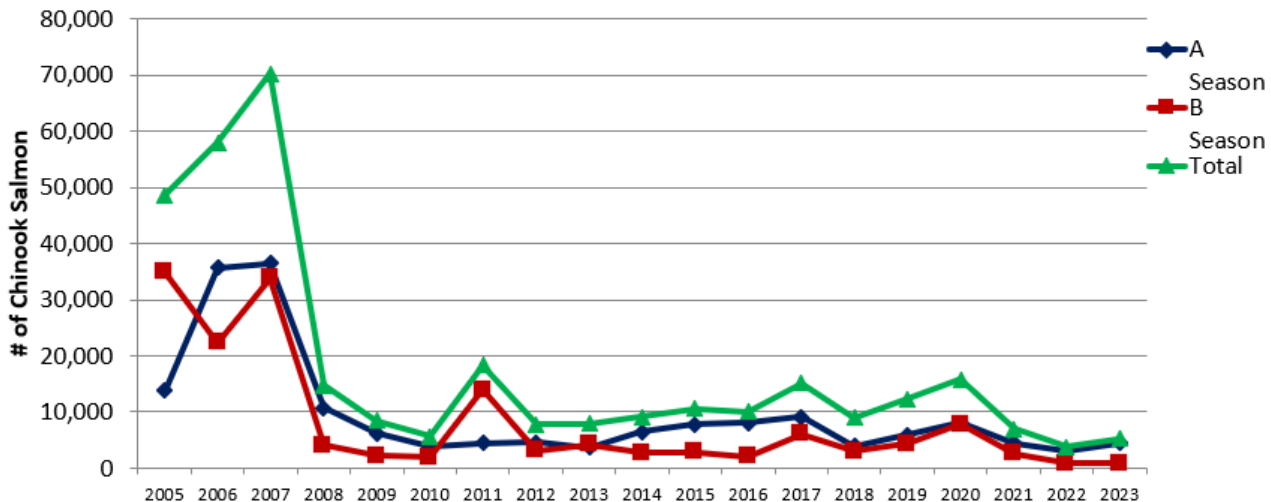
INCENTIVE PLAN AGREEMENTS (IPAS) ALSO KNOWN AS SALMON SAVINGS INCENTIVE PLAN AGREEMENTS (SSIP) ARE LEGALLY BINDING CONTRACTUAL AGREEMENTS.

- All AFA Inshore CVs were members of the 2023 Inshore IPA
- 100% Observer Coverage on all AFA vessels

2023 Inshore Chinook Salmon Bycatch Summary

- 2023 managed under a lower Chinook limit and performance standard.
- A season Rate: 54.36 mt pollock/1 Chinook
- B Season Rate: 323.191 mt pollock/1 Chinook

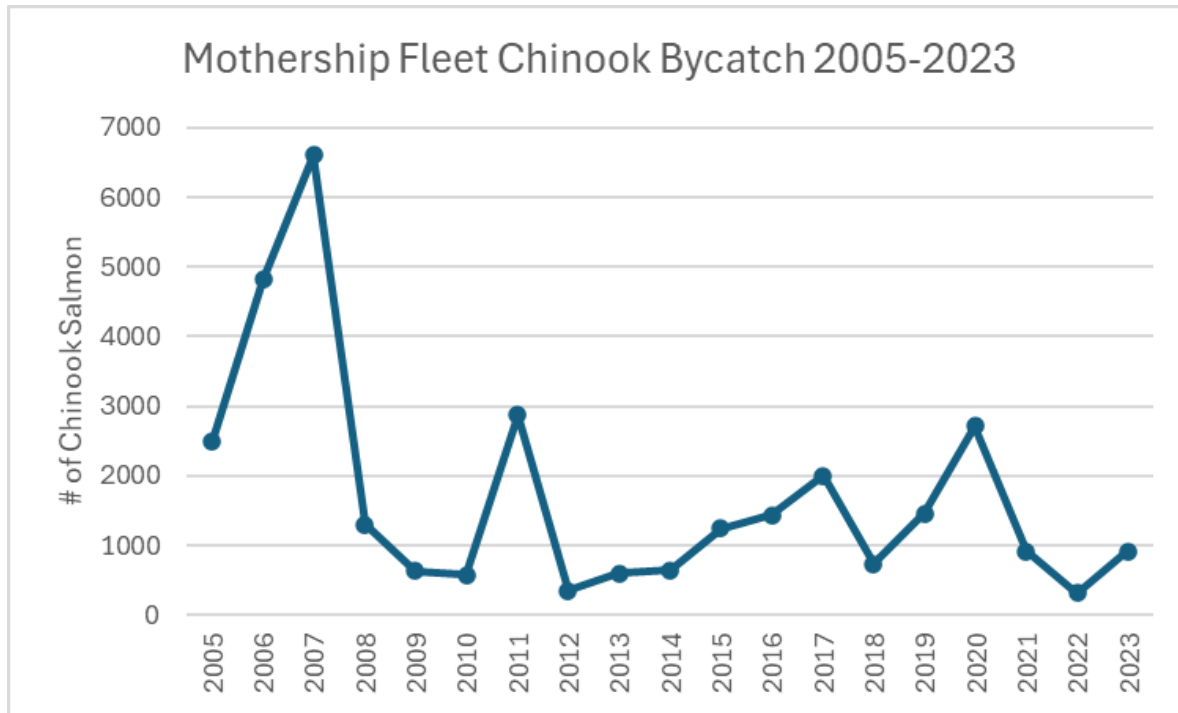
History of Inshore Chinook Bycatch 2005 – 2023 (19 yrs)



2023 Inshore IPA Chinook	
	# of Chinook Salmon
Inshore Chinook Limit	25,020
Inshore Performance Std.	18,525
Buffer (Insurance)	500
A season Chinook Bycatch	4,435
B season Chinook Bycatch	806
Total 2023 Inshore Chinook Bycatch	5,241
Total 2023 Remaining	13,784
Total 2023 Credits	4,339

2023 Mothership IPA Report • MSSIP

- All AFA MS CVs were members of the 2023 Mothership IPA



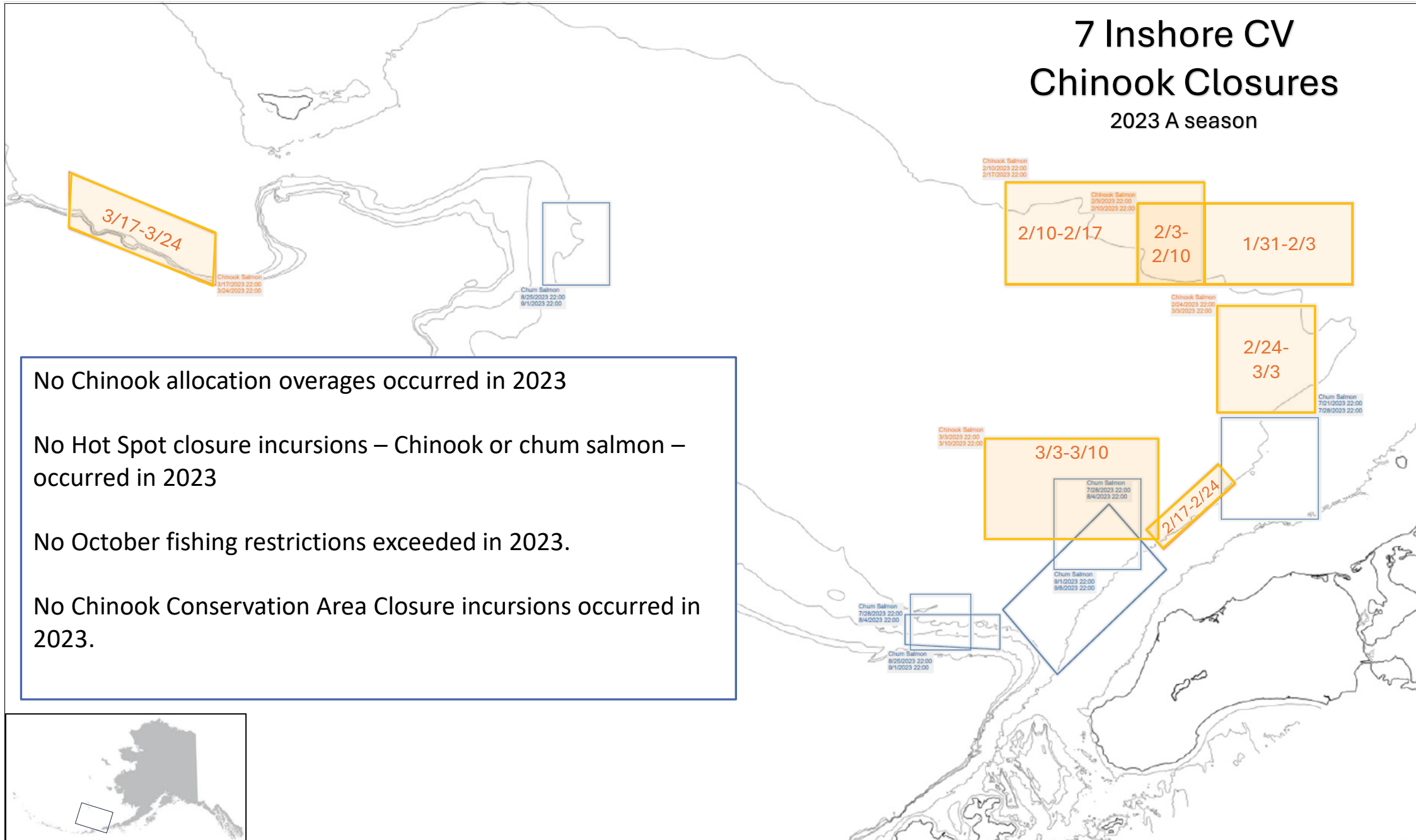
2023 Mothership Chinook Salmon Bycatch Summary

- 2023 managed under a lower Chinook limit and performance standard.
- A season Rate: 68.4 mt pollock/1 Chinook
- B Season Rate: 341.1 mt pollock/1 Chinook

2023 Mothership IPA Chinook	
	# of Chinook Salmon
Mothership Chinook Limit	3,510
Mothership Performance Std.	2,599
Buffer	35
A Season Chinook Bycatch	735
B Season Chinook Bycatch	183
Total 2023 MS Chinook Bycatch	918
Total 2023 Remaining	1,646
Total 2023 Credits	734

7 Inshore CV Chinook Closures 2023 A season

- Chinook Closures (A season)
- Chum Closures (B season)

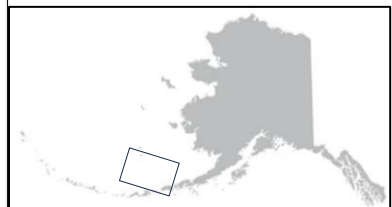


No Chinook allocation overages occurred in 2023

No Hot Spot closure incursions – Chinook or chum salmon – occurred in 2023

No October fishing restrictions exceeded in 2023.

No Chinook Conservation Area Closure incursions occurred in 2023.

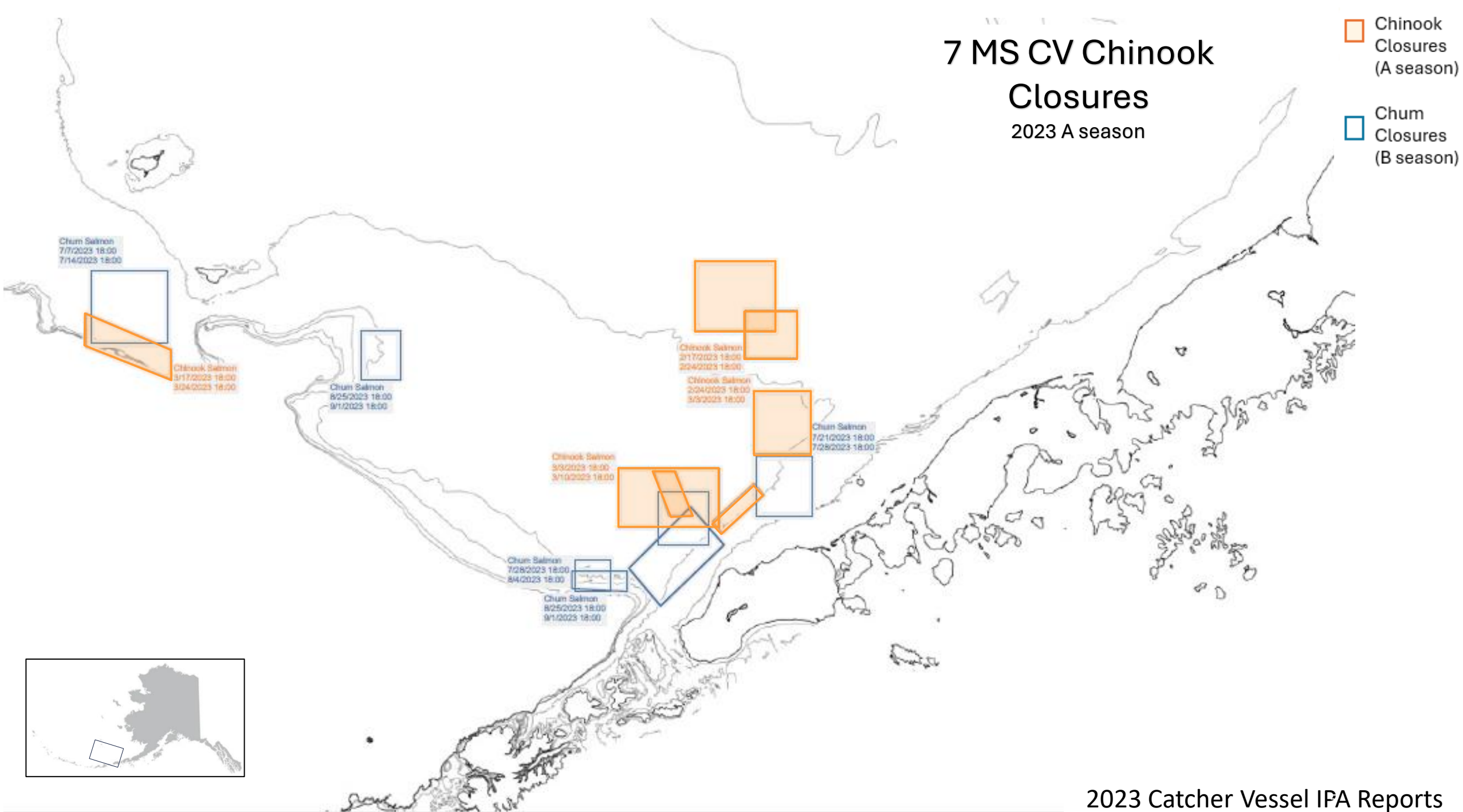


Map based on Longitude and Latitude. For marks layer Latitude: Color shows details about Begin Date Time Weekday. Details are shown for Closure and Area Composite Id. For marks layer Geometry: Color shows details about Species Code. Details are shown for Closure and Area Composite Id. The data is filtered on Sector Code and Begin Date Time Year. The Sector Code filter keeps CV. The Begin Date Time Year filter keeps 2023. The view is filtered on Species Code and Exclusions (Advisory Only Text, Begin Date Time Description, Closure and Area Composite Id, Coordinate Number, End Date Time Description, Latitude, Longitude, Name, WEEKDAY (Begin Date Time)). The Species Code filter keeps 221 and 222. The Exclusions (Advisory Only Text, Begin Date Time Description, Closure and Area Composite Id, Coordinate Number, End Date Time Description, Latitude, Longitude, Name, WEEKDAY (Begin Date Time)) filter keeps 2,479 members.

7 MS CV Chinook Closures

2023 A season

- Chinook Closures (A season)
- Chum Closures (B season)



2023 Catcher Vessel Chum Salmon Bycatch Summary

The 2023 chum salmon genetic data revealed 10.6% of average chum bycatch originated from the Combined WAK stocks

- 8.3% of chum bycatch originated from Western Alaska
- 2.3% originated from Upper/Middle Yukon

INSHORE CVs

- 2023 Total inshore chum bycatch: 66,659 fish (~50% reduction in overall chum from 2022)
- The estimate of 2023 inshore sector chum salmon bycatch from combined coastal Western Alaska stocks is 9,465 chum
 - WAK proportion (11.6%) : 7,732 chum
 - Upper/Middle Yukon proportion (2.6%): 1,733 chum
- 6 Chum Rolling Hotspot Closures in 2023

MOTHERSHIP CVs

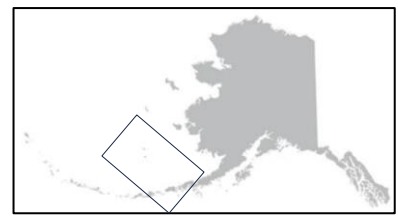
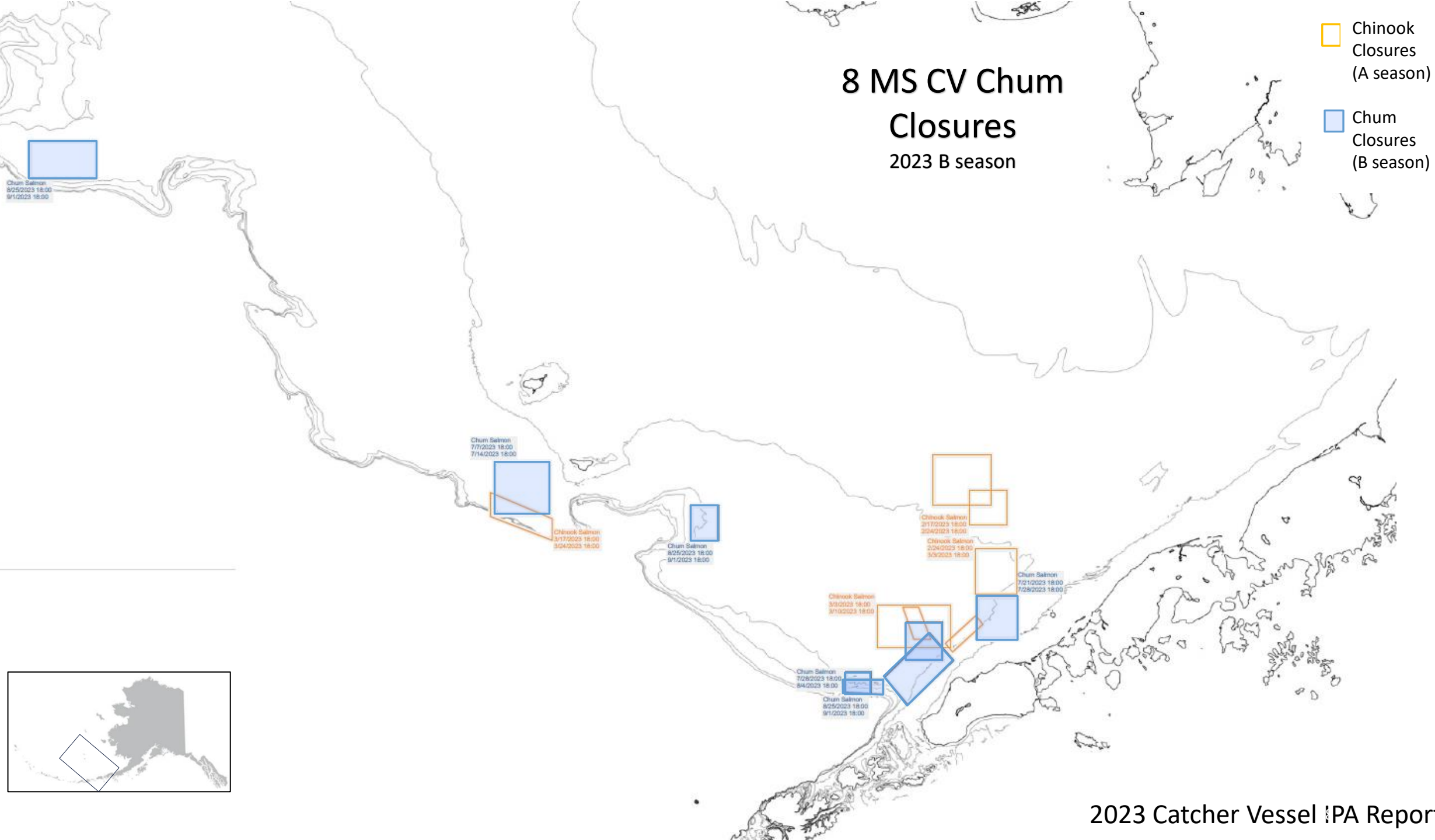
- 2023 Total mothership chum bycatch: 19,125 fish (~40% reduction in overall chum from 2022)
- The estimate of 2023 mothership sector chum salmon bycatch from combined coastal Western Alaska stocks is 956chum
 - WAK proportion (4.0%): 765 chum
 - Upper/Middle Yukon proportion (1.0%): 191 chum
- 8 Chum Rolling Hotspot Closures in 2023

- 2 Herring avoidance areas in 2023 B season (8/28 - 9/4)

8 MS CV Chum Closures

2023 B season

- Chinook Closures (A season)
- Chum Closures (B season)



Catcher Vessel Chum Avoidance Proposal

Catcher Vessel Chum Work Group

- Inshore representatives
- Mothership Representatives
- Sea State analysts and data monitor

Operational differences and similarities for consideration

- Deliveries: at sea per haul vs shoreside per trip
 - Distance to processor
 - Data availability
- Vessel sizes and capacity
 - Safety
 - Efficiency
- Communication and information sharing



Catcher Vessel Chum Avoidance Proposal

Analyses conducted for chum bycatch and stock of origin is based on fishery dependent data (pollock fishery catch data)

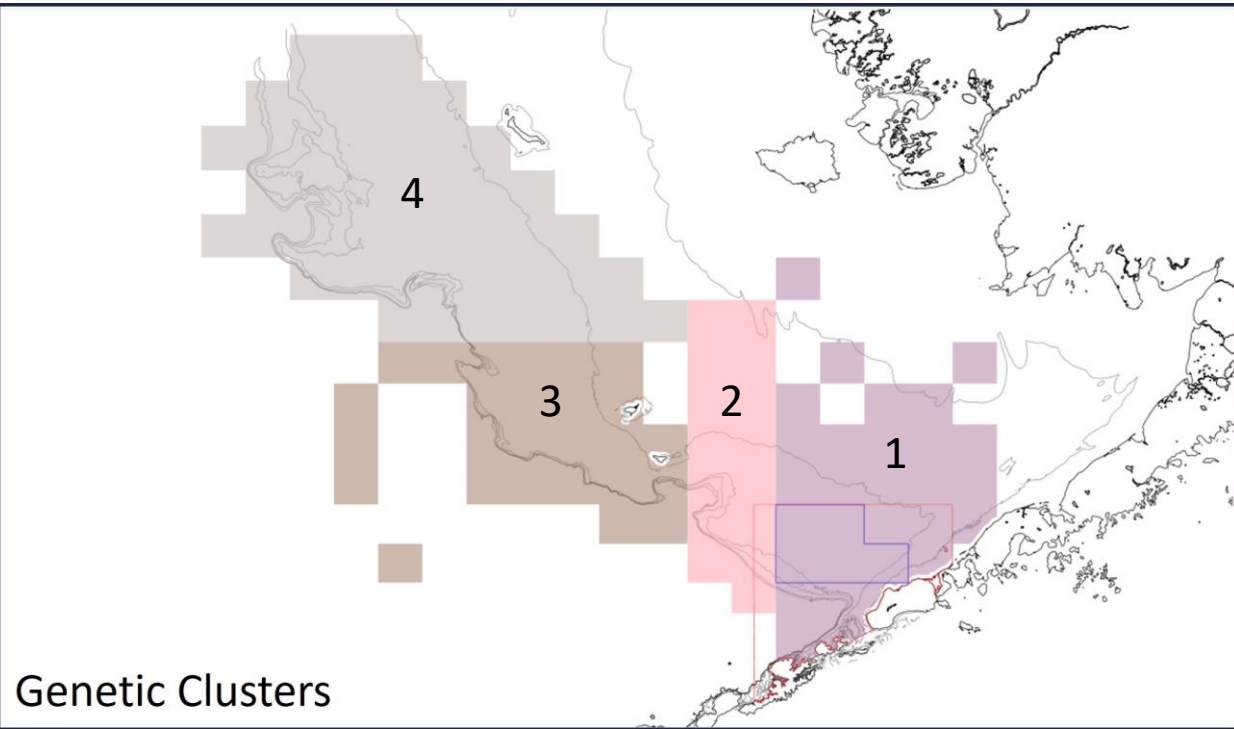
Analyses and Evaluation

- Option 1, trigger 1 and trigger 2 values
- Adjusted base rates to implement closures
- Adjusted closure area size
- Adjusted closure duration
- *Application of closures to all vessels*
- *Genetic data*
- Genetic cluster thresholds
- *Additional vessel level incentive/penalties*

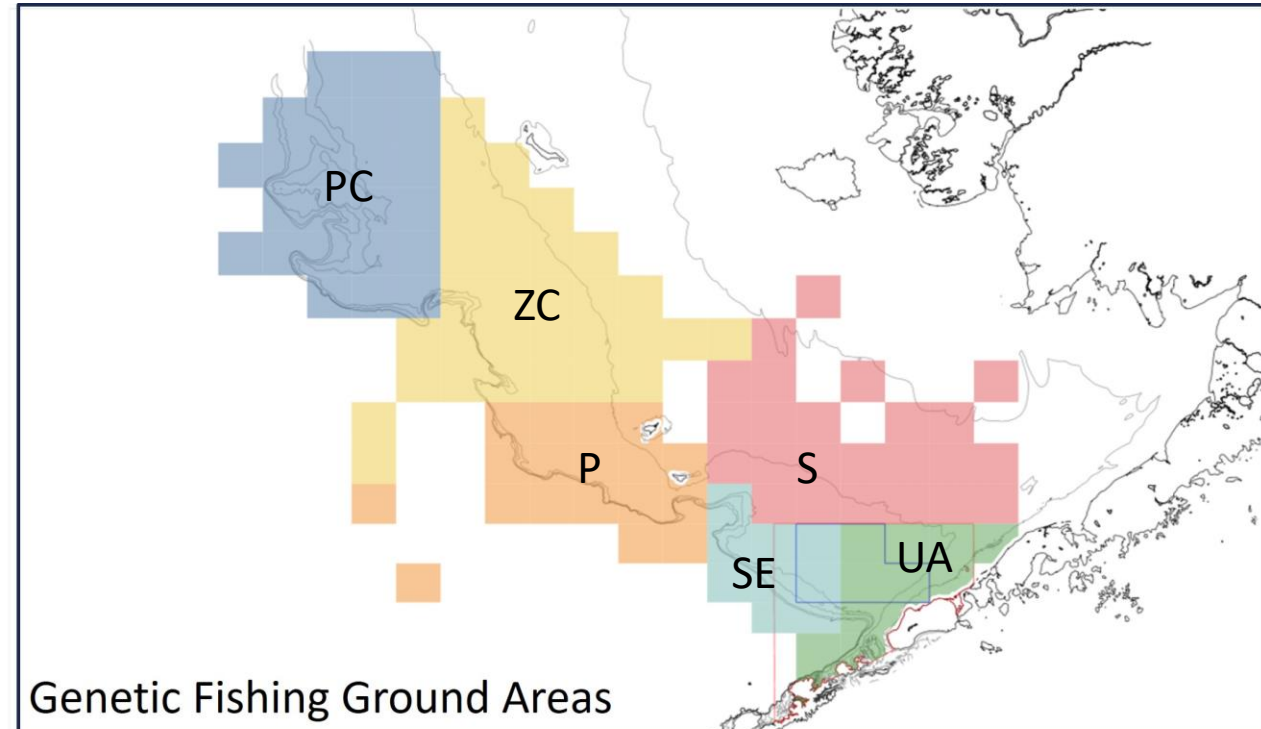
Performance Metrics

- B Season likely to be extended and increased Chinook bycatch
- **Likely effectiveness to reduce WAK chum bycatch and overall chum bycatch**
- Compatible with fishing operations and complex fishing dynamics
- Complimentary to current and new tools

Genetic Areas



- Spatial Stratum
- Cluster 1
 - Cluster 2
 - Cluster 3
 - Cluster 4

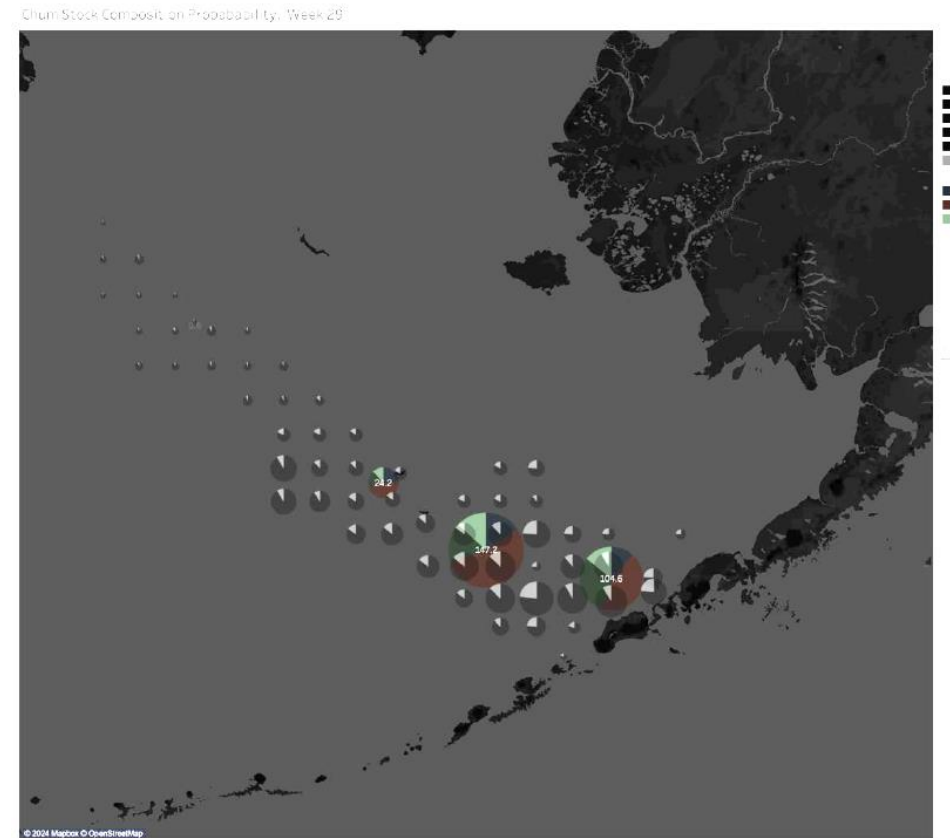


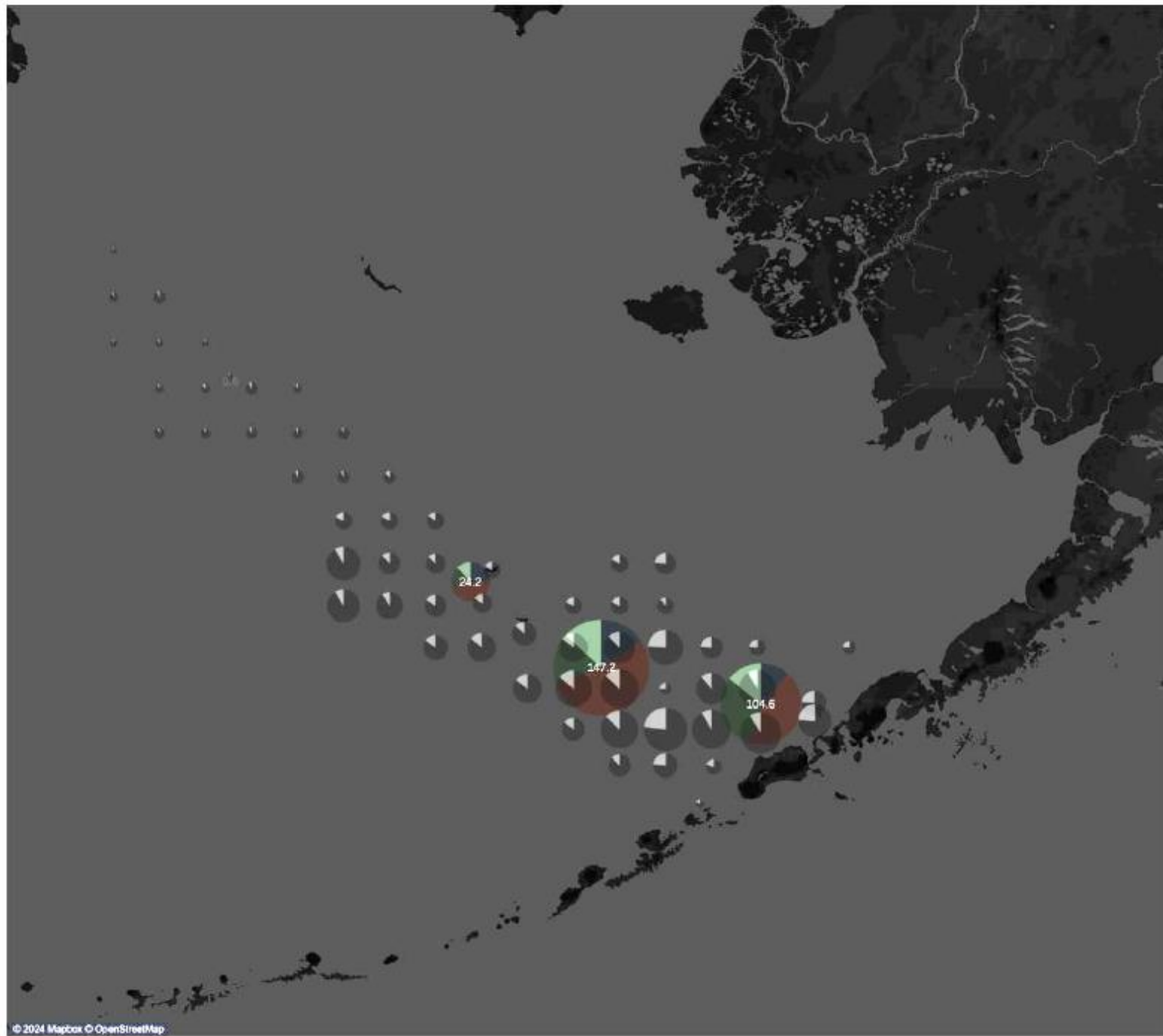
- Spatial Stratum
- Unimak Area
 - Shelf edge
 - Shelf
 - Pribilofs
 - Pervenets Canyon
 - Zhemchug Canyon

Prioritize Avoidance WAK Chum Bycatch

1: Weekly assessment of the likelihood of Western Alaska chum by stat area when determining weekly chum closures.

- Applied in-season and in tandem with the weekly Rolling Hotspot program and its parameters
- Supported by a database of historic annual genetic data that will continue to be added to
- Generates the estimated mixing of chum stocks visually in the form of a pie chart so the monitoring agent can quickly determine if an ADFG stat area with higher chum bycatch rates is more or less likely to have WAK chum, per week. Time-area estimates.
- Any genetic cluster or fishing ground area.
 - When thinking about the genetic clusters and displacing effort, we had to consider the sizes and capacity of the smaller vessels in the fleet for safety and operations.
- Can weigh the effectiveness of two contending closure areas if and when that occurs in the B season
- We anticipate this tool to lessen the proportion of WAK chum incidentally caught by the catcher vessels and allow management to better adapt to weekly dynamics.





Minimize WAK Chum Salmon Bycatch to the Extent Practical

Proposed Provision 2: Rolling hotspot closure for all catcher vessels when chum bycatch is 3 times the weekly base rate.

- When triggered this tool applies the chum closure area to all CVs, regardless of an individual vessel's performance that week.
 - The chum closure area will have already been assessed for the likelihood of estimated WAK Chum.
- Creates redundancy and acts as a safe-guard after a RHS closure is created
- We anticipate this tool to reduce peaks in chum bycatch and lower WAK chum proportions.
- Incentivizes the fleet to work together and maintain a low chum bycatch rate.
- Retrospectively, since 2020, four (4) RHS closures would have been closed off to all CVs if this tool had been in place.
 - i. All 4 would have been in 2021 and 2022.
 - ii. 3 of 4 were in the Unimak and Shelf Edge fishing ground areas (Clusters 1 and 2) where higher estimates of WAK Chum have been historically.
- Less likely to extend the B season into the fall or risk increases in Chinook bycatch than a larger or longer duration closures would in those areas.

Example:

If the chum base rate is set at 0.19 and the catcher vessel fleet's bycatch rate that week is 0.39, a RHS closure is placed, and the vessels adhere to their tier designation and all tier 2 vessel are required to stay out of the RHS closure.

If the chum base rate is set at 0.19 and the catcher vessel fleet's bycatch rate that week is 0.61, then all CVs in the fleet would be required to stay out of the RHS closure, no matter how clean they fished that week.

***Note that the RHS closure will have already been assessed when set on Thursday for the likelihood of high estimated WAK Chum.**

Minimize WAK Chum Salmon Bycatch to the Extent Practical

Proposed Provision 3: Monday chum rolling hotspot closures.

- This tool requires the managers to assess the chum bycatch and fishing conditions twice per week – on Thursdays and Mondays
- Incorporates ANY data including but not limited to numerical data, skipper information, local knowledge, etc.
- Used on a week-to-week basis after the week's bycatch and RHS closure has been assessed for likelihood of WAK chum.
- Compliments the RHS Program
- Can result in all catcher vessels being subject to a chum closure, closure boundary extensions, new advisory areas, etc.
- We anticipate this tool to reduce peaks in chum bycatch and lower WAK Chum proportions.
- While developing and assessing this tool we investigated a 2-week closure rather than a 1-week
 - i. 2-week closure had increased the probability of extending the B season into the fall and increasing Chinook bycatch
 - ii. 1-week duration balances the trade offs and if necessary, we are able to re-instate a closure the following week, either as a RHS closure or as an advisory area.

Example:

If pollock are tightly aggregated in one area and the chum bycatch rate that week only slightly exceeds the base rate (not 3x or more), then a RHS chum closure would be placed on Thursday resulting in tier 2 vessels not allowed to fish in the RHS closure area. The tier 1 vessel could continue fishing with caution inside the RHS closure area. But, if over the weekend the tier 1 vessels cannot maintain clean fishing, or a captain calls and tells us the chum got thicker and they left the area, then on Monday we can close the RHS closure to all vessel regardless of tier or how clean they are fishing.

***Note that the RHS closure will have already been assessed when set on Thursday for the likelihood of high estimated WAK Chum.**

Avoid Chum Salmon Bycatch to the Extent Practical

Proposed Provision 4: Move Along Rule

- It's an avoidance tool used best by aggregated groups of vessels like a mothership and associated catcher vessels, or inshore coop's fleet of catcher vessels.
- This tool would look different for inshore catcher vessels and mothership catcher vessels due to operational differences regarding timeliness of catch data.
- When fully developed, this would be a day-to-day tool.
- The Mothership fleet in the Pacific Whiting fishery uses a move along rule based on a 3-day rolling average using haul-by-haul data and communication.
- CV data currently has a lag associated with it and would have to be supplemented with skipper information.
- Continuing work to determine a threshold for either sector with careful consideration to not create unintended consequences.
 - i. Mainly due to the complexities involved with moving from one area of chum encounters to potentially another.
 - ii. Must be careful not to move our fleets into areas with greater WAK chum likelihoods but also have to reduce our overall bycatch.
 - iii. Will consider tactics we currently use to move the fleet (available due to AFA Coop Structure).
- A move along rule would help avoid large peaks in chum bycatch and potentially reduce chum encounter rates.

Recommended IPA Regulatory Language Changes

The following recommendations support the catcher vessel proposed provisions.

Additive changes to [50CFR 679.21\(f\)\(12\)\(iii\)\(E\)](#) are to ensure new or enhanced tools that focus on WAK chum avoidance are included in the CVs Incentive Plan Agreements.

1. Require the fleets to describe in their IPA how historical genetic stock composition data is included in chum salmon avoidance measures. (aligns with CV proposed provision 1)
2. Require the Catcher Vessel fleets to describe in their IPA the restrictions or penalties for catcher vessels that have significantly higher chum bycatch. (aligns with CV proposed provision 2 and the current tier designations)
3. Require the AFA pollock sectors to describe in their IPAs how they monitor for potential chum salmon avoidance closures more than once per week. (aligns with CV proposed provision 3)
4. Require the use of salmon excluders for the duration of A and B season.

Current Regulations of IPA Measures

50CFR 679.21(f)(12)(iii)(E)

- (E) *Description of the incentive plan.* The IPA must contain a description of the following—
- (1) The incentive(s) that will be implemented under the IPA for the operator of each vessel participating in the IPA to avoid Chinook salmon and chum salmon bycatch under any condition of pollock and Chinook salmon abundance in all years.
 - (2) How the incentive(s) to avoid chum salmon do not increase Chinook salmon bycatch.
 - (3) The rewards for avoiding Chinook salmon, penalties for failure to avoid Chinook salmon at the vessel level, or both.
 - (4) How the incentive measures in the IPA are expected to promote reductions in a vessel's Chinook salmon and chum salmon bycatch rates relative to what would have occurred in absence of the incentive program.
 - (5) How the incentive measures in the IPA promote Chinook salmon and chum salmon savings in any condition of pollock abundance or Chinook salmon abundance in a manner that is expected to influence operational decisions by vessel operators to avoid Chinook salmon and chum salmon.
 - (6) How the IPA ensures that the operator of each vessel governed by the IPA will manage that vessel's Chinook salmon bycatch to keep total bycatch below the performance standard described in [paragraph \(f\)\(6\)](#) of this section for the sector in which the vessel participates.
 - (7) How the IPA ensures that the operator of each vessel governed by the IPA will manage that vessel's chum salmon bycatch to avoid areas and times where the chum salmon are likely to return to western Alaska.
 - (8) The rolling hot spot program for salmon bycatch avoidance that operates throughout the entire A season and B season and the agreement to provide notifications of closure areas and any violations of the rolling hot spot program to the third party group.
 - (9) The restrictions or penalties targeted at vessels that consistently have significantly higher Chinook salmon PSC rates relative to other vessels fishing at the same time.
 - (10) The requirement for vessels to enter a fishery-wide in-season salmon PSC data sharing agreement.
 - (11) The requirement for the use of salmon excluder devices, with recognition of contingencies, from January 20 to March 31, and from September 1 until the end of the B season.
 - (12) The requirement that salmon savings credits are limited to a maximum of three years for IPAs with salmon savings credits.
 - (13) The restrictions or performance criteria used to ensure that Chinook salmon PSC rates in October are not significantly higher than those achieved in the preceding months.



Questions
