

Northwest Setnetters Association Analysis and Solutions:

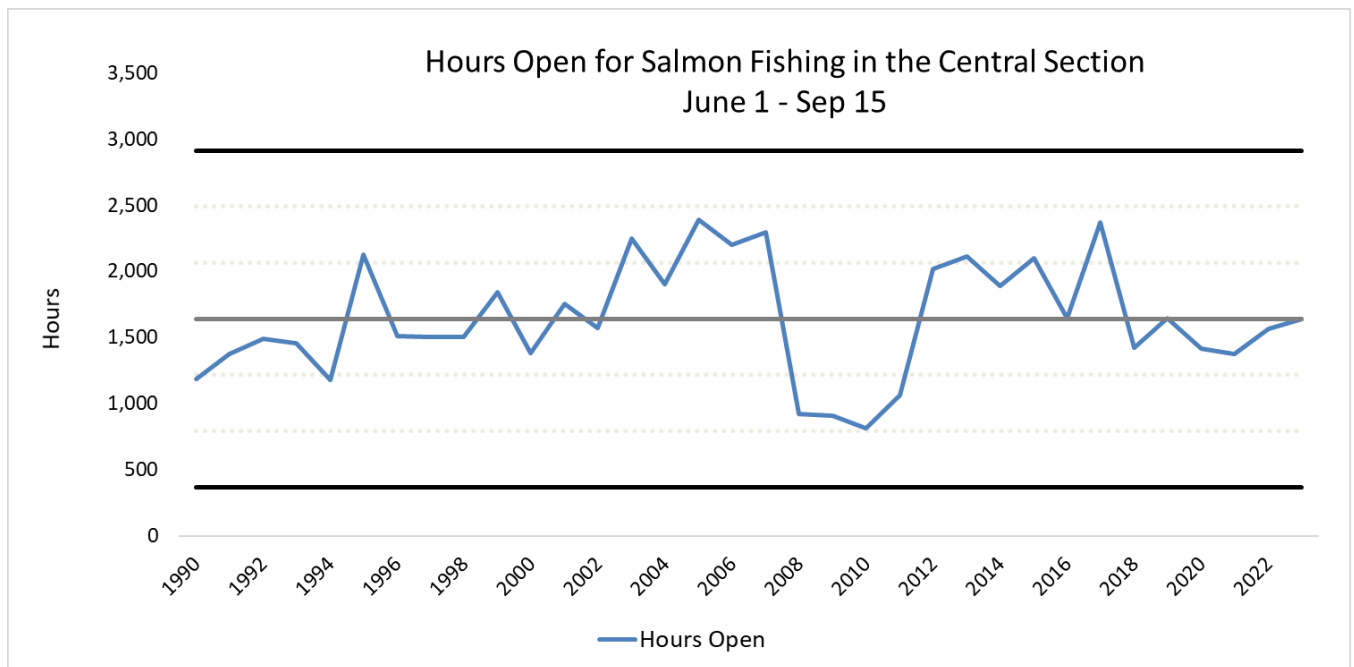
Below is our discussion of factors that have been brought up in our discussions with the AC and community, and our analysis of which ones are actually contributing to the decline of the setnet catch.

1. Management Changes

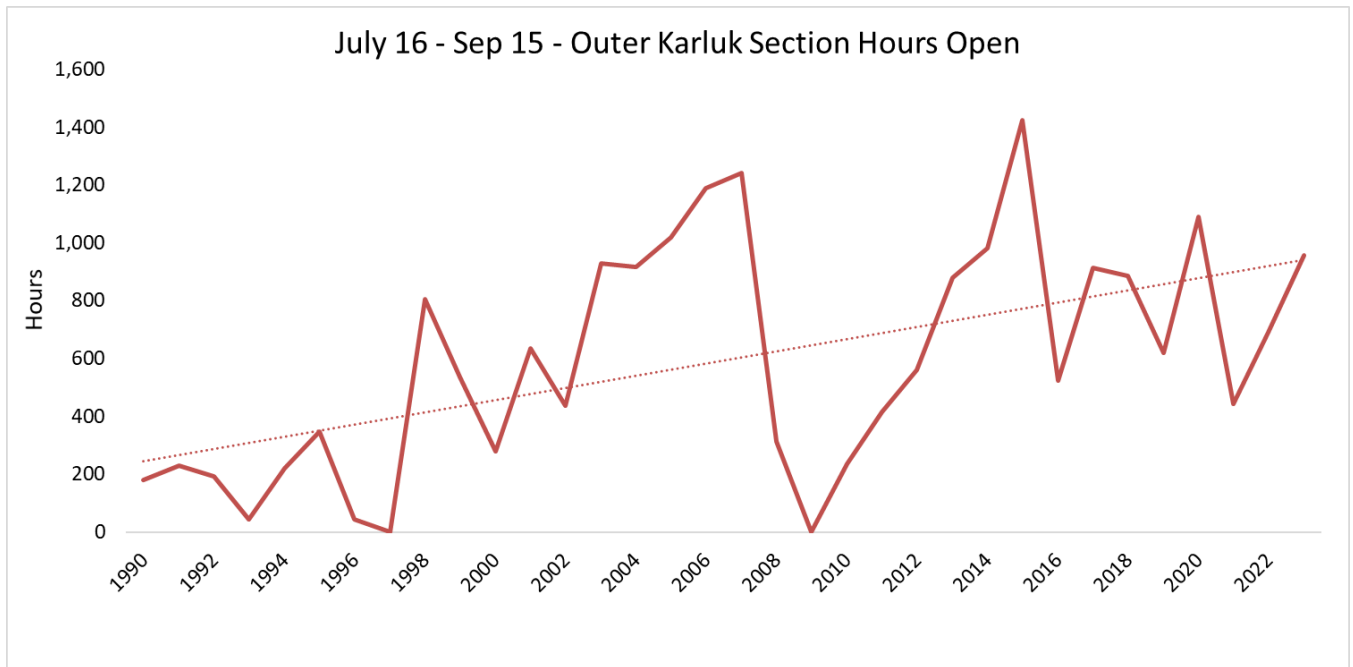
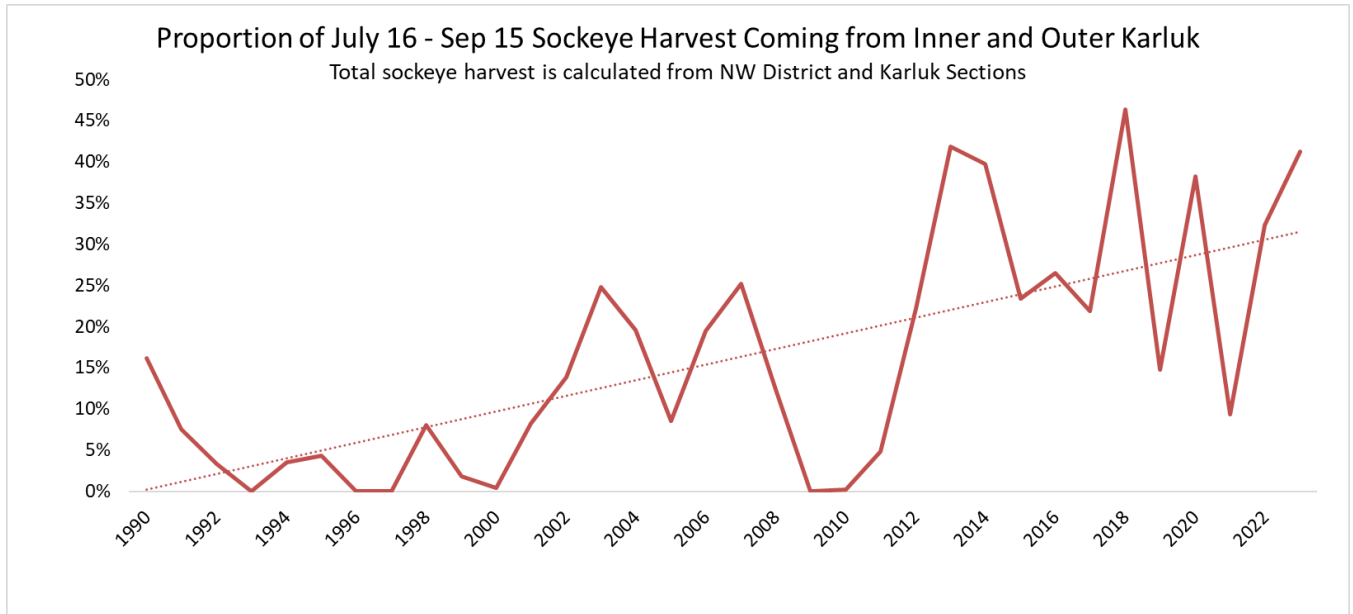
- Is lack of fishing time a factor in the setnet catch percentage decline? **NO**
 - Fishing time in the Central Section has remained stable.

- Has management shifted to favor fishing in the Karluk Sections? **YES**
 - The harvest of the late Karluk run overall is stable, but the allocation of that harvest has shifted from the Central Section to the Karluk Sections which are seine only.
 - The fishing time in the Outer Karluk has been on a steadily increasing trend. The Outer Karluk section has also had more openings concurrently with the Central Section directly after a Central Section Closure.
 - Late Karluk escapement has been stable, so there’s no justification for these trends.
 - Even the less robust early Karluk run has seen, on average, 15 days of openings in the Outer Karluk section during the early run period.

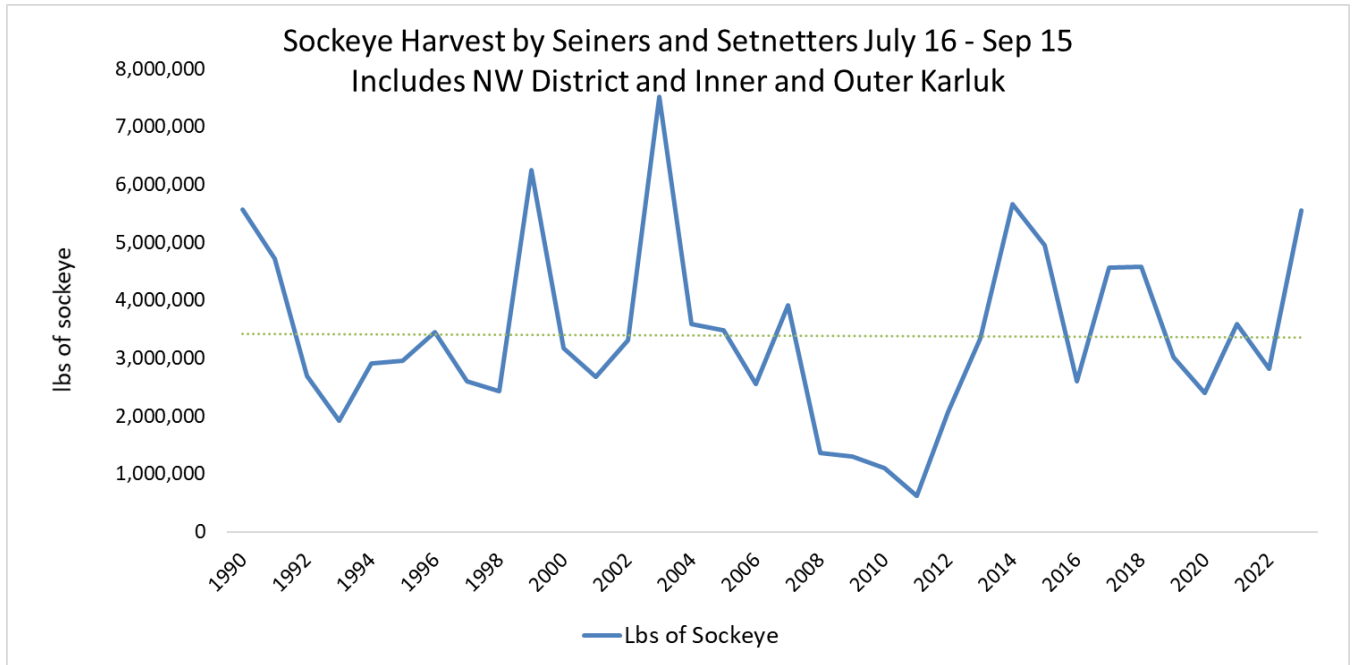
This graph shows that fishing opportunity in the Central Section has held steady and there is no decrease in opportunity to explain the decline.



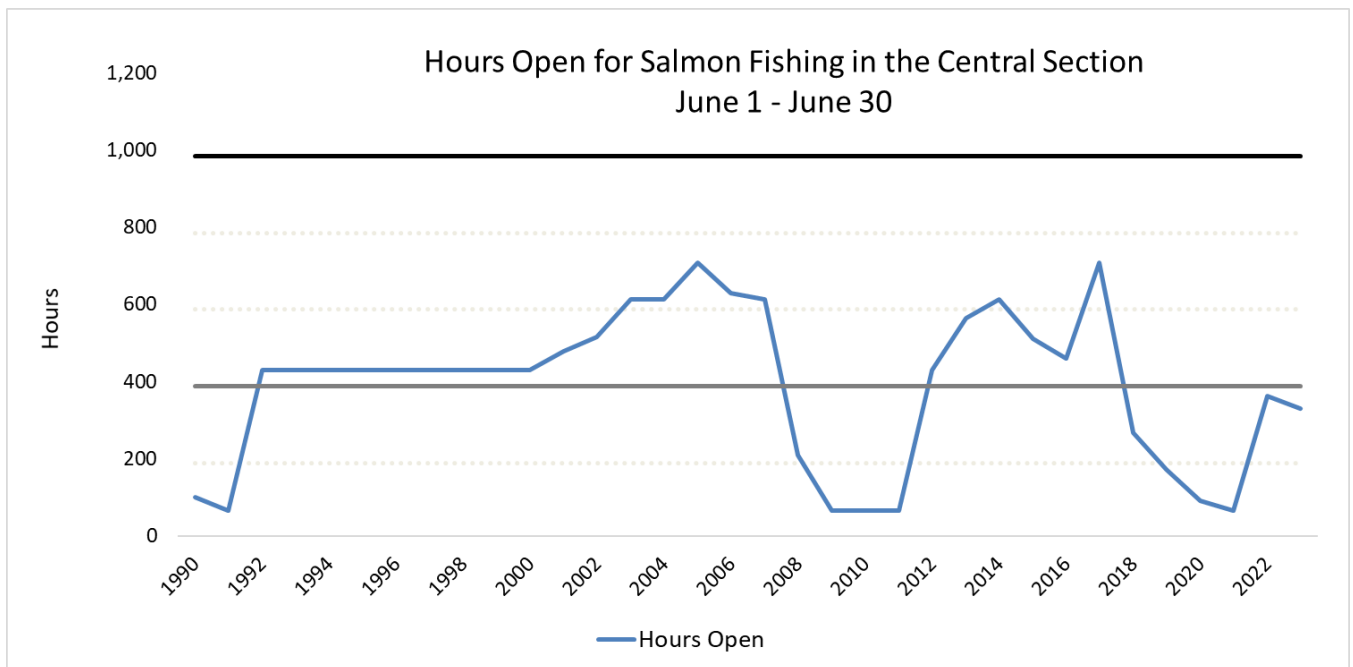
These graphs show that an ever-increasing proportion of the late Karluk sockeye harvest has come from the seine-only Karluk sections. This corresponds to ever increasing opportunity in those sections.



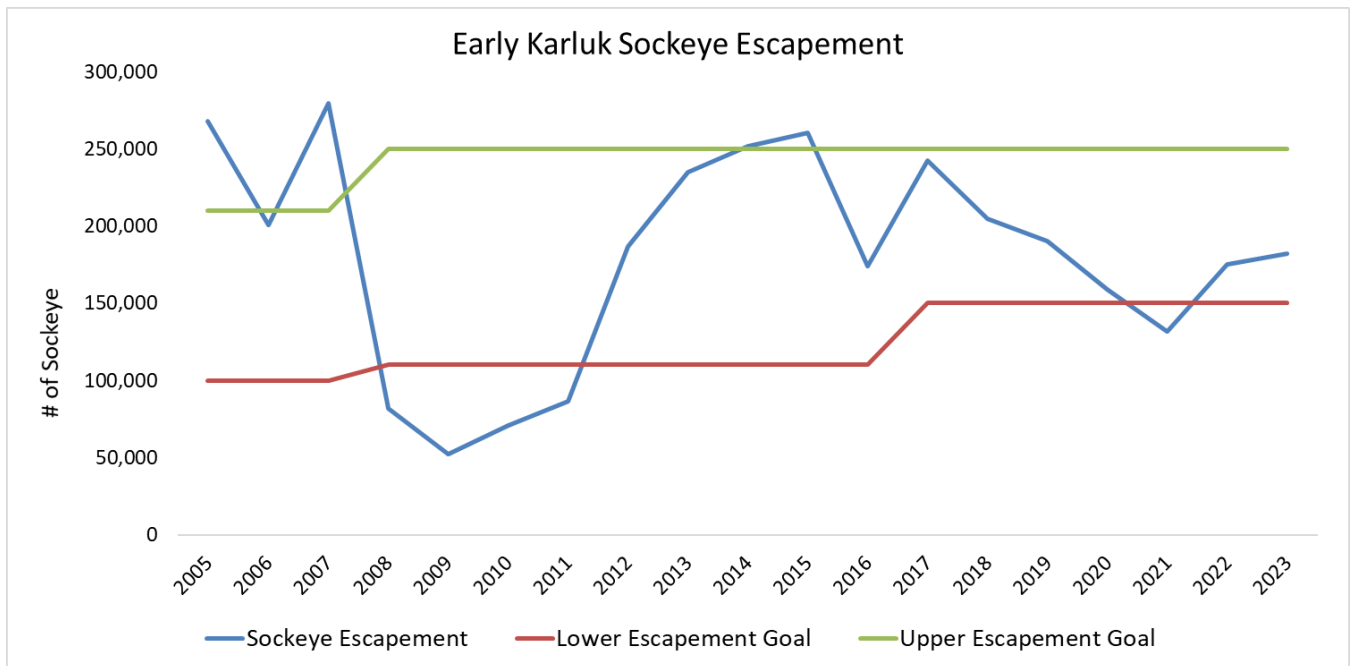
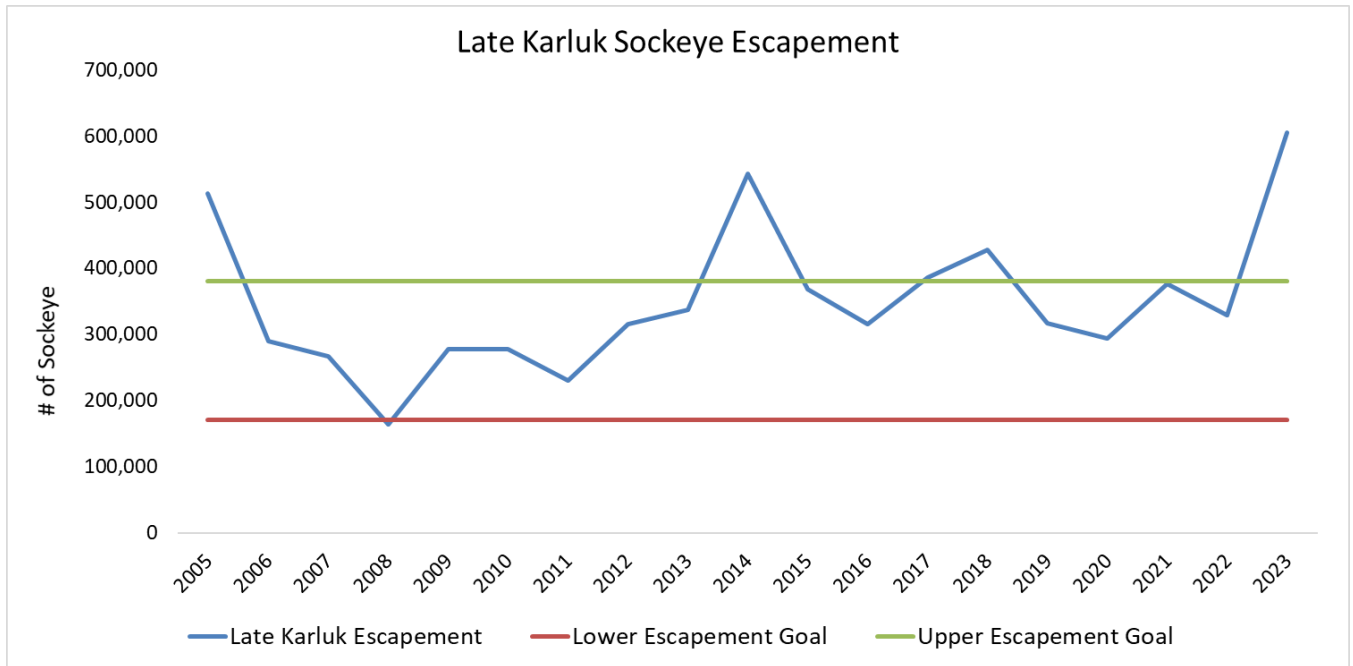
This graph shows that the harvest of late Karluk sockeye has been stable. There is no decrease in run strength to explain the setnet decline.



This graph shows that although there was a decline in opportunity in the Central Section in June from 2018-2021, there was abundant opportunity before and after that, so this does not explain that decade of catch decline experienced by NW setnetters.



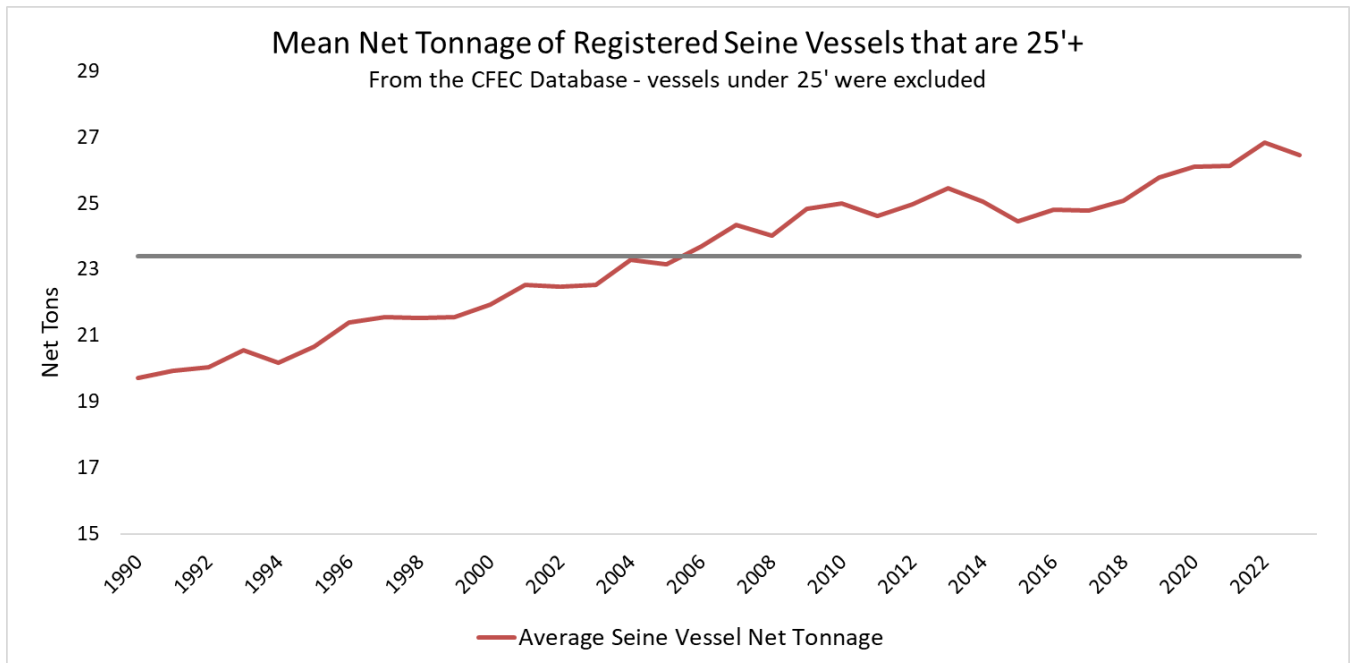
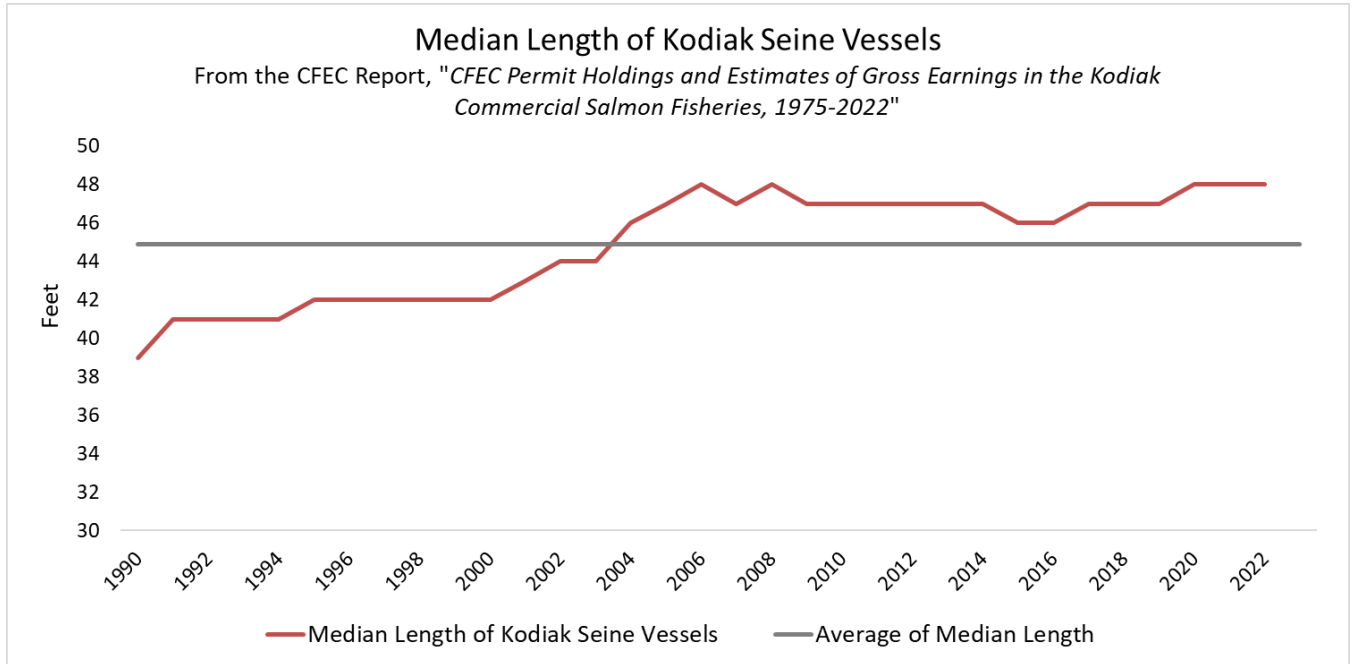
These graphs show that, aside from the well-documented Karluk crash in 2008 and a few huge late returns, escapement on both the early and late runs has generally been within the bounds of the escapement goals. Poor runs do not explain the NW setnet decline.



2. Effectiveness of the Seine Fleet

• Increased efficiency of the seine fleet? **YES**

- Kodiak seine fleet vessels have increased in size, in both tonnage and length, which has allowed seiners to fish in heavier weather and leave the grounds to deliver less often, thereby increasing their efficiency. Larger more powerful seine skiffs allow seiners to haul heavier lead lines and newly adopted rib lines, against the tide like a trawl net. While the seine fleet has acted legally and rationally by upgrading the size of their boats and gear, the effect of these changes has been to drastically reduce the catch by the stationary setnet fleet.



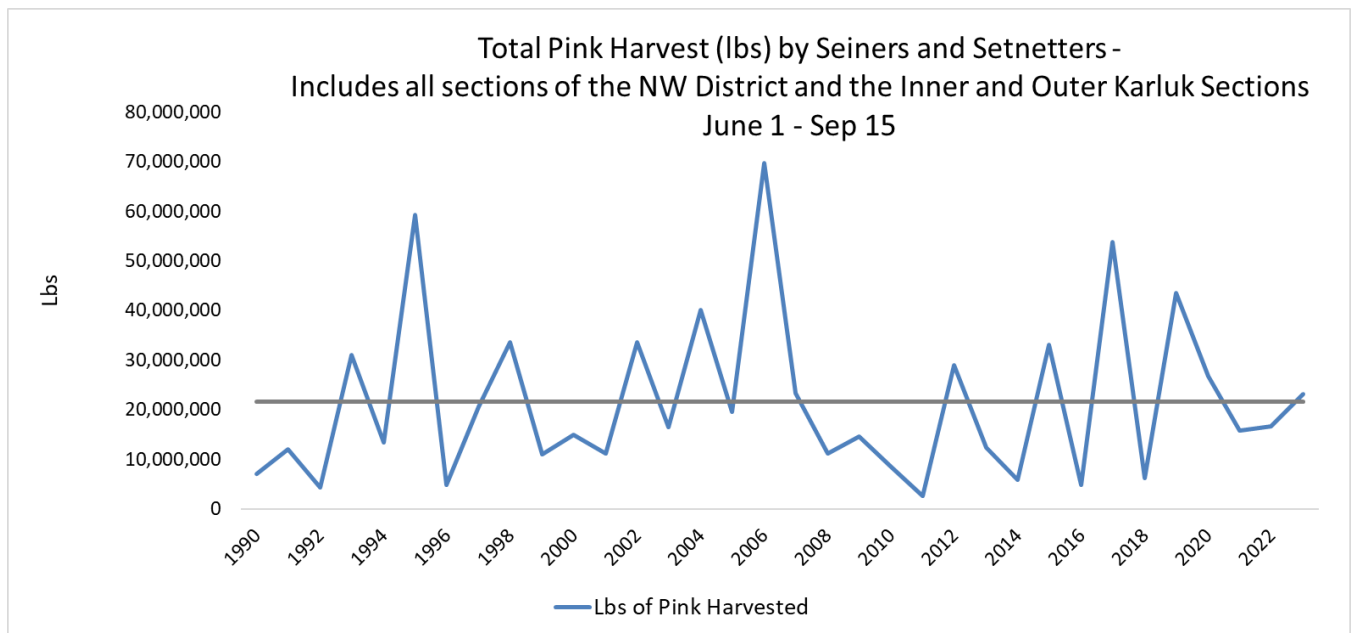
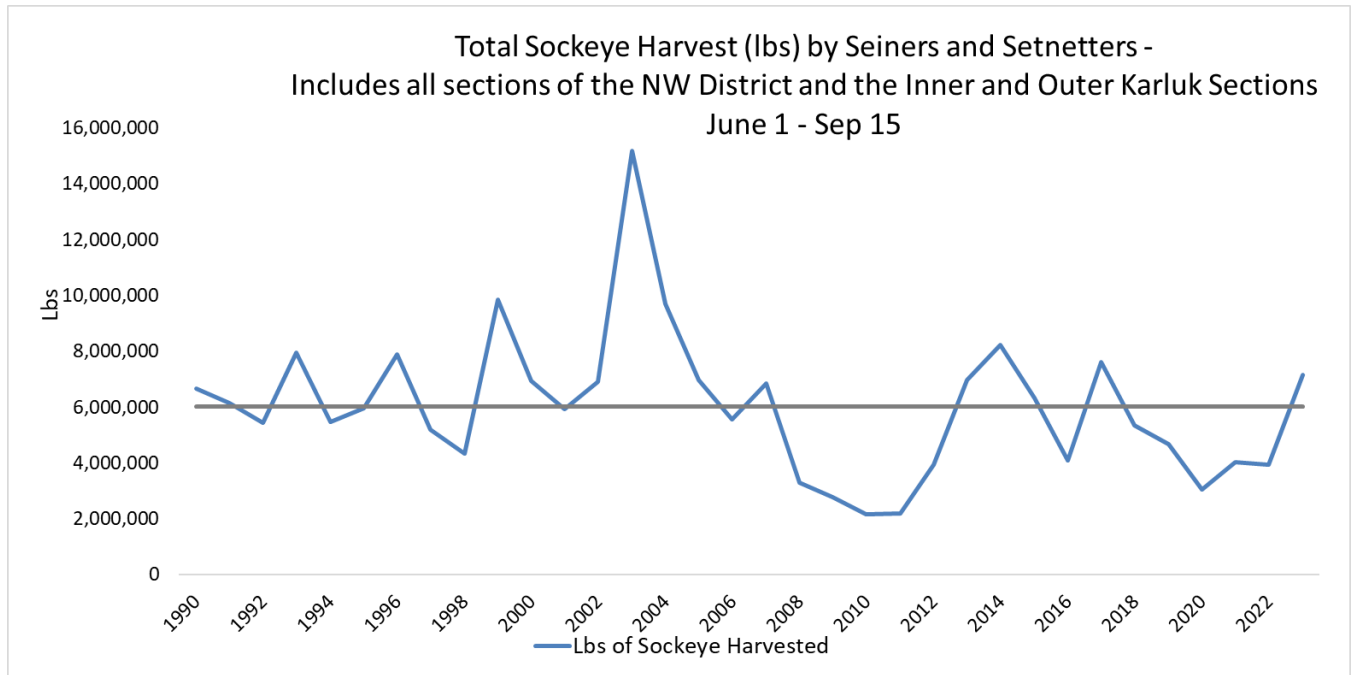
3. Environmental Factors

- Were there fewer fish to be caught in the mixed gear Central Section, resulting in a lower setnet catch percentage? **NO**
 - The total harvest of fish by BOTH gear groups combined has remained stable over time. There are no significant trends in overall harvest, aside from a large sockeye harvest in 2003 and a large pink harvest in 2006.

- Did slime reduce setnet harvest? **Marginally**, in a few bad years.
 - In January 2020, the Northwest Setnetters came to the Board of Fish with concerns about slime coating our nets during some periods, making them unfishable. The board allowed us to regain some lost harvest opportunities through the use of monofilament web. Many setnetters adopted monofilament and found that, while it may have a slight effect in the hook end of the net since it can be shaken clean more easily, the overall effect is negligible. Setnetters experienced NO slime in 2023 – it was the best year for clean waters that we can remember - and results were the same, if not worse, in terms of fish making it to our nets. Slime is not the cause of our continued loss of harvest. Indeed, it is present for some time in some seasons but is a small factor in the decline of our catch, indicated by the fact that the small efficiency of monofilament, and this year’s slime-free season has not mitigated the lack of fish making it to our nets.

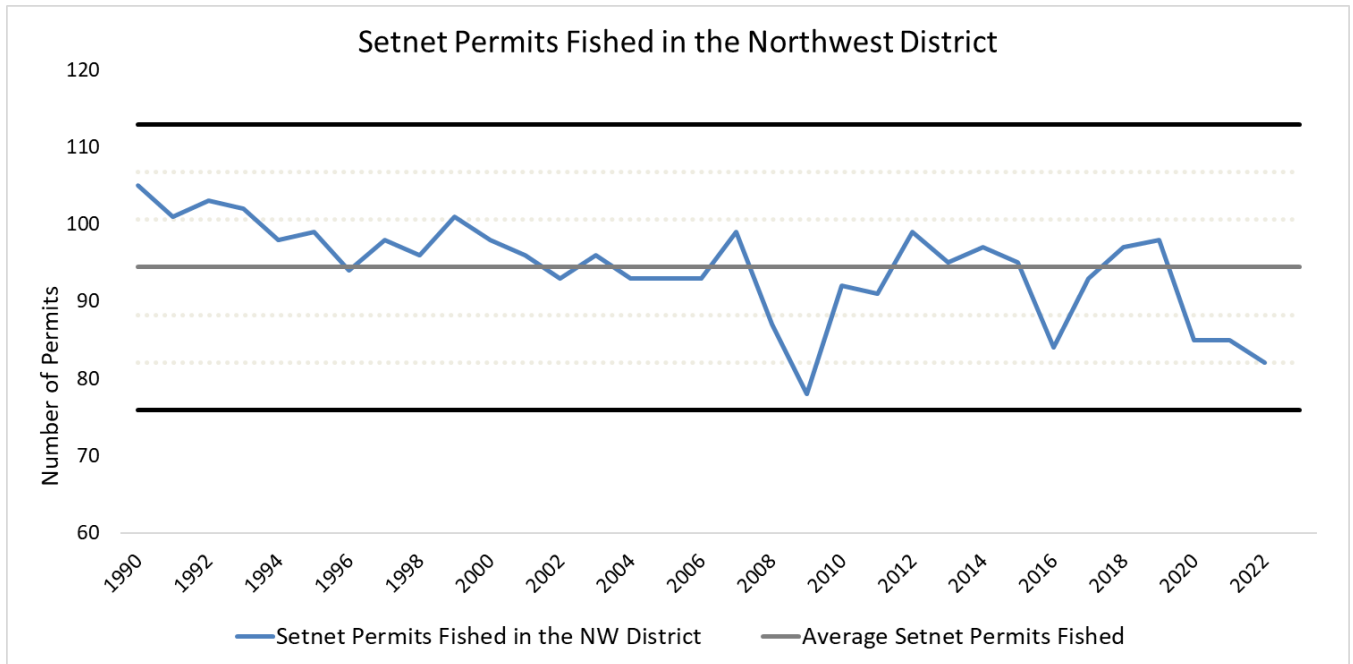
- Are changes in salmon size a factor in setnet catch decline? **NO**
 - The data show that pink salmon size is statistically stable, while red salmon size has declined. Since pinks are smaller than sockeye, setnetters are easily able to capture sockeye in their humpy nets. Many setnetters have multiple nets with different web sizes for different parts of the season. Additionally, while pinks were larger in 2016, fewer seiners fished that year because there were few pinks to be caught, resulting in a federally declared disaster year.

These graphs show that both pink and sockeye harvests have been stable over time. Taking into account both gear types in both combined and terminal areas, these stable overall harvests do not explain the NW setnet decline.



4. Setnet Effort

- Reduced effort of setnet fleet? **NO**
 - The number of permits fished declined only AFTER the decline in harvest percentage. The number of setnet permits fished was stable from a slight decline in the early 90s until a sharp drop in 2020. The reduced effort is a RESULT of the problem, not a cause. Setnetters are working harder than ever without seeing an increase in their personal harvests.
 - Counting the number of deliveries is not a reliable method of measuring effort. We do not have to deliver every day due to ice and RSW capacities and often our regular delivery schedule is now every other day as the tenders make their run back to town. In the past, twice-a-day deliveries were normal. Additionally, multi-permit operations deliver on one card per day.



Proposed Solutions:

Our organization has submitted four proposals. Proposal 70 is the most comprehensive solution to our problem, while proposals 62 and 64 are possible tools that may help regain a more equitable harvest percentage. Proposal 71 is a housekeeping item that adds flexibility for the managers and benefits the resource and both gear types.

PROPOSAL #70: Allocation

Proposal 70 would allow managers to use separate time and area openings for seiners and setnetters to aim for historic catch percentages between the two gear groups, while also managing for escapement.

While NWSA has put forward several other proposals addressing the loss of catch share by setnetters, we believe that Proposal 70 solves the problem in one comprehensive and easily measured way, with clearly identified targets. While the other proposals may help setnetters regain some of the catch share they have lost, their effect is not assured without catch percentage targets and would be measurable only at the end of the season. If they are not effective, or only partially effective, the Board of Fish will likely be revisiting this issue at the next cycle of Kodiak meetings.

An allocation plan would work best if catches and allocation targets were tracked by managers on a daily basis, together with escapement goals. Daily escapement and allocation tracking have been successfully accomplished in other areas of the state with mixed-gear fisheries allocation plans, particularly in Bristol Bay. Daily tracking would allow managers to gauge the effectiveness of time and area openings and closures to achieve both escapement and allocation targets and to modify their management as necessary to achieve those targets

The Board of Fish has the authority to allocate fish in Alaska between gear groups using historical, cultural, and economic criteria. Kodiak's West side setnet salmon fishery is historically, culturally, and economically valuable to Kodiak and the State. We believe it is appropriate and necessary for the Board of Fish to allocate Kodiak's salmon to restore the historically equitable percentages of catch share between seiners and setnetters, and thereby ensure the survival of the setnet fishery.

PROPOSAL #62: Additional Fishing Time for Setnetters

Proposal #62's main tenet is that west side set gillnets need time in the water without competing seine gear. NWSA believes that the ability of Fish & Game to manage setnet and seine gear separately, as laid out in this proposal, is imperative.

NWSA took an average of members' first day's delivery on each opening and looked at what additional time would be required to raise our harvest closer to historical levels. Using this method, 48 hours of additional fishing time before seiners begin to fish would get us closer to that mark.

Fish & Game's use of this separate management tool will provide an opportunity to setnetters and thereby bring our fishery closer to historical equity.

The proposal was written with the intent that setnetters would get 48 hours extra time at the front end of openings without shortening seine fishing time until continuous fishing periods happen. Under this

scenario using average values from the last 10 years, for the numbers of openers per season, setnetters would gain 20% more fishing time and during continuous fishing would also have 21% more time without the seine fleet in the water. This would result in an 8% loss of time for seiners in their Kodiak Management Area time-in-area fishing opportunities.

If we support the proposal as amended at the AC, it would allow the setnet fleet 24 hours of additional time at the front end of openings without shortening the seine fishing time at ALL. This would allow the setnet fleet 10% more fishing time and the seine fleet would lose 0% of their time in the Kodiak Management Area time-in-area fishing opportunities.

PROPOSAL #64: Modified Setnet Hook

Proposal #64 is a small gear modification to Kodiak set nets aimed at increased efficiency to turn around our failing share of the harvest.

Kodiak setnetters are allowed 150 fathoms of gillnet web, of which 25 fathoms may be a hook in any configuration. We are allowed an additional 50 fathoms of non-fishing lead web. Lead web is allowed to be fished from the low tide of the day to enable a setnet to get away from surf, rocks, and obstructions on the immediate shore where a setnet begins or is attached.

This proposal does not change the 150 fathoms allowed for each set net permit, nor does it change the allowable configuration, but only changes the amount of web used in the hook from 25 fathoms to 50 fathoms. The hook of a Kodiak setnet is traditionally at the offshore end of the set net and is shaped to turn fish around and gather them until they get caught in the net. Proposal #64 would make a small increase in efficiency without being a significant change in our fishery.

However, it is important to note that proposal #66, to lengthen seine nets, if passed, would negate any gains made possible by #64, if passed. Seiners are presently allowed 200 fathoms of web in their seine with an additional 50 fathoms of non-fishing lead web. Seine Proposal #66 asks that the 50 fathoms of non-fishing seine lead web be changed to add 50 fathoms of fishing seine web to a Kodiak seine permit. That would render 250 fathoms of seine web per permit, as compared to 150 fathoms of web for a setnet permit.

PROPOSAL #71: Allow More Flexibility in Outer Karluk Early Run Sockeye Management:

Proposal 71 is intended to provide more flexibility to the Department in managing early season openers on the West side of Kodiak and provide assistance in achieving early-run sockeye escapement goals by decoupling mandatory Outer Karluk openers whenever the Central Section opens between June 16th and July 15th. Current regulation provides Outer Karluk openers during the June 16 through July 15 timeframe whenever the Central Section has an opening, instead of tying it directly to Karluk escapement. The Outer Karluk section is much closer to the stream terminus of the Karluk River than the Central Section and should be managed according to escapement needs, not whether an opening occurs in the Central section.

Additionally, Proposal 71 will most likely provide additional chinook salmon escapement into the Karluk River given peak run timing of returning chinook is within the range of time this proposal relates to. Proposal 71 is viewed as a housekeeping matter by the Department as well as setnet fishermen on the West side of Kodiak and will have long-term benefits to all gear groups.