

Change Service Requested

Highlighting releases, returns, policy and legislation affecting the Southeast Alaska salmon fisheries

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Eastern Channel opening

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NSRAA Cost Recovery Falls Short Despite Record Return

This year’s total chum return ranked among the top three – if not the biggest ever – in NSRAA’s history. Still, it wasn’t enough to save the season.

“It was definitely a record-setting return on various fronts and sites,” says NSRAA General Manager, Scott Wagner.

Deep Inlet saw a return 132 percent of forecast, Hidden Falls saw the largest return in 15 years (94 percent of forecast), and Thomas Bay recorded its highest ever return of 500,000, with the four-year-olds there showing a survival rate more than ten times that of any brood year. Commercial fleets harvested more than one million NSRAA chum salmon within a single week in Sitka Sound (another record) and a near record number of hatchery fish outside the Deep Inlet Terminal Harvest Area.

While salmon prices remain low, they were stronger than last year and demand was consistent through the season.

“By the end of the season, it was clear the market seems to be improving,” Scott says. End of the season demand was boosted by poor pink returns in Prince William Sound and Southeast Alaska. “The total pink volume statewide was down substantially from the previous few years, which left room in the market for chum, especially later in the season.”

NSRAA’s Medvejie fall stock makes up a significant portion of NSRAA’s chum, especially at Deep Inlet and Crawfish Inlet. In the past few years, demand dropped significantly – or in 2023, completely – by the time those salmon returned, so this increased demand is a relief for NSRAA staff.

There’s also indication that processors have already sold their supply from this year, Scott explains. This means there shouldn’t be a substantial volume in freezers to weaken prices and demand going into next season. “That’s encouraging,” he says.

Despite a record harvest of fish – both commercial and cost recovery – this year, NSRAA’s season fell short on several fronts, including its cost recovery goals. This was the first year the organization scheduled cost recovery across so many sites, but it still fell \$3 million short of its goal. This is the second year in a row NSRAA was unable to meet its revenue goals.

“It’s hard to believe we harvested a record number of pounds this year – just over 10 million – and we received a third or a quarter of what we would have based on prices two years ago,” Scott says. “It shows how dramatic prices can be, not just to our value, but also for commercial fishermen.”

Low prices are not the only culprit contributing to the lower harvest values, explains Ben Adams, NSRAA Research and Evaluation Manager. Chum continue to return in larger ratios of three-year-olds than in the past. Not only is the age of return trending younger, but all species of salmon, across all age groups, are coming back smaller.

What does this mean? Simply put: a record harvest in number of fish will not necessarily rank among historical record harvests when measured in pounds.

It’s also important to note that this year’s record harvest is no longer directly comparable to the record-setting harvest of 1996. “It’s kind of like comparing apples to oranges,” Scott says.

Continued on page 6

General Manager's Notes



Going into the fishing season this year, I had several apprehensions. How would the market and salmon prices hold up? What would the fishing effort be? Would we be able to meet our cost recovery needs due to the complexity of the proposed harvest plan? And, lastly, would the strong chum salmon forecast come to fruition? Overall, the season ended up better than expected, with several big caveats.

Foremost in those caveats was our cost recovery shortfall. As is detailed in the 2024 Record Return article, we came up \$3 million short despite a record return and record cost recovery harvest. Overall, NSRAA met 67 percent of our preseason cost recovery goal. Shortfalls occurred at Gunnuk Creek, Deep Inlet and Crawfish Inlet, with the Crawfish Inlet return making up approximately 80 percent of the shortfall. NSRAA went into the season with the largest cost recovery goal in our history: 15.9 million pounds, which equaled 44 percent of our forecast. In the end, we ended up harvesting a record 10.5 million pounds. Although we harvested a few more pounds this year than the 2018 record Crawfish Inlet return, we received less than half the value of that 2018 cost recovery harvest (\$5.7 million vs. \$13 million).

While we didn't meet our cost recovery goal, we did set a record overall total return of chum salmon, surpassing our pre-season forecast. The primary driver was the incredible fall chum Deep Inlet return which set a weekly stat record of over 1 million fish harvested in stat week 33. This was the combined harvest within the Deep Inlet THA and the Sitka Sound troll and common property pink salmon seine openings. In addition to Deep Inlet coming in strong at over 1 million adults above forecast, we had the first strong return to our Thomas Bay chum release site of 480,000 adults, coming in at 113 percent of forecast.

Looking forward to next year, our chum forecast indicates a strong Deep Inlet return of 2 million chum, but a dismal Crawfish Inlet return of 560,000 – the smallest Crawfish Inlet return since the start of that program. Hidden Falls continues to show signs of improved chum survival, SE Cove will also see a large 2025 forecast, approaching 1 million, and Thomas Bay should see a similar return as this year. This season's return of 480,000 chum to Thomas Bay was the largest since we began the project. Of our 6.8 million 2025 forecast, more than 4 million will be coming from the east side of Baranof Island, which is nearly 60 percent of our 2025 forecast return. This will be the first time in many years that east Baranof will be more productive than west Baranof Island for chum salmon.

It seems fitting that this season was a historic chum salmon return. NSRAA was incorporated in January of 1979 and 2024 marks its 45th anniversary. Thanks to the forethought of many fishermen 45 years ago, NSRAA has become a strong economic driver of the salmon fisheries in Northern Southeast Alaska. The original founders includes two current board members of NSRAA, Eric Jordan and Jim Moore. NSRAA's combined commercial value to the salmon fishermen of the region over those 45 years now tops \$370 million dollars. The combined Salmon Enhancement Tax (SET) paid by those same salmon fishermen over those 45 years was \$61 million dollars, resulting in a 6:1 return ratio on that investment over the lifetime of NSRAA. It only seems fitting that NSRAA had an extraordinary chum return this season to mark the event. Thank you to the commercial fishermen of SE Alaska for supporting these programs that are an integral part of the salmon fisheries in the region.

New Hires and Promotions

NSRAA welcomed four to its full-time staff this year:

- David Bachtel, Gunnuk Creek Fish Culturist
- Travis Russell, Deer Lake Assistant Project Leader
- Ryan Jarvill, Medvejie Maintenance Engineer
- Lauren Yates, Hidden Falls Fish Culturist

Congratulations to the following staff members for their promotions:

- Stan Rice, Gunnuk Creek Assistant Manager

Job postings available at WWW.NSRAA.ORG

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Gunnuk Creek Hatch Rates Improve

Water has been the cause of many issues at NSRAA's Gunnuk Creek Hatchery since its purchase nearly ten years ago, but the staff continues to make improvements every year.

"There's inherent issues with the water quality at this site that we don't see at our other locations," says Adam Olson, NSRAA Operations Manager.

NSRAA purchased the facility in 2017 to re-develop the location as an alternate broodstock source for the Hidden Falls chum salmon stock. The board and management staff knew at the time that poor water quality was likely one of the main factors leading to the poor returns that eventually forced the previous owner to close operations. Water for the facility comes from a heavily logged and eroded area of the Tongass National Forest, which results in high sediment, low flows and drastic temperature fluctuations in the water feeding the hatchery.

Initial renovations of the hatchery included the installation of a complex recirculation system to address those issues.

"Through continued refinement and advancement, the system is now functioning well to prevent the drastic temperature swings and filter the heavy organic loading during high flow events," Adam explains.

Yet all this work hasn't been enough. The hatchery has experienced unusually high fatalities during incubation, likely due to unforeseen water quality issues.

This year, after water chemistry tests indicated Gunnuk Creek's water was lacking essential minerals and elements, the staff began adding sodium bicarbonate to the system to harden the water.

"It's kind of like milk for children, good for development and bone structure," says Stan Rice, Assistant Hatchery Manager. "We had an 18 percent increase in hatch rates this year, which is promising."

That only brought the hatch rate up to 68 percent total, which is still unusually low, but Stan is optimistic.

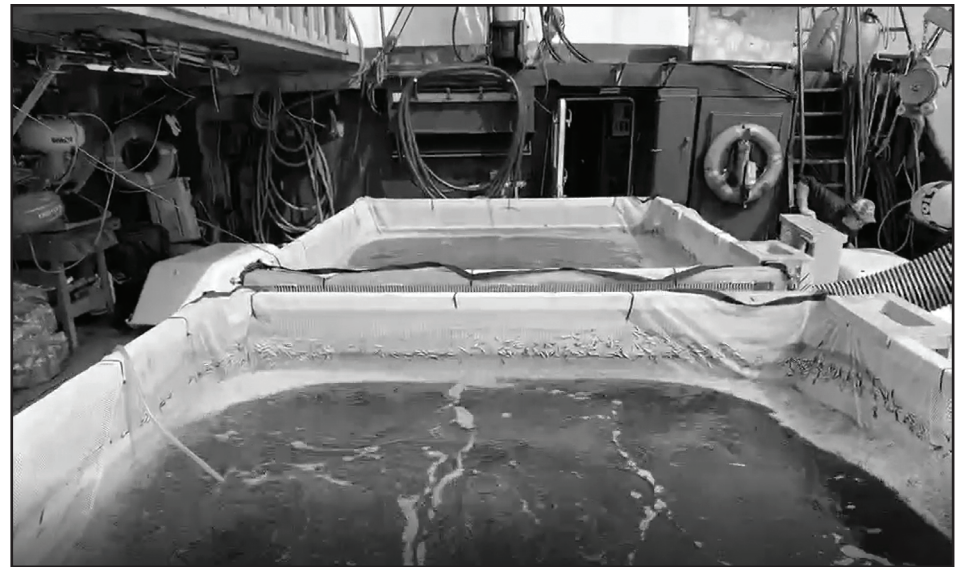
"Hopefully, we can continue to improve our water chemistry," he says. "We'll continue to make changes to benefit the fish."

Adam is hopeful too, but not necessarily optimistic.

"I hope this is the last step in solving the water quality issues at Gunnuk Creek," he says. "But there are inherent issues with the water at this site that we don't see at our other facilities. Realistically, this site may never perform like our other hatcheries. However, the benefit of multiple sites that share a common broodstock cannot be overlooked."



Sodium Bicarbonate being added to the water system



Tendering fry at release

Hidden Falls Tries New Release Strategy

The staff at NSRAA tried a new strategy when releasing chum fry from the Hidden Falls Hatchery this year.

For years, the fry were released from the hatchery – the most productive of NSRAA's facilities at the time – in Kasnyku Bay. When salmon returns to Hidden Falls began to plummet, staff searched for an explanation for the dramatic drop in survival. After witnessing an unusual number of whales in the area, staff theorized that predators had become habituated to the annual releases and were targeting the fry before they even had a chance to begin their migration to the open ocean.

NSRAA began using tenders to transport a portion of the fry across the strait to avoid predation from habituated predators.

Recent rebounding returns at Hidden Falls show promise that NSRAA's predator theory and its efforts to transport the fry at release are worthwhile, but while beach seining at Hidden Falls in 2022, staff discovered that many of the fry released across the strait had swam back to Kasnyku Bay before beginning their trip north – effectively negating NSRAA's efforts to avoid predation there.

NSRAA's original permit to transport its fry expired after the 2022 release, but was reinstated this spring – with a twist. Instead of transporting the fry directly across Chatham Strait as it has previously, this year, the fry were transported and released further north, near Catherine Island.

"Our hope is that instead of swimming back to Hidden Falls, they will just continue their journey north to the Gulf of Alaska," explains Kevin Connell, Hatchery Manager.

Of course, releasing the fish at a location different from where they should return could have unintended consequences. Preliminary results from previous years indicate potential differences between how the transported fry return compared with those released from the hatchery proper.

In an effort to help the transported fish find their way back to Kasnyku Bay, staff pumped ocean water into the fish hold throughout the journey to Catherine Island. (It is believed salmon receive imprinting cues from the months spent in freshwater as well as sequential cues from other water sources they encounter on their way to the open ocean.) The hope is that the release near Catherine Island, a location on their normal outmigration route, combined with continuous exposure to ocean water along the transport, will reduce negative impacts to homing.

NSRAA will continue to evaluate the releases conducted across Chatham through 2026 and will begin to evaluate the new Catherine Island strategy that same year, when that project's first three-year-olds return.

All totaled, Hidden Falls released 60 million chum salmon fry this year – more than 29 million chum which were transported to Catherine Island for release.

Medvejie Installs New Weir



Weir work

NSRAA continues work to repair the damage sustained from a flood event at Medvejie Hatchery more than a year ago. The hatchery has been the site of several flooding events in the past few years.

In September 2023, a rain event in the middle of the night resulted in a surge of rushing waters that eroded stream banks and a section of Medvejie Creek above the hatchery's intake that had already been compromised from a flood in 2020. This was the most severe event to occur during the salmon return when the weir is fully installed. The force of the waters destroyed the upper weir and uprooted the foundation of the lower weir, completely toppling the structure.

Mud and debris clogged the reservoir that feeds water to the hatchery, cutting off the water supply and threatening the salmon incubating

inside. Fortunately, hatchery staff was able to respond before the water loss affected the fish.

The repair process has been long and expensive. Staff initially worked to stabilize the stream banks, built a barrier above and a diversion away from the hatchery, and removed debris and the weir beams and the remains of its foundation from the creek. Hatchery staff used barrier nets at the end of that season and early fall to prevent any spawning salmon from swimming up Medvejie Creek until the lower weir could be replaced.

This summer, staff began installing a new weir – one Jared Nelson, Hatchery Manager, hopes will last longer than the last one.

The new weir was designed with a fortified foundation, as well as panels that can be adjusted quickly with a winch to allow more flow in the event of another flood event. The previous weir was made with pickets that were difficult to adjust on a normal day and impossible in a high current, which would cause the water to divert into the hatchery's barrier nets and saltwater complex.

"It wasn't designed to pull pickets out on the fly," Jared explains. "If you have a big debris event, it becomes very hard to manage."

The recent floods are not necessarily the result of changing weather patterns, but more likely a result of Medvejie's location at the base of a steep and narrow mountain valley, which can create a "volatile watershed." Additionally, a log jam at the lake outlet, which previously helped mitigate accumulated precipitation, was lost during a major outburst event in 2020.

The hatchery has also installed an alarm system with a sensor on a bridge upstream to notify staff in the event of a sudden rise in water levels.

"A lot of these events seems to happen at night, so this could be a saving grace," Jared says.

Spring and fall are the rainiest seasons at Medvejie. The last two flood events occurred in the fall. Jared hopes construction of the new weir and the installation of the alarm system will be completed this winter. NSRAA has budgeted \$400,000 for the work.

Board of Fish Reviews Proposal to Cut Production

While NSRAA works to maintain its production for the commercial fleets, opponents continue petition for a decrease in Alaska's hatchery production. The Board of Fisheries (BOF) reviewed a proposal for the Prince Williams Sound region in early December. A similar proposal, scheduled for board review in early 2025, seeks a 25 percent reduction in all hatchery-produced chum and pink in Southeast Alaska.

The same individual out of Fairbanks has submitted both proposals to decrease hatchery production. He has submitted similar proposals regularly for 20 years.

"This is an enormous concern to fishermen and to our organization – 25 percent is a huge cut," says NSRAA General Manager, Scott Wagner. "Chum salmon makes up 75 to 85 percent of our annual revenue. A 25 percent budget cut would require a major cut in programs and production. The return on investment for the fishermen is in chum, not coho or Chinook, so likely we would also lose coho and Chinook production as well as chum, because the budget cut would affect production of all our species."

Scott attended the December meeting Cordova to prepare for the proposal against Southeast Alaska scheduled to be reviewed in January.

Proposals such as these are submitted every year.

The proposal to decrease hatchery production argues that hatchery salmon production is negatively impacting the wild chum and Chinook populations in the Interior due to ocean carrying capacity.

"There is no science to support this claim," Scott explains. "Our fish don't overlap with theirs. Theirs reside mainly in the Bering Sea and ours in the Gulf of Alaska."

According to Scott, recent research indicates that warming waters of the Bering Sea and the Yukon River are negatively impacting salmon survival rates, which he believes is a more likely cause of the drop in wild chum populations and Chinook populations.

"There is no evidence to support the claims or these proposals," he says.

The proposal reviewed in December recommending a 25 percent reduction in hatchery production of both pink and chum in the Prince William Sound region failed to pass. The Board of Fish will review the proposal against NSRAA at the meeting beginning January 28, in Ketchikan.

NSRAA strongly encourages all affected fishermen to submit on-time public comments to the Board of Fisheries, by the January 15 deadline.

THIS AFFECTS YOU!

Speak up for SEAK hatcheries - www.nsraa.org for details

Comments due by January 15th

Forecast for 2025 Largest in NSRAA History

After two seasons of historically low salmon prices, weakened demand, and cost recovery operations that have fallen significantly below budgetary needs, NSRAA’s forecasts for 2025 are looking bright.

“Overall, this is our largest forecast ever – for all 45 years we’ve been in operation,” says NSRAA General Manager, Scott Wagner. “It’s very encouraging.”

That number includes the largest forecast in 20 years for NSRAA’s Hidden Falls Hatchery, which was once NSRAA’s most productive hatchery until salmon survivals and returns to Chatham Strait plummeted.

“This is the fourth year in a row that we’ve seen improving survivals at Hidden Falls,” Scott says. “It just keeps going up and up, which is great. Obviously, it won’t go up forever, but at a time when the prices continue to be poor, having the volume helps fishermen make up the difference.”

Salmon continue to return to NSRAA’s projects in a larger ratio of three-year-olds, a phenomenon that began about 10 years ago. Historically, salmon experts used the survival rates of three-year-olds to predict the four-year-old return, but the trend toward fish returning younger has skewed those forecasting formulas, which made forecasting increasingly challenging.

Recently, however, NSRAA seems to be hitting a sweet spot lately with its overall forecasts. There’s still a great amount of variability between the different sites, with some seeing returns significantly above forecasts and others significantly below.

“It’s still very encouraging,” Scott says. “It gives us confidence that it’s unlikely we’ll come in under the low range of our forecast.”

NSRAA’s projects saw a total of 6.7 million chum return between all its sites in 2024. The forecast for 2025 is 6.8 million chum.

“That would be the all-time largest return, if it comes to fruition,” says Ben Adams, NSRAA Research and Evaluation Manager.

As the main forecaster for NSRAA, Ben takes his job very seriously and is quick to point out that while this year’s overall return was record-breaking, “within all the different sites and age structures, there was a tremendous amount of variation, so you can get it right, but not get it right. We came in pretty close overall for 2024, but we also saw fluctuations that were 10 percent of forecast and others that were closer to 500 percent of forecast.”

With prices strengthening and overall supplies down, everyone is hopeful next season will mark a turnaround for Alaska’s salmon industry. Still, NSRAA’s board and management are concerned about revenue after falling short of its cost recovery goals for two seasons straight.

The organization has been financially cautious since its inception and has around 12 months of funds in reserves. The board was able to

avoid using those reserves despite the \$3 million shortfall this year, but Scott is not feeling as optimistic about next year.

How can NSRAA get the money it needs to continue its operations for the fleets if it cannot recover those funds through annual cost recovery operations? Further fishery closures might ensure the organization would come closer to its goal, but then the fleets lose the time they need on the water. For this reason, NSRAA has been working to implement a tax assessment at its terminal harvest areas. It has successfully used tax assessments at Hidden Falls in the past.

“A tax assessment allows an opportunity to obtain revenue, instead of cost recovery, and it keeps fishermen on the water,” Scott explains.

Unfortunately, NSRAA was unsuccessful in implementing the tax assessment this season and it is unlikely it can be used next year, either. In the past, NSRAA was able to set the rate at which the fishermen were taxed, but personnel at the Department of Revenue are currently requiring NSRAA implement a tax rate of 40 to 45 percent – nearly double the rate to which the NSRAA board would agree.

In addition, the Department of Revenue requires the organization submit financial documents by October 1 – an impossibility for NSRAA.

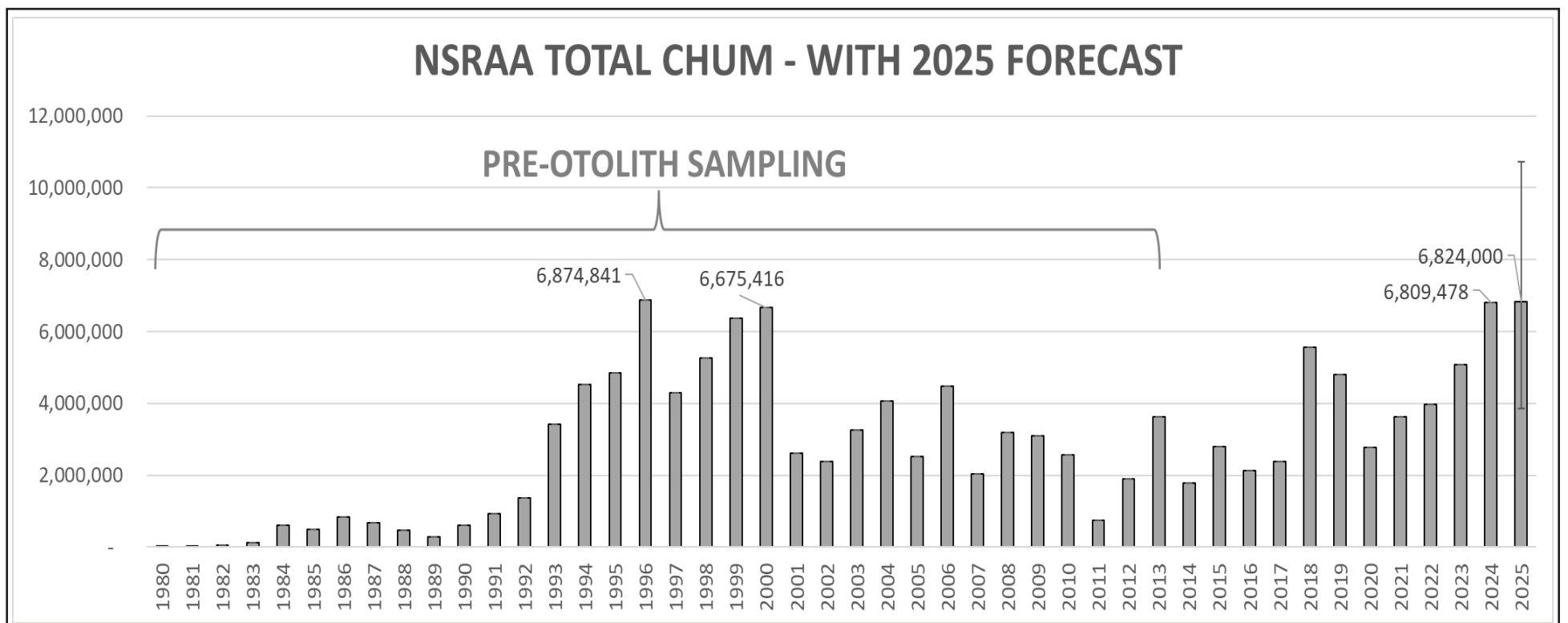
Despite those challenges, Scott is hopeful NSRAA will be able to find a solution with the Department of Revenue in time to use the tax assessment as a tool in future years.

“The fleets ‘seem’ amenable to it,” he says, “but it must be a reasonable rate. If it’s too high, it will affect the number of people fishing.”

Until then, the best chance for NSRAA to meet its budgetary goals is for next season’s salmon to come in at forecast or higher.

“I’m hopeful we’ll be able to be able to meet our cost recovery needs and make a substantial contribution to common property,” Scott says.

2025 Preliminary Chum Forecast			
Early Runs		Late Runs	
Hidden Falls	2,892,000	Deep Inlet (Medvejie stock)	1,438,000
Southeast Cove	906,000	Crawfish Inlet	559,000
Gunnuk Creek	32,000		
Thomas Bay	379,000		
Deep Inlet (Hidden Falls stock)	621,000		
Early Run Total	4,830,000	Late Run Total	1,997,000
Grand Total		6,827,000	



Cost Recovery (continued from page 1)

It's believed that prior to 2013, when NSRAA began otolith marking its fish, all fish caught in NSRAA's terminal harvest areas were counted toward the organization's total contribution. Now that otolith marking allows staff to differentiate the salmon raised at NSRAA, those raised by other hatcheries, and wild salmon, only NSRAA fish are counted toward the contribution.

On the books, this year's return, both overall and at Deep Inlet, came in near record, but if you consider that those older returns likely include wild and other hatchery salmon, this year would top the charts.

While salmon returned to Deep Inlet, Hidden Falls and Thomas Bay in strong numbers, returns were weak at several other sites, including Gunnuk Creek, Southeast Cove and Crawfish Inlet.

Even with the record return at Deep Inlet, NSRAA couldn't meet its cost recovery goal. Ben calls it a perfect storm: first, a record number of the Deep Inlet chum were intercepted outside of the terminal harvest area during pink salmon seine harvests and traditional chum troll fishing. On top of that, the weather was abnormally warm and dry during the peak return, preventing many of the salmon that escaped these interception fisheries from moving into the terminal harvest area. Even when there was an adequate volume of chum salmon available within Deep Inlet for cost recovery, the fish were scattered and progress was slowed by limited boat involvement.

"It was very frustrating that Deep Inlet was such a record year and we still didn't meet our cost recovery goal there," says Scott. "It was a very complex and challenging cost recovery season, with the number of sites and the variability of returns."

By that point, all hope was pinned on Crawfish Inlet (the last of all NSRAA's salmon to return) to make up the gap, but it was "a run failure due to an unprecedented crash in three-year-old survival," says Ben. The result: NSRAA wasn't even able to hit 50 percent of that cost recovery goal.

"Overall, we were about \$3 million short on our cost recovery need," Scott says. Incredibly, NSRAA was able to make up that shortage without dipping into its reserves. Instead, it was able to use \$2 million in interest on its investments and reallocate \$1 million from undesignated funds.

"If we are short again next year, we'll have to dip into our reserves," he says.

"Prices are really driving down the value of our program right now, but NSRAA's fraction of the commercially harvested fish, relative to the rest of Southeast Alaska, is relatively high – the fifth highest out of 41 years," Ben says. "Everybody is struggling across the region, but NSRAA has held up a little better."

Sawmill Creek Expansion Delayed Again

The final stage of expansion for Sawmill Creek Hatchery has been delayed – again.

NSRAA began work to expand the facility in 2020. Once completed, the expansion will double the size of the hatchery. This allows NSRAA the capacity to double its annual production from the facility, with an increase of 2-million Chinook smolts under current permitted levels.

The organization used annual installments from Pacific Salmon Mitigation funds to pay for the project. It was scheduled to receive its final installment of more than \$5 million, in July 2023, but a software update at the National Oceanic and Atmospheric Administration (NOAA), which administered the funds, led to a full year delay of grants nationwide, NSRAA's included.

Though NSRAA has finally received those funds, the organization has encountered yet another obstacle in its quest to complete the expansion.

"The next hurdle is to get a building permit from the City and Borough of Sitka," explains NSRAA Operations Manager, Adam Olson. Some of the delay is the result of a backlog of projects awaiting approval, but the main issue is the building location's aging infrastructure.

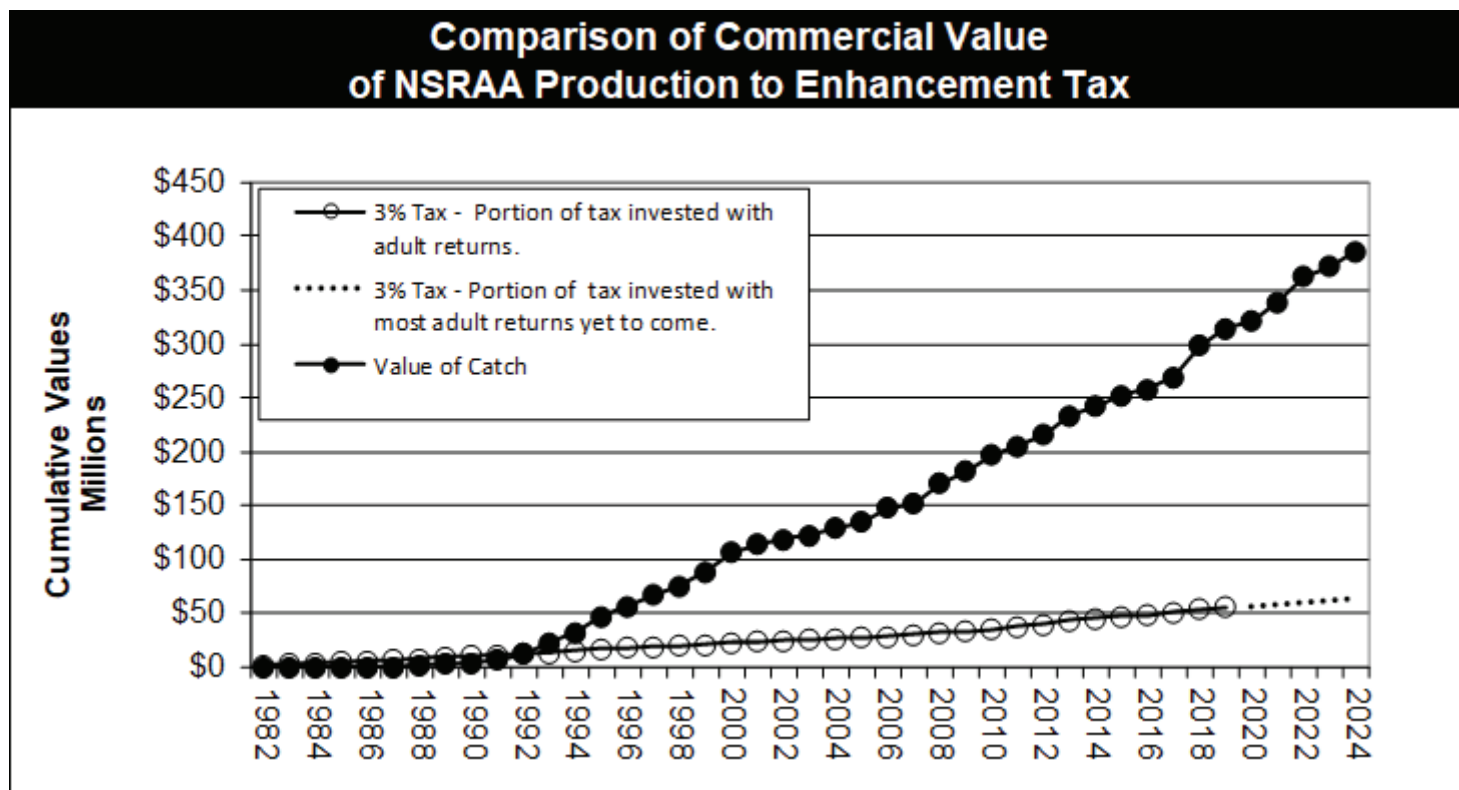
The hatchery is situated on an industrial site that was previously used as a pulp mill and its aging infrastructure is complicating the permit process. Sitka has determined that the water line intended to supply the expanded facility's fire suppression system is too old. There is another water line that could be used, but it does not offer adequate pressure or flow for the hatchery's needs.

"We're evaluating options to move forward utilizing the available infrastructure," Adam says. Those options will likely be costly.

Meanwhile, the PST Mitigation funds typically come with a two year deadline within which to spend the funds. One year was already lost due to the delay from NOAA. This latest delay in expansion work could cost NSRAA to lose the funds entirely if it cannot get an extension.

"At this point, NSRAA will need to extend the timeline (of the grant) to complete this project," Adam says. "We're already starting this final phase a year behind and with all these other delays, we are not set up to use the funds within the standard window of the grant."

NSRAA recently received the required project approval from the Alaska Department of Environmental Conservation. The building permit from Sitka is the last step before the organization can move forward with the final stage of expansion work. At this point, it's very unlikely the expansion will be complete before the summer of 2027.



Kelp Could Mitigate Crawfish Inlet Strays

Any salmon hatchery project will result in some hatchery fish straying to watersheds near their natal streams or release site upon their return, but chum returning to NSRAA's Crawfish Inlet seem to be abnormally interested in a stream in neighboring West Crawfish Inlet. An integrated kelp aquaculture program might solve the problem.

The Crawfish Inlet project started in 2014, with the first brood year released from the remote site, about 40 miles south of Sitka, in 2015 and the first commercial harvest in 2018. After noticing that some of the returning chum strayed to a stream in West Crawfish Inlet, NSRAA staff decided to research.

Both hatchery and wild salmon stray from their natal streams in small proportions. This characteristic allows salmon to colonize new habitats and evolve genetically.

In 2023, NSRAA staff began studying the homing accuracy of the fall chum stock returning to Crawfish Inlet. This is the second season of the study. Each spring, the staff has performed beach seining surveys along the outmigration route after release and collected stream water samples for analysis. Monitoring behavior of the out-migrating fry can provide insight into their behavior as returning adults.

It is generally believed that salmon use the earth's magnetic fields like a compass to find their way back from the ocean to their natal streams and that, as they get closer, they are able to use their sense of smell to navigate those final miles.

"Adult salmon use freshwater streams as cues that they can smell, as they try to find their natal stream," explains Taylor Scott, NSRAA Assistant Research Manager. It is believed that the amino acids in the freshwater help provide these cues.

"We wanted to understand the chums' outmigration routes," Taylor says. "But we also want to know if there are any similarities in the water quality between Crawfish Inlet and West Crawfish that could be leading them to stray."

What they found surprised them: the straying may be simply the result of geography. If you look at a map, West Crawfish Inlet sits to the northwest and almost parallel to Crawfish Inlet. A small, narrow pass about halfway to the ocean connects the two inlets, creating something like a capital letter H.

"West Crawfish is a bit of a geographic trap for them," Taylor explains. "For the fish to home accurately, they go to the end of the bay and make a nearly 180 degree turn to navigate the narrow pass. It seems to be a very difficult navigation."

How can NSRAA help future brood years find the way back to their release site to minimize straying?

Taylor believes the answer may lie in NSRAA working cooperatively on a kelp mariculture pilot project at Crawfish Inlet.

"Kelp has amino acids which create a specific scent," she says. "When you cultivate kelp alongside the net pens, those amino acids theoretically imprint on the salmon as they leave for the ocean and create cues for when they return. We're exploring the feasibility of using kelp to help them home."

"I'm happy with the interest our board has in supporting us with this project," says Ben Adams, NSRAA Research and Evaluation Manager. "The nature of how the Crawfish chum migrate as adults is not optimal. We are moving quickly toward what we think will be a possible solution. It's exciting."



West Crawfish Inlet carcass survey

NSRAA Contributions to Fisheries 2023-2024

	Gillnet		Seine		Troll		All Gear	
	2023	2024	2023	2024	2023	2024	2023	2024
Chinook	1,649	3,156	2,407	1,397	2,693	4,950	6,749	9,503
Chum	465,349	389,769	2,762,086	3,388,739	161,318	679,515	3,388,753	4,458,023
Coho	1,255	741	4,861	2,664	31,191	13,222	37,307	16,627
All	468,253	393,666	2,769,354	3,392,800	195,202	697,687	3,432,809	4,484,153

Preliminary Data for 2024. Updated 10/15/2024

Board Member Profile: Jacquie Foss



Jacquie with her children, Max and Elle

Folks come to Alaska for many reasons: the ocean, the salmon, the mountains, the wild. Jacquie Foss came for the dirt.

Technically, it was a job offer that brought her to Alaska, but as a soil scientist, that meant she quite literally came to Alaska to dig her hands into the dirt.

“Mostly, my job is hiking in the woods and digging holes,” Jacquie says. “It’s the best job ever.”

Jacquie, now 45 and mother of two young children, is originally from San Jose, California. Her father was a commercial fisherman out of Santa Cruz until shortly after Jacquie was born, when he moved into the tech industry. Still, fishing was a big part of her childhood.

“We were outdoorsy for a family that lived in the suburbs,” she says, laughing. “I’ve always liked the quiet and stillness of nature.”

Jacquie loved fishing, whether it was on a stream or a lake or by boat.

“I liked the puzzle of finding the right lure,” she says. “Fishing is a peaceful activity which lets you buy sparkly things, which as a young girl, I thought was pretty great.”

Jacquie went to college to study engineering, but soon realized she wanted a job that would take her outside and switched to soil sciences. After earning her degree, Jacquie married her college sweetheart, Zack, and the couple moved to Wrangell, where Jacquie worked as a soil scientist for the U.S. Forest Service and Zack began working as a deckhand for various fleets. After two years, the couple moved to Sitka, where they’ve made their home for almost 20 years now.

Since becoming a mother, Jacquie changed her job focus in order to be based at the Sitka office in order to be available for her kids.

“I do miss being out in the field,” she says. But office work, which has included GIS work and, now, management, provides a set of unique challenges Jacquie enjoys. “I like helping people navigate a good solution. I like helping them grow and develop and keep their ideals, but contribute to good land management.”

The office job also allows Jacquie (and the kids) the flexibility to join

Zack on their power troller in the summer. Now that Jacquie and the kids can help, it has become a family business.

It turns out, Jacquie is not only passionate about soil, but fisheries, too. She joined the Alaska Trollers Association board a few years ago and has attended Board of Fish meetings to advocate for the troll fleets. As she got more involved in fisheries advocacy, Jacquie realized it was the same volunteers doing the bulk of the work for the fleets and that there is a general lack of participation among the younger generations.

“We all need to be advocates,” Jacquie says, pointing in particular to fishermen in their 40s and younger. “It’s time for the younger generation to step into some of these roles to ensure there’s still sustainable fishing opportunities for all of us.”

The more she’s gotten involved in the politics side of fishing, the more impassioned Jacquie has become. She joined the NSRAA board a year ago, filling a vacant seat. She is running for a full term set to start in the spring.

Serving as a board member is very different from working as an advocate for her fleet.

“It’s important to me to learn to work across the table with other gear groups,” Jacquie says. “What I like about this board is they look at the benefit of the fleet and the organization as a whole. I like learning from the staff and other board members. There’s a real broad and deep knowledge base.”

It isn’t the easiest time to serve on the NSRAA board, she admits. The industry is still reeling from a tough couple years. Historically low prices for the past two seasons means NSRAA’s staff and board are forced to make some very difficult decisions. But it is times like these when this work is more critical than ever, she says.

“I think it’s so important to maintain opportunities for the small boat fleets – which includes everyone in Southeast Alaska,” Jacquie says. “I really take that seriously. I want to make sure anyone who wants the opportunity to fish can have it.”