

**ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE**

March 26, 2014

3:30 p.m.

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Fred Dyson, Vice Chair
Senator Peter Micciche
Senator Click Bishop
Senator Anna Fairclough
Senator Hollis French
Senator Lesil McGuire

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

Upper Cook Inlet Salmon Dialogue: Day 2

- HEARD

PREVIOUS COMMITTEE ACTION

See SRES minutes for 3/24/14.

WITNESS REGISTER

JEFF FOX, former ADFG biologist
Commented for Roland Maw

United Cook Inlet Drift Association (UCIDA)

POSITION STATEMENT: Read presentation by Roland Maw, United Cook Inlet Drift Association (UCIDA), who could not get back in time to testify.

ERIK HUEBSCH, Vice President

United Cook Inlet Drift Association (UCIDA)

POSITION STATEMENT: Introduced himself.

GARY FANDREI, Executive Director

Cook Inlet Aquaculture Association (CIAA)

Kenai, Alaska

POSITION STATEMENT: Discussed CIAA programs.

RICKY GEASE, Executive Director
Kenai River Sport Fishing Association (KRSFA)
Soldotna, Alaska

POSITION STATEMENT: Showed a five-minute video called, "Save Our Kenai Kings," about king salmon conservation and its impacts on sport fishing on the Kenai River.

ARNI THOMSON, Executive Director
Alaska Salmon Alliance (ASA)
Kenai, Alaska

POSITION STATEMENT: Provided an economic analysis of Kenai Peninsula salmon and other fisheries.

JULIANNE CURRY, Executive Director
United Fishermen of Alaska
Juneau, Alaska

POSITION STATEMENT: Discussed seafood industry facts and issues.

ROBERT RUFFNER, Executive Director
Kenai Watershed Forum (KWF)
Soldotna, Alaska

POSITION STATEMENT: Discussed key fishery habitat concerns and possible solutions.

ACTION NARRATIVE

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CHAIR CATHY GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators French, Dyson, and Chair Giessel. Senator Bishop arrived at 3:31 p.m.

Upper Cook Inlet Salmon Dialogue

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CHAIR GIESSEL announced that the committee would hear first from the United Cook Inlet Drift Association (UCIDA).

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JEFF FOX, former ADFG biologist, said he was most recently the Cook Inlet Area Management Biologist, but had retired in 2011. He said he was not a member of UCIDA or a commercial fisherman, but was asked to read their presentation because Roland Maw could not get back in time to do it.

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MR. FOX read the following:

In 2013, Northern economic conservatively valued the Cook Inlet commercial fishing industry's annual contribution to the regional economy at \$350 million and 5,000 direct jobs. Cook Inlet provides 5 percent of the world's sockeye supply and when managed properly it could be the fourth largest salmon fishery in the state. This valuable industry has been here since 1882 and can continue indefinitely; it requires science-based management of salmon for sustained yield and a reliable predictable regulatory environment.

The Board of Fisheries and ADF&G are required by statute and Alaska's Constitution to manage fisheries for sustained yield and maximum benefit. These two requirements are not currently being met by the state. At the recent UCI meeting the Board of Fisheries made decisions that compromise ADF&G's ability to manage fisheries and stay within escapement goals. New scientific data was available to inform the board's decision-making process. Decisions were made contrary to that scientific information. The efforts by the board to address the proposals for the fishery were politically motivated without scientific or a factual basis. The board process was influenced by groups pushing allocative agendas under the guise of conservation.

The current Board of Fisheries process is broken. Board members were buried under an avalanche of paper dumped on them within days prior to the meeting and during the two-week meeting. Much of the information was technical and without a thorough understanding of the inter-relationships between the different fisheries, gear types, run timing, historical patterns and emerging scientific data, the Board is simply unable to understand the consequences of their decisions. As a result, we end up with management plans that cannot achieve the intended result.

At the recent UCI meeting, the Board of Fisheries also made decisions that compromised ADF&G's ability to manage the fisheries and stay within escapement goals.

Nowhere else in Alaska will you find a borough-sponsored sport-fishing advocacy group writing commercial fishery management plans. This begs the

question of why the plans don't work. The Mat-Su's document is full of exaggerations, half-truths, omissions and insinuations. The conservation issues that exist for Northern Cook Inlet salmon stocks were not caused by saltwater fisheries and cannot be fixed by restricting saltwater fisheries.

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If declines in northern salmon stocks were due to so-called interception then effects would be seen across the stocks. But some stocks are doing fine and some stocks are not, because the problems are in the rivers, streams and lakes. For example, Chelatna Lake has made its sockeye escapement goal in four of the past five years and exceeded the goal in two of those years. Larson Lake met its sockeye escapement goals in four of the five past years. In 2006 Shell Lake had nearly 70,000 sockeye spawners; in 2013 it had less than 25 spawners due to invasive pike, predation and disease.

SENATOR MICCICHE joined the committee.

The Mat-Su document says on page three that "King salmon numbers have dropped to record lows." Not True. This past summer almost 90,000 kings were counted in the main stem of the Susitna River, upstream of some major king tributaries like the Yentna and Skwentna Rivers. Some stocks are doing fine, some stocks are not.

Alexander Creek, a tributary of the Susitna, has lost almost all of its king run, and 26,000 angler days per year, to invasive northern pike. Several of the other streams with designated king stocks-of-concern are road-accessible and intensely exploited by sport fishing.

Six of the seven stocks-of-concern in the northern district are king runs that have almost no harvest by commercial fisheries; five are also single aerial surveys. ADF&G Commissioner Campbell corroborated this after a Mat-Su representative's presentation to another legislative committee last month (Feb. 18) when she said, "I don't believe the department is assuming commercial harvest pressure as the causal

factor in Chinook declines for any of the runs we have statewide."

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Nearly a quarter million coho went up the Susitna River last summer. Mat-Su's publication doesn't mention those numbers, only the problem they have with the returns to the Little Susitna River and Jim Creek. They don't mention the pollution, habitat damage, and poaching problems they have in those systems. They also don't mention that the Little Susitna used to be enhanced with hatchery coho for many years. When the enhancement program was suspended in 1996, escapement goals were not changed and ADF&G's intent was to see if the natural stocks could handle the sport fishing pressure. ADF&G either needs to adjust escapement goals based on current production or reinstitute a hatchery stocking program, or actually manage the sport fishery in those creeks.

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A Mat-Su representative told a legislative Committee last month that ADF&G allows overfishing on northern-bound stocks of salmon. This is not a true statement. It's not true of sockeye stocks. ADF&G estimates that 35 percent to 38 percent of northern bound sockeye stocks are commercially harvested. The commercial harvest rate on the Kenai and Kasilof stocks range from 55 percent to 70 percent. Normal harvest rates to achieve maximum sustained yield range between 40 percent and 70 percent.

Neither king stocks nor coho stocks are overfished. About 1 percent of northern king stocks are commercially harvested and only 10 percent of UCI coho stocks are commercially caught. These are the facts, with no spin.

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Only 6 percent of UCI chum stocks are commercially harvested and only 2 percent of UCI pink stocks are commercially harvested. The Cook Inlet commercial fishery is under-fishing, not overfishing, salmon stocks. This does not meet the mandate for sustained yield.

SENATOR FAIRCLOUGH joined the committee.

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Commercial harvest rates are low for northern stocks in part due to geography. The Northern District is a virtual "Conservation Zone" covering over 800 square miles. No other salmon fishery in the state has such a large conservation zone. Only 53 commercial setnet permits are fished in the entire Northern District.

All of the commercial drift fishing and over 90 percent of the setnetting in Cook Inlet occurs within the Central District. The northern boundary of the Central District is over 40 miles south of the Mat-Su drainages.

Salmon stocks in UCI are not adapted to northern pike predation. ADF&G has found invasive pike in 135 lakes, streams, and rivers in the Mat-Su. The department has a pike control program in only one of these systems.

Because management standards are no longer followed and because of the misinformation presented to the Board, there has been a gradual erosion of best management practices.

Salmon are an anadromous species and as such fall under federal regulation. After the passage of the Magnuson-Stevens Act in 1976, the State of Alaska agreed, in a Memorandum of Understanding with the National Marine Fisheries Service, that it would manage fisheries in Cook Inlet in a manner consistent with the MSA.

In the mid-to-late 1990s the Board of Fisheries (BOF) began deviating from MSA. In 2000, the Board wrote a new plan: Policy for the Management of Sustainable Salmon Fisheries (SSFP). The Board and ADF&G routinely ignore the standards written into the SSFP.

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After statehood the Alaskan salmon returns pattered along until 1976 when the Magnuson-Stevens Act (MSA) became federal law. The MSA had immediate and dramatic results on salmon resources across the state. Within a few years the overall commercial harvest of salmon on a statewide basis increased over 200 percent.

In 2000, the State adopted the Sustainable Salmon Fisheries Policy (SSFP). In the graphs, beginning in 2000, the blue line continues across at the MSA average, while the red line shows the actual average harvest from 2000 through 2013.

In the upper graph one can see a modest benefit gained in the statewide salmon harvest numbers (although those gains are due to hatchery production of pinks and chums). In Cook Inlet, under the SSFP, the average harvests of all species of salmon have declined.

On the Cook Inlet chart, the difference between the average harvests under Magnuson and the SSFP, the red and blue lines, on the right end of the chart is a rough measure of unharvested surplus salmon.

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The low Cook Inlet harvest rates of king salmon reflect how they have largely been allocated away from the commercial fisheries in Cook Inlet after the stocks started to recover in the mid-1980s.

Sockeye salmon harvests across the state benefitted from the MSA but Cook Inlet sockeye harvests have not maintained that level under the SSFP.

In the mid-to-late 1990s when the Board of Fisheries and ADF&G stopped complying with their agreement with the National Marine Fisheries Service to manage fisheries in Cook Inlet in a manner consistent with the MSA, the Cook Inlet harvest decreased by an average of about 700,000 sockeye per year. This lost harvest had an ex-vessel value of between \$4 and \$10 million dollars per year.

Commercial harvests of coho salmon in Cook Inlet have been greatly reduced, even though 90 percent of Cook Inlet coho get back to the rivers. Sport fishing harvests only about another 10 percent, leaving a large, harvestable surplus which you can see reflected in the decreased harvest in the Cook Inlet chart.

Commercial harvests of pink salmon in Cook Inlet have been tremendously reduced. The most recent ADF&G study indicated that the commercial fisheries harvest only 2 percent of available stocks, leaving an immense

harvestable surplus. On even years, this surplus is in the tens of millions of pounds.

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The commercial harvests of chum salmon in Cook Inlet have also been tremendously reduced. Commercial fisheries harvest only 6 percent of available stocks, leaving an immense harvestable surplus. Hundreds of thousands of fish and millions of pounds of product go unharvested. This deprives the region and the state of Alaska of the economic benefit of this surplus natural resource.

This [graph on slide 23] is a clear example of how the Board makes management decisions based on perception rather than factual information. This lost harvest is going to hundreds of non-road accessible off-road systems that don't receive much fishing pressure.

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SENATOR MCGUIRE joined the committee.

What we see is mismanagement of Cook Inlet salmon by the BOF and ADF&G that has led to unnecessary reductions in harvest resulting in significant economic losses and damage to the production capacity of the salmon resource in Cook Inlet.

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If harvesting salmon is so difficult in the Mat-Su Borough, why are well over half of the fish released? Sixty-six percent of the Chinook, 44 percent of the coho, 52 percent of the sockeye, and nearly 94 percent of the pink and chum stocks catches in these areas are released. Only one-third of the fish are actually retained.

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SENATOR DYSON remarked that Mr. Fox had suggested that administrative changes to the board process were needed, specifically.

MR. FOX said there are a lot of options, but he suggested instituting sideboards on just how the board has to achieve allocations. Right now, he is hearing that the board is restricting a lot of fisheries and putting fish into streams that no one is harvesting on.

SENATOR DYSON said he understood that, but they need specifics while being very wary of specific things that might be changing as time goes forward. Bristol Bay is a river-of-origin fishery where it's quite easy to fish on a discrete stock, but much of Cook Inlet is a mixed stock fishery that is difficult to fish a discrete group of fish that are going by. Can that be managed?

MR. FOX answered that everyone assumes there is a problem in Cook Inlet, because people are still fighting about fish. That is not necessarily a problem. Bristol Bay is a much different fishery; they fish every type.

SENATOR DYSON asked what to do about pike beyond what is already being done and what about dealing with beaver damage to rearing grounds.

MR. FOX replied that beaver's biggest problem is that they have made impassable waterways, especially in the Valley, because the water gets real high. At 50 F., salmon die because there isn't enough oxygen in the water. About the only thing that can be done with the beaver dams is to pull them out before winter.

SENATOR DYSON asked about the pike.

MR. FOX answered if you don't do something with the pike they are going to continue to spread. They have looked into a seismic water gun and netting, but the only other way they know of is something that is expensive and hard to use in flowing waters, and they have accidentally wiped out many species. Something is out there that will take care of pike, but it still has yet to be found.

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SENATOR MICCICHE said it's not an unrealistic expectation for Alaskans to want to catch fish close to home, but there are folks in the Valley who feel that they don't have the returns they used to have on many streams. They know that is true on many streams; it may be a perception on others and be an access issue on some. What top three things first steps would he take to fix that problem?

MR. FOX replied that it is a tough problem, but it could be fixed, and just because people fight over fish doesn't mean there aren't enough fish. As one moves into road-accessible systems, lower bag limits will be needed or some other way of reducing fish harvest in the river. It doesn't matter how many

fish you put in a river, there is still enough pressure in the river that they will be harvested. At some point, you have to have a distinct management regime for each system. The Little Susitna would probably have a 1 or 2 fish bag limit and the Nushigak could have a 3 or 5 fish limit. It also has be actively managed. If you increase harvest ability, you have to be able to close it down rapidly.

ERIK HUEBSCH, Vice President, United Cook Inlet Drift Association (UCIDA), introduced himself.

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GARY FANDREI, Executive Director, Cook Inlet Aquaculture Association (CIAA), Kenai, Alaska, said he had held his position since 1996 and he is very proud of their programs. Their mission is to protect self-perpetuating salmon stocks and the habitats in which they depend, rehabilitate self-perpetuating salmon stocks, rehabilitate salmon habitat, and to maximize the value of the Cook Inlet common property fishery resource by applying science and enhancement technology where appropriate.

He said they are funded primarily by the 2 percent salmon enhancement tax that is taxed on commercial fishermen and allocated back to the Aquaculture Association. That funding source varies dramatically because it's tied to what the harvest value is. It has been as low as \$176,000 in some years and as high as \$2.6 million in others. As a result of that, they have looked at funding from other sources and one of those is cost recovery licensing where they run hatchery programs and have the ability to harvest some of those fish to help supply the programs they are operating. Money is also coming in through grant contracts for fish production for some of the local communities in the Kenai Peninsula area and they are also active in pursuing grants to run a varied number of programs and projects.

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They cover the Cook Inlet drainage including the outer coast of the Kenai Peninsula and all the waters that drain into the Cook Inlet. This is approximately equal to the Kenai Peninsula Borough, the Mat-Su Borough, and the City of Anchorage. The headquarters is in Kenai. They have hatcheries in Anchorage (currently not operating), at Moose Pass (a state facility they operate under contract), and also one in lower Cook Inlet across from Homer, which is also state facility. They are in the process now of negotiating for another hatchery at Port Graham.

This facility has not been operating for a few years, but they look forward to getting it going again.

MR. FANDREI explained that CIAA's "secondary programs" include weir structures in Bear Lake in Seward and sites on Kalgan Island and the Paint River Fish Ladder in lower Cook Inlet on the west side.

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Their stocking programs are varied with most of them being located in lower Cook Inlet; one is in the Susitna Basin. They operate flow control structures to assist fish back into their spawning grounds and a number of monitoring programs. They are also doing some habitat projects as opportunities exist, generally trying to team up with other organizations.

The work in Susitna is also quite varied; they have been doing a lot of monitoring and beaver dam work. They have also done some limnology sampling in those areas.

He wanted to mention beaver dams, because they have been brought up a number of times. They regularly fly a number of systems, particularly in the Susitna Valley, and look for beaver dams that block fish as they are migrating up to their spawning grounds. The dams don't need to be particularly big to be a problem to fish. So, if they find a dam that is holding fish back, they will land with a helicopter and have a crew cut a notch in the dam to allow fish to move up. These notches usually only last for 24-48 hours; the beavers build them back up. But they also recognize that this is not an issue on every creek every year. It all depends on a number of factors and early efforts in discussions about stream temperatures etc.

He showed a picture of fish that had died in Shell Creek in 2003 at a time when they had a lot of sunshine with very little rain. He explained that typically, the rain falls at the right time of year and the water will flood around a beaver dam and the fish will find a way out. It doesn't happen all the time and it becomes a critical issue about once every three years on some streams in the Valley.

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More recent studies in the Susitna area have been looking at some of the escapement goals and comparing them with some historic data. Some years ago they proposed to do some weir counts at specific lakes in the area and compare them to what the sonar counter was indicating. They found that the sonar

counter was actually undercounting the fish that were going up into the Valley. There was actually more fish going up than they thought.

MR. FANDREI said a couple of lakes near Chelatna, Judd, and Larson Lakes, Red Shirt and Trapper Lakes, that historically had sockeye salmon runs no longer have fish returning to them. Some of the lakes were northern pike lakes and some not, but the ones with northern pike tended to have reduced production.

Zooplankton species was monitored in the lakes, because that is the food source, particularly for sockeye salmon, and for the most part adequate zooplankton was found to produce fish.

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The second part of his presentation concerned northern pike issues. Mr. Fandrei said CIAA wants to try to identify what the pike are doing in a couple of systems to try to determine if there was a way to economically control them so that other fish could co-exist. One of the areas was Chelatna Lake, because that system appears to have something of a stable population of salmon, but it also has northern pike. It appears to have good salmon habitat and marginal pike habitat; therefore they co-exist.

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In Whiskey and Hewitt Lakes they seemed to not be co-existing very well. There they found more marginal salmon habitat and a little bit better pike habitat. One of the things they did was radio-tag fish and tried to track them throughout the year to find out if they were vulnerable to any kind of management or control at any time in their life cycle. In fact, they actually had a crew out earlier tracking some fish there.

They were considering installing an electrical barrier that could be used to help control the movement of some of these fish, called a "Neptun." Trials were run using that information to see if they could come up with any kind of a mechanism by which pike populations could be controlled. It can be adjusted to allow immature fish to leave a lake system, but it would also direct pike into a side channel where they could be harvested. That is still being played with.

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The last project he wanted to mention was the Shell Lake project where monitoring has indicated some alarming declines in sockeye populations. In 2006, almost 70,000 fish escaped into that

system and that dropped to 26,000 in 2007 and 2,600 in 2008. Smolt migration studies were being done at the same time and they realized that the adult migration escapement into the lake was not corresponding with the smolt that were being produced by the system, indicating that something was going on in the lake that was causing a loss of fish within the lake system. They wanted to do some additional investigations on that, but what got them concerned was in 2011 when only 17 smolt left that particular system, indicating that probably no fish would return from that year.

So, they decided to go in there in the next return of fish and collect eggs and take them to the Trail Lakes Hatchery, incubate and rear them to smolt size, and release them into the lake. Those fish (70,000) will be released into Shell Lake this spring.

They were going to do that again in the following year, but unfortunately not enough adult fish returned to be able to even secure any eggs. The interesting thing that happened is that locals pointed out that a lot of the fish returning to the lake were actually dying before they had a chance to spawn. They were picking up dead fish along the lake shore that had a full complement of eggs in their system. That was alarming!

Some of those fish were collected and taken to ADF&G pathology for analysis and a high prevalence of two parasites were found in the fish: one was Loma, which affects the gills, and the other one was Proliferative Kidney Disease (PKD), which affects the kidneys. Both parasites can result in the death of the fish. They become a problem when fish become stressed, and stress could be due just from the spawning activity. They believe that is what was going on there.

So, what was thought to be a northern pike problem turned out to be a little more complicated, and that's a real issue to look at in any of these programs in coming up with any type of rehabilitation project or management decision that goes into place to correct any of these issues.

CIAA wants to continue with the northern pike project and the Shell Lake project and are very interested in doing a rehabilitation project at Red Shirt and Trapper Lakes.

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SENATOR DYSON asked how successful getting hatchery fish to restock a drainage system is.

MR. FANDREI replied that they had been running hatchery programs for a number of years and have the procedures down pretty well in terms of being able to collect eggs, bring them into a facility, rear and release them. But the issue they have, particularly with programs like Shell Lake, is that they want to put the same genetic stock back into the lake.

SENATOR DYSON asked if they did that, would they survive and repopulate the drainage.

MR. FANDREI answered that Chelatna Lake that now has a stable population as an example. Back in the early 1990s very few fish returned. They returned the fish as fry and they did come back to spawn and reproduce.

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SENATOR BISHOP asked if they thought of relocating the beaver.

MR. FANDREI answered that they had entertained the thought of going out there and using dynamite on the dams, but the problem is that beaver dams also produce habitat, so benefits and risks have to be weighed when doing that. Transplanting beavers would a short-term solution, because other beavers would soon move back in if it's a good habitat.

SENATOR BISHOP asked if any of the pike are trophy size.

MR. FANDREI answered that some very large pike come out of these systems. One of the interesting things about introducing a species to a system is that you get a very rapid population increase and a top-heavy age structure. You get a lot of large pike initially, but after they stabilize the smaller pike prevail with very few larger ones.

SENATOR BISHOP remarked that he was just trying to help him get rid of the pike and he wanted more people to know where the big fish are.

CHAIR GIESSEL asked if their research on diseases gets passed on to ADF&G or not.

MR. FANDREI answered that any work they do gets an annual progress report that gets distributed to ADF&G. They don't have the expertise to do the analysis on the pathology part of it, so they have to coordinate that with the department.

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SENATOR MCGUIRE said she grew up with a cabin on Shell Lake and it's sad to see the fish numbers down. She asked if Sucker Lake has any salmon.

MR. FANDREI recalled doing some work there, but he didn't know exactly what it was. Sucker Lake probably has no more salmon returning to it, though.

SENATOR DYSON said trappers have told him there isn't enough money in beaver, so a bounty system is needed, and he hoped that community service groups and trappers could work that problem.

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RICKY GEASE, Executive Director, Kenai River Sport Fishing Association (KRSFA), Soldotna, Alaska, said they are a non-profit fishery conservation organization and showed a five-minute video called, "Save Our Kenai Kings," that is about king salmon conservation and its impacts on sport fishing on the Kenai River.

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MR. GEASE said the goal of fisheries management in Alaska is sustainability. Both the federal and state fisheries have systems put in place that are probably the most public processes for any type of fisheries management in the world on both levels with the North Pacific Fisheries Management Council and National Marine Fisheries Service dealing with annual catch limits. The state fisheries is managed through the Board of Fisheries and ADF&G and deal with escapement goals, specifically with salmon, and they are based on having long-term sustainability and accountability measures, and when there are times of need, you have a sharing of burden of conservation to prevent over-fishing.

Alaska commercial fisheries account for half the seafood produced in the United States with a wholesale value of \$3.5 billion to \$5 billion; the sport fisheries account for about \$1.4 billion. That type of management which is based on sustainability allows certification and marketing of Alaska commercial fisheries as sustainable, an important marketing tool.

MR. GEASE said there are some fundamental differences between recreational fishing and commercial fish management. One of the basic things in sport fisheries is that effort is measured by angler days: if you're out for an hour or eight hours, that's

called an angler day. Those are controlled by daily bag limits. In contrast commercial fisheries are measured by metric tons. The second basic difference is that sport fisheries are looking towards maximum sustainable production: anglers look for abundance of fish in the fisheries; more fish typically means more angler days. In contrast, commercial fisheries are looking for maximum sustained yield and the harvestable surplus over the escapement range. Sport fisheries are looking for predictable in-season management with consistent daily bag limits across the season. In contrast, commercial fisheries look for flexible in-season management: for example Cook Inlet salmon fleets have regular openers as well as emergency openings that allow them to harvest based on in-season numbers coming into the river.

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The economics of recreational fisheries are based on large values per fish being generated through multiple sectors of the economy: the retail sector has tackle shops, rods and reels, boats, motors, etc. The tourism sector has lodges, restaurants, transportation, etc. The real estate sector: there are a couple thousand homes on the Kenai River and half of them are probably second homes based primarily on the concept of fishing. In contrast, the economics in a commercial fishery are based on smaller margins and larger numbers of fish.

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He said the state's largest sport and personal use fisheries are in Cook Inlet. Fisheries are big business there generating \$1 billion: \$800 million is generated in the sport and personal use fisheries and a \$200 million is generated in the commercial fisheries (salmon, halibut, and other Cook Inlet fish). One-half of all angler days in Alaska are generated in UCI. Two-hundred thousand resident and non-resident anglers fish in UCI each year.

The Kenai river is home to the largest sport and personal use fisheries in Alaska; those include the largest sockeye fisheries, largest coho fisheries, largest king fisheries, and largest personal use fisheries. Alaska is in the top five states in the nation for non-resident angler expenditures. So, this is a place where people come to go fishing.

The Kenai National Wildlife Refuge survey was released last year. It is the top wildlife refuge in America in per person expenditures, a lot of it generated from sport fishing. In the tourism industry, the average person comes for about 8-9 days and spends about \$800. A non-resident angler can spend up to

\$780 per day. About 40 percent of revenues generated in Alaska from tourism are based on the activity of sport fishing.

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Cook Inlet fisheries management is complex; it's a fully allocated fishery. It has all five species of salmon: kings, reds, silvers, pinks, and chums in major watersheds. About half the stocks of concern in the state are in UCI. It has the longest BOF meetings; typically they last from 3-5 days, but in Cook Inlet they last 14 days just to deal with the complexity of these different fisheries.

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In 2014, the issue of Alaska king salmon was thrown on top of that complexity. Ocean productivity is a key issue in low numbers of king salmon in Alaska. King salmon spend up to 85 percent of their life cycle in the marine environment; the National Marine Fishery Service and NOAA consider them a marine species. This is a statewide issue. In general, Alaska has healthy fresh water habitats and there seems to be a 40-50 ocean-cycle regime that leads to "boom and busts" in king salmon production. In the 80s and 90s, the top 10 king salmon records were harvested on the Kenai River; that's when Washington, Oregon, and California were having all their ESA listings. Currently, right now we are in a very down cycle and they are having record returns of king salmon. This has alternated back and forth through time.

Back in the 1940s on the Kenai Peninsula the fish traps harvested 80-120,000 kings; then there was a bust in the mid-1960s, the last time the Kenai River was closed to king salmon fishing for multiple years.

In 2012, he said the governor and the legislature authorized \$30 million to be spent over five years to examine causes of king salmon decline and the federal government issued a statewide economic disaster declaration covering Yukon/Kuskokwim and Cook Inlet that resulted in about \$20 million of federal disaster aid coming to the state this year.

He said the Bering Sea has king salmon accountability measures as by-catch measures from their fishing cooperatives in the trawl fisheries. On the state level, the BOF, the ADF&G, the legislature, the governor, and the court system all recognize that there are king salmon conservation issues.

MR. GEASE said Upper Cook Inlet is having historic low king salmon returns. The king salmon management plans were developed in the 1980s when 80-100,000 kings came back in the combined early and late runs to the Kenai River and all king runs in Cook Inlet are being impacted.

On the Kenai River, itself, major indicators show steep declines in Kenai River king salmon over the last decade. Late run kings harvested by sport fishermen have declined by about 80 percent and those harvested by commercial setnetters declined dramatically. Late run kings caught in the in-river test nets show the same steep decline.

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What's at stake? The Kenai River was voted as the number one sport fishing river in North America a decade ago by Field & Stream and that fishery is being lost, but hopefully conservation measures will prevail and it will rebound.

They are trying to maintain the opportunity for sustainable recreational fisheries for future generations. The economy on the Kenai Peninsula is taking a hit, because the number of visitors to the king salmon fishery is declining, too.

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So, their campaign goal is to update the fishery management plan to reflect the low numbers of king salmon and they have a couple of different proposals into the BOF based upon the concept that adequate numbers of Kenai kings must be allowed to spawn, making sure minimum escapement goals are met, and ensuring there is a shared burden of conservation of harvesters.

Over the last decade, east side setnetters have harvested about 30 percent more kings than the combined in-river anglers and the dipnetters. So, they are a major harvester of king salmon. The setnetters harvested over 100,000 kings, the in-river sport anglers during that decade harvested 100,000 kings, and personal use dipnetters harvested about 10,000.

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He said KRSFA produced this video as an educational piece to get people to understand the issue and the impacts of conservation. They created a letter-writing campaign to allow people's voices to be heard in the BOF process; they have generated about 300 letters from their membership and other concerned Southcentral Alaska people. They did tourism industry outreach and got their feedback that the Peninsula fishing industry is hurting.

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MR. GEASE said the Board of Fisheries meeting happened in the first two weeks of February and there were 250 proposals with 12 different committees operating during that time. The results of that were being broadcast on social media to keep folks up-to-date along with over 50 UCI stories of the UCI in the media in Southcentral Alaska.

The BOF decided not to lower the escapement goal for early run kings, because it is not a long-term goal. They proposed keeping the escapement goal higher than the new goals that had come out. A buffer zone of 1,650 fish is included in the late run plan and protections in August. The data shows the larger females are coming in the last week of July and into the first couple weeks of August and there are protections for that. Additionally, there were some in-river fish spawning habitat closures for the early run and a barbless hook requirement for catch and release. They also instituted pared restrictions for commercial, sport, personal use fisheries that were adopted into the King Salmon Management Plan. When the in-river sport fishery goes to no-bait, there are restrictions that take place in the commercial fishery and the personal use fishery to slow down the harvest of kings. The board also authorized the use of shallower nets in the setnet fishery and put additional flexibility in the commercial fisheries management toolbox; instead of having regular fish periods and windows, now the commercial fish manager can use hours and spread them out through the week.

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Ongoing management through the Board of Fisheries: they did a good job of putting additional tools into the toolbox for the department to use. The early run of Kenai River kings is closed for the first time since 1964. All major king salmon sport fisheries in Cook Inlet are going to have restrictions and/or closures; everyone has to wait to see how the late run kings are managed in July.

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SENATOR DYSON said he was impressed with Mr. Gease's balanced report and asked if ADF&G had figured out escapement closures with so many users.

MR. GEASE answered yes, by closing the early run early enough (in February) so people had a chance to change their plans.

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SENATOR MICCICHE remarked that Mr. Gease was not blaming any particular group for where we are right now; he just wants to ensure that every king salmon gets back to its river to minimize the very challenging down times.

MR. GEASE said that was right. He thought this was a cyclical problem and it's important to realize that all species have down cycles and management plans need to recognize both times of high abundance and times of low abundance.

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ARNI THOMSON, Executive Director, Alaska Salmon Alliance (ASA), Kenai, Alaska, said he contracted with Northern Economics out of Anchorage for an economic analysis of Kenai Peninsula salmon and other fisheries. The important economic statistics were touched on by United Cook Inlet Drifters. He stated that:

The Alaska Salmon Alliance was formed in 2011 and became active in 2013. It's an Alaska 502(c)(6) corporation, a trade association representing Kenai Peninsula and Anchorage-based seafood processors and numerous Cook Inlet commercial drift and setnet fishermen. Our organization believes that wild Alaska salmon are part of the cultural fabric of our state. They are woven into our past, our present and our future. As an organization, ASA is focused on public education, promoting the value of scientifically based salmon management to preserve habitats and create predictable harvests for all salmon users in the Cook Inlet Region. The ASA promotes long term sustainability and is a source for accurate information about the salmon industry. We advocate for thoughtful, process-oriented allocation of Cook Inlet salmon for the benefit of all Alaska. ASA also supports the concept of a healthy, diverse economic for the Kenai Peninsula with a balance of commercial, sport, personal use and subsistence fisheries.

During the past year the ASA has invested tens of thousands of dollars on community outreach in the Anchorage bowl and Mat-Su Valley delivering our message about the need for cooperation between all user groups to come together to resolve conflict and seek long term allocative and sustainable fisheries management programs for the Cook Inlet salmon fisheries. ASA efforts are well known and well documented vis-a-vis community meetings and chambers

of commerce attendance and sponsorship of programs encouraging collaboration and negotiation. We have documented some of those efforts with attachments.

It is noteworthy that the ASA spearheaded a precedential collaborative research funding initiative in the Alaska Legislature with the Mat-Su Fish and Wildlife Commission, the Kenai River Sportfishing Association and the Cook Inlet Aquaculture Association in a March 26, 2013 letter to the Alaska Legislature. This effort resulted in an allocation of over \$7 million for vital migration, genetics and habitat studies for the Cook Inlet region. Repeated requests throughout November and December of 2013 for continuing the collaboration in 2015 have not yet materialized. However, we heard yesterday the Mat-Su Borough and Commission have apparently submitted a new \$2.5 million salmon research appropriation request to the Legislature.

Economic Significance of Kenai Peninsula Commercial fisheries: ASA has attached a detailed summary of its processor members and the economic significance of Peninsula fisheries that we presented to the Board of Fisheries in February (RC 114, attachment).

Economic value in participation in sport, personal use and commercial fisheries fluctuate widely from year to year as circumstances change. Southcentral Alaska needs the social and economic contributions of all users of Cook Inlet salmon and we all must work together for the long term sustainability of our salmon resources.

In comparing economic reports it is important to refer to Gunnar Knapp's "Comparison of Recent Sport and Commercial Fisheries Economic Studies", (2009) prepared for the Cook Inlet Economic Task Force. Mr. Knapp used two major reports for his comparisons. Knapp advises caution in the comparison of economic reports between commercial and sportfish sectors of the industry. Differing methodologies are used by the sectors with non-comparable economic value conclusions. In regards to Cook Inlet, Knapp had several interesting conclusions, which are listed in his testimony. A few of them are:

- Even if catches and allocations stay the same, economic impacts can change significantly from year to year.
- Economic impacts aren't necessarily proportional to fish catches.
- The studies provide very little if any useful policy guidance on sport-commercial allocation issues.
- The commercial industry is not viable without a certain threshold level of fishing opportunities and regular openings.
- Economic arguments for changes in allocation should be based on analysis and clear thinking about the specific expected economic effects of the specific proposed policy change.

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A major concern of the ASA is the anti-set-netter ballot initiative that was covered adequately in Monday's testimony by the Kenai Peninsula Fisheries Association. We agree with the association that if this initiative is allowed to go forward that it will immediately eliminate 500 setnet family businesses, most of whom reside in the Cook Inlet region. It will also severely disrupt processors' efforts for orderly and efficient production.

Legislative Involvement at the Cook Inlet Board of Fisheries Meeting, February 2014: Without a doubt we have seen a change in recent years in how certain influential people have interacted with the Board of Fisheries and ADF&G. In the past, fishery management was a job that was best left to the professionals; that means biologists who were trained and mentored in the ever-changing and dynamic field of fisheries sciences. It takes years of involvement in the fisheries and a thorough understanding of the interrelationships between the different fisheries, gear types, run timing, historical patterns and emerging scientific data to make informed and intelligent decisions.

Policies of allowing trained professionals to comment on the scientific aspects of proposals, even allocative proposals that are couched in escapement goal proposals, need to be encouraged. The professional biologists need to fulfill their job requirements so Alaska fisheries management can

continue to be the model for the future. We should not allow the influence of politically motivated people to affect the best management practices of the salmon resources that so many Alaskans depend on.

Political influence was clearly apparent at the 2014 Cook Inlet BOF meeting and decisions were made that did not incorporate the best science and the public process was pushed aside for expediency. One of the legislative representatives from the Kenai area filed a letter of concern regarding the Board's decisions.

As a direct result of this political influence, drastic new restrictions were placed on the Cook Inlet commercial drift and setnet fleet in the harvest of sockeye salmon that had quite an effect.

Many reports were presented to the Board of Fisheries at the 2014 Cook Inlet meeting. ADF&G presented several staff reports and individuals and user groups used ADF&G data in compiling their reports. In contrast, a report from the Mat-Su Borough Fish and Wildlife Commission called "Juneau We Have a Problem" is simply a case study in Alaska fisheries ideology. A critique has already been presented about that proposal. As such, it characterizes the Mat-Su Borough culture of fisheries science and management. It is a conglomeration of assertions, theories and claims that hint at a political, social and economic program that will hopefully lead to getting more fish in the Northern District Rivers. In actuality, its acceptance can set a precedent that will lead to the demise of science-based management in the Board of Fisheries.

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Specific Board of Fisheries process issues of concern leading to a politicized process is something that has already been touched on by Rick Koch, Manager, City of Kenai, and the Kenai Peninsula Fishing Association. There is the issue of board-generated proposals and the difficulty they present as there is really no allowance for ADF&G to analyze them on the spot, and there is also no opportunity for public comment.

There is a need for a pre-screening process that can deal with the problem of over 200 Cook Inlet proposals. Too many proposals create too much of a

workload on not only the ADF&G staff but also BOF members who have to read thousands of pages of documents. Therefore, the ADF&G and BOF could consider a pre-screening system using some combination of ADF&G staff to prioritize a meaningful list of proposals to be dealt with in a normal cycle, with the goal to reduce it to a pre-established limit.

Another issue we think could be entertained is the need for a collaborative and inclusive public process to develop long term allocative and management solutions for Cook Inlet salmon fisheries. There is a need to consider developing an informal stakeholder process and discussion to identify core problems, a reasonable range of proposed solutions, and credible sector representatives that can eventually serve on a stakeholder committee to seek long-term allocative and management solutions. Teleconferenced meetings could be organized outside the normal Board of Fisheries meeting cycle. The "unofficial process" can be funded primarily at the expense of stakeholders, who would also set a schedule for meetings.

Once a critical mass of stakeholders have come to the table and established some clear alternatives and demonstrated the desire to continue, the BOF can make a preliminary decision to sanction the process and schedule it for preliminary reviews. This has been successful in other fisheries in Alaska.

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The Need for the Board of Fisheries to take action to protect in-river habitat: Ten Kenai River habitat protection proposals were submitted to the Board of Fisheries by Dwight Kramer of the Kenai Area Fishermen's Coalition (KAFC) Proposals 219-228. These habitat related proposals recommended seasonal spawning bed closures to protect Kenai king salmon. The Alaska Salmon Alliance strongly supported some of those proposals, in particular, number 219, which was also supported by the U.S. Department of Interior, Fish and Wildlife Service. This would have called for collaboration with the ADF&G to try to work out some reasonable spawning bed closures.

Conclusions: Economic and Resource Sustainability Threats from a Politicized Process: The powerful

economic engine of the commercial, sport and personal use fisheries of Cook Inlet runs on a renewable resource and requires only two things: science-based management of salmon for sustained yield and a reliable and predictable regulatory environment that allows for an orderly harvestable surplus of salmon.

Current management plans and politics are increasingly placing salmon runs at risk and setting up unrealistic expectations for some user groups. As long as there are sufficient salmon returns, the ASA believes that you can provide for a healthy commercial fishery. There will always be reasonable opportunity and sufficient numbers of salmon to meet the needs of in-river harvesters and escapement goals. If salmon returns decline, eventually all users face restrictions or even closures to meet escapement goals.

Continued politicization will be the death knell of sustainable fisheries management and threatens the State of Alaska fisheries management reputation as a model for fisheries management in the U.S.

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JULIANNE CURRY, Executive Director, United Fishermen of Alaska, Juneau, Alaska, said the economic data in her presentation are primary dollar values and do not include the multiplier effects that are typically included in economic reports. There is very little data for the seafood industry that includes multiplier effects.

She showed a slide showing commercial fishing ex-vessel values of species statewide harvested in Alaska and the price paid to fishermen at the dock (not including the dollar value paid to the processor once that seafood is sold).

The average ex-vessel value between 2008 and 2012:
\$911 million for groundfish
\$544 million for salmon
\$259 million for shellfish
\$181 million for halibut
\$21 million for herring
\$10 million for dive fisheries

Commercial fishing harvest volumes:

4 billion lbs. for groundfish (majority is Alaska pollock caught in federal waters)
790 million lbs. for salmon (most of which is pink salmon)
92.6 million lbs. for shellfish
91.4 million lbs. for herring
38.4 million lbs. halibut
2.6 million lbs. for dive fisheries

MS. CURRY said there are over 200 different active commercial fisheries in Alaska; five different species of salmon are harvested with four different gear types: seine, gillnet, setnet, and troll. The five species of salmon are: king, sockeye, coho, kita and pinks. Pink salmon comprise the majority of the volume of salmon harvested by the commercial sector.

The groundfish and whitefish fisheries include halibut, pollock, cod, sablefish (black cod), and many other species. The crab and shellfish fisheries include king crab, Dungeness crab, snow crab, scallops, prawn and other species.

Alaska also has a number of herring fisheries that contribute significant volume and it also has a very unique dive fishery. Fishing is Alaska. Alaska's commercial, sport, personal use and subsistence fisheries are all a vital component of our economy and our way of life. All of these fisheries provide Alaskans with access to Alaska's fishery resources. Subsistence and recreational fisheries bring Alaskans to the fish while commercial fisheries bring the fish to Alaskans.

The seafood industry is fully dependent on sustainable fisheries management for their livelihood and for the success of their children. It is Alaska's largest private sector employer creating over 63,000 direct jobs throughout the state. It contributes over \$130 million in direct tax revenue to the general fund and also to local municipalities. In Alaska, one in eight workers earn all or part of their annual income directly from the seafood industry. Estimated earnings by Alaska-based permit holders, which does not include crew or processors, is \$681 million.

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Direct jobs created by the seafood industry in Alaska produce a wholesale value of \$4.6 billion worth of wild sustainable seafood and result in an estimated \$1.7 billion in labor income.

MS. CURRY said that commercial fishing permit holders and crew members reside in 217 out of the 355 incorporated cities and

census-designated places in Alaska. These are people who live in our communities and contribute significantly to our economy. Virtually every business in Alaska benefits from commercial fishing dollars through support of dozens of other support business, such as hardware and marine suppliers, fuel, air and water travel, shipping, restaurants, super markets, boat builders, shipyards, accountants, scientists, educators, and administrators.

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The UFA fact sheet, which is compiled by their executive administrator, Mark Vinsel, indicates that of the 2012 active permit holders, 74 percent are Alaskan residents and over 10,500 full-year resident crew member licenses were sold.

For the communities in the Mat-Su Borough there are 221 active permit holders, 446 full-year crew member licenses sold and Mat-Su-based fishermen landed over \$16 million worth of seafood based on ex-vessel prices.

For the communities in the Anchorage municipality, 499 permit holders fished in 2012 and over 1200 full-year crew licenses were purchased, which ranks Anchorage at the highest total fishing participation in the state. There are over 470 Alaska-based processing jobs and over \$6.8 million in Alaska-based processing wages. Ex-vessel value of seafood landed in Anchorage was \$10.2 million.

For the communities in the Kenai Peninsula Borough over 1,000 permit holders fished in 2012 and over 1,600 full-year crew licenses were purchased. There were 893 Alaska-resident processing jobs earning \$7.2 million per year in wages. Ex-vessel income by Kenai Peninsula-based resident permit holders is over \$120 million.

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SENATOR MICCICHE said that was a refreshing presentation, for a specific reason, because she talked about the combined value. The reality is that neither side can be sacrificed.

SENATOR GIESSEL noted that she broke facts down by community.

SENATOR BISHOP thanked her and UFA for the jobs they create for Alaskans, especially jobs on the front end, and for going into Interior Alaska to find people to work.

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ROBERT RUFFNER, Executive Director, Kenai Watershed Forum (KWF), Soldotna, Alaska, said he wanted to talk today about who they are, how they are different, some of the key habitat concerns from what they really do know, and some of the key habitat concerns that the Forum shares about things that they don't know, but think they should be looking at more closely. He would try to summarize with some thoughts they could ponder.

He said KWF was incorporated in 1997 and have a nine-member diverse board of directors; key to their organization is having people from the different user groups on the board. They also try to have some industry representation that is outside of the fishery industry to include "corporate think." They cover the entire Kenai Peninsula-plus. The Mat-Su Borough has contracted with them for mapping skills and remote sensing work to use there. They are completely non-allocative with respect to fish and want the fish to come back as abundantly as possible for everyone.

They have two employees, one in Soldotna and one in Homer, and do their work through three different programs: education, research, and restoration and spend \$1-3 million/year. The biggest variable is the type of restoration projects they tackle.

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Their habitat concerns are what most people agree on in a partnership with 20 different scientists.

1. Invasive species: pike and some water plants like Elodea
2. Warming water/changing hydrologic conditions and flow patterns
3. Near shore environments: riparian areas that are next to the lakes and streams that have a unique vegetation type that support the fish.
Roads and culverts
4. Stream and lakeside alterations

He said the Kenai group picked invasive species for a reason. The Mat-Su Valley has large areas of pike-infested waters and they have made a significant dent in the population of multiple species of salmon to the north. They need to make absolutely sure that when an invasive species comes into an area that is so important, like fish, it must be nipped in the bud. The pike problem should have been dealt with 15 or 20 years ago when it first emerged. The Kenai Peninsula is lucky that they haven't spread much there.

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Culverts keep juveniles from getting to their habitats and they have fixed most of the culverts that caused the problems on the Kenai Peninsula. Mat-Su has a ways to go, but the worst ones are on the major roads and it's very disruptive to work on them. It's also expensive.

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Priority KWF concerns:

1. Must be very careful during low abundance, especially focusing on juvenile fish behavior
2. Physical disturbance from intensive freshwater fisheries
3. Effectiveness of existing riparian buffers

It used to be that the ADF&G was keeping a close eye on how development was occurring near the river and it's been hard for the Sportfish Division to keep up with it. But they are failing and it's important to give them help.

MR. RUFFNER encouraged them to read the Alaska Sustainable Salmon Policy. The Department of Environmental Conservation (DEC) and Department of Natural Resources (DNR) must actively check a box for anything they do to be compliant with it. More attention needs to be given to this document.

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Difficult message 2: Issues that cut across multiple agencies are the ones failing to get attention. For example: gasoline from motorboats going into rivers. People knew it was a problem and that state water quality standards were being exceeded. Several hundred gallons a day were going into the river. Everybody knew it had to be addressed, but no one was really willing to step up and do it. A lot of finger pointing went on. The same thing happened at the BOF meeting.

He wished the state would step up instead of having to engage the federal government. The EPA wrote a letter saying they were on the Impaired Water Body List, and as soon as that happened, the finger pointing stopped and people got busy and fixed that problem.

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Recommendations:

-More expertise in sport fish or habitat non-management fisheries issues is needed, particularly with habitat.

-Independent panels without user groups are needed to help set research priorities and figure out where the money should be spent.

-Funding the freshwater habitat research needs with the sales of fishing licenses is leading to conflicts of interest making it hard for them to take actions that will hinder them from selling those fishing licenses.

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SENATOR DYSON said he appreciated his comments and gutsy recommendations and asked how pike get into new systems without people bringing them in.

MR. RUFFNER answered that they can migrate, but primarily people bring them in, but it's hard to catch them.

SENATOR DYSON asked what can be done in a lake short of poisoning everything and starting over.

MR. RUFFNER answered that he was all for that. The way it has been done is that they remove the non-invasive species from a lake system and put them in one of the hatcheries, kill the pike, and put them back. That seems to be working on the Kenai Peninsula. Removing them from a flowing water creek will be a lot more difficult.

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SENATOR MICCICHE said knew Mr. Ruffner for a long time and that he can be trusted inherently. He had seen him bring folks together that previously would have no interest in doing so. Mr. Ruffner is not a member of any of these groups; he is working for the fish. He asked if he saw any solutions bringing folks together to find a way from the northernmost reaches of the Valley to the southernmost reaches of his district and how would he start.

MR. RUFFNER answered that they take working together seriously even though it is difficult. Going through a board cycle adds a lot of stress. In the arena he works in he hopes the fish habitat partnerships would bring people together around the habitat issues. It's hard to separate habitat issues from allocation issues because it's a blurry line. They will never get away from arguing about who gets the fish, when and why. The most important thing they can do is try to hold the user groups to some level of honesty and civility.

CHAIR GIESSEL found no further questions and thanked Mr. Ruffner.

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CHAIR GIESSEL adjourned the Senate Resources Standing Committee meeting at 5:26 p.m.