

Megan Rodgers

7333 Basel St.

Anchorage, Alaska 99507

907-336-1812

RC 52

Dear board members

I am college student who is a northern district set netter since 2003. I am a third generation set netter in the Cook Inlet area. I use the money I earn fishing to help put myself through college. I am going for a nursing degree.

I wish you would look at the habitat destruction in the Susitna area. The essential fish habitat is in jeopardy here in the Susitna area. I have seen the amount of fish decline over the past few years. If there is a continued decline in the returns to the Susitna system, I will be substantially and adversely affected, as well as my family. I have found a wonderful article on the Department of Fish and Game's web site. It's written by one of your biologist. It's called: "Can Alaska Balance Economic Growth With Fish Habitat Protection? A Biologist's Prospective". By Ken Tarbox and Terry Bendock. Which was reprinted from the Alaska Fishery research Bulletin Vol.3 No.1, summer 1996.

Thank you for your time,



Megan Rodgers

---

**Can Alaska Balance Economic Growth  
with Fish Habitat Protection?**

**A Biologist's Perspective**

---

**Kenneth E. Tarbox and Terry Bendock**

Reprinted from the  
Alaska Fishery Research Bulletin  
Vol. 3 No. 1, Summer 1996

---

## Can Alaska Balance Economic Growth with Fish Habitat Protection?

### A Biologist's Perspective

---

Kenneth E. Tarbox and Terry Bendock

*This question formed the basis of a session at the Alaska Chapter meeting of the American Fisheries Society in Wasilla, Alaska, in November 1995. Participants were asked to give their prognosis for the quality and quantity of fish habitat in Alaska 10-20 years from now, especially anadromous fish habitat. The legislator's perspective (see page 45), presented by Senate President Drue Pearce, was slightly modified for publication. The biologist's perspective, by Ken Tarbox and Terry Bendock, was not a presentation, per se, but was generated from questions that followed Senator Pearce's presentation.*

Alaska — the word evokes visions of wide-open plains of tundra, snow-capped mountains, crystal-clear mountain streams filled with trout and salmon, abundant wildlife, and endless dazzling fiords. These extensive environs feed the illusion that all is well with our resources in Alaska, that this will last forever — that perhaps we can take a few minor liberties with such a profusion of pristine wilderness. What damage will a duck bite here or there cause? But is Alaska really protected by its environmental laws, or is it slowly dying from duck bites? If we compare our situation with factors leading to the loss of Pacific salmon in other areas on the west coast of North America, we find the same factors present in Alaska.

### THE COLUMBIA RIVER

The Columbia River offers a striking example. As described by Dietrich (1995), the Columbia demonstrates man's triumph over the perils of nature, and the damage that such ignorance can inflict on nature. It is hard today to envision this once 1,200-mi cataract of wildly seasonal flows, deep canyons, impassable falls, and shifting channels that defined this river throughout the centuries. Superlatives were used to describe everything about the Columbia: it was louder, stronger, faster, higher, and more dangerous than any

other river on the continent. It had 109 rapids and waterfalls from Redgrave Canyon down to the Cascades (for which the mountains were named). It was ice-covered during the winter and flooded each summer. The perils of the Columbia were extensively documented by Dietrich. At the Dalles during the 1880s, melting snow could raise the river 52 ft over normal levels. Government surveyors clocked the river's speed at over 15 mph through Spokane Rapids. Major floods occurred every 5.3 years on average; the flood of 1894 carried 34 times the volume of its normal flow. Native fishermen frequently drowned when harvesting the river's bountiful fishes, and the Hudson's Bay Company lost nearly 300 seasoned employees to the untamed river. Immigrants traveling the Oregon Trail, which ended at the Dalles, often crossed the Cascade Mountains using a lengthy and dangerous toll road rather than complete their journey in a raft or canoe on the Columbia.

Interestingly, Dietrich described this hell-on-earth for humans as heaven for salmon and other fishes: In spite of the cataracts and shifting channels, the Columbia produced more salmon than any other waterway in the world. When settlers began arriving from the east, however, the salmon runs, which nature had sustained for centuries, declined within a few decades. Lewis and Clark visited these waters in 1805; the first steamboat plied her waters in the 1830s; and by 1873

---

**Authors:** KENNETH E. TARBOX is a research biologist with the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 34828 Kalifornsky Beach Road, Suite B, Soldotna, Alaska 99669-8367. TERRY BENDOCK is a fishery biologist with the Alaska Department of Fish and Game, Division of Sport Fish, 34828 Kalifornsky Beach Road, Suite B, Soldotna, Alaska 99669-8367.

the U.S. Army Corps of Engineers had dynamited its first Columbia River obstruction, John Day Rock. A decade later the railroads arrived. By this time, salmon catches were already declining. In 1878 Livingstone Stone was hired by the canning industry to start the first hatchery. In 1892 he addressed the American Fisheries Society, arguing for the creation of "salmon parks" to stem the decline, but during the next 80 years the Columbia was ditched, diverted, dammed, and diked and salmon all but disappeared (Dietrich 1995).

This unfortunate scenario was repeated on most other Pacific Northwest rivers with the same consequences. Therefore, it is not surprising that the National Research Council (NRC 1996) reported that "Pacific salmon have disappeared from about 40% of their historical breeding ranges in Washington, Oregon, Idaho, and California over the last century, and many remaining populations are severely depressed in areas where they were formerly abundant." Of the thousands of wild salmonid stocks existing a century ago, only 99 native wild stocks are still considered to be healthy in the Pacific Northwest and California: 32 fall chinook *Oncorhynchus tshawytscha*, 3 spring and summer chinook, 20 chum *O. keta*, 6 pink *O. gorbuscha*, 3 coho *O. kisutch*, and 1 sockeye *O. nerka* salmon stocks and 28 winter steelhead *O. mykiss* stocks (Huntington et al. 1996).

Some argue that taming the Columbia and other salmon streams of the Northwest was a fair trade and made good economic sense. They transformed an inland desert into an inland empire, opened up extensive transportation corridors, provided cheap electricity for millions of Americans, and gave rise to industries that employ tens of thousands of workers. However, today's citizens of the Pacific Northwest are spending billions of dollars trying to restore, with little success, economic loss of a salmon fishing industry as well as indirect cultural and social losses.

## PARALLELS IN ALASKA

Similar taming of Alaskan rivers is not only possible but probable as resource extraction and other uses expand. Because of Alaska's size and its comparatively recent development, when one looks at Alaska as a whole, it is easy to miss the subtle changes to the resource base that are taking place. However, if one looks more closely, the increasing urbanization of Alaska and the growing use of nonrenewable resources parallels the situation on the Columbia. In fast-growing urban areas, such as Anchorage, the loss of salmon and stream resources are most evident. Even in more

rural areas, however, salmon habitat is being lost at an increasing rate. Where man treads, the historical pattern remains clear: little regard for fish over short-term self interests. While we speak today of balancing resource development and economic growth, in truth there is little balance, and aquatic production too rarely enters the discussions.

On the Kenai River, for example, salmon populations have been lost to hydroelectric development (Cooper Creek); important riparian vegetation is being lost to the infrastructure associated with recreational development and use; wetlands are being filled and drainage patterns altered; logging is increasing without adequate protection of salmon habitat (e.g., the Forest Practices Act does not require buffer zones on many private lands and buffer zone size on state and other private lands is much smaller than most experienced biologists believe is needed); sewage treatment plant failures have dumped toxic chlorine directly into the river; agricultural practices have cleared large areas of land immediately adjacent to the river; and mining activities are occurring in productive salmon-producing tributaries. In Prince William Sound the extensive use of hatcheries has made it more difficult to properly manage and protect wild salmon stocks (Peltz and Geiger 1990), and hatcheries in the sound are therefore a major contributor to wild stock loss (Eggers et al. 1991).

In the Pacific Northwest declining salmon populations have coincided with resource uses incompatible with sustainable management of the whole ecosystem (NRC 1996). In other words, short-term economic gains have prevailed over long-term resource planning and decision-making. Lee (1993) indicated that "when human responsibility does not match the spatial, temporal, or functional scale of natural phenomena, unsustainable use of the resources is likely and will persist as long as the mismatch of scales remains." Declines in salmon production due to habitat loss are masked and hard to detect relative to the time frame of institutional decision-making. The failure of institutions to adequately protect the resource over the rights of the entrepreneur is predictable because it is usually politically easier to favor economic growth over conservation. And by the time the affected natural resources have collapsed, the original policymakers are usually gone, leaving a fresh group of policymakers to respond to the public outcry to bring back these lost resources. Reclamation, however, is usually prohibitively expensive or socially or technologically impossible, leaving accomplishments largely in the token range.



In Alaska we have the same institutional function and structure that led to the decline of Columbia River salmon. These institutional factors include fragmentation of scientific effort, responsibility, and authority; a lack of accountability; boundaries of property and government that do not follow biological templates; unilateral or noncooperative decision-making; and institutions that fail to learn from experiences (i.e., adaptive management has not been embraced as a working concept; NRC 1996). In addition to these factors, Alaska has an additional impediment to habitat protection: unless harm to the resources can be conclusively demonstrated, development can proceed. This "burden of proof" is placed on the permitting agencies that all too often are understaffed, overworked, and subject to political pressures for funding. Juxtaposed against well-funded and highly motivated development interests, this mismatch continues to erode our resources.

State of Alaska agencies responsible for collecting scientific data are fragmented both between agencies and within agencies. For example, the Alaska Department of Fish and Game (ADF&G) assigns habitat responsibilities to 1 division and scientific research and management responsibilities to 3 other divisions, which are further fragmented into user-oriented divisions instead of biological subunits. Therefore, the Division of Sport Fish and the Commercial Fisheries Management and Development Division are frequently at odds over allocative issues rather than having a cohesive approach to scientific research or habitat management. According to the management coordinator for hatchery site selection, salmon hatchery permitting, which occurred mostly during the late 1970s and early 1980s, was administered by a division that was mandated responsibility for statewide hatchery development. Therefore, desirable physical attributes of candidate hatchery sites and external pro-hatchery pressures often received more weight in the permitting process than did potential detrimental impacts of the proposed hatchery on associated wild stocks (R. L. Wilbur, ADF&G, Juneau, personal communication).

Between state and federal agencies, programs are even more fragmented. Agencies have development mandates that are frequently at odds with maintaining salmon production. The decision-making process is often adversarial and not cooperative; that is, each agency, struggling to meet its perceived mission, often ignores input from sister agencies. For example, an ADF&G habitat biologist recently wrote in a memo to the director of her division that state permitting agencies involved with the Alaska Coastal Management Program need to work together with greater respect

and less acrimony and that the program, while "good on paper," unfortunately "falls apart under the press of daily work" (J. Schempf, Alaska Department of Fish and Game, Juneau, personal communication). HDR Engineering (1995) found that current practices in Alaska are inadequate for identifying, considering, and controlling cumulative impacts on the habitat. They noted that obstacles included a lack of commitment from top-level officials; unclear mandates and directives; uncertainty about the definition of cumulative impacts; insufficient resources; a lack of guidance, tools, standards, and thresholds for practitioners to apply; a lack of training and experience; lack of public understanding; inadequate information sources; and political pressure against addressing cumulative impacts.

Accountability for decisions is nullified by time because policy decisions of detriment to the resource often are not manifest to the public until years later. For example, the ADF&G Habitat Division budget for the 1997 fiscal year included a general fund reduction, inadequate remuneration for inflationary increases, redirection of habitat protection functions to special projects, and failure to fund needed anadromous stream identification. Effects of these policy decisions on the salmon resource, however, will not be evident for at least 1–2 salmon life cycles, by which time many of the budget framers will have been replaced or retired. Had the policymakers' cuts been in salmon instead of budget dollars, the public's reaction, rather than delayed by years, would have been immediate and certain.

The boundaries of private and government property in Alaska do not conform to biological templates. The lack of bioregionalism in the decision-making process was one of the primary causes of institutional failure in the Northwest. Rivers were not treated as the center of biological processes but were used instead as perimeters of government structure (NRC 1996). In Alaska, we make property boundaries based on similar criteria. For example, jurisdictions governing land uses in the Susitna River basin include several borough governments, more than a dozen municipalities, numerous federal and state government agencies, the military, and large private landowners, such as native and other corporations. The basin is also accessible to over 70% of Alaska's population via the highway system, or a quick boat or plane ride. Resource extraction, land development, and recreational pressures within the basin increase yearly. In such a complex jurisdictional environment one might rightly question how we can incorporate bioregionalism into our decision-making. Unfortunately, a geopolitical template

based on drainages and salmon migration routes is missing in Alaska, as it was in the Northwest.

Private land transfers from public Alaskan lands also creates significant threats to the salmon resources of the state. For example, Koski (1996) reported that Duck Creek in Juneau is listed by the Alaska Department of Environmental Conservation as 1 of 30 anadromous streams imperiled by urban runoff and related mismanagement. A local advisory committee for this watershed, however, in attempting restoration, found that "many public land managers and private land owners are either unaware of common best management practices (BPM) for urban watersheds or are skeptical of BPMs that are untested in Alaska." As more Alaskan lands, including critical fish and wildlife habitats, pass into private ownership, citizen and corporate landowners instantly become enfranchised with the responsibility for sustaining public resources. The absence of incentives to do this leads to short-term, self-interest decisions and not long-term public good. The failure to maintain critical habitat lands during these transfers puts all resources at risk. As an example, over 66% of the land adjacent to the lower 50 mi of the Kenai River is now in private ownership. These high-value wetlands and riparian areas provide critical habitat for rearing salmonids, but these uses are fading as owners develop the critical areas for commercial, residential, and recreational uses (Liepitz 1994).

Finally, Alaska is failing to learn or adapt based on experiences of other areas. While there are numerous examples of practices that have led to the extirpation of salmon in areas outside Alaska, we continue to follow the same course in Alaska. A recent buffer-strip argument on the Kenai River points out our failure to learn. Narrow buffer strips along a watercourse demonstrate fundamental misunderstanding of the aquatic system, yet in the process of implementing buffer strips for the Kenai River, the Kenai Peninsula Borough not only promulgated an inadequate 50-ft buffer strip but excluded its tributaries and other watershed areas from such protection. They failed to learn and adapt from the experience of the Pacific Northwest. In addition, they chose to follow the easier political decision of

private property rights over the common property right of salmon resource protection. Like so many political decisions, the impacts will be felt by all Alaskans, but most Alaskans did not participate in, nor were even aware of, the decision-making process.

## WILL ALASKANS CHOOSE SALMON?

Will Alaskans consciously choose to have salmon in their future, or will we find ourselves on the same downhill track as our neighbors to the south? The strong populations of salmon we have today will not survive without our efforts, our sacrifice, and our determination. Alaskans certainly agree that salmon are of great importance to our culture, economic future, and well-being (Meacham 1992), but the all-is-well illusion accepted by many political leaders and the general public has led to complacency. This myth must be abandoned if we choose to have salmon, and we will have to (1) change the "burden-of-proof" concept in our habitat decision-making process, (2) make decisions on watershed boundaries or bioregions rather than on political boundaries, (3) reorganize state agencies into biologically sound rather than user-oriented divisions, (4) educate and continue to train our scientific staffs on habitat-related issues, (5) learn from and adapt habitat protection policies by systematically evaluating past practices, (6) not assume that hatcheries can sustain harvest in the face of habitat and wild stock losses, (7) increase research programs on salmon life histories and enhance inventory assessments of salmon populations, and (8) take into account the long-term time frames of salmon production in cooperative, institutional decision-making. Alaska's sparse populations and remoteness has sheltered us from many of the difficulties experienced by our neighbors to the south, yet upon closer examination, we continue to see similar outcomes from comparable actions. Our wild salmon populations are doomed to follow the same pattern of loss as those in the rest of the Pacific Northwest only if we apathetically and myopically continue to practice the permissive habitat policies of the past.

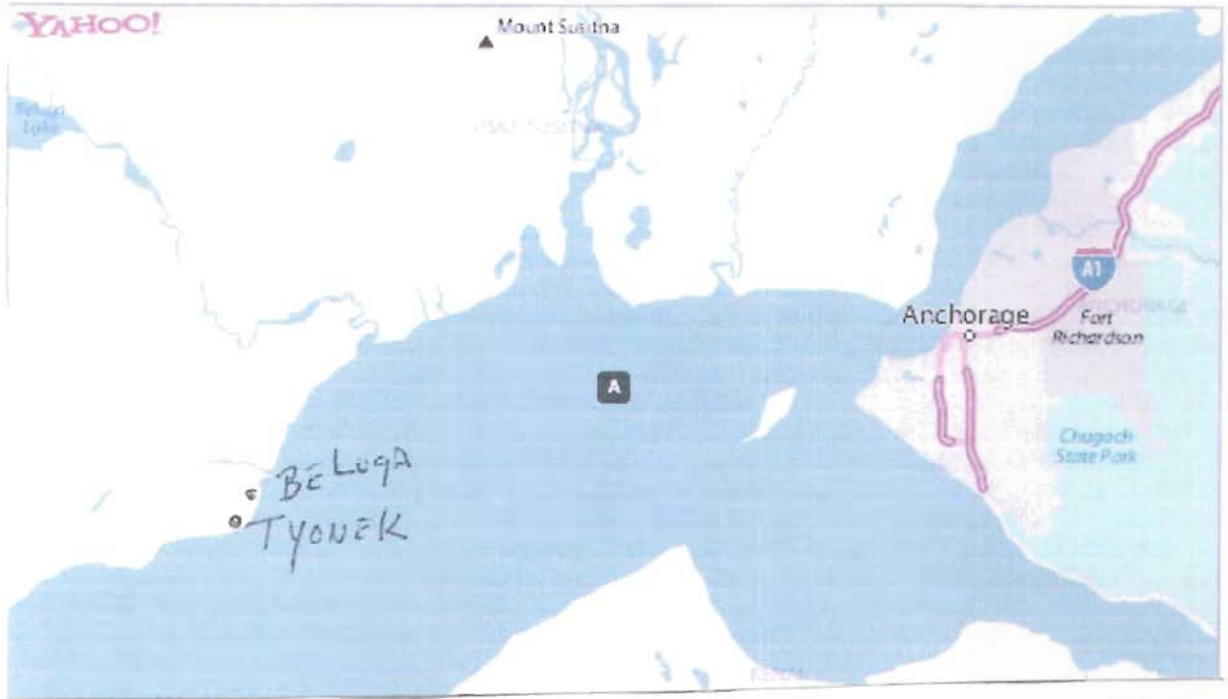
## LITERATURE CITED

- Dietrich, W. 1995. Northwest Passage, the great Columbia River. Simon & Schuster, New York.
- Eggers, D. M., L. R. Peltz, B. G. Bue, and T. M. Willette. 1991. Trends in abundance of hatchery and wild stocks of pink salmon in Cook Inlet, Prince William Sound, and Kodiak, Alaska. Alaska Department of Fish and Game, Division of Commercial Fisheries, Professional Paper 35, Juneau.
- HDR Engineering. 1995. Cumulative impacts in Alaska: where they occur and how agencies and coastal districts address them. Final report submitted to Cumulative Impacts in Alaska Management Team, Office of the Governor, Juneau.
- Huntington, C., W. Nehlsen, and J. Bowers. 1996. A survey of healthy native stocks of anadromous salmonids in the Pacific Northwest and California. Fisheries 21:3:6-13.

- Koski, K. 1996. Habitat restoration in Alaska. *Oncorhynchus*: newsletter of the Alaska Chapter of the American Fisheries Society 16(3):1.
- Lee, K. N. 1993. Greed, scale mismatch, and learning. *Ecological Applications* 3:560-564.
- Liepitz, G. S. 1994. An assessment of the cumulative impacts of development and human uses on fish habitat in the Kenai River. Alaska Department of Fish and Game, Division of Sport Fish, Technical Report 94-6, Anchorage.
- Meacham, C. 1992. Commercial fisheries: Alaska ranks first. *Alaska's Wildlife* 24(2):2-4.
- NRC (National Research Council). 1996. Upstream salmon and society in the Pacific Northwest. National Academy Press, Washington, D.C.
- Peltz, L., and H. J. Geiger. 1990. A tagging study of the effects of hatcheries on the 1987 pink salmon fishery in Prince William Sound, Alaska. Pages 1-17 in H. J. Geiger, editor. Pilot studies in tagging Prince William Sound hatchery pink salmon with coded-wire tags. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Research Bulletin 90-02, Juneau.

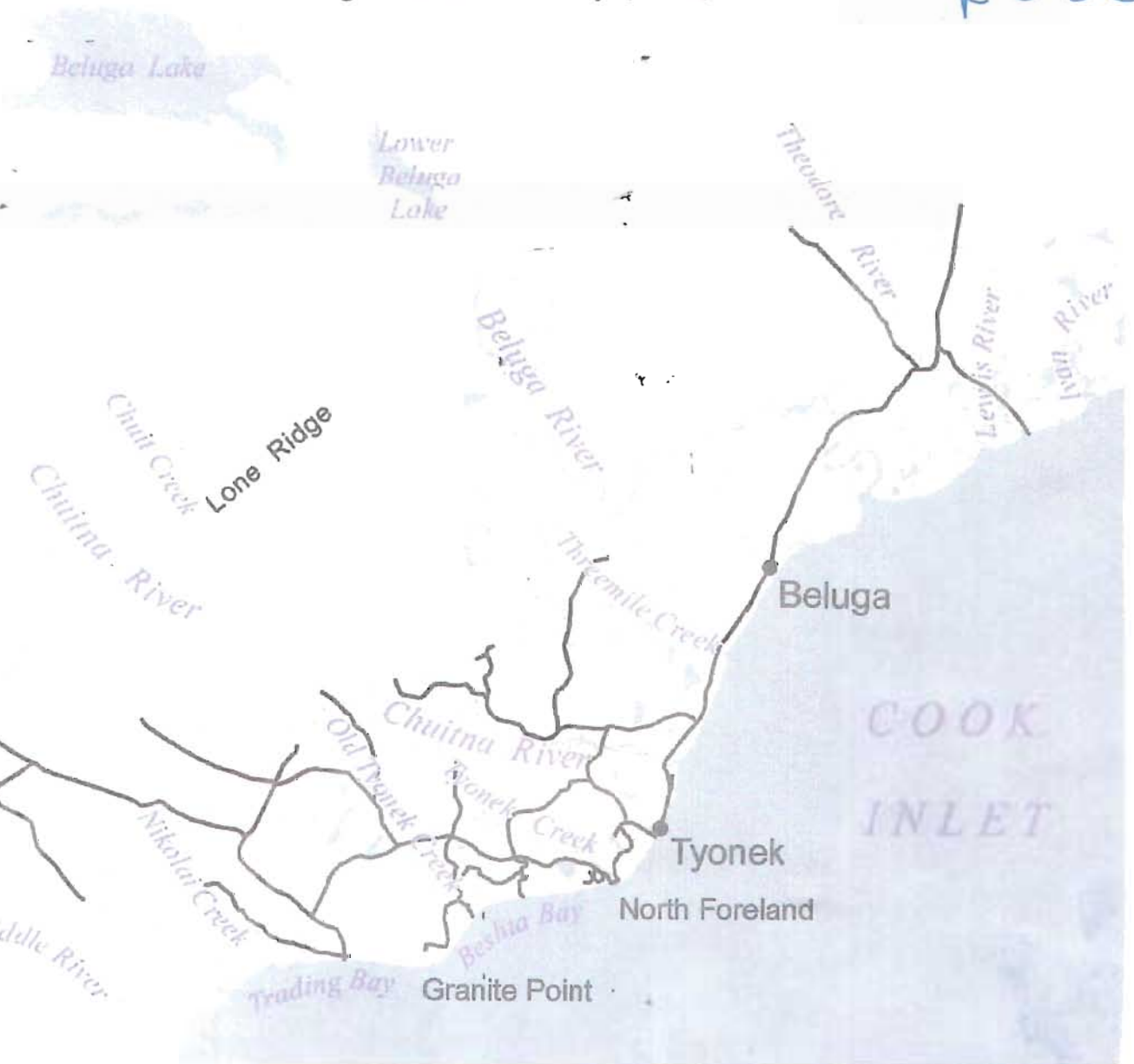
The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the bases of race, religion, color, national origin, age, sex, marital status, pregnancy, parenthood, or disability. For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-6173, (TDD) 1-800-478-3648, or FAX 907-586-6595. Any person who believes she/he has been discriminated against should write to: ADF&G, P.O. Box 25526, Juneau, AK 99802-5526 or O.E.O., U.S. Department of the Interior, Washington, DC 20240.





Beluga and Tyonek 45 miles West of Anchorage (Above)  
 Beluga Personal Use Fishery (Below)

RC53



PROPOSAL 358 Create **Personal Use fishery for Beluga Area.**

Beluga Area is 45 Miles West of Anchorage, on the West side of Cook Inlet.

The Area is not on the road system and accessible by Air at \$160.

I have been in the area for more than 26 years.

A Subsistence fishery was stopped in the 1980's.

Then the fish were plentiful and these items since have changed:

Theodore and Lewis Rivers are catch and release only for Chinook.

Three Mile Creek runs greatly reduced because of Northern Pike.

Chuitna (Chuit) River access totally reduced because of posted private native lands.

Summarize PROPOSAL 358

The **village of Tyonek agrees** with this proposal and **senting Larry Heilman as their representative, who will have comments.**

The **Department of Fish and Game has a position on our proposal that appears to oppose this proposal.**

**It appears that their evaluation is not complete because of the limited and questionable data used.**

*(Dept. Comment) This proposal would reduce allocation of salmon stock between users in the Beluga Area of Western Cook Inlet and increase the harvest of targeted salmon species.*

This should not a reason to oppose the proposal.

Once a fishery is in place, management of resources should control the resource. By either opening and/or closing the fisheries as escapements change.

*(Dept. Comment) Fish Creek has been stocked annually with sockeye salmon fry since 1976. This fishery is prosecuted to harvest surplus sockeye salmon in excess of the escapement goal. This fishery targets both Fish Creek wild and hatchery sockeye salmon stocks. The Fish Creek personal use fishery has been open early only once during the past eight years due to low returns of sockeye salmon to the Fish Creek drainage.*

The opposition addresses only the sockeye and not the other types of salmon. We did not intend to limit the fish to sockeye and expected a fair share of all types, depending on escapement.

The Beluga River is in the proposal area and has a very strong sockeye escapement. This river has limited fishing pressure because of access and current flow. In the Beluga area there

are many sockeye that pass the area that are not destined for Fish Creek. All fish that pass the area need to be evaluated.

The management issue again surfaces. All salmon type should be the basis to evaluate this proposal.

(Dept. Comment) DEPARTMENT COMMENTS: The department OPPOSES the biological aspects of this proposal because many small streams in the Beluga area have fairly small salmon populations and likely could not support a personal use fishery. The Beluga Area of West Cook Inlet includes several small stream with small salmon populations, all systems within this area are viewed as being fully allocated between subsistence, sport fish, educational and commercial users

On this comment that the fish are fully allocated between subsistence, sport fish, educational and commercial users. Except for subsistence and sport fish, they seem to forget our Constitution, Article VIII, Sections 1, 2, 3 and 4.

Section 1. It is the policy of the State to encourage the settlement of its lands and the development of its resources by making them available for maximum use consistent with the public interest.

Section 2. The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people.

Section 3. Whenever occurring in the natural state, fish, wildlife, and waters are reserved to the people for common use.

Section 4. Fish, forests, wildlife, grasslands, and all replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.

(Dept. Comment) COST ANALYSIS: The Department does not believe that approval of this proposal may result in an additional direct cost for a private person to participate in this fishery.

This Personal Use Fishery will have negligible impact on the Upper Cook Inlet salmon because of the limited access, limited number of personnel and expense to fly in. Transportation will be excess of \$160, per person.

Older personnel will have access to salmon.

Salmon allocation will be fair.



HORNER BLANCHARD

SOUNDINGS IN FEET @ MEAN LOW TIDE  
DEFINED AS AVERAGE LOW TIDE NOT HIGH TIDE  
NOR LOW LOW TIDE BUT AVE. OF HIGH AND LOW TIDE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

KENAI  
B4  
A

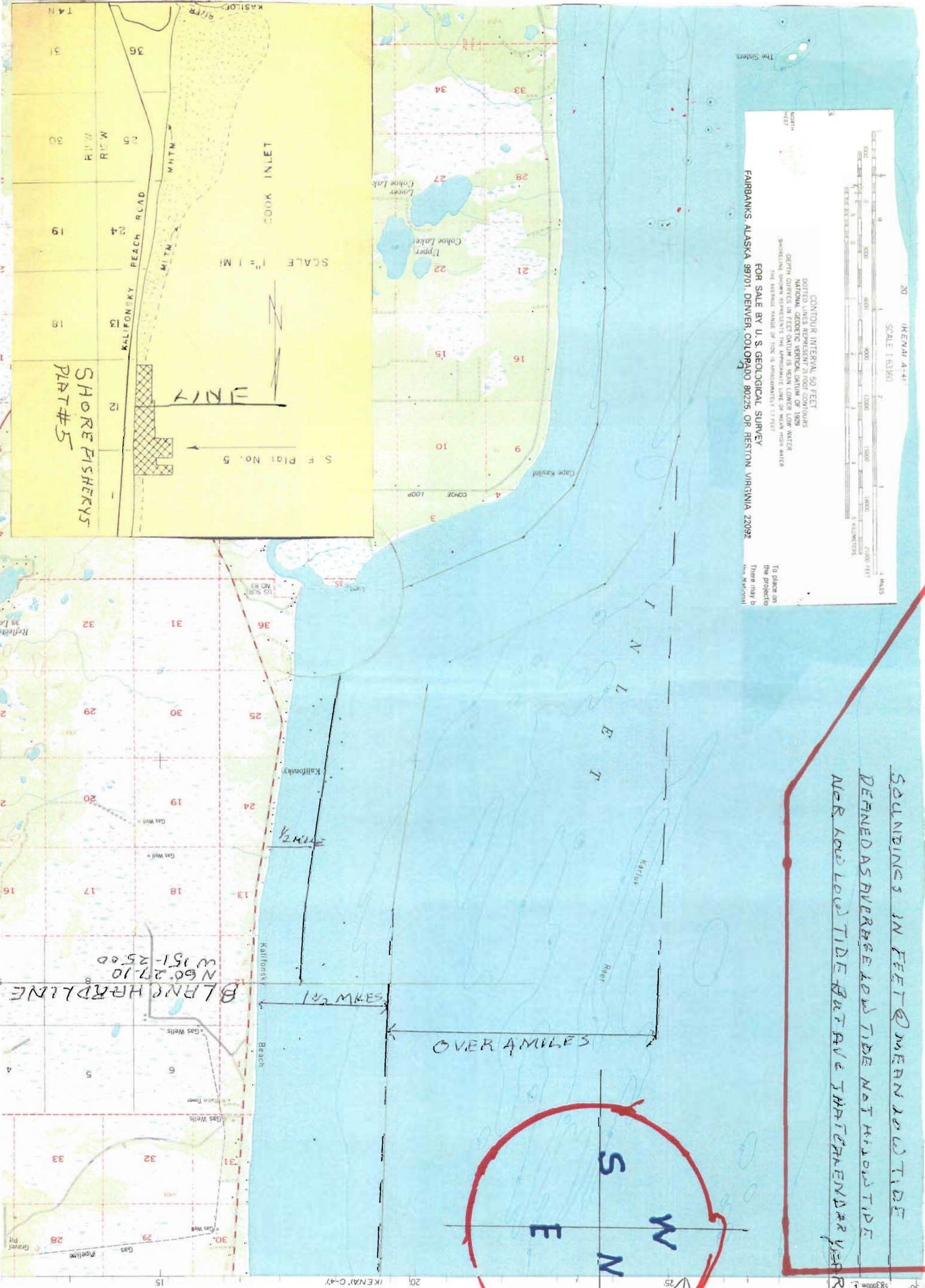
PLS4

20 KENAI A-41  
SCALE 1:63,760

CONTOUR INTERVAL 50 FEET  
DOTTED LINES REPRESENT 25 FOOT CONTOURS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929  
DEPTH CURVES IN FEET DATUM IS MEAN LOWER LOW WATER  
SHEDLINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE MEAN RANGE OF TIDE IS APPROXIMATELY 17 FEET

FOR SALE BY U. S. GEOLOGICAL SURVEY  
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

To place on  
this project  
the National



SCALE 1" = 1 MI

S. F. Plot No. 5

SHORE FISHERIES  
PLAT # 5

KALIFONSKY BEACH ROAD

COOK INLET

W.M.H.M.

W.M.H.M.

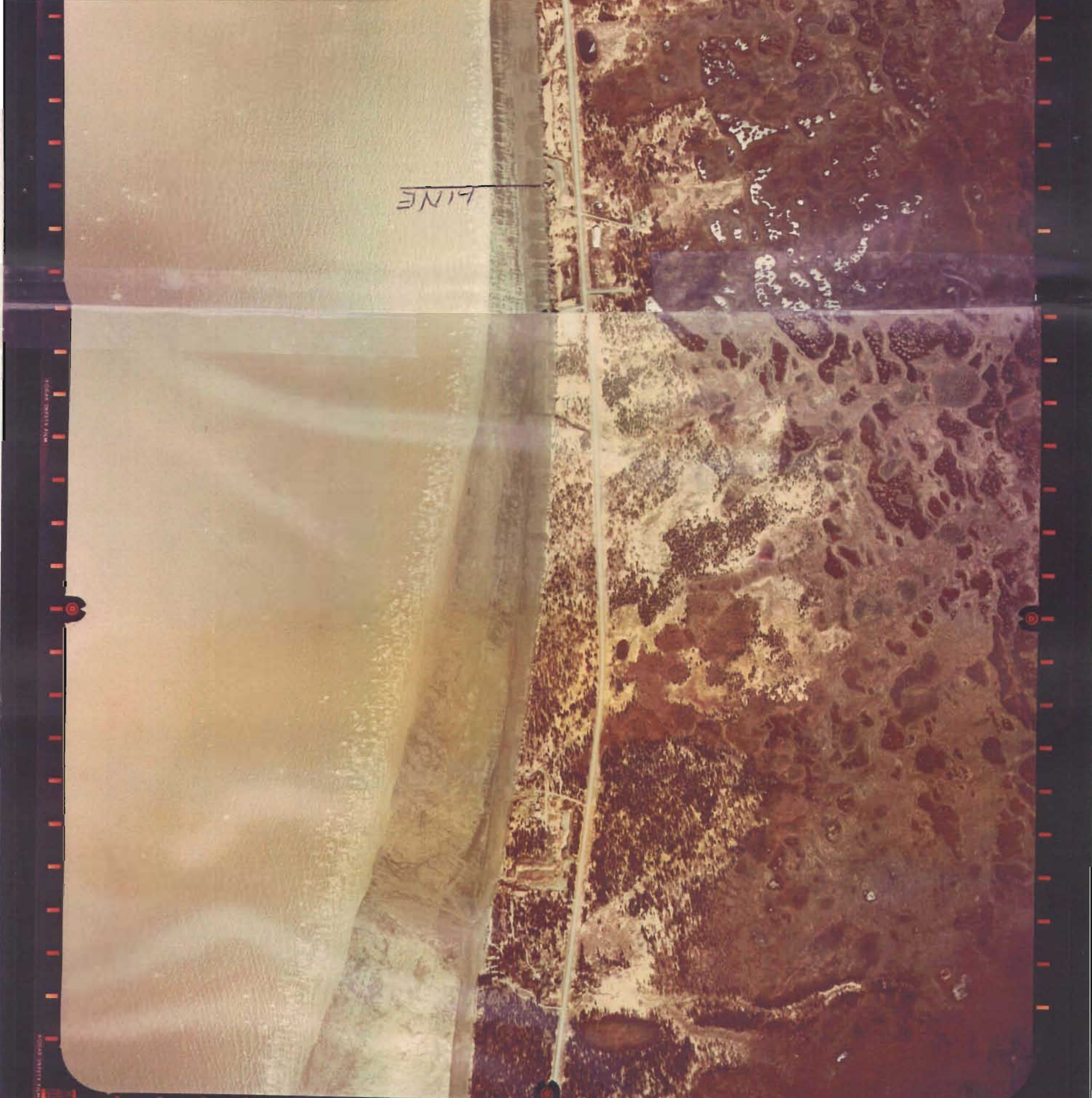
36  
31  
30  
19  
18  
12

KASLOFF RIVER

BLANCHARD LINE  
N 60° 27' 10"  
W 151' - 25.00'

1





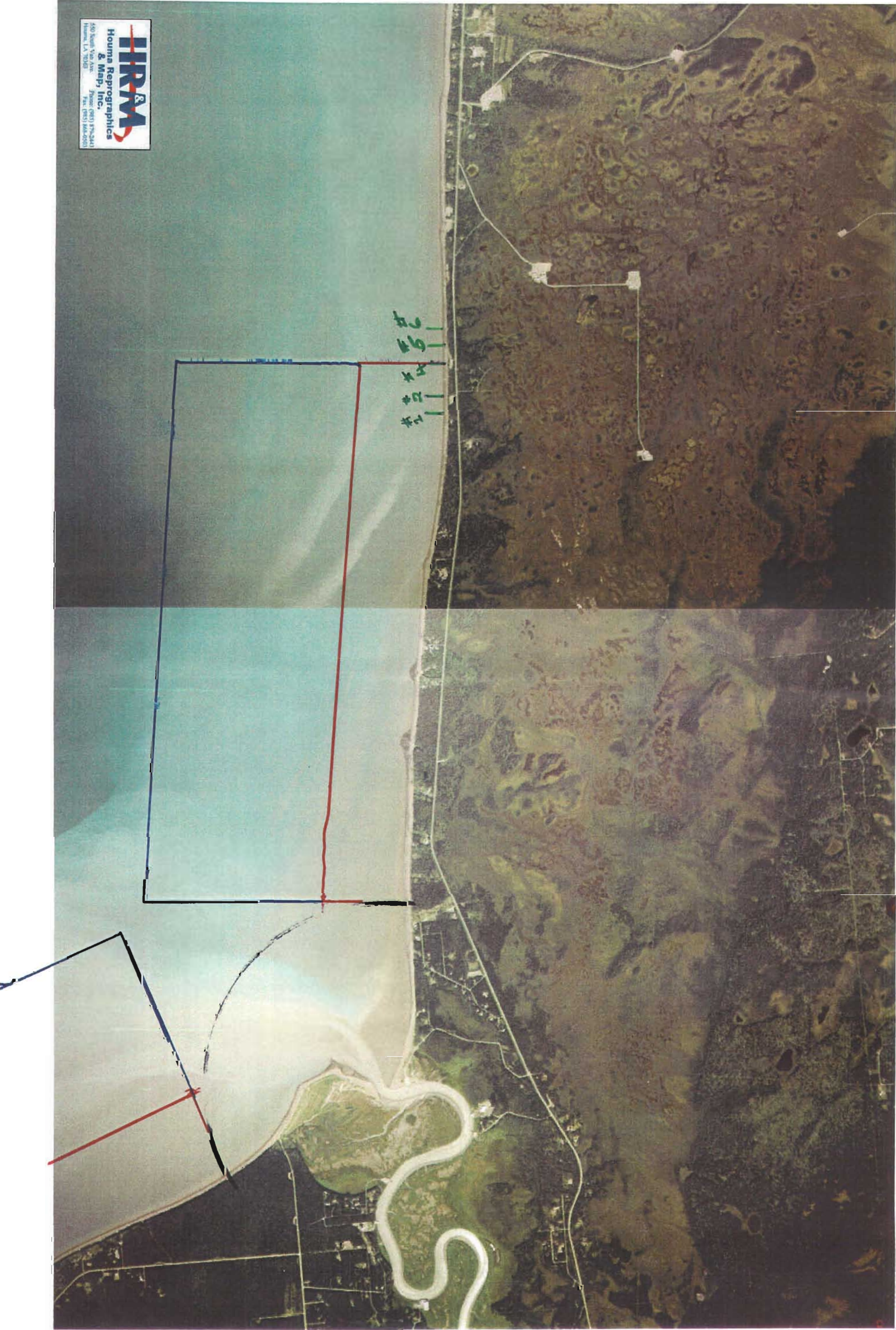
LINE

5/25/82





**HRM**  
Houma Reprographics  
& Map, Inc.  
450 North Van Ave.  
Houma, LA 70309  
Phone: (883) 776-2441  
Fax: (883) 788-0001





4

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

KENAI (B-4) QUADRANGLE  
ALASKA-KENAI PENINSULA BOROUGH  
1:63,360 SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey  
Control by USGAS and USCE

Topography by photogrammetric methods from aerial photographs  
taken 1950. Culture revised in part from aerial photographs  
field annotated 1960. Map not field checked.

Selected hydrographic data compiled from USCGS charts H31968  
(1940) (1:40,800 scale), H3197A, H3197B, (1910) (1:10,000 scale),  
8553 (1952) (1:194,154 scale), and 8554 (1952) (1:200,000 scale).  
This information is not intended for navigational purposes.

Universal Transverse Mercator projection, 1927 North American Datum  
10,000-foot grid (based on Alaska coordinate system, zone 4  
1,000-meter Universal Transverse Mercator grid ticks,  
zone 5, shown in blue).

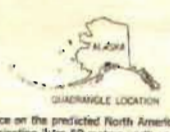
Gray land lines represent unsurveyed and unmarked locations  
predetermined by the Bureau of Land Management  
Folio 5-95, Seward Meridian.

Swamps, as portrayed, indicate only the wetter areas,  
usually at low relief, as interpreted from aerial photographs.



CONTOUR INTERVAL 50 FEET  
DOTTED LINES REPRESENT 250-FOOT CONTOURS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929  
DEPTH CURVES IN FEET-DATUM IS MEAN LOWER LOW WATER  
SHORELINE CURVES REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE HORIZONTAL RANGE OF TIDES IS APPROXIMATELY 47 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY  
FARBANKS, ALASKA 99781, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



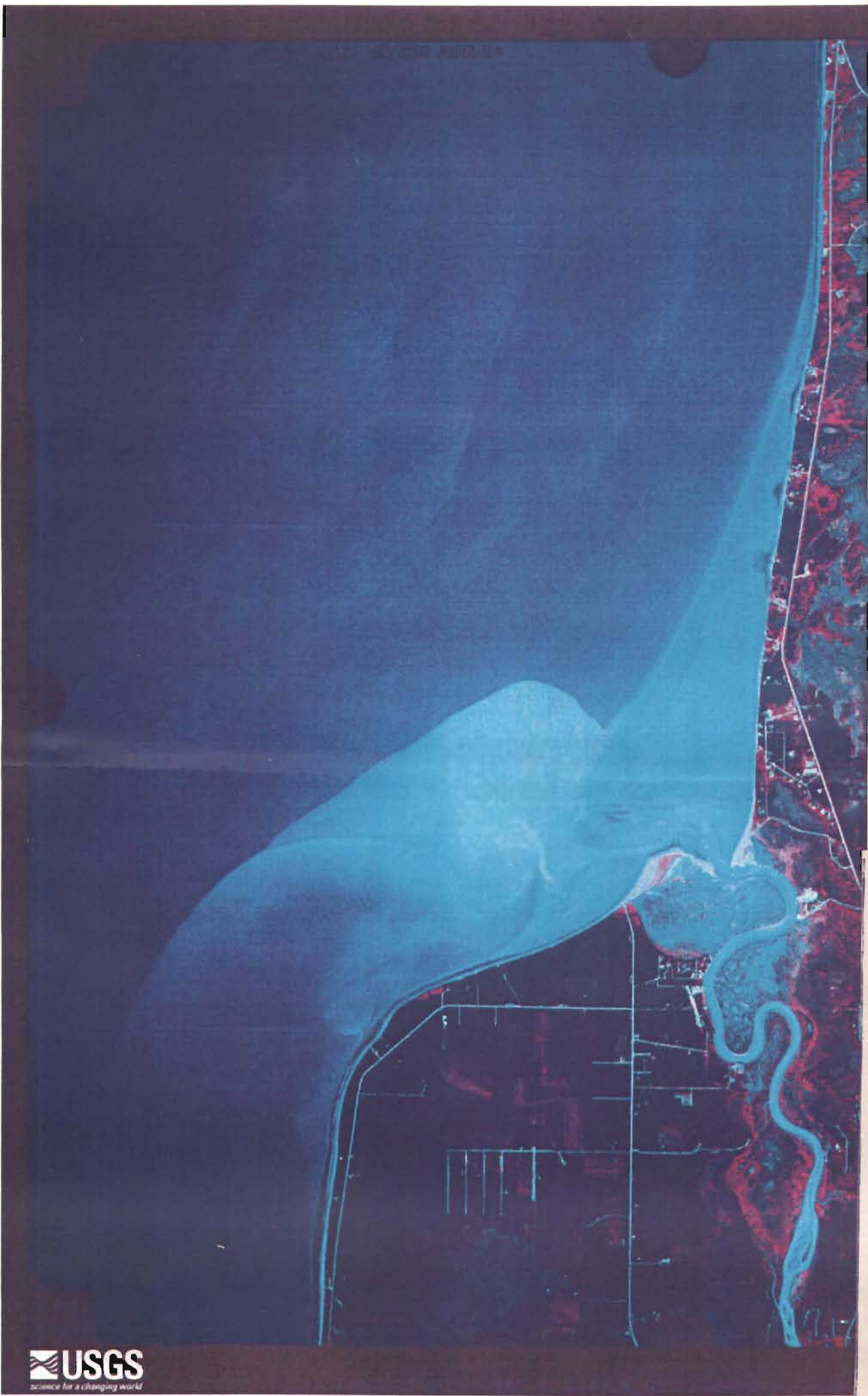
ROAD CLASSIFICATION

Heavy-duty	Light-duty
Medium-duty	Unimproved dirt
Trails	State Routes

KENAI (B-4), ALASKA  
60°15' - 60°15' 15" N / 151°07' 30" - 151°07' 30" W  
3951  
LIMITED REVISIONS 1980



57





### INLET FISH PRODUCERS, INC.

P. O. Box 114, Kenai Alaska 99611

(907) 283-9275

FAX (907) 283-4097

February 4, 2002

#### Comparison of Average Weights for Cook Inlet Sockeye Salmon Kasilof Section Setnet Fish Compared with Average Catch

During the February meetings the Board of Fish will consider changing the dividing line between the Kasilof and the Kenai Sections. The current dividing line is the "Blanchard Line" and runs through fishing sites operated by the Blanchard family. There is concern that the fish caught in the setnet fishery north of the Kasilof River but south of the Blanchard Line may contain a high percentage of sockeye bound for the Kenai River.

We have reviewed our production information for the past three years and we believe we have statistics that show that the fish caught just south of the Blanchard Line are significantly smaller than the average sockeye caught in the Upper Cook Inlet sockeye fishery.

Inlet has purchased fish from setnetters that operate just south of the Blanchard Line for several years. These operations include the Blanchards, Shaduras, Koskes, and several others. Our purchase weights from other areas of the Kasilof section have been small enough that the "Blanchard Line" deliveries often dominate our Kasilof section purchases.

In this study we are attempting to determine if there is a significant size difference between our "Blanchard Line" purchases and an "ocean run" mixture of sockeye. The figures indicate that the fish caught just south of the Blanchard Line are much smaller than the average size of Upper Cook Inlet sockeye, and this indicates that they have a very high percentage of sockeye bound for the Kasilof River.

To compare the numbers, we reviewed catch and production statistics from 1999, 2000, and 2001. Although we do not weigh each fish when it is purchased, we do have computer generated pack statistics from the frozen production. This information is generated from the individual barcode labels that are generated for every carton produced during the season. With the data base, we can review the amount of fish (and thus the average size of the fish) for every carton and every production period during the season.

As all of the fish are processed...

- 2 -

#### Comparison of Average Weights for Cook Inlet Sockeye Salmon Kasilof Section Setnet Fish Compared with Average Catch

delivered, we can generally match a particular fishing date with the frozen production data which will follow one to two days later.

It was very simple to choose dates for the "average" catch data. We chose several days at the peak of the run, when there is a full mix of Kenai, Kasilof and other rivers. We then compared this with some specific dates when only the Kasilof section (and sometimes just the 1/2 mile portion of the Kasilof section) was open.

We have been able to locate significant production figures for both 1999 and 2001. Unfortunately, during all of the openings when the Kasilof section setnetters were operating during the 2000 season, the majority of our pack at that time was dedicated to toted fresh shipments to Canada (for canning). We do not count the number of fish for the toted fresh shipments, and thus we cannot determine an average fish size for the Kasilof section setnet openings in 2000.

#### 2001

For the "average" sockeye sizes, we chose production from the 18th, 19th and 20th of July. These were fish produced from the very large opening on the 16th of July, but also includes fish from the Kasilof 1/2 mile setnet openings on the 17th and 18th of July. The calculation from average net weight to average round weight assumes a recovery yield of 74%.

Date	Weight	No. Fish	Avg Net Wt	Avg Round Wt
July 18	158,650	33,870	4.68	6.33
July 19	153,600	33,786	4.55	6.14
July 20	<del>130,000</del>	<del>26,930</del>	<del>4.83</del>	<del>6.52</del>
Total	442,250	94,586	4.68	6.32

We have determined that there were four significant Kasilof 1/2 mile fishing dates when we could get distinct production information:

- July 25 (Kas 1/2 mile s/n) - production on July 26
- July 26 (Kas drift and s/n) - production on July 27
- July 27&28 (Kas 1/2 mi s/n) - production on July 29

(EO No. 2S-17-01 and 2S-18-01 opened setnet fishing in the 1/2 mile

6

Comparison of Average Weights for Cook Inlet Sockeye Salmon  
Kasilof Section Setnet Fish Compared with Average Catch

regular period on July 26 included drift and setnet fishing in the entire Kasilof section, but nowhere else. EO #21 opened setnet fishing in the 1/2 mile Kasilof corridor from 3pm July 27 to noon on July 28.)

Date	Weight	No. Fish	Avg Net Wt	Avg Round Wt
July 26	29,350	7,310	4.01	5.42
July 27	27,100	5,979	4.53	6.13
July 29	10,800	2,524	4.28	5.78
Total	67,250	15,821	4.25	5.74

Our catch totals for July 25, 27 and 28 were 100% setnet fish from the 1/2 mile corridor of the Kasilof section. The Blanchard Line participants accounted for 83.8% of our fish purchases on these three dates. On the 26th of July, when the full Kasilof section was open to both drift and setnet fishers, the Blanchard Line participants accounted for only 42% of the fish, and a significant amount (37%) was delivered by drifters. It is significant that the production on July 27 showed a much higher average fish size. If this production date is eliminated, the remaining fish (which were 84% Blanchard Line production) dropped to an average size of only 5.51 lbs.

Date	Weight	No. Fish	Avg Net Wt	Avg Round Wt
July 26	29,350	7,318	4.01	5.42
July 29	10,800	2,524	4.28	5.78
Total	40,150	9,842	4.08	5.51

The average round weight of the fish from the general opening on July 16 (plus significant amounts of 1/2 mile Kasilof setnet fish) was 6.32 lbs, whereas the average weight of the fish from the Kasilof 1/2 mile section (dominated 83% by Blanchard Line deliveries) was only 5.51 lbs. This shows that the Blanchard Line fish in 2001 were primarily Kasilof River sockeye, and contained only a minimal amount of Kenai River sockeye.

1999

For the "average" sockeye sizes, we chose production from the 16th and 17th of July. These were fish produced from the sizeable opening on the 15th of July. We also included production from the 20th of July, were produced from fish caught on the 19th of July. The calculation from average net weight to average round weight assumes a recovery yield of

Comparison of Average Weights for Cook Inlet Sockeye Salmon  
Kasilof Section Setnet Fish Compared with Average Catch

74%.

Date	Weight	No. Fish	Avg Net Wt	Avg Round Wt
July 16	244,900	47,776	5.13	6.93
July 17	97,150	18,587	5.23	7.06
July 20	212,000	40,318	5.26	7.11
Total	554,050	106,681	5.19	7.02

We have determined that there were two significant Kasilof 1/2 mile fishing periods when we could get distinct production information:

- July 17 (Kas 1/2 mile s/n) - production on July 18
- July 18 (Kas 1/2 mile s/n) - production on July 19

(EO No. 2S-10-99 and 2S-11-99 opened setnet fishing in the 1/2 mile area of the Kasilof section from 6am on July 17 to 10am on July 18. Fishing was then closed until the regular period on July 19.)

Date	Weight	No. Fish	Avg Net Wt	Avg Round Wt
July 18	104,950	23,589	4.45	6.01
July 19	71,400	14,856	4.81	6.49
Total	176,350	38,445	4.59	6.20

Our catch totals for July 17 and 18 were 100% setnet fish from the 1/2 corridor of the Kasilof section. The Blanchard Line participants accounted for 79.3% of our fish purchases on these two dates.

The average round weight of the fish from the general opening on July 15 was 7.02 lbs, whereas the average weight of the fish from the Kasilof 1/2 mile section (dominated 79% by Blanchard Line deliveries) was only 6.20 lbs. This shows that the Blanchard Line fish in 1999 were primarily Kasilof River sockeye, and contained only a minimal amount of Kenai River sockeye.

If anyone is interested in raw backup data, it can be provided.

*Vincent Goddard*  
Vincent Goddard

7

**For the record, I do not intercept fish. I have a license from the state of Alaska to harvest salmon from Susitna to Seward or what is commonly known Area H.**

**For the sake of clarification; Mr. Marcotte has stated that the fisheries are fully allocated. Truthfully the fishery in area H has been fully allocated for over 30 years or since the advent of limited entry. All actions since have been and will be re-allocations.**

**The reason the state/board of fish has to respond to the same issues every year is because one component of the fishery has been limited for over thirty years and the other components remain un-limited and expanding.**

## **BOARD OF FISH TESTIMONY- 01-30-08**

**From his award winning book, Design With Nature, Ian McHarg explains the importance of preserving the primary dunes. The dipnet fishery at Kasilof has illustrated an obvious disregard for habitat and vegetation of the near shore areas.**

**On the Kenai River hydrocarbons spike in July, horsepower and erosion debates remain unresolved. In-river fisheries continue their expansion. By the bank 10-15% of spawning area is lost.**

**In Mat-Su streams and systems pike eat smolt, beaver dams block spawners, and junk cars are parked in essential habitat. Salmon returns and surrounding habitat are substantially and adversely impacted.**

**Over-escapement has created a pattern of waste in both the Kenai and Kasilof Rivers. In Skilak Lake smolt are still only .5 grams; the smallest in the state. Please see ADF&G report. Smolt cannot survive at .4 grams.**

**Rather than allowing the practice of adaptive management current board policies call for mandatory closures of the commercial fishery when fish are present. This is not a statewide practice and most certainly runs contrary to managing for optimum sustained yield. Lost yield from mandatory closures from the current plans represents millions of dollars lost to local economies and commercial fishing communities. Remember that all users benefit when a fishery is managed for optimum sustained yields. The largest returns to the Kenai River come from escapements of 450,000 to 650,000.**

**Many of the same issues face the board and one of the most obvious reasons for that is that the commercial component of the fishery has been limited and the in-river component continues to expand. On a previous Cook Inlet Cycle I authored 31 proposals and everyone was voted down. I take no pride in this perfect record.**



As previously stated there has been a loss of habitat spawning area in the Kenai River. Building set-backs exist but are not enforced. What happened to the board's policy of no net loss of habitat? Skilak smolt are .5 grams. The commercial fishery faces mandatory closures when fish are present. Guides remain unlimited and seek a cap at their highest level of participation. How will limited entry protect the guides if it is no longer recognized in the commercial fishery? The in-river fishery continues to expand. Commercial fishing communities have been substantially and adversely impacted.

I encourage the board to vote for

- 1- a drift only Kenai River
- 2- a biological trigger for all P.U. fisheries
- 3- a ban on the boat dip netting
- 4- an adjusted escapement (450,000 to 650,000, Kenai River)
- 5- eliminate mandatory closures when fish are present (adaptive management)
- 6- management for optimum sustained yield
- 7- a legitimate board meeting held in the area of concern (Soldotna) where all board members are present a record is kept, and commercial fisheries have a rep on the board. It has been 27 years. Be fair !

Any Questions ?

John McCombs, Ninilchik, Alaska. 99639



39087

## Oppose proposals 116, 132 and 203

January 30, 2008

RC 56

Board of Fisheries Members,

Proposals 116, 132 and 203 were submitted by their authors for no other reason than to destroy the commercial fishing industry in Cook Inlet. These proposals reveal the true purpose of the organizations who wrote them, which is to create a "tourism only" summer economy throughout the Cook Inlet region.

In my opinion, proposals 116, 132 and 203 violate the intent and purpose of Alaska's Limited Entry Law. All three violate or disregard the "Common Use" clause and the "No Exclusive Right of Fishery" clause of Article VIII of the Alaska State Constitution.

Proposal 116 establishes a sport fish priority for all salmon in the Cook Inlet at the expense of the historically established commercial fisheries. Proposal 132 dovetails with 116 by populating that priority with 51% of all species. This goal can only be achieved by taking fish from commercial fisheries and abandoning biological management as well as escapement goal ranges. Perhaps most revealing of all is proposal 132's stated goal to restrict the Commissioner's Emergency Order Authority, which prevents in-season, adaptive management. Proposal 203 restricts commercial fishing to one day per week during the historical run time when the greatest numbers of surplus fish are available for harvest in salt water. These three proposals will substantially and adversely impact the economic viability of Cook Inlet commercial fisheries, effectively bankrupting them.

Combined, proposals 116, 132 and 203 demonstrate no respect for Alaska's historical goal, which was to manage for maximum sustained yield in order to provide the maximum benefit to all Alaskans, sport or commercial. These proposals guarantee lost yield, which will waste a valuable Alaskan resource. And, as previously stated, were written to destroy Alaska's commercial fishing industry, which will in turn devastate Cook Inlet's commercial fishing communities.

In summary, let me caution the Board that unrestricted tourism is not compatible with any other commercial user group. Tourism has basically stopped commercial logging throughout Alaska, has prevented strategically important oil extraction in ANWAR, and is presently working full time to stop further mineral extraction Statewide. For the sake of Alaska's economic future, I implore you to reject proposals 116, 132, 203 and other similar proposals.

Sincerely yours,



Robert E. Merchant  
Kenai, AK

Teague Vanek  
N.utchik, Ak  
Feb. 1, 2008

I would like to speak to three issues in my testimony. Two issues are brought up in proposals I submitted and one issue is a general issue of concern.

RC57

First, my proposal #213 asks that dipnet fishing be allowed only by abundance based management. Currently, dipnetting has an opening date without regard to abundance. This would be fine if it was a small or limited fishery, but dipnetting with gillnet web has become a huge factor, which has an impact on escapement counts which are used to manage the commercial fisheries. We have had too many cases where the commercial fishery has been restricted for conservation concerns early on, only to have a glut of over-escaped wasted fish later on. All users should be made to share the burden of preventing this. As it is now, overescaped wasted fish and the resulting reduced abundance of salmon returns only adversely affect commercial fishermen. Dipnetters are immune from the results of wasteful management practices.

Second, my proposal #103 asks that gillnetters be allowed to use three shackles of monofilament instead of one. I can tell you from experience that fish drop out less with mono than our old multistrand gear. Anyone who says otherwise is wrong. Monofilament gear is cheaper to buy and makes better use of our fishing resource.

Finally, the largest issue of all is outlined in many proposals here in many ways. It is the issue of allowing managers to have the flexibility to manage for Maximum Sustained Yield. Too many of the regulations in place now tie managers hands and cause overescapement which substantially and adversely affects harvesters, processors, habitat conditions, and the fishing community in general. Examples of these regulations include: windows for setnetters, arbitrary closing dates for the season, and artificially high escapement goals (including tiered escapement goals for the Kenai River). None of these things lend help to providing for Optimum or Maximum Sustained Yield. Another really good (or should I say BAD) example is the season closing date for East Side setnetters. With it there isn't ANY meaningful harvest of pink salmon in Cook Inlet. Now, how does that fit in with Maximum Sustained Yield, especially when there isn't a conservation concern with either pinks or silvers? The Board of Fisheries needs to decide that providing for a flexible management system:

- allowing for inseason Emergency Order Authority to local managers
  - with no preset closures, windows, or arbitrary season ending dates
  - and which require managing for Maximum Sustained Yield
- to be more important than managing only for the sake of arbitrary restrictions.

Teague Vanek

Steve Vanek  
Ninilchik ,AK

January 30, 2008

RC 58

I am submitting this for the record in lieu of testimony on proposals.

I formally object to testifying before only two or three Board of Fish members here in Soldotna. I believe my constitutional rights are being denied. I am being treated differently than other citizens of the State of Alaska who can testify before the full Board. This is discriminatory. There is no way my testimony can be properly presented to the absent Board members. There is no way for absent Board members to ask me questions. Asking questions is an integral part of the public testimony. This is like the separate but equal status of schools before desegregation.

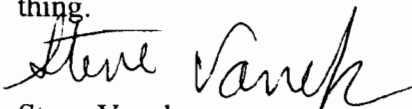
Providing testimony to less than the full board in Soldotna is a sham that was started by a previous Board. That this Board perpetuates this sham is discouraging and unacceptable. The Board meeting should have been held in Soldotna since most of the proposals deal with the Kenai River. The full Board should be here to hear my testimony.

The other sham started by a previous Board is the committee process which does nothing but add days to the meetings and negates the public testimony of those of the public that cannot stay for the committees. There have been very few interactions between Board members and testifiers since the committee process was started and almost no questions are ever asked by the Board to the public during testimony. That is because the testimony has become a formality that has to be gotten done with as soon as possible.

Why not save time by dispensing with the public testimony and go into committees immediately since deliberation is based on the committee recommendations anyway.

Better still would be to forget the committee process and start deliberations immediately after public testimony. This saves time. Use the committees for exceptional situations when it appears that a resolution of a controversy could possibly be obtained by a sit down committee. Why waste committee time rehashing things heard in public testimony when it is obvious that committee members are not going to change their positions.

This Board's mode of operation is not constrained by a previous Board. Now, do the right thing.



Steve Vanek  
Ninilchik, AK.



There were 34 speakers representing individuals, Matanuska-Susitna Borough, Houston Chamber of Commerce, Mat Valley Fish & Game Advisory Committee, Susitna Valley Fish & Game Advisory Committee, UCIDA, CIAA, sport fishing guides, tackle shop owner, MSB Blue Ribbon Commission, Kenai Keepers, Kenai / Soldotna Fish & Game Advisory Committee, Wasilla City Council, Mat – Su Borough Mayor. There were 50 – 60 people present at the highest levels of attendance.

A summary of the comments made follows:

- A lot of concern about not meeting sockeye escapement goals in the Susitna / Yentna Rivers and Fish Creek
- Also concern about low returns on Coho, chum and kings in some UCI systems
- Repeatedly requested BOF to address inequities in allocation of salmon stocks in UCI between commercial fishermen and in-river users in the Northern CI area (record commercial catches in Central District and sport fish closures in NCIMA).
  - One solution was to restrict commercial fishermen to more restricted areas or keep them closer to the Kenai/Kasilof river mouths to pass more fish north.
  - Need to look at windows: give ADF&G more flexibility in dealing with or adjusting mandatory window periods
- Repeatedly heard the comment that when the commercial nets were in the water, the rivers were empty of fish
  - Several comments about having EO's and extra openings when people were going PU fishing; driving hundreds of miles and then no fish available to dip net.
- Many comments about lack of PU fishery in Mat-Su
  - Folks feel that commercial interception and ADF&G mismanagement have contributed to closure of PU fishery for past ten years.
- Several folks testified to serious decline in all salmon stocks in Valley since the 60's through the 80's. Many reported seeing lots of fish in the rivers then and now they're not seeing many or any in the rivers.
- Several sport fishing guides testified about losing business because of NCIMA closures and restrictions
  - Lost 45 charter days during 2007 Coho season
  - Lost \$1500 - \$5000 / day when sports fishery closed
  - Sports fish guiding becoming major industry in NCIMA, but growth will be hurt if fish are not available for harvest in rivers
  - Cancelled several trips for several days for 3 boat operation; lost thousands of dollars
- Several speakers said Alaskans should have priority access to fish stocks, as stated in the state constitution
- Concerns expressed about the status of chum stocks in NCIMA
- Folks want allocation management decisions based on science and what's best for the resource
- Testimony given about the value of sports fishing to the NCIMA – millions of dollars

- 170,000 tourists through Valley in summer and a large number of these folks want to fish – hard to do if no fish or closure / restrictions in place.
- Mat Su king salmon derby off 10% because of lack of fish
- Alaska’s reputation as sports fishing “paradise” suffering significantly
- Many people asked BOF to take positive action to get more fish into NCIMA
- Some testimony that there are no more beaver dams now than 20 – 30 years ago
  - Pike are a concern in some areas, but is not THE problem with salmon returns
- Some folks frustrated with the way ADF&G manages PU fishery in Kasilof and Kenai Rivers
- Several folks concerned about the lack of fisheries research data in NCIMA: need real counts of fish: act cautiously
- Call for declaring sockeye and chums in UCI as stocks of yield concern
- Tackle shop owner sees \$30,000 fluctuation in August sales for Coho, depending on whether fish are in rivers or not
- Concern expressed that ADF&G reports are not released in time to allow AC’s to factor department comments into their respective discussions and subsequent recommendations
- Recent studies suggest Yentna sonar may be significantly under-counting sockeye escapement
- People from the Valley go sports fishing in Kenai because they know they can catch fish there – Valley is very “hit or miss”.
- Concern about windows hampering biological management of stocks
- Floods in 1986 and 2006 either had or will have significant short term effects on king and Coho returns to NCIMA

Documents included with this report are a letter from the Houston Chamber of Commerce and Houston Lions Club; and a letter from Dianne Payton regarding the Yentna River.

Other documents that were also submitted through the hearing include: RC’s 7, 26, 30, 42, 43, and 45.

**Houston Chamber of Commerce and Houston Lions  
presents:**



**Mat-Su Valley-wide Pike Derby starts on March 1-30  
2008**

Pike Derby Tickets are \$10 per person or \$25 for a family. Categories of Prizes will be: 1. The most number of pike checked in by one person. 2. The most pounds of pike checked in by one person. 3. The most total length of pike checked in by one person. 4. The heaviest Pike. 5. Lightest Pike. 6. Longest Pike. 7. Shortest Pike. Prizes will be awarded at the Saturday Family Pike Parties 8<sup>th</sup> at Prator Lake, 15<sup>th</sup> at Nancy Lake, and 22<sup>nd</sup> Memory Lake, and the 29<sup>th</sup> is available for another lake. Awards Banquet will be held at the Houston Lodge on Sunday March 30 starting at 6pm all fish must be checked in by 3 pm on the 30<sup>th</sup> to be considered for awards. Sponsors this year are:

Choice Mortgage - Grand Prize Drawing for a Cruise for 2 to the Caribbean!!!!

Houston Lodge-Headquarters 3 Rivers Fly and Tackle-Weigh in and ticket sales

Gorilla Fireworks- Big Fireworks Packages

Susitna Rotary

Sportsman's Warehouse

Alaska Railroad

Raven

Mat-Su RC& D Council

KMBQ 99.7

Expedition Log Homes

Arrowhead Outfitters

Mid-Valley Seniors

Happy Dawn's Thrift Store

Wasilla Chamber of Commerce

Eagle Quest Lodge

Under the Tower

To become a sponsor or to be a ticket vendor please call

232-1387 [www.matsupikederby.com](http://www.matsupikederby.com)

Houston Chamber of Commerce PO BOX

356 Houston AK 99694

Jan. 30, 08

Greetings to All,

I am Dianne Payton from along the River Yentna, in the Skwentna area.

I classify myself as a true modern day pioneer and subsistence woman.

Our 4 children (all born at home) were taught from an early age to go catch a fish for supper, weather they caught it by fishing pole, dipped it, trapped it, snagged it, or caught it with their hands,----we had that fish for supper.

Now, with thanks to Belle Shellenburger, a true pioneer woman from Skwentna, who handed down the tradition of her fishwheel to my family and neighbors, I harvest and can salmon caught from a fishwheel.

For ten years now, citizens of our community have developed a great tradition of sharing fish from the two wheels running along the banks of the river.

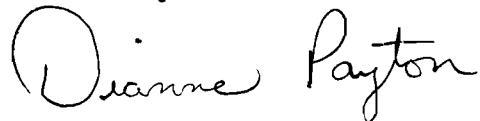
This is an important event in our lives each summer. It gives us a satisfaction to know that our harvest will come in and also to know that as citizens of this Last Frontier State, we <sup>are</sup> ~~our~~ the true owners of this dependable renewable resource schooling near our homes each summer.

During the last few seasons, our salmon returns on the Yentna River have not been dependable, and certainly not very predictable.

I ask the Board now, to please protect, enhance and better develop our Yentna salmon returns.

May God give you His guidance and wisdom through this matter.

With thanks for your long hours of service. Dianne Payton



RC 60

MOUNT YENLO AC  
REPORT TO THE BOARD OF FISH  
FEBUARY 2, 2008

Good morning Board members,

I am Tom Payton and I am speaking on behalf of the Mount Yenlo AC.

Mt. Yenlo could be called a rural committee as it's base is at Skwentna, off the road system.

We have 9 members all with in-river interests be it guiding, pole fishing, and subsistence fishing.

We have no proposals submitted before you.

There are few words to describe what the committee thought about this proposal book...but I would include frustration, disgust, and anger for a start.

What I am referring to is the obvious attempt by a user group to flood the process with allocative requests on a mixed stock fishery at the same time when one or more of those stocks may have biological problems.

There is a vast philosophical difference in what our members believe and what these other users believe.

Therefore we unanimously opposed any and all proposals in the book that appear to be submitted by commercial users seeking a larger piece of the pie.

At the same time, we opposed any proposals from in-river users seeking to liberalize a regulation, except one...342, that proposal would return coho bag limits to the original three bag limit.

Cook Inlet salmon are fully utilized yes... there are problems with the Susitna bound salmon yes...and, there are major allocative issues yes.

This, the Board process is where this can and should be solved.

This is my twentyeth year before the Board, and I always carry a little hope that a change will happen here.

It is a time for a change...a time to think in a new way...no longer can the Board ignore the facts that have developed around Cook Inlet...as a matter of fact...everything in this fishery has changed over the last 30 years...from



the technology on the boats, GPS, Sonar, High-speed diesels, to the roads we drive on to get to a fishing hole...but the largest change that needs to be taken in to a new thought pattern for now and the future by this Board is the number of additional users in Cook Inlet, and the social and economic aspects of these resident users.

The fact that a small number of people have what can be realistically referred to as a monopoly of a state resource in Cook Inlet at this present time can at least be called un-reasonable, and at best borders on contempt for what is good and right about our Constitution and the Alaskan system of laws...our ways of life that we seem so proud of.

This Board has a mandate to change as it's constituents do change...it is a given that you protect the resource...but it appears at times that you protect one user from all the others.

The legislature created the Board as their surrogate representatives for the people...you are a deliberative body put forth to represent all the people as equitably as humanly possible.

You created the AC system for your surrogate representatives to come back to you to hear the word on the street.

The word is Change...will you listen?

Some day this Board will make history in Cook Inlet...will it be now...I doubt it.

But ask yourselves this...do I want to be remembered for what I decided today...or will that distinction be saved for a future member.

An American once said; We Hold These Truths...

And now you hold them...

Thank you

Tom Payton: acting Chair, Mount Yenlo AC

Erik Barnes

Testimony before the Alaska Board of Fish

February 2, 2008

RC 61

***Note: Because of an accident suffered just this week, Erik is unable to attend these hearings and testify on his behalf. His daughter, Debbi, will read his testimony to the Board and into the record.***

I am Erik Barnes. I am and have been an ESSN member since before limited entry. I was here when Sam McDowell, of the Isaac Walton League, took a full page advertisement in the Anchorage Daily News to rid Cook Inlet of Commercial Fishermen. My family, who are now, mothers, students, doctors, school teachers, mediators, and pilots return for the much shortened season. They are all active participants, from the youngest grandchild up. We are not swashbuckling, beer guzzling, soldiers of fortune.

Speaking specifically of the Kenai River, I am embarrassed for my State:

- 1) To reduce the run strength by as much as 2/3rds—is BAD MANAGEMENT.
- 2) To reduce the fry size to barely survivable—is SHAMEFUL.
- 3) To reduce egg-to-fry survival rate to the lowest on record—SHAMEFUL.

Overgrazing in Skilak Lake has been obvious for some time, at least since the early 1990's.

- 1) Egg to fry ratio is down to 0.003, the lowest on record.
- 2) Fry size is down to 0.5g, barely survivable.
- 3) Increased turbidity in Skilak has further decreased the food supply.

Only the BOF thinks that adding fish will solve an overgrazing problem. To increase the goals and not give com fish the tools to meet even these goals is even more SHAMEFUL.

The ONLY visible criteria that I can see that has been used to set standards for the Kenai River is, "I Will Be Entertained", or the recreational value of the fishery.

Next, there is the pink issue. The rest of us would go to jail for wanton waste. To not have a plan or even allow for harvest is Shameful. The Coho are not in trouble so, again, it appears that the only criteria used is, "I Will Be Entertained."

Then there is the allocation issue. The policy of 1977 was the last reasoned allocation plan. Even though there were 7 criteria, 8, if you count carrying capacity, the past boards have pretended the criteria didn't exist except for the value of recreation.

- 1) History has been ignored.
- 2) Alternative resources have been ignored.
- 3) The BOF has pretended that economics was an "us against them" issue.
- 4) When comparing the # of people involved in the fisheries, the BOF has ignored the { +/- } 20 million people who eat our fish.
- 5) Carrying capacity and habitat have been ignored.
- 6) Again, the value of recreation or "I Will Be Entertained" appears to be the only criteria used.

Solutions to overgrazing are not that difficult. Either decrease the number of fish or increase the amount of feed. My recommendations are to reduce the escapement goals until the fry size returns to normal or larger and give com fish the tools to accomplish the new lower goals.

There are other issues I would like to talk about, hook and release of kings, denial of alternative resources for ESSN, and the choice of board members, but, unless you have questions I will stop here.

This is a legacy I would not like to have for myself. I hope this board has the guts to change the direction and do the right thing.

Testimony of Ted Wellman  
Before the Board of Fisheries  
February 1-2, 2008

RC 62

My name is Ted Wellman and my address is 3500 Twilight Lane, Anchorage Alaska, 99516. I have been a resident of Alaska since 1947 and a regular user of the Kenai River for over 50 years. I am an advocate for the rights of the average resident sport angler and have actively participated in the Board process during the last four meeting Kenai River issues were considered. I am currently Vice President of the Kenai River Special Management Area Advisory Board; however, I am testifying today as a private citizen and not as a representative of the KRSMA Board. I am the author of Proposals 240, 245, 275, 276, 302. The following testimony is offered in support of these proposals and in support of various proposals prohibiting the use of polluting two-cycle outboards on the Kenai River such as Proposals 291, 292 and 222. I also oppose any change in the management plan for sockeye salmon that would diminish or restrict the important sport fishery or eliminate windows. Therefore, I oppose Proposals 187, 188, 189, 190, 191, 192, 194, 195, 196, 197, 198, 199, 200, 201, and 204 and any other change which diminishes opportunity for sports harvest of sockeye salmon. I support in concept those competing proposals which seek to protect sport access to the fishery such as Proposals 202, 203, 205, 206, 207 and 208.

Proposals 240 and 245 are designed to protect the rainbow trout and Dolly Varden char by keeping the season closed for all fishing below Skilak Lake until the normal season for rainbow fishing is opened on approximately June 11<sup>th</sup> and by requiring the use of small barbless single hooks. Currently, rainbow trout are being caught off spawning beds early in the year by people purportedly fishing for Dolly Varden. In fishing the area for many years, I never saw a Dolly Varden caught. Instead guides and non-guides alike are targeting spawning rainbows. Many fish are too tired after spawning to even fight. By making the seasons uniform you prevent the harassment of spawning rainbows.

Another problem addressed in Proposal 245 is fishermen using large treble hooks injuring and killing fish in this catch and release fishery. By limiting fishing for trout to small single barbless or hooks with mashed barbs, less injury and less mortality will result without inhibiting anyone from catching fish.

The Kenai River suffers from chronic overcrowding during times when salmon runs peak. Much of that overcrowding is due to non-resident anglers overloading the fishery and increasingly displacing resident anglers. That crowding is contributing to excessive bank erosion and hydrocarbon pollution. Proposal 275 seeks to resolve that problem by requiring non-residents to share equally with resident anglers by limiting non-resident king tags to half the harvestable fish. This could be done through lottery or other means with adversely affecting anyone.

Another reason for chronic crowding, erosion, bank damage and general overcrowding is the absence of a season bag limit for non-resident anglers. Anglers staying on the Kenai all summer and catching hundreds of fish for later illegal sales outside Alaska is all too common. Cannerys operate day and night in public areas and shopping centers along the Kenai River. Proposal 276 sets a season bag limit forcing the "fish hogs" to move on and allow both residents and other non-residents a chance to fish.

The Board of Fish is overdue in banning older polluting two-cycle outboards on the Kenai. The science is unambiguous. The hydrocarbon problems in the Kenai are the direct result of older two cycle outboards. With this ban, the river will be cleaner and the impaired water status can be resolved. For that reason I support Proposals 222, 291 and 292 which prohibit polluting two stroke outboards without imposing drift boat use.

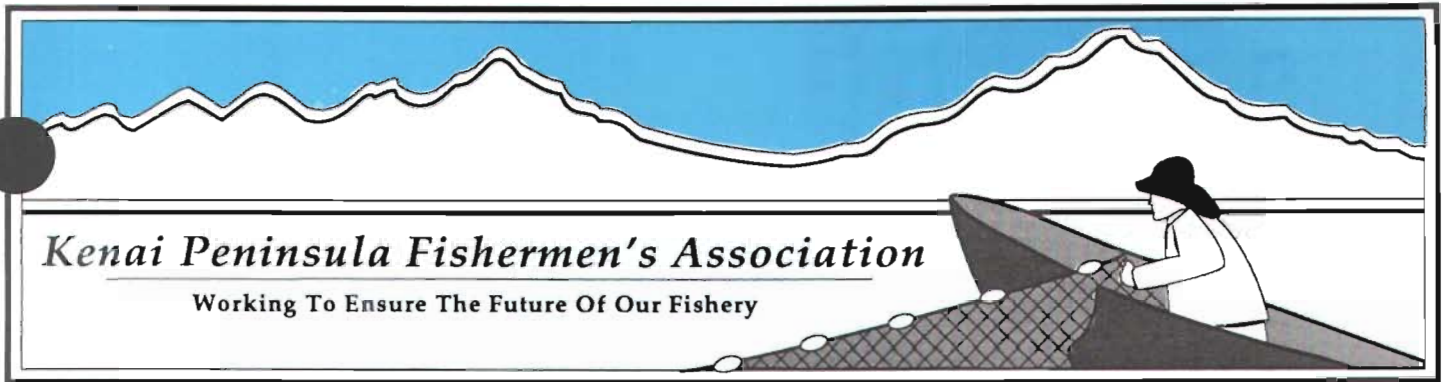
Numerous proposals try to change the management plan and eliminate windows. This change, if adopted, would have a dramatic adverse affect on the sport fishery. When back-to-back openers are allowed, the river is barren of salmon and few sports fishermen catch anything. This is patently unfair. It is long over due that the BOF allocate more of the sockeye run to the sport fishery. Hence, I oppose the myriad of change listed above which seek to unduly restrict or eliminate the sockeye sport fishery.

I respectfully ask that I be allowed to participate in Committee D.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Ted Wellman". The signature is fluid and cursive, with a large initial "T" and "W".

Ted Wellman



43961 Kalifornsky Beach Road • Suite F • Soldotna, Alaska 99669  
(907) 262-2492 • Fax: (907) 262-2898 • E Mail: kpfa@alaska.net

February 2, 2008

State of Alaska  
Department of Fish & Game  
Board Support Section  
Chairman Mel Morris  
Attn: BOF Comments

RC 63

Re: Public Comment 45

Chairman Morris,

Attached are the colored graphs that were faxed to you before the comment deadline of January 18, 2008. The graphs that were submitted were in grayscale, and at the time of submittal Kenai Peninsula Fishermen's Association reserved the right to distribute the color graphs during the Board meetings.

KPFA asks that the Board review these graphs in conjunction with the proposals submitted for consideration, 130, 189, 83, 155, 88, 98, 80, 166, 181, 172, 93.

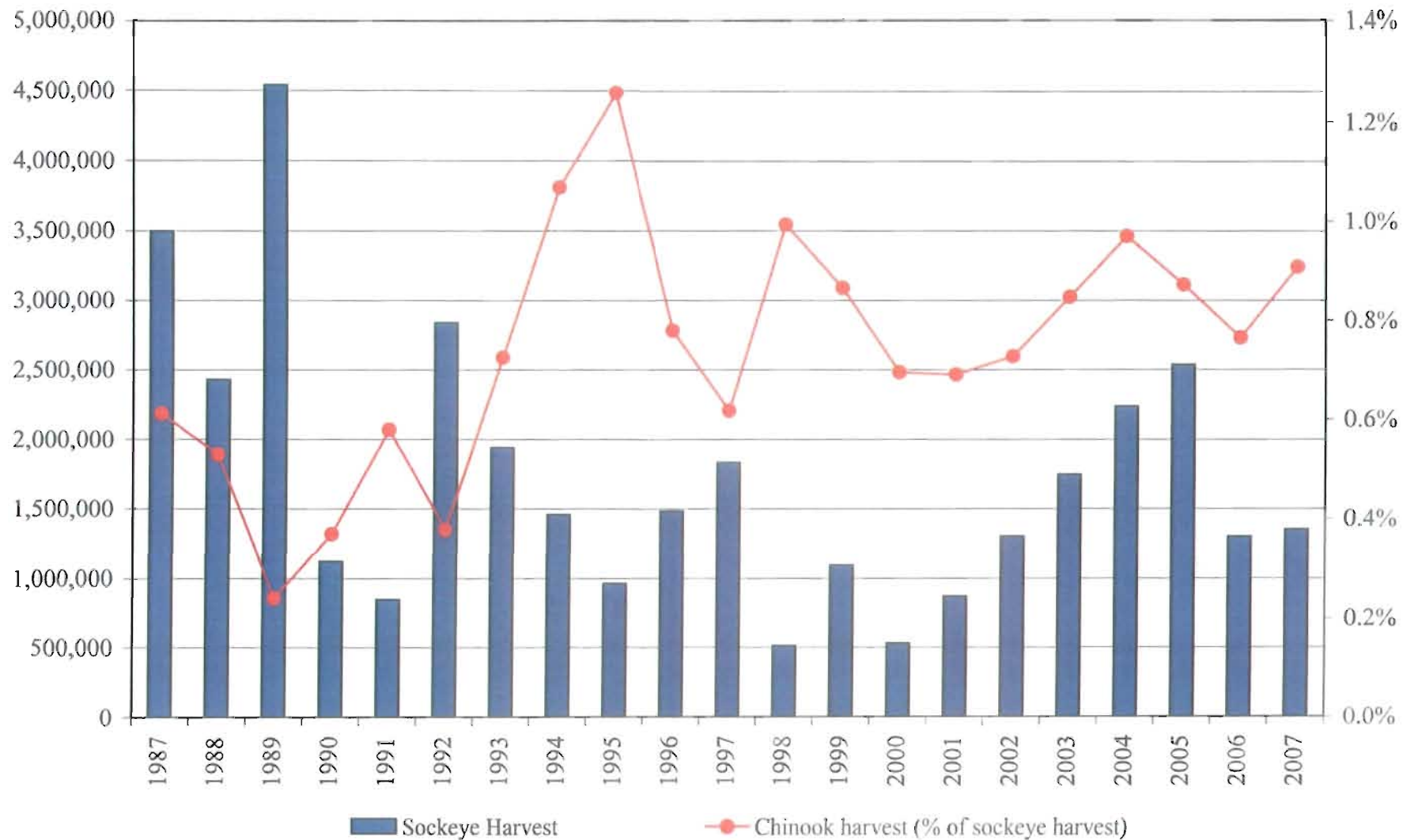
Our President Brent Johnson, Vice President Gary Hollier, Board Members Greg Johnson, Joel Doner, Jeff Beaudoin, Gene Palm, Kenny Rodgers and Executive Director Paul A. Shadura II are all present during the meeting process and they are available if you have any questions.

Respectfully,

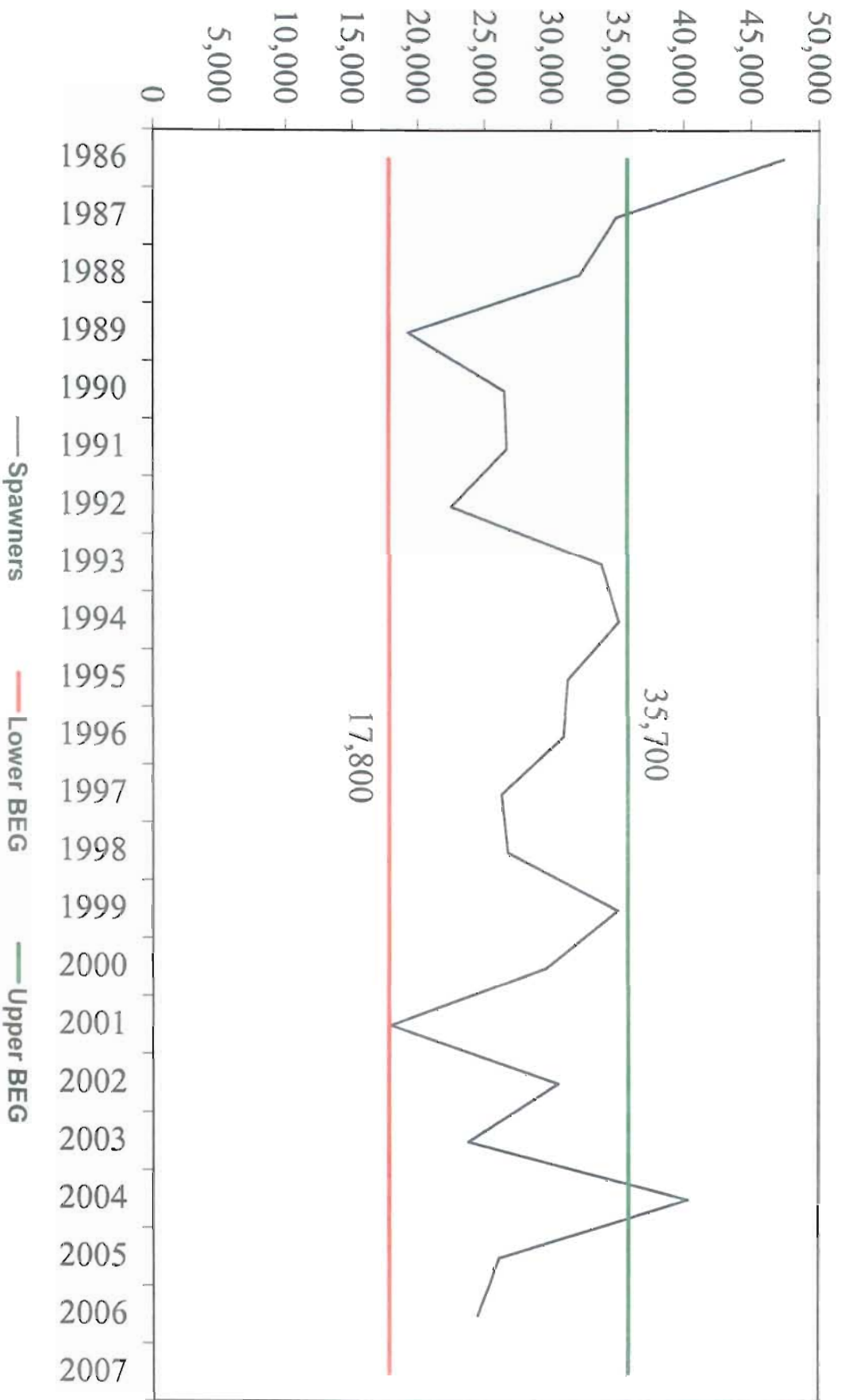
Christine Brandt



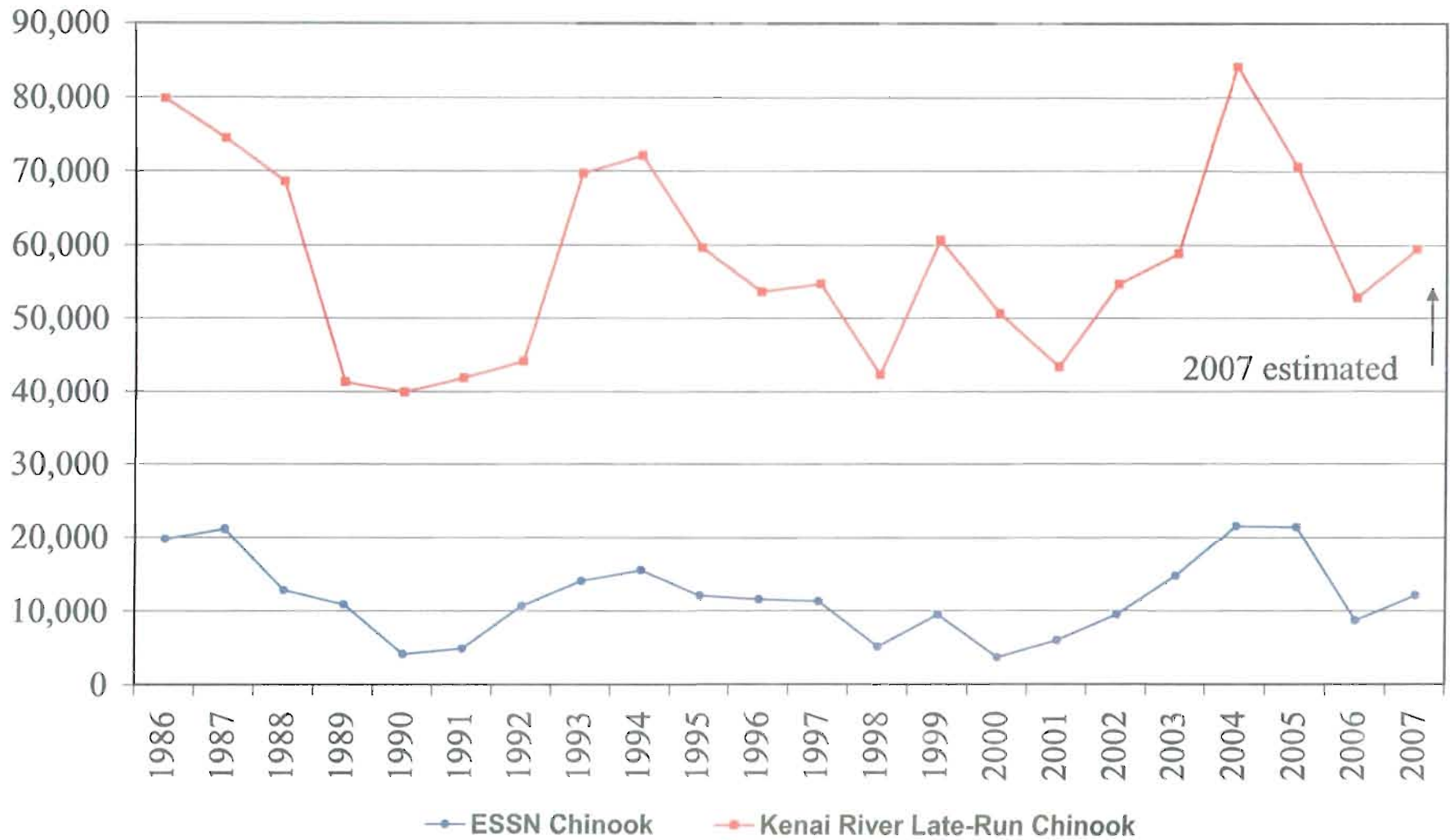
### ESSN Chinook salmon harvest expressed as a % of total sockeye harvest



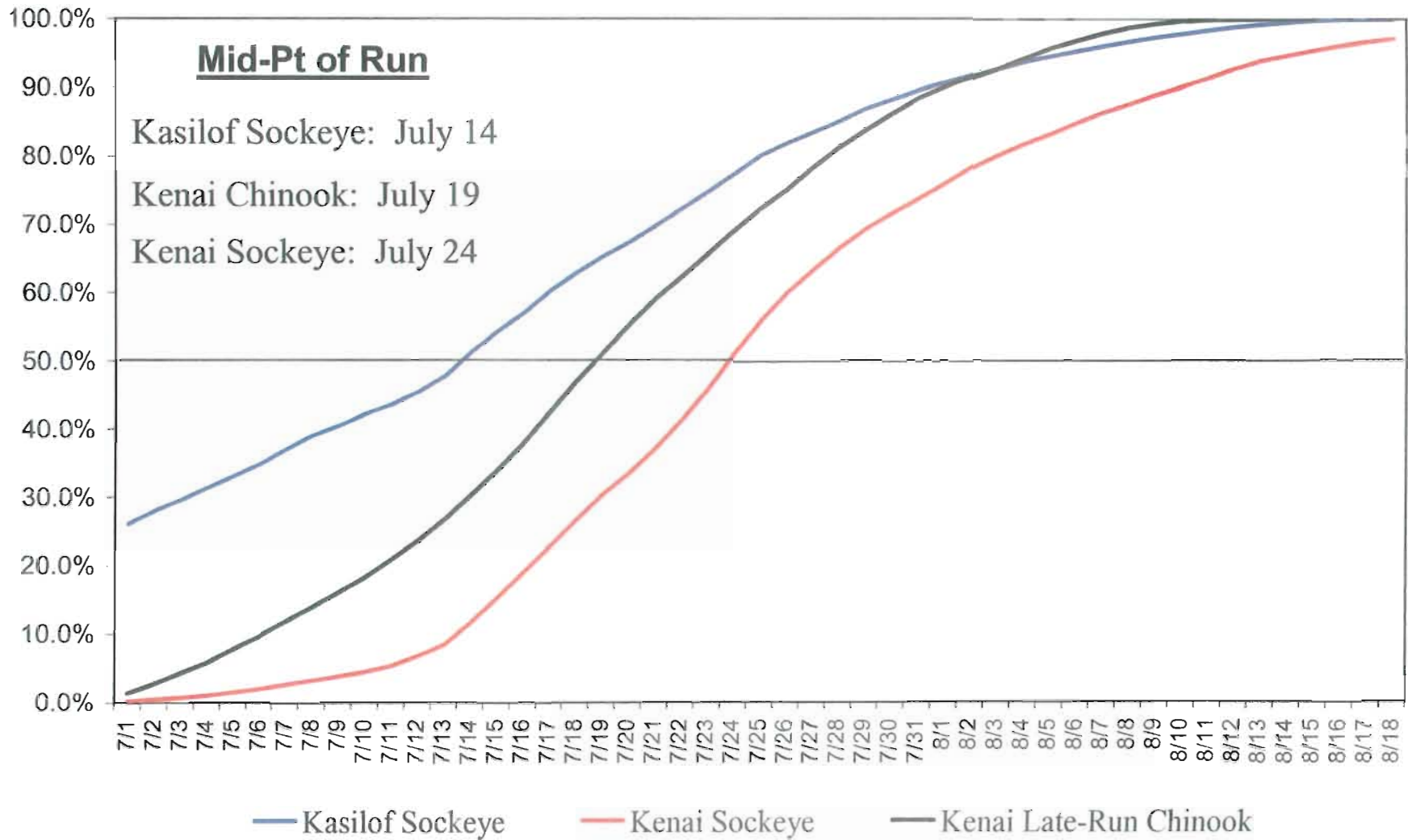
# Kenai River Late-run Chinook Salmon Spawners, 1986-2007



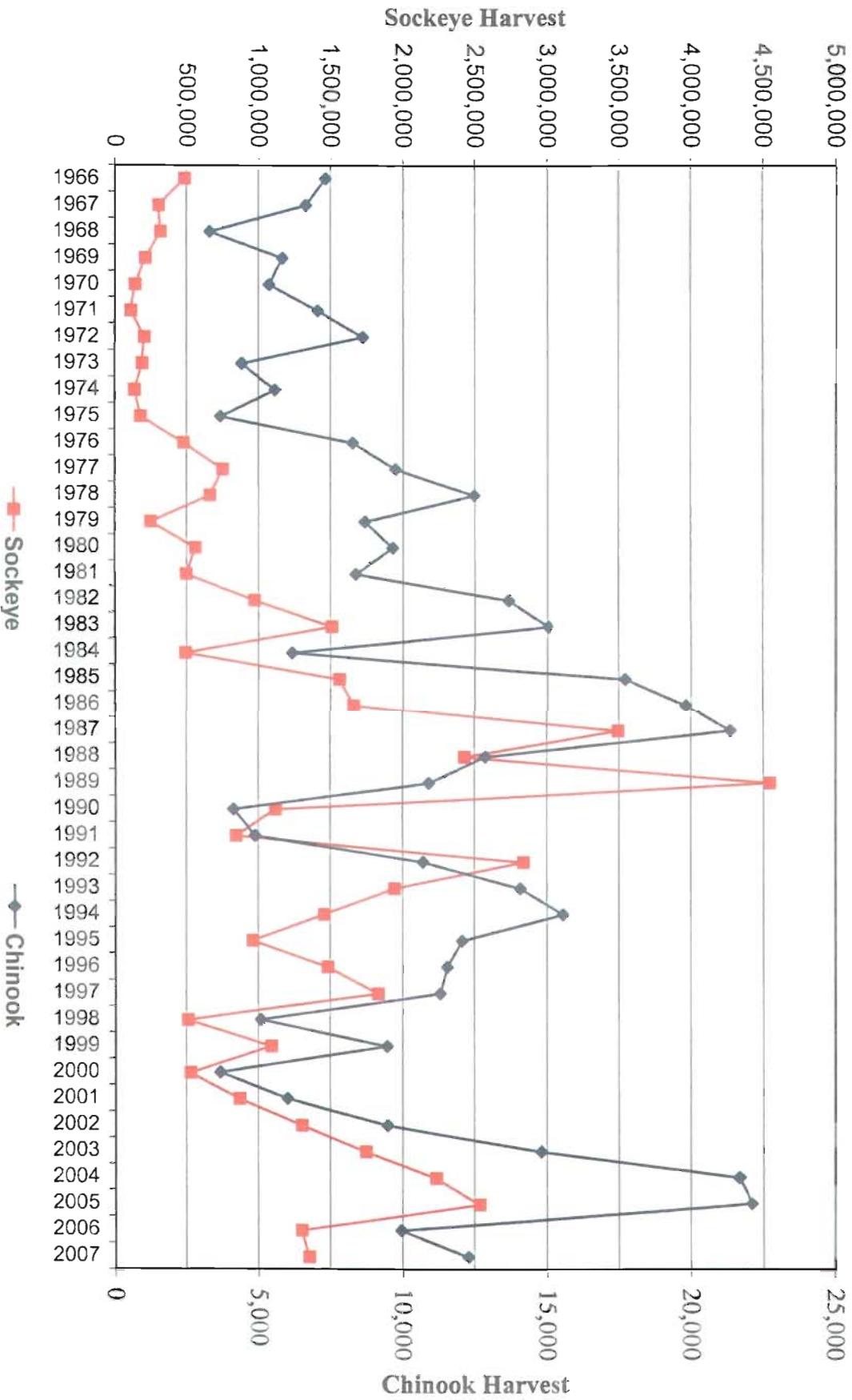
### ESSN Chinook Salmon Harvest & Kenai River Late-Run Chinook Salmon Total Run (KRSHA harvests not included)



**Mean Kenai River Late-run Chinook and Sockeye & Kasilof River Sockeye Salmon Sonar  
Cumulative Sonar Passage (1987-2007)**

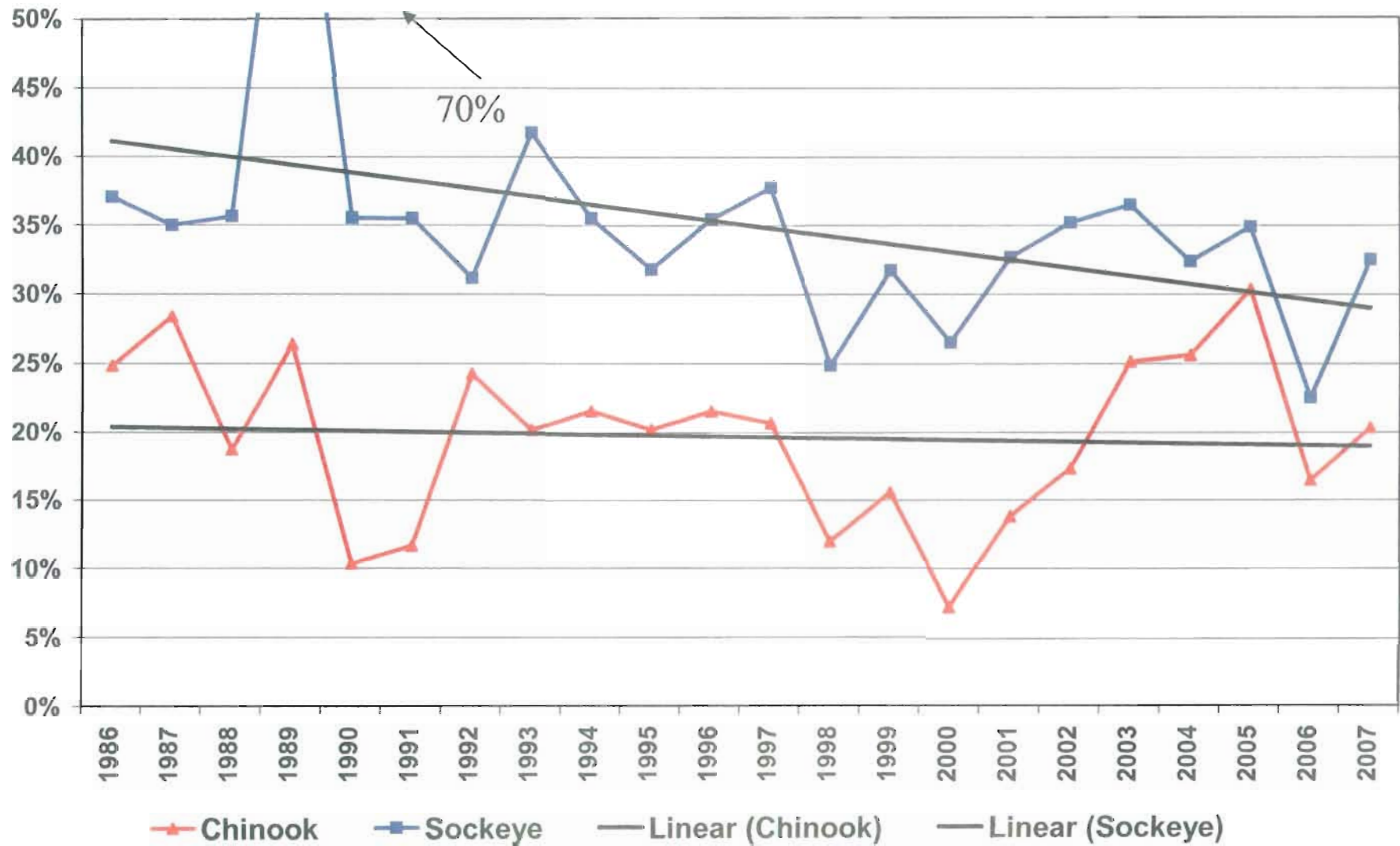


# ESSN Annual Harvest of Chinook and Sockeye Salmon





### ESSN Exploitation Rates on K.R. L.R. Chinook & Sockeye Salmon



## What can you do?

- Don't run boats, jet boats, or jet skis in shallow waters prior to or during spawning seasons
- Drop anchor away from spawning areas
- Avoid stirring up spawning gravel or silt that could smother fish eggs
- Avoid driving on gravel bars
- Cross streams only at established crossings
- Don't use streams as travel routes and don't remove woody material from stream channels or gravel bars
- Don't dam streams
- Don't trample spawning beds when wading or fishing



## More information

For more information on how to prevent or reduce the potential impacts of recreational activities, look on the Washington Department of Fish and Wildlife website at:

[http://wdfw.wa.gov/hab/spawningbed\\_protection/](http://wdfw.wa.gov/hab/spawningbed_protection/)

The website provides information on when salmon and steelhead spawn in various waters of the state and when to use extra caution while recreating.

Information on low-impact recreation can be found at the Tread Lightly website at:

[www.treadlightly.org](http://www.treadlightly.org)

It is up to us to recreate responsibly and to protect Washington's valuable natural resources.

## Recreational Activities May Harm Salmon and Steelhead Spawning Beds

Mr. Jovanovich



RC 67

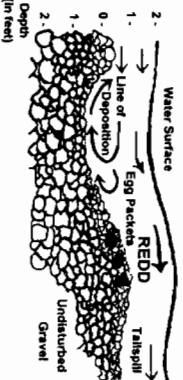
## Salt steelhead and recreation

Fishing and hunting are only two of the recreational activities that people enjoy in the state of Washington. Others include boating, riding off-road vehicles, and wading and swimming in streams and lakes.



Salmon and steelhead use streams and lakes for spawning and rearing at the same time people use them for recreational activities.

Salmon and steelhead lay their eggs in spawning nests called "redds". A redd is a spawning site where eggs are buried in the gravel of a stream or lake shoreline.



To survive and develop, the eggs need clean, loose gravel. If silt fills in the spaces between the gravel, clean water cannot circulate and the eggs may die from lack of oxygen or from accumulated waste products.

## Recreational activities

Even seemingly casual recreational activities may decrease the spawning success of the very fish that we enjoy. Many recreational activities can cause impacts that we don't even consider.

### Boating, jet boats and jet skis

When boats, jet boats or jet skis speed across salmon or steelhead nests they often create turbulence that may churn up gravel, dispersing or crushing eggs.



Stirred up sediment can cover redds, causing the eggs to suffocate or die from exposure to their own wastes. When boaters drop and retrieve anchor in spawning gravel the anchor can also damage or destroy redds.

### Off-road vehicles (ORV)

Off-road vehicles, such as mountain bikes, motorcycles, three-wheelers, quads, and four-wheel drive trucks and cars are capable of being driven into aquatic zones where they can impact redds.

When driven through vegetation areas along streams and lakes ORVs can cause erosion or destroy vegetation that benefits fish.



When driven through streams ORVs can cause siltation, gravel compaction, and disruption of eggs. Even seemingly dry gravel bars may contain redds. Salmon and steelhead may have spawned in those areas during high water flows.

### Wading and Fishing

It's fun to wade and play in streams. Temporary dams sometimes are created to provide wading pools. These can block fish trying to get to spawning areas and the pools can strand young fish. Walking on spawning beds while wading or fishing can disrupt incubating eggs, compact gravel, or stir up silt.



**Harold L. Rodgers Testimony for board of fisheries: Date: February 2, 2008**

**Subject: Proposal 358 - 5 ACC 77-540 Upper Cook Inlet Personal Use Salmon Fishery.**

My name is Harold Rodgers and I live at 18047 Sanctuary Dr. Eagle River, AK. I am 75 years old and co-owner, with my wife, of property located within Three-Mile Creek Sub-Division, Beluga River, AK.

I have participated in Sport fishing the waters of that area for more than 25 years. . .namely The Chuit River, Theodore River, Lewis River, Three Mile Creek, Chuit Buna Lake and Three mile Lake.

For the past ten to fifteen years the Lewis and Theodore Rivers have been closed to King Salmon fishing except for catch and release. *I do not participate in catch and release, because I eat the fish that I am fortunate to catch.* That leaves only the Chuit River available to catch and eat King Salmon. When I was younger fishing the Chuit River was not a problem: however, now in my advance years it is extremely difficult to walk the mile and a half from the mouth of river up stream to a decent fishing hole. In the past it was possible to drive a road up stream to the crossing on the road to Tyonek. However for several years now that option is not available. Signs posted by the Tyonek Natives say NO TRASPASSING. The only legal access to fish the Chuit River is by ATV up the beach to the mouth of the river and then an extremely difficult walk in about one and one half miles up the river.

Until about 1998 Three Mile Creek provided a Red Salmon run and it was possible to catch a sufficient number of reds to feed the family. That ended a few years ago because Northern Pike showed up in Three Mile Lake and decimated the Red run in that stream. There is **no** Red Salmon Run in either The Chuit, Theodore or Lewis Rivers. **That leaves me only two options for Kings and one option for reds. Option one for kings is to abuse my aged body with that long walk at the mouth of the Chuit Option two is to swallow my pride and go begging the commercial set netters for a fish or two. As for the reds I only have one option which is more pride swallowing and begging. Believe me the Set Netters have been very generous in the past and I sincerely appreciate that.**

A better alternative would be a personal use fishery on the beach from the mouth of the Beluga River south to the mouth of the Chuit River. By that method I could maintain my dignity, put a net in the water and catch my own fish. And I am only talking about 15 salmon.

Therefore I strongly support adopting Proposal 358 - 5 ACC 77-540.

Google  
Maps

Address  
Tyonek, AK



Area of Proposal 1358



RC 66

Brenda R. Rodgers Testimony for Alaska Board of Fisheries 2/2/08

Subject: proposal 358 -5 ACC 77-540 Upper Cook Inlet Personal Use  
Salmon Fishery Management Plan

Dear Alaska Board of Fisheries,

You have responsibility for over a 1,000,000 water creatures who nourish the humanity surrounding a multitude of water bodies. I have responsibility for enough salmon to nourish my family's body.

Since 1982, when husband and I cleared our land and built our cabin near the Beluga River at Three Mile Creek Sub-Division, I have been blessed with the physical capability to sport fish for salmon. Now at age 70, my body is not as capable of traversing terrain seeking salmon as it once was. At the same time, the availability of salmon for me to harvest has dwindled due to a variety of changes by both man and Mother Nature.

Red and Silver salmon within the Three Mile Creek have been wiped out by the Northern Pike. King salmon fishing on the Lewis and Theodore are limited to catch and release. Silver bag limits in all the rivers have gone from three a day to two a day and also require agility of my body movement. The Chuit River access areas are impossible to reach unless I violate trespassing ordinances or hike a mile and a half along the river from the beach in my aged body hanging on to a walking stick and praying I don't slide into the river or break a leg crawling over a log.

One river remains besides the Three Mile, Chuit, Theodore, and Lewis. It is the mighty Beluga River that boasts a healthy choice of all species of salmon if you are crazy enough to venture onto its water. Sport fishing there requires professional boating skills and an investment far beyond my pocket book for a water high tech carrier.

All I ask is your support of a personal use fishery so I can harvest 15 salmon a year to eat. This plea I would have made vocally to you, but I feared a crescendo of tear droplets rippling down my cheek as I spoke, and you not having enough Kleenex to stifle my sniffles of sorrow. Please as you think of the massive bodies of water you oversee, remember that the bounty of the salmon is a richness given to us from above and intended to feed the bodies below. Thank you.

Google  
Maps

Address  
Tyonek, AK



Area of Proposal 1358

January 30, 2008

RC 67

Talking Points for Upper Cook Inlet Board of Fisheries Proposals as deliberated by the Kenai Soldotna Fish and Game Advisory Committee:

**Proposal 197**

The board voted in majority (78%) to support this proposal. They agreed that the current management plans are “contradictory, confusing, and really do not work for anyone”. We believed this change to *one tier* would not reduce opportunity to other in-river fisheries as long as there was an allowance adjusted by the sonar goal. The committee supports biological management that does it’s best to maintain high consistent returns for maximum harvest opportunity for all users.

**Proposal 169**

Significant time was spent on discussing many issues relating to the Kasilof River. The group voted to reject this proposal (63%) due to the dramatic change to the current area, historical fishing practices, and an increased escapement goal that deletes biological escapement goals. The board did not show favor to the terminal commercial fisheries and were concerned about the long term effects of this practice on other species entering the River. Increasing restrictions before the mid point of the Kasilof run as well as the increase of mandatory closures would continue to overescape sockeye above the BEG which has already has been determined by the best available science. The board was concerned that the economic ramifications to the fishery were too severe if the points of this proposal were adopted.

**Proposal 170**

This proposal was brought forward as way to reduce the negative impacts from the Kasilof Terminal fishery on the traditional/historic commercial fisheries in the Kasilof Subsection. The group that submitted this proposal gave some detail as to how they envisioned this proposal to work. The 244-31 South K-Beach District would be open when the Terminal fishery is opened and the limitation for set-netting in the terminal area would apply outside of the terminal area. Currently the restriction is that set-nets must operate within 600 feet of mean high water, this restriction would apply to the 244-31 area. The normal restriction of not allowing the operations of nets within 600 feet of another net would also apply in the non-terminal area. This motion was passed with no objections (100%).

RC 68

1351 North Cache Drive  
Wasilla, Alaska 99654  
February 1, 2008

To whom it may concern:

I came up here in 1971 and moved the family up here in 1974. Fish and game were plentiful – work was not. My first hunting license cost me 25 cents. Everyone I knew at that time depended on their freezer of fish and game to tide them over the winter. This carried through until 1992 - there were some lean years when the fish were harder to find but they were there - it just took a little more time to get them.

In 1992 we had to leave to take care of some family business outside. One thing leads to another and we did not get back to Alaska until 2006. We got settled in and the kids said Mom and Dad you are going to be tourists for the summer. You now have time to do this, So off to the Kenai we went and went halibut fishing, caught our limit with one over 60 pounds. We left Homer and went to the Russian River and fished in the sanctuary, after the old dummy got the right line on his reel it only took 45 minutes to catch 3 reds. We went to Seward- caught a cold – and came home to Wasilla. After recovering from bronchitis I started calling my fishing buddies and that's when I found out we had some problems. When I asked them to go fishing in one of our old fishing holes I was told there hasn't been any fish there for years. When I asked them to go to another fishing hole I was informed there maybe a few fish in that hole but the area is closed to the taking of salmon. I was informed that in another favorite fishing spot it would invariably take all day to catch a fish. The recommendation all around was to fish the Kenai area.

Ladies and gentlemen we have a renewable resource in the North Cook Inlet that needs a lot of help now. Some say we need more studies. The problem with studies is that we already have studied the problem – now is the time to act. I have heard testimony on escapements –both over and under escapements. The science side of the argument is that it is a waste of fish and the productivity of the spawning fish drop. So the plan that has been in place for the last 8 to 10 years has been under escapement and this plan is not working. The human intelligence on the bank and in the boat say the fish are not there. This shortage of fish is also impacting other fish that are dependent on the salmon run. We must save this resource. Whatever has to be done we need to do it now. The commercial fleet, drift netters and set netters need to curtail the over taking of this nonrenewable resource as it is going. Some users of this resource will have to curtail their intake of fish so that our kids and grandkids will be able to enjoy fishing as we knew it – not as it is now. There is no other place on earth that can replace what we have here.

Sincerely,

  
Richard K. Vogt

69  
R. man

### Abundance-Mainstem Susitna (Sunshine)

Escapement		2006	2007
Sunshine Capture-Recapture (95% C.I.)	Flathorn-Sunshine PIT Tag	107,000 (49,000-165,000)	Not Used
	Sunshine Radio Tag	93,000 (80,000-106,000)	85,000 (preliminary)
	Sunshine-Larson PIT Tag	128,000 (no C.I.)	Not Used

Weir Total		59,519 (2 weirs)	59,901 (4 weirs)
Larson Weir Only (% of Capture-Recapture)		57,411 (54%)	47,736 (56%)

15

### Abundance-Yentna

Escapement		2006	2007
Yentna Capture-Recapture (95% C.I.)	Flathorn PIT Tag 7/29-8/18	418,000 (262,000-574,000)	Not Used
	Radio Tag	311,000 (252,000-391,000)	247,000 (preliminary)

Yentna Weir Total		126,218 (4 weirs)	96,889 (3 weirs)
Bendix Sonar		92,896	79,901
DIDSON Sonar		160,462	130,000 (preliminary)

most likely

\$ 107,000  
y 160,000  

---

267,000

\$ 85,000  
y 130,000  

---

215,000 16

Low Est.  
2006  
y 160,462  
s 93,000  

---

253,462

2007  
y 130,000  
85,000  

---

215,000

High  
2006  
s 107,000  
y 418,000  

---

625,000

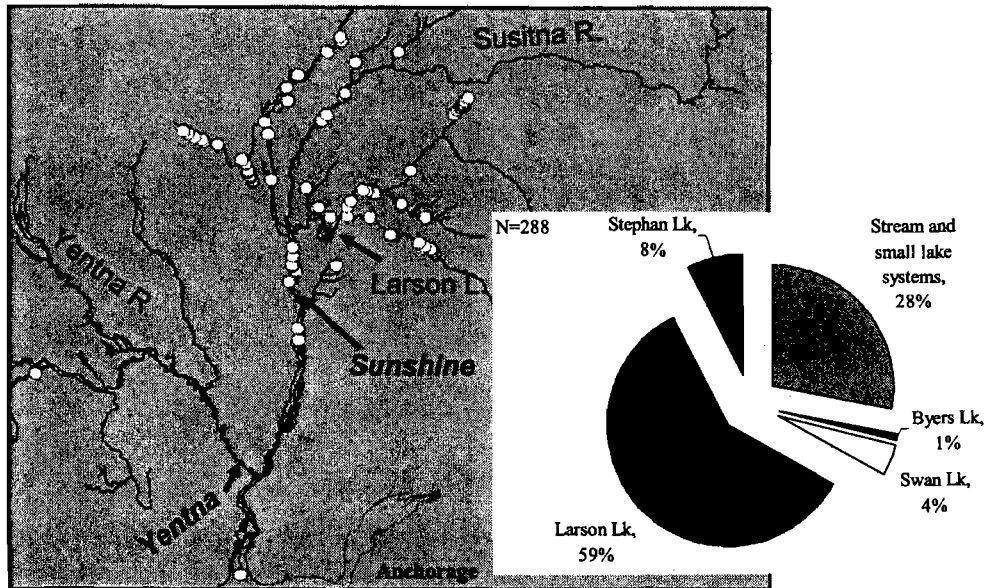
2007  
s 85,000  
y 247,000  

---

322,000

# Sockeye Salmon Radio Tag Destinations 2007

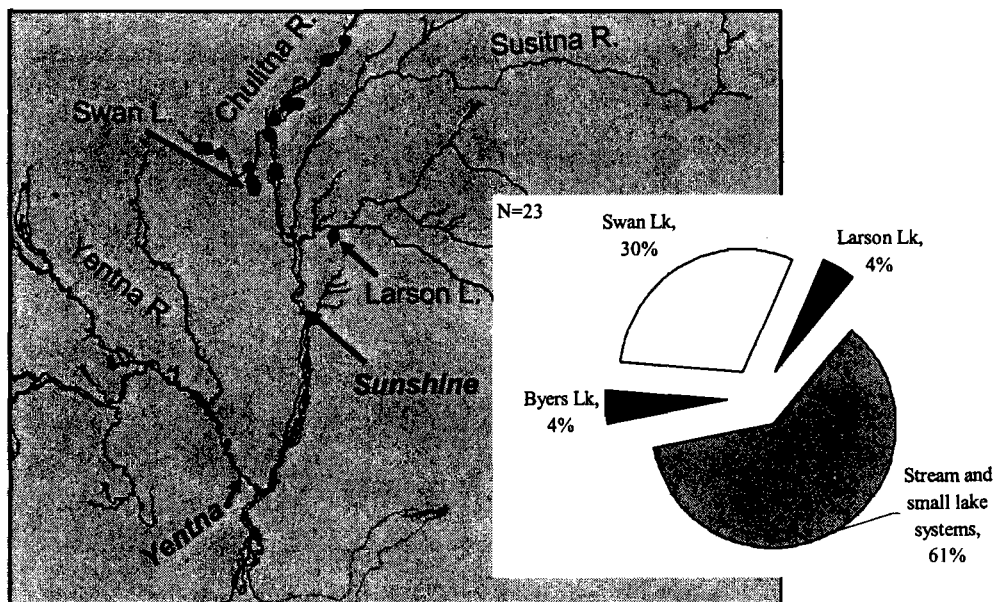
## Mainstem Susitna (Sunshine – East Bank Wheel)



17

# Sockeye Salmon Radio Tag Destinations 2007

## Mainstem Susitna (Sunshine – West Bank Wheel)

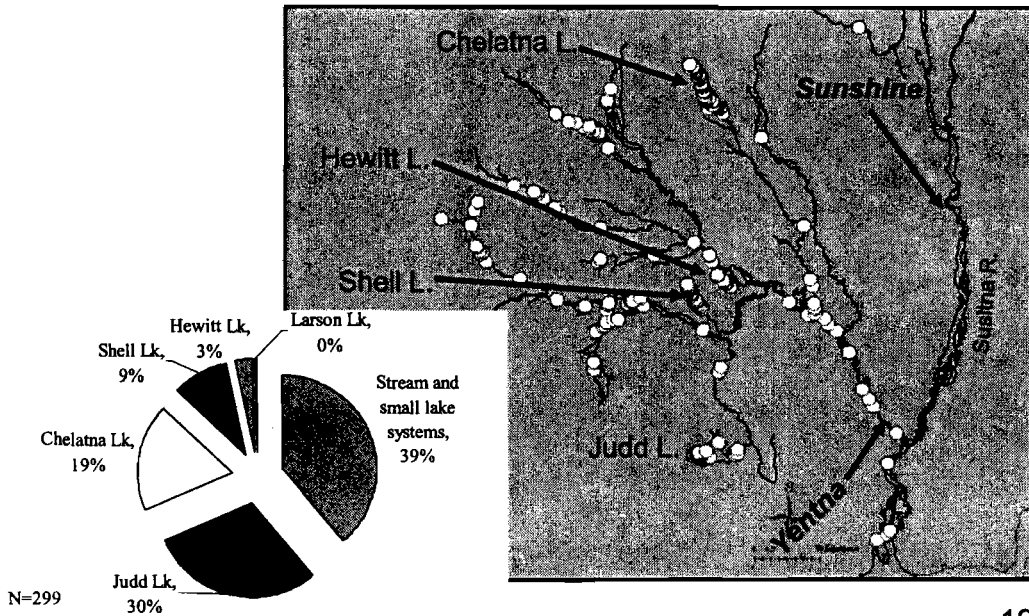


18



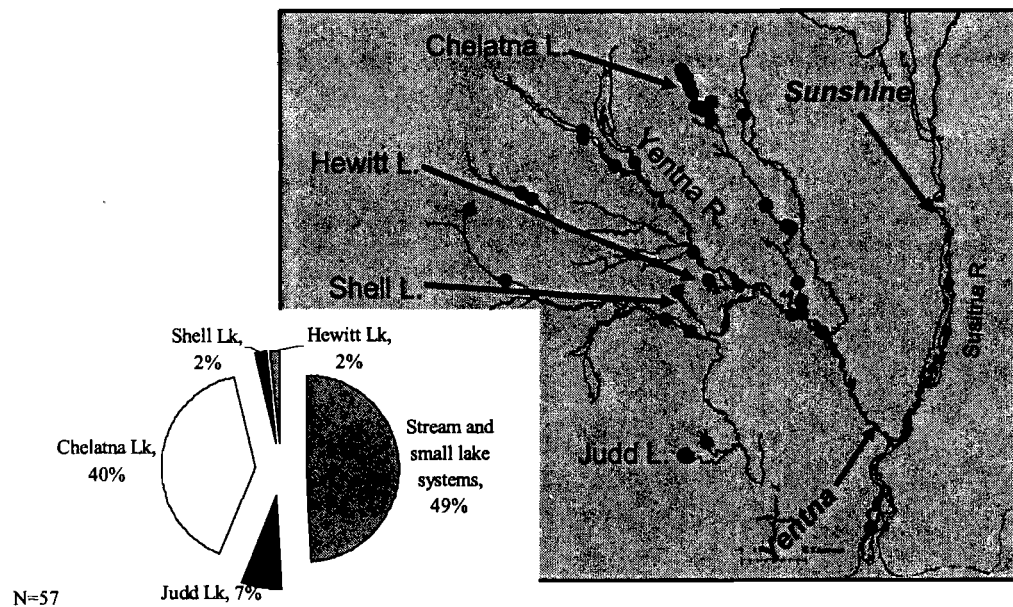
# Sockeye Salmon Radio Tag Destinations 2007

## Yentna - South Bank Wheel



# Sockeye Salmon Radio Tag Destinations 2007

## Yentna - North Bank Wheel



My name is Christine Koski, I reside in the fishing communities of Kenai/Soldotna. I am a participant in East side set net commercial fishery as are my children Brian, Catherine, Keary and Laura. My children have grown up hoping that there will be a fishery left for them and their children. I have been actively involved in this fishery since 1978. Members of my family have participated in the Salamatof, Kasilof, and West side fisheries as early as 1971.

I am here today to ask you how you would react if regulations were put into effect to prevent you from working and providing for your family, whether you are lawyer, dentist, doctor, teacher, electrician or in any other field of work. Restraints on your employment would definitely impact your will to survive. Time and day restraints would definitely affect all aspects of our society and economy. Why then is it acceptable for regulations to discriminate against one specific user?

I am requesting that you consider the proposal put before you by fellow set net commercial fishermen asking for time and area to be given back to us. We have a limited time to harvest and a gross injustice has been made by past Board of Fish members by restricting our time to fish.

I am asking you to put forth restrictions on in river fisheries to protect the habitat. As a teenager in Soldotna it was a pleasure to walk down to the Kenai River and leisurely fish there. Now the Kenai River is nothing but a combat zone, I don't know how anyone could enjoy fishing on this River today.

Guides are a commercial enterprise and advocate windows for commercial fishermen, yet they are not willing to take the responsibility of windows for measures to ensure escapement up the river.

There is definitely a discriminating issue here. I ask you if the priority is to provide opportunity for someone with no interest in this area and resource or is it for the fishing community, my children and myself, who work, live, purchase, and attend school here?

Escapements in the Kasilof and Kenai Rivers have been over escaped in the past years, with confusing regulations in Kenai River Management Plan, let us manage for one obtainable goal, a goal that will benefit everyone and protect the resource. Let there be equality in the regulations taking into account who carries the burden.

My name is Tom Kluberton and I'm a Matanuska-Susitna Borough Assemblyman representing District 7 (17,000 of the Borough's 24,000 square miles). Obviously, many, if not most, of my constituents rely in one way or another on the availability of local salmon to make ends meet through the year.

Perhaps this is the reason that when he foresaw the need to do something about diminishing salmon stocks in the Borough, our Mayor Curt Menard asked that I chair the Mayor's Blue Ribbon Sportsmen's Committee.

I'd like to say 'thanks' to all of you on the Board of Fisheries for giving so much of your time to the challenging task of making decisions for Alaska's fish resource. As an Assembly member I am also challenged with making difficult decisions in reaction to changing economic and social climates so I commend you for your dedication.

The Mat-Su Borough has been the fastest-growing area in Alaska for many years. We just surpassed Fairbanks as the 2<sup>nd</sup> largest School District in the state by 2000 students. The last I heard, we were the 28<sup>th</sup> fastest-growing municipal area in the U.S. Our strongest economic engine is Tourism and its related activities.

Looking back, while sockeye prices were at their all-time high and the commercial fleet was contributing enormously to the state's economy, there were no Princess Hotels in Alaska, there was no 300 room CIRI Hotel in Talkeetna. It was Desert Storm that diverted the cruise industry from the Mediterranean to Alaska in the early '90's. That trend continues today, the Borough just received our first application for a new major hotel in the vicinity of the National Park Service's South Denali area.

Our Committee began meeting in early 2007. For the first several months, we listened to resident's testimony making it clear that it is obvious to the average-guy in the Mat-Su that the numbers of fish in local streams have fallen to alarming levels over the past several years. The same voices appealed to your board at the session in Wasilla last Wednesday so I don't feel it a wise use of our time today to reiterate those accounts.

Eventually, we accepted that the concern over those diminishing stocks was irrefutable. We realized that the historic management practice was allowing yields to fall short and it was time for us to decide what our Committee should be asking of the state to resolve the problem. When we boiled it down, we realized the foremost priority is to ensure the overall health of our salmon stocks is not allowed to be at risk.

As a Borough we do a lot to protect and/or restore the quality of our habitat. The Mat-Su Salmon Conservation Partnership, with support from the Army Corps of Engineers and the oil industry has created an award-winning program of habitat improvement. Our land use and Platting Regulations are on the leading edge of protecting fish habitat. The Mat-Su has had the greatest water body setback requirement in the state for over two decades. While it is within our control to affect the quality of our habitat, we rely on you, the Board of Fisheries and the ADF&G to address the return of stocks to the streams.

During the '80's Northern District Sockeye harvests averaged 170,000 fish. Those numbers dropped to just below 100,000 in the '90's. The last five years have seen sockeye harvests average less than 26,000 fish in the Northern District.

Without a doubt, the phenomenal drop in Northern District salmon (approaching 75%) affects the residents and economy of the Mat-Su Borough. We are experiencing routine sports fishing closures. The popular Fish Creek dip net fishery is a thing of the distant past. And, a growing guiding business is being threatened. How are Mat-Su guides supposed to compete with other areas of the state under the pressure of reduced bag limits and persistent closures?

Meanwhile, there have been record commercial harvests in the Central District in seven of the last ten years. Coincidentally, the four highest Central District commercial sockeye harvests correspond with the four lowest escapements into the Yentna drainage.

This is an economic threat to our Borough. We rely almost entirely on property taxes for revenue to provide government services. The growing sports fishing industry not only makes direct economic contribution to the people of our Borough, their infrastructure contributes considerably to our tax base.

The falling market price for salmon over the years has turned the tables to the point that Northern Cook Inlet Sports Fishing is returning a higher benefit to the Alaskan economy than the NCI Commercial harvest. With only 18% of the resource, Sports Fishing is a significant part of our growing economy.

Consumptive use of salmon is also a cornerstone of Mat-Su food supply and our residents rely on this resource to help make ends meet. With fuel prices above \$3.00 per gallon our folks can ill-afford the drive to the Kenai for personal use or subsistence harvest.

For those reasons, our Borough is concerned about the health of our salmon stocks and to that effect the Borough Assembly has recently passed a resolution asking that the Board of Fisheries designate the Yentna, Susitna and Fish Creek Sockeye and Chum stocks as "Stocks of Concern" on a yield basis. This amounts to strong support for Proposals #119 and #120.

We are aware that a number of salmon stocks have been given "Stock of Concern" status for drops in escapement far less than the 75% decline we are experiencing. This inconsistency is very difficult to understand. We accept that Cook Inlet is a very complex fishery to manage, but with the size of the impact on stocks, residents and the Borough economy we ask the science be pursued to return those stocks to their full potential.

That Resolution further asks that the Department of Fish and Game prepare a phased plan to enumerate all salmon stocks in those drainages to allow the Legislature to decide how much of a program the state can afford. We then ask that the escapement data be used to determine more realistic escapement targets for those drainages as the data permits.

This is the best way our group feels the health of those stocks will be ensured and the residents of our Borough will be treated fairly and our growing economy protected.

Thank you again for your time.

Board of Fisheries Upper Cook Inlet Finfish February 1 - 12, 2008  
At Coast International Inn  
Anchorage, Alaska

RC 72

Public Testimony Sign Up

Name	Representing	Subject / Related RC, PC or AC
1. Andy Couch AC 2, AC 5, AC 10	Mat Valley AC	UCI salmon conservation & allocation
2. Dianne Dubuc	Seward AC	Proposal comments RC 29
3. Tom Payton	Mt Yenlo AC	Proposal comments
4. Gary Turner	Self	Drift boat days on the Kenai R. RC 27
5. Virgle Davis	Self	Beluga River
6. Pat Donelson	Self	Lack of fish in upper Cook Inlet rivers
7. Howard Riley	Self	Lack of salmon in UCI rivers RC 28
8. Edward Beeman	Self	Prop 85-116 – 151 & 152
9. Steve Runyan	Self	Prop 350, 351 pike proposals, allocation
10. Richard Hahn	Self	Habitat protection RC 40, PC 13
11. Andy Szczesny	Cooper Landing AC	Proposal comments AC 3
12. Joel Doner	Self	Prop 173 adaptive mgmt
13. Winston Gillies	Self	Prop 119
14. George Heim	Self & KPTNC	In river abundance
15. James Cann	Self	Prop 138, 140 & 145
16. Cliff Heckathorn	Self	Supporting fish in N Dist. RC 46
17. Dennis Gease	SC AK Dipnetter's Assoc	Against closure of windows
18. Tom Rollman	E Subdist of N Dist	Prop 143 regular periods
19. Vince Pennino	Self	Vessel / guide regs
20. Scott Eggemeyer	Self	Prop 283-290
21. Jerry Striebg	Self	Prop 283 – 290 add'l drift boat only days
22. Gary Deiman	Self	Prop 84, 94, 112
23. Kelsey Deiman	Self	Comm fish
24. Terry Jorgensen	Self	N Dist king / coho salmon
25. Tom Kluberton	Mt Su Mayor's Blue Ribbon Sportsman's Committee	Stocks of concern
26. Monte Roberts	Kenai R. Prof Guide Assoc.	Guide Assn background

At Coast International Inn

Anchorage, Alaska

## Public Testimony Sign Up

Name	Representing	Subject / Related RC, PC or AC
27. Larry Engel	Self	Stocks of concern
28. Dirk Whitehead	Self	Prop 269
29. Jim Colver	Self	Personal Use
30. Jim Nordlund	Self	UCI PU fishery / Kasilof gillnet
31. Teague Vanek	Self	UCI BOF proposals
32. John McCombs	Self	UCI BOF proposals
33. Kenny Rodgers	Self	N District issues & habitat RC 51
34. Megan Rodgers	Self	Salmon habitat RC 52
35. Duane Gluth	Self	Prop 358 RC 53
36. Horace Blanchard	Self	Kasilof Flats RC 54
37. Denny Hamann	Self	UCI proposals
38. Cliff Chamberlin	Self	Guide board , academy
39. Ken Tarbox	Self	Kenai Area Fishermen's Coalition
40. Wes Humbyrd	Self	Prop 165, West side late coho
41. Zach Stubbs	Self	Prop 317
42. Jerry McCune	Cordova Dist Fishermen United	Prop 126-131 & 133 EO authority
43. Anthony Rennino	Self	Kenai River issues
44. Ronald Stanek	Self	N District salmon mgmt Prop 358 PC 49
45. Bruce Knowles	Susitna Valley AC & Self	AC comments AC 11
46. Richard Vought	Self	N. Dist salmon stocks
47. Jim Butler	Harvesters/Processors	UCI salmon mgmt & federal mgmt
48. Mark Vinsel	UFA	Sustainable salmon mgmt
49. Brent Johnson	KPFA	Windows-Soldotna BOF panel report, etc
50. Jeremy Ptak	Self	Dipnetting, no to Prop 213, 217-220, 222-223, 199-202
51. Dan Thompson	Self	Economic impact / habitat issues
52. Ken Federico	SC AK Dipnetters Assoc	PU fisheries



## At Coast International Inn

## Anchorage, Alaska

## Public Testimony Sign Up

Name	Representing	Subject / Related RC. PC or AC
53. Grant Clark	Self	PU fisheries
54. Debbi Palm	Erik Barnes	RC 61
55. Ted Wellman	Self	Rainbow fisheries Prop 240, 245 RC 62
56. Frank Mullen	Self	Prop 187
57. Gary Chamberlein	Self	Guide issues
58. Tom Lessard	Self	
59. Mark Glassmaker	Self	Kasilof R & West side CI
60. Ed O'Connor	Self	Mgmt plans, windows, N Dist
61. Gary Fandrei	CIAA	N. CI drainages, Susitna R & Big Lake
62. Jack Dean	Self	Cooper Lake dolly varden
63. Wayne Kvasnikoff	Ocean Beauty Seafoods	Cook Inlet mgmt
64. Gary Hollier	Self	UCI mgmt PC 46, PC 50, RC 39
65. Armin Schmidt	Self	UCI mgmt
66. Tom Lohuis	Self	Prop 285 add drift day
67. Ty Wyatt	Kenai SF Assoc	Kenai / Kasilof sport & commercial fishing
68. Judy Johnson	Self	windows / place of meeting
69. Gene Palm	Self	Protecting KSSN
70. Herman Fandel	Self	Kenai R coho salmon
71. Audra Doner	Self	windows / adaptive mgmt
72. Greg Johnson	Self	Comm. Set fisheries
73. Dwight Kramer	Kenai Area Fishermen's Coalition	BOF meeting place / process
74. Bruce King	Self	Drift boats / residents species
75. Tyson Fick	Self	N Dist salmon stocks
76. Harold Rodgers	Self	Prop 358 RC 65
77. Brenda Rodgers	Self	Prop 358 RC 66
78. Nathan Carey	Self	Mat Su stocks
79. Ron Fuller	Self	Dipnetting

Board of Fisheries Upper Cook Inlet Finfish February 1 - 12, 2008  
At Coast International Inn  
Anchorage, Alaska

RC 72

Public Testimony Sign Up

Name	Representing	Subject / Related RC. PC or AC
80. Jim Sumner	Self	Personal Use
81. Page Herring	N Dist Setnetter's Assoc	N Dist
82. Tyler Goggia	Self	Drift days on Kenai
83. David Goggia	Self	Economic value of salmon
84. Leon Marcinkowski	Self	Comm fishing interests
85. Julie Marcinkowski	Self	windows / regs
86. David Brindle	Self	Processor views / economics
87. Steve Braund	N Dist Setnetter's Assoc	N District issues
88. Jim Richardson	Self	Prop 286
89. Eric Beeman	Self	Prop 112, 152
90. Steve McClure	Self	Mgmt plans
91. Rondi McClure	Self	Prop 283 – 290 drift boats
92. Joe Connors	Kenai Pen. Tourism	Marketing the Peninsula
93. Adam Reid	Self	Oppose Prop 283-290
94. Brad Carver	Self	Drift boat days / Kenai kings
95. John Woodruff	Icicle Seafoods	UCI mgmt
96. Jeff Beaudoin	Self	
97. Gregory Gabriel	UCIDA/KPFA/CIFF	UCI salmon mgmt
98. Bud Hilty	Self	UCI salmon returns
99. Phillip Weidner	Self	Impact on MatSu streams / Goose Creek
100. Richard Vogt	Self	UCI salmon RC 68
101. Roland Maw	Self	Yentna / Susitna escapement RC 69
102. Christine Koski	Self	Comm Setnet fishery RC 70
103. Paul Shadura, II	E. Side Comm Fishermen	
104. Vince Goddard	Processors	
105. Tony Russ		
106. Ricky Gease	KRSA	RC 27, RC 32 Economics

Board of Fisheries Upper Cook Inlet Finfish February 1 - 12, 2008  
At Coast International Inn  
Anchorage, Alaska

RC 72

Public Testimony Sign Up

Name	Representing	Subject / Related RC, PC or AC
107. Eldon Mulder	Self	Allocation priorities
108. Reuben Hanke	Self	Prop 132
109. Bob Penney	Self	SF priority
110. Kevin Branson	Self	Dipnet fishery
111. Gari Sisk	Self	SF – CI mgmt
112. Mac Minard	KRSA	CI mgmt
113. Paul Michelsohn	Self	PU – sportfishing
114. Ray Beamesderfer	KRSA	Research
115. Dyer VanDevere	Self	
116. Brent Western	Self	Habitat, MSY, EZD, etc
117. Steven Tvenstrup	Self	CI Drift fisheries
118. Mike Fenton	KRPGA	windows, drift, guide assoc.
119. Drew Sparlin	UCIDA	Habitat issues on Kenai/Kasilof
120. Jim Stubbs	Anchorage AC & Self	Prop 233 / AC comments
121. Mike Crawford	Kenai/Soldotna AC	AC comments
122. Robert Purpurra	Seldovia AC	AC comments RC 31
123. David Martin	Central Pen & Self	UCI BOF report in proposals
124. Larry Heilman	Tyonek AC & Self	Chuitna Coal project & AC comments
125. Marvin Peters	Homer AC & Self	AC comments

**Board of Fisheries Upper Cook Inlet Finfish meeting of February 1-12, 2008  
at Coast International Inn  
Anchorage, Alaska**

**RC Index**

**RC 73**

<b>Log #</b>	<b>Submitted by</b>	<b>Topic</b>
1	Boards Support	BOF Workbook
2	ADF&G	Department Comments
3	ADF&G	Department Written Reports
4	ADF&G	Department Oral Reports
5	Cooper Landing AC	Comments on Proposals
6	AK Backcountry Hunters & Anglers	Comments on Prop 221, 241, 249 & 268
7	Mat Valley AC	Letter regarding definitions
8	ADF&G	Options Memo
9	Dept Environ Conserv	Memo on Kenai R hydrocarbons
10	Dept of Interior	Fed vs State SF regulations
11	Howard Delo	Conflicts outline
12	ADF&G	UCI Stock of concern memo re: Yentna R
13	UCIDA – Brent Western	Comm A Principals
14	UCIDA – Steve Tsvenstrup	Comm B Principals
15	UCIDA – Brent Western	Comm C Principals
16	UCIDA – Roland Maw	Comm D Principals
17	UCIDA – Drew Sparlin	Comm E Principals
18	UCIDA – Wesley Heimburg	Comm F Principals
19	UCIDA – Wesley Heimburg	Comm G Principals
20	UCIDA	Statistical area map – Cook Inlet
21	UCIDA	Cook Inlet map – laminated
22	UCIDA – Roland Maw	Regional Info Report #2A03-20
23	UCIDA – Drew Sparlin	Economic losses to overescapement
24	UCIDA – Steve Tvenstrup	Letter re: Kenai R habitat
25	USFW-OSM Rod	Cook Inlet area map / Upper Kenai Peninsula map
26	Bonnie Williams	Matsu Valley Fish stocks
27	Gary Turner	Fuel useage in Drift boat fishery
28	Howard Riley	Mat Valley guides
29	Seward AC	Proposal comments
30	Andy Couch	Testimony – Mat Valley AC
31	Seldovia AC	Proposal comments
32	Tyonek AC	Proposal comments
33	ADF&G SF	Comm D Deliberation Resident Species
34	ADF&G SF	Comm D Deliberation Personal Use
35	ADF&G SF	Comm F Vessels / Guides
36	ADF&G SF	Comm E Kenai / Kasilof
37	Dave Carey	Appreciation for hearing / Fed takeover / hydrocarbon issue / protection
38	Drew Sparlin	Management policies
39	Gary Hollier	Importance of habitat assessment / adaptive mgmt
40	Richard Hahn	Prop 289, 291, 391
41	Bonnie Williams	Habitat committee testimony
42	Howard Riley	Increase escapements – decline in salmon stocks

**Board of Fisheries Upper Cook Inlet Finfish meeting of February 1-12, 2008  
at Coast International Inn  
Anchorage, Alaska**

**RC Index**

**RC 73**

<b>Log #</b>	<b>Submitted by</b>	<b>Topic</b>
43	Pat Donelson	Salmon policies in UCI
44	DNR	Media release – outboard motor regulations
45	Bruce Knowles	UCI salmon
46	Cliff Heckathorn	Prop 105-106, 108, 95-97 et al
47	Kenai Peninsula College	State Reg Guide Cert Program
48	ADF&G SF	Comm G Deliberations
49	Colin Towse	Alexander Creek Prop 330 – 335
50	Larry Heilman	Chuitna Coal strip mine Prop 344
51	Kenny Rodgers	N District
52	Megan Rodgers	N District set net
53	Duane Gluth	Prop 358
54	Horace Blanchard	Map of Kasilof
55	John McCombs	Area H fishery
56	Bob Merchant	Oppose 116, 132, 203
57	Teague Vanek	Prop 113, 213
58	Steve Vanek	Soldotna hearing
59	Howard Delo	Wasilla hearing report
60	Tom Payton	Mt Yenlo AC report to board
61	Debbi Palm	Erik Barnes testimony
62	Ted Wellman	Support sport fishing
63	Chris Koski	Graphs of escapement / harvest , etc
64	Chris Koski	WA Dept of F&W recreational activity impacts
65	Harold Rodgers	Prop 358
66	Brenda Rodgers	Prop 358
67	Mike Crawford	Kenai/Soldotna AC
68	Richard Vogt	Changes to Mat Valley fish stocks over time
69	Roland Maw	Yentna & Susitna escapement
70	Chris Koski	Prop on set net time and area
71	Tom Kluberton	Yentna / Susitna Prop 119 & 120
72	ADF&G Boards	Public Testimony List

# CI CPU by Stat Area

By Brent Johnson

RC 74



# Sockeye Catch / Permit

• Salamatof Beach	7,444	Beluga, N. District	435
• Drift	4,373	#3 bay, N. District	392
• Ninilchik Beach	3,998	Kasilof Terminal	306
• Kalgin West Beach	3,823	Birch Hill, N. District	295
• Coho Beach	2,746	Big River, Kustatan	291
• K-Beach North	2,697	Pt. Possession, N. District	240
• Little Jack Slough	2,650	Fire Island, N. District	232
• East Foreland	2,570	Susitna Flats, N. District	141
• Kalgin East Beach	2,391	Trading Bay, N. District	79
• K-Beach South	2,381	W. Foreland, Kustatan	30
• Tuxedni Bay	2,011	Tyonek, N. District	19

# King Salmon Catch / Permit

• Beluga N. District	78	Ninilchik Beach	29
• Fire Island, N. District	62	Kalgin E. Side	17
• Tyonek, N. District	61	Birch Hill, N. District	14
• Salamatof Beach	50	#3 Bay, N. District	14
• Trading Bay	49	Tuxedni Bay	9
• Pt. Possession, N. District	45	Big River, Kustatan District	5
• Susitna Flats, N. District	38	East Forelands	5
• Coho Beach	35	Kasilof Terminal	3
• K-Beach North	34	Kalgin West Side	3
• K-Beach South	34	Drift	2

# Coho Catch / Permit

• Kalgin West Side	814	Big River, Kustatan	151
• Kalgin East Side	633	Salamatof Beach	119
• Birch Hill, N. District	611	Pt. McKenzie	118
• Beluga, N. District	557	Trading Bay	94
• Fire Island, N. District	524	K-Beach North	53
• Little Jack Slough, West	427	Coho Beach	50
• #3 Bay, N. District	298	Ninilchik Beach	37
• Drift	261	West Foreland	36
• Susitna Flats, N. District	254	Tyonek	33
• Pt. Possession, N. District	198	K-Beach South	30
• Tusedni Bay	196	Kasilof Terminal	9
• East Foreland	167		

**REVISED BOARD COMMITTEE ASSIGNMENTS**  
**(FEB. 2, 2008)**

---

**COMMITTEE A: Cook Inlet Commercial Fishing**

*Board committee members: Williams (chair), Jensen, Webster*  
*(Total proposals: 38)*

**COMMITTEE D: Kenai Peninsula Personal Use/  
Kenai River Resident Species**

*Board committee members: Morris (chair), Campbell, Delo*  
*(Total proposals: 31)*

---

**COMMITTEE B: Northern District Salmon Management Plans (CF)**

*Board committee members: Jensen (chair), Williams*  
*(Total proposals: 46)*

**COMMITTEE E: Kenai/Kasilof Salmon Sport Fisheries**

*Board committee members: Delo (chair), Campbell, Webster*  
*(Total proposals: 42)*

---

**COMMITTEE C: Pink, Kenai, and Kasilof Management Plans (CF)**

*Board committee members: Campbell (chair), Delo*  
*(Total proposals: 53)*

**COMMITTEE G: Northern Cook Inlet Sport Salmon Fisheries**

*Board committee members: Webster (chair), Jensen, Williams*  
*(Total proposals: 29)*

---

**COMMITTEE F: Kenai River Sport Fishing Vessel Restrictions/  
Kenai-Kasilof River Guides**

*Board committee members: Jensen (chair), Williams, Delo*  
*(Total proposals: 47)*

---

RC 76

COOPER LAKE - Proposal to increase the Arctic char daily limit from two fish to five fish.

Proposed by retired fishery biologist Jack Dean

Proposal No. 248

First I'd like to provide some background information on Cooper Lake. The lake was a natural, clear water, deep, 2,000 acre lake nestled in the Kenai Mountains. The lake was about 5 miles long and a mile wide at its widest point. It was drained by Cooper Creek, a tributary of the upper Kenai River.

The native fish population consisted of only two species: Arctic char and the coastrange sculpin. Dolly Varden were reported to be present in Cooper Lake for many years. Recent genetic, meristic, morphological and life history studies have confirmed that the char present in Cooper Lake are not Dolly Varden but are the closely related Arctic char. This is the only known lake in the Kenai River watershed with a significant Arctic char population. Most of the mature spawners are only 8 to 11 inches long. They have been described as dwarfs. The definition of a dwarf Arctic char is a spawning adult in juvenile (parr marked) coloration.

Fifty years ago Chugach Electric Association was licensed to build a 50 foot high dam across the outlet of Cooper Lake. All the inflow was diverted down a tunnel to a power plant on Kenai Lake.

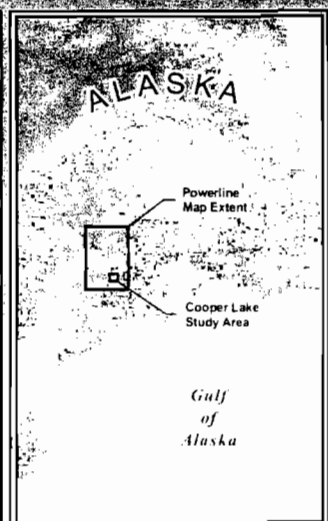
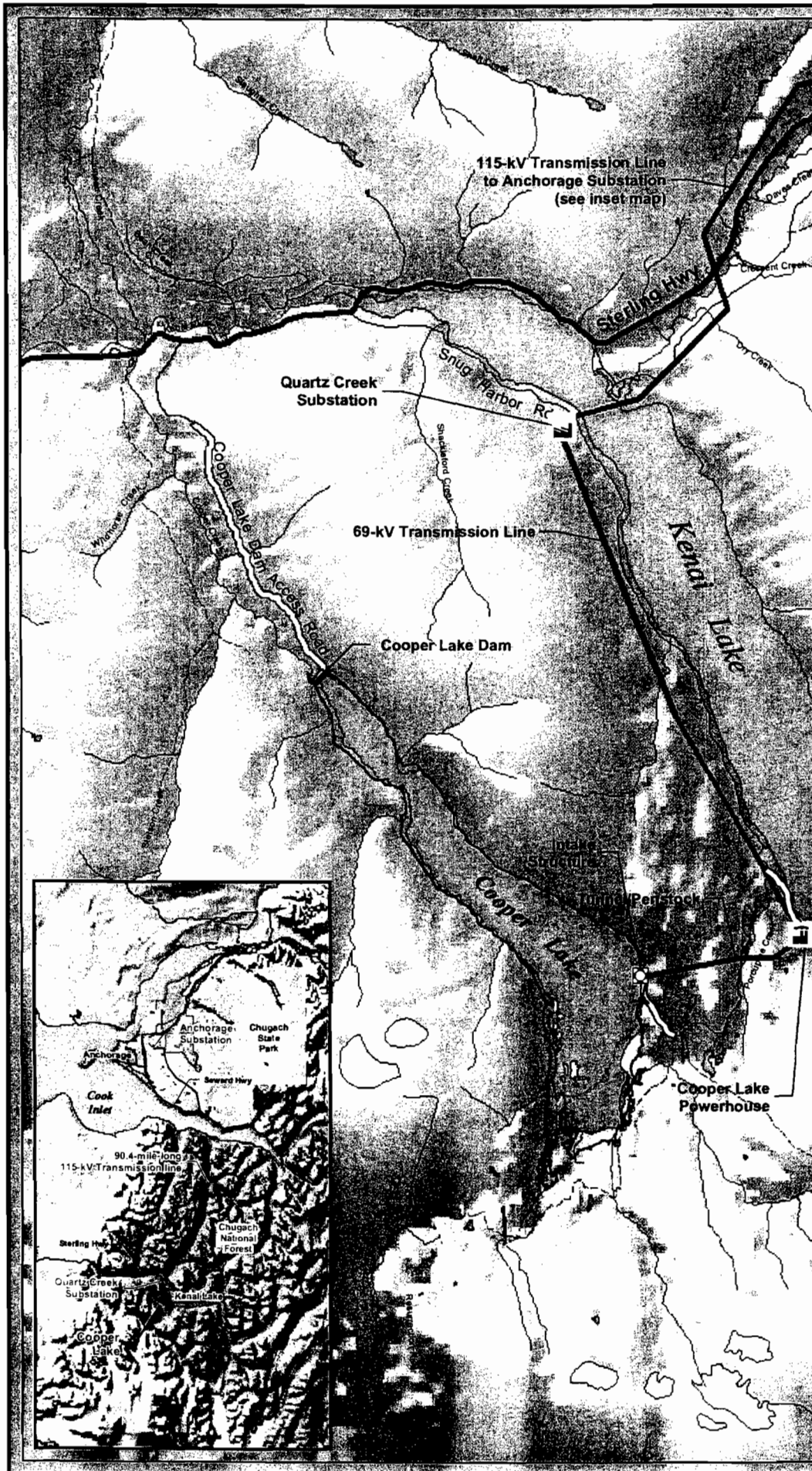
In the late 1980's and early 1990's Cooper Lake was stocked with rainbow trout by the Alaska Department of Fish and Game. The rainbow trout reproduced in several tributary streams and are now maintaining a self sustaining population.

Hydroelectric projects have to be re-licensed every 50 years by the Federal Energy Regulatory Commission. As part of the process a comprehensive fishery investigation was contracted with HDR Alaska, Inc. And Northern Ecological Services. Their investigations included:

1. Invertebrate study
2. Age and growth study
3. Food habits study
4. Location of char and trout spawning areas
5. Population estimates of Arctic char and rainbow trout

The preliminary estimate was that there could be as many as 15,000 Arctic char in Cooper Lake. This estimate turned out to be a gross underestimate. The midpoint of HDR's and NEC's population estimate was 105,685 Arctic char over seven inches long and 6,143 rainbow trout.

About three years ago the Fisheries Board raised the daily limit from one char to two char in Cooper Lake. I would like to take this opportunity to recommend to the Fisheries Board that they consider raising the daily limit again from two char to five char. Five of these small char weigh only about a pound. A five fish limit would provide the opportunity to retain enough char for a meal. With an estimated population of 105,685 Arctic char these is a substantial population available to support an increased harvest.



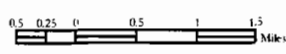
**Figure 1**  
Project Components

Cooper Lake Project  
FERC #2170

**LEGEND**

- Powerline
- 1210-ft Elevation
- Project Roads
- Highways
- Roads
- Trails
- Lakes
- Rivers & Streams
- Glacier

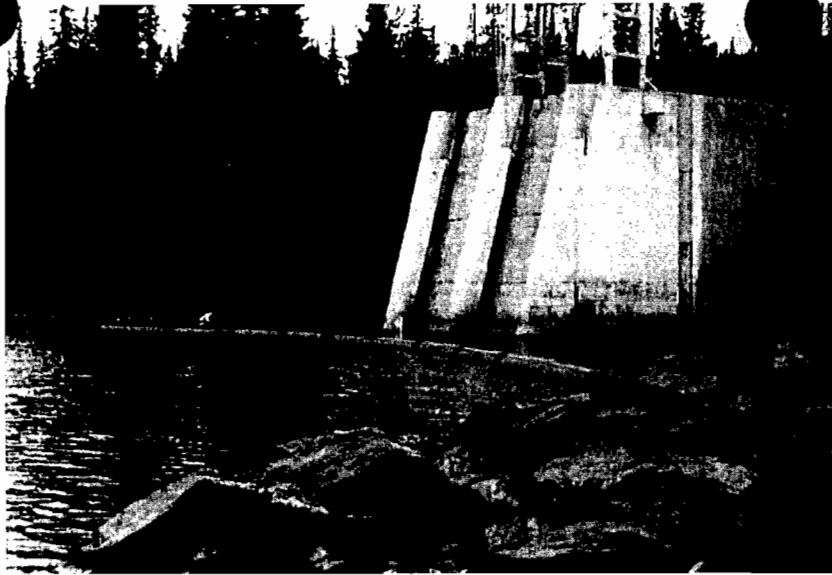
1. Mapping completed by HDR Alaska, Inc.  
2. All data shown is projected in Alaska stateplane zone 4, North American datum of 1927



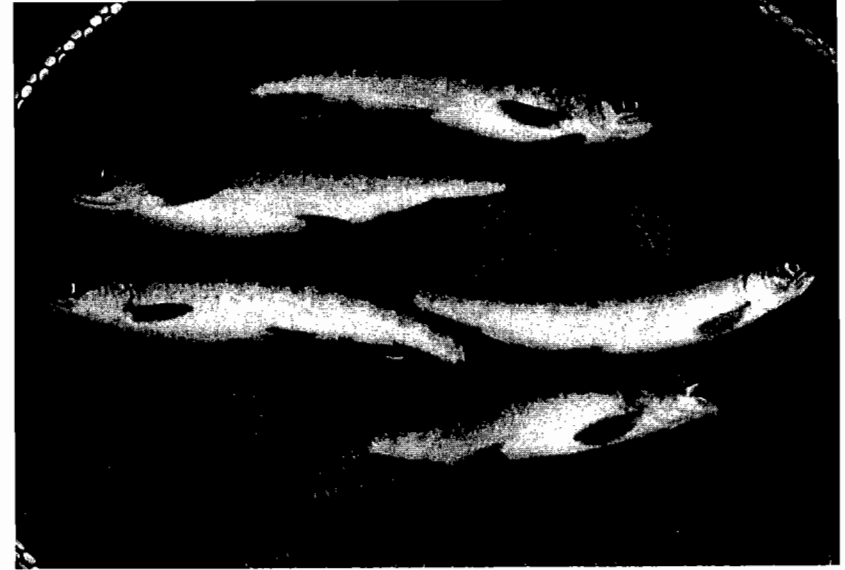
Date: 1/24/2004  
File: figure1.mxd  
Author: PM



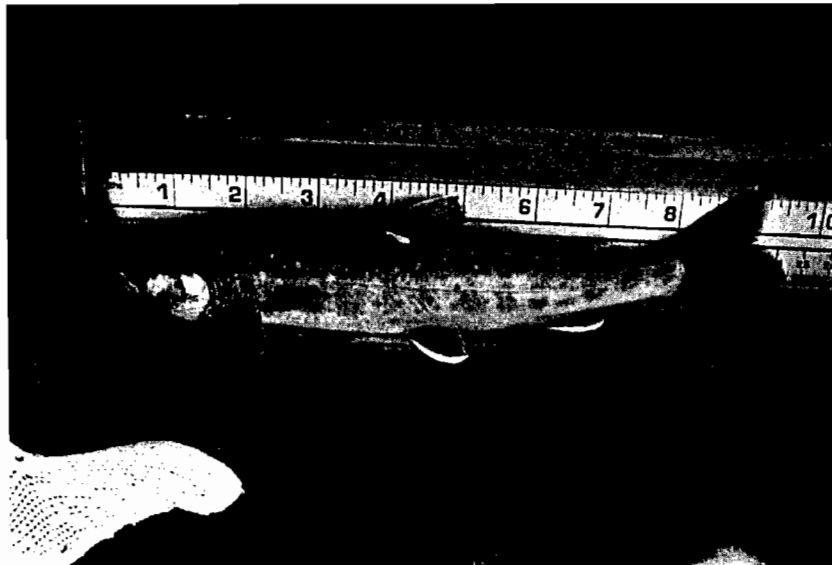




*Dwarf Arctic char were discovered spawning in front of the Cooper Lake outlet structure, 2002.*

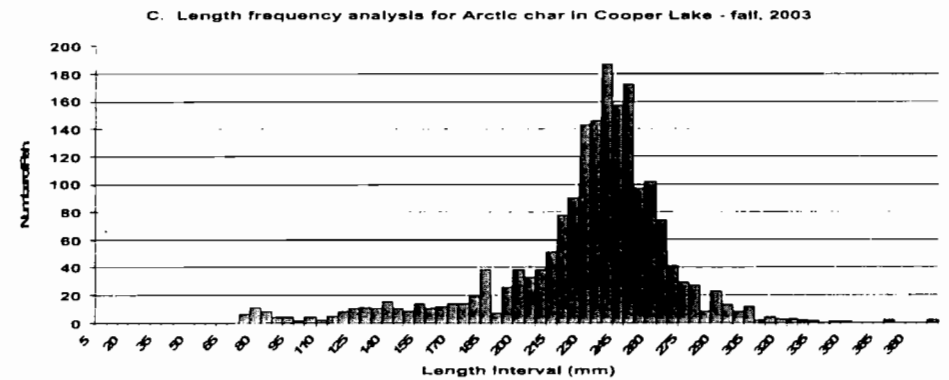


*Cooper Lake dwarf spawners. Faint parr marks are evident on some of these Arctic char.*



*A colorful mature male dwarf Arctic char from Cooper Lake. Notice parr marks.*

*Photo by Art Sponsel*



**Figure 3. Length frequency analysis for Arctic char in Cooper Lake, 2003**

