

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

3050 SCOMM 138: HOUSE SPECIAL COMMITTEE ON FISHERIES 2005-2006 736

Alaska Division of Investments
Department of Commerce, Community, & Economic Development

Work Draft (2/21/06) Changes Summary

1. A sentence is added to Section B codifying existing policy that loans under Section B can only be made if the applicant is not eligible for financing from other recognized commercial lending institutions.
2. One method of qualifying for a Tax Obligation loan is eliminated. This will not have any significant impact on the Commercial Fishing Revolving Loan Fund (CFRLF).
3. The vessel/gear refinancing section is amended to reduce the maximum amount that can be refinanced from \$300,000 to \$200,000. The requirement (included in Work Draft 1/4/2006) that the current lender approve any requests to refinance an existing loan was deleted.
4. The maximum interest rate charged is capped at prime plus two percentage points instead of 10.5% as the current law stipulates. This mirrors existing policy.
5. The loan to value ratio is reduced from a maximum of 90% to 80%.
6. The maximum loan amount for a tax obligation loan is increased from \$30,000 to \$35,000. This will not significantly impact the CFRLF as this program is rarely used.
7. The maximum that a borrower can have outstanding in loans at any given point in time is reduced from \$630,000 to \$335,000. This will have some impact on future borrowers although the vast majority of the portfolio is made up on loans well under \$335,000.
8. A section insuring that there is sufficient money available to cover small loan amounts (under \$35,000) is eliminated. Insufficient cash to cover small loan requests has never been a problem.

HB 304 Proposed Regulatory Amendments

The Division proposed the following regulatory amendments to 3 AAC 80, regarding loans from the Commercial Fishing Revolving Loan Fund (CFRLF), pursuant to HB 304:

9. Amend 3 AAC 80.010(b)(2) to lower the prequalification application fee from \$200 to \$50;
10. Amend 3 AAC 80.055 to require that a non-CFRLF loan to be refinanced under AS 16.10.310(a)(11) must be at least one year old. This requirement will set current Division policy into regulation.
11. Amend 3 AAC 80.055 to clarify that with the exception of the Pay on Time program described in 3 AAC 80.055(P), the interest rate for loans to purchase limited entry permits under AS 16.10.310(a)(1)(A) may not be less than the prime rate plus two percentage points.

ALASKA DIVISION OF INVESTMENTS
DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
MEMORANDUM

TO: Greg Winegar
Lending Branch Manager

FROM: Lujean Fedotov
Anchorage Lending Section Supervisor

DATE: February 21, 2006

SUBJECT: Interest rate survey

Per your request I conducted a survey of several lenders who make commercial fishing loans. The following information was received on February 21, 2006 via telephone conversations:

FARM CREDIT, Erik Olsen, Sr Credit Officer, Seattle, Washington, 206-691-2000

TYPES OF LOANS: Farm Credit is a private cooperative with \$5 billion in assets, \$90 million in net revenues, returning .7% to shareholders in 2005. Farm Credit finances quota shares, vessel upgrades, vessel refinances, vessel upgrades or other valid purposes for fishermen, processors, or commercial fishing-related businesses for individuals who live in Oregon, Washington, and Alaska, Idaho, and Montana. Farm Credit specializes in all types of loans, including investment properties, residential properties, etc for commercial fishers and families.

IFQs: 5-15 year term, 1% fee + \$300 - \$500 verification/filing fees charged at closing, rates variable or fixed, with a maximum 50% of value of IFQs as collateral value.

VESSELS: 10 years on existing, 15 years on new vessels, 1% fee + \$300 - \$500 verification/filing fees charged at closing, rates variable or fixed. Maximum collateral LTV is 60% on a new vessel and 50% on existing vessels.

RATES: Current interest rate for an average borrower P + 2%, currently 9.25%, and can tie the rate to LIBOR as well. Rates are fixed or variable and vary, dependent upon borrower strength, use of a pricing card, which includes liquidity, debt/asset ratio, production/liability ratio, LTV, and earning/debt coverage ratio. Funds are purchased from AgAmerica or from Western Farm Credit Bank in California.

OTHER INFO: According to Mr Olson, vessel upgrades, IFQ purchases, vessel purchases, and family transfers (where the younger generation is buying all or part of a parent's fishing business) are currently the most active loan requests. They can make construction loans and have technical help available to borrowers.

WEB SITE: www.farm-credit.com

WELLS FARGO BANK, Jon Stavig, Cordova - 424-3258**e-mail: jon.k.stavig@wellsfargo.com**

TYPES OF LOANS: IFQs, vessel purchases, vessel refinances, upgrades. Most active types of loans this season are vessel purchases, repowering, and working capital.

IFQs: 5 -7year term, 50% LTV, 1% loan fee, variable rates, typically $P + 2\%$, currently 9.25%, variable.

IFQ/VESSEL COMBO: 7-10 year term, 50% LTV, 1% loan fee, variable rates, typically $P + 2\%$ currently 9.25%, variable.

VESSELS: 7-10 year max term for existing vessels, 10-year term for new vessels. Vessel financing is 75% LTV, 1% loan fee, Prime + 2% currently 9.25%, variable.

OTHER: Jon states that the general attitude in the local PWS fishery economy is that the drift fleet will be fine this year, but the salmon seine fishery will likely face challenges with the hatcheries in cost recovery mode. Those who participate in the bottom fisheries will continue to be strong.

RATES: Most loans are variable rate of $P + 2\%$ currently 9.25%.

WEB SITE: Wells Fargo has a web site at www.wellsfargo.com,

FIRST NATIONAL BANK ALASKA, Mike Dye, Branch Manager, Homer, Alaska - 235-5801**e-mail: mdye@fnbalaska.com**

TYPES OF LOANS: IFQs and vessels on a case-by-case basis to strong borrowers or to those who have long term relationships with FNBA and/or other collateral to pledge as security.

TERMS: Vary, will base loan on 50% Loan-to-Value of IFQs or vessel, 1% bank fee + closing costs, term usually 5-7 years.

RATES: Most loans are variable rates. Variable rate is commonly $P + 2\%$, currently 9.25%.

FNB has had little change in rates and terms in the past year except the increasing prime interest rate.

WEB SITE: www.fnbalaska.com has no information concerning commercial fishing loans.

CFAB, Bob Clark, VP, Anchorage, Alaska – 276-2007 e-mail: robert@cfabalaska.com

TYPES OF LOANS: Permits, quota shares, vessels, tourism, processing plants in Alaska, tenders

PERMITS: 1% loan fee, variable rates, currently 7.5%, no set Loan-to-Value.

IFQs: 1% loan fee, variable rates, currently 7.25 %, with 50% Loan-to-Value. (This is the only rate that has changed since 2005)

**VESSEL/PERMIT:
OR IFQ COMBO** 1% loan fee, variable rates, currently 8.0%

VESSEL ONLY: 1% loan fee, variable rates, currently 9.0%

FEES/TERMS: CFAB requires that borrowers purchase 2% (cap of \$2500) of Class B preferred stock. Term is usually 10-12 years. Smaller loan amounts have shorter terms. Interest rate base for CFAB is 6.0%, same as 2005.

Interest rate can change at any time. Payments are fixed for 3-year periods. Interest rates are set based on base rate plus a percentage with collateral being the determining factor.

**PATRONAGE
REBATE:** Borrowers receive up to 1% check back from CFAB annually. The CFAB Board decides annually what percentage borrowers will receive.

SOURCE OF FUNDS: Spokane Bank of Cooperatives (blended bond rate)

OTHER INFO: Most active loan types are salmon permits & boats with most activity in PWS and SE fisheries. IFQ market is tight. A few tourism loans are being done.

WEB SITE: www.cfabalaska.com is informative and has applications on-line

NORTHRIM BANK, Herman White, Anchorage – 261-3558

TYPES OF LOANS: Northrim Bank is not making direct commercial fishing loans, refers commercial fishing business to CFAB.

Note: Originally called Northrim Bank to talk to Stephen Street, formerly of ABDC, about loans and interest rates. Stephen Street resigned Northrim a week ago.

NMFS Financial, Paige Parasiche, Loan Officer, 7600 Sand Point Way NE, Bin C15700,
Bldg. 1, Seattle, WA 98115 - 206-526-6122

TYPES OF LOANS: Quota Share purchases and refinances, vessels, Aquaculture, and Shore-based processors. \$5,000,000 has been designated as IFQ financing and \$59,000,000 has been designated for vessels/processors.

VESSELS: Most vessels are \$2,000,000 or over in purchase price.

IFQs: Purchases are 80% Loan-to-Value, must pay 20% down in cash. Refinances are 80% Loan-to-Value. Not able to do the new crab quota shares yet, but talking about it.

TERMS: Term is up to 25 years. Little change in interest rates from 2005. Rates are fixed - based on T-Bill rate (at www.treas.gov) + 2% (interest rate currently 6.57% for 10 years and 6.72% for 20 years - up about .25% from 2005). Prequalifications are issued with no set time limit to find quota shares to purchase. Most IFQ borrowers are Alaska, Washington, or Oregon residents.

OTHER: Funding is seasonal with NMFS Financial. They receive funding in March each year--\$5,000,000 for quota and this year and last year for quota shares+ \$59,000,000 for vessels. Commitments are issued when funding is available.

There is no prepayment penalty, but there is a default rate on a case-by-case basis. Borrowers lose their "initial issuee" status if financed by NMFS Financial. If a borrower owns more than 50,000 pounds of quota shares, he is ineligible for financing. Borrowers cannot own a vessel larger than 60'.

NMFS Financial records a vessel mortgage on all quota share loans. Equity in the vessel is not an issue for the mortgage.

There are few changes in the program over the past year.

WEB SITE: None

SCOMM

138:17

ALASKA STATE LEGISLATURE

Chair
STATE AFFAIRS

Member
RESOURCES

Member
HEALTH, EDUCATION AND SOCIAL SERVICES

Member
WAYS AND MEANS



REPRESENTATIVE PAUL SEATON
House District 35

Session:
State Capitol Building
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Phone 907-465-2689
Fax 907-465-3472
1-800-665-2689
Rep.Paul.Seaton@legis.state.ak.us

Interim:
345 W. Sterling Highway
Suite 102B
Homer, Alaska 99603
Phone 907-235-2921
Fax 907-235-4008

MEMORANDUM

From: Representative Paul Seaton
To: House Fisheries Co-Chair Representative Bill Thomas
House Fisheries Co-Chair Representative Gabrielle LeDoux
Date: 1/12/2006
Re: HB 328 Bill Hearing Request

I would like to respectfully request that HB 328 be scheduled in House Fisheries at your earliest possible convenience. HB 328 transfers the prohibition on pollution mixing zones in freshwater spawning areas from regulation to statute.

Please find the following attachments:

1. HB 328
2. Sponsor Statement
3. Sectional Analysis
4. HB 328 Support
5. Current regulations prohibiting mixing zones in freshwater spawning areas
6. Proposed 2004 and 2005 regulation change lifting the prohibition
7. Legal opinion on 2005 regulatory proposal language
8. Opposition to proposed lifting of the prohibition on mixing zones in freshwater spawning areas
9. Current regulations allowing for site-specific water quality determinations and short term variances from water quality standards



24-LS1273\L
Bullock
1/23/06

CS FOR HOUSE BILL NO. 328()

**IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-FOURTH LEGISLATURE - SECOND SESSION**

BY

**Offered:
Referred:**

Sponsor(s): REPRESENTATIVES SEATON, OLSON, GATTO AND LEDOUX, Kerttula, Gara

A BILL

FOR AN ACT ENTITLED

1 **"An Act prohibiting mixing zones in freshwater spawning waters."**

2 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

3 *** Section 1.** AS 46.03 is amended by adding a new section to read:

4 **Sec. 46.03.065. Prohibition of mixing zones in spawning waters.** (a) Except
5 as provided in (b) of this section, the department may not authorize a mixing zone for
6 lakes, streams, rivers, or other flowing fresh water in an area of

7 (1) anadromous fish spawning; or

8 (2) resident fish redds for

9 (A) Arctic char;

10 (B) Arctic grayling;

11 (C) brook trout;

12 (D) burbot;

13 (E) cutthroat trout;

14 (F) Dolly Varden;

15 (G) lake trout;

1 (H) landlocked coho, king, and sockeye salmon;

2 (I) northern pike;

3 (J) rainbow trout;

4 (K) sheefish; or

5 (L) whitefish.

6 (b) The prohibition in (a) of this section does not apply to the renewal of a
7 municipal wastewater facility's mixing zone authorization during the useful life of the
8 wastewater facility for an area where spawning was not ongoing at the time of the
9 initial authorization and the mixing zone became a spawning area after the date of the
10 initial authorization.

11 (c) In this section,

12 (1) "area" means the physical location where spawning occurs;

13 (2) "lakes, streams, rivers, or other flowing fresh water" includes lakes,
14 streams, rivers, or other flowing fresh water that have been altered by remediation or
15 construction activities; the term does not include an artificially constructed facility for
16 water, wastewater, holding, or channeling, unless the artificial facility is constructed
17 for the purpose of facilitating fish spawning;

18 (3) "mixing zone" means an area in a water body surrounding or
19 downstream of a discharge where the effluent plume is diluted by the receiving water,
20 within which water quality standards specified by the department under AS 46.03.050
21 - 46.03.120 may be exceeded.

ALASKA STATE HOUSE OF REPRESENTATIVES

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45 W. Sterling Hwy
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Homer, Alaska 99603
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Session Address:
State Capitol, Room 102
Juneau, Alaska 99801
Phone: (907) 465-2689
Fax: (907) 465-3472

REPRESENTATIVE PAUL SEATON
DISTRICT 35

Sponsor Statement HB 328

Alaska has a reputation for pure water and vibrant wild salmon stocks. HB 328 seeks to maintain the long-standing prohibition on pollution mixing zones in Alaska's freshwater spawning areas. HB 328 transfers into statute a regulation that has governed wastewater discharges for many successful years of industrial and municipal expansion in Alaska.

In the summer of 2004 the Alaska Department of Environmental Conservation (ADEC) released a proposal to consolidate and modify the mixing zone regulations found at 18 AAC 70.240 through 18 AAC 70.270. One of the changes was lifting of the prohibition on pollution mixing zones in freshwater spawning areas. This change was met with intense opposition from coastal municipalities, commercial and sport fishing industry groups, the federal government, state fish and game advisory committees, and hundreds of individuals, families, and businesses.

The opposition to this change testified that allowing pollution in freshwater spawning areas would have a detrimental effect on the physical environment where the largest freshwater spawning populations on earth occur. Additionally, commercial fishing groups were unified in the concern that their recent successes in salmon marketing would be undermined if this important water quality safeguard was abolished. In response to public reaction ADEC withdrew their proposal.

In 2005 a new mixing zone proposal was put forward by ADEC. This proposed regulation would allow pollution mixing zones in freshwater spawning areas if an applicant has met only one of four conditions. One of these options is to submit a mitigation plan. Under the proposed regulation, legal protection to thoroughly pollute a spawning area could be granted as long as the applicant plans to provide an undefined "substitute resource" as compensation. This proposal also met with a high level of opposition.

HB 328 retains the prohibition on pollution mixing zones in freshwater spawning areas, but it does not negate many other substantive changes ADEC has made in their attempt to streamline and consolidate the mixing zone regulations, nor does it change regulations that allow for river wide site-specific exemption from state water quality standards and the granting of short term variances from the standards.

HB 328 aids municipalities and industry by preventing mixing zones in man-made ditches or holding ponds invaded by fish after construction to be reclassified as spawning areas. This language solves the "Valdez Situation" cited by ADEC as a primary rationale for the regulation change. In that situation, the city created a ditch from its wastewater treatment facility to saltwater, and the ditch was subsequently invaded by spawning pink salmon. This ditch was classified as a spawning area requiring the wastewater discharge parameters to be reduced to a purity that the city's wastewater treatment plant would not be able to feasibly meet.

HB 328 protects municipalities and industry while maintaining the high standard of water quality and fisheries protection that has been a centerpiece of Alaska policy for years.

ALASKA STATE HOUSE OF REPRESENTATIVES

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REPRESENTATIVE PAUL SEATON
DISTRICT 35

HB 328 Sectional Analysis

Section 1 (a)

Prohibits the Alaska Department of Environmental Conservation from authorizing a mixing zone in an area of a lake, stream, river or other flowing fresh water body where anadromous or resident fish are spawning or have existing redds or nests. With the exception of "lake" this language is taken directly from the current regulations at 18 AAC 70.255(h). The 2005 ADEC mixing zone proposed regulation includes lakes along with streams, rivers and other flowing fresh waters. HB 328 includes lakes, mirroring this proposed regulatory language.

Section 1 (b)

Clarifies that the prohibition applies to spawning areas of naturally occurring lakes, streams, rivers, or other flowing fresh water even if these waters have been modified or altered by construction or remediation. It further clarifies that the prohibition on mixing zones in spawning areas does not apply when spawning occurs in the water of an entirely man-made holding pond or channel. However, if these holding ponds and channels have been created for the purpose of facilitating fish spawning, mixing zones are prohibited in them.

Section 1 (c)

Defines "mixing zone".

Rep. Paul Seaton

From: Robbie Stell [robbiestell@gci.net]
Sent: Monday, January 09, 2006 9:26 PM
To: Rep. Paul Seaton
Subject: HB 328

Representative Seaton: I have read your bill and support passage of this important legislation. Put my count into the support side for this bill.
Roberta Stell
Juneau, Alaska

Gustavus, Alaska
Jan. 9, 2006

Representative Paul Seaton
State Capitol, Room 102
Juneau, AK 99801

Dear Senator Seaton:

I fully support your bill to prohibit mixing zones in fish spawning waters. I am one of the many people who commented (twice) on the Dept. of Environmental Conservation proposals to allow mixing zones. Like the overwhelming majority, I oppose allowing mixing zones in spawning streams and lakes. It has been disheartening to see the Administration forge ahead with this proposal against the clear disapproval of Alaska residents. In addition to raising concerns for fish habitat and for the marketing of Alaska's fish, this situation suggests that the citizen participation in a democracy has become irrelevant. Thank you, Rep. Seaton, for rescuing democratic representative government in this instance!

Salmon streams in Alaska ought to be as protected and cherished as anything we have. They are the source of immense productivity, not just of salmon, but also of the surrounding ecosystems, terrestrial, coastal and marine.

A reduction in water quality standards for spawning streams could threaten the sustainability certification of Alaska salmon. It can result in loss of the market advantage of wild Alaska salmon and cause a deep reduction in price. It has been a struggle to educate consumers on the health advantages and environmental soundness of eating wild salmon instead of farmed fish. These efforts are paying off, rescuing the fishing industry from a terrible price situation. It is amazing that the Administration would consider tossing this market recovery aside.

The safeguards claimed for the DEC proposal would require monitoring far-flung streams beyond anything the state is prepared to do. The mining industry, for example, is notorious for spotty compliance with environmental regulations. When the A.J. Mine was preparing to reopen, despite all the scrutiny on this mine in the center of Juneau, it released illegal effluent into a stream that flows right through town, released it secretly only at night! This deceit was discovered not by state regulators, but by local citizens.

In theory, under the DEC proposal, mixing of pollutants in spawning streams would be allowed only when there are no fish spawning in the streams. It's pretty hard to find that little window when there are no eggs, alevins or spawners. An old-time Southeast Alaska fisherman - Jack O'Donnell - told me a funny true story about some logging operators and Forest Service representatives meeting with Petersburg fishermen. Tired of hearing fishermen complain about the mess that logging made of spawning streams (this was before buffer strips), the timber men came to talk about a new piece of heavy equipment that promised to clean it all up: the Riffle Sifter. They showed a film of the Riffle Sifter tracking up a stream, processing the gravel and spewing the unwanted mud and debris out on the stream banks. After the film, some fishermen asked "When do you plan to use this - in what season?" The presenters said "Oh, that's where your expertise comes in. You tell us when is the best time." So the fishermen began to explain the life cycle of salmon. The presenters left and nothing was ever heard again about the Riffle Sifter. May the same fate befall the DEC mixing zone proposal.

Yours truly,

Judy Brakel
Box 94, Gustavus, Alaska 99826 e-mail at grigori@gustavus.ak.us

**United Southeast Alaska Gillnetters**

P.O. Box 23378, Ketchikan, AK 99901 Phone & Fax (907) 247-2471 Email: usa_gillnetters@att.net

January 11, 2006

The Honorable Paul Seaton
House of Representatives
State Capitol, Room 102
Juneau, AK 99801

Sent Via Fax to: 907 465-3472

Dear Representative Seaton,

The United Southeast Alaska Gillnetters (USAG) is an association of about 150 small business owners who catch salmon by drift gillnetting in Southeast Alaska and market salmon throughout the United States. Many of our members also participate in other fisheries such as crab, shrimp, dive and longline. We have steadfastly opposed the Department of Environmental Conservation's (DEC) efforts to change the current ban on mixing zones in salmon spawning and rearing streams. We strongly support HB 328 which will prohibit mixing zones in freshwater spawning waters. We believe that if the current ban was lifted, regardless of the restraints placed in new regulations controlling future mixing zones, the use of these zones will become a license to pollute the fresh water systems of Alaska. The best example of this is in DEC's own survey of the status of mixing zones in other states. Of those responding, 21 of 23 allowed mixing zones of some kind. Every one of the 21 that had responded that they permitted mixing zones had issued fish consumption warnings to their citizens for fish caught in their local waters. Of the 2 that did not permit mixing zones, neither had issued such warnings. From this experience it is clear that mixing zones are a license to pollute and they harm fish populations and can result in harm to humans. If mixing zones were permitted in Alaska, they could cause grave harm to Alaska's efforts to market our salmon to the rest of the world and attract tourists to the "pristine environment" of our great land. Attached to this letter is a copy of our earlier letters to DEC expressing our opposition to lifting the ban on mixing zones and more detailed reasons for that opposition.

USAG wishes to thank you, Representative Seaton and the other legislators who have joined with you to introduce this legislation. The economic health and future of our state depends on our maintaining a healthy environment and our reputation for resource protection. Two of Alaska's largest industries, commercial fishing and tourism, depend in part on us maintaining our commitment to protect our environment and to use our resources wisely.

Yours truly,

Kenneth Duckett
Executive Director

Adam Bauer
4734 Sabrina Rd
Homer, AK 99603
(907) 235 6994
(907) 235 9779 FAX
abauer@bauerhaus.ws

Representative Paul Seaton
State Capitol, Room 102
Juneau, Alaska 99801

Dear Representative Paul Seaton,

I fully support your bill - HOUSE BILL NO. 328 "An Act
prohibiting mixing zones in freshwater spawning waters."

Thank you for taking action to protect Alaska's Natural Resources
and the quality of our environment for or fisheries and our future.

Adam Bauer

Rep. Paul Seaton

From: alaskakayakschool [info@alaskakayakschool.com]
Sent: Thursday, January 12, 2006 10:20 AM
To: Rep. Paul Seaton
Subject: Mixing Zone Legislation: HB 328

Dear Paul -

I am a Homer resident, owner and operator of the AlaskaKayakSchool.com here in Homer. I was involved in the first mixing zone hearing under the EPA's public participation process of the Clean Water Act, in 1973: Weyerhaeuser's Springfield, Oregon, pulp mill. They had been granted half the river!!! as a mixing zone. We fixed that all right. Times seem not to change.

Honorable Governor Murkowski and his staff are pretty misguided to dismantle mixing zone regulations "IN SALMON SPAWNING AREAS" no less.

Please OPPOSE any effort to reduce protection for salmon streams. I support the efforts of HB 328 to counter the governor and his staff's misguided policy. Lack of protection for Salmon streams from industrial effluent would seem to be in violation of "sustained yield" in the State of Alaska's Constitution.

We should be affording more protection for Salmon and their habitats, not less. As we all know, Salmon eggs and fry are very sensitive to the negative effects of deteriorating water quality, and require clean, cold and well aerated water to spawn, hatch and grow. This is a no-brainer.

I offer my sincere thanks for your efforts to pass HB 328.

Best,

Tom Pogson

--

Alaska Kayak School
P.O. Box 3547
Homer, Alaska 99603
(907) 235-2090
www.alaskakayakschool.com

Rep. Paul Seaton

From: Doug Fine [fine@well.com]
Sent: Thursday, January 12, 2006 10:01 AM
To: Rep. Paul Seaton
Subject: In Support on House Bill #328

Dear Rep. Seaton and all Legislators and the Governor:

I support House Bill # 328, An Act Prohibiting Mixing Zones in Freshwater Spawning Areas. Alaska salmon literally keeps me and many of those I love alive. This is what it's all about in Alaska and what makes Alaska different from other places. We should be treasuring the salmon runs, treating them carefully and managing them for what they are: worth more than gold, literally and in other senses, like nutritionally and culturally. Please support this bill and do not weaken it. Mixing zones are a bad idea and this bill is a good idea.

Thank you.

Best,

Doug Fine

--

"Half the Story Has Never Been Told": Bob Marley

"Not Really An Alaskan Mountain Man": <http://www.dougfine.com>

Recent National Public Radio Work: www.npr.org, search under "Doug Fine Alaska" for Alaska work and "Doug Fine New Mexico" for work elsewhere.

Rep. Paul Seaton

From: Ellen Wolf [ellenmwolf@yahoo.com]
Sent: Thursday, January 12, 2006 9:21 AM
To: Rep. Paul Seaton
Subject: House Bill 328

January 12, 2006

Dear Representative Seaton:

Please share my strong support for House Bill 328, prohibiting mixing zones in freshwater spawning areas, with your colleagues in the legislature.

This kind of legislation is essential to protect the spawning waters of our state's wild salmon population. Alaska's wild salmon are a valuable economic commodity in terms of both commercial and sport fishing. As salmon farms degrade wild salmon populations in Canada and other parts of the U.S., Alaska's wild salmon become even more precious. Furthermore, and perhaps more importantly, salmon and other fish are an essential part of a healthy ecosystem, providing food for bears, eagles, marine mammals and others.

Thank you for sponsoring this forward-thinking bill.

Sincerely,
Ellen Wolf
P.O. Box 371
Talkeetna, AK 99676

Yahoo! Photos – Showcase holiday pictures in hardcover
Photo Books. You design it and we'll bind it!

Rep. Paul Seaton

From: Duane Howe [duhowe@alaska.net]
Sent: Thursday, January 12, 2006 9:01 AM
To: Rep. Paul Seaton
Subject: HB 328

Dear Representative Seaton,

I commend you for pre-filing HB 328 to codify current mixing zone regulations for salmon streams into state law. I have written letters twice to DEC opposing their proposals to allow pollution into salmon streams and am in complete support of HB 328 to add the prohibition of polluting these streams into statute. Please add this note into the record in support of your proposal.

Duane Howe
41640 Gladys Ct
Homer, AK 99603
235-9477

1/12/2006

Rep. Paul Seaton

From: clardy [clardy@acsalaska.net]
Sent: Thursday, January 12, 2006 8:32 AM
To: Rep. Paul Seaton
Subject: mixing zones.

I support any effort to stop the increased pollution of our salmon streams.
susan clardy

1/12/2006

Rep. Paul Seaton

Subject: FW: Mixing zones

-----Original Message-----

From: Will Files [mailto:will@wfiles.us]
Sent: Thursday, January 12, 2006 8:30 AM
To: Rep. Paul Seaton; Katie Shows
Subject: Mixing zones

Hi Paul and Katie,
Happy New Year to all of you there in the Juneau office.
If I recall some of our conversations, Paul is not in favor of
"mixing zones". I would like to lend support to that position.
Let's not take any chances at all on our precious waters and valuable fish resources,
particularly when we are playing with such dangerous things as mercury and arsenic and
whatever nasty things come from mining, including a lot of sediment which can change the
nature of the ecosystem dramatically.
Thanks for your efforts to protect our resources.
We support HB 328.

Will and Martha Ellen
59835 Tern Court
Homer

Rep. Paul Seaton

From: Nina Faust [fausbail@xyz.net]
Sent: Thursday, January 12, 2006 8:07 AM
To: Rep. Paul Seaton
Subject: HB 328

P.O. Box 2994
Homer, AK 99603

January 12, 2006

Representative Paul Seaton
State Capitol, Room 102
Juneau, Alaska 99801

Dear Paul:

We support HOUSE BILL NO. 328, "An Act prohibiting mixing zones in freshwater spawning waters." A legislative fix is needed to prevent looser State regulations that would allow pollution in our streams and rivers. No matter how the state has tried to present its new regulations on mixing zones, it still comes back to the bottom line, which is that the new rules relax water quality standards in Alaska. The state appears to be scrambling to loosen controls on water quality to benefit pending big, new mines and timber operations. Alaska is the only state in the U.S. that can boast about its amazingly clean streams and lakes, but this will not last if the state allows relaxed mixing zone standards. We are adamantly opposed to doing this!

Our fisheries are the envy of the nation and comprise a vital and sustainable part of Alaska's economy. Allowing mixing zones threatens commercial, subsistence, and sport fisheries, all-important components of many Alaskan communities. How can the state promote fresh, wild salmon through a marketing campaign emphasizing the clean, healthy, organic qualities of Alaskan salmon if we relax mixing zone regulations? Mixing zones are just pollution zones that allow higher pollution levels. The state can try to dress it up anyway it wants but it is still an outmoded and discredited method of handling waste and should not be allowed.

Alaskans have been very clear on this topic—they do not support mixing zones! We still oppose mixing zones and urge the State to keep high water quality standards to protect our fisheries and the health of Alaskans. Please pass House Bill 328!

Sincerely,

Nina Faust and Edgar Bailey

Rep. Paul Seaton

Subject: FW: Legislation Prohibiting Mixing Zones in freshwater Spawning Areas

From: John Lyle [mailto:kayak@gci.net]

Sent: Wednesday, January 11, 2006 8:19 PM

To: Louie Flora

Subject: Re: Legislation Prohibiting Mixing Zones in freshwater Spawning Areas

To whom it may concern: Please add my voice to those who support enacting a statute prohibiting the practice of mixing zones, especially in freshwater spawning areas. As I have said in written testimony on the subject over the past several years, this practice is damaging and needs to be made illegal. Thank you. Sincerely, John D. Lyle Box 83715 Fairbanks, Alaska 99708.

1/12/2006

Rep. Paul Seaton

From: Alfa Fish [alfafish@ptialaska.net]

Sent: Wednesday, January 11, 2006 2:14 PM

To: Rep. Paul Seaton

Dear Paul-

I recently learned of the legislation on which you are working to place in law the prohibition on mixing zones. Please know that your efforts are supported by our organization.

Sincerely,

Linda Behnken, Director
Alaska Longline Fishermen's Association

1/12/2006

Rep. Paul Seaton

From: David Swingley [swingdad_2000@yahoo.com]
Sent: Wednesday, January 11, 2006 10:56 AM
To: Rep. Paul Seaton
Subject: freshwater mixing zones

I feel the people of Alaska have overwhelmingly spoken out against freshwater mixing zones. The potential to do irreparable harm freshwater spawning areas and downstream habitat is obvious. There is a giveaway to business, mining, and logging interests with deep pockets by the Murkowski administration. Stop the assault on the clean water act and ban ALL freshwater mixing zones. Thank you. David and Rachel Swingley Eagle River, Ak.

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Rep. Paul Seaton

From: Richard Hahn [rdhahn@eagle.ptialaska.net]
Sent: Tuesday, January 10, 2006 2:32 PM
To: Rep. Paul Seaton; Rep. Kurt Olson; Sen. Gary Stevens
Subject: Mixing Zones

Dear Mssrs. Olson, Seaton, and Stevens, I cannot tell you how appreciative I am, along with a myriad other Alaskan commercial and sports fishers, for your collective initiative to ban pollution mixing zones in salmon spawning streams! I have written many letters to DEC staff, the commissioners of DEC, DNR, and DF&G, and to various Alaska newspapers objecting to DEC's proposal. The "yes sir!" administration of Murkowski simply ignores public comment and do Murky's bidding--pick a subject! I only get one 225 word letter in the Anchorage Daily News each month so, if someone will tell me what the corresponding House Bill number is to Senator Stevens' Bill 255, I will make your action known to as many as read the major Alaska newspapers. This is great news for Alaska streams, habitat, the anadromous fish, and all who fish for salmon in Alaska, as well as the people who consume them.

Having said all that, I must tell you that your bills do not alleviate my concerns for the proposed Pebble Gold Mine, and others like it, which threaten much more than just the fish in the Bristol Bay watershed. No matter what the mine developers may say, it is highly unlikely the cyanide, heavy metal and aqueous sulfuric acid contamination of the environs and ground waters, as a result of such a mining operation, can be contained. If there is an accidental or intentional release of these materials to any aquifer, stream or lake, it cannot be cleaned up--ever! This would not be like an oil spill. I have an eleven(11) page NY Times article, which details horrific incidents from modern gold mining around the world, which I will send you on request. I have personally visited Kellogg, Idaho and Queenstown, Tasmania, both of which look like "moonscapes". Their rivers have been sterile for many years and their surroundings grow no plants. This is just one of the many risks "development at any cost" Murkowski brings to Alaska. He does not require any accountability, bonding, monetary or otherwise, of any developer. They have no responsibility for any mess they may create during the time they operate, and none are self-policing. The profit margin is their only care. Pardon my soapbox.

Thanx again for your action on mixing zones. If you are successful, a next very positive step for Alaska would be to make all developers accountable--up front! Large, depending on the proposed development, liability bonds and precisely worded contracts come to mind. Sincerely,

Richard Hahn
P.O. Box 2754
Soldotna, Alaska, 99669
907-262-8575
rdhahn@eagle.ptialaska.net

Rep. Paul Seaton

Subject: FW: Legislation Prohibiting Mixing Zones in freshwater Spawning Areas

-----Original Message-----

From: Alaska Passages [mailto:info@alaskapassages.com]

Sent: Tuesday, January 10, 2006 1:21 PM

To: Louie Flora

Subject: Re: Legislation Prohibiting Mixing Zones in freshwater Spawning Areas

I am writing in support of House Bill 328 which is an act prohibiting mixing zones in freshwater spawning areas. I support this legislation as a way to maintain water quality in Alaska waters. Discharging wastewater and pollutants into spawning habitat is destructive to fish populations and habitat. There is no time of year when fish in these areas would be safe from the discharge of pollutants. Fish spawn in the summer months, but the resulting egg and fry remain in the gravel of the spawning area for the rest of the year.

Alaska has invested time and money protecting its salmon stocks and also promoting "Wild Caught salmon from Pristine Alaska waters". This kind of marketing has helped the salmon industry tremendously. We need to maintain the high water quality standards to protect our reputation for our wild caught salmon.

Thanks to Representatives Seaton, Gatto, LeDoux, and Olson for introducing this legislation and for their efforts to safeguard Alaska's salmon resource and maintain our high water quality standards.

Julie Hursey
Petersburg, Alaska

Rep. Paul Seaton

From: Sally McGuire [chilkootmcguire@yahoo.com]

Sent: Tuesday, January 10, 2006 12:31 PM

To: Rep. Paul Seaton

Subject: freshwater mixing zones

Dear Rep. Seaton,

Thank you very much for introducing the bill to ban mixing zones in freshwater spawning habitat. I live in Haines, Alaska, and care very much about this issue. Also, many members of my family work in the fishing industry and are also affected. Our fisheries need to stay healthy and unpolluted, both for our own sakes as Alaskans, and in order to continue marketing them as fresh, wild, and unpolluted. It has certainly become very clear that this law is very important to prevent the recent attempts to put the wishes of a few industries over the rights of many Alaskans. Thank you very much. Sally McGuire

1/12/2006

Rep. Paul Seaton

From: Marc Lamoreaux [Lemarc@pobox.mtaonline.net]
Sent: Tuesday, January 10, 2006 10:57 AM
To: Rep. Paul Seaton
Subject: Support for HB 328

January 9, 2006

Dear Honorable Representative Seaton,

Native Village of Eklutna, a federally recognized Alaska Tribe enthusiastically supports the legislation -

HOUSE BILL NO. 328

introduced by yourself, along with Representative Kurt Olson (R-Kenai), Representative Carl Gatto (R-Palmer) and Representative Gabrielle LeDoux (R-Kodiak) that would place in statute the prohibition on pollution mixing zones in Alaska freshwater spawning waters.

We agree that this bill is needed to protect the habitat of Alaska's world famous salmon and trout and to protect Alaska salmon marketing efforts, and the subsistence people and cultures that rely on them.

Thank You,

Marc Lamoreaux
Land and Environment Director
Native Village of Eklutna

Rep. Paul Seaton

From: Kathy Wartinbee [kbwart@alaska.net]
Ser.t: Monday, January 09, 2006 8:11 PM
To: Rep. Paul Seaton
Subject: Mixing zone legislation
Follow Up Flag: Follow up
Flag Status: Red

Representative Seaton:

I am writing this letter to indicate my whole-hearted support for your bill that will prohibit mixing zones in waters with anadromous fish spawning in them. I thank you for taking on this important issue in the legislature.

We must do what ever it takes to preserve the pristine streams and waters of all Alaska. Considering that the state's oil and minerals will eventually be depleted, if we protect the aquatic habitats of the state, fishing and tourism will always be here. However, if we allow our streams to be impacted, no one will want to come and look at where we used to have good fishing nor will consumers be interested in buying fish that used to be untainted.

Again, we must protect our water resources and the industries they support. Your bill is a great step in the right direction.

Sincerely,

David C. Wartinbee PhD, JD
Stream Ecologist
Biology Professor
(UAA - Kenai Peninsula College)

P.O. Box 157
Soldotna, Alaska 99669
907 260-1935

Rep. Paul Seaton

From: Charles Michael Herndon [mherndon@pobox.alaska.net]
Sent: Monday, January 09, 2006 7:29 PM
To: Rep. Paul Seaton
Subject: Strong support for House Bill 328
Follow Up Flag: Follow up
Flag Status: Red

I strongly support passage of House Bill 328, "An Act prohibiting mixing zones in freshwater spawning waters". This bill is necessary to prevent the state Department of Environmental Conservation from lifting the prohibition on pollution mixing zones in freshwater spawning areas.

Charles M. Herndon
10421 Lone Tree Dr.
Anchorage, AK 99507

Rep. Paul Seaton

From: Gerald R. Brookman [brookman@alaska.net]
Sent: Monday, January 09, 2006 3:46 PM
To: Rep. Paul Seaton
Subject: HB 328

Dear Representative Seaton:

First, I want to thank you for introducing HB 328. Second, I'd like to state that I strongly support its passage.

I would appreciate it very much if you could keep me informed, via e-mail, of this bill's committee referrals, and amendments that may be made to it as it goes through the legislative process, etc. Thank you

Gerald R. Brookman (Jerry Brookman)
715 Muir Avenue
Kenai, Alaska 99611-8816
e-mail: brookman@alaska.net

Rep. Paul Seaton

From: claire leclair [northsister@acsalaska.net]
Sent: Monday, January 09, 2006 2:29 PM
To: Rep. Paul Seaton
Subject: HB 328 Legislation prohibiting mixing zones in freshwater spawning areas

Representative Seaton-

Thank you for taking the initiative to find co-sponsors for and introduce legislation prohibiting mixing zones in freshwater spawning areas. I hope this legislation passes easily and quickly, thus allowing our state's fisheries resources to continue to sustain our bodies and our economy well into the future.

Sincerely,

Claire Holland LeClair
Anchorage, Alaska

Rep. Paul Seaton

From: Leif K. Mjos [lmjos@care2.com]
Sent: Monday, January 09, 2006 2:29 PM
To: Louie Flora
Subject: Re: Legislation Prohibiting Mixing Zones in freshwater Spawning Areas

Dear Mr. Seaton,

In general, I am in support of this new legislation regarding mixing zones. However, I have one concern after reading an initial press release.

My concern is over the language used in regards to man-made streams/ditches. If this bill is intended to protect the resource and maintain the viability of the fishing industry, I think that fish populations should be treated as populations, regardless of their chosen route of passage to spawning grounds. If there are fish passing through man-made streams on their way to further natural spawning grounds, they are still members of the same population that is fished by commercial fishermen. If this bill is trying to ensure that fishermen can guarantee consumers healthy, clean fish, then it shouldn't matter how the fish are reaching their spawning grounds, because the fishermen won't know the difference between a fish that swam through the natural stream or one that passed through a man-made stream. If you want the fish to be clean and natural, then they should ALL be clean and natural.

If I am misunderstanding the language in this bill, then I stand corrected. Otherwise, this seems like a huge loophole that will be manipulated by industry and municipalities long after this bill is passed. And that does nothing for the fishermen and their livelihoods, to mention nothing of the resource itself.

I look forward to hearing your response,

Leif Mjos
1725 E 24
Anch., AK 99508

So I end the day as I started it, trying to fathom the abundance of living things. --
Richard Nelson

Trophy hunters can write off canned hunts and big game safaris at taxpayers' expense - help end this cruelty loophole: <http://go.care2.com/66836>

<http://www.Care2.com> Free e-mail. 100MB storage. Helps nonprofits.

Rep. Paul Seaton

From: KmKm/Crystal Images [ci@akmk.com]
Sent: Monday, January 09, 2006 2:16 PM
To: Rep. Paul Seaton
Subject: HB 328

Hi. I am writing in support of HB 328 to prohibit the use of mixing zones in state spawning waters as defined here. Regards, Kathleen Menke, Haines

00 HOUSE BILL NO.

328

01 "An Act prohibiting mixing zones in freshwater spawning waters."

02 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

03 * Section 1. AS 46.03 is amended by adding a new section to read:

04 Sec. 46.03.065. Prohibition of mixing zones in spawning waters. (a)

The

05 department may not authorize a mixing zone for lakes, streams, rivers, or other

06 flowing fresh water in an area

of

07 (1) anadromous fish spawning;

or

08 (2) resident fish redds

for

09 (A) Arctic

char;

10 (B) Arctic

grayling;

11 (C) brook

trout;

12 (D)

burbot;

13 (E) cutthroat

trout;

14 (F) Dolly

Varden;

15 (G) lake

trout;

01 (H) landlocked coho, king, and sockeye

salmon;

02 (I) northern

pike;

03 (J) rainbow

trout;

04 (K) sheefish;

or

05 (L)

whitefish.

06 (b) In this

section,

07 (1) "lakes, streams, rivers, or other flowing fresh water"

includes lakes,

08 streams, rivers, or other flowing fresh water that have been altered by
remediation or
09 construction activities; the term does not include an artificially
constructed facility for
10 water, wastewater, holding, or channeling, unless the artificial facility
is constructed
11 for the purpose of facilitating fish
spawning.
12 (2) "mixing zone" means an area in a water body surrounding
or
13 downstream of a discharge where the effluent plume is diluted by
the
14 receiving water, within which water quality standards specified by
the
15 department under AS 46.03.050 - 46.03.120 may be exceeded.

--

Kathleen M.K. Menke
Crystal Images Photography and Publishing
<http://www.akmk.com>

Rep. Paul Seaton

From: Marjorie & Dan Dunaway [mwdnt@nushtel.com]
Sent: Monday, January 09, 2006 1:32 PM
To: Rep. Paul Seaton
Cc: Sen. Lyman Hoffman; Rep. Carl Moses
Subject: regarding BILL ID: HB 328
Attachments: AFS_Mixing_Zone_Letter_of_Concern.pdf

Dear Representatives Seaton, LeDoux, Gatto, and Olson, and the Alaska House of Representatives as whole:

I am very glad to see the proposal HOUSE BILL NO. 328 "An Act prohibiting mixing zones in freshwater spawning waters." It is tiresome to see the current administration continually attempting to diminish the excellent protections we have for Alaskan waters and the fish that inhabit them. I am VERY pleased that this bill addresses the deficiencies of current law that overlook the critical lake spawning areas used by sockeye salmon and other important species.

One suggestion would be to include some accommodation to situations where fish colonize a previously never used area, such as a man made ditch. I'm not sure exactly what the proper wording should be or how to address it. There should be some language however that doesn't allow a ditch or pond to be created just for the purpose of circumventing this proposed or existing laws.

I also think that the current regulations allowing 10% of a lake surface area to be mixing zone could be much too large in some of the larger lakes. I don't know what an appropriate level should be, but I cannot believe that it would be acceptable to have 10% of the surface area of L. Iliamna, Becharof, Skilak, Tustumena or similar to be a mixing zone. There should be some absolute upper limit.

Would this bill address intertidal spawning areas? Pink and chum salmon are known to spawning in waters that might not be considered completely "flowing fresh water" yet are very important species to subsistence, commercial and sport fisheries. I think it would be worth considering these waters as well.

For additional guidance regarding mixing zone regulations, I encourage you to review in careful detail, the contents of the "Letter of Concern" submitted by the Alaska Chapter of the American Fisheries Society. I have attached it here for your review.

Additionally, I encourage you to consider in this bill or separately, a "Bad Actor" clause for chronic offenders of these laws. Penalties should be very stringent to assure chronic offenses are discouraged and stopped in a timely manner.

Thank you for your consideration and opportunity to comment.

Dan Dunaway
PO Box 1490
Dillingham, Alaska 99576

907-842-2636

Fisheries Biologist
Retired from approx 24 yrs with ADFG
Life long Alaskan

1/12/2006

Rep. Paul Seaton

From: Richard E. Kanner [richard.kanner@hsc.utah.edu]
Sent: Monday, January 09, 2006 10:20 AM
To: Rep. Paul Seaton
Subject: Bill to legislate current regulations to prevent pollution in mixing zones.

Dear Re. Seaton:

Thank you for your work in preventing the mining industry from polluting areas where fish spawn in the State of Alaska. Although I am not a resident of Alaska I do visit your state approximately every other or third year and have good friends living there. I strongly support the legislation you have proposed in this matter.

Sincerely,

Richard E. Kanner, M.D.

--

Richard E. Kanner, MD
University of Utah Health Sciences Center
26 North 1900 East
701 Wintrobe Building
Salt Lake City, Utah 84132-4701
Tel: (801)581-7806
Fax: (801)585-3355
Beeper: (801)339-5592
Email: richard.kanner@hsc.utah.edu, kanner@med.utah.edu

Rep. Paul Seaton

From: Demian A. Schane [dschane@gmail.com]
Sent: Monday, January 09, 2006 9:45 AM
To: Rep. Paul Seaton
Subject: Support for legislation prohibiting mixing zones in salmon streams

I write to support Representative Seaton's efforts and legislation to prevent the State from authorizing mixing zones in streams that support salmon and their fry. I cannot understand the reasons the Murkowski Administration has proferred for modifying the existing regulations.

Keep up the good work.

Demian Schane
350 Irwin St. #510
Juneau, AK 99801

Rep. Paul Seaton

From: Linda Johnson [ljohn@ptialaska.net]
Sent: Monday, January 09, 2006 9:37 AM
To: Rep. Paul Seaton
Subject: Mixing zones bill - thank you!

Dear Mr. Seaton:

Thank you so much for introducing the bill to ban the pollution of spawning streams in Alaska.

The changes that DEC made – that pollution could not occur when fish are spawning – does not help, as I am sure you realize. There are numerous streams in the Juneau area that people can easily visit (there is a great trail in the Lemon Creek area, for example) which could be used to show any doubters that fish are in these streams year – round and polluting them at any time would be detrimental.

Thank you again!

Linda Johnson

Juneau, AK

--

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1/12/2006

Rep. Paul Seaton

From: grenebrid@aol.com
Sent: Monday, January 09, 2006 9:20 AM
To: Rep. Paul Seaton
Subject: *****SPAM***** Mixing Zone Legislation

Dear Representative Seaton,

I fully support the Legislation (HB 328) for prohibiting pollution mixing zones in spawning habitat. Thank you, and to the other supporting Representatives for introducing this bill.

Mrs. Katherine McLaughlin
Chenga Bay, Alaska 99574

January 12, 2006

Dear Honorable Representative Seaton,

Seldovia Village Tribe, a federally recognized Alaska Tribe supports the legislation -

HOUSE BILL NO. 328

introduced by yourself, along with Representative Kurt Olson (R-Kenai), Representative Carl Gatto (R-Palmer) and Representative Gabrielle LeDoux (R-Kodiak) that would place in statute the prohibition on pollution mixing zones in Alaska freshwater spawning waters.

We agree that House Bill No. 328 is needed to protect the habitat of Alaska's world famous salmon and trout and to protect Alaska salmon marketing efforts, and the subsistence people and cultures that rely on them.

Thank You,

SELDOVIA VILLAGE TRIBE

Michael Opheim
Environmental Coordinator

**18 AAC 70.255. Mixing zones: In-zone quality and size specifications**

(a) The size, location, or other limits of a mixing zone set by or under this chapter will be established in a discharge permit, certification, or order issued by the department under the appropriate chapter in this title.

(b) Water quality criteria must be met at the boundary of the mixing zone. A discharge may not cause or reasonably be expected to cause

(1) lethality to passing organisms in the mixing zone; or

(2) a toxic effect in the water column, sediments, or biota outside the boundaries of the mixing zone.

(c) Human health and chronic aquatic life criteria apply at and beyond the boundaries of the mixing zone.

(d) Acute aquatic life criteria apply at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall. The smaller initial mixing zone for application of acute criteria must be sized to prevent lethality to passing organisms. Methods for calculating the boundaries of the smaller initial mixing zone for application of acute criteria, unless otherwise specified by the department, must follow procedures under Alternatives 2, 3, or 4 in Section 5.1.2 of the United States Environmental Protection Agency's Water Quality Standards Handbook, Second Edition, August 1994, EPA-823-B-94-005a.

(e) Unless the department finds that evidence is sufficient to reasonably demonstrate, in accordance with this section, that the size limitations of a mixing zone can be safely increased, a mixing zone must comply with the following size restrictions:

(1) for estuarine and marine waters, measured at mean lower low water,

(A) the cumulative linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel, or other marine water may not exceed 10 percent of the total length of that cross section; and

(B) the total horizontal area allocated to mixing zones may not exceed 10 percent of the surface area;

(2) for lakes, the total horizontal area allocated to all mixing zones may not exceed 10 percent of the lake's surface area; and

(3) for streams, rivers, or other flowing fresh waters, subject to (f), (g), and (h) of this section, the length of a mixing zone may not extend downstream beyond the limits described in (A) or (B) of this paragraph, whichever is closer to the point of discharge, as follows:

(A) beyond the computed point where the variation in the concentration of a water quality parameter across a stream, river, or other flowing fresh water is predicted to be less than five percent, as determined using a standard river flow mixing model accepted by the department; or

(B) beyond the location where the department determines that a public health hazard reasonably could

be expected to occur.

(f) For streams, rivers, or other flowing fresh waters subject to (e)(3) of this section, in calculating the maximum pollutant discharge limitations, the volume of flow available for dilution must be determined using

(1) the actual flow as determined by gauging data collected concurrent with the discharge; or

(2) for conventional or nontoxic substances, the default 2-year, 3-day low flow (3Q2) appropriate to the period of discharge; for toxic substances, the 10-year, 7-day low flow (7Q10) as the chronic criteria design flow and the 10-year, 1-day (1Q10) as the acute criteria design flow for protection of aquatic life; for carcinogens, the harmonic mean flow as the design flow for the protection of human health; these low flows must be calculated using methods of Ashton and Carlson, *Determination of Seasonal, Frequency and Durational Aspects of Streamflow with Regard to Fish Passage Through Roadway Drainage Structures*(1984), Carlson, *Seasonal, Frequency and Durational Aspects of Streamflow in Southeast and Coastal Alaska*(1987), or another appropriate regional regression flow model approved by the department; numeric water quality criteria apply at all design flows that are equal to or greater than these critical low flows.

(g) For streams, rivers, or other flowing fresh waters subject to (e)(3) of this section, a mixing zone may not result in

(1) permanent or irreparable displacement of indigenous organisms; or

(2) a reduction in fish or shellfish population levels.

(h) For streams, rivers, or other flowing fresh waters subject to (e)(3) of this section, a mixing zone will not be authorized in an area of

(1) anadromous fish spawning; or

(2) resident fish spawning redds for Arctic grayling, northern pike, rainbow trout, lake trout, brook trout, cutthroat trout, whitefish, sheefish, Arctic char (Dolly Varden), burbot, and landlocked coho, king, and sockeye salmon.

History: Eff. 11/1/97, Register 143

Authority: AS 46.03.020

AS 46.03.030

AS 46.03.070

AS 46.03.080

AS 46.03.100

AS 46.03.110

AS 46.03.710

**Current regulations allowing for site-specific water
quality determinations**



18 AAC 70.235. Site-specific criteria

(a) The department will, in its discretion, establish a site-specific water quality criterion that modifies a water quality criterion set out in 18 AAC 70.020(b)

(1) in a permit, certification, or approval as described in (b) of this section; or

(2) in regulation as described in (c) of this section.

(b) If the department finds that the natural condition of a waterbody is demonstrated to be of lower quality than a water quality criterion set out in 18 AAC 70.020(b), the natural condition constitutes the applicable water quality criterion. Upon application or on its own initiative, the department will determine whether a natural condition of a waterbody should be approved as a site-specific water quality criterion in a permit, certification, or approval issued by the department. Before making the determination, the department will issue public notice of a proposed approval under this subsection and provide opportunity for public comment. If a natural condition of a waterbody varies with time, the natural condition will be determined to be the prevailing highest quality natural condition of the waterbody measured during an annual, seasonal, or shorter time period before discharge or operation, or as the actual natural condition of the waterbody measured concurrent with discharge or operation. The department will, if necessary to adequately protect water quality,

(1) determine a natural condition for one or more seasonal or shorter time periods to reflect variable ambient conditions; and

(2) require additional or continuing monitoring of natural conditions as a condition of a permit, certification, or approval.

(c) Upon application, or on its own initiative, the department will, in its discretion, set site-specific criteria in regulation if the department finds that the evidence reasonably demonstrates that the site-specific criterion will fully protect designated uses in 18 AAC 70.020(b) and that

(1) for reasons specific to a certain site, a criterion in 18 AAC 70.020(b) is more stringent or less stringent than necessary to ensure full protection of the corresponding use class; or

(2) a criterion would be better expressed in terms different from those used in 18 AAC 70.020(b).

(d) The department will set a site-specific criterion under (c) of this section for the "growth and propagation of fish, shellfish, other aquatic life, and wildlife" use classes in 18 AAC 70.020(a) (1)(C) and 18 AAC 70.020(a) (2)(C) only if the department finds that the evidence is sufficient to reasonably demonstrate that

(1) the species or habitats present, or expected to be present under natural conditions, are more sensitive or less sensitive to a substance than indicated by the criterion, and a site-specific criterion is required to prevent adverse effects or to alleviate an unnecessarily restrictive general criterion; or

(2) the natural characteristics of the receiving environment would increase or reduce the biological availability or the toxicity of a substance, or otherwise alter the substance, and a site-specific criterion is

required to prevent adverse effects or to alleviate unnecessarily restrictive general criterion.

(e) An applicant seeking a site-specific criterion under this section shall provide all information that the department determines is necessary to modify an existing criterion. The department will, in a timely manner, request and review for completeness, information submitted under this subsection. In all cases, the burden of proof is on the applicant seeking a site-specific criterion.

History: Eff. 11/1/97, Register 143; am 4/29/99, Register 150

Authority: AS 46.03.010

AS 46.03.020

AS 46.03.050

AS 46.03.070

AS 46.03.080

AS 46.03.090

AS 46.03.100

AS 46.03.110

AS 46.03.710

AS 46.03.720

Editor's note: The development documents for site-specific criteria established under 18 AAC 70.235 (b) in a permit, certification, or approval may be reviewed in or requested from the department's Juneau office.

18 AAC 70.236. Waterbodies subject to site-specific criteria

(a) Under 18 AAC 70.235, the department has established site-specific criteria that modify certain general criteria set out in 18 AAC 70.020(b) for the waterbodies listed in (b) of this section. The site-specific criteria apply only to the affected designated use class indicated in (b) of this section. All other criteria set out in 18 AAC 70.020(b) continue to apply to the waterbodies listed in (b) of this section.

(b) Waterbodies subject to site-specific criteria, and the applicable site-specific criteria, are:

Environmental Conservation

[CLICK TO VIEW TABLE](#)

* Watershed numbers refer to watersheds established by the United States Department of Interior, Geological Survey, "Hydrologic Unit Map - 1987 State of Alaska," adopted by reference in 18 AAC

18 AAC 70.236(b)		LATITUDE LONGITUDE**	LOCATION	REACH OF WATER AFFECTED	WATER QUALITY PARAMETER	DESIGNATED USE CLASS AFFECTED	SITE-SPECIFIC CRITERIA
WATERSHED TYPE/NAME	NUMBER*						
(1) Camp Creek	19010301*	58°51'150" N 135°08'30" W Set at the downstream end of the affected river reach.	45 miles north of Juneau on Lynn Canal	Camp Creek below dis- charge from Kensington Mine dry tailings facility to tidewater (approximately 1,000 feet)	Dissolved inorganic sub- stances	(1)(A)(i) (1)(A)(iii) (1)(C)	Total dissolved solids (TDS) from all sources may not exceed 1,000 mg/l. Chlorides may not exceed 200 mg/l. Sulfates associated with magnesium and sodium may not exceed 200 mg/l. TDS may not exceed 1,000 mg/l. TDS may not exceed 1,000 mg/l.
(2) Gold Creek	15049900*	Beginning at: 58°18'26" N 134°22'43" W Ending at: 58°17'57" N 134°25'05" W	Juneau	Downstream from Gold Creek drain- age tunnel to Gastineau Channel	Dissolved inorganic substances	(1)(A)(iii) (1)(C)	TDS may not exceed 300 mg/l. TDS may not exceed 300 mg/l.

18 AAC 70.236(b)						
WATERSHED		LATITUDE LONGITUDE**	LOCATION	REACH OF WATER AFFECTED	WATER QUALITY PARAMETER	DESIGNATED USE CLASS AFFECTED
TYPE/NAME	NUMBER*					
(3) Sherman Creek	19010301*	58°52'08" N 135°08'22" W Set at the downstream end of the affected river reach	45 miles north of Juneau on Lynn Canal	Sherman Creek below discharge of Kensington Mine adit drainage to tidewater (approximately 1.5 miles)	Dissolved inorganic substances	(1)(A)(i) (1)(A)(iii) (1)(C)
(4) Cook Inlet	19020401*	61°12'22.5" N 150°01'8.7" W (end of outfall pipe for Municipi- pality of Anchorage waste- water treat- ment plant)	Vicinity of Point Woronzof, Anchorage	see footnote***	Arsenic**** Cadmium**** Chromium VI****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D) (2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D) (2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D) Total dissolved solids (TDS) from all sources may not exceed 1,000 mg/l. Chlorides may not exceed 200 mg/l. Sulfates associated with magnesium and sodium may not exceed 200 mg/l. TDS may not exceed 1,000 mg/l. TDS may not exceed 1,000 mg/l. 36 µ l (chronic) 69 µ l (acute) measured as dis- solved metal 9.3 µ l (chronic) 42 µ l (acute) solved metal measured as dis- 50 µ l (chronic) 1100 µ l (acute) measured as dissolved metal

18 AAC 70.236(b)		LATITUDE LONGITUDE**	LOCATION	REACH OF WATER AFFECTED	WATER QUALITY PARAMETER	DESIGNATED USE CLASS AFFECTED	SITE-SPECIFIC CRITERIA
WATERSHED TYPE/NAME	NUMBER*						
					Copper****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	3.1 µ / l (chronic) 4.8 µ / l (acute) measured as dissolved metal
					Lead****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	8.1 µ / l (chronic) 210 µ / l (acute) measured as dissolved metal
					Mercury****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	0.025 µ / l (chronic) 1.8 µ / l (acute) measured as dissolved metal
					Nickel****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	8.2 µ / l (chronic) 74 µ / l (acute) measured as dissolved metal
					Selenium****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	71 µ / l (chronic) 290 µ / l (acute) measured as dissolved metal
					Silver****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	1.9 µ / l (acute) measured as dissolved metal 81 µ / l (chronic)

18 AAC 70.236(b)		LATITUDE LONGITUDE**	LOCATION	REACH OF WATER AFFECTED	WATER QUALITY PARAMETER	DESIGNATED USE CLASS AFFECTED	SITE-SPECIFIC CRITERIA
WATERSHED TYPE/NAME	NUMBER*						
					Zinc****	(2)(A)(i), (2)(A)(ii) (2)(B)(i) (2)(C) & (2)(D)	90 µ /l (acute) measured as dissolved metal
					Turbidity	(2)(A)(i), (2)(B)(i) (2)(B)(ii) (2)(C) & (2)(D)	May not exceed the natural condition

**Current regulations allowing for short term
variances from state water quality standards**

✚ 18 AAC 70.200. Short-term variance

✚ (a) In its discretion, the department will grant a short-term variance from the antidegradation policy standard of 18 AAC 70.015 or the water quality criteria of 18 AAC 70.020(b) for

(1) a one-time, temporary activity that is a nonpoint source of water pollution; and

(2) a temporary activity associated with the placement of dredged or fill material affecting a specific waterbody.

(b) The department will grant a short-term variance only if an applicant shows to the department's satisfaction that

(1) wastes or substances that might adversely affect water quality are controlled, using methods the department finds most effective;

(2) the activity will be conducted in a manner to mitigate water quality impacts, using methods the department finds most effective; and

(3) the activity, when completed, will not cause a long-term, chronic, or recurring violation of the water quality standards.

(c) The department will, in its discretion, grant a short-term variance by geographic area or project, or for a specific event. The term of a variance will be as short as practicable, and will, at the latest, expire when the projects is completed.

(d) A person seeking a short-term variance shall submit a written request and proceed in accordance with 18 AAC 15.020 - 18 AAC 15.100. The request must state the

(1) location, time, duration, and type of activity for which the variance is sought;

(2) reasons why the activity is required;

(3) a real extent and quantified degree of variance from the applicable criteria;

(4) detailed construction and operating plans, including water pollution control and mitigation measures; and

(5) activity's estimated impact on the uses of the water involved, including recreation and use for habitat, rearing, growth, or migration by fish, shellfish, other aquatic life, and wildlife.

(e) The department will, in its discretion, treat an application for a permit under Sec. 404 of the Clean Water Act as an application for a short-term variance.

✚ **History:** Eff. 11/1/97, Register 143

✚ **Authority:** AS 46.03.020

2004 proposed mixing zone regulation change

Register ___, _____ 200__ ENVIRONMENTAL CONSERVATION

18 AAC 70 is amended by adding a new section to read:

18 AAC 70.240. Mixing zones. (a) Upon application, the department may authorize in a discharge permit, certification, or order, a mixing zone or multiple mixing zones in which the water quality criteria and any limit set by or under this chapter may be exceeded. The applicant shall provide to the department all available evidence reasonably necessary to demonstrate that a mixing zone will satisfy this section and shall provide information in a form and using methods approved by the department. The department may approve, approve with conditions, or deny a mixing zone application.

(b) In determining whether to authorize a mixing zone under this section, the department will consider

(1) the characteristics of the receiving water, including biological, chemical, and physical characteristics such as volume, flow rate, flushing and mixing characteristics;

(2) the characteristics of the effluent, including volume, flow rate, dispersion, and quality after treatment;

(3) the effects, if any, including cumulative effects of multiple discharges and diffuse, nonpoint source inputs, that the discharge will have on the uses of the receiving water;

(4) any additional measures that would offset potential adverse effects to the aquatic resources present; and

(5) any other factors the department finds must be considered to determine whether a mixing zone will comply with this section.

(c) The department will approve a mixing zone, as proposed or with conditions, only if it finds that available evidence reasonably demonstrates that

(1) an effluent or substance will be treated to remove, reduce, and disperse pollutants, using methods found by the department to be the most effective and technologically and economically feasible, consistent with the highest statutory and regulatory treatment requirements;

(2) existing uses of the waterbody outside the mixing zone will be maintained and protected;

and (3) the overall biological integrity of the waterbody will not be impaired;

(4) the mixing zone will not

(A) result in a toxic effect in the water column, sediments, or biota outside the boundaries of the mixing zone;

(B) create a public health hazard through encroachment on existing uses of the waterbody for water supply or contact recreation;

(C) preclude or limit established processing activities or commercial, sport, personal-use, or subsistence fish and shellfish harvesting;

(D) in streams, rivers, or other flowing fresh waters, result in a reduction in fish population levels;

(E) in streams, rivers, or other flowing fresh waters, adversely affect the capability of an area to support spawning, incubation or rearing of anadromous or resident fish;

(F) in streams, rivers, or other flowing fresh waters, result in permanent or irreparable displacement of indigenous organisms;

(G) adversely affect threatened or endangered species under the Endangered Species Act (16 U.S.C. 1531-1544); or

(H) form a barrier to migratory species or fish passage.

(d) The department will approve a mixing zone, as proposed or with conditions, only if the department finds that available evidence reasonably demonstrates that within the mixing zone the pollutants discharged will not

(1) bioaccumulate, bioconcentrate, or persist above natural levels in sediments, water, or biota to significantly adverse levels, based on consideration of bioaccumulation and bioconcentration factors, toxicity, and exposure;

(2) present an unacceptable risk to human health from carcinogenic, mutagenic, teratogenic, or other effects;

(3) settle to form objectionable deposits, except as authorized under 18 AAC 70.210;

(4) produce floating debris, oil, scum and other material in concentrations that form nuisances;

(5) result in undesirable or nuisance aquatic life;

(6) produce objectionable color, taste, or odor in aquatic resources harvested for human consumption;

(7) cause lethality to passing organisms;

(8) exceed acute aquatic life criteria at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall, the size of which shall be determined using methods approved by the department.

(e) The department will approve a mixing zone, as proposed or with conditions, only if it finds that the mixing zone is as small as practicable and will comply with the following size restrictions, unless the department finds that evidence is sufficient to reasonably demonstrate that these size limitations can be safely increased:

(1) for estuarine and marine waters, measured at mean lower low water,

(A) the cumulative linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel, or other marine water may not exceed 10 percent of the total length of that cross section; and

(B) the total horizontal area allocated to mixing zones may not exceed 10 percent of the surface area;

(2) for lakes, the total horizontal area allocated to all mixing zones may not exceed 10 percent of the lake's surface area;

(3) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend beyond the computed point of complete mixing, as determined using a standard river flow mixing model or other methods accepted by the department;

(4) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend downstream beyond the location where the department determines that a public health hazard will occur.

(f) For streams, rivers, or other flowing fresh waters, in calculating the maximum pollutant discharge limitation, the volume of flow available for dilution must be determined using the actual flow data collected concurrent with the discharge or using other methods approved by the department.

(g) If the department finds that available evidence reasonably demonstrates that a mixing zone authorized by the department has had or is having a significant unforeseen adverse environmental effect, the department will terminate, modify, or deny renewal of the permit, certification, or order authorizing the mixing zone. (Eff. 11/1/97, Register 143; am __/__/__, Register __)

Authority:	AS 46.03.010	AS 46.03.080	AS 46.03.110
	AS 46.03.020	AS 46.03.090	AS 46.03.710
	AS 46.03.050	AS 46.03.100	AS 46.03.720
	AS 46.03.070		

18 AAC 70.245 is repealed:

18 AAC 70.245. Mixing zones: appropriateness and size determination.
Repealed. (Eff. 11/1/97, Register 143; repealed __/__/__, Register __)

18 AAC 70.250 is repealed:

18 AAC 70.250. Mixing zones: general conditions. Repealed. (Eff. 11/1/97, Register 143; repealed __/__/__, Register __)

18 AAC 70.255 is repealed:

18 AAC 70.255. Mixing zones: in-zone quality and size specifications.
Repealed. (Eff. 11/1/97, Register 143; repealed __/__/__, Register __)

18 AAC 70.260 is repealed:

18 AAC 70.260. Mixing zones: application requirements. Repealed. (Eff. 11/1/97, Register 143; repealed __/__/__, Register __)

Register ___, _____ 200__ ENVIRONMENTAL CONSERVATION

18 AAC 70.270 is repealed:

18 AAC 70.270. Mixing zones: termination, modification, or denial of renewal. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

Register ____, _____ 2006 ENVIRONMENTAL CONSERVATION

18 AAC 70.240 is repealed and readopted to read:

18 AAC 70.240. Mixing zones. (a) Upon application, the department may authorize in a discharge permit or certification, a mixing zone or multiple mixing zones in which the water quality criteria and any limit set by or under this chapter may be exceeded. The applicant shall provide to the department all available evidence reasonably necessary to demonstrate that a mixing zone will satisfy this section and shall provide information in a form and using methods approved by the department. The department may approve, approve with conditions, or deny a mixing zone application.

(b) In determining whether to authorize a mixing zone under this section, the department will consider

(1) the characteristics of the receiving water, including biological, chemical, and physical characteristics such as volume, flow rate, flushing and mixing characteristics;

(2) the characteristics of the effluent, including volume, flow rate, dispersion, and quality after treatment;

(3) the effects, if any, including cumulative effects of multiple discharges and diffuse, nonpoint source inputs, that the discharge will have on the uses of the receiving water;

(4) any additional measures that would mitigate potential adverse effects to the aquatic resources present; and

(5) any other factors the department finds must be considered to determine whether a mixing zone will comply with this section.

(c) The department will approve a mixing zone, as proposed or with conditions, only if it finds that available evidence reasonably demonstrates that

(1) an effluent or substance will be treated to remove, reduce, and disperse pollutants, using methods found by the department to be the most effective and technologically and economically feasible, consistent with the highest statutory and regulatory treatment requirements including

(A) any federal technology-based effluent limitation identified in 40 C.F.R. 125.3 and 40 C.F.R. 122.29, as amended through July 1, 2005 and adopted by reference;

(B) minimum treatment standards in 18 AAC 72.050; and

(C) any treatment requirement imposed under another state law that is more stringent than a requirement of this chapter;

(2) existing uses of the waterbody outside the mixing zone will be maintained and protected;

(3) the overall biological integrity of the waterbody will not be impaired; and

(4) the mixing zone will not

(A) result in a toxic effect in the water column, sediments, or biota outside the boundaries of the mixing zone;

(B) create a public health hazard that would preclude or limit existing uses of the waterbody for water supply or contact recreation;

(C) preclude or limit established processing activities or established commercial, sport, personal-use, or subsistence fish and shellfish harvesting;

(D) result in a reduction in fish or shellfish population levels;

(E) result in permanent or irreparable displacement of indigenous organisms;

(F) adversely affect threatened or endangered species under the Endangered Species Act (16 U.S.C. 1531-1544); or

(G) form a barrier to migratory species or fish passage.

(d) The department will approve a mixing zone, as proposed or with conditions, only if the department finds that available evidence reasonably demonstrates that within the mixing zone the pollutants discharged will not

(1) bioaccumulate, bioconcentrate, or persist above natural levels in sediments, water, or biota to significantly adverse levels, based on consideration of bioaccumulation and bioconcentration factors, toxicity, and exposure;

(2) present an unacceptable risk to human health from carcinogenic, mutagenic, teratogenic, or other effects using risk assessment methods approved by the department and consistent with 18 AAC 70.025;

(3) settle to form objectionable deposits, except as authorized under 18 AAC 70.210;

(4) produce floating debris, oil, scum and other material in concentrations that form nuisances;

(5) result in undesirable or nuisance aquatic life;

(6) produce objectionable color, taste, or odor in aquatic resources harvested for human consumption;

(7) cause lethality to passing organisms; or

(8) exceed acute aquatic life criteria at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall, the size of which shall be determined using methods approved by the department.

(e) In lakes, streams, rivers, or other flowing fresh waters, except as authorized in (f) of this subsection, a mixing zone will not be located in a spawning area of

(1) anadromous fish; or

(2) Arctic Grayling, northern pike, rainbow trout, lake trout, brook trout, cutthroat trout, whitefish, sheefish, Arctic char (Dolly Varden), burbot, and landlocked coho, king, and sockeye salmon.

(f) Notwithstanding subsection (e), the Department may authorize a mixing zone in a spawning area of a lake, stream, river or other flowing fresh water if, after consultation with the Department of Natural Resources, Office of Habitat Management and Permitting, or the Department of Fish and Game if within a legislatively designated special area under AS 16.20, the department finds that the applicant has

(1) demonstrated that spawning fish, fish eggs, or alevins are not physically present within the mixing zone when the discharge will occur and the discharge will not adversely affect the capability of the area to support future spawning, incubation, and rearing activities;

(2) demonstrated the discharge does not contain pollutants that will adversely affect the capability of the area to support present and future spawning, incubation, and rearing;

(3) submitted a mitigation plan approved by the Department of Fish and Game under 5 AAC 95.900 if within a legislatively designated special area under AS 16.20; or

(4) submitted a mitigation plan approved by the Department of Natural Resources, Office of Habitat Management and Permitting, and incorporated as part of the Department of Environmental Conservation permit, that includes one or more of the following mitigation actions:

(A) avoid the impact altogether by not taking a certain action or parts of an action;

(B) minimize the impact by limiting the degree or magnitude of the action and its implementation;

(C) rectify the impact by repairing, rehabilitating, or restoring the impacted environment;

(D) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the proposed use or activity;

(E) compensate for the impact by replacing or providing substitute resources or environments.

(g) The department will approve a mixing zone, as proposed or with conditions, only if it finds that the mixing zone is as small as practicable and will comply with the following size restrictions, unless the department finds that evidence is sufficient to reasonably demonstrate that these size restrictions can be safely increased:

(1) for estuarine and marine waters, measured at mean lower low water,

(A) the cumulative linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel, or other marine water may not exceed 10 percent of the total length of that cross section; and

(B) the total horizontal area allocated to all mixing zones at any depth may not exceed 10 percent of the surface area;

(2) for lakes, the total horizontal area allocated to all mixing zones at any depth may not exceed 10 percent of the lake's surface area;

(3) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend beyond the computed point of complete mixing, as determined using a standard river flow mixing model or other methods accepted by the department;

(4) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend downstream beyond the location where the department determines that a public health hazard reasonably could be expected to occur.

(h) For streams, rivers, or other flowing fresh waters, in calculating the maximum pollutant discharge limitation, the volume of flow available for dilution must be determined using

(1) the actual flow data collected concurrent with the discharge; or

(2) for conventional and nontoxic substances, the 10-year, 7-day low flow (7Q10) as the criteria design flow; for the protection of aquatic life, the 7Q10 as the chronic criteria design flow and the 10-year, 1-day (1Q10) as the acute criteria design flow; and for the protection of human health, the 5-year, 30-day (30Q5) as the noncarcinogenic criteria design flow and the harmonic mean flow as the carcinogenic criteria design flow; these low flows must be calculated using methods approved by the department.

(i) If the department finds that available evidence reasonably demonstrates that a mixing zone authorized by the department has had or is having a significant unforeseen adverse environmental effect, the department will terminate, modify, or deny renewal of the permit or certification authorizing the mixing zone. (Eff. 11/1/97, Register 143; am ___/___/___, Register ___)

Authority:	AS 46.03.010	AS 46.03.080	AS 46.03.720
	AS 46.03.020	AS 46.03.100	
	AS 46.03.050	AS 46.03.110	
	AS 46.03.070	AS 46.03.710	

18 AAC 70.245 is repealed:

18 AAC 70.245. Mixing zones: appropriateness and size determination. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.250 is repealed:

18 AAC 70.250. Mixing zones: general conditions. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.255 is repealed:

18 AAC 70.255. Mixing zones: in-zone quality and size specifications. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.260 is repealed:

18 AAC 70.260. Mixing zones: application requirements. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.270 is repealed:

18 AAC 70.270. Mixing zones: termination, modification, or denial of renewal. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.990 (30) is repealed:

Register ____, _____ 2006 ENVIRONMENTAL CONSERVATION

(30) repealed __/__/____.

18 AAC 70.990 is amended by adding a new paragraph to read:

(72) "shellfish" means any species of crustacean, mollusk, or other invertebrate, in any stage of its life cycle.

LEGAL SER

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MEMORANDUM

December 13, 2005

SUBJECT: The use of "or" in 18 AAC 70.240(f), proposed to be adopted by
DEC (Work Order No. 24-LS1381)

TO: Representative Paul Seaton
Attn: Louie Flora

FROM: *Donald M. Bullock Jr.*
Donald M. Bullock Jr.
Legislative Counsel

The Department of Environmental Conservation (DEC) proposes to adopt 18 AAC 70.240(f). That subsection reads as follows:

(f) Notwithstanding subsection (c), the Department may authorize a mixing zone in a spawning area of a lake, stream, river or other flowing fresh water if, after consultation with the Department of Natural Resources, Office of Habitat Management and Permitting, or the Department of Fish and Game if within a legislatively designated special area under AS 16.20, the department finds that the applicant has

(1) demonstrated that spawning fish, fish eggs, or alevins are not physically present within the mixing zone when the discharge will occur and the discharge will not adversely affect the capability of the area to support future spawning, incubation, and rearing activities;

(2) demonstrated the discharge does not contain pollutants that will adversely affect the capability of the area to support present and future spawning, incubation, and rearing;

(3) submitted a mitigation plan approved by the Department of Fish and Game under 5 AAC 95.900 if within a legislatively designated special area under AS 16.20; *or*

(4) submitted a mitigation plan approved by the Department of Natural Resources, Office of Habitat Management and Permitting, and incorporated as part of the Department of Environmental Conservation permit, that includes one or more of the following mitigation actions:

(A) avoid the impact altogether by not taking a certain action or parts of an action;

(B) minimize the impact by limiting the degree or magnitude of the action and its implementation;

Representative Paul Seaton
December 13, 2005
Page 2

(C) rectify the impact by repairing, rehabilitating, or restoring the impacted environment;

(D) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the proposed use or activity;

(E) compensate for the impact by replacing or providing substitute resources or environments. [Emphasis added.]

According to your request, Nancy Sonafrank of DEC wrote that subsections (1) through (4) in the proposed subsection "are meant to be (1) or (2) or (3) or (4)."¹ You asked whether the proposed subsection, as written, expressed a preference for any of the four paragraphs and whether only the requirements in any one paragraph need be met for a mixing zone to be authorized.

The quick answer to your questions are that we agree with Sonafrank's statement that each of the four paragraphs offers an alternative for authorizing a mixing zone. Also, based on the manner in which subsection (f) is drafted, there is no preference or any hierarchy inferred among the four alternatives.

I emphasized the word "or" at the end of 18 AAC 70.240(f)(3) that is set out above. The use of "or" in the list tells the reader that a mixing zone may be authorized if the department finds that the applicant has taken any of the four actions listed in paragraphs (1) through (4). It follows that an applicant may also take more than one of the listed actions.

The use of the words "and" and "or" and the problems of possible ambiguity are discussed in Dickerson, *The Fundamentals of Legal Drafting*, 2d ed. (1986), sec. 6.2, pp. 104 - 14. The introduction to the discussion in Dickerson is as follows:

Problems of multiple modifications or reference are perhaps best approached through the peculiar uncertainties involved in the use of "and" and "or." The difference between "and" and "or" is usually explained by saying that "and" stands for the conjunctive, connective, or additive and "or" for the disjunctive or alternative. The former connotes "togetherness" and the latter tells you to "take your pick." So much is clear.

Dickerson at 104.²

¹ E-mail from Nancy Sonafrank, Department of Environmental Conservation, to Louie Flora (Oct. 19, 2005, 10:26 a.m.).

² Dickerson is referenced numerous times in the *Manual of Legislative Drafting* (2005). See, e.g. pages 60, 68, and 72.

Representative Paul Seaton
December 13, 2005
Page 3

In the case of the proposed regulation, the "or" tells the reader to "take your pick."³

There is nothing in the proposed subsection (f) that says or implies that, "if an applicant takes more than one of the four actions, the department may not authorize a mixing zone." Dickerson notes that an ambiguity may arise, "if the writer intends the *inclusive* "or" (A or B, or both) or the *exclusive* "or" (A or B, but not both)."⁴ In the case of the proposed regulation, any one of the four may be the linchpin for authorizing a mixing zone; meeting more than one of the criteria would only be redundant.

There is nothing in subsection (f) that favors any one of the four alternatives or establishes any sort of hierarchy among the four. The use of "or" in the listed paragraphs, as stated above, implies "take your pick." Had the drafter intended a preference, the drafter regulation could have written, for example, that if an applicant was unable to make the demonstration required in the first paragraph, then one of the other alternatives could be taken. Similarly, the drafter could have inserted additional language to express the order in which an action was to be preferred.

In the case of ambiguous language, the intent of the department may be considered. The court gives deference to a department's interpretation of its own regulations.⁵ Depending on the role of Nancy Sonafrank in developing the proposed regulation, including the policy behind it, her e-mail to Louie Flora may be considered in interpreting the portion of the regulation discussed in this memo.

If I may be of further assistance, please advise.

DMB:lmb
05-275.lmb

³ The use of "or" in the regulation as drafted is also consistent with the use of "or" described in the *Drafting Manual for Administrative Regulations* (2005).

⁴ Dickerson at 122.

⁵ *Rose v. Commercial Fisheries Entry Comm'n*, 647 P.2d 154, 161 (Alaska 1982) ("Where an agency interprets its own regulation . . . a deferential standard of review properly recognizes that the agency is best able to discern its intent in promulgating the regulation at issue.").

**Opposition to 2004 and 2005 regulatory proposal
lifting the prohibition on mixing zones in freshwater
spawning areas**



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

November 1, 2004

Nancy Sonafrank
Water Quality Standards Section Manager
Alaska Department of Environmental Conservation
610 University Drive
Fairbanks, Alaska 99709

Dear Ms. Sonafrank:

The National Marine Fisheries Service (NMFS) has reviewed proposed revisions to the Mixing Zone sections of the Alaska Water Quality Standards. The Alaska Department of Environmental Conservation (DEC) is proposing several changes to the Mixing Zones sections of the Water Quality Standards in 18 AAC 70.240 through 70.270 to:

- Improve clarity and reduce redundancy;
- Allow mixing zones in certain fish spawning areas where there will be no adverse effect on the capability of an area to support fish spawning, rearing, or incubation (the proposed regulations provide for consideration of measures that would offset the potential adverse effects of mixing zones on aquatic resource); and
- Simplify some technical provisions including those dealing with risk assessment, flow calculations, and mixing zone models.

NMFS supports efforts by DEC to improve clarity and reduce redundancy in regulation, and many of the proposed amendments to the Alaska Water Quality Standards appear to yield no substantive change. However, NMFS opposes the proposed regulation to allow for mixing zones in certain fish spawning areas. This proposed revision is a significant change from the existing prohibition on mixing zones in spawning and rearing habitat of resident and anadromous fish. Water quality standards are premised on levels that do not adversely affect fish and/or their habitat, and any mixing zone (i.e., an allowable variance from water quality standards) could adversely affect fish and their habitat. The proposed change allows for the interpretation of data that are weak (based on acute toxicity information) and the interpretation or extrapolation of that data may be flawed. Applying acute toxicity data to a situation where chronic impacts occur (as in a mixing zone) and fish embryos and larvae are present may adversely affect living marine resources including Essential Fish Habitat (EFH). Our specific comments on the amendment to the Water Quality Standards at 18 AAC 70 are enclosed and include comments from our research scientists at the Auke Bay Laboratory.



National Marine Fisheries Service (NMFS)

Comments on the Draft Revision of Mixing Zone Regulations, 18 AAC 70.240-270

NMFS opposes the proposal to allow mixing zones in areas of spawning and rearing habitat. Scientific research, including research conducted by NMFS, increasingly indicates that these habitats are critical to the survival of numerous fish species, including prey species, and that the early life stages that utilize these habitats are extremely sensitive to chronic pollution. Chronic pollution over time in spawning and rearing habitats will place those populations at risk over the long term, leading to a diminishing of the stock and possibly to localized extinction.

Allowing mixing zones for pollutants in water generally is based on two assumptions: (1) exposure to fish will be transient, and (2) short exposures to toxicant levels will be below acute toxicity levels. These assumptions might be met with adult transient fish moving through an area, but are not likely to be met if there are resident fish, a rearing area, and most importantly, a spawning area. Developing salmon eggs and larvae will be in spawning gravels for months, and any exposure they receive from elevated levels in a mixing zone would be chronic. Predicting impacts of chronic toxicity using acute toxicity information is fundamentally flawed because the mechanisms of toxicity are intrinsically different between acute toxicity (narcosis) and chronic toxicity. In other words, simply applying a dilution safety factor of 100 or some other value does not have relevance when calculating the potential chronic impacts to embryos and developing larvae.

The preponderance of recent scientific evidence to emerge from toxicological studies suggests that concentrations as low as one part per billion of PAH (polynuclear hydrocarbons) can adversely impact developing fish embryos. As our understanding of toxic effects of contaminants increases, the evidence suggests that the goal of most fisheries pollution mitigation should be to avoid exposing spawning areas to environmentally persistent contaminants, especially in situations such as mixing zones where fish eggs and larvae are exposed chronically.

Streams and estuaries sustain the vulnerable early developmental life stages of many fish species. Salmon eggs, larvae, and juveniles use both stream and estuary for much of the first year of life, and the juveniles of many marine species use the estuaries for nursery grounds. The principal threat to these species is not from acutely toxic concentrations that can result in mortality, but in the more subtle effects of low-level contaminant exposures to these sensitive life stages. Incubating eggs are very sensitive to long-term exposures to those pollutants such as hydrocarbons, pesticides, and PCBs that sequester onto lipid molecules in the developing embryos. These environmentally persistent organic pollutants remain in the eggs as they develop. The result is that fewer juveniles survive, so that recruitment from the early life stages is reduced and adult populations may not be replaced at sustainable levels.

Most of the toxicity models currently in use for fish assume a disruption of the nervous system leading to narcosis and eventual death. Water quality standards for mixing zones are predicated on this model of how toxic chemicals work. Recent research indicates that pollutants such as polycyclic aromatic hydrocarbons (PAHs) are unlikely to act as narcotic agents in early life stages of fish that have been chronically exposed as embryos. Instead embryonic exposures result in edema of the yolk sac,

hemorrhaging, disruption of cardiac function, binding of aryl hydrocarbon receptors, enzyme induction, mutation and heritable changes in progeny, craniofacial and spinal deformities, neuronal cell death, anemia, reduced growth, and impaired swimming (White et al. 1999, Barron et al. 2003, Billiard et al. 1999, 2002, Brinkworth et al. 2003, Marty et al. 1997, Incardona et al. in press). Exposure to sunlight results in a 48 fold increase in toxicity of PAH to fish larvae (Barron et al. 2002) and resulted in 2 ppb becoming toxic to the calanoid copepods that form much of the diet of developing juvenile fishes (Duesterloh et al. 2002).

Early life stages are more vulnerable to both the chemical effects of toxicants, and to the ecological consequences. In a developing embryo, cellular damage may be replicated many times as tissues develop and enlarge, resulting in a tissue that is severely compromised in function at later life stages. The embryo may develop normally for some time, as it may not need this tissue until a later life stage, thus the consequences of damage may not be apparent immediately. This concept was demonstrated eloquently when salmon embryos were exposed in controlled laboratory conditions to low levels of crude oil, and then tagged and released to the marine environment. A variety of symptoms were evident in many of the resulting larvae, from mortalities to deformities, to even the more subtle effects on growth from very normal appearing animals. Delayed impacts on growth were evident at 19 parts per billion total PAH, and the ecological consequence (suffering increased levels of predation) was evident when fewer adults returned from the oil exposed groups (Heintz 2000). Exposure of developing embryos to 5 and 19 ppb total PAH resulted in a subsequent 20% and 40% reduction in marine survival among the returning adults. Exposure of incubating herring eggs to weathered oil caused significant morphological defects at 9 ppb, and effects of more weathered oil were significant at concentrations as low as 0.2 ppb PAH; chromosomal aberrations were observed at 0.7 parts per billion (ppb) (Carls et al. 1999). Over time, reductions in adult recruitment will slowly and subtly result in lower populations, eventually leading to extinction of the stock. This situation has probably been the primary mechanism leading to missing populations in urban estuaries.

Allowing persistent organic pollutants into the environment also results in creating long-term reservoirs of pollution that are available to organisms. Hydrocarbons, pesticides, and PCBs tend to adsorb to organic tissue, and can be transferred up the food chain, or can be adsorbed to inorganic matter in sediments, where they can remain bioavailable for years. There is a substantial uptake of these compounds, especially in many invertebrate species that do not have the biochemical mechanisms to purge their systems of the pollutants (Varanasi et al. 1989, 1992; Meador et al. 1995). There is a growing body of evidence of accumulations of persistent organic pollutants in the cold sink of the arctic, and Alaskan waters with many lipid rich compartments (copepods, forage fish, target species, marine mammals) is becoming more contaminated each year from pollutants originating in other major geographic areas. We would not want to accelerate this problem with local releases with more direct routes to Alaskan fish resources.

The concern regarding chronic pollution to embryos applies to non-organic pollutants as well, because the concepts are the same, although the literature is sparse. In this case, the contaminant is not necessarily trapped in the tissues for long periods of time because of the high affinity of large organic molecules in lipids, but remains in tissues because of the continuous replacement by the chronic mixing zone source. In other words, in both cases a tissue load is present. The second major principle is that chronic exposure to embryos and larvae are special biological situations. Because of the long

incubation time, the exposure to embryos and larvae is chronic, and any extrapolation from acute toxicity tests and mechanisms does not apply. Small and seemingly innocuous interruptions or interferences with the embryo development process can have lethal effects, whether they are immediately obvious or delayed, and are very subtle to detect. Chronic studies with embryos and subsequent wild releases are the only concrete way to detect sublethal effects that will affect returning adult numbers. NMFS is concerned that the proposed changes to the water quality standards would shift the burden of proof – meaning that non-harmful acute tests could be used inappropriately to judge the potential harm of chronic exposures to embryos and larvae, thereby underestimating actual effects.

Based on research conducted by NMFS and others, we recommend that DEC not approve mixing zones for areas of fish spawning and rearing. Using acute toxicity data and toxicity models is inappropriate for the protection of fish embryos and larvae in a chronic exposure situation. The populations exposed will be at considerable risk over time, and those exposed stocks can be expected to diminish over time to levels that may not support subsistence, sport, or commercial harvests.

Specific Comments

18 AAC 70.240 (c)(4)(B) As written this section states that DEC will approve a mixing zone as proposed or with conditions, only if it finds that available evidence reasonably demonstrates that an effluent or substance will "... be treated to remove, reduce, and disperse pollutants, using methods found by the department to be the most effective and technologically and economically feasible, consistent with the highest statutory and regulatory treatment requirements."

The regulations should be more specific. Statutory and regulatory treatment requirements differ around the country, and for certain discharges there are areas in the country with higher treatment requirements than Alaska. What standard will be used to assess whether a mixing zone is "consistent with the highest statutory and regulatory treatment requirements"?

18 AAC 70.240 (c)(4)(B) This section states that mixing zones will not "create a public health hazard through encroachment on existing uses of the waterbody for water supply or contact recreation."

How is encroachment on existing use defined? Should this be cross referenced to statutes that cover water rights?

18 AAC 70.240 (c)(4)(D) "the mixing zone will not in streams, rivers, or other flowing fresh waters, result in a reduction in fish population levels;"

Are individual fish kills acceptable? How will the population be tracked to insure that there will not be a reduction in fish populations?

18 AAC 70.240 (c)(4)(E) "the mixing zone will not in streams, rivers, or other flowing fresh waters, adversely affect the capability of an area to support spawning, incubation or rearing of anadromous or resident fish;"

Water quality standards are premised on levels that do not adversely affect fish and/or their habitat, and any mixing zone (i.e., an allowable variance above water quality standards) could adversely affect fish and their habitat.

18 AAC 70.240 (c)(4)(F) "the mixing zone will not in streams, rivers, or other flowing fresh waters, result in permanent or irreparable displacement of indigenous organisms;"

Again, if a mixing zone is a variance to water quality standards, indigenous organisms may find areas where the levels of pollutants exceed water quality standards to be inhospitable.

18 AAC 70.240 (d)(8) DEC will approve a mixing zone, as proposed or with conditions, only if the DEC finds that available evidence reasonably demonstrates that within the mixing zone the pollutants discharged will not "exceed acute aquatic life criteria at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall, the size of which shall be determined using methods approved by the department."

With no spatial limits on the size of the smaller initial mixing zone, a very large initial mixing zone could be permitted, allowing large areas to exceed acute aquatic life criteria. We recommend specifying that the initial mixing zone must not extend beyond the immediate vicinity of the outfall. Also, this section needs to clarify what is meant by "... methods approved by the department." Some examples of the types of those methods would be helpful. In addition, NMFS suggests that the sentence read "... aquatic life criteria *to* and beyond.

18 AAC 70.240 (e)(1)(A) DEC will approve a mixing zone, as proposed or with conditions, only if it finds that the mixing zone is as small as practicable and will comply with the following size restrictions, unless DEC finds that evidence is sufficient to reasonably demonstrate that these size limitations can be safely increased: "(1) for estuarine and marine waters, measured at mean lower low water, (A) the cumulative linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel, or other marine water may not exceed 10 percent of the total length of that cross section;"

Does the cumulative linear length refer to the perimeter of the waterbody?

18 AAC 70.240 (f) "For streams, rivers, or other flowing fresh waters, in calculating the maximum pollutant discharge limitation, the volume of flow available for dilution must be determined using the actual flow data collected concurrent with the discharge or using other methods approved by the department."

If the discharge can occur 24 hours a day seven days a week, year round, what part of the annual flow would be used?

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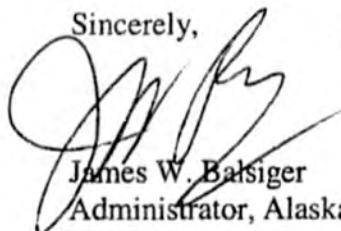
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Should you have any questions regarding these comments please contact Ms. Jeanne Hanson at (907) 271-3029.

Sincerely,



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Administrator, Alaska Region

Enclosure

cc: NMFS HCD – Susan Walker
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December 5, 2005

Attn: Lynn J. Tomich Kent, Director
Alaska Department of Environmental Conservation
Division of Water
555 Cordova Street
Anchorage, AK 99501

Dear Ms. Kent:

On November 11, 2005, the United Cook Inlet Drift Association (UCIDA) passed the attached *RESOLUTION TO OPPOSED INCREASED POLLUTION IN ALASKA SALMON STREAMS*.

If you have any questions, please call the UCIDA office at (907) 260-9436.

Sincerely,

Steve Tvenstrup
by Cindy Hall, UCIDA office manager
Steve Tvenstrup
UCIDA President

cjh

cc: Governor Frank Murkowski
Senator Gary Stevens
Senator Tom Wagoner
Representative Mike Chenault
Representative Kurt Olson
Representative Paul Seaton
Kenai Peninsula Mayor John Williams



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UCIDA RESOLUTION TO OPPOSE INCREASED POLLUTION IN ALASKA SALMON STREAMS

WHEREAS, the Alaska Department of Environment Conservation recently proposed new rules to allow "mixing zones" in Alaska fish streams;

WHEREAS, mixing zones allow pollution at levels that violate water quality standards designed to protect fish and fish consumers;

WHEREAS, Alaska's wild salmon are renowned worldwide for being clean, fresh, and healthy, and Alaska salmon require clean water and healthy habitats to thrive and reproduce;

WHEREAS, Alaska salmon fisheries support countless families and communities throughout the state and form part of the cultural fabric which makes Alaska unique;

WHEREAS, salmon health, salmon habitat, and salmon marketing will suffer under a broad new rule allowing increased pollution into Alaska's salmon streams;

WHEREAS, the state of Alaska has limited technical and financial resources to assess the consequences of allowing increased pollution into Alaska's salmon streams;

WHEREAS, Alaskans resoundingly opposed a similar proposal last year;

NOW, THEREFORE, the United Cook Inlet Drift Association does hereby oppose Governor Murkowski's /Alaska Department of Environmental Conservation's proposal to allow increased pollution (mixing zones) in salmon streams.

Date: 11/30/05

Steve Tvenstrup
Steve Tvenstrup, President

by Cindy Hall, UCIDA Office Manager