

**HEB**

**373**

# FISCAL NOT

**STATE OF ALASKA**  
**1998 LEGISLATIVE SESSION**

No. 2  
 Bill Version: SCS CS HB373 (RES)  
 (S) Publish Date: 4/8/98

Revision Date: \_\_\_\_\_ Dept Affected: Natural Resources  
 Title: An Act relating to forests and forestry practices BRU: Resource Development  
 Component: Forest Management & Development  
 Sponsor: Rep. Phillips  
 Requestor: (S) RES Component Serial No. 435

Expenditures/Revenues (Thousands of Dollars)

| OPERATING EXPENDITURES                | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 |
|---------------------------------------|------|------|------|------|------|------|
| PERSONAL SERVICES                     |      |      |      |      |      |      |
| TRAVEL                                |      |      |      |      |      |      |
| CONTRACTUAL                           |      |      |      |      |      |      |
| SUPPLIES                              |      |      |      |      |      |      |
| EQUIPMENT                             |      |      |      |      |      |      |
| LAND & STRUCTURES                     |      |      |      |      |      |      |
| GRANTS, CLAIMS                        |      |      |      |      |      |      |
| MISCELLANEOUS                         |      |      |      |      |      |      |
| <b>TOTAL OPERATING</b>                | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>CAPITAL EXPENDITURES</b>           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>CHANGE IN REVENUES (fund code)</b> | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

FUND SOURCE (Thousands of Dollars)

|                          |     |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|-----|
| 1002 Federal Receipts    |     |     |     |     |     |     |
| 1003 GF Match            |     |     |     |     |     |     |
| 1004 GF                  |     |     |     |     |     |     |
| 1005 GF/Program Receipts |     |     |     |     |     |     |
| 1037 GF/Mental Health    |     |     |     |     |     |     |
| Other (Specify Type)     |     |     |     |     |     |     |
| <b>TOTAL</b>             | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Estimate of any current year (FY98) cost: \$ 0.0

**POSITIONS**

|           |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|
| FULL-TIME | 0 | 0 | 0 | 0 | 0 | 0 |
| PART-TIME | 0 | 0 | 0 | 0 | 0 | 0 |
| TEMPORARY | 0 | 0 | 0 | 0 | 0 | 0 |

**ANALYSIS:** *(Attach a separate page if necessary)*

This bill changes the Forest Resources and Practices Act requirements on private land along anadromous waters and tributaries to anadromous waters. Notably, it adds buffers on Type B anadromous streams. DNR is the lead agency for enforcing the Act. In the first year (FY 99), training will be needed for landowners, operators, and staff on proper implementation of the new standards. This training will be accomplished within existing resources.

Prepared by: Jeff Jankke, Director Phone: 465-3379  
 Division: Forestry Date: 7-Apr-98  
 Approved by Commissioner: [Signature] Date: 4/7/98  
 Agency: Natural Resources

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# FISCAL NOTE

No: 1

**STATE OF ALASKA**  
**1998 LEGISLATIVE SESSION**

**BILL** Bill Version: CSHB 373 (RES)  
(H) Publish Date: 2/23/98

Revision Date: \_\_\_\_\_ Dept Affected: Natural Resources  
 Title: An Act relating to forests and forestry practices BRU: Resource Development  
 Component: Forest Management & Development  
 Sponsor: Rep. Phillips  
 Requestor: House Resources Component Serial No. 435

Expenditures/Revenues (Thousands of Dollars)

| OPERATING EXPENDITURES                | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 |
|---------------------------------------|------|------|------|------|------|------|
| PERSONAL SERVICES                     |      |      |      |      |      |      |
| TRAVEL                                |      |      |      |      |      |      |
| CONTRACTUAL                           |      |      |      |      |      |      |
| SUPPLIES                              |      |      |      |      |      |      |
| EQUIPMENT                             |      |      |      |      |      |      |
| LAND & STRUCTURES                     |      |      |      |      |      |      |
| GRANTS, CLAIMS                        |      |      |      |      |      |      |
| MISCELLANEOUS                         |      |      |      |      |      |      |
| <b>TOTAL OPERATING</b>                | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>CAPITAL EXPENDITURES</b>           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>CHANGE IN REVENUES (fund code)</b> | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

FUND SOURCE (Thousands of Dollars)

|                          |     |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|-----|
| 1002 Federal Receipts    |     |     |     |     |     |     |
| 1003 GF Match            |     |     |     |     |     |     |
| 1004 GF                  |     |     |     |     |     |     |
| 1005 GF/Program Receipts |     |     |     |     |     |     |
| 1037 GF/Mental Health    |     |     |     |     |     |     |
| Other (Specify Type)     |     |     |     |     |     |     |
| <b>TOTAL</b>             | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Estimate of any current year (FY98) cost: \$ 0.0

**POSITIONS**

|           |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|
| FULL-TIME | 0 | 0 | 0 | 0 | 0 | 0 |
| PART-TIME | 0 | 0 | 0 | 0 | 0 | 0 |
| TEMPORARY | 0 | 0 | 0 | 0 | 0 | 0 |

**ANALYSIS:** (Attach a separate page if necessary)

This bill changes the Forest Resources and Practices Act requirements on private land along anadromous waters and tributaries to anadromous waters. Notably, it adds buffers on Type B anadromous streams. Based on the distribution of stream types, there will be an estimated 21% increase in the number of buffered stream miles. DNR is the lead agency for enforcing the Act. Additional buffers will require additional staff time for office review of notifications (3 mo. each annually for 2 existing seasonal Forester II positions in Southeast Alaska), and field review of variation requests and violations (19 days/year). In the first year (FY 99), training will be needed for landowners, operators, and staff on proper implementation of the new standards. This will require two training sessions, one each in southeast and southcentral Alaska.

Prepared by: Jeff Jahnke, Director Phone: 465-3379  
 Division: Forestry Date: 10-Feb-98  
 Approved by Commissioner: *Alvin Burt for John Shively* Date: 2-11-98  
 Agency: Natural Resources

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We have two options available to us in terms of estimating the fiscal impact of this bill:

1. Guess at it and ask for an increase in funding.

OR

2. Experience the impact of this legislation and once we know what it means in terms of staff and resources request the funding at that time.

We choose not to ask for additional funds for implementation of this bill at this time because of the uncertainty of the impact. However, passage of this legislation will impact DNR's forest practices program. The existing program currently is not fully funded, and field presence has already declined from the level expected by the Forest Practices Act. In 1991, DNR conducted 160 field inspections for each 100 notifications of operations received. In 1996-97, this ratio declined to 90 inspections per 100 notifications. The adequacy of funding for the FPA is not the issue this legislation is trying to address - this issue will need to be discussed in a different forum.

With the passage of this bill, review of notifications will take longer, further reducing available field time. Existing staff time for field visits will be spread over more buffers and requests for variation. Less staff time will be available to train operators and landowners, and to prevent violations. More time will be needed for enforcement actions following violations, rather than on cooperative work to prevent problems.



# Alaska State Legislature

## Senate

**JERRY WARD**

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Juneau, AK 99801-1182  
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Fax (907) 465-4766


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Fax (907) 258-0820

145 Main Street Loop  
Kenai, AK 99611  
Phone (907) 283-7996  
Fax (907) 283-3075

### MEMORANDUM

DATE: April 28, 1998

TO: Legislative Legal

FROM: Lydia A. Jones   
Senate Transportation Committee

RE: Senate Transportation Committee Substitute to SCS CSHB 373 (RES)

Please prepare a Senate Transportation Committee Substitute to SCS CSHB 373 (RES) in final form as follows:

#### **Amendment 0-LS1461/B.1**

Page 3, following line 31:

Insert a new bill section to read:

“\*Sec. 6. AS 41.17 is amended by adding a new section to read:

Sec. 41.17.990. Short title. This chapter may be cited as the

Forest Resources and Practices Act.”

A M E N D M E N T

OFFERED IN THE SENATE

TO: SCS CSHB 373(RES)

BY

*adopted*

1 Page 3, following line 31:

2 Insert a new bill section to read:

3 **\*\* Sec. 6.** AS 41.17 is amended by adding a new section to read:

4 **Sec. 41.17.990. Short title.** This chapter may be cited as the Forest  
5 Resources and Practices Act."

Testimony of United Fishermen of Alaska  
before the  
Senate Transportation Committee  
on HB 373, relating to forestry and forest practices

April 23, 1998

Mr. Chairman and members of the committee, my name is Liz Cabrera. I am the executive director of United Fishermen of Alaska and will be speaking on their behalf.

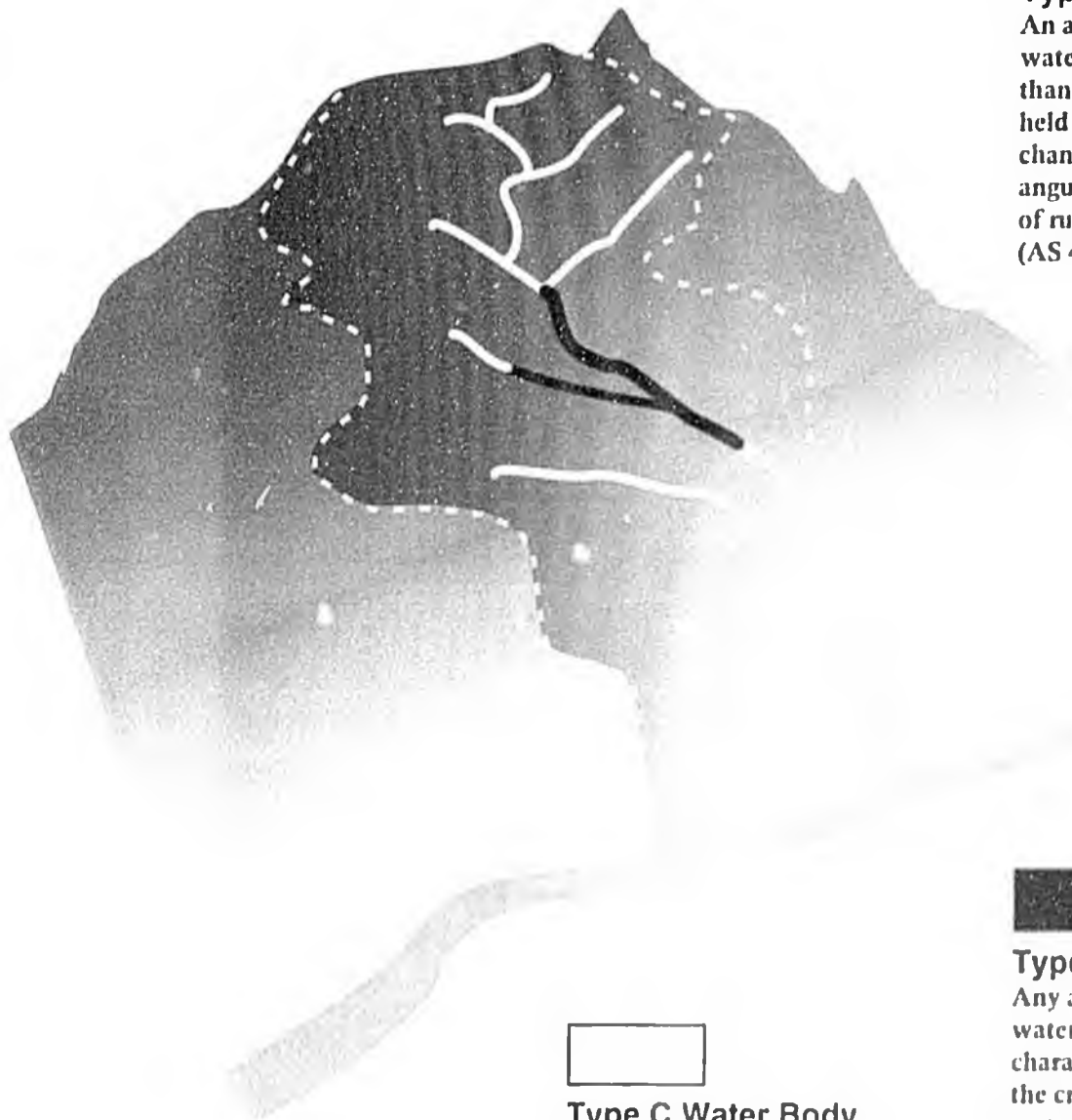
UFA has adopted a position in support of HB 373 as introduced. This legislation is the result of both the commercial fishing and forest products industries working together, with the assistance of the Board of Forestry and state agency staff, to find common ground. We support this legislation because it represents an improvement in the laws governing forest practices, and in particular, it affords greater protection for sensitive fish habitat.

We realize that increased protection for riparian areas does not come without its own costs. We recognize that private land owners are paying out of pocket to do what is right for habitat protection, and we appreciate their willingness to do so.

We'd like to thank Speaker Phillips for introducing this important piece of legislation. We urge the committee to pass of HB 373 as introduced.

Thank you for the opportunity to comment.

Alaska Forest Resources and Practices Act  
**Stream Classification System**



**Type A Water Body**  
An anadromous (salmon) water body that is any size, less than 8% gradient, with banks held in place by vegetation, channels not incised or sharply angular, and having substrate of rubble, gravel, sand or silt. (AS 41.17.950 (19)).



**Type B Water Body**  
Any anadromous (salmon) water body whose physical characteristics do not meet the criteria for a Type A water body.



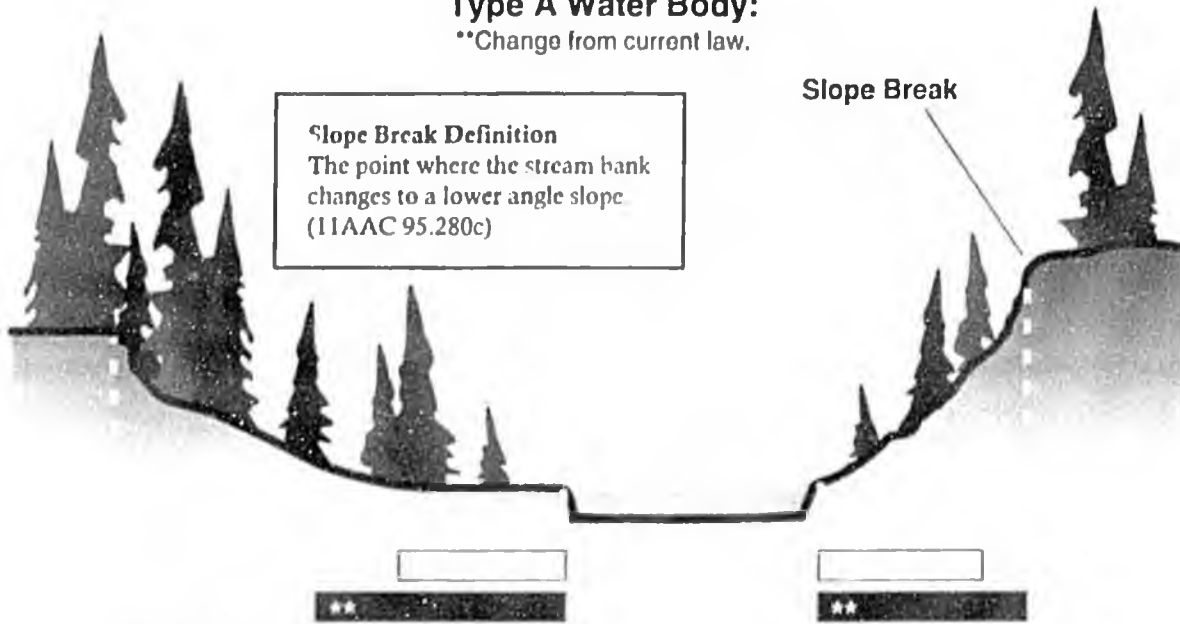
**Type C Water Body**  
A water body that is not anadromous, is a tributary to a Type A or Type B water body, and has a gradient of 12% or less.



**Type D Water Body**  
A water body that is not anadromous, is a tributary to a Type A or Type B water body, and has a gradient greater than 12%.

**Alaska Forest Resources and Practices Act**  
 Revised Riparian Protection Standards  
 Region I

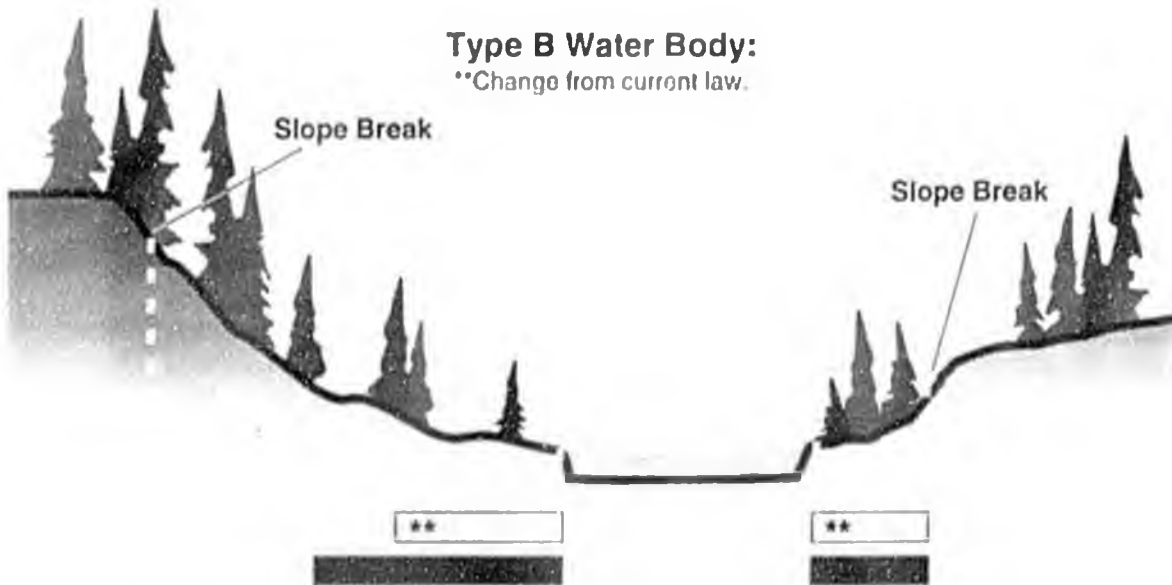
**Type A Water Body:**  
 \*\*Change from current law.



**Type A Water Body:**

- 66' mandatory retention buffer.
- \*\*Slope stability BMP's apply, 100' or to slope break, whichever is less.

**Type B Water Body:**  
 \*\*Change from current law.



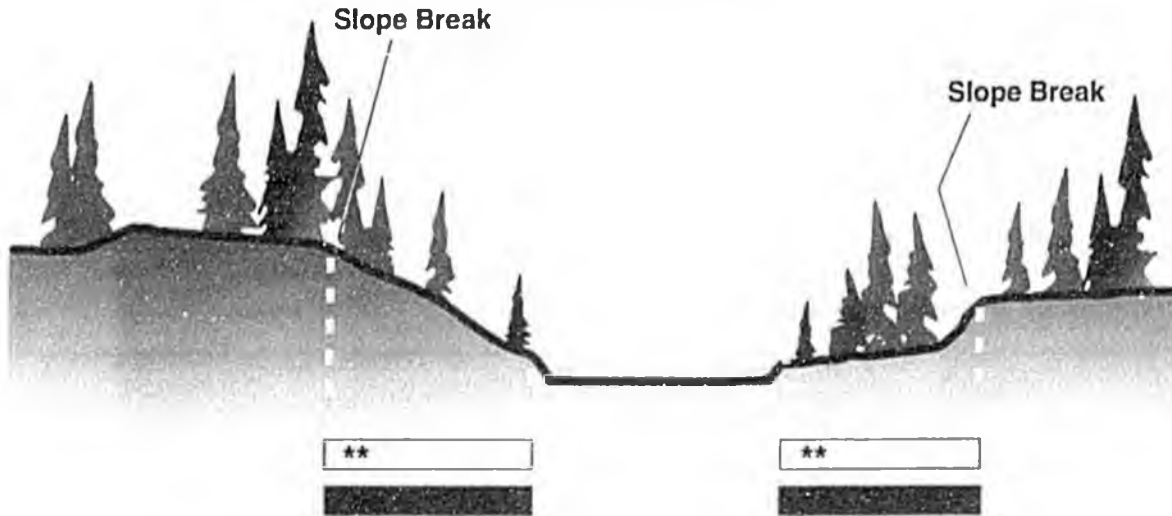
**Type B Water Body:**

- \*\*Mandatory retention buffer--66' or to slope break, whichever is less
- Slope stability BMP's apply, 100' or to slope break, whichever is less

**Alaska Forest Resources and Practices Act**  
 Revised Riparian Protection Standards  
 Region I

**Type C Water Body:**

\*\*Change from current law.



**Type C Water Body:**



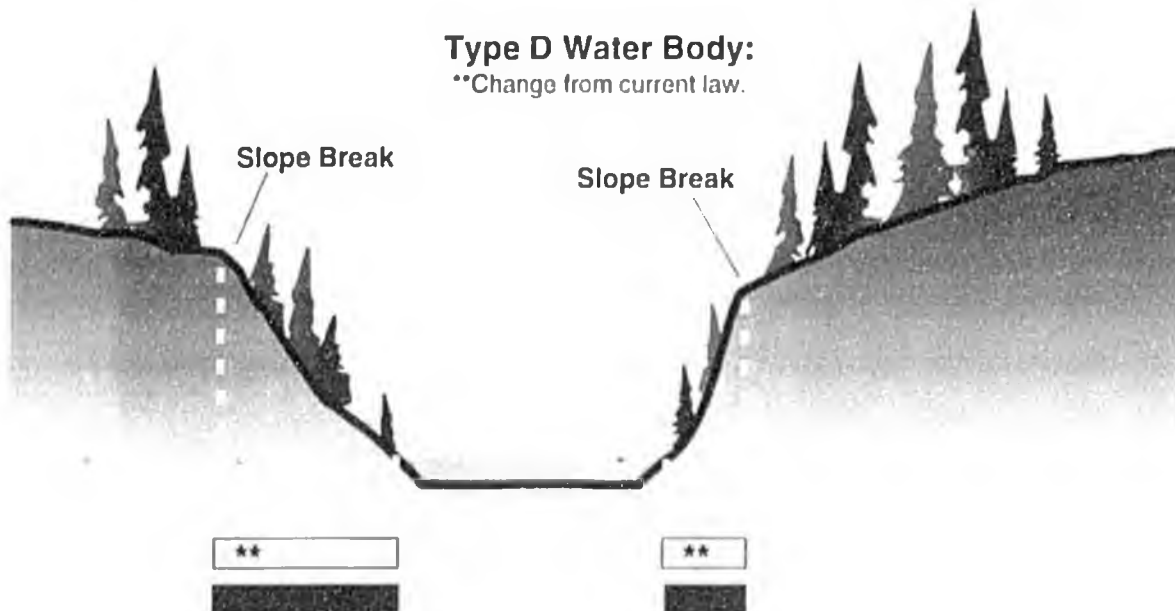
\*\* For streams greater than 8' or 13' (based on channel characteristics), retain low economic value timber 25' up to 100' from the stream depending upon location of slope break.



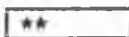
Slope stability BMP's apply -- 100' or to slope break, whichever is less.

**Type D Water Body:**

\*\*Change from current law.



**Type D Water Body:**



\*\* For streams greater than 8' or 13' (based on channel characteristics), retain low economic value timber 25' up to 50' from the stream depending upon location of slope break.



Slope stability BMP's apply -- 50' or to slope break, whichever is less.

# Alaska State Legislature

## Senate



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### MEMORANDUM

DATE: March 30, 1998

TO: Legislative Legal

FROM: Senator Jerry Ward *JW*

RE: Amendment to HB 373 – Forest Resources

---

Please draft an amendment to the above referenced legislation that would provide for construction of a logging road or similar road system to enable better public access and usage of the lands under the purview of the Forest Resources and Practices Act.

Thank you.

# Alaska State Legislature

Mailing Address:  
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Fax: (907) 488-4271

While in Juneau  
State Capitol  
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Ph: (907) 465-4976  
Fax: (907) 465-3883

MIKE MILLER  
President of the Senate

Senate District Q

## MEMORANDUM

TO: Senator Jerry Ward, Chairman  
Senate Transportation Committee

FROM: Senator Mike Miller  
President of the Senate



DATE: March 27, 1998

RE: HB373

I respectfully request that HB373 be scheduled for a hearing at your earliest possible convenience. I would greatly appreciate it if you would consider scheduling HB373 for next Thursday, April 2, 1998 (pending referral).

Thank you. If you have questions regarding this request, please contact me directly or call Portia in my office at 4711.



# Alaska State Legislature

## Senate

**JERRY WARD**

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Fax (907) 283-3075

### MEMORANDUM

TO: Senator Mike Miller  
President of the Senate

FROM: Senator Jerry Ward *JW*  
Senate Transportation Committee

DATE: March 28, 1998

RE: HB 373

I have already noticed that we will not be having a Transportation Committee meeting on Thursday, April 2 as I will be in preparation for my presentation on sobriety at the NCSI Conference to be held in Seattle, WA to Native American Legislators to be followed by a workshop.

I will notice and schedule a meeting of the Transportation Committee for Tuesday, April 7, 1998 to hear HB 373. I hope this schedule will be acceptable to you. If you have any questions regarding this, please contact me directly at 4940. Thank you.

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Mar-28-98 03:03 PM

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| 3883                  | OK            | 01           | Sent        | Mar-28      | 03:03P      | 00:00:50        | 002184230020      |

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7.00

# Alaska State Legislature



Official Business  
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Juneau, AK 99801-1142  
(907) 465-3720  
(907) 465-2689

Speaker of the House of Representatives

Rep. Gail Phillips

## Sponsor Statement

February 19, 1998

House Bill 373

**"An Act relating to forests and forestry practices."**

A cooperative agreement between timber, fishing and environmental stakeholders has resulted in proposed changes to the Forest Practices Act (FPA) that will strengthen the stream and water quality protections currently found in state law.

In an effort to continually reappraise the FPA's effectiveness, a committee comprised of timber, fishing and state agency representatives evaluated scientific findings over a two-year period. In January, the Board of Forestry endorsed the findings at its January 1998 meeting. The Board subsequently requested legislative approval of the proposed protective measures.

Under current regulations, all anadromous\* streams are protected, but exceptions are allowed for marginal streams. The new law will eliminate that exception, while adding additional stream protections.

The changes affect only the "coastal forest of spruce or hemlock" in the Department of Natural Resources' Region I (coastal area covering roughly Ketchikan to Kodiak). The proposed language accomplishes several goals:

- assigns a "type" designation to all streams, putting to rest concerns that some segments of anadromous streams were not classified
- extends the no-harvest riparian\*\* buffer zone to ALL anadromous fish streams, relative to "type"
- requires the retention of low-value timber along certain tributaries where prudent, so that the large woody debris (LWD) may eventually fall into streams, forming natural pools downstream, which are important for the rearing of juvenile fish.

I am pleased to sponsor this legislation which represents solid teamwork between various members of timber, fishing, environmental groups and state agencies. The resulting legislation is a big step toward protecting our valuable fish resources, while the collaborative process all the stakeholders went through to define the changes has paved the way for future cooperation.

---

\*anadromous – bodies of water in which salmon travel upstream to spawn

\*\*riparian – located on a river or stream bank, as in riparian vegetation

*Summary of Legislation Implementing the Recommendations of  
the Forest Practices' Science and Technical Committee*

Alaska's Forest Practices Act (the "FPA") was comprehensively amended in 1990 as a result of a two-year cooperative effort by government agencies, fishing and environmental groups, and the timber industry. An integral part of this consensus-based process was a commitment to periodically reappraise the FPA's effectiveness in protecting Alaska's streams.

As a result of that continuing review, legislation has now been prepared to implement two changes to the FPA that would:

- 1. extend the FPA's mandatory no-harvest riparian zones to additional streams;*
- and*
- 2. extend the width of scope stability standards on some streams.*
- 3. provide additional sources of large woody debris (or "LWD") for fish habitat.*

Both changes affect only the "coastal forest of spruce or hemlock" in DNR's "Region I." Forest practices in Regions II and III--basically, anything north of Mt. St. Elias--will continue to be governed by their own rules under the FPA, which, on private, restrict but do not prohibit timber harvest adjacent to streams.

Like the 1990 FPA itself, these changes reflect a broad-based consensus among forest stakeholders. The agreement arose out of an intensive study of the FPA conducted by a group of public and private sector scientists called the Science and Technical Committee (the "S/TC"). The S/TC found much to commend in the FPA, but also recommended two changes, both of which are mirrored in the proposed statutory language:

1. *Extending no-cut buffers to all anadromous streams.* The public and private scientists who collaborated on the 1990 FPA agreed that the need for no-cut buffer zones varied dramatically according to the characteristics of the stream. Even so, the 1990 legislation required 66-foot no-cut zones along most anadromous streams on private lands. These were so-called "Type A" waterbodies.

Another class of anadromous streams--those with rocky banks and bottoms--were subject to special bank stability requirements, though riparian timber harvest was allowed. These were the so-called "Type B" streams, and because their banks were held in place by rock, rather than vegetation, the scientists who worked on the 1990 legislation could not justify the considerable cost of requiring the retention of all timber adjacent to them.

The proposed legislation would reverse that decision, and require 66-foot no-cut buffers along all anadromous streams, irrespective of stream characteristics. This protection would extend both to all "Type B" streams, as well as a small subclass of anadromous streams that were originally not given a formal "type" designation.

In so doing, the proposed legislation assigns a "type" to all segments of an anadromous stream system. Anadromous streams themselves are labeled "A" or "B," while tributaries to anadromous streams are labeled "C" or "D" streams, depending on their steepness. All Types B and C streams would be subject to special stream bank stability rules.

This puts to rest the concern that some segments of an anadromous system were "unclassified" under the FPA.

2. *Requiring timber to be left along other streams in order to provide LWD.*

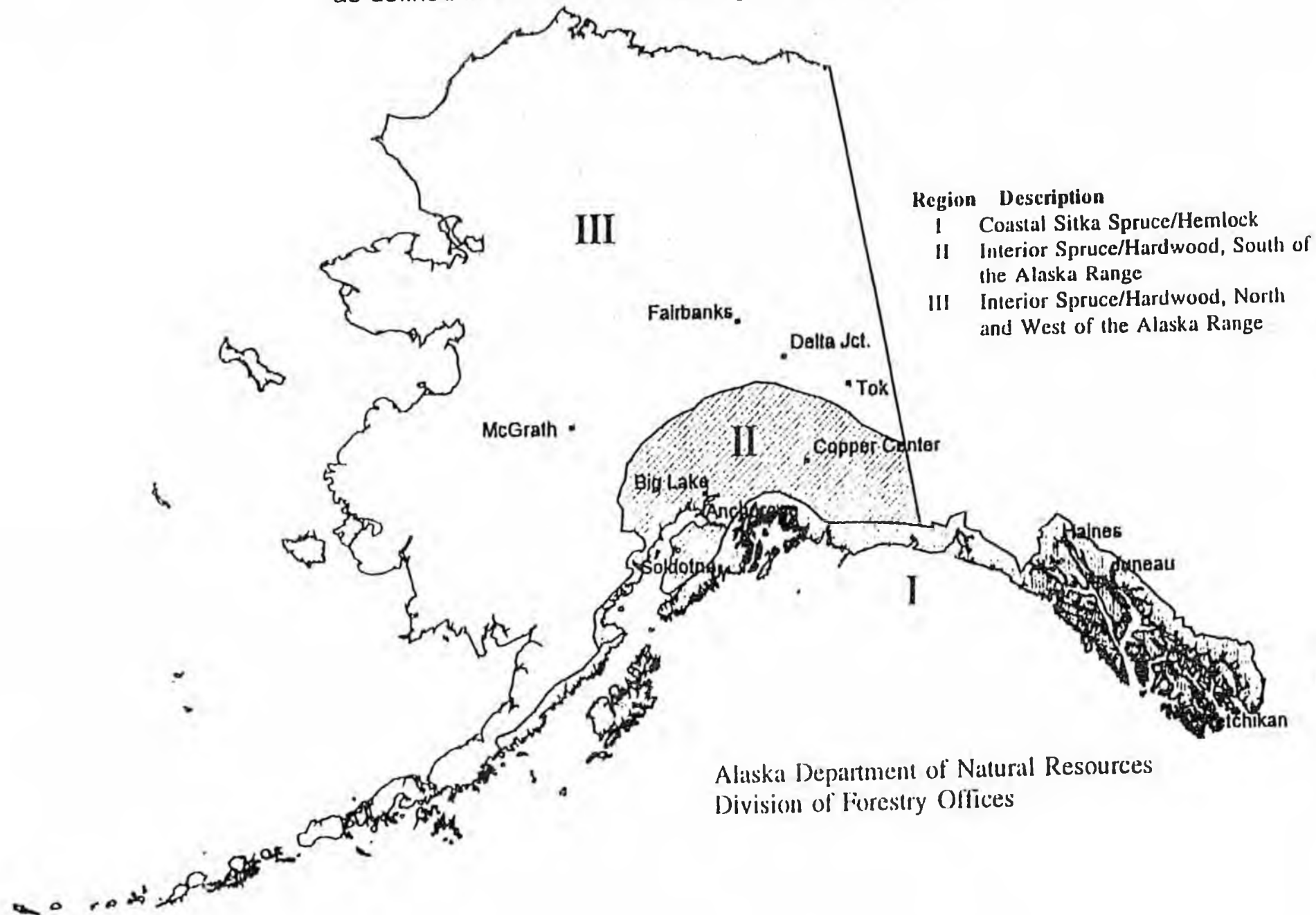
LWD can be an important source of habitat for juvenile fish, and the 1990 FPA encouraged the retention of low-value trees as potential LWD sources even along streams where no formal buffer zone was required.

The proposed legislation goes much further in this respect. It *requires* the retention of low-value timber along certain tributaries to anadromous streams, when it is "prudent" to do so. LWD, of course, is of no direct value to these tributaries, because there are no anadromous fish in them. But, research has shown that certain tributaries--*i.e.*, those of sufficient width and steepness--can transport LWD downstream to the anadromous waterbody itself, and it is for these streams that retention is required.

The "prudence" limitation exists because it is sometimes dangerous to leave wood adjacent to steep tributaries, because the trees can become part of debris torrents. And also, some low-value trees can be damaged as part of the harvest of the more valuable timber that can still be taken along these tributaries. It was never the S/TC's intent to restrict the harvest of valuable, merchantable timber along these tributaries, and the "prudence" limitation assures that operators will still be able to harvest this timber.

# Alaska Forest Resources & Practices Regions

as defined in 11 AAC 95.800 Designation of Regions



## DESIGNATION OF REGION I

### ARTICLE 07 GENERAL PROVISIONS

#### 11 AAC 95.800

#### DESIGNATION OF REGIONS.

For the purposes of this chapter; the forest land of the state is divided into three regions as follows:

(1) Region I (Coastal Sitka Spruce/Hemlock Region). Region I, the coastal forest, is comprised primarily of Sitka spruce, western hemlock, mountain hemlock, Alaska cedar, red alder, black cottonwood, western red cedar, and lodgepole pine. Region I consists of the land within the following area: beginning at Tongass, Alaska and then in a northwesterly direction along the United States-Canada border to Mt. St. Elias; then westerly along the crest of the Chugach Mountains to Portage; then continuing southwestwardly through Moose Pass, to the north end of the Harding Ice Field; then to the mouth of Fox River; then southwestwardly out of Kachemak Bay to Mt. Douglas; then along the divide of the Aleutian Range to Aniakchak Crater; then to Cape Kumliun; then easterly to Cape Sitkinak; then in a northeasterly direction to Cape Suckling; then along the coastline in a southeasterly direction to Cape Spencer; then along the coastline in a southeasterly direction along the outer coasts of southeastern Alaska including all the islands of the Alexander Archipelago to Cape Muzon; then in an easterly direction through Dixon Entrance to Tongass, the point of beginning;

PUBLIC LANDS PROTECTION PROVIDED IN STATUTE:

**Sec. 41.17.118. Riparian standards for state land.**

(a) The riparian standards for state land are as follows:

(1) on state forest land managed by the department that is located north of the Alaska Range, harvest of timber may not be undertaken within 100 feet immediately adjacent to an anadromous or high value resident fish water body unless the division determines that adequate protection remains for the fish habitat;

(2) on state forest land managed by the department that is located south of the Alaska Range,

(A) harvest of timber may not be undertaken within 100 feet immediately adjacent to an anadromous or high value resident fish water body;

(B) between 100 and 300 feet from the water body, timber harvest may occur but shall be consistent with the maintenance of important fish and wildlife habitat.

(b) The commissioner may impose additional riparian protection standards for timber harvest operations through the adoption of land use plans under AS 38.04.065 and under forest management plans and reports under AS 38.05.112 and AS 41.17.230.

(c) In the absence of a site-specific determination by the Department of Fish and Game, the commissioner shall presume for planning purposes that a stream is anadromous if it is connected to anadromous waters that are without Department of Fish and Game documentation of a physical blockage and has a stream gradient of 8 percent or less.

**Sec. 41.17.119. Minimum riparian standards for other public land.**

On other public land, harvest of timber may not occur

(1) within 100 feet from the shore or bank of an anadromous or high value resident fish water body that is located south of the Alaska Range;

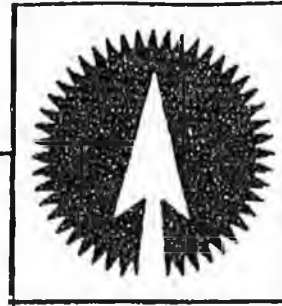
(2) within 100 feet immediately adjacent to an anadromous or high value resident fish water body north of the Alaska Range unless the commissioner determines that adequate protection remains for the fish habitat.

**Sec. 41.17.950. Definitions.**

In this chapter, unless the context otherwise requires . . . .

(11) "other public land" means state land managed by state agencies other than the department, land owned by a municipality, and land owned by the University of Alaska;

## Alaska Forest Association, Inc.



111 STEDMAN SUITE 200  
KETCHIKAN, ALASKA 99901-6599  
Phone 907-225-6114  
FAX 907-225-5920

March 31, 1998

The Honorable Jerry Ward, Chairman  
Senate Transportation Committee  
Alaska State Senate  
State Capitol  
Juneau, AK 99801

Dear Senator Ward:

*Jerry*

The Alaska Forest Association strongly supports Committee Substitute for House Bill 373(RES). CSHB 373(RES) is AFA's top legislative priority for 1998, and the Association urges your full support for this bill in its current form. CSHB 373(RES) is the direct result of a proposal AFA set before the Alaska Board of Forestry after a collaborative process involving the timber industry, the fishing industry and the resource agencies of the state. Both the process and the substance of this effort were based upon sound science and a balancing of interests.

Alaska already has a very effective, science-based forest practices law which ensures protection of important fisheries habitat while recognizing the unique relationship between private land rights and related public resources. The current law, which was developed through a cooperative process in 1989 and 1990, involves the Division of Forestry, the Division of Habitat and Restoration, and the Division of Air and Water Quality in monitoring and enforcing the provisions of the law. It enables timber operators in Alaska who conduct their harvest activities according to best management practices to have the assurance that they are operating in compliance with a variety of laws under which they would otherwise be individually scrutinized. That alternative would cost both the industry and the state more time and money than is necessary under the current system.

Current law also provides for ongoing examination of the effectiveness of Alaska's forest practices standards, so that the law and regulations can be adjusted to reflect new scientific knowledge as it is developed. Over the past two years, the timber industry has participated in a thorough review of the science relating to logging along anadromous fish streams in the coastal forests of Alaska. This review was conducted under the rubric of the Science and Technical Committee appointed by the Board of Forestry with the support of Governor Knowles. The Committee's report and the subsequent stakeholders' meeting led to the introduction of House Bill 373.

It is important to note that the Science & Technical Committee did not specifically recommend 66 foot buffers on type B streams as provided in Section 1 of the bill. The committee recommended that these streams be given some means of obtaining large woody debris. AFA member companies looked at the operational issues and concluded that buffers of 66 feet or to the slope break would satisfy the goals of the recommendation in a way that field personnel believe can

be implemented without severe adverse affects on harvest economics. It does mean surrendering trees of value by leaving them in riparian buffers, but the standard can be applied in the field and can be readily monitored by the regulators. AFA believes this is a good solution, the effects of which can be evaluated over time.

A matter of great importance to AFA is the fact that CSHB 373(RES) is the result of a collaborative process. The agreement that makes these changes in the Act possible depends upon the substance of the bill remaining as it is now. AFA urges the Alaska Legislature not to entertain any further amendments so that the underlying agreement between affected parties can remain intact.

In summary, CSHB 373(RES) addresses a real need, and represents a balanced approach to resolving an important issue affecting Alaska's forest products sector. When this bill becomes law, it will be a model for broad-based cooperation between affected industries, the agencies, the Governor's office and the legislature. This is a bill that can and should enjoy full, bi-partisan support. I urge its speedy passage.

Sincerely,



Jack Phelps  
Executive Director

cc: Senator Wilken  
Thyes Shaub

717 K Street  
Anchorage, AK 99501  
February 17, 1998

VIA FACSIMILE 466-3472

The Honorable Gail Phillips  
Speaker of House of Representatives  
Alaska State Legislature  
Juneau, AK 99801

RE: House Bill 373  
(Revisions to Alaska Forest Resources  
and Practices Act)

Dear Speaker Phillips:

I appreciate you introducing House Bill 373, providing for needed amendments to the Alaska Forest Resources and Practices Act. I sit as the recreation interest representative on the Alaska Board of Forestry, and have seen the care and thought that has gone into crafting the proposed amendments.

The proposed amendments are based on science. The Board of Forestry convened a science and technical committee, consisting of government and industry experts, to make recommendations to the board. The committee reached consensus on nearly all of the concerns they were asked to examine. The board took these recommendations and worked hard to reach an agreement on the final package of proposed amendments which has been incorporated into HB 373.

HB 373 will provide additional and needed protection of productive streams in Southeast Alaska, without imposing any unreasonable or unnecessary burden on the landowners or operators.

Thank you again for your support of these amendments and the passage of HB 373.

Sincerely,



Lawrence L. Hartig

F:\00CS\05790\LLH\PHILLIPS.LTR

cc: Rep. Bill Hudson, co-chair  
Rep. Scott Ogan, co-chair  
House Resources Committee



Statement of the Southeast Alaska Conservation Council (SEACC)  
on HB 373  
before the House Resources Committee  
Alaska State Legislature  
February 19, 1998

Mr. Chairman, members of the House Finance Committee, my name is Marc Wheeler and I represent the Southeast Alaska Conservation Council (SEACC). Thank you for the opportunity to testify before you today. I respectfully request that my written statement be entered into the official record for this Committee Hearing.

Founded in 1970, SEACC is a coalition of fifteen local community, volunteer conservation groups in twelve Southeast Alaska communities, from Ketchikan to Yakutat. SEACC's 1200 individual members include commercial fishermen, Native Alaskans, hunters and guides, tourism and recreation business owners, value-added wood product manufacturers, and Alaskans from all walks of life. SEACC is dedicated to safeguarding the integrity of Southeast Alaska's unsurpassed natural environment while providing for balanced, sustainable use of our region's resources.

While SEACC has always advocated for freshwater fish habitat protections in Southeast Alaska and we applaud any additional protections given to freshwater fish habitat, we must tell you today that this bill is too little, too late for buffer protections on private lands in our region. With most of Southeast Alaska's Class B streams on private lands already cut to the banks, the minimal additional protections afforded by this bill will not significantly improve quality of freshwater fish habitat. We urge the State Legislature to use the 1995 Report to Congress, the Anadromous Fish Habitat Assessment, as the guidebook for fish habitat protections in Southeast Alaska. The Forest Service recently adopted improved fish stream buffers with its new Tongass Plan to comply with the recommendations of this report. To protect the integrity of Alaska's public trust fisheries resources, the State Legislature should ultimately require private landowners to adopt fish habitat protections equivalent to the new Forest Service fish stream buffers. We also urge the State Legislature to begin a public process to consider freshwater fish habitat protections for lands in other parts of our state.

Respectfully submitted,

Marc Wheeler  
SEACC

February 10, 1998

20th Alaska State Legislature  
State Capitol  
Juneau Alaska 99801-1182

Sent Via-Facsimile to (907) 465-2698

Dear Legislators:

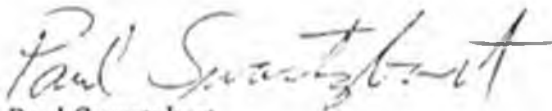
I support House Bill 373 relating to forest practices in the state of Alaska. This bill provides needed changes to the Forest Practices Act that both our state natural resource management agencies and our timber industry agree to.

This is a step forward for salmon habitat protection that will benefit sport and commercial fisherman, and the environmental community. This bill is the result of two years of consensus building and scientific inquiry by state and federal scientists meeting with members of private industry. We have come up with the most habitat protection for the least economic cost to private industry; it is a delicate balance. Any wording changes could have large consequences so I hope it will be considered "as is".

As the commercial fisherman on the Board of Forestry, I feel that salmon habitat protection is vital to the economic health of our state. Being a business person, I also understand how burdensome new regulations can be on an industry. This legislation was written by the timber industry and the resource agencies working together. It will help minimize the impact of logging operations on our salmon runs.

Thank You.

Sincerely,



Paul Swartzbart  
Alaska State Board of Forestry  
Commercial Fishing Seat



**Statement of Support**  
**House Bill 373**  
*An Act relating to forests and forestry practices*

Testimony before the House Resources Committee  
February 19, 1998

The Alaska Forest Association desires to be on record in full support of House Bill 373. "An Act relating to forests and forestry practices." This bill is the direct result of a proposal set before the Alaska Board of Forestry after a collaborative process involving the timber industry, the fishing industry and the resource agencies of the state. Both the process and the substance of this effort were based upon sound science and a balancing of interests.

Alaska already has a very effective, science-based forest practices law which ensures protection of important fisheries habitat while recognizing the unique relationship between private land rights and related public resources. The current law, which was developed through a cooperative process in 1989 and 1990, involves the Division of Forestry, the Division of Habitat and Restoration, and the Division of Air and Water Quality in monitoring and enforcing the provisions of the law. It enables timber operators in Alaska who conduct their harvest activities according to best management practices to have the assurance that they are operating in compliance with a variety of laws under which they would otherwise be individually scrutinized. That alternative would cost both the industry and the state more time and money than is necessary under the current system.

Current law also provides for ongoing examination of the effectiveness of Alaska's forest practices standards, so that the law and regulations can be adjusted to reflect new scientific knowledge as it is developed. Over the past two years, the timber industry has participated in a thorough review of the science relating to logging along anadromous fish streams in the coastal forests of Alaska. This review was conducted under the rubric of the Science and Technical Committee appointed by the Board of Forestry with the support of Governor Knowles. The Committee's report and the subsequent stakeholders' meeting led to the introduction of House Bill 373.

It is important to note that the Science & Technical Committee did not specifically recommend 66 foot buffers on type B streams as provided in Section 1 of the bill. The

committee recommended that these streams be given some means of obtaining large woody debris. AFA member companies looked at the operational issues and concluded that buffers of 66 feet or to the slope break would satisfy the goals of the recommendation in a way that field personnel believe can be implemented without severe adverse affects on harvest economics. It does mean surrendering trees of value by leaving them in riparian buffers, but the standard can be applied in the field and can be readily monitored by the regulators. AFA believes this is a good solution, the effects of which can be evaluated over time.

A matter of great importance to AFA is the fact that House Bill 373 is the result of a collaborative process. The agreement that makes these changes in the Act possible depends upon the substance of the bill remaining as it is now. The amendments proposed by the Attorney General's office, which are before the committee today, only provide consistency and clarification and are therefore acceptable. AFA would urge the committee not to entertain any other amendments so that the underlying agreement between affected parties can remain intact.

In summary, House Bill 373 addresses a real need, and represents a balanced approach to resolving an important issue affecting Alaska's forest products sector. When this bill becomes law, it will be a model for broad-based cooperation between affected industries, the agencies, the Governor's office and the legislature. This is a bill that can and should enjoy full, bi-partisan support. I urge its speedy passage.

DEPARTMENT OF NATURAL RESOURCES

3601 C Street, Suite 1034  
Anchorage, Alaska 99503-5937

*DIVISION OF FORESTRY*

February 12, 1998

Representative Bill Hudson, co-chair  
Representative Scott Ogan, co-chair  
House Resources Committee  
State Capitol  
Juneau, Alaska 99801-1182

Dear Sirs,

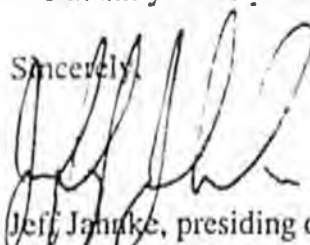
The Board of Forestry would like to register its support for H.B. 373. This bill incorporates the results of two years of work developing an agreement on appropriate changes to the Forest Resources and Practices Act. The Board unanimously endorsed the proposals in the bill after considering the results of a scientific and technical review of the Act, and the recommendations from a drafting process that included representatives of affected interests.

This bill maintains the balance intended by the Act: It ensures adequate protection of fish habitat and water quality while continuing to support the timber and fishing industries. It is important that this bill go forward as proposed without substantive changes. The widespread support this bill has received is contingent on preserving the specific package of changes in the bill.

We are aware that the drafting process has resulted in some minor and non-substantial changes to the specific wording endorsed by the Board. We do not object to these changes. We also understand that the Attorney General's review of the bill has identified some minor wording changes to improve clarity and consistency within the bill. We endorse these changes (attached).

We thank you for your support of this important legislation.

Sincerely,



Jeff Janike, presiding officer

For/cc: Board of Forestry Members Richard Carle, Lawrence Hartig, Bill Jeffress, Chris Maisch, Rick Smeriglio, John Sturgeon, Paul Swartzbart



ALASKA FOREST ASSOCIATION  
**Information Services**  
( *Keeping the Public Informed* )

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### **Concerning work of the Science & Technical Committee**

Testimony of Jack E. Phelps, Executive Director  
Offered to the Alaska Board of Forestry  
January 21, 1997

The Alaska Forest Association has closely observed the work of the Science and Technical Committee formed last year to examine allegations set forth in the report from the Department of Fish and Game, Habitat Division regarding the state's Forest Resources and Practices Act. Among other claims, the report stated that ADF&G staff are uniformly of the belief that the implementation of the FPA remains seriously deficient. The Science & Technical Committee was formed to investigate those allegations and to determine the extent to which the aforementioned belief could be substantiated by facts.

In short, the question was whether substantial harm was being done to fish and wildlife habitat as a direct result of timber harvests, particularly on private land. A closely related question which was not directly raised by the report but that begged an answer in the process, was whether any reduction in theoretical carrying capacity of any habitat was disproportionate to the benefit derived by the private landowners from managing their timber resources for their shareholders. This question is raised by the fairness doctrine and the no big hit doctrine of the Alaska Forest Resources and Practices Act.

Simply put, these doctrines declare that a balance must be struck between the values at stake when private land interests come in contact with public resource interests, in this case fisheries. The fairness doctrine insists that there be shared risks and incentives for both timber owners and the public, represented by the regulatory agencies. The no big hit doctrine requires that private landowners should not carry an inordinate economic burden for minimal losses to fish habitat. The law envisions a balance of interests between forestry and fisheries when it comes to timber harvests on private land.

After a year of meetings and careful examination of the evidence, the Science & Technical Committee's work suggests that the existing law protecting fish habitat is working very well. Many of the issues discussed by the committee had to do with technical definitions and minutia, not evidence of actual harm. The deliberations tended to verify that logging is having a very minor impact on fish habitat. Timber harvest on private lands, at the rate and under the regulatory conditions that now exist, is taking place without significant harm to Alaska's important fisheries resources.

To those of us in the industry who have worked to comply with the Forest Resources and Practices Act, and have made a sizable investment in fish habitat research over the past several years, this comes as no surprise. It is compatible with the tentative findings of our own ongoing scientific studies and of the research being done by others. A recent paper published in the journal of the American Fisheries Society shows that fewer than 5 percent of the anadromous fish spawning

aggregates in Southeast Alaska are in decline and some of those are in unlogged areas. Private landowners have willingly left millions of dollars worth of trees in riparian buffers over the past half decade, and those contributions are augmenting the health of Alaska's fisheries.

AFA commends the participants in the Science and Technical Committee for ensuring that the process of addressing the Habitat Division's report was conducted in a professional and scientific manner. On balance, the leadership of the committee was fair and diligent. Various participating parties were consistently given a fair hearing, and the committee was able to arrive at a satisfactory level of consensus. The Science and Technical Committee has done a good job of identifying and clarifying technical problems with monitoring and enforcement of the Act, and most of the recommended changes have the industry's support.

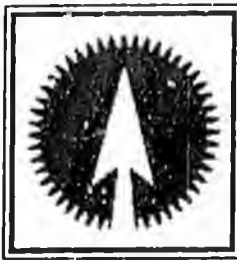
It was a good process, but it was an expensive one. It was costly for the state, and it was costly for industry. AFA member companies, one in particular, invested more than \$100,000 over the past year to enable professional and research staff to attend the meetings and study the ADF&G allegations. On the state side, the process demanded huge blocks of time from Division of Forestry and Department of Fish and Game personnel, taking staff away from field work. This is unfortunate and ironic, given the frequently stated complaint from Fish and Game that they lack the financial resources to do adequate field work.

The Alaska Forest Association is committed to supporting reasonable enforcement procedures for the Forest Resources and Practices Act. Industry has shown its willingness to work through the process, even at great expense, to ensure that other resources are not harmed by harvest activities. We hope that the exercise forced upon industry, the Board of Forestry and the other agencies last year by ADF&G's approach will not be repeated in the future. If one agency or another has questions or wishes to raise concerns about scientific or technical issues, those issues should be raised using established interagency procedures, and the discussion should take place in the context of scientific investigation before unnecessary alarm bells are rung with the press and the general public.

Thank you for the opportunity to testify on this important matter.

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**Alaska Forest Association, Inc**  
**111 Stedman, Suite 200**  
**Ketchikan, Alaska 99901**  
**Phone: (907) 225-6114 or Fax: (907) 225-5920**  
**E-Mail: [afa@ktn.net](mailto:afa@ktn.net)**

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Last Updated: 28 Mar 97

**KFP**  
**Koncor Forest Products Company**

1501 Denali Parkway  
Anchorage, Alaska 99501  
Tel: 582-3111 Fax: 582-3112

February 12, 1998

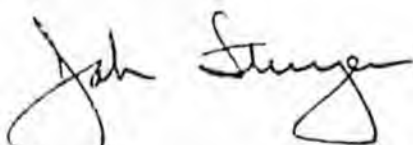
Gail Phillips  
Speaker, Alaska House of Representatives  
State Capital  
Juneau, AK 99801-1182

Dear Gail:

Koncor participated in the development, and fully supports the passage, of HB 373 which modifies the Alaska Forest Resources & Practices Act. This bill represents a balance between economic considerations and protection of public resources such as water quality and fish habitat. The process used to draft the bill is a model for using scientific review, cost/benefit analysis, and consensus building of stakeholders. Passage of this bill is also important to ensure that our forestry laws are the best in the nation, and that these laws will constantly be reviewed and modified as new scientific information becomes available.

We urge the Legislature to pass HB 373.

Sincerely,



John Sturgeon  
President



February 11, 1998

The Honorable Gail Phillips  
Speaker of the House  
Alaska State Legislature  
M/S 3100  
Juneau, Alaska 99801-1182

Dear Representative Phillips:

This letter is to inform you of Sealaska Corporation's support for HB 373 titled an "Act Relating to Forest and Forestry Practices". This bill establishes supplemental environmental protection standards on private lands in Region 1 (hemlock, spruce forests of coastal Alaska) and adds a new stream type.

This Act evolved out of a two year process in which biological, environmental and economic issues associated with timber harvest and its interaction with fisheries habitat and water quality were evaluated. This stakeholder review identified opportunities to strengthen the fish habitat and water quality protection in Alaska's Forest Resources and Practices Act. Through this collaborative process the timber industry and land owners could see that the proposed changes will yield measurable, beneficial results to fish habitat and water quality. Conversely the timber industry was able to guide development of legislative changes to achieve protection objectives without unreasonable cost or burden on the industry or private landowners.

This letter is to inform you of Sealaska's endorsement of the process and support for the results that are embodied in the legislation currently before you. The State of Alaska already has one of the most comprehensive and effective Forest Practices Acts in the Nation. The proposed amendments will serve to strengthen that Act and still ensure a healthy timber industry.

We support the current legislation but understand that there are a few clarifying amendments recommended by the Attorney General's office.

These amendments do not change the intent of the legislation as recommended by the Board of Forestry. We support those amendments to the degree they do not alter the consensus objectives established by the Board.

We request your support of this legislation and recognize the carefully crafted compromise between the industry, fisherman and environmental community to develop an effective set of amendments. This collaboration has lead to an impressive working relationship and the results of those efforts should be honored by the legislature by passing the bill before you.

Sincerely,

SEALASKA CORPORATION

*Richard P. Harris/jh*

Richard P. Harris  
Senior Vice President  
Natural Resources

cc: House Resources Committee  
Senator Mike Miller  
Senate Resources Committee  
Sam Kito  
Senator Robin Taylor  
Senator Jim Duncan  
Senator Jerry Mackie  
Representative Bill Williams  
Representative Ben Grussendorf  
Representative Kim Elton  
Representative Bill Hudson  
Representative Albert Kookesh  
S.E. Village/Urban Corporation  
Jack Phelps, AFA  
AFA Technical Committee  
Thyes Shaub  
Jerry McCune



# UNITED FISHERMEN OF ALASKA

211 Fourth Street, Suite 112  
Juneau, Alaska 99801  
907-586-2820  
Fax: 907-463-2545  
E-Mail: ufa@alaska.net

February 17, 1998

The Honorable Gail Phillips  
Speaker of the House  
State of Alaska  
Juneau, AK 99801-1182

Dear Representative Phillips:

Today the Board of Directors of United Fishermen of Alaska (UFA) adopted a position in support of legislation you introduced, HB 373, relating to forests and forestry practices.

This bill is the achievement of industries, assisted by the Board of Forestry and state agency staff, working together to find common ground. The forest products industry and commercial fishing industry worked together to resolve their particular concerns with the proposals advanced by the Board of Forestry, and they were successful. The legislation, as introduced, is supported by United Fishermen of Alaska because it represents an improvement in the laws governing forest practices. It affords greater protection than now exists for sensitive fish habitat.

United Fishermen of Alaska's mission includes preserving fishery resources through research, development and habitat protection. We will continue to work with other industries, as we did in our work on the forest practices provisions embodied in HB 373, to pursue this important objective.

We hope that the members of the Legislature will acquaint themselves with the provisions of this legislation, the language of which was carefully crafted to meet concerns of commercial fishermen and representatives of the forest products industry, and we strongly support the passage of the legislation as introduced.

The commercial fishing industry is very appreciative of your work on this legislation. Thank you.

Sincerely

Jerry McCune  
United Fishermen of Alaska

#### MEMBER ORGANIZATIONS

Alaska Crab Coalition • Alaska Longline Fishermen's Association • Alaska Trollers Association • Bristol Bay Driftnetters Association • Concerned Area "M" Fishermen  
Cook Inlet Aquaculture Association • Cordova District Fishermen United • Kenai Peninsula Fishermen's Association • Kodiak Regional Aquaculture Association • Kodiak Seiners Association  
North Pacific Fisheries Association • Northern Southeast Regional Aquaculture Association • Northwest Seiners Association • Peninsula Marketing Association  
Petersburg Vessel Owners Association • Prince William Sound Aquaculture Corporation • Purse Seine Vessel Owners Association • Sealood Producers Cooperative  
Southeast Alaska Seiners Association • Southern Southeast Regional Aquaculture Association • United Cook Inlet Drift Association • United Southeast Alaska Glinnetters

# Anchorage Daily News



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Michael Carey, Editorial Page Editor

Gerald E. Girty, Publisher, 1984-1993  
Katherine Fanning, Editor and Publisher, 1971-1983  
Lawrence Fanning, Editor and Publisher, 1967-1971  
Founded in 1948 by Norman C. Brown

## Salmon streams

### *A measure that matters*

More Alaskans, including those who work in the timber trade, are willing to protect salmon-bearing streams in Alaska's coastal rainforest from further degradation.

That's heartening.

Speaker of the House Rep. Gail Phillips has sponsored legislation that moves Alaska closer to better balancing development rights and salmon habitat in the rainforest running from roughly Ketchikan to Kodiak.

This emerging shift in philosophy, if handled properly, can benefit Alaskans who look to the forests for recreation or to sustain their livelihoods, be it fishing, ecotourism, professional guiding or the like.

The Phillips bill, HB373, requires loggers on private property in the affected coastal region to leave no-cut buffers along all streams crossing the property. Right now, only major streams that support fish spawning or rearing are protected.

*This emerging shift in philosophy, if handled properly, can benefit Alaskans who look to the forests for recreation or to sustain their livelihoods, be it fishing, ecotourism, professional guiding or the like.*

HB373 also requires loggers to leave buffers of low-value timber along some types of tributaries "where prudent." The idea here is let nature do its work: debris like fallen trees moves downstream and eventually creates natural pools that salmon favor.

The House measure, which was shepherded through the body by Rep. Bill Hudson of Juneau and amends a 1990 forestry act, passed unanimously earlier this month and is now in the Senate. It originated in the work of a state-backed committee of diverse interests, including the timber industry, that re-

viewed scientific research on this issue for the past two years.

While environmental groups participated in the scientific-review process and largely support the Phillips bill, they're on record with a couple of legitimate concerns. If, as they and scientists contend, the proposed streamside buffers aren't wide enough to conserve salmon stocks, then legislators must revisit the issue. Lawmakers must take care to properly balance the rights of private-property owners who log against their responsibilities — such as properly caretaking public resources like fish and deer and wolves and bear that inhabit their property.

Southeast conservationist Marc Wheeler says, "At least in Southeast Alaska, all the private lands that this would apply to, most of those streams have been cut to the bank already." The state can't go back and undo the damage but it can apply lessons learned in Southeast to other places that have been largely untouched by clearcut logging.

All this said, HB373 is a good measure that helps inch Alaskans toward looking at rainforest watersheds with both wide-angle and closeup lenses. This whole-systems approach is part of evolving science that says smaller streams feeding into larger salmon-bearing streams must be better protected.

Congratulations to the state House of Representatives and Speaker Gail Phillips for getting this bill off and running.

State of Alaska  
Office of the Governor

Tony Knowles  
Governor  
P.O. Box 110001  
Juneau, Alaska 99811-0001  
**NEWS RELEASE**



Bob King  
Press Secretary  
Claire Richardson  
Deputy Press Secretary  
907-465-3500  
FAX: 907-465-3533

FOR IMMEDIATE RELEASE: January 30, 1998

98-023

**STAKEHOLDER INVOLVEMENT CRAFTS  
FOREST PRACTICES ACT REVISION**

Calling it a model of stakeholder involvement, Gov. Tony Knowles hailed the work that crafted proposed amendments to the Forest Practices Act. The changes affecting logging practices on private land in Alaska strengthen fish habitat and water quality protections, and were the result of a stakeholder process initiated by Knowles in 1995.

"By bringing together Alaskans from all sides, we have crafted a bill which increases fish habitat and water quality protections and is workable for the timber industry," Knowles said. "The Forestry Board and the Science and Technical Committee have produced a solid bill that could only come about by bringing all stakeholders to the table."

Knowles created the Science and Technical Committee to work on amendments to the Forest Practices Act after concerns regarding the act were raised by the Alaska Department of Fish and Game. The committee included state agency officials, timber industry representatives and the fishing industry. The nine-member Board of Forestry, which includes representatives of the forest, mining, commercial fishing, and recreation industries, reviewed the work.

The proposal, and the process that created it, won praise from the industry. "The Alaska Forest Association (AFA) congratulates you on the very positive outcome of the process you initiated two years ago to deal with issues surrounding the state's Forest Resources and Practices Act," Jack Phelps, executive director of the AFA, said in a letter to Knowles. "The Science/Technical Committee you established encouraged industry and agency cooperation. The result was a science-based review which enabled us to cooperatively identify areas for improvement in a very sensitive section of Alaska law. The AFA thanks you for your leadership in this very important activity."

Legislation to amend the act to require buffers on ALL anadromous fish streams and strengthen protections along their tributaries was introduced in the state House and Senate this week with bipartisan support. Knowles thanked Senate President Mike Miller and House Speaker Gail Phillips for their support and pledged to work with them as the bill moves to passage.

"The principles on which I base resource decisions are sound science, prudent management and an open, public process," Knowles said. "It's a winning combination that produces solid success, but it's only possible by bringing all Alaskans to the table. It's what 'doing it right' is all about."

*Voice of the Times*

**OPINION: THE RIGHT WAY**

Habitat protection legislation introduced recently in the Alaska Legislature merits a lot more public attention than it initially received. Senate Bill 270, and an identical bill in the House, would amend the state's Forest Practices Act and provide additional protection for salmon streams. Specifically, the legislation would require streamside buffers -- areas in which no timber could be harvested -- along so-called "marginal" salmon streams that cross private property. Under existing state law, all anadromous fish streams are protected by no-cut buffer zones, but an exception is allowed for certain marginal fish streams. The new law would eliminate the exception.

Additionally, the bill would make dozens of other modifications and improvements to update the Forest Practices Act. These changes were recommended by the state Board of Forestry after its members evaluated scientific research conducted over a two-year period by biologists hired to study the effects of Alaska's regulations on timber industry operations.

The nine members of the Board of Forestry, appointed by the governor, represent the commercial fishing, mining, tourism and timber industries, the environmental sector and Native groups. The state forester is also a member.

The legislation that was introduced last Thursday is sponsored by the Republican leadership -- Sen. President Mike Miller, R-North Pole, and House Speaker Gail Phillips, R-Homer. The bill is strongly endorsed by Gov. Tony Knowles and is expected to have solid bipartisan support as it moves through the legislative process.

There is a dramatic difference between the process followed by the state to protect all fish streams and the recent decree by the U.S. Forest Service banning new roads in national forests. Both were justified as necessary to protect habitat. The state's policy decision is based on sound science and a consensus negotiated among the stakeholders. It's a win-win situation for all sides. The timber industry can still operate, the salmon stocks remain strong and streams are not

polluted. Not surprisingly, the bill now enjoys broad support.

The federal action, in contrast, was based on a deal cut by the Clinton administration and the national environmental lobby behind closed doors, according to Alaska Rep. Don Young.

There is no scientific study backing the road ban. A number of local communities, states and businesses are being unnecessarily hurt by it. In Alaska, for instance, if an exception isn't made for the Chugach National Forest, there can be no way of effectively addressing the spruce bark beetle crisis. Few people are happy with the federal edict.

Uncle Sam could learn a thing or two by noting how the process works in Alaska.

# REDDOG MINER

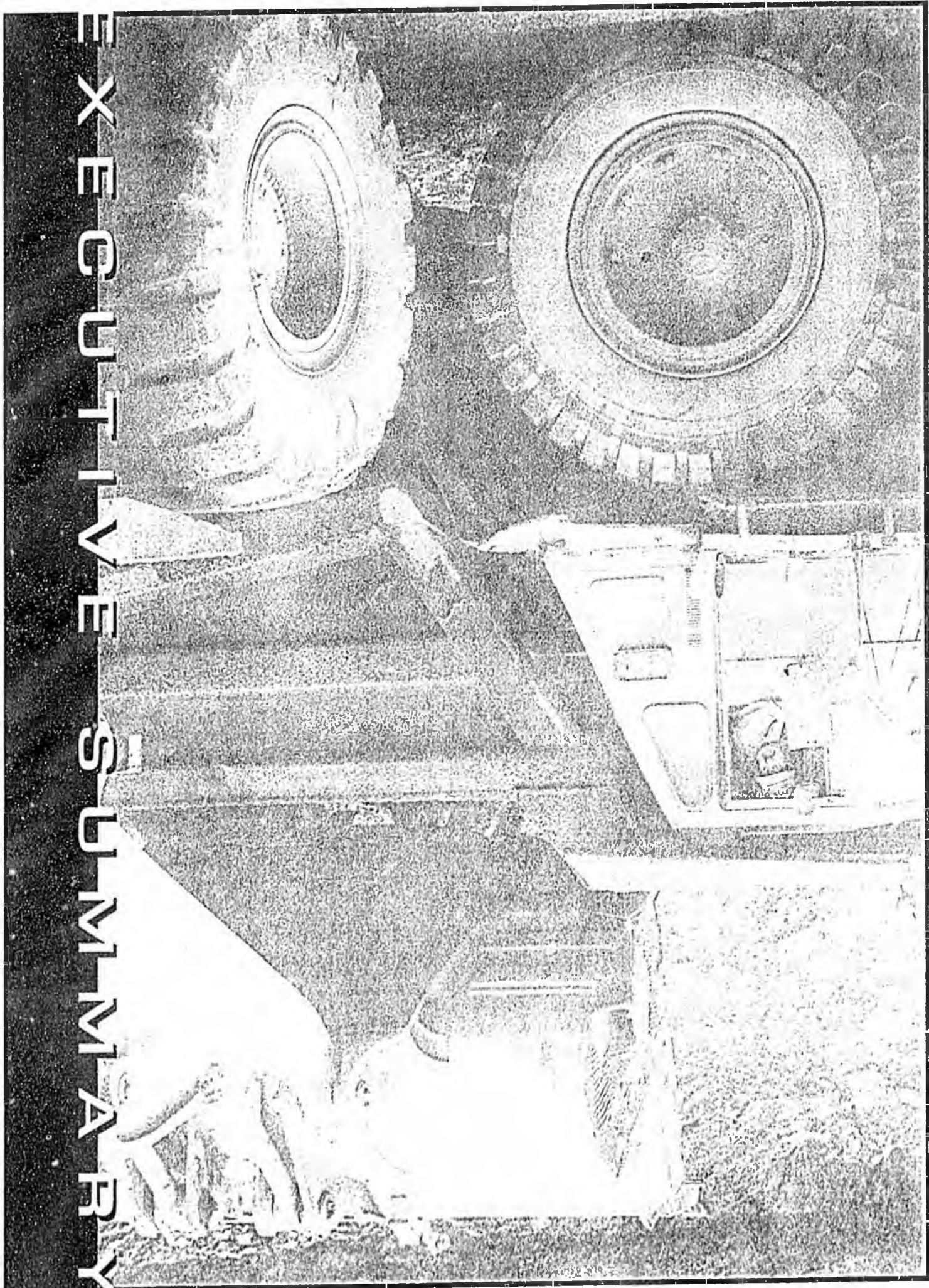
EMULSION  
LEADING THE WAY  
THROUGH PARTNERSHIP



## **The Red Dog Mine**

**Cominco Alaska & NANA Partnership  
Provides Role Model for Worldwide  
Resource Projects**

EXECUTIVE SUMMARY



## **I. EXECUTIVE SUMMARY**

When the ancestors of northwestern Alaska's indigenous people hunted the upper drainage of the Wulik River, they had little knowledge of a treasure beneath their feet - a vast deposit of zinc, lead and silver, now known as Red Dog. The deposit lies within the settlement lands of the Northwest Alaska Native Association (NANA) and the mine now provides a significant contribution to the people of the region.

Red Dog contains a world-class zinc deposit, producing high grade zinc, lead and silver. Despite its high grade quality, Red Dog's ore lies within a relatively small area, one mile by one half mile, and is expected to provide a sustainable economic base for the region for decades to come.

Red Dog shows by example how mining can be compatible with indigenous peoples' values and the principle of sustainable development. It shows how industry, with proper planning, can develop a local work force which allows indigenous peoples to walk forward in both their traditional and modern worlds.

To fully appreciate the Red Dog story, some unique background information must be understood. On the following pages, you will learn about the distribution of 44 million acres of land given to Alaska Natives and how one group turned a small portion of their land into the world's largest producer of zinc in zinc concentrate. This was accomplished through a uncommon partnership between government, industry and the indigenous people of Northwest Alaska.

## **NANA**

The enactment of the Alaska Native Claims Settlement Act (ANCSA) in 1971 settled aboriginal land claims of Alaska Natives against the United States. ANCSA granted Alaska Natives the right to receive title to 44 million acres of land in Alaska and a cash settlement of \$962.5 million from the United States and state of Alaska.

Thirteen regional and over 200 village corporations were subsequently formed to receive title to the lands and manage the cash settlement. Northwest Alaska Native Association (or NANA) is one of those thirteen regional corporations.

Only eligible Alaska Natives (Indians, Eskimos and Aleuts of 25 percent or more blood quantum) were enrolled as shareholders of the respective corporations. Today, there are over 80,000 Alaska Native shareholders. From this group almost 10% (8,000) are Inupiat Eskimos who hold shares in the NANA Regional Corporation.

It is important to keep in mind that the primary purpose for pursuing the land settlement was to preserve the land base and resources of their people; it was not to own large corporations.

Bisected by the Arctic Circle, the NANA region is home to some 8,000 people in an area roughly the size of Maine (38,000 square miles).

The region has been inhabited for more than 10,000 years by the ancestors of the Inupiat Eskimos and other indigenous groups who subsequently migrated south and east into Canada and the United States from Russia. The vast majority of the people are Inupiat Eskimos.

Winters in the northwest Arctic are long and cold, with temperatures frequently plunging to 30 and 40 degrees Fahrenheit below zero, not counting windchill. The summers are short, but sunny and warm.

The NANA region is distinct from the other areas of Alaska where different groups of Indians, Aleuts and Eskimos have intermarried and intersettled. The dominance of a single aboriginal people gives the NANA region an unusually high degree of unity.

As their ancestors had for centuries, the Inupiat people of the NANA region rely heavily on subsistence hunting and fishing. For most families, the household economy is a mix of hunting, fishing and part-time, or seasonal jobs. Subsistence hunting and fishing is not only an economic necessity; it also has strong cultural and social significance. Reliance on the land is a traditional way of life for the Inupiat people. The continuation of that relationship is a vital element in their identity and values.

Today, NANA, a diverse corporation with roots in the Northwest Alaska Native Association, has successful investments in ventures ranging from tourism to petroleum technology and mining.

### **THE DEPOSIT**

The Red Dog deposit is located in Alaska's Northwest Arctic Borough in the DeLong Mountains of the Western Brooks Range, 90 miles north of Kotzebue and 55 miles from the Chukchi Sea (see map). It consists of a number of orebodies which together total more than 12.5 million tons of reserves containing 17.1 percent zinc, 5 percent lead and 2.4 ounces/ton of silver.

The first report of mineralization in the Red Dog area was in 1963. When the late Bob Baker of Kotzebue, a bush pilot and prospector, noticed the rusty alteration in Red Dog Creek, while flying over the area. He brought it to the attention of Irving Tailleir of the U.S. Geological Survey, who was mapping the geology of the DeLong Mountain quadrangle which includes Red Dog Creek. Tailleir visited the site and immediately notices abundant barite, black chert,

siliceous sinter, and iron oxide staining. He few rock samples showed significant zinc and lead mineralization.

The name "Red Dog Creek" was coined by Tailleuri, after Bob Baker's prospecting company, the Red Dog Mining Company, named after Baker's pet dog, who frequently flew with him.

The Red Dog zinc/lead ore body contains one of North America's and perhaps the world's most significant mineral deposits. The U.S. Bureau of Mines expects the deposit to contain 29 percent of all proven U.S. zinc reserves. It is the largest zinc mine in the western world and, once it reaches full production (anticipated to be in 1999), will produce an estimated 3.2 million tons of ore annually. This is milled into 720,000 short tons of lead and zinc concentrates, which are transported year round to a seaport 52 miles from the mine. Concentrate shipments to smelters occur during the 100-day ice free shipping season. Portions of the concentrate are shipped to Canada, Europe and Asia.

Because of the grade of the deposit and the size of the ore body, the Red Dog Mine is expected to operate as an efficient ore producer for a half century, despite the remote location, high development and outshipment costs.

Process modifications in the concentrator have resulted in dramatic increases in zinc and lead recoveries since early 1996. At the Red Dog mine, zinc recovery increased to more than 82 percent in 1996 from 75 percent in the previous year, while lead recovery increased to 57 percent, up from 37 percent in 1995. As a result, approximately 157,000 fewer tons of ore milled in 1996 produced a greater amount of both concentrates than in 1995.

The Red Dog mine operations may also provide the staging base and incentive for other significant discoveries and developments in the area. The Aqqaluk deposit, adjacent to the Red Dog deposit was discovered in in 1995. Exploration drilling during the summer of 1996 partially delineated another

mineralized zone immediately north of the Aqqaluk deposit with an estimated Possible Resource of 7 million tons at 16 percent zinc. Preliminary environmental monitoring began in anticipation of the future development of Aqqaluk.

#### **THE NANA/COMINCO AGREEMENT**

In 1978, NANA made its most economically significant land selection, when it claimed the 120 square mile block of land underlying the Red Dog zinc/lead ore body.

In 1982, development of Red Dog began with the selection of Cominco Ltd. to lease the deposit and operate the mine. The Canadian-based firm, incorporated in 1906, is one of the world's largest producers of zinc and lead, accounting for about 10 percent of production in the western world. The company also produces copper concentrate, silver and gold. Cominco, an integrated natural resource company with principle activities in mineral exploration, mining, refining, and fertilizer production, has operations and interests worldwide.

Cominco Alaska is a wholly-owned subsidiary of Cominco Ltd., and operates the Red Dog Mining projects.

The NANA/Cominco development agreement gives Cominco the right to build and operate the mine and market the metals. In return, NANA receives an escalating percentage of royalties. NANA eventually will receive a 50 percent share of the mineral profits.

Cominco financed, constructed and now manages the mine and mill and markets the concentrates produced at the mine. Under the agreement, Cominco also took responsibility for employing and training NANA shareholders to staff the operations.

The mine's transportation system (access road and seaport) was financed and constructed by the state of Alaska's Industrial Development Authority. The state's \$160 million investment in the facility is being repaid with interest from Cominco's user and export fees, over the life of the mine. The publication *Mining Engineering*, as far back as 1992, reported that:

*"State officials continually point to Red Dog as the example of cooperation between government, Alaskan natives and industry in development of natural resources in a responsible manner, building a strong economic base and providing jobs with high wages."*

This three way partnership is testimony to what can be accomplished when the State, private sector and local communities work together. All partners benefit from this relationship.

Looking back into the months and days which led to the signing of the agreement between NANA and Cominco, both had definite financial expectations of the property and looked forward to meeting the engineering challenges of mining the remote Red Dog deposit.

Cominco Ltd. did not initially envision how the Inupiat Ilitqusiat (the Inupiat peoples preservation of values and traditions) would become a part of our Red Dog 2000 mission statement; how Cominco's values and NANA's values would meld into Red Dog's values.

The key principles behind the agreement are based on the importance of people and the environment.

#### Employment/Training

The agreement allows indigenous people to pursue their traditional lifestyle while providing modern training and employment. It calls for a comprehensive

shareholder hire program to ensure that NANA shareholders, the indigenous people of the area, are hired to work at the operations.

A NANA/Cominco joint management committee reviews and approves operations activities, and an employment committee helps guide the effort to hire, train and promote NANA shareholders. NANA and its subsidiaries also provide drilling, catering and other contracted services on the project.

One of the terms of the agreement was to work toward a goal of having NANA shareholders comprise 100 percent of the employees at Red Dog after 12 years of production, to the extent feasible. It is understood that the only way this can be accomplished is through a commitment to extensive education and training programs for NANA area residents. Cominco has complied with this term to the extent that today, over 55 percent of Red Dog employees are NANA shareholders, and the figure is growing every year.

#### Environmental Protection

The agreement also ensures that development does not interfere with subsistence activities. Residents of Kivalina and Noatak, villages closest to the mine site, serve on the Subsistence Advisory Committee which has significant authority to protect hunting, fishing and other resources.

The prime purpose of the Subsistence Advisory Committee is to ensure that all exploration, development and mining activity at the mine site is consistent with sound stewardship principles and will not harm or threaten the subsistence needs and the physical, cultural, social and economic needs of the indigenous people of the NANA region. The committee reviews many reports from extensive environmental monitoring required by Cominco and by the government permits. The quality of water, air and earth is continually tested. Any possible effects on the two nearby villages are openly discussed. Activity on the 52 mile concentrate haul road from the mine site to the port site is

monitored, and potential effects on subsistence hunting are reviewed by the committee.

During the caribou migration season, the Subsistence Advisory Committee can shut down traffic on the road. In addition to stringent regulatory and policy requirements, the local people who live in the area have authority to close the road if they legitimately feel the impact is detrimental to their subsistence.

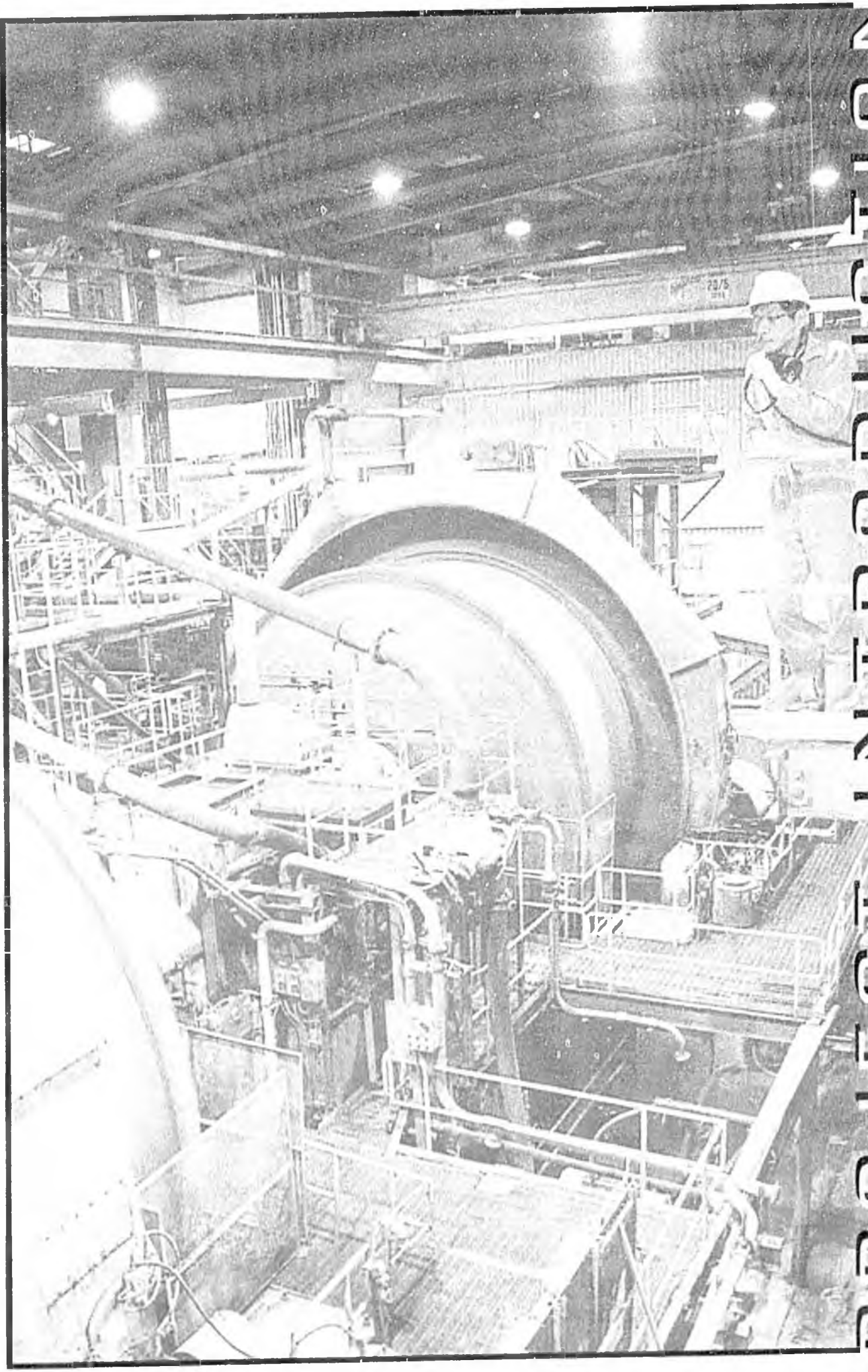
### **In Conclusion**

Production at the mine began in late 1989 and will continue for 45 to 50 years, providing high-paying employment and excellent training opportunities for NANA shareholders. When peak production is reached, Red Dog is expected to produce about five percent of the world's zinc supply and provide approximately 360 direct jobs.

NANA is accomplishing its goal of protecting the land, as its shareholders pursue their traditional ways, aided by the modern technology afforded through jobs at the mine. The cash flow and work opportunities have created a solid base for growth in the future.

The Inupiat Eskimos of Northwest Alaska have a proud tradition as whaling captains, dog mushers, commercial pilots, artists, carvers, member of the Alaska Legislature and active participants in the Alaska National Guard. Add to that list today mill operators, geologists, pipeline engineers, supervisors and trainers in the mining industry, and corporate executive posts.

In the new millennium, a leadership tier will develop out of young NANA shareholders employed at Red Dog. Their ideas and skills will be a source of economic strength and leadership to NANA, the Region and the state. Red Dog has captured the right spirit, progress with a commitment of respect for the environment, while producing a versatile work force and world-class base metal operation.



CONSTRUCTION



## II. INTRODUCTION

When the ancestors of northwestern Alaska's indigenous people hunted the upper drainage of the Wulik River, they had little knowledge of a treasure beneath their feet - a vast deposit of zinc, lead and silver, now known as Red Dog. The deposit lies within the settlement lands of the Northwest Alaska Native Association (NANA) and the mine provides a significant contribution to the people of the region.

Red Dog contains a world-class zinc deposit, producing high grade zinc, lead and silver. Despite its high grade quality, Red Dog's ore lies within a relatively small area, one mile by one half mile, and is expected to provide a sustainable economic base for the region for decades to come.

Red Dog shows by example how mining can be compatible with indigenous peoples' values and the principle of sustainable development. It shows how industry, with proper planning, can develop a local work force which allows indigenous peoples to walk forward in both their traditional and modern worlds.

Looking back into the months and days which led to the signing of the agreement between NANA and Cominco Ltd., both had definite financial expectations of the property and looked forward to meeting the engineering challenges of mining the remote Red Dog deposit.

Cominco Ltd. did not initially envision how the Inupiat Ilitqusiak (value system) would become a part of our Red Dog 2000 mission statement; how Cominco's values and NANA's values would meld into Red Dog's values. Perhaps a few farsighted individuals like Robert Aquillaak Newlin and Bob Hallbauer had those visions of the future, but for most, the thoughts were of jobs, mining challenges and financial gain.

None predicted the decline of zinc prices and the technical problems that would plague the operation throughout its early existence. The signing marked the

beginning of a relationship which grew into a partnership, a partnership that continues to evolve and strengthen.

In 1982, development of Red Dog began with the selection of Cominco Ltd. to lease the deposit and operate the mine. The Canadian-based firm is an integrated natural resource company, and one of the world's largest producers of zinc. The NANA/Cominco development agreement gives Cominco the right to build and operate the mine and market the metals. In return, NANA receives an escalating percentage of royalties. NANA eventually will receive a 50 percent share of the mineral profits.

The agreement allows indigenous people to pursue their traditional lifestyle while providing modern training and employment. It calls for a comprehensive shareholder hire program to ensure that NANA shareholders, the indigenous people of the area, are hired to work at the operations. A NANA/Cominco joint management committee reviews and approves operations activities, and an employment committee helps guide the effort to hire, train and promote NANA shareholders. NANA and its subsidiaries also provide drilling, catering and other contracted services on the project.

The agreement also ensures that development does not interfere with subsistence activities. Residents of Kivalina and Noatak, villages closest to the mine site, serve on a subsistence committee which has significant authority to protect hunting, fishing and other resources.

Production at the mine began in late 1989 and will continue for 45 to 50 years, providing high-paying employment and excellent training opportunities for NANA shareholders. When peak production is reached, Red Dog is expected to produce about five percent of the world's zinc supply and provide approximately 360 direct jobs.

This paper outlines the NANA/Cominco agreement and the status of the royalty, employment, training and environmental provisions. Regional benefits derived from the agreement and current challenges are also discussed. The key principles behind the agreement are based on the importance of people and the environment. The first section provides a background to the Alaska Native Claims Settlement Act, the formation, the people, and land of the Northwest Alaska Native Association; and the Red Dog deposit. The second section outlines the provisions of the NANA/Cominco agreement, including important operating, environmental and employment policies. The third section discusses the status of the agreement in terms of achievements and challenges.

## **Section 1. BACKGROUND**

### **a. The Alaska Native Claims Settlement Act (ANCSA): Settlement Lands**

The enactment of ANCSA in 1971 settled aboriginal land claims of Alaska Natives against the United States. ANCSA granted Alaska Natives the right to receive title to 44 million acres of land in Alaska and a cash settlement of \$962.5 million from the United States and state of Alaska.

Thirteen regional and over 200 village corporations were subsequently formed to receive title to the lands and manage the cash settlement. Northwest Alaska Native Association (or NANA) is one of those thirteen regional corporations.

Only eligible Alaska Natives (Indians, Eskimos and Aleuts of 25 percent or more blood quantum) were enrolled as shareholders of the respective corporations. Today, there are over 80,000 Alaska Native shareholders. From this group 10% (8,000) are Inupiat Eskimos shareholders in the NANA Regional Corporation.

Within NANA's boundaries, ANCSA allowed for one profit-making regional corporation and eleven profit-making village corporations — one for each indigenous community within the NANA region. Each person enrolled in the NANA region received 100 shares of NANA Regional Corporation stock, and 100 shares of stock from their respective village corporations. Five years later, in 1976, 10 of the 11 NANA village corporations merged with NANA Regional Corporation, thereby exchanging the shareholders' village corporation stock for NANA Regional Corporation stock.

**NANA has not only preserved its \$43.5 million in original capital funds under ANCSA, but has increased its shareholder's equity to nearly \$70 million, as reported at the corporation's most recent fiscal year-end, 1997. Since ANCSA was enacted, dividends to shareholders have totaled \$26.6 million.**

### **b. Northwest Alaska Native Association (NANA)**

Bisected by the Arctic Circle, the NANA region is home to some 8,000 people in an area roughly the size of Maine (38,000 square miles). The region's boundaries are identical to Alaska's Northwest Arctic Borough. The Borough was incorporated in 1986 as a first-class borough, providing it with authority over education, taxation, transportation, planning and zoning. Most of the land in the region lies within conservation withdrawals such as parks, monument lands and wildlife refuges, as defined by the Alaska National Interest Lands Conservation Act of 1980.

The village of Kotzebue ("Qiqitagrük"), on Kotzebue Sound, is the seat of the Northwest Arctic Borough. Kotzebue serves as the regional center for the borough's ten coastal, river and interior villages. It has a population of 3,700; the other 10 villages have varying populations, anywhere from 100 to 650 people. All villages, except Noatak, are incorporated as second-class cities and all villages have tribal councils.

Numerous rivers thread the region from surrounding mountain ranges. Major waterways include the Noatak, Kivalina, Wulik, Kobuk, Ambler, Salmon, Selawik, Buckland, Inmachuk, and Squirrel rivers. The terrain varies dramatically with mountains, giant sand dunes, tundra and boreal forests.

The region has been inhabited for more than 10,000 years by the ancestors of the Inupiat Eskimos and other indigenous groups who subsequently migrated south and east into Canada and the United States from Russia. The vast majority of the people are Inupiat Eskimos.

Winters in the northwest Arctic are long and cold, with temperatures frequently plunging to 30 and 40 degrees Fahrenheit below zero, not counting windchill. The summers are short, but sunny and warm. The interior villages of Ambler, Shungnak and Kobuk usually experience the coldest winters and the warmest summers; mid-summer temperatures can climb into the 80s.

The NANA region is distinct from the other areas of Alaska where different groups of Indians, Aleuts and Eskimos have intermarried and intersettled. The dominance of a single aboriginal people gives the NANA region an unusually high degree of unity.

As their ancestors had for centuries, the Inupiat people of the NANA region rely heavily on subsistence hunting and fishing. For most families, the household economy is a mix of hunting, fishing and part-time, or seasonal jobs.

Subsistence hunting and fishing is not only an economic necessity; it also has strong cultural and social significance. Reliance on the land is a traditional way of life for the Inupiat people. The continuation of that relationship is a vital element in their identity and values.

The Inupiat's reliance on fish, game and other resources for both sustenance and traditional purposes provide significant incentives to protect their natural resources. It is important to keep in mind that the primary purpose for pursuing the land settlement was to preserve the land base and resources of their people; it was not to own large corporations.

This purpose is illustrated in NANA's corporate goals, which read:

*"NANA is the instrument through which our Inupiat people not only achieve economic objectives, but more importantly, protect our LAND. The Board of Directors, as elected leaders, must assume the responsibility for the Inupiat Way, as expressed in our language, traditions, history, values and culture: Our primary goal must be 'INUPIAT SURVIVAL!'"*

This overriding goal to protect the land is also reflected in NANA's "Manikput" or money goals:

*"The capital (money) of NANA is also a survival tool. It can be used to protect our land and our people. NANA's goal is*

*to use our capital to maintain a profitable corporation, for if we do not, we will ultimately lose our land."*

Today, NANA, a diverse corporation with roots in the Northwest Alaska Native Association, has successful investments in ventures ranging from tourism to petroleum technology and mining.

**c. Red Dog Deposit**

The Discovery

The Red Dog deposit is located in Alaska's Northwest Arctic Borough in the DeLong Mountains of the Western Brooks Range, 90 miles north of Kotzebue and 55 miles from the Chukchi Sea (see map). It consists of a number of orebodies which together total more than 12.5 million tons of reserves containing 17.1 percent zinc, 5 percent lead and 2.4 ounces/ton of silver.

The first report of mineralization in the Red Dog area was in 1963. When the late Bob Baker of Kotzebue, a bush pilot and prospector, noticed the rusty alteration in Red Dog Creek, while flying over the area. He brought it to the attention of Irving Tailleir of the U.S. Geological Survey, who was mapping the geology of the DeLong Mountain quadrangle which includes Red Dog Creek. Tailleir visited the site and immediately notices abundant barite, black chert, siliceous sinter, and iron oxide staining. He few rock samples showed significant zinc and lead mineralization.

The name "Red Dog Creek" was coined by Tailleir, after Bob Baker's prospecting company, the Red Dog Mining Company, named after Baker's pet dog, who frequently flew with him.

Tailleir's findings and the apparent similarities of this occurrence to the other large zinc/lead deposits around the world were documented in a USGS open file report published in 1970.

The Red Dog zinc/lead ore body contains one of North America's and perhaps the world's most significant mineral deposits. The U.S. Bureau of Mines expects the deposit to contain 29 percent of all proven U.S. zinc reserves. It is the largest zinc mine in the western world and, once it reaches full production (anticipated to be in 1999), will produce an estimated 3.2 million tons of ore annually. This is milled into 720,000 short tons of lead and zinc concentrates, which are transported year round to a seaport 52 miles from the mine. Concentrate shipments to smelters occur during the 100-day ice free shipping season. Portions of the concentrate are shipped to Canada, Europe and Asia.

Because of the grade of the deposit and the size of the ore body, the Red Dog Mine is expected to operate as an efficient ore producer for a half century, despite the remote location, high development and outshipment costs.

Additionally, process modifications in the concentrator have resulted in dramatic increases in zinc and lead recoveries since 1996.

#### Future Development

The Red Dog mine operations may also provide the staging base and incentive for other significant discoveries and developments in the area. The Aqqaluk deposit, adjacent to the Red Dog deposit was discovered in 1995. Exploration drilling during the summer of 1996 partially delineated another mineralized zone immediately north of the Aqqaluk deposit.

#### **d. NANA Selects mining rights**

Public opinion polls conducted in the early and mid-1970s indicated that most NANA shareholders did not favor development of the Red Dog deposit, or mining in the region at all. The people believed there would be negative impacts on the land which would affect their traditional way of life — particularly subsistence hunting and fishing.

But times were changing, and in 1978, NANA made its most economically significant land selection, when it claimed the 120 square mile block of land underlying the Red Dog zinc/lead ore body.

By the following year, results of another poll revealed that most NANA shareholders now felt the mine could be developed in a way which could protect traditional activities. A U.S. Bureau of Mines article, published in 1991, explains this change of heart. It stated:

*“To resolve the mining question, NANA officials conducted meetings in villages throughout the region, seeking consensus on whether to allow mineral development in the heart of a wilderness whose wildlife had sustained the native Inupiat for several millennia.*

*But the Inupiat, motivated by the demands of a modern cash economy, were purchasing snow machines, rifles, boats and clothing to improve their subsistence lifestyle. Paychecks were proving to be as important as hunting game. For them, the mineralization along barren Red Dog Creek had gained a new significance.*

It was only after this approval by shareholders that NANA proceeded to discuss mine development possibilities.

**e. NANA leases land to Cominco**

In 1982 NANA signed an agreement to lease the area of the Red Dog deposit to Cominco Alaska.

Cominco Alaska is a wholly-owned subsidiary of Cominco Ltd., an integrated natural resource company with principle activities in mineral exploration, mining, refining, and fertilizer production. Incorporated in 1906, Cominco Ltd. is one of the world's largest producers of zinc and lead, accounting for about 10

percent of production in the western world. The company also produces copper concentrate, silver and gold. Cominco has operations and interests worldwide.

Cominco financed, constructed and now manages the mine and mill and markets the concentrates produced at the mine. Under the agreement, Cominco also took responsibility for employing and training NANA shareholders to staff the operations.

The mine's transportation system (access road and seaport) was financed and constructed by the state of Alaska's Industrial Development Authority. The state's \$160 million investment in the facility is being repaid with interest from Cominco's user and export fees, over the life of the mine. The publication *Mining Engineering*, as far back as 1992, reported that:

*"State officials continually point to Red Dog as the example of cooperation between government, Alaskan natives and industry in development of natural resources in a responsible manner, building a strong economic base and providing jobs with high wages."*

This three way partnership is testimony to what can be accomplished when the State, private sector and local communities work together. All partners benefit from this relationship.

Since the partnership with Cominco Alaska began, Red Dog Mine was the primary focus of NANA's resource development efforts. However, NANA's interest in this enormous resource has focused on more than the corporate revenues and shareholders' dividends. Of equal importance to NANA is the understanding that for 50 years, the mine, mill and port will provide employment, training, and income for the aboriginal American people of the region. The mine provides the people of the region with unique employment flexibility, allowing them to participate in traditional and subsistence activities while retaining employment and training opportunities.

Since NANA members selected the land underlying the Red Dog Mine, consensus decision making has been a key factor in the development and ongoing management of the mine. All decisions concerning matters that could affect the lands and resources surrounding the mine, and the hiring, training and advancement of the operation's tribal members are subject to the 1982 agreement between NANA and Cominco Alaska. These matters are of continuing interest and great importance to Cominco's management, NANA's board of directors and management, as well as the mine's subsistence, employment and operations committees. In accordance with the 1982 operating agreement, these committees are jointly staffed by Cominco and NANA representatives, along with tribal members representing the villages near the mine.

## **Section 2. THE NANA/COMINCO AGREEMENT**

### **a. Revenues and Royalties**

The agreement signed in 1982 between NANA and Cominco Ltd. contained significant provisions and commitments to run during development and the life of the mine. Specifically, the agreement provides for a schedule of royalty payments and profit sharing, the establishment of joint management and advisory committees, the development of tribal member training and employment programs, and for the protection of the environment. Important aspects of the agreement are outlined below:

The agreement contained an annual schedule of revenues NANA would receive. Upon signing the agreement, NANA received a lump sum royalty payment of \$1.5 million. Every year thereafter, until the mine went into production, in 1989, NANA received an additional \$1.0 million. Once production began, the annual royalty payment came to 4.5 percent of the net smelter return. After Cominco recovers its capital investment, NANA will share in the net proceeds beginning at 25 percent and increasing by 5 percent every five years until NANA and Cominco share equally in the profits.

The Living Agreement is the evolution of the agreement between Cominco and NANA to a partnership. In 1996, the Cominco management team reviewed the original agreement and recommitted itself to fulfilling both the terms and spirit of the document which brought Red Dog into existence.

### **b. Management**

Upon the effective date and terms of the agreement, NANA and Cominco established a management committee for Red Dog, consisting of 12 members — six representing NANA and six representing Cominco. The chairperson is designated by Cominco from one of its members.

The management committee is charged to "generally oversee any and all exploration and mineral development and production activities occurring

pursuant to this agreement and shall be responsible for safeguarding the physical, cultural, economic and social needs and the subsistence needs of the Natives of the NANA region, consistent with the provisions of this Agreement."

The committee meets four times annually. At each meeting, operating, financial, employment and subsistence or environmental reports are received and reviewed. Items that require committee decisions are considered and appropriate actions taken.

When the initial agreement was signed, two-important advisory committees were formed. One is the Subsistence Advisory Committee, and the other is Employment Advisory Committee.

These advisory committees generally consider the effect of development and operations activities on the subsistence needs, and the physical, cultural, social and economic needs of the indigenous people of the NANA region. The committees identify problems with respect to the operation's activities, keep the management committee informed concerning needs and problems, and assist the management committee in resolving problems.

**c. Employment (Human Resources)**

Employment and Training

The initial agreement laid out very specific terms which became goals and human resource practices at Red Dog. These goals and practices provide a sustaining foundation upon which future generations of aboriginal groups can educate and train their people in partnership with resource companies while responsibly developing natural resources.

One of the goals is that, to the extent feasible, NANA shareholders shall comprise 100 percent of the employees at Red Dog by the year 2001, 12 years after the commencement of production in 1989. To accomplish this, the agreement provides for hiring preferences. Meaning, employment must be

offered first to available shareholders of the NANA region who are qualified for the job, or who have the ability and fitness to be trained on the job in a reasonable time.

The Employment Advisory Committee was set up with members drawn equally from senior management and human resources personnel of both NANA and Cominco.

The Employment Committee developed an employment plan which was subsequently approved by the Management Committee. The plan includes provisions for appointing a personnel officer, who is a NANA shareholder, and providing lists of qualified tribal members in the region, establishing a training and development plan and a plan for providing scholarships to aboriginal students who are continuing in the mining, geological, business and engineering fields. The plan is a "living document" that can be updated to meet the changing needs of the operation, while maintaining the values of both NANA and Cominco.

The Human Resources Philosophy, which evolved from the Employment Plan and has become part of the Red Dog Employees' Handbook, states:

"People are the key to our success and it is Cominco Alaska's responsibility to provide a safe environment that is conducive to personal growth and development -- an environment that stimulates a spirit of pride at all levels of the Red Dog organization.

In striving for this standard of excellence, we will manage our business by goals and objectives. Although some controls and directives will be needed (as they are in any business), these will be kept to a minimum."

And further:

“It is our belief that every employee has a contribution to make and this can only be maximized if we:

- Provide a safe work environment;
- Insist on achieving and maintaining a high standard of performance by establishing goals that are in tune with the needs of the Red Dog Operation and our employees;
- Provide service to our employees in the form of training programs, proper communication and opportunity for employee suggestions to be heard;
- Provide counsel to the individual on the job objectives, job standards, and job performance;
- Provide recognition for achievement and deal with substandard performance.

We pride ourselves in being able to deal directly with each employee and having each employee able to deal directly with us. We enthusiastically accept our responsibility to provide good working conditions, good wages, fair treatment, and the personal respect for the individual.”

Training was also outlined in the Employment Plan. The main areas of job training at Red Dog were set up as, and basically continue to be:

- Mill Operations
- Mill Maintenance
- Mine Operations

- Mine Maintenance
- Assay and Metallurgical Lab Work
- Clerical and Administrative Work
- Purchasing and Warehousing

Training, based on a progressive level system, is tied into wage rates. Mine and mill operator and maintenance trade training were initially assisted in their funding by the U.S. Department of Education. Pre-employment training, particularly for the trades, was set up with the Alaska Vocational/Technical Center in Seward, as well, to prepare aboriginal employees for entry into these training programs.

#### Employment Selection Process

To meet the operation's needs, a massive selection process took place. A cross section of skilled and unskilled employees was needed. The personnel officer, who is a NANA shareholder, played a key role in this selection process. A major focus of these responsibilities was the selection of regional shareholders for the training programs.

The Employment Committee oversaw this process and gave direction through the Employment Plan and regular meetings on the recruitment and selection process, remote site rotation policy. Employees work on a schedule of four weeks on, two weeks off, accommodation and living arrangements and, in general, most personnel policies and procedures. A scholarship process was also put in place to encourage high school students and others from the NANA region to pursue mining-related college degrees.

Today, the Employment Committee serves as a review function to ensure that regional hire goals are maintained and work is being done to increase the

number of shareholders; the quality, standards and progress of indigenous employees in the training programs are maintained. The committee serves as a forum for the discussion of and resolution of employment problems and issues.

**d. Environmental Protection**

Many the NANA regional shareholders depend directly on fish, wildlife and other subsistence resources for their livelihoods. Not only do they derive their basic economic livelihood from these resources, these activities form the core of their cultural heritage.

NANA was particularly concerned that any development did not adversely affect subsistence resources or activities. NANA worked extensively with local people, particularly the people from the two closest villages to the mine site, Noatak and Kivalina, and with Cominco to reduce possible conflicts with subsistence resources and users.

To further this purpose, the agreement required the establishment of a Subsistence Advisory Committee. This committee usually meets on a quarterly basis, or as required and is made up of elders from the villages of Kivalina and Noatak.

The prime purpose of the Subsistence Advisory Committee is to ensure that all exploration, development and mining activity at the mine site is consistent with sound stewardship principles and will not harm or threaten the subsistence needs and the physical, cultural, social and economic needs of the indigenous people of the NANA region. The committee reviews many reports from extensive environmental monitoring required by Cominco and by the government permits. The quality of water, air and earth is continually tested. Any possible effects on the two nearby villages are openly discussed. Activity on the 52 mile concentrate haul road from the mine site to the port site is monitored, and potential effects on subsistence hunting are reviewed by the committee.

During the caribou migration season, the Subsistence Advisory Committee can shut down traffic on the road, especially if the caribou are crossing in large numbers. In addition to stringent regulatory and policy requirements, the local people who live in the area have authority to close the road if they legitimately feel the impact is detrimental to their subsistence.

#### Environmental Policy

Through Cominco Ltd., the subsistence and management committees adopted an environmental policy for Red Dog and its employees. This policy forms a part of the employee's handbook.

The Red Dog Mine employees' handbook states in more detail the environmental accountability of people at Red Dog:

### 'Your Personal Responsibility'

As an employee of Cominco Alaska, you are expected to follow the procedures set out in the manuals for waste management, management practices, oil spills, chemical spills and all other manuals and policies concerning the environment. Operate under terms and conditions of all state and federal permits. Report unauthorized dumping or spills of any size to your supervisor in a timely manner.

If at any time you do not understand a procedure, a document, or have concerns, stop what you are doing and ask your supervisor.

Employees who do not live up to this responsibility will be subject to discipline up to and including termination.

### 'Cominco Alaska's Responsibility'

To provide you with adequate training and direction in order to make you fully aware of laws, regulations, policies, and your responsibility to adhere to them.



### **Section 3. THE IMPACTS OF THE RED DOG PROJECT: ACHIEVEMENTS & CHALLENGES**

The Development and Operating Agreement between NANA and Cominco, signed in 1982, provided the direction and framework for development of the Red Dog Mine. Thirteen years later, in 1995, the management team reviewed the document and recommitted itself to fulfilling into the 21st century the terms and the spirit of the agreement which brought Red Dog into existence. We see the Red Dog Mine as a catalyst for a unique opportunity to allow the indigenous people of the NANA region to live in the traditional world and the industrial world, while reaping the benefits of both. This is truly a dream come true for many shareholders. The committees and plans developed from the agreement are the living and dynamic elements that provide the flexibility to endure with new conditions and circumstances.

During its quarterly meetings, the management committee reviews results and compares them with the various employment and management plans. Issues are discussed, feedback is given to and from both organizations, and problems are resolved. There has never been an instance where a third party has been necessary to solve a conflict or problem. Shared goals are a return on Cominco's investment and a growing economy for Northwest Alaska.

#### **a. Employment and Training**

Cominco Alaska is looking to education, work schedules, on the job training and mentors to make these dreams a reality. In doing so Cominco will meet its commitment to make Red Dog operations the model base metal mine for the world to follow. It is their mission to simply be the best at what they do.

Employment and the percentage of NANA shareholders at the mine has grown over the last four years, particularly with new goals for the production rate increase and contracts related to that increase, exploration and operation.

Employers on site include Cominco Alaska, NANA Regional Corporation and eight other NANA joint ventures. These include:

- NANA Marriott, for housekeeping, accommodations and food services for all employees on site;
- NANA Dynatec, for exploration drilling to operations;
- NANA Corporate Services, for staff to production rate increase engineering;
- NANA Oilfield Services Inc. (NOSI) for lubricants for operation;
- NANA Atlas, for explosives for operation;
- NANA Lynden, for transportation of materials between Seattle and Anchorage;
- NANA Dowl, for engineering and materials testing for the production rate increase; and
- NANA Veco, for mechanical and electrical services for the production rate increase.

A contractor, Arrow Transportation is responsible for transporting the concentrate to the port site for storage and subsequent shipment. Arrow Transportation uses the same hiring practices as Cominco Alaska.

NANA and Cominco have concluded, after 16 years, that the future lies in better educating local shareholders so that they can fill positions at all levels at Red Dog. While NANA strives to raise educational standards in the region, Cominco has concentrated on providing training and scholarships to a small number of students interested in careers in the mining industry.

It may be that, as our governments pull back from their social commitments in an effort to control costs, that communities expect more from their industrial partners. Our view is that developing natural resources with an eye to long term viability, involves careful investment not only in infrastructure and equipment, but in employees and future employees.

A significant increase in employment has been achieved since the cumulative impact of the Red Dog Project was assessed nearly four years ago. The number of Cominco Alaska employees stood at 346 in October 1997, up 16.5 percent from December 1993. The number of NANA Marriott employees rose from 41 to 82 for the same period, up 200 percent. At present 55 percent of the workers employed by Cominco Alaska and contractors are NANA shareholders, compared with 51 percent in December 1993.

**b. Training Management Plan**

NANA and Cominco have approached education and training through a partnership or Piqatigiich. Simply stated, we try to encourage and assist young people to go for their dream.

Cominco developed a training management plan geared to ensuring extensive training for all employees in each area of operation. Employees are expected to use this training on the job and share acquired skills by teaching others whom they work with, as the company moves toward a diversified, multi-skilled work force. As programs are developed, including technical programs for the assay and metallurgical laboratories, they are incorporated into the training plan.

New additions to the Training Management Plan

In January 1997, Cominco made several significant changes in its on-site training programs and added three new off-site education programs to help meet their commitment of 100 percent shareholder hire by the year 2003.

Cominco also has added a Cooperative Education Job Share Program for employees, Engineering Scholarship Education Program and a School-To-Work partnership with the Northwest Arctic Borough School District, to provide a job shadow educational experience for high school students.

Job Shadow Educational Programs

The job shadow program helps connect secondary school studies to future jobs, making school relevant, and forming partnerships between business and school. The program aims to develop mentor relationships, concentrate exposure on specific job areas and spark an interest in post-secondary studies. Participating students must have a genuine interest in a mining related career and demonstrate background knowledge of a specific job field.

#### Environmental Education Module

An environmental education module introduced in the fall of 1997 gives high school students in one village experience in collecting and analyzing c'ata related to aquatic systems in villages. Environmental coordinators employed by Cominco help to educate students on what the analysis means and how to research the data.

#### School Outreach & Career Days

Each fall and spring, NANA and Cominco visit the 11 schools in the NANA region to tell students about the social atmosphere, educational requirements, and employment opportunities at Red Dog.

The company also sponsors a high school career day to inform students of career opportunities and educational requirements for specific positions. Two students from each regional high school are selected through an essay contest to visit the mine site for a tour of facilities and insight into the Red Dog lifestyle.

#### Semester on/ semester off Job Share-education Program

Cominco also has developed an educational program that offers employees a semester on/ semester off job share-education program schedule. Students who receive financial aid sign an agreement stating that once their schooling is completed they will resume full time employment for a period equal to the amount of time they spent at school. Employees maintain full time active status as regular employees while pursuing their studies.

#### Tuition Aid & Apprenticeship Programs

All regular employees are eligible to participate in the tuition aid program once they have completed six months of continuous service.

Cominco now offers three full scholarships to NANA shareholders accepted to accredited colleges to study mineral processing engineering, mining engineering, geological engineering or chemical engineering. In exchange, students must agree to work for Cominco Alaska for a period equal to the number of years they attend school.

Apprenticeship programs are offered in trades like heavy duty mechanic, electrical, millwright, power generation. Also offered are technical training in the assaying, geological, metallurgical and environmental fields, occupational training in mill operations, port operations and mobile equipment.

For these education and training programs, there are no set rules. The key is flexibility, with an eye to meeting the needs of the partners and communities involved, and the restraints of the budget. By understanding the commitment of all parties involved, dreams can come true.

### **c. Environment**

The Subsistence Committee plays an important role in the environmental life of the mine. One of its first tasks was to select the route for the 52 mile road from the mine site to the port, a pathway which generally avoids important caribou migration paths, fish spawning areas and water fowl nesting sites.

The Subsistence Committee directs an extensive caribou monitoring program for the area that provides information on environmental aspects and subsistence hunting. At times during caribou migration, the road is closed to reduce potential risks to the herd.

The early involvement of the Subsistence Committee was a credit to the successful resolution of water quality problems in Red Dog Creek. Because Red Dog Creek flowed over the rich zinc deposit, it contained naturally high

concentrations of heavy metals. An \$11 million diversion ditch system was developed to protect the creek from heavy metal contamination, which was increasing the level of metals found in the stream. Dirty water containing heavy metals is collected in a separate ditch and pumped to the tailings pond where it is treated before discharge.

Under an agreement reached between Cominco and the federal government in July 1997, Cominco also instituted a groundwater monitoring system, construction of a fish protection barrier in Red Dog Creek and an aquatic study. Cominco's efforts to improve the quality of the effluent discharged, has resulted in the water quality in Lower Red Dog Creek improving sufficiently to allow fish populations in regions of the creek that were previously uninhabitable.

Another environmental challenge is scheduling shipping periods which minimize the impact on traditional whale hunts carried out by the neighboring village of Kivalina. Discussions are held annually with the people of Kivalina, with schedules subsequently based on each others' needs and restrictions.

The company also makes donations to a summer camp for youth interested in learning the traditional ways of the Inupiat, supports local sporting events from basketball to sled dog racing, and makes a donation of fuel annually to Kivalina whaling crews.

**d. Economic**

The single largest economic impact to NANA shareholders, the region and the state is employment. As the production rate increases and zinc prices rise, shareholders, the region and the state benefit. By the year 2000 Cominco projects moving 1.1 million metric tons of lead and zinc concentrate, which will mean more direct and indirect employment benefits for the people of the Region.

Exploration drilling continues, with new mineralized zones identified in 1997 for an estimated possible resource of seven million tones of zinc. Drilling in 1997 was successful and is expected to double the resource.

The Red Dog Mining operations statewide payroll, exclusive of related construction, is about \$27 million. Slightly over half of the operations payroll goes to Northwest Alaskans who are NANA shareholders. The total Northwest Alaska payroll stemming from mine activities is about \$75 million, not including royalties paid to NANA or profits and employment from related ventures. NANA has historically paid about 80 percent of its profits back in dividends to shareholders.

Royalty payments are dependent on prices for concentrate, which rose dramatically from an average of 47 cents a pound in 1996 to an average of 68-75 cents per pound in mid-1997, then moving back into the 60 cent range in late August.

Under the 1971 Alaska Native Claims Settlement Act, natural resources profits to one regional Native corporation benefits the others. ANCSA contained the "7(i)" provision, which requires regional corporations to share 70 percent of all resource development profits with other regions. While this reduces the profit margin for undertaking development, it also creates an interest and stake by all the corporations in each other's potential development.

In lieu of taxes, Cominco provides several million dollars annually in payments to the Northwest Arctic Borough. This unusual agreement recognizes the support of the company for the borough government, while relieving the borough of enormous administrative costs of audits and taxing residents on their homes. The payment, based on the borough's review of Red Dog's assets and the overall viability of the operation, is presently \$4 million. The funds flow back to area residents in the form of improved education and economic development opportunities.

Many services for the mine operation are obtained locally. Red Dog's local air charter payment to the region in 1997 was approximately \$840,000. This put the charter service in a financial position to continue to offer scheduled air runs into villages within the region. For 1997, Arrow Transportation, with 65 percent shareholder hire, had contracts totaling \$7.2 million and NANA Marriott, with 77 percent shareholder hire, had contracts totaling \$5.2 million.

Several other NANA joint ventures were expected to generate revenues in 1997-1998: NANA Dynatec, for exploration drilling; NANA Corporate Services, for staffing production rate increase engineering; NANA Oilfield Services, for lubricants; NANA Atlas, for explosives; NANA Lynden, for freight transport; NANA Dowl, for engineering and materials testing for the production rate increase; NANA Veco for mechanical and electrical work for the production rate increase, and NANA Regional Corp., for increased gravel sales for port and mine related work. Other agreements are in process.

**e. Social Impact**

In general, Inupiat employees who live in the region carry on with their subsistence lifestyle, their jobs at Red Dog allowing subsistence to flourish. They use a portion of their salaries for everything from better snow machines, boats and nets to Global Positioning Systems, to better provide for safety and comfort while hunting and fishing.

The rotation schedule of 28 days at work and 14 days off, or the variation of 14 days at work, then 7 days off, plus annual leave and a fairly liberal leave policy, has enhanced rather than interfered with the subsistence lifestyle. It also has allowed Inupiat employees to experience new adventures, from vacation travel throughout the United States and abroad to alpine skiing in Alaska and beyond.

The decision to maintain a fly-in camp and accommodations complex has prevented a major influx of new settlement in the region. This has preserved the Inupiat homogeneous nature and traditional relationship with the region and the land.

Red Dog's policy of a drug and alcohol-free work place has done much to support the NANA objectives of dealing with this problem in the region. Random drug screens are conducted for safety and quality of remote work site life.

There has been some migration out of the region, mainly to Anchorage, because of lack of housing and quality of local schools. While the Red Dog mine itself is not causing the migration, steady employment at the mine does give workers the financial means to relocate. Some workers wish to spend their money on housing, education, recreation and other pursuits unavailable in the region. This does concern NANA and the corporation's leaders are focusing more attention on improving village infrastructure and quality of life, including education within the region.

### III. CONCLUSIONS

Cominco and NANA believe that when considering the feasibility of a project, companies should look at reserves, power, distance from the market, port facilities and people. Sometimes an incredibly rich deposit lies next door to a deep water port and sometimes a highly skilled work force, but many times these resources have to be developed.

The key to local support and long term success is a plan that, from its inception, allows the local population to gain maximum benefits, through an economically viable project. Both sides must understand the economic impact and agree to the worthiness of an operation.

Red Dog stands as a model for responsible development of mineral resources through the consensus, cooperation and mutual respect between a mining company and indigenous people. A business agreement and relationship was formed which has benefited both organizations and their members. The NANA maxim: "I walk in two worlds with one spirit" can be said of Red Dog. The Inupiat employees are getting the best technical training, plus economic benefits, while maintaining their traditional subsistence lifestyle with the best gear available, particularly for communications. Through committees and mechanisms set up in the agreement, environmental effects of mining have been minimized.

Cominco is fulfilling its objective to produce and market concentrate from the Red Dog deposit in an environmentally and socially responsible way.

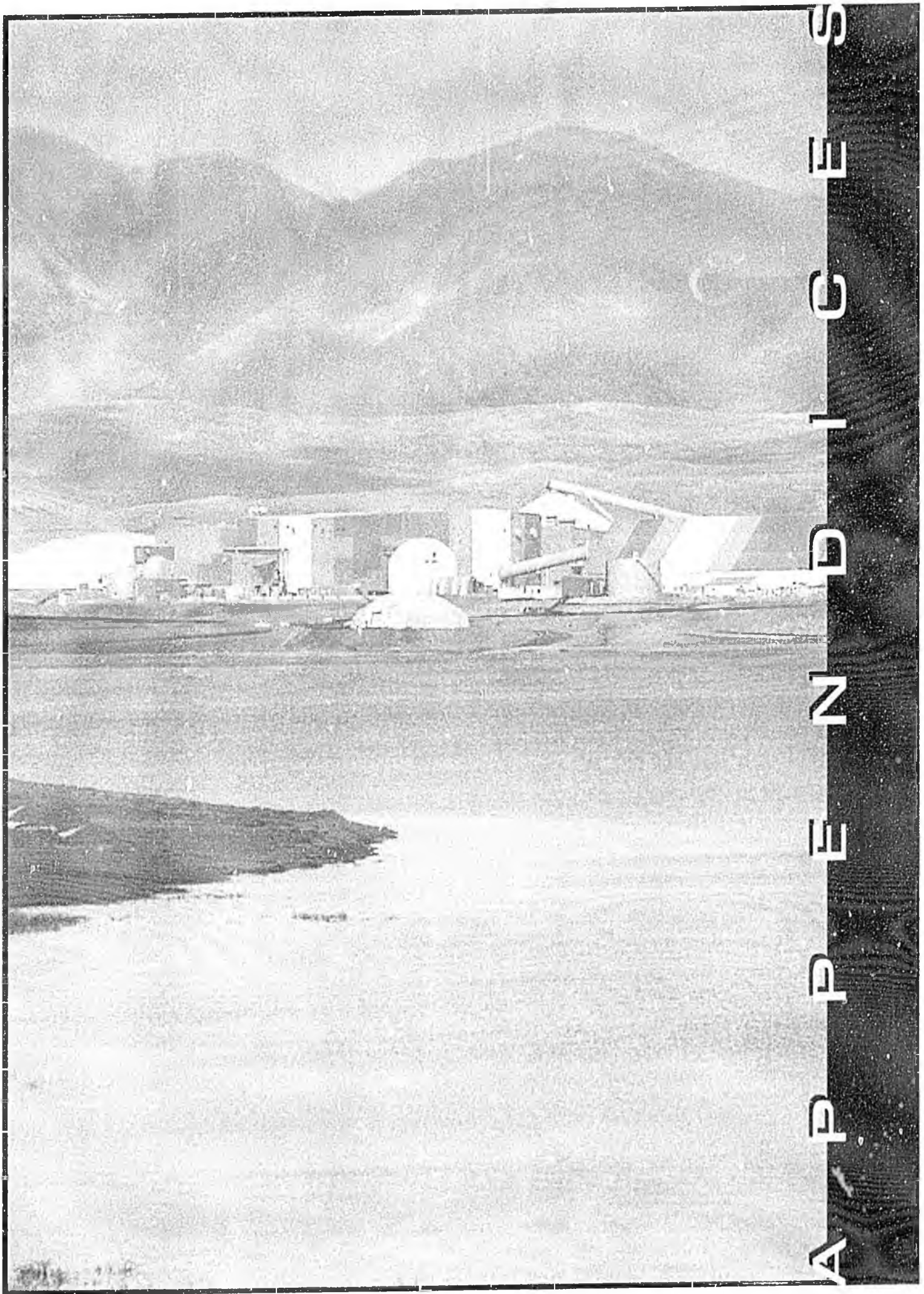
NANA is accomplishing its goal of protecting the land, as its shareholders pursue their traditional ways, aided by the modern technology afforded through jobs at the mine. The cash flow and work opportunities have created a solid base for growth in the future. Red Dog is building a skill base and proving that indigenous people from Northwest Alaska can do things they never thought they could do before.

The Inupiat Eskimos of Northwest Alaska have a proud tradition as whaling captains, dog mushers, commercial pilots, artists, carvers, member of the Alaska Legislature and active participants in the Alaska National Guard. Add to that list today mill operators, geologists, pipeline engineers, supervisors and trainers in the mining industry, and corporate executive posts.

More energy needs to be expended in developing a base of local contractors for smaller technical and craft jobs at the mine site. And beyond local hire, a very strong Alaska hire program would further help to develop the state's work force.

In the new millennium, a leadership tier will develop out of young NANA shareholders employed at Red Dog. Their ideas and skills will be a source of economic strength and leadership to NANA, the Region and the state. Red Dog has captured the right spirit, progress with a commitment of respect for the environment, while producing a versatile work force.

**Mining and aboriginal people are working together for the benefit of all.**



A P P E N D I C E S

**Note: All financial references are in US funds.**

**Appendix A  
RED DOG 2000**

**Appendix B  
RED DOG OPERATIONS LEADERSHIP  
GROUP MISSION STATEMENT**

**Appendix C  
INUPIAT ILITQUSIAT**

**Appendix D  
COMINCO ALASKA INCORPORATED  
ENVIRONMENTAL POLICY**

**Appendix A**  
**RED DOG 2000**

**BUSINESS GROWTH:**

- Maximize returns from Red Dog Zinc
- Produce two products which are preferred by the world refining market
- Develop the Aqqaluk and find an additional 10 years reserve by 2005

**TARGETED AT:**

- Further developing and bringing efficiency to this high quality asset
- Continually reducing costs
- Technical innovation
- Improving salability of product
- Minimizing the negative effects of the Arctic

**VALUES:**

- Developing, utilizing and recognizing employees skills and knowledge
- Respect for people
- Respect for the environment
- Respect and dedication to commitments made

**RESULTING IN:**

- Red Dog being in a class by itself as an industry leader
- Red Dog being the lowest cost zinc producer in the world
- Red Dog being the birthplace of mining and milling technological innovations
- Red Dog being an environmental model for the mining industry
- Red Dog and NANA fulfilling their commitments to the people and the land

Appendix B

**RED DOG OPERATIONS LEADERSHIP GROUP**  
**MISSION STATEMENT**

WE ARE COMMITTED TO COMINCO AND THE RED DOG VISION OF BEING  
THE WORLD CLASS BASE METAL OPERATION

WE ARE COMMITTED TO FAIRNESS, INTEGRITY AND VALUE BASED  
MANAGEMENT, PROVIDING A SYSTEM WHICH RESPECTS ALL  
INDIVIDUALS AND CULTURES, AND PROVIDES THE RESOURCES TO  
ALLOW ALL RED DOG EMPLOYEES TO FULFILL THEIR POTENTIAL

WE ARE COMMITTED TO PUTTING FIRST THINGS FIRST, WITH BOLDNESS  
AND COURAGE TO BE THE BEST AT PRIME ACTIVITIES, LEADING BY  
EXAMPLE AND REMOVING OBSTACLES THAT THREATEN RED DOG'S OR  
IT'S EMPLOYEES' SUCCESS

WE ARE COMMITTED TO TEAMWORK, ONE ANOTHERS'S SUCCESS AND  
EXCELLENCE IN:

OPERATIONS MANAGEMENT  
ENVIRONMENTAL MANAGEMENT  
EMPLOYEE RELATIONS  
FINANCIAL MANAGEMENT  
EMPLOYEE TRAINING AND ADVANCEMENT  
KEEPING COMMITMENTS

WE ARE COMMITTED TO BEING SIVULLIQSI

**Appendix C**

**INUPIAT**

**ILITQUSIAT**

Every Unupiaq is responsible to all other Inupiat for the survival of our cultural spirit, and the values and traditions through which it survives. Through our extended family, we retain, teach, and live our Inupiaq way.

WITH GUIDANCE AND SUPPORT FROM ELDERS, WE MUST TEACH OUR CHILDREN INUPIAQ VALUES:

KNOWLEDGE OF LANGUAGE

SHARING

RESPECT FOR OTHERS

COOPERATION

RESPECT FOR ELDERS

LOVE FOR CHILDREN

HARD WORK

KNOWLEDGE OF FAMILY TREE

AVOIDANCE OF CONFLICT

RESPECT FOR NATURE

SPIRITUALITY

HUMOR

FAMILY ROLES

HUNTER SUCCESS

DOMESTIC SKILLS

HUMILITY

RESPONSIBILITY TO TRIBE

Our understanding of our universe and our place in it is a belief in God and a respect for all his creations

## Appendix D

### COMINCO ALASKA INCORPORATED ENVIRONMENTAL POLICY

Cominco Alaska recognizes that maintaining a healthy environment goes hand-in-hand with a strong economy. We understand that in order to prosper over the long-term we must incorporate environmental considerations into all aspects of our business dealings. This policy is adopted to guide all Cominco Alaska employees in the daily performance of their jobs.

1. Cominco Alaska will explore, develop and process resources and market products in an environmentally sound manner.
2. Cominco Alaska will provide information to counsel customers, transporters and others in the safe and proper handling of our products.
3. Appropriate environmental care will be exercised in the planning , development, operating and closure phases of Cominco Alaska operations in all jurisdictions. Environmental protection measures appropriate to site specific conditions will be applied in the absence of regulations.
4. Cominco Alaska will promote the development of open and constructive partnerships with the public to address environmental concerns and advance the necessary protection measures.
5. Cominco Alaska will promote the advancement of scientific knowledge to be applied to the identification and effective resolution of real environmental problems.
6. Cominco Alaska will encourage pollution prevention , waste minimization and recycling efforts throughout it's operations.

7. Observance of environmental legislation will be priority in all company activities.
8. Cominco Alaska will conduct audits of operations to ensure adherence to this policy



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NANA

RED DOG MINE  
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## Comparison of CSHB 386(FIN) to SB 279 AIDEA Legislation

**Bonding Sunset.** CS HB 386 (FIN), section 3 extends the Authority's bond authorization under AS 44.88.095(g) five years to July 1, 2003. SB 279, section 3 would eliminate the sunset of the Authority's bond authorization.

**Confidentiality of Information.** The confidentiality provision in CSHB 386(FIN), section 8 identifies by statute a list of records, files, and information that may be kept confidential if confidentiality is requested by the person supplying the information or if requested by the project, bond, loan or guarantee applicant or borrower. All other information remains public record. By contrast, the confidentiality provision in SB 279, section 8 provides that the Authority may establish through regulation, standards and procedures by which information may be kept confidential, and lists specific types of information that must remain public records subject to disclosure.

**Legislative Project Authorization.** CSHB 386(FIN), section 23, pg. 11, line 20 - pg. 12, line 2, adds sections to provide legislative approval required under AS 44.88.095(g), authorizing the issuance of bonds to finance two projects under the Authority's Development Finance program:

(a) the expansion, improvement and modification of the Authority's existing DeLong Mountain Transportation System port facilities serving the Red Dog Mine, with bonds not to exceed \$80,000,000, and

(b) the expansion of the existing port facilities located at the City of Nome, with bonds not to exceed \$30,000,000.

**Stylistic and Technical Changes.** The following stylistic and technical changes were made by CS HB 386(FIN) as compared to the analogous provisions in SB 279. None of these changes effect the meaning of the provisions.

CSHB 386(FIN), section 6, pg. 5, lines 11-12 makes minor stylistic changes to the same section in SB 279.

CSHB 386(FIN), section 10, pg. 7, lines 24-25 makes stylistic changes to what will become AS 44.88.502, by merging into subsection (c) the definition of "political risk" found in subsection (d) of SB 279, section 10 and by changing the word "shall" on line 23 of SB 279 to "must."

CSHB 386(FIN), section 14, pg. 9, lines 8-10 makes stylistic changes to AS 44.88.535(a)(2)(B) by merging into that subsection the definition of "current asset" found in SB 279, section 19, pg. 10, line 31 - pg. 11, line 1.

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CSHB 386(FIN), section 15, pg. 9, lines 28-31 makes stylistic changes to AS 44.88.535(c)(2)(B) by merging into that subsection the definition "post-shipment loan guarantee" found in SB 279, section 19, pg. 11, lines 5-8.

CSHB 386(FIN), section 15, pg. 9, line 21 deletes the words "as follows" from the opening clause of AS 44.88.535(c). The language is unnecessary.

CSHB 386(FIN), section 15, pg. 10, lines 2-6 makes stylistic changes to AS 44.88.535(c)(2)(C) by merging into that subsection the definition of "pre-shipment loan guarantee" found in SB 279, section 19, pg.11, lines 8-10.

CSHB 386(FIN), section 19, pg. 11, lines 9-12 modifies section 19 of SB 279 by eliminating the definitions of "current asset," "post-shipment loan guarantee," and "pre-shipment loan guarantee" which were merged into other sections of the bill (see above), and by renumbering the definition of "export transaction."

CSHB 386(FIN) section 24, pg 12, line 3 renumbers SB 279, section 23 and gives a special effective date of June 30, 1998, to only section 21 of the bill (excludes section 3, which also has that effective date in section 23 of SB 279). No special effective date for section 3 is actually required.

CSHB 386(FIN), section 25, pg. 12, line 4 renumbers SB 279, section 24 and changes the reference to the renumbered section 24 in CSHB 386 (FIN).

CS HB 386(FIN)  
AIDEA LEGISLATION  
SECTIONAL ANALYSIS

Sections 1 and 2 - Technical Change Related to Integration of Export and Business Assistance Programs

Sections 1 and 2 eliminate references to AIDEA's existing Export Finance program in the general bonding provisions of AIDEA's statutes. These technical changes are needed as part of the integration of AIDEA's Export Assistance and Business Assistance programs.

**Background.** AIDEA's 10-year old Export Assistance Loan Guarantee program has never been utilized. While AIDEA has been able to finance export activities through its Loan Participation, Development Finance, and to a limited extent, its Business Assistance program, for a variety of reasons, the Export Assistance program does not meet the needs of the businesses it was intended to serve.

In 1997, AIDEA commissioned a report examining AIDEA's role in Alaska's export activities. The report noted that while AIDEA's other programs support Alaska exporting, the Export Finance program is ineffective for the type of exporting transactions prevalent in Alaska today. The existing program is modeled on those from other states with strong manufacturing bases. The program does not deal effectively with Alaska's dominant export activities, including air cargo and the transshipment of goods and services produced elsewhere and shipped to Asia and Russia through Anchorage and Fairbanks.

While AIDEA's Business Assistance Loan Guarantee program has been able to support export transactions, from time to time, it was not designed for these transactions and is not useful for a wide variety of exporting activities.

In order to address the needs of the Alaska business and financial communities this bill integrates the existing Export Assistance program with the Business Assistance program and modifies the programs to create a new Business and Export Assistance program that can effectively support Alaskan businesses that export goods and services. Bill sections 1, 2, 4, 5, 7, and 9-22 accomplishes this integration and modification of AIDEA's Export and Business Assistance programs.

Section 3 – AIDEA Bonding Authority

Section 3 of the bill extends AIDEA's general bonding authority which sunsets on July 1, 1998. The bill extends the current sunset until July 1, 2003. Bonds for development finance projects in excess of \$10,000,000 will continue to require legislative authorization.

**Background.** Effective July 1, 1998, AIDEA's ability to issue bonds other than refunding bonds will sunset. The sunset would prevent AIDEA from issuing any new bonds (other than refunding bonds) without legislative approval and severely curtail AIDEA's ability to fulfill its statutory mission.

The sunset would prevent AIDEA from issuing bonds to assist key development projects and also conduit revenue financing transactions that do not involve the credit of AIDEA or the state. In 1997 alone, AIDEA issued tax-exempt conduit revenue bonds to help finance the Fort Knox gold mine (\$71 million) and the Goat Lake Hydroelectric project (\$23 million). These bonds helped lower the cost of financing for these projects without any financial risk to AIDEA or the state. The bill would extend the current sunset until July 1, 2003.

Sections 4 and 5 - Technical Change Related to Integration of Export and Business Assistance Programs

Sections 4 and 5 eliminate references to AIDEA's existing Export Finance program in general bonding provisions of AIDEA's statutes. These technical changes are needed as part of the integration of AIDEA's Export Assistance and Business Assistance programs.

Section 6 – Technical Changes to AIDEA's Loan Participation Program

Section 6 makes technical changes clarifying certain requirements of AIDEA's Loan Participation program. The bill clarifies that the Authority may not purchase loan participations if the loan exceeds 75% of the appraised value of the collateral securing the loan (AS 44.88.155(d)(3)). In addition, the bill provides that loans, under the program, may not exceed the amount necessary for new construction, expansion, acquisition and the amount necessary to refinance existing debt (AS 44.88.155(d)(3)). The bill also clarifies that the term of the Authority's participation may not exceed 75% of the useful life of the collateral provided as security for the loan (AS 44.88.155(d)(4)). Finally, the bill makes a technical change to AS 44.88.155(d)(1) to clarify that the collateral pledged by the borrower is to secure timely repayment of the obligations of the borrower under the loan documents.

**Background** Questions have arisen as to how AIDEA's loan participation requirements apply when the proceeds of the loan are to be used for multiple purposes or if the loan is to be secured by several pieces of collateral. The bill clarifies AIDEA's statutes to specify that loans may not exceed 75% of the appraised value of all the collateral pledged and that the term may not exceed 75% of the useful life of the collateral pledged. Finally the bill clarifies that loans may not exceed the amount necessary for acquisition, construction, and debt refinancing for the project.

**Sections 7 - Technical Change Related to Integration of Export and Business Assistance Programs**

Section 7 eliminates a reference to AIDEA's existing Export Finance program in general provisions of AIDEA's statutes. This technical change is needed as part of the integration of AIDEA's Export Assistance and Business Assistance programs.

**Section 8 - Confidentiality of Information**

Section 8 adds a new confidentiality of information section in AIDEA's statutes that replaces the existing confidentiality provision that applies to AIDEA's Export Finance program. The new provision would apply to all of AIDEA's financial programs. The provision sets forth those categories of information that are to be kept confidential. Among the categories of confidential information specified in the bill are income tax returns, financial business plans, marketing strategy information, and information required by federal or state law to be kept confidential. Information compiled by the Authority from confidential information is also confidential. Information may only be kept confidential, however, if the person supplying the information or the project, bond, loan or guarantee applicant or borrower requests confidentiality. In addition, to be covered under this section the information could not have been a matter of public record before the information was submitted to AIDEA. Information that is determined to be confidential under the statutory requirements is not a public record.

**Background** Participants in AIDEA's programs are often required to submit to the Authority proprietary and financial information regarding their projects, as well as their personal financial information. Applicants are often surprised to learn that this information may be subject to disclosure under the public records act. This is particularly true of banks that submit information on borrowers under the Authority's Loan Participation and Business Assistance programs. Banks are generally prohibited under state law from releasing any information regarding their borrowers.

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AIDEA often receives public records requests seeking proprietary and financial information regarding applicants and borrowers. Under existing law, AIDEA is required to release the information unless the Authority determines that the privacy interest of the applicant or borrower outweighs the public interest in releasing the information. These are difficult standards to administer and provide little guidance for banks, borrowers, applicants, and those seeking release of the information. Under the public records act, the Authority is not permitted to inquire into the motivations of those seeking the information. Therefore, it is possible for a borrower's competitors to request proprietary information for the sole purpose of obtaining a competitive advantage.

While it is important to protect the proprietary and financial information of businesses that submit information to the Authority, it is also important that the public have full access to information necessary to understand AIDEA's activities and the transactions it undertakes. The bill modifies AIDEA's existing confidentiality statute and furthers both of these important interests.

The bill establishes categories of information that are to be kept confidential. For the confidentiality provision to be invoked, the person supplying the information or the applicant or borrower must request that the information be held in confidence. Information not within the statutory categories will continue to be public records. The statutory provision will allow those who participate in AIDEA's programs, as well as those who may seek information from the Authority, to clearly understand what information is and is not public.

*Section 9 – Change Related to Integration of Export and Business Assistance Programs*

Section 9 repeals and reenacts AS 44 88 500 to effect the integration of the Export Assistance program into the newly modified Business and Export Assistance Program. The section makes clear that, under the program, the Authority may guarantee both new and refinancing business and export assistance loans. The numbering of the subsections has also been changed.

*Section 10 – Changes Related to Integration of Export and Business Assistance Programs*

Section 10 creates a new section in AIDEA's statutes modifying AIDEA's existing Business Assistance program to create a new Business and Export Assistance program that can effectively support Alaskan businesses that export goods and services.

AS 44.88.502(a) and (b) incorporate and modify language from existing AS 44.88.370 and 44.88.360(a), respectively, which are repealed under section 20 of the bill. AS 44.88.502(a) provides that a guarantee issued under the program does not create a debt or liability of the state. AS 44.88.502(b) provides that guarantees under the program held by a financial institution are presumed valid and may not be terminated except as provided in the guarantee itself.

AS 44.88.502(c) incorporates and modifies provisions from the Authority's existing Export Assistance program into the newly integrated Business and Export Assistance program. AS 44.88.502(c) provides that guarantees issued under the program to support export transactions may guarantee against commercial and political losses. This provision is in existing AS 44.88.360(a) which is repealed under section 20 of the bill. AS 44.88.502(c) also allows the Authority to require insurance to cover some or all of the loss guaranteed under the program. "Political loss" is defined to mean losses that would be insurable under an export credit insurance policy issued by the Export-Import Bank or a risk that is actually insured under a policy the buyer obtains.

**Background** AS 44.88.502(c) makes changes to AIDEA's existing Business Assistance program to create an effective Business and Export Assistance program. Under the Authority's existing Export Assistance program (AS 44.88.360) export credit insurance was always required. This requirement adds additional cost, time, and complexity to export transactions. Under the bill (AS 44.88.502(c)) AIDEA may exercise its discretion to determine if such insurance should be required for a particular export transaction. This discretion allows AIDEA to realistically assess the risks of a particular transaction to determine if export credit insurance is necessary.

AIDEA's existing Export Assistance program provided that the only political losses that could be guaranteed were those losses actually insured under an export credit insurance policy issued by the Export-Import Bank or other similar institution. This requirement severely detracted from the attractiveness of the program. AS 44.88.502(c) utilizes the Export-Import Bank's export credit insurance policy to describe the types of losses that may be guaranteed under the Authority's program but does not require that such insurance be obtained for guarantees to be effective. Instead, the decision to require insurance and the type and amount is left to the discretion of the Authority.

#### **Section 11 and 12 – Technical Changes Related to Integration of Export and Business Assistance Programs**

These sections make minor technical changes related to the integration of the Export Assistance program and Business Assistance program. These sections change the numbering of the statutory cross reference to AS 44.88.500 to reflect

the renumbering of the subsections in that provision as a result of section 9 of the bill.

*Sections 13 through 15 – Modifications to Effect Integration of Export and Business Assistance Programs*

These sections modify AIDEA's existing Business Assistance program to create a new Business and Export Assistance program that can effectively support Alaskan businesses that export goods and services.

Section 13 eliminates a condition on debt refinancing guarantees that limits the refinancing to interim construction related debt.

Section 14 modifies the existing program to recognize that payment of guaranteed debt may come from the sale of the assets that are the collateral for the loan.

Section 15 modifies the existing program to allow the Authority to guarantee up to 180 days interest on post-shipment guarantees and up to 270 days on pre-shipment loan guarantees supporting export transactions.

Background. The changes made in these sections are intended to make the new Business and Export Assistance program effective for Alaska export transactions. The changes in sections 14 and 15 reflect the fact that many export transactions require payment upon the sale of the exported goods that are the security for the transaction. Typical export finance transactions do not require multiple payments but rather one payment (paying off the entire loan) upon the sale of the exported goods. Section 14 allows the Authority to recognize the sale of the goods as the source of payment in these transactions. Section 15 allows the Authority the limited ability to guarantee interest on these transactions pending receipt of the proceeds of the sale.

*Sections 16 through 18 – Technical Changes to Business and Export Assistance Program*

These sections make minor technical clarifications to AIDEA's statutes.

Section 16 clarifies that the total amount of outstanding AIDEA guaranteed indebtedness for an individual borrower may not exceed \$1 million.

Section 17 clarifies that amounts received toward a defaulted AIDEA guaranteed loan are to be allocated between the bank and AIDEA in accord with the percentage AIDEA guaranteed, until such time as all principal and accrued interest has been paid.

Section 18 makes a technical change allowing AIDEA to establish, by regulation, reasonable fees for the program. Under current statute AIDEA is to charge one percent of the amount guaranteed plus any other reasonable fee established in regulation. The bill will allow AIDEA to establish all fees for the program by regulation.

#### Section 19 – New Definitions for Business and Export Assistance Program

Section 19 creates a new definition for “export transaction” This term is used elsewhere in the statutory provisions for the Business and Export Assistance program.

#### Section 20 – Repealers

This section repeals AS 44.88.085(h), AS 44.88.300, 44.88.310, 44.88.320, 44.88.330, 44.88.350, 44.88.360, 44.88.370, and 44.88.390 to effect the repeal of the existing Export Assistance program that is being integrated with the Business and Export Assistance program in other provisions of the bill. This section also repeals AS 44.88.340, the Authority’s existing confidentiality provision, that is being modified and relocated under section 8 of the bill.

#### Section 21 – Repeal of Business Assistance Program Sunset

This section repeals the existing July 1, 1998, sunset to the Authority’s existing Business Assistance program.

**Background.** Under current law, the Authority’s Business Assistance program will sunset on July 1, 1998. The sunset must be repealed to assure the continued operation of the program and to effect the integration of the Export Assistance program into an effective Business and Export Assistance program.

#### Section 22 – Transition Provision

Section 22 is a transition provision related to the elimination of the existing Export Assistance program and the integration of the program into the Business and Export Assistance program. The provision provides that any assets in the export insurance account are to be transferred into the Authority’s revolving fund.

#### Section 23 – Specific Project Authorization to Issue Bonds

As noted above, section 3 of the bill requires legislation for AIDEA to issue bonds in an amount greater than \$10 million if the proceeds of the bonds are to be used for an AIDEA Development Finance project. The bill provides legislative authorization for two projects. The first project is for proposed expansion, improvements, and modifications to AIDEA’s Delong Mountain Transportation

System (DMTS) serving the Red Dog Mine. The second project is a proposed expansion and modification to the existing port facilities in the City of Nome.

Section 23(a) - Red Dog Direct Load Out Facilities- The bill authorizes AIDEA to issue up to \$80 million in bonds to finance the expansion, improvement and modification of the Authority's existing DMTS port facilities. The proposed project would extend the existing dock by approximately 2,500 feet and a 50-foot shipping channel would be excavated, allowing the direct loading of concentrates into ocean going vessels. In addition, part of the existing concentrate conveyor system would be improved and replaced.

Background The DeLong Mountain Transportation System (DMTS), serving Cominco's Red Dog Mine, was AIDEA's first development finance project and has been a resounding success. The Red Dog Mine operations provide more than 450 jobs in an area of the state with high unemployment. In addition, the project provides \$2.75 million annually in taxes to the Northwest Arctic Borough. Expansion of the port facilities to increase capacity and throughput was authorized by the Legislature in 1996 and is now nearing completion.

Among the operational benefits of the proposed project are: 1) allows the shipping season to be extended to December, 2) eliminates handling of concentrates twice by eliminating barge relay, 3) lowers vessel lading time in half, and 4) reduces down time caused by poor weather conditions. In economic terms, the project will extend most seasonal jobs at the port and will lower the cost of shipping concentrates. Additionally, the regional port at Red Dog would no longer be used at 100% capacity, opening up shipping opportunities for other potential users.

AIDEA has not yet performed its due diligence with respect to the proposed project. The timing of the project, however, requires that legislative authorization for the project be obtained during the current legislative session. Until AIDEA's due diligence is complete, it is unclear if AIDEA will participate in the project and if so, what form AIDEA's participation might take. AIDEA has particular concerns regarding investing substantial additional assets in the DMTS in light of AIDEA's current investment in the project of \$229 million. With an additional investment of \$80 million, a major portion of AIDEA's total asset base of \$1.3 billion would be invested in one project. It is possible that the project could be structured as a revenue bond issuance that would not affect or rely on AIDEA's assets or credit. Before AIDEA could participate in the project under AIDEA's Development Finance program, all of the statutory requirements for such projects would need to be satisfied and the Authority's board would need to be required to approve such participation.

**Section 23(b) – City of Nome Port Authorization-** The bill authorizes AIDEA to issue up to \$30 million in bonds for the improvement and expansion of the existing port facilities in the City of Nome. The proposed project will create a new channel to the inner port in Nome. It includes a new 28-foot breakwater parallel to the existing causeway. The new entrance channel will improve navigational safety and reliability and the breakwater will create a protected turning basin. Part of the existing channel will be filled to provide a new access road to the sand spit which will be protected by a rip rap seawall connecting to the existing seawall in front of town. Additional port improvements are also anticipated.

**Background.** Nome's port has the second largest volume of incoming cargo in the state. At present, limited access, safety and situation problems significantly burden the port. Port improvements will increase economic activity and employment in fisheries and fuel and cargo that is distributed throughout the region on smaller vessels. It is anticipated that the U.S. Corp of Engineers will reimburse a significant portion of the costs following construction.

AIDEA has not yet performed its due diligence with respect to the proposed project. The timing of the project, however, requires that legislative authorization for the project be obtained during the current legislative session. Until AIDEA's due diligence is complete, it is unclear if AIDEA will participate in the project and if so, what form AIDEA's participation might take. It is possible that the project could be structured as a conduit bond issuance that would not affect or rely on AIDEA's assets or credit. Before AIDEA could participate in the project under AIDEA's Development Finance program, all of the statutory requirements for such projects would need to be satisfied and the Authority's board would need be required to approve such participation.

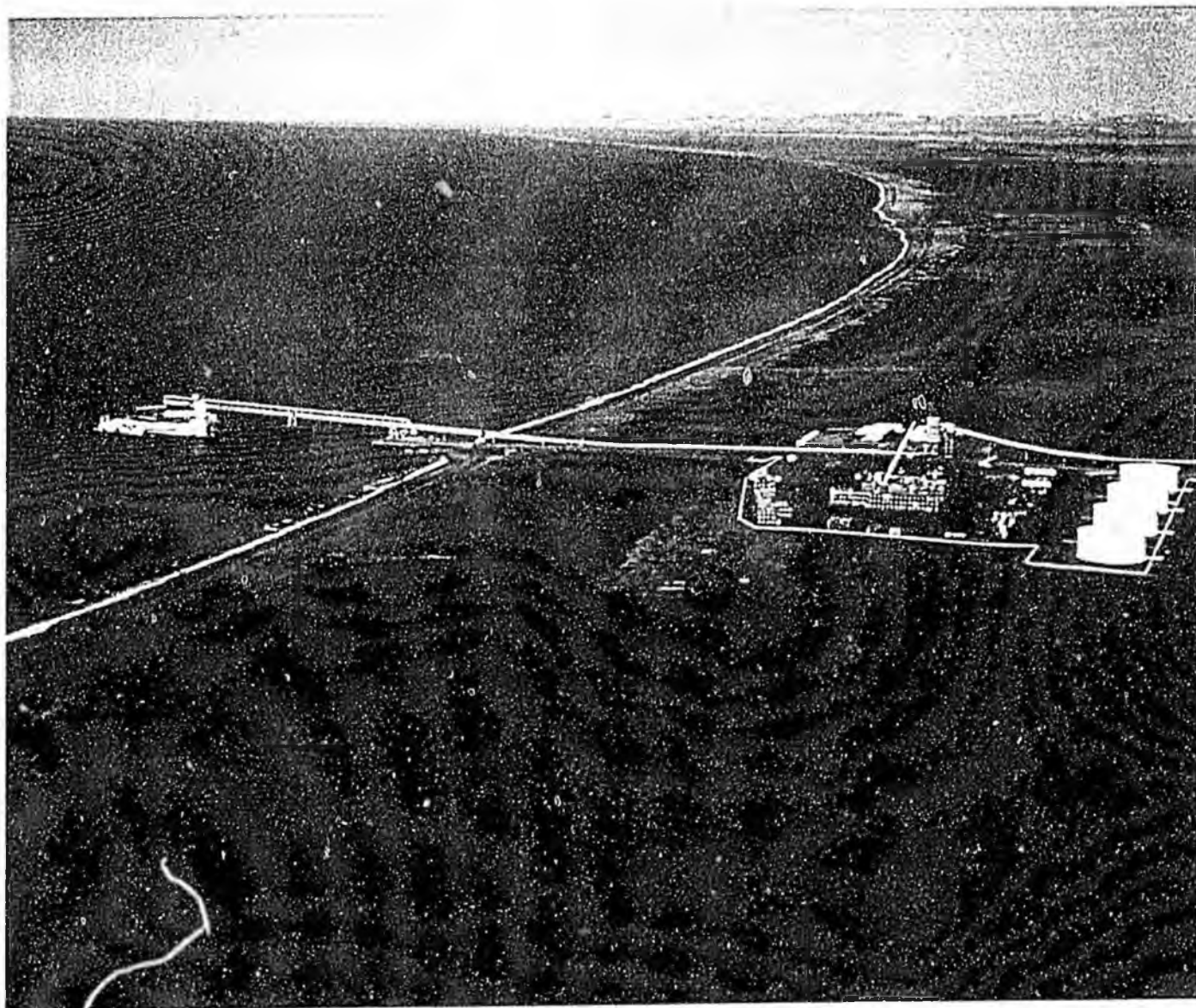
#### **Section 24 – Effective Date**

This section provides that section 21 (repeal of the Business Assistance program sunset) becomes effective June 30, 1998. The special effective dates are required to ensure that the sunset does not take effect creating confusion and possibly requiring the re-enactment of certain provisions.

#### **Section 25 – Effective Date**

This provision provides that (except for section 21) the bill becomes effective July 1, 1998. This allows the bills changes to become effective at the beginning of the fiscal year allowing a smooth transition into the new Business and Export Assistance program and ensuring continuity in AIDEA's bonding authority.

# Red Dog Port

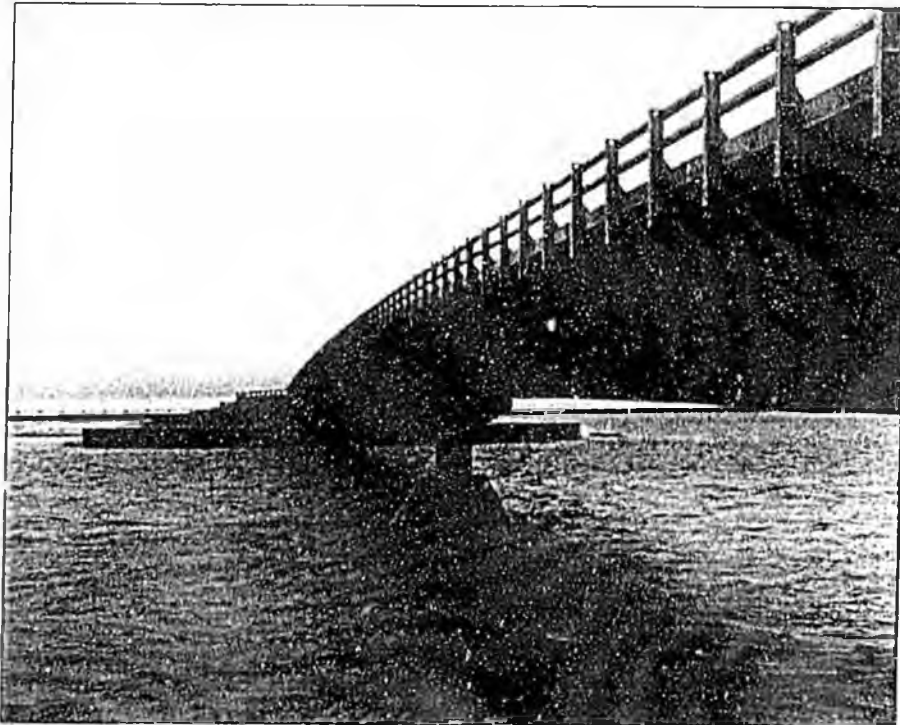


Direct Loading Facility





## Example of Trestle Structure in Arctic Waters

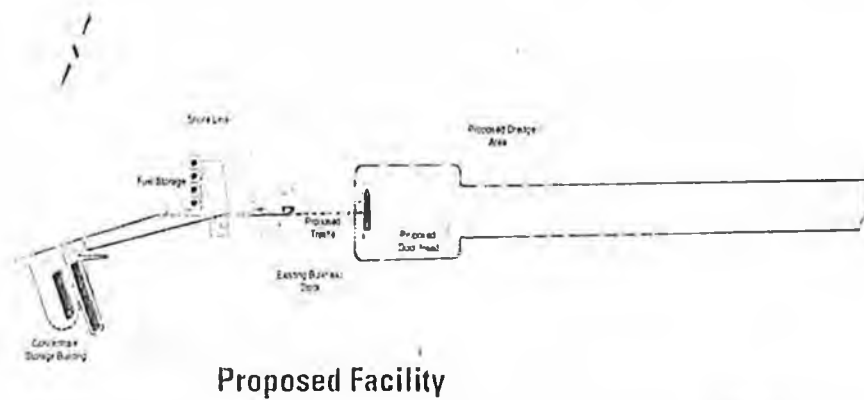


### Endicott - North Slope

Example of trestle structure in  
multi-direction flow (ocean)



# RED DOG PORT DIRECT LOADING FACILITY



**Proposed Facility**



**Existing Facility**

Cominco Alaska operates the Red Dog Mine in Northwest Alaska, the world's largest zinc mine. The mine is located on land owned by the NANA Regional Corporation. To transport the concentrate from the mine to world markets, a dock facility was built, which currently is served by barges, that transport the zinc concentrate to waiting ships anchored several miles offshore.

Cominco Alaska is reviewing the potential for extending the dock, excavating a shipping canal to the new dock facility, thus allowing the ships to directly load the concentrate. This proposal would eliminate barge traffic, and would also eliminate one transfer process for the concentrate.

With its partners and neighbors, Cominco Alaska is reviewing the advantages and disadvantages of the direct loading facility proposal.

## **PROPOSAL FACTS/DIRECT LOADING FACILITY**

- Would require excavation of a 50-foot shipping channel
- The dock would be extended approximately 2,500 feet
- The new dock would provide close shore berthing and docking facilities for full-sized cargo ships

## **POTENTIAL OPERATIONAL BENEFITS**

- Allows shipping season to be extended to December
- Eliminates handling of concentrates twice by eliminating barge relay
- Lowers vessel loading time in half
- Reduces down time during storms; ships can continue to load in most weather conditions
- Reduces onshore storage capacity requirements
- Provides an opportunity for supplies and oil to be transported by ship rather than barge

## **ENVIRONMENTAL ADVANTAGES**

- Lower potential for spills due to the reduction in handling of concentrates
- Lower potential for spills due to direct loading concentrate into a more stable ship at the dock
- Less disturbance and traffic in the area due to the reduction in shipping traffic ( - 200 barge trips)
- Less disturbance due to the presence of slower moving ships as opposed to steady barge traffic

## **EMPLOYMENT IMPACTS**

- Extends most seasonal jobs at the port
- Will result in the loss of some non-local summer jobs (tug and barge-related)

## **FINANCIAL IMPACTS**

- Lowers cost of shipping concentrates
- Allows better use of the concentrate market, which maximizes profits
- Will require high capital cost for construction

## **POTENTIAL ADDITIONAL ADVANTAGES**

- The regional port at Red Dog would no longer be used at 100% capacity, opening up that port for other potential users

**Studies are being proposed to accompany the Direct Loading Facility proposal and planning process. These studies include:**

- Biological and side-scan sonar surveys to determine if dredging will result in impact on or loss of any unique benthic habitat
- Current and tide data collection
- Sediment sampling
- Bathymetry surveys on the Nome dredge sites to study dynamics of sediment transport and how it relates to the Red Dog Port

As this project develops, Cominco Alaska wants to keep all residents informed and to hear your input. For more information on the project or for updates, please contact:

**John Key, Mine Manager**  
Cominco Alaska 426-9121

**Charlotte MacCay**  
Cominco Alaska 272-2117