

AJ MINE

&

ALASKA

MINERALS

2/22/95

HOUSE RESOURCES COMMITTEE
Roll Call and Members' Bill Votes

* (indicates first public hearing)

Room 124, Capitol Bldg.

Mon., Wed, Fri. ~~☐~~

Date: 2/22/95

Tape# 95-21 Joint _____

Time: 8:04 am/pm Time Adjourned: _____ am/pm

ROLL CALL:	PRES	ABS	TIME	AR		
Rep. Joe Green	✓				Y	
Rep. Bill Williams			8:08		Y	
Rep. Scott Ogan	✓				Y	
Rep. Alan Austerman	✓				Y	
Rep. Ramona Barnes					Y	
Rep. John Davies	✓		9:06(?)		N	
Rep. Pete Kott	✓				Y	
Rep. Eileen MacLean			8:12		N	
Rep. Irene Nicholia			8:15		N	

Other Legislators Present Elton

AGENDA:

Bill No.	Short Title	Action Taken
<u>Presentations</u>	<u>AS Mine by Echo Bay</u>	
	<u>AK Minerals Commission</u>	
<u>SR 6</u>	<u>Transfer Federal Land to</u>	
	<u>Post-1802 States</u>	

OTHER

LEGISLATIVE REFERENCE LIBRARY

LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3808
FAX (907) 465-2029
Mail Stop 3101

130 Seward Street, Suite 400
Juneau, Alaska 99801-2105

Copies of minutes listed below were originally included in this file. The minutes are available on the legislative computer database. In order to save space copies of minutes have not been left in the files.

Mary Pagenkopf

House Resources
2-22-95 8:04 am
Tape #95-21, Side A, #000

HOUSE RESOURCES COMMITTEE



Alaska State Legislature
House of Representatives

DATE: 2/22/95

PLACE: ROOM 124

SUBJECT OF MEETING:
Presentations - Admin by Echo Bay (Invit. 116)
AK Minerals Commission
SJR 6 - Transfer Federal Land to Post-1902 States

NAME	REPRESENTING	BUSINESS/PERSONAL MAILING ADDRESS	ZIP	(H) PHONE	(W) PHONE	DO YOU WANT TO TESTIFY?		WHAT SUBJECT/ WHICH BILL?
✓ David Stone	Echo Bay	3100 Channel Dr. Jensen Ak. 99	99801	789- 5828	4163- 5704	<input checked="" type="radio"/>	N	
Neil MacKinnon	MINERALS COMMISSION	1114 Glacier Ave Jensen	99801	586 3494	586 1254	<input checked="" type="radio"/>	N	
Harold J Noyes	MINERALS COM.	Dayton L & D. 201 First Ave. Fairbanks	99701	452 4755	456 3422	<input checked="" type="radio"/>	N	
Don Stevens	Minerals Comm	104.8 W. Int'l Airport Rd Anchorage Ak	99518	561 8890	561 1991	<input checked="" type="radio"/>	N	
✓ Earl Beistline	Minerals Com	P.O. Box 90148 EBS, AK	99708	479- 2863	479-6240	<input checked="" type="radio"/>	N	
						<input type="radio"/>	N	
						<input type="radio"/>	N	
						<input type="radio"/>	N	
						<input type="radio"/>	N	
						<input type="radio"/>	N	
						<input type="radio"/>	N	

FROM INFANCY TO MATURITY
Echo Bay Turns 30

by David G. Stone, Manager, Public Affairs, Echo Bay Alaska
Author of *Hard Rock Gold: the Story of the Great Mines that were the Heartbeat of Juneau*

ECHO BAY MINES was born 30 years ago, on the eastern shore of Great Bear Lake at Port Radium in the Northwest Territories of Canada, just 26 miles south of the Arctic Circle.

The company was formed on April 10, 1964, to mine silver that had been discovered earlier by Cominco in one of Great Bear Lake's bays – named, yes, Echo Bay.

The new mine was developed adjacent to the shut-down Eldorado Mine of Eldorado Mining and Refining Company, which first produced radium in the late 1930s for the Curies' experiments in France and then produced uranium during World War II for the Manhattan Project.

Uranium reserves were depleted and the mine was closed in 1960. Echo Bay acquired the mothballed camp and mill facilities from Eldorado.

From 1964 to 1982, Echo Bay was a steady producer of silver from the small 105-ton/day mine. We recovered a total of 35.5 million ounces of silver (and 5,000 tons of copper) during this period.



1970's aerial view of Port Radium.



Supply barge arriving at Port Radium.



John Zigarlick, Sr. aboard the "Silver John" at Port Radium. John was mine manager from 1964 until his retirement in 1973.

In the early years, the ore was incredibly rich. On one day in 1966, production of 53 tons yielded 43,000 ounces of silver.

Every summer, supplies were barged up the McKenzie River to Great Bear River, then across Great Bear Lake to Echo Bay.

Then beginning in the early 1970s, a 420-mile ice road was built every winter over frozen lakes and portages between the lakes so that truck convoys could supply the mine from Yellowknife. People

also traveled to and from the mine in a DC-3 and later a Convair 640, which some will remember from early Lupin days.

Gold turned out to be the key to Echo Bay's future. With rapidly depleting silver reserves, the company optioned a gold exploration property in 1979 on Contwoyto Lake, 190 miles east of Port Radium. The property was owned by Inco (95%) and Dome Mines (5%).

After completing a fast-track underground exploration program and a feasibility study, the company made the production decision in August 1980.

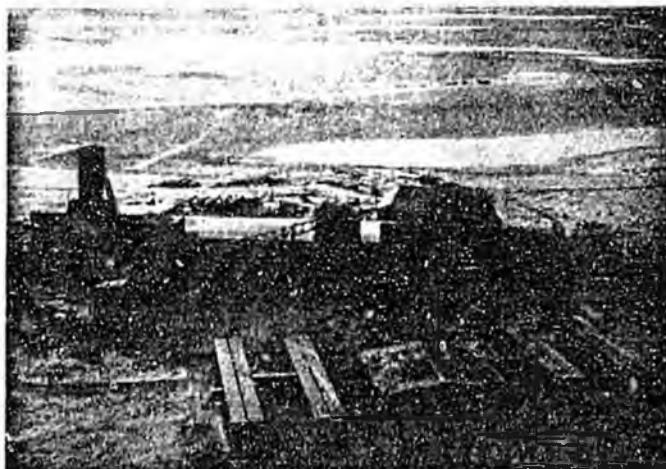
The development of the Lupin Mine represented a logistical and climatic challenge. Located 250 miles northeast of the nearest community, Yellowknife, Lupin was inaccessible by any kind of conventional road. Everything that was needed to develop the mine had to be flown in on the company's Hercules C-130 cargo aircraft (which had been bought for the project) and then assembled under arctic weather conditions, often in the open.

Twenty months, 1,100 flights, US\$100 million and plenty of "blood, sweat and tears" later, Lupin poured its first gold within three days of its target date on May 4th, 1982 – just as the Port Radium silver reserves were depleted.

Lupin poured its two millionth ounce on April 28, 1993. The mine is a tribute to the skills of the men and women of the Canadian North who built it and have run it 365 days a year for the past 12 years.

During the 1980s, Echo Bay went from being a small silver producer to one of North America's largest gold producers. After Lupin, the next step was taken in January 1985, when the company bought the Copper Range Company from Louisiana Land & Exploration. The key asset in Copper Range was a 50% interest in the Round Mountain Mine in Nevada, with Homestake Mining and privately held Case, Pomeroy owning 25% each.

Round Mountain began its present operations in 1977, making it a pioneer in gold heap leaching. It is now one of the world's largest open pit, heap leach gold mining operations. Although radically different from Lupin (open pit, heap leach versus underground mine,



At startup in 1982, Lupin, Echo Bay's first gold mine, had reserves of 1.4 million ounces; today it still has reserves of nearly one million ounces. The mine produced a record amount of gold in 1993, and on April 28 of that year, Lupin poured its two millionth ounce. The underground mine is located 56 miles south of the Arctic Circle in Canada's Northwest Territories.

mill), Round Mountain became a major operating and financial success.

Through early applications of what we now call Continuous Improvement Process principles, the Round Mountain team was immediately encouraged to follow up on its own ideas. As a result, Type II ore was proved to be economically recoverable, and capacity was soon increased. This reduced operating costs per ounce, and – despite inflation – those costs were still lower in 1993 than 1984, the year before Echo Bay became the operator.



Echo Bay acquired a 50 percent interest in, and became operator of, Round Mountain – one of the largest heap leach gold mines in the world – in 1985. The large-scale open pit mine had 1.8 million ounces of gold in reserves when Echo Bay acquired its interest, and much more gold than that has been found since. Today, Round Mountain, which is located in central Nevada, has total reserves of 7.1 million ounces.

So there we were in the mid-1980s, with the success of Lupin and Round Mountain under our belts, a gold bull market in progress, and wanting to grow further. Our next big “bite” was the acquisition of the gold properties of Tenneco, which had two main operating mines – McCoy and Borealis – late in 1986. Within two months of the acquisition, the discovery hole at McCoy’s Cove deposit was drilled. For a brief period, we were the largest Canadian-based gold mining company.



Echo Bay’s largest gold and silver producer, McCoy/Cove has two separate gold deposits a mile apart. McCoy was the only one body known to exist on the property when Echo Bay acquired it in late 1986. Gold was discovered at Cove three months later. In 1993, 72 percent of McCoy/Cove’s revenues came from gold, but the mine is the largest silver-producing mine in North America, and one of the three largest in the world.

At this point in our history we were successful developers, operators, and entrepreneurs. By using that wonderful tool called hindsight, we now realize we had several weaknesses. The most significant was a sometimes-faulty assessment of the ore grade in new deposits. This shortcoming caused us to move too fast in some aspects of our fast-track development of the Cove deposit, resulting in a reduction of Cove’s reserves in 1989. At about the same time, we also experienced disappointment with the grade at Sunnyside in Col-

orado; we developed Kettle River before the Overlook deposit's discontinuity was discovered (which meant lower grade); and we invested heavily in the Muscocho group of companies in Canada, where – again – imperfect grade assessment was the main issue.

Why so many mistakes on ore grade? And why didn't we learn from them? We did learn. The problem was that the mistakes were mostly concurrent. Echo Bay now has probably the best ore reserve compilation and review process in the industry. And that should be the subject of a future article in *Echo Bay Gold*.

McCoy/Cove has improved through the hard work and ideas of the team here. Now it is not only our lowest cost mine, it also has the distinction of being the largest silver producer in North America. As we mine, we are continuing to replace most of our production – it turns out that we were too conservative, and over-corrected reserves in 1989.

At Kettle River, the exploration group has found satellite ore bodies in Lamefoot and probably K-2, which ensure a brighter future at that operation. Originally plagued with high cash production costs per ounce, the people at Kettle River continue to reduce costs and improve operations.

The early 1990s saw us working hard not only to improve our mine costs, but also to lower the debt incurred to fuel our growth in the late 1980s. We have succeeded at both. We would not have enjoyed our success of the 1980s nor survived our mistakes (and low gold prices) if it were not for the day-to-day commitment of all of us at Echo Bay.



Sunnyside was one of the largest gold producers in Colorado. It ceased production in 1991 and is now being reclaimed.



Kettle River achieved commercial production in early 1990. Located in the historic Republic gold district of northeastern Washington State, the mine is actually a series of small deposits mined in sequence to feed a central mill. During 1993, Kettle River expanded reserves by 31 percent and reduced cash costs by \$17 per ounce.



Today we have four producing gold mines and two development properties in Alaska, and we are aggressively looking for properties within and outside North America. Production has grown from 118,000 ounces in 1983 to 873,900 ounces in 1993, plus 12.5 million ounces of silver. As we take a moment to recognize our milestone of 30 years in the mining business, we should be proud of our accomplishments. Our future will be different from the past, but no less challenging than what we have already faced.

Happy birthday, Echo Bay!

ECHO BAY MINES

370 Seventeenth Street
Suite 4050
Denver, Colorado 80202
Telephone: (303) 592-8000

Telecopier: (303) 592-8070

FACT SHEET

Echo Bay Mines is one of the largest gold and silver producers in North America. Its 1993 revenues were US\$367 million. It has been mining precious metals for 29 years.

The company operates four gold mines -- two in Nevada, one in the Northwest Territories of Canada, and one in Washington state. Together, these four mines produced 874,000 ounces of gold and 12.5 million ounces of silver in 1993. One of its Nevada gold mines is also the largest silver-producing mine in North America (and third largest in the world).

Two development properties in Alaska provide large growth potential. Together, they could add more than 400,000 ounces of gold to the company's annual production once permitting and development are completed.

Echo Bay is leveraged to the price of gold. ECO's common stock rose 161% on the American Stock Exchange in 1993, compared to a 17% rise in the gold price. However, the stock is still well below its peak when the gold price was nearly \$100/ounce higher.

Echo Bay is a precious metals "pure play." About 12 million common shares are outstanding. The shares are highly liquid. Slightly under 50% of the shares are owned by institutions. There are a total of more than 70,000 shareholders.

A changed management team provides seasoned leadership, and also new talent to aggressively spur the company's next growth phase. The company is actively searching for new gold deposits worldwide with a larger Exploration team, and has also launched a stepped-up search for corporate acquisitions through an expanded Corporate Development group.

The company has reduced its debt by more than \$400 million over the past four years. Echo Bay has zero debt today, net of more than \$250 million in cash and short-term investments.

May 1994

ALASKA JUNEAU PROJECT

- \$80 million invested by end of 1994
- \$300 million construction costs
- Annual gold production 365,000 ozs

EMPLOYMENT

- 450 jobs / payroll \$21 million
- Commitment to local hire: Juneau, first; Southeast, second; and Statewide, third
- Training program established in partnership with University of Alaska Southeast

GOODS & SERVICES PURCHASES ANNUALLY

- Construction \$15 million in Juneau
- On-going operations \$44 million

TAXES & ROYALTIES ANNUALLY

- Royalty to City of Juneau \$3.0 to \$3.5 million
- Property taxes \$4 million
- Sales taxes on local purchases \$1 million
- State corporate and mining license taxes \$5 million

KENSINGTON PROJECT

- 50/50 partnership between EBM & Coeur
- \$80 million invested by 1994
- \$180 million for construction
- \$190,000 ozs gold production annually

EMPLOYMENT

- 340 jobs payroll \$19 million
- Commitment to local hire: Juneau, first; Southeast, second; and Statewide, third
- Training program established in partnership with University of Alaska Southeast

GOOD & SERVICES PURCHASES FROM JUNEAU ANNUALLY

- Construction \$6 million
- On-going operations \$19 million

TAXES ANNUALLY

- Property taxes \$1.5 million
- Sales taxes \$.5 million
- State corporate and mining license tax \$2.5 million

We're concerned



about water quality

Contents

1

Introduction

3

Drinking water-quality standards and the city's water supply

7

What will change with Echo Bay's mining operations

9

Differences in Gold Creek and Salmon Creek water

13

Water quality in the Sheep Creek tailings pond

15

Monitoring

17

Aquatic life standards and Gastineau Channel

21

Summary

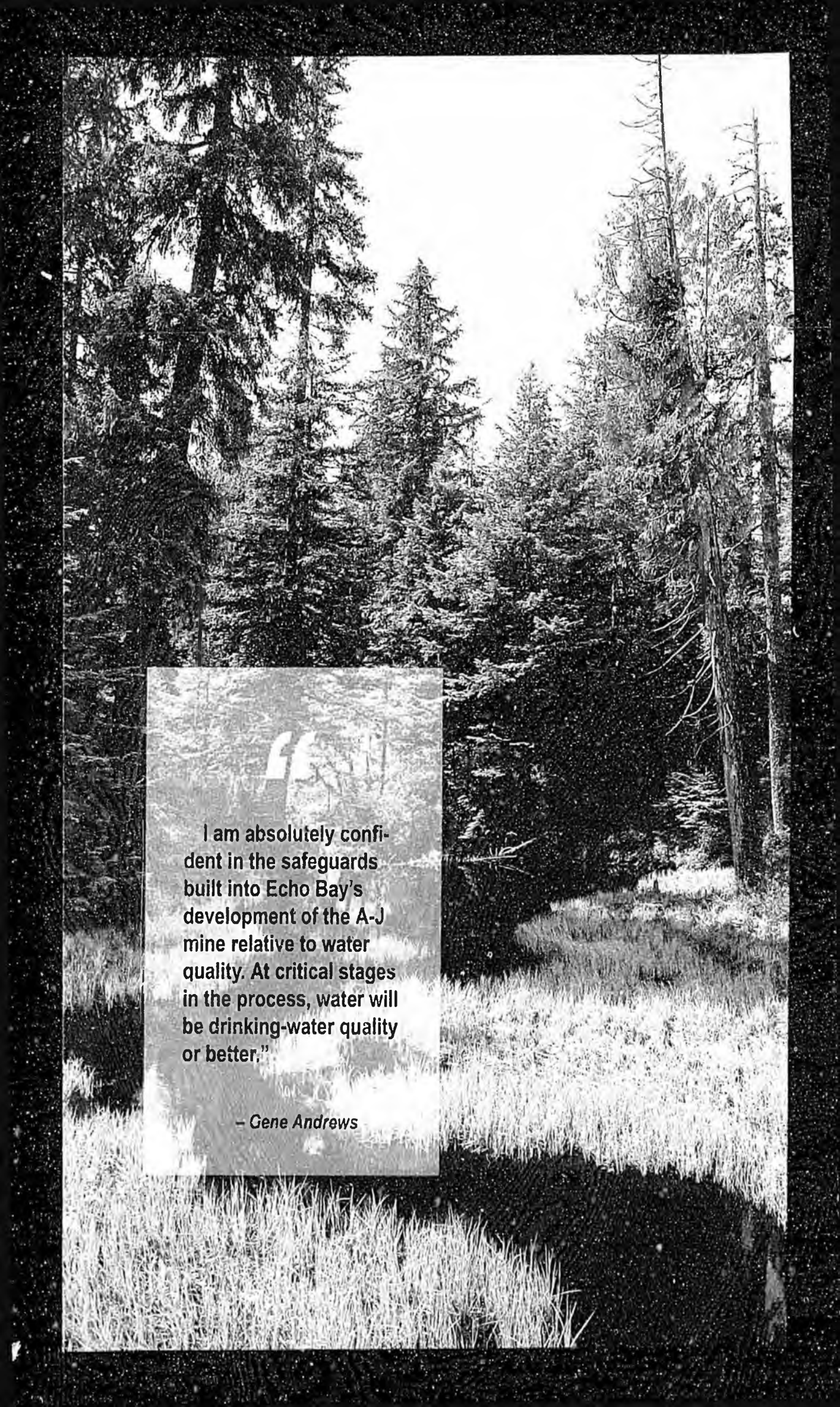
t Echo Bay Mines Alaska, we understand that some Juneau residents have concerns about how the reopening of the Alaska-Juneau mine will affect Juneau.

But the fears planted in the minds of Juneau residents about this project, specifically those related to the issue of water quality, aren't based on sound scientific information.

Some of the most noted experts in the field of biology, water quality and wastewater management, engineering and oceanography have conducted a myriad of scientific water-quality studies over the last six years.

After literally thousands of hours of research, they say that the quality of Juneau's drinking water supply and the water quality in Gastineau Channel won't be harmed by Echo Bay's reopening of the A-J.

That is why we ask you to take a few moments to understand just what some of our nation's top environmental scientists and engineers and other Alaskan experts have to say about the real impact Echo Bay's mining project will have on Juneau's water quality.



I am absolutely confident in the safeguards built into Echo Bay's development of the A-J mine relative to water quality. At critical stages in the process, water will be drinking-water quality or better."

– Gene Andrews

Drinking water-quality standards and the city's water supply

Water-quality issues regarding Echo Bay's A-J Mine development can be separated into two areas: what effect the project will have on Juneau's drinking water and what effect there will be on aquatic life in Gastineau Channel.

First, let's look at some of the issues regarding Juneau's drinking-water supply and the United States Environmental Protection Agency standards that apply.

Juneau's water supply comes from two sources, Salmon Creek Reservoir and Last Chance Basin wells, which includes water from Gold Creek.

The Salmon Creek water supply is currently out of service, until it can be upgraded to meet new Environmental Protection Agency drinking water treatment rules.

In 1993 the federal Environmental Protection Agency wrote tougher rules for municipal water supplies. The City and Borough of Juneau's water treatment facilities at Salmon Creek, though providing entirely safe drinking water, didn't meet the new EPA rules on how drinking water needs to be treated with chlorine.

- Gene Andrews is a civil engineer with a master's degree in wastewater management. Andrews has been a consultant on wastewater and water-quality projects for more than 24 years.



I have worked for over 20 years in mining for private industry, the United States Bureau of Mines and the State of Alaska. I have seen mine development projects throughout North America and Australia. The commitment to ensuring environmental quality displayed by and required of Echo Bay Alaska's A-J project is unparalleled."

– Al Clough

Because of the EPA changes required before Salmon Creek can be used again, city officials hired a consulting and engineering firm to upgrade Juneau's water-treatment facility. This upgrade would have had to happen regardless of mining operations.

Since the upgrade to water treatment was already needed, the city also decided to increase the rate of water flow through the system, making the city water supply more responsive to Juneau's needs.

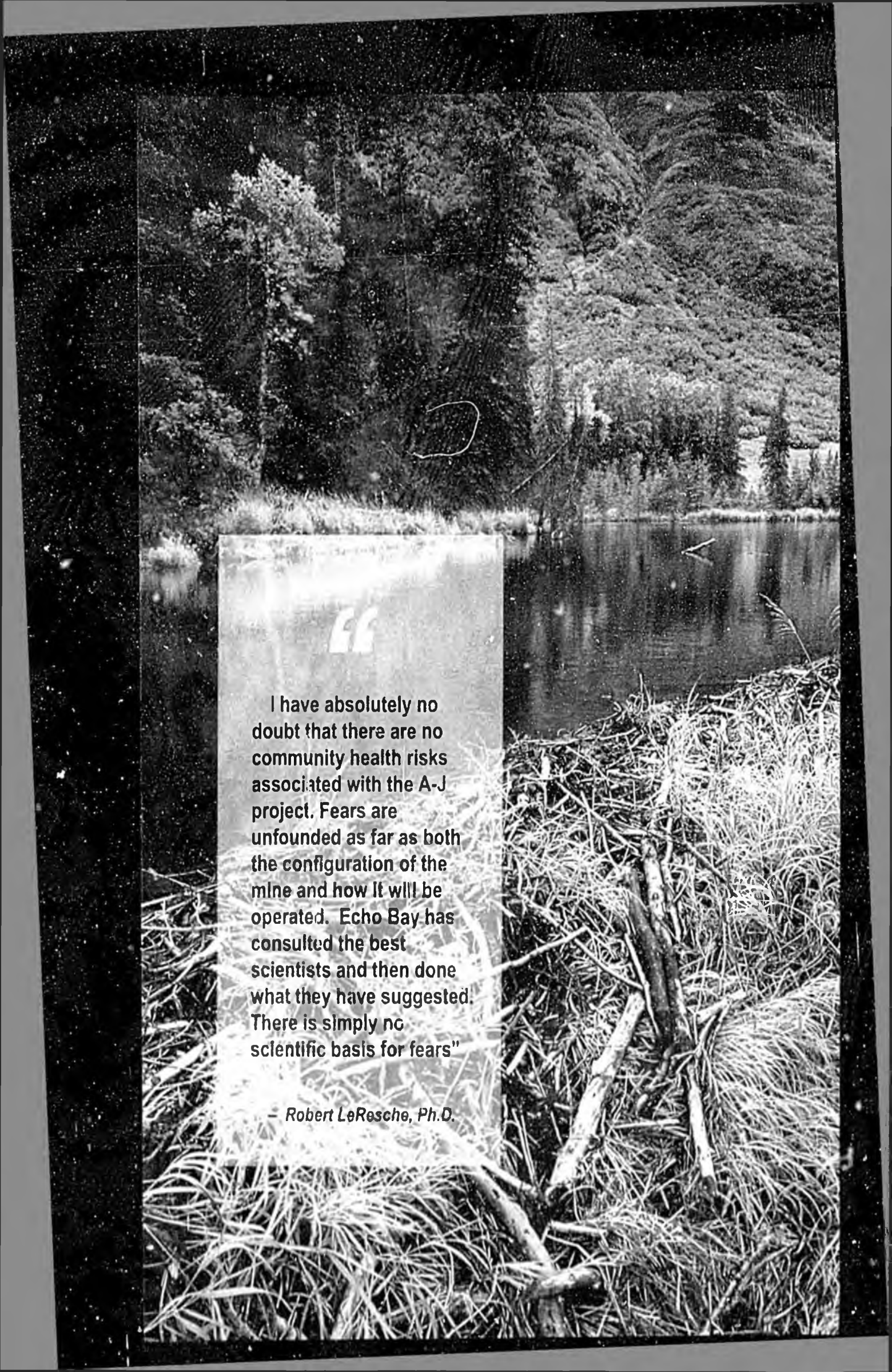
Juneau has grown over the last five years and the demands on city water have increased from just supplying downtown and Douglas, to moving city water to the Back Loop Road and beyond. City officials and their consulting engineers decided to upgrade the Salmon Creek facilities to handle five-million gallons of water per day, from its previous one-million gallon capacity.

But the five-million gallon per day system the city proposed would have still been inadequate to meet all the demand by Juneau residents from Salmon Creek alone.

Until Salmon Creek is updated, Juneau gets its drinking water primarily from Gold Creek in Last Chance Basin. Though at most times of the year the water flow at Gold Creek is adequate to meet the city's needs, in the winter the flow of water at Gold Creek decreases. That is when an alternative water supply for the city is needed most. The alternative supply comes from Salmon Creek.



- Al Clough is a mining geologist for the Alaska Department of Commerce and Economic Development and a member of the City and Borough of Juneau's municipal assembly.

A black and white photograph of a serene landscape. In the foreground, there is a large pile of dry, tangled sticks and branches. Behind this, a calm body of water reflects the surrounding dense forest of tall evergreen trees. A sign is positioned in the middle ground, partially obscured by the sticks. The sign has a large opening at the top, followed by a quote in bold text, and a signature at the bottom. The overall scene is peaceful and natural.

“
I have absolutely no doubt that there are no community health risks associated with the A-J project. Fears are unfounded as far as both the configuration of the mine and how it will be operated. Echo Bay has consulted the best scientists and then done what they have suggested. There is simply no scientific basis for fears”

- Robert LeResche, Ph.D.

What will change with Echo Bay's mining operations

When Echo Bay begins mining at the A-J Mine there will be a change in the amount of water flowing into Gold Creek.

Water that has been flowing for more than 50 years into the Gold Creek water supply from the Gold Creek Drainage Tunnel will be blocked off. That will cause a decrease in the volume of water that flows into the Gold Creek water supply.

But the quality of water in Gold Creek will actually improve, says water-quality expert Gene Andrews, because the water from the drainage tunnel, while meeting drinking-water standards, is slightly less pure than the rest of the water that now flows into the creek.

The city permit for the A-J Mine requires that the amount of water currently available to the city's water supply remain the same after the mine opens.

So Echo Bay has proposed paying for upgrading the Salmon Creek treatment facility's capacity to seven-million gallons per day. That upgrade would satisfy Juneau residents' water needs and the company's requirement to make sure mining operations don't affect the city's water supply.

The plan gives Juneau a secondary water source that meets 100 percent of the demand for city water throughout the year. Salmon Creek water would meet all the Environmental Protection Agency's new drinking water-quality standards.

From 1976-1981 Robert LeResche served as Alaska's Commissioner of Natural Resources under Gov. Jay Hammond. He holds a master's degree in wildlife management from the University of Alaska Fairbanks and a doctorate degree in pathobiology/ecology from Johns Hopkins University Medical Schools' School of Hygiene and Public Health. He also worked as the director of Habitat Protection for the state Department of Fish and Game under Gov. Hammond and served as Gov. Steve Cowper's oil spill coordinator during the Exxon Valdez disaster.



“

When I worked for the Alaska Department of Fish and Game and the Department of Natural Resources I wrote the stipulations for the Trans-Alaska pipeline regarding wildlife and fish protection. There are more stringent protections in the CBJ's permits for the Sheep Creek Valley than for the entire Trans-Alaska pipeline.'

— Robert LeResche, Ph.D.

Differences in Gold Creek and Salmon Creek water

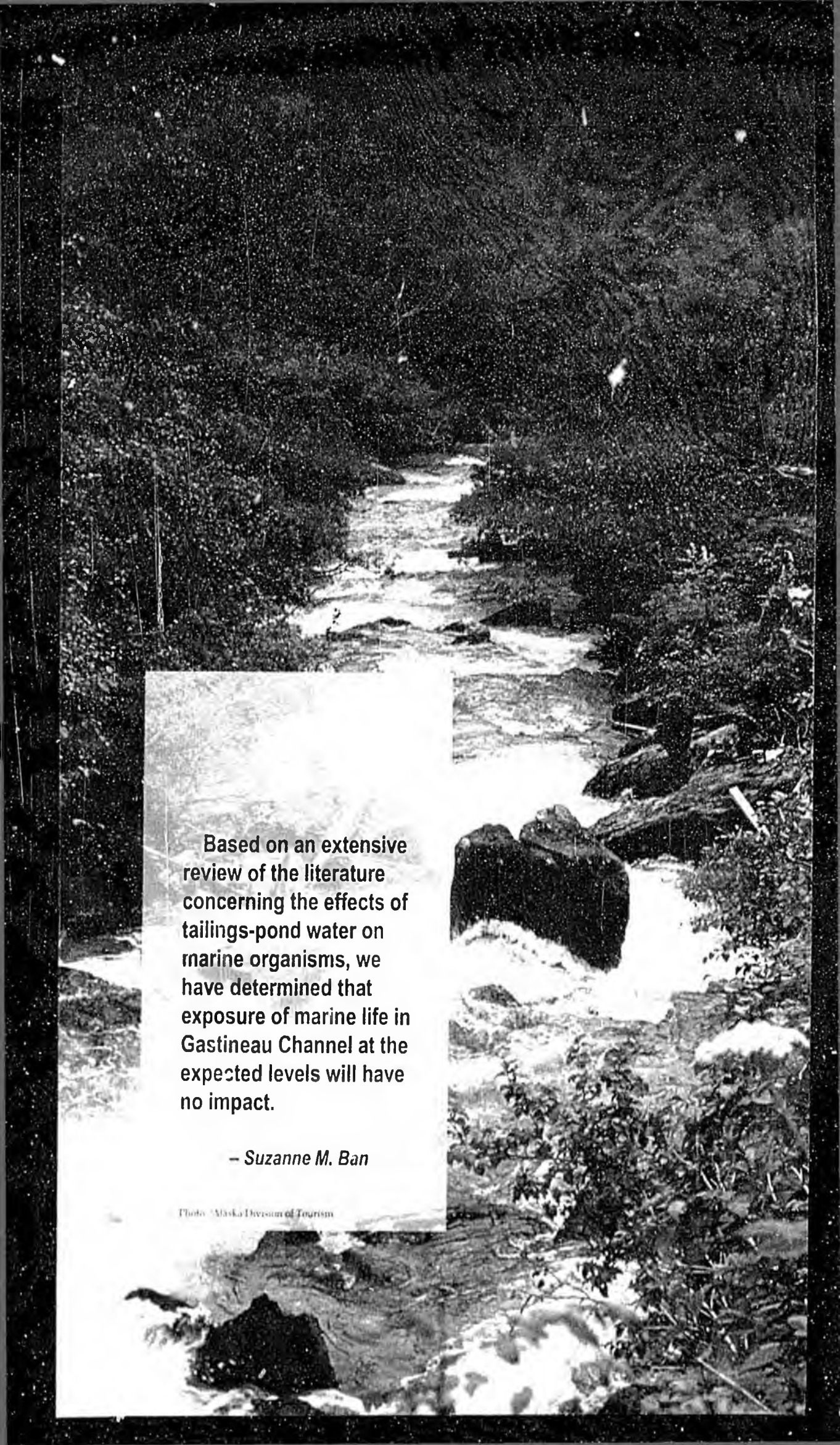
One of the differences between water from Gold Creek and water from Salmon Creek is the amount of suspended solids in the water. The technical term for the phenomenon is "turbidity."

Suspended solids in the water do not make water unsafe, but may give it a slightly milky look when it comes out of the faucet.

The amount of turbidity in a water supply at the Environmental Protection Agency limits have no impact on health, experts say.

"If you went to a restaurant and I handed you a glass of water with suspended sediment at the Environmental Protection Agency limit, you probably wouldn't recognize it as being cloudy," says environmental engineer Edward Buchak, of the firm Edinger Associates.

The measurements being used, in parts per million, are so small as to be almost indistinguishable outside of a laboratory, he said.



Based on an extensive review of the literature concerning the effects of tailings-pond water on marine organisms, we have determined that exposure of marine life in Gastineau Channel at the expected levels will have no impact.

– Suzanne M. Ban

Photo: Alaska Division of Tourism

An increase in the amount of suspended solids in Salmon Creek occurs naturally in the fall and in the spring. Experts say it is a natural increase primarily due to heavy rainfall.

But in the winter, when the flow at Gold Creek is at its lowest and an alternative water supply is needed most to meet Juneau's demand, Salmon Creek water is at its best. When the city is most in need of water from Salmon Creek, the water there has its least turbidity.

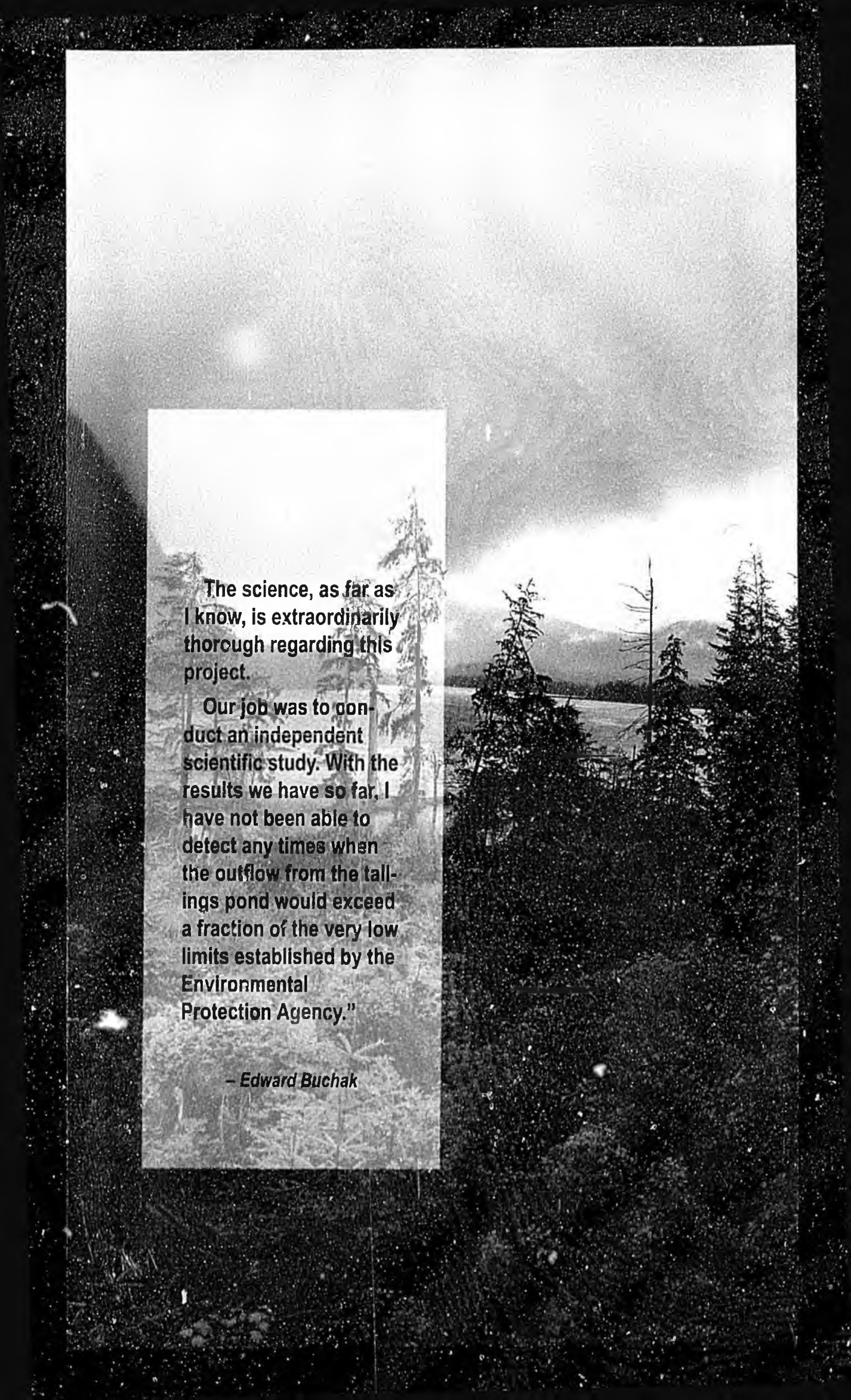
What is especially important to know, is that water-quality engineers are saying that at all times of the year, the water supply at Salmon Creek is safe to drink.

The experts say mining operations would have no ill effect on the quality of Juneau's water supply.

The plan for Echo Bay to pay for upgrading the city's water supply at Salmon Creek to meet all the city's water needs is beneficial to all Juneau residents. It gives the city a viable, safe, second source of drinking water all year long. It's an environmentally sound solution that more than makes up for the loss in the volume of water to Gold Creek due to mining operations. Whereas plugging the mine drainage tunnel would reduce the city's water supply production during a couple of weeks each winter, the Salmon Creek upgraded water supply will be available year round for Juneau's use.



- Suzanne M. Ban is a marine biologist and environmental scientist at Woodward-Clyde Consultants in Anchorage. She holds a master's degree in biological oceanography from Florida Institute of Technology and has worked in the marine ecology field since 1982.



The science, as far as I know, is extraordinarily thorough regarding this project.

Our job was to conduct an independent scientific study. With the results we have so far, I have not been able to detect any times when the outflow from the tailings pond would exceed a fraction of the very low limits established by the Environmental Protection Agency."

— Edward Buchak

Water quality in the Sheep Creek tailings pond

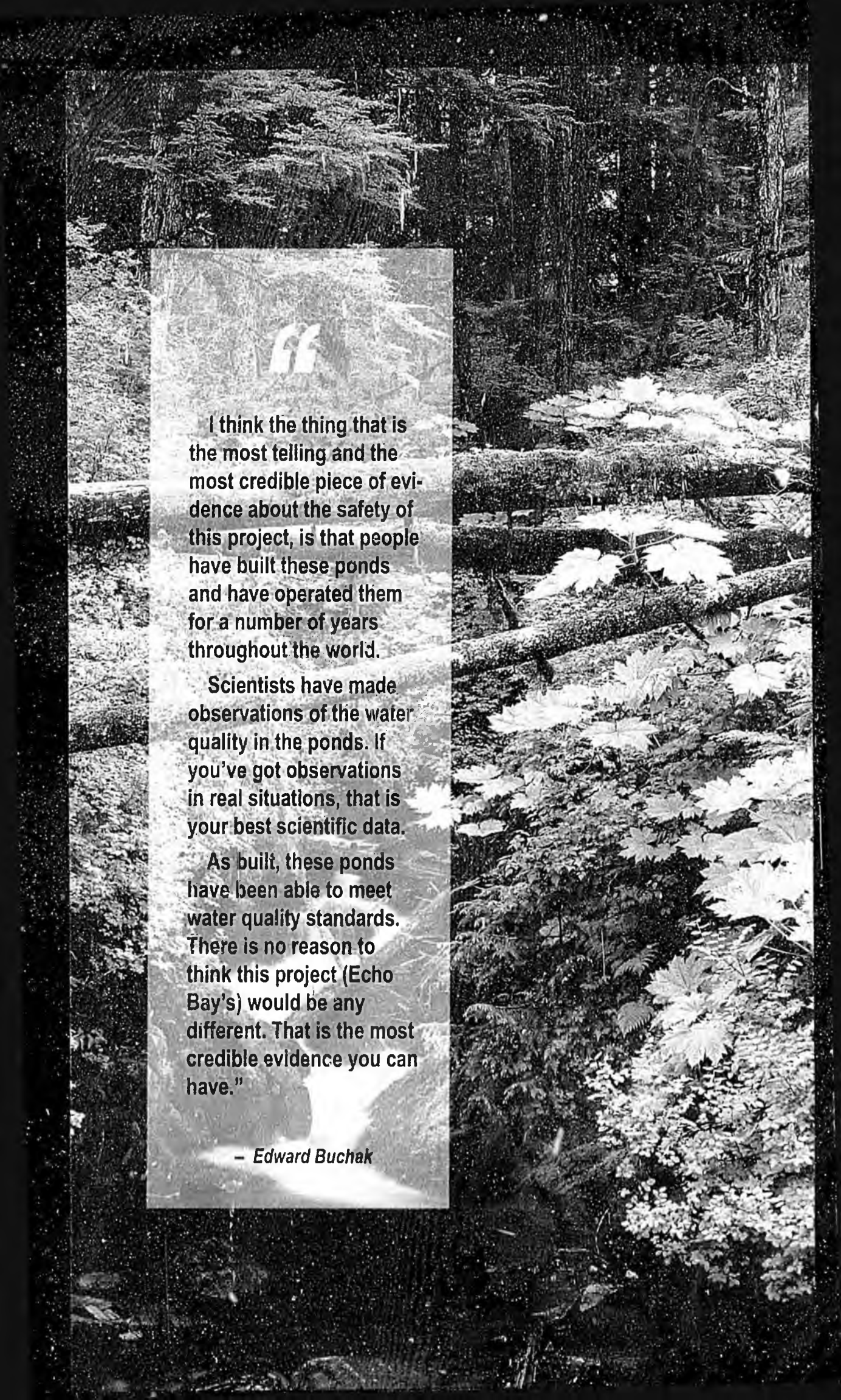
The plan for reopening the Alaska-Juneau Mine calls for putting a dam on the upper portion of Sheep Creek, creating a lake in the Sheep Creek Valley.

The water quality in that lake will be slightly less pure, according to experts, than the water quality currently in Sheep Creek because of the ground up rock (tailings) from the mine that will enter the lake from a pipe on the lake floor.

What is important to understand, however, is that the water-quality in this lake will still meet drinking water-quality standards. That is a phenomenal quality for a "treatment facility," experts say.

According to biologist J.W. Buell, Ph.D., there will be no harm to birds and mammals that drink water from the lake. As a result, the lake discharge to Gastineau Channel can easily meet the stringent EPA and state requirements to protect marine life.

– Edward Buchak and his colleagues at Edinger Associates are experts in physical oceanography and environmental engineering. In conjunction with the United States Army Corps of Engineers, they developed a computer modeling system that has been used extensively for more than 20 years to determine the amount of suspended solids in water. A panel of experts hired by the Environmental Protection Agency, including noted environmentalist Dr. Ray Krone of the University of California Davis, recommended the Buchak model be used by the EPA to determine the affect of the mine on Gastineau Channel water quality.

A black and white photograph of a forest stream. The water flows over several stone steps, creating a small waterfall. The surrounding forest is dense with various plants, including large-leafed ferns and other vegetation. The scene is captured from a slightly elevated angle, looking down at the stream.

“
I think the thing that is the most telling and the most credible piece of evidence about the safety of this project, is that people have built these ponds and have operated them for a number of years throughout the world.

Scientists have made observations of the water quality in the ponds. If you've got observations in real situations, that is your best scientific data.

As built, these ponds have been able to meet water quality standards. There is no reason to think this project (Echo Bay's) would be any different. That is the most credible evidence you can have.”

— Edward Buchak

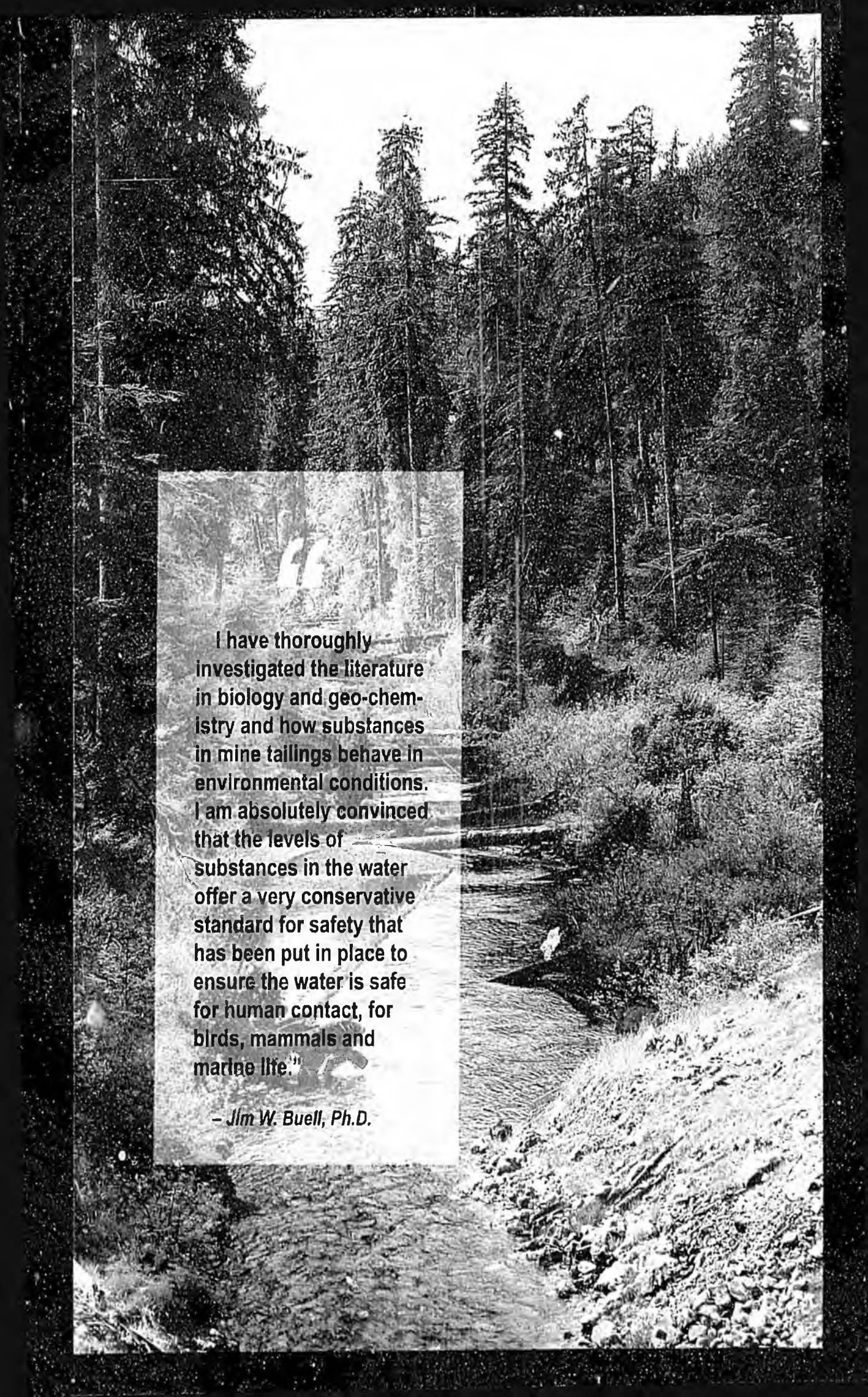
Monitoring

sophisticated series of monitoring stations will continuously monitor the quality of water in the lake for five key elements used in determining water quality. The technology is available, and has been used successfully for more than 25 years, for a literally continuous-monitoring system that places probes at key points and relays information to computers.

On a daily and weekly basis, tests for numerous specific substances in the water will also be completed.

If problems are indicated in any areas, the system automatically stops any water from being discharged out of the tailings pond. An alarm system would notify Echo Bay scientists if a problem was indicated and automatically shut down the release of water from the lake.

Frequent scheduled observations will assure automatic equipment is properly tested and maintained.

A black and white photograph of a forest stream. The stream flows from the background towards the foreground, with a rocky bank on the right side. The background is filled with tall, thin evergreen trees. A semi-transparent white rectangular box is overlaid on the left side of the image, containing text. The text is in a bold, sans-serif font. The overall scene is a natural, wooded environment.

I have thoroughly investigated the literature in biology and geo-chemistry and how substances in mine tailings behave in environmental conditions. I am absolutely convinced that the levels of substances in the water offer a very conservative standard for safety that has been put in place to ensure the water is safe for human contact, for birds, mammals and marine life."

- Jim W. Buell, Ph.D.

Aquatic life standards and Gastineau Channel

In understanding the effects of the A-J Mine project on the water quality in Gastineau Channel, it is important to understand just how the Environmental Protection Agency defines "aquatic life standards."

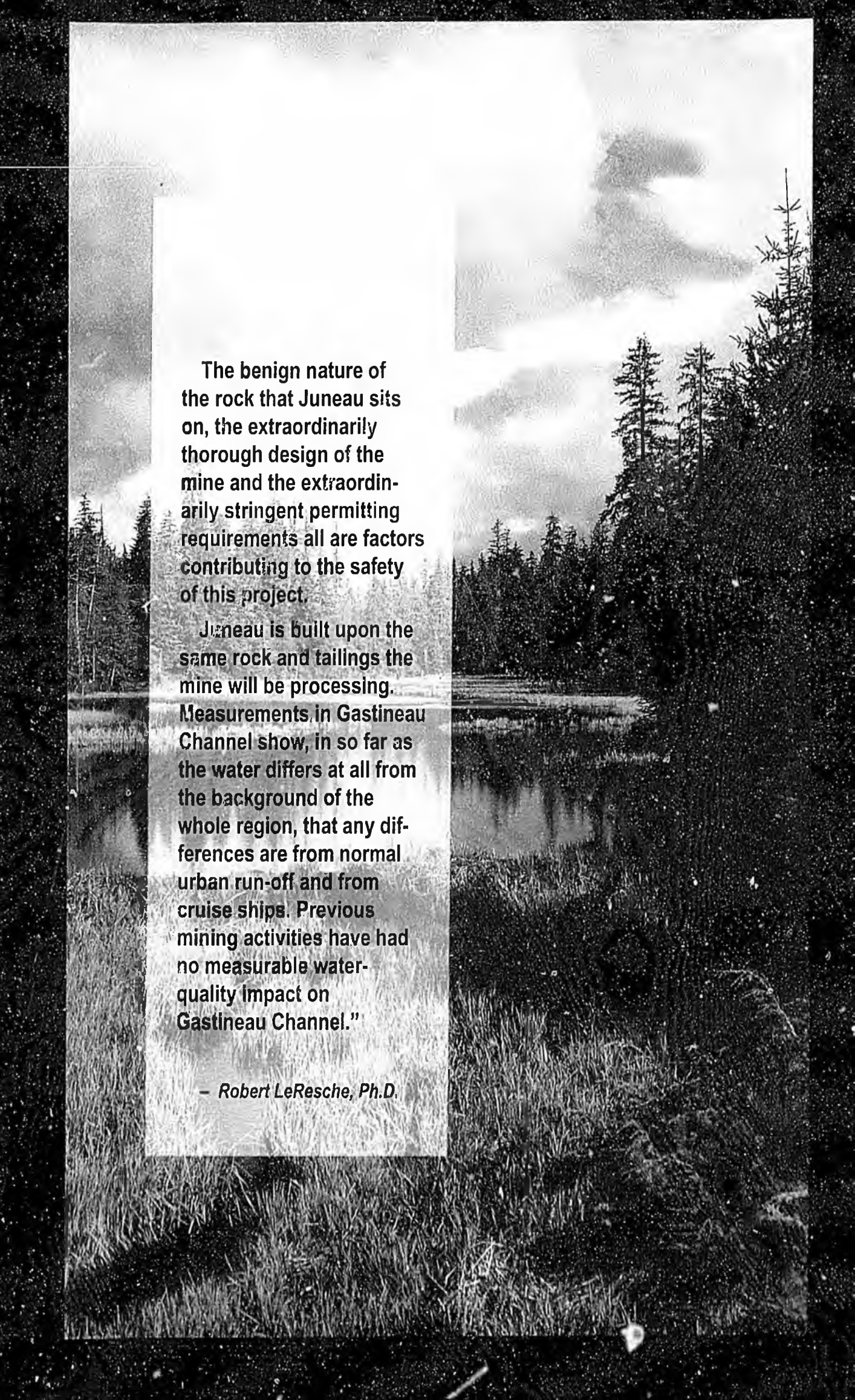
The Environmental Protection Agency standards for water that returns to the environment and affects marine life are actually stricter than drinking-water quality standards.

Aquatic life standards are in two categories, chronic and acute. Chronic standards, which are the most stringent, are based upon no observable effect on the most sensitive creatures living in sea water.

When the A-J Mine is in operation, the water in the tailings pond will be essentially drinking-water quality.

The water from the lake going back into Gastineau Channel will have to meet chronic aquatic life standards - there can be no affect on the most sensitive sea creatures.

- Jim Buell, Ph.D., is owner of Buell and Associates, Inc., Consulting Biologists, in Beaverton, Oregon. He holds a doctorate degree from the University of Oregon in biology, specializing in comparative physiology. He has worked with water quality issues in the laboratory and in the environment for the majority of his more than 20 year career.



The benign nature of the rock that Juneau sits on, the extraordinarily thorough design of the mine and the extraordinarily stringent permitting requirements all are factors contributing to the safety of this project.

Juneau is built upon the same rock and tailings the mine will be processing. Measurements in Gastineau Channel show, in so far as the water differs at all from the background of the whole region, that any differences are from normal urban run-off and from cruise ships. Previous mining activities have had no measurable water-quality impact on Gastineau Channel."

— Robert LeResche, Ph.D.

Water will flow back into the channel from a pipe that releases the treated water underneath the channel into what is called a mixing zone.

Baseline data on the most sensitive species of aquatic life in Gastineau Channel has been taken over a period of several years. A myriad of indicators were looked at to determine the effect of releasing the pond water into the channel.

Recently, measurements collected over a period of 20 years by the United States Geological Survey of water in Sheep Creek, were provided to both the Environmental Protection Agency and to Ed Buchak, who developed the modeling system being used by the EPA to determine water quality in Gastineau Channel relative to suspended solids in the tailings pond.

That data, along with other significant data such as characteristics of mine tailings, operating procedures, mine design, and weather data, was supplied to the EPA and to Buchak.

Buchak ran the data through the computer model he developed, as is the Environmental Protection Agency.

Buchak said his preliminary results show that on the worst day of the years examined the amount of suspended solids coming out of the mine into Gastineau Channel would be a tiny fraction of Environmental Protection Agency limits.





“

The discharge of
tailings pond water into
Gastineau Channel does
not represent a water-
quality problem. Based
on our studies, there is
no basis for fears.”

— Jack Colonell, Ph.D.

ake a look for yourself at the data available at local libraries on water quality issues. If you would like more detailed information about the A-J Mine project please feel free to call our Public Affairs Manager David Stone at 463-5704 to arrange a time for us to talk with your community group, educational organization or church. Or write us at Echo Bay Mines Alaska, 3100 Channel Drive, Suite 2, Juneau, Alaska 99801.

Our scientists and public affairs manager will be happy to answer your questions and explain the project in more detail.

We believe that once you fully understand the data and the safeguards we have put in place to protect our environment, you'll feel as confident as some of our nation's most noted scientists about Echo Bay's ability to maintain the highest water-quality standards.

- Jack Colonell, Ph.D., works with Woodward-Clyde Consultants in Anchorage. He has been an oceanographer studying statewide and national water quality issues for the past 20 years. He holds a doctorate degree in civil engineering from Stanford University.

Here are a few of the water-quality and wastewater analysis studies that have been prepared by experts. These studies are currently available at all of the city-borough libraries, the University of Alaska Southeast's Egan Library and the Juneau-Douglas High School library.

"Wastewater Analysis; A-J Mine Project," by Ott Water Engineers, Ott Engineering Inc., Bellevue, Wash., February, 1989.

"Gastineau Channel Current Survey," by Oceanetic Measurement Ltd., Sidney, B.C., Canada, June-August, 1990.

"Ecological Assessment of Marine Fauna and Sediments of Gastineau Channel for the Purpose of Developing a Monitoring Program Rational for Echo Bay Mining A-J Project," by Oceanographic Institute of Oregon, 1991.

"A-J Gastineau Channel Report," by Environmental Associate, SH Scientific Systems Ltd., Washington, September, 1991.

"Supplemental Investigation: A-J Mine Marine Outfall - Final Report" Woodward-Clyde Consultants, Anchorage, Alaska, August, 1992.

"A-J Mine, Mitigation for the Tailings Pond and Surface Facility," by J.W. Buell, Ph.D., Buell and Associates Inc., Consulting Biologists, Beaverton, Ore., August, 1993.

"Review of Discharge Water Quality for Proposed Sheep Creek Tailings Basin, A-J Mine," by Klohn Leonoff Inc., Kirkland, Wash., April, 1993.

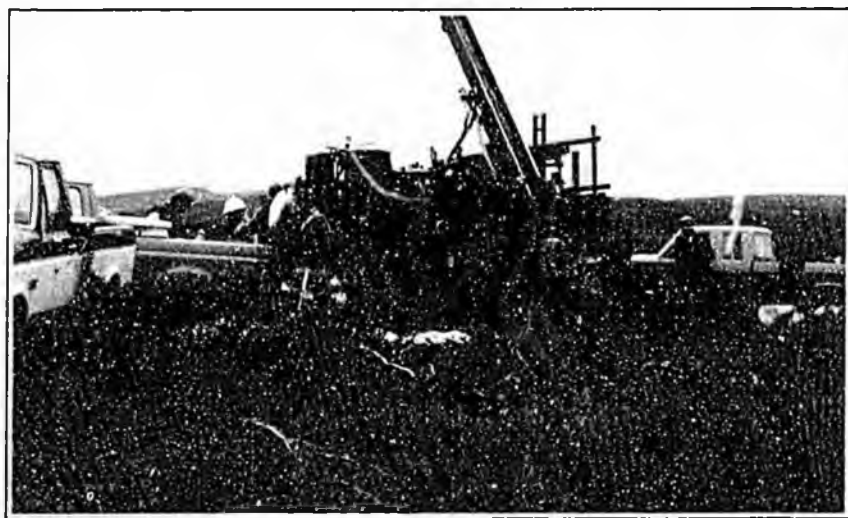
A 59-page comprehensive annotated bibliography of studies regarding or related to the A-J Mine project was prepared by Woodward-Clyde Consultants, Anchorage, Alaska.

The bibliography is also available at local libraries.

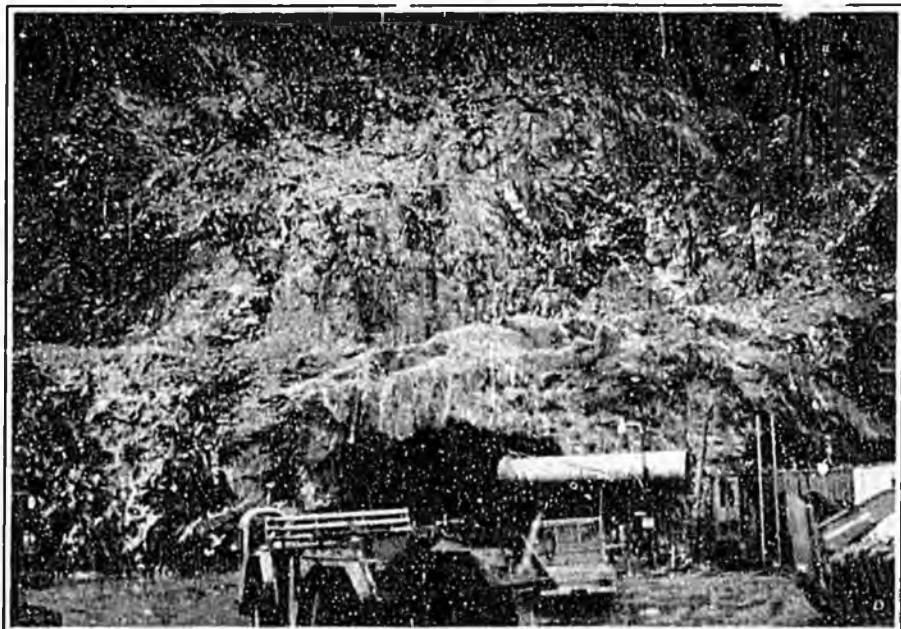


Report of the

ALASKA MINERALS COMMISSION



JANUARY 1995



ALASKA MINERALS COMMISSION

January 1995

Chair

Earl Beistline
Mining Consultant
PO Box 80148
Fairbanks, AK 99708
Phone: (907) 479-6240
Fax: 479-0176

Vice Chair

Irene Anderson, Land Manager
Sitnasuak Native Corporation
PO Box 905
Nome, AK 99762
Phone: (907) 443-2632
Fax: 443-3063

Del Ackels, Owner-Operator
Goldust Mines
PO Box 61520
Fairbanks, AK 99706
Phone: (907) 474-0971

Donald L. Stevens
Stevens Exploration
1048 W International Airport Road
Anchorage, AK 99517
Phone: (907) 561-1991
Fax: 561-1797

Leo Mark Anthony
2020 Lake Otis Parkway
Anchorage, AK 99508
Phone: (907) 279-4702
Fax: 277-2562

Karl Hanneman, President
Alaska Placer Development
PO Box 10664
Fairbanks, AK 99710
Phone: (907) 452-6700
Fax: 452-8690

Eric Neil MacKinnon
Hyak Mining Company
1114 Glacier Highway
Juneau, AK 99801
Phone: (907) 586-1254
Fax: 463-3433

Harold Noyes, Chief Geologist
Doyon, Limited
201 1st Avenue
Fairbanks, AK 99701
Phone: (907) 452-4755
Fax: 456-6785

Charles B. Green
Usibelli Coal Mine, Inc.
122 First Avenue, Suite 302
Fairbanks, AK 99701
Phone: (907) 452-2625
Fax: 451-6543

Ron Sheardown, President
Greatland Exploration, Ltd.
3512 Campbell Airstrip Road
Anchorage, AK 99504
Phone: (907) 333-1400
Fax: 333-1800

Joe Fisher
Alaska Gold Company
PO Box 640
Nome, AK 99762-0260
Phone: (907) 443-5272
Fax: 443-5472

STAFF

Al Clough
Development Specialist
Mining & Minerals
Division of Economic Development
PO Box 110804
Juneau, AK 99811-0804
Phone: (907) 465-5463
Fax: 465-3767

Dick Swainbank
Development Specialist
Mining & Minerals
Division of Economic Development
751 Old Richardson Highway #205
Fairbanks, AK 99701
Phone: (907) 452-7464
Fax: 456-8173

Gabrielle LaRoche
Supervisor
Division of Economic Development
PO Box 110804
Juneau, AK 99811-0804
Phone: (907) 465-5467
Fax: 465-3767

FOREWORD

The Alaska Minerals Commission wishes to thank the Governor and the Legislature for implementing several of our recommendations during 1994 and continuing the encouraging trend set in the prior two years. Highlights include settlement of the Mental Health Lands dispute; extending the terms of permits when legal impediments prevent their use; protection of mining claimants on State-Selected Lands; aggressive documentation and assertion of RS 2477 Rights-of-Way; rational State land selections; adoption of reasonable risk-factors for federally mandated Clean Air Act amendments; attempts to create multi-year permits for placer mines; and continued investment in the airborne geophysical survey project.

The Alaska Minerals Commission was created by the 14th Legislature and signed into law on June 6, 1986. The enabling legislation instructs the Commission to make recommendations to the Governor and Legislature on ways to mitigate constraints, including governmental constraints, on the development of minerals, including coal, in the state.

The Commission has presented reports to the Governor and Legislature annually since January, 1987, and is authorized to do so until January, 1999. Commission members are appointed by the Governor, the President of the Senate, and the Speaker of the House. The current members include representatives of the placer, hard rock, and coal mining industries and come from diverse areas of the state.

During 1994, the Commission held meetings in Juneau, Fairbanks, and Anchorage, including a meeting with the Lt. Governor and Commissioners of various departments. The recommendations in this report are the result of input at these meetings. All Commission meetings are open to the public, and members encourage comments from all interested parties at any time.

Following the list of recommendations in the executive summary, this report contains background information, or findings, on each issue, followed by the related recommendation. These have been grouped into a Part A which deals with issues that are mainly State issues, and a Part B which are federal issues which affect the State and can be influenced by State participation.

On behalf of the members of the Commission, I would like to express our appreciation to those members of the public, to the Alaska Miners Association, the Resource Development Council, and to the many government agencies and private organizations that contributed to the preparation of the report. The Commission wishes to thank Commissioner Paul Fuhs of the Department of Commerce and Economic development and Gabrielle LaRoche, Dick Swainbank, and Al Clough of the Division of Economic Development who have provided excellent administrative and professional support to the Commission.

Earl H. Beistline
Chair

ALASKA MINERALS COMMISSION
1995 REPORT TO THE GOVERNOR
AND ALASKA STATE LEGISLATURE

Table of Contents

EXECUTIVE SUMMARY Page iv

FINDINGS AND RECOMMENDATIONS

PART A: ISSUES REQUIRING STATE ACTION

Page

Incentives	1
Geophysical and Geologic Mapping	1
Access	2
State Regulatory Reform	2
Citizens Advisory Commission on Federal Areas	3
Coastal Zone Management	3
Coal Issues	4
Education and Research	4
User Fees	5
State Labor Issues	5
Diminutive Discharges	5

PART B: FEDERAL ISSUES OF STATE CONCERN

Mining Law of 1872	7
ANILCA Provisions	7
International Parks in Alaska	7
US Geological Survey and Bureau of Mines	8

EXECUTIVE SUMMARY

There were a number of encouraging developments in Alaska mining during 1994. Highlights include increased production at the Red Dog Mine near Kotzebue, the announcement of a new ore body at the Greens Creek Mine near Juneau, permitting of the Healy Clean Coal Project, permitting and site preparation at the Fort Knox Mine and expansion of reserves at the True North Mine near Fairbanks, and the April 1994 release of the Nome, Nyac, Valdez Creek and Circle area geophysical data and maps.

The availability of geophysical data has already resulted in increased exploration activity in the Nome and Circle areas, with significant work commitments promised for 1995. Industry representatives are eagerly awaiting the results of similar surveys of the Fairbanks and Richardson areas which were flown in 1994. This is especially so in light of recent announcements of high-grade gold values in drill core for the Richardson district.

Other areas of the State with significant new mining activity or development include Wiseman, McGrath, Nulato, Cantwell, Tok, and Ambler.

Unfortunately the Valdez Creek placer mine will probably close in late 1995. Further, continued lack of resolve by federal permitting agencies on the AJ and Kensington Mines slows progress of these vital mine developments.

RECOMMENDATIONS

PART A: ISSUES REQUIRING STATE ACTION

INCENTIVES

1. The Governor and Legislature should create economic incentives that will provide financial encouragement and help offset some of the real and perceived problems facing exploration and development in Alaska. Incentives that should be considered include credits for expenditures on exploration drilling and geophysics that can be deducted from claim rents, the mining license tax, production royalties, and income taxes. An increased budget for educational and promotional efforts is also recommended.

GEOPHYSICAL AND GEOLOGIC MAPPING

2. The Governor and Legislature should invest \$5 million per year for the next decade, preferably through foundation funding, in airborne geophysical surveys and complementary geological and geochemical surveys.

ACCESS

3. The state should aggressively assert all identified RS 2477 Rights-of-Way and provide funding until completion of the project. Further, the State should assert an access route pursuant to Title XI of ANILCA to test the process and develop precedent-setting guidelines.

STATE REGULATORY REFORM

4. The Legislature should amend the Administrative Procedures Act (AS 44.62.195) by adding a section as follows: "If the adoption, amendment, or repeal of a regulation would require increased costs for compliance by individuals and businesses, the department or agency proposing the regulation shall prepare an estimate of those costs for the year following adoption, amendment, or repeal of the regulation and for any additional period of time required for implementation and compliance with the regulation."
5. The Governor should designate and fund the Department of Natural Resources (DNR) as the lead agency in all regulatory matters concerning mining, and should direct other agencies with regulatory authority over mining, such as the Departments of Fish and Game and Environmental Conservation, to coordinate their regulatory programs through DNR.
6. The Governor should direct the Commissioner of the Department of Natural Resources to take the necessary steps to allow Miscellaneous Land Use Permits to be issued for periods of up to 5 years.

CITIZENS ADVISORY COMMISSION ON FEDERAL AREAS

7. The Governor and Legislature should provide expanded budgetary and programmatic support to the Citizens Advisory Commission on Federal Areas.

COASTAL ZONE MANAGEMENT

8. The Legislature should amend AS 46.40.040 and AS 46.40.060 to define "uses of state concern" to ensure that all uses or potential opportunities for future uses or rights are treated equally.

COAL ISSUES

9. The Governor should direct the Commissioner of Natural Resources to prepare necessary changes to AS 27.19.010(c) and AS 27.19.040(b) to allow for the inclusion of all mining companies and individuals in the State of Alaska's reclamation bonding pool.

EDUCATION AND RESEARCH

10. The Governor and the Legislature should continue to support the Department of Education for its partial funding of a Minerals Specialist at the present or an increased level. Such support should be commensurate with the increased contributions from the industry-supported Alaska Mineral and Energy Resource Education Fund.
11. The Governor and Legislature should provide budgetary support to the mining, geological, and mine training programs throughout the University of Alaska system.

USER FEES

12. The Governor and Legislature should establish policy guidelines for the implementation of user fees and should establish a procedure requiring legislative and public review of all proposed user fees.

STATE LABOR ISSUES

- 13a. Legislation should be enacted to allow work schedules to be set on the basis of project-specific considerations which will permit more efficient use of labor and provide more desirable time-off patterns for employees. AS 23.10.060 currently provides opportunities for flexible work plans at small seasonal mining operations and for surface mines. These same opportunities should be extended to all mining operations without regard to size, type, and/ or seasonal nature of the work.
- b. Legislation should be enacted to amend current statutes limiting underground shifts from the current maximum of eight hours to a maximum of twelve hours, similar to SB 295 in the 17th Legislature.

DIMINUTIVE DISCHARGES

14. The Alaska Legislature should amend AS 46.03.100 to exempt diminutive activities, including mineral drilling, certain construction activities, and marine bilge-pumping from requiring a Waste Disposal Permit. Specifically, mineral drilling in which the only discharges are ground-up rock, water, and biodegradable additives, (which are EPA approved for water-well drilling), should be exempted.

PART B: FEDERAL ISSUES OF STATE CONCERN

MINING LAW OF 1872

15. The Governor, in conjunction with the Congressional Delegation and the Western Governors Association, should continue opposition to changes in the Federal Mining Law that would adversely affect mineral development in Alaska.

ANILCA PROVISIONS

16. The Governor and Legislature, through the Attorney General's office, the State's Washington, D.C. office, and the Congressional Delegation should insist that the federal administration;
 - a. provide access across Conservation System Units (CSU) as required by Title XI of the Alaska National Interest Lands Conservation Act (ANILCA),
 - b. prohibit the creation of additional CSU lands in Alaska as required by Sections 101d and 1326b of ANILCA, and
 - c. exchange mineralized areas from existing CSU under the authority of Sections 103b and 1302h of ANILCA.

INTERNATIONAL PARKS IN ALASKA

17. The Governor and the Legislature, through the Congressional Delegation, the State's Washington, D.C. office, and by letter to the Secretary of Interior, should vigorously and resolutely oppose the creation of any International Park, World Heritage Site, or International Marine Biosphere Reserve in Alaska or in waters adjacent to Alaska.

US GEOLOGICAL SURVEY AND BUREAU OF MINES

18. The Governor and the Legislature, should work with the State's Congressional Delegation to assure funding for field offices of the U.S. Geological Survey and the U.S. Bureau of Mines in Alaska.

FINDINGS AND RECOMMENDATIONS

PART A: ISSUES REQUIRING STATE ACTION

INCENTIVES

FINDING: The Alaskan minerals industry competes in a global market for mineral exploration and development dollars. Although Alaska is blessed with an abundance of geologically favorable terrane, it has suffered because of its remoteness, the lack of transportation, infrastructure, and seasonal constraints. Equally important is the industry's perception that State and Federal agencies are not supportive of mineral development in Alaska.

Throughout the world there are countries actively seeking exploration and development investment by providing economic incentives for resource industries. Incentive programs have been successful in Chile and Mexico where privatization and tax incentives have revitalized their mining industries. Appropriate incentives could be especially effective in drawing industry attention to Alaska. This is because many companies currently view the lower 48 to be unattractive from the regulatory perspective and are looking elsewhere for new exploration opportunities.

THE COMMISSION RECOMMENDS THAT:

- 1. The Governor and Legislature should create economic incentives that will provide financial encouragement and help offset some of the real and perceived problems facing exploration and development in Alaska. Incentives that should be considered include credits for expenditures on exploration drilling and geophysics that can be deducted from claim rents, the mining license tax, production royalties, and income taxes. An increased budget for educational and promotional efforts is also recommended.*

GEOPHYSICAL AND GEOLOGICAL MAPPING

FINDING: Many other countries provide airborne geophysical surveys to guide and complement traditional geologic mapping and geochemical surveys. Commonly several millions of dollars per year are invested in order to survey several thousands of square miles. This has been found to be a cost effective marketing tool to attract mineral exploration investment.

In 1993 Alaska contracted for airborne surveys of 1,100 square miles and in 1994 for an additional 750 square miles. At least half of Alaska's 160,000 square miles of State land (104 million acres) has high mineral value. However, at the present level of funding it will take well over 80 years to survey these mineral lands.

Although the maps of the 1993 airborne geophysical survey were not available until April of 1994, already increased claim staking and exploration activity can be documented in the Nome and Circle areas. The maps from the 1994 surveys of the Fairbanks and Richardson districts should be available in early 1995, but already (October, 1994) there is significantly more exploration interest in both areas.

These mapping programs should be viewed as an investment similar to the marketing efforts in other basic sector industries in Alaska and accelerated to cover the known mineral belts in a reasonable time frame.

THE COMMISSION RECOMMENDS THAT:

- 2. The Governor and Legislature should invest \$5 million per year for the next decade, preferably through foundation funding, in airborne geophysical surveys and complementary geological and geochemical surveys.*

ACCESS

FINDING: The State has identified hundreds of potential Revised Statute 2477 Rights-of-Way (RS 2477) and is in the process of asserting title on a selected few. However only the Bureau of Land Management (BLM) currently has a policy for accepting State nominations and assertions.

RS 2477 access corridors may provide the only assured access across and within the vast interlocked system of Conservation Systems Units in Alaska other than the untested Title XI access provided for in the 1980 Alaska National Interest Lands Conservation Act (ANILCA).

THE COMMISSION RECOMMENDS THAT:

- 3. The State should aggressively assert all identified RS 2477 Rights-of-Way and provide funding until completion of the project. Further, the State should assert an access route pursuant to Title XI of ANILCA to test the process and develop precedent-setting guidelines.*

STATE REGULATORY REFORM

FINDING: Alaska mineral producers often face higher costs of doing business due to harsher climate, to higher labor costs, and to higher capital costs. Additional indirect costs due to regulations can have the effect of making Alaska mines uncompetitive with those in other states and countries. The Administrative Procedures Act (AS 44.62.195) requires State agencies to prepare fiscal notes which estimate the costs to State government of a proposed regulation. State agencies should also be required to estimate the compliance costs of proposed regulations to individuals and businesses as a formal part of the process of adopting regulations.

THE COMMISSION RECOMMENDS THAT:

- 4. The Legislature should amend the Administrative Procedures Act (AS 44.62.195) by adding a section as follows: "If the adoption, amendment, or repeal of a regulation would require increased costs for compliance by individuals and businesses, the department or agency proposing the regulation shall prepare an estimate of those costs for the year following adoption, amendment, or repeal of the regulation and for any additional period of time required for implementation and compliance with the regulation."*

FINDING: Presently several State agencies claim management authority over State lands. The administration has become a complex bureaucracy with multiple agencies vying for regulatory management of mineral development. The number of permits, the time required to secure those permits, the number of agencies, and the costs related to obtaining the permits has become excessive.

The recent experience with permitting a major mining operation on State lands near Fairbanks has demonstrated the benefit of having a coordinated State approach through the Department of Natural Resources (DNR) for the mine permitting process.

THE COMMISSION RECOMMENDS THAT:

- 5. The Governor should designate and fund the Department of Natural Resources (DNR) as the lead agency in all regulatory matters concerning mining, and should direct other agencies with regulatory authority over mining, such as the Departments of Fish and Game and Environmental Conservation, to coordinate their regulatory programs through DNR.*

FINDING: Authority for the issuance of Alaska Placer Mining Permits comes through the Miscellaneous Land Use Permit process. As the regulations are currently written, a permit under this section can be issued for only one year. Allowing longer permit periods would create a more stable environment for planning and financing mining projects while significantly reducing the work load of the Division of Mining.

THE COMMISSION RECOMMENDS THAT:

6. *The Governor should direct the Commissioner of the Department of Natural Resources to take the necessary steps to allow Miscellaneous Land Use Permits to be issued for periods of up to 5 years.*

CITIZEN'S ADVISORY COMMISSION ON FEDERAL AREAS

FINDING: The Citizens Advisory Commission of Federal Areas was established by the Alaska Legislature in 1981 shortly after the enactment of the Alaska National Interest Lands Conservation Act. The Commission is composed of 16 members, half of whom are appointed by the Governor and half by the Legislature, including four sitting legislators. The Commission analyzes federal legislation, regulations, and land management plans, determines the impact of these actions on Alaska's citizens, and makes recommendations to both State and Federal agencies for corrective actions to problems discovered. As federal regulations are finally developed, the case load is expanding.

Development of Federal lands and regulations for access across them is important to the State's economy. The Commission provides a valuable and cost-effective mechanism through which State concerns regarding management of all federal lands can be expressed.

THE COMMISSION RECOMMENDS THAT:

7. *The Governor and Legislature should provide expanded budgetary and programmatic support to the Citizens Advisory Commission on Federal Areas.*

COASTAL ZONE MANAGEMENT

FINDING: AS 46.40.040 and AS 46.40.060 refer to the Coastal Policy Council (CPC) duties as developed through public hearings of the 1970s and 80s. The CPC was to review coastal zone plans to ensure that they did not arbitrarily or unreasonably restrict or exclude uses of State concern. However, the State has not defined those State Uses in Statute (currently such uses are only referenced by CPC resolution). The Statutes do not clearly identify uses such as mining, fish and seafood processing, timber harvesting and processing, subsistence, habitat, grazing, historic and archeological resources, oil and gas development, commercial fishing or new settlements as Uses of State Concern.

THE COMMISSION RECOMMENDS THAT:

8. *The Legislature should amend AS 46.40.040 and AS 46.40.060 to define "uses of state concern" to ensure that all uses or potential opportunities for future uses or rights are treated equally.*

COAL ISSUES

FINDING: In 1990 the Alaska State Legislature passed into law a new statute to ensure reclamation occurred during and after mining on state, federal, municipal, and private land and water. In 1982 the Legislature passed a similar law regarding surface coal mining operations in Alaska. These two programs offer various reclamation bonding mechanisms to companies and individuals engaged in mining activities. A primary difference exists, however, in that coal mining operations are currently not able to participate in the State's bonding pool. A change in statute is advocated to allow for participation, if desired, of all mining companies and individuals in the State's bonding pool.

THE COMMISSION RECOMMENDS THAT:

- 9. The Governor should direct the Commissioner of Natural Resources to prepare necessary changes to AS 27.19.010(c) and AS 27.19.040(b) to allow for the inclusion of all mining companies and individuals in the State of Alaska's reclamation bonding pool.*

EDUCATION AND RESEARCH

FINDING: The "Alaska Resource Kit: Minerals" which is being used in the statewide public school system, is an excellent program for educating Alaska's students in the issues and fundamentals of resource development. The program is a cooperative effort between the Department of Education, which developed the curriculum and is responsible for its implementation, and the Alaska Mineral and Energy Resource Education Fund (AMEREF). AMEREF is an industry-supported organization which annually funds the production and replacement of the teaching materials and which partially funds the salary of a Mineral Specialist in the Department of Education who is responsible for providing teacher training and for implementing the program into the school systems. This program has proven to be a success and reflects the cooperation that has existed during the 10 years of the program's existence.

THE COMMISSION RECOMMENDS THAT:

- 10. The Governor and the Legislature should continue to support the Department of Education for its partial funding of a Minerals Specialist at the present or an increased level. Such support should be commensurate with the increased contributions from the industry-supported Alaska Mineral and Energy Resource Education Fund.*

FINDING: The University of Alaska offers programs for educating mining engineers, geological engineers and geologists; for providing mining public extension, and mining vocational training services; and for conducting applied research in direct support of the mineral industry. These professional, public service, and research programs are vital to the continued development and utilization of the State's mineral resources, to the jobs and incomes of its residents, and to the public revenues used to support education and other public services.

The ongoing assessment of University of Alaska programs will identify areas for reducing the University budget. Maintaining the identity of degree programs and administrative leadership of academic units which provide support for resource development and of vocational programs which provide unique direct job training should remain a priority for the University.

THE COMMISSION RECOMMENDS THAT:

- 11. The Governor and Legislature should provide budgetary support to the mining, geological, and mine training programs throughout the University of Alaska system.*

USER FEES

FINDING: Increased user fees have been suggested as a means of offsetting the cost of providing government service as the State faces declining revenues. However, allowing State agencies to unilaterally implement user fees could result in uncontrolled increases in the cost of basic services required by citizens and businesses, as well as allowing State agencies to operate outside the Legislature's budgetary process. Additionally, the implementation of user fees should carefully balance the need to generate revenues against the increased cost to citizens and business for necessary services and required permits.

In addition to these general concerns, the mineral industry is concerned about fee schedules and access restrictions for technical resource and land information from State databases. Onerous fees and restrictive use agreements for this information will discourage investment in mineral exploration and development.

THE COMMISSION RECOMMENDS THAT:

12. *The Governor and Legislature should establish policy guidelines for the implementation of user fees and should establish a procedure requiring legislative and public review of all proposed user fees.*

STATE LABOR ISSUES

FINDING: Legislation allowing a flexible work week and extending underground working hours is important for the viability of mines in remote locations. Properly drafted legislation would provide employers and employees with the flexibility to jointly determine work schedules that would enhance efficiency and provide for more desirable time off patterns for employees. A recent joint program in British Columbia between private industry, the B.C. Ministry of Mines, and the U.S. Bureau of Mines has demonstrated the utility, safety, and desirability of extended underground work shifts.

THE COMMISSION RECOMMENDS THAT:

- 13a. *Legislation should be enacted to allow work schedules to be set on the basis of project-specific considerations which will permit more efficient use of labor and provide more desirable time-off patterns for employees. AS 23.10.060 currently provides opportunities for flexible work plans at small seasonal mining operations and for surface mines. These same opportunities should be extended to all mining operations without regard to size, type, and/or seasonal nature of the work.*
- b. *Legislation should be enacted to amend current statutes limiting underground shifts from the current maximum of eight hours to a maximum of twelve hours, similar to SB 295 in the 17th Legislature.*

DIMINUTIVE DISCHARGES

FINDING: The Alaska Department of Environmental Conservation (ADEC) has recently begun selective enforcement on the mining industry of a regulation relating to disposal of nondomestic wastewater. This regulation applies to a broad spectrum of routine activities in Alaska which result in small discharges of solid or liquid waste, such as drilling, blasting, construction and earth excavations, and marine bilge-pumping. ADEC regulatory action is being conducted under, 18 AAC 72.500, which states (in part) "a person who disposes of nondomestic wastewater into or onto land, surfacewater, or groundwater in Alaska must have a permit issued by the Department (ADEC) for that disposal." Regulations detailed through 72.500 are promulgated under AS 46.03.100, which specifies that both liquid and solid waste are to be regulated.

Clearly, this regulatory language is so broad as to include most outdoor activities in the State. The Department of Law has maintained that no exemptions are allowed and that ADEC must require a permit for all discharges, regardless of the source, type, or insignificance of the discharge. To date, ADEC has chosen only to require a permit for selected mineral drilling activities. This selective enforcement of a bad regulation is an example of government at its worst.

THE COMMISSION RECOMMENDS THAT:

- 14. The Alaska Legislature should amend AS 46.03.100 to exempt diminutive activities, including mineral drilling, certain construction activities, and marine bilge-pumping from requiring a Waste Disposal Permit. Specifically, mineral drilling in which the only discharges are ground-up rock, water, and biodegradable additives, (which are EPA approved for water-well drilling), should be exempted.*

PART B: FEDERAL ISSUES OF STATE CONCERN

MINING LAW OF 1872

FINDING: Proposed changes to the 1872 Mining Law embodied in the Mineral Exploration and Development Act of 1993 (S257) and the companion HR322 would have a severe adverse effect on mineral exploration, development and production on federal lands in Alaska. Alternate bills, (S775 and HR 1708), modeled on workable state laws offer reasonable assurances for industry stability.

THE COMMISSION RECOMMENDS THAT:

15. *The Governor, in conjunction with the Congressional Delegation and the Western Governors Association, should continue opposition to changes in the Federal Mining Law that would adversely affect mineral development in Alaska.*

ANILCA PROVISIONS

FINDING: In order to assure passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980, there were several sections included to protect pre-existing rights. Several provisions would allow mineral development on or near otherwise withdrawn land. Title XI addressed access across the Conservation System Units (CSU). Sections 101d and 1326b assured that no more land in Alaska would be considered for new CSU or similar designations. Sections 103b and 1302h provided a mechanism for the Secretary of the Interior to adjust the boundaries of CSU or to exchange lands within them to exclude mineralized areas.

THE COMMISSION RECOMMENDS THAT:

16. *The Governor and Legislature, through the Attorney General's office, the State's Washington, D.C. office, and the Congressional Delegation should insist that the federal administration;*
 - a. *provide access across Conservation System Units (CSU) as required by Title XI of the Alaska National Interest Lands Conservation Act (ANILCA),*
 - b. *prohibit the creation of additional CSU lands in Alaska as required by Sections 101d and 1326b of ANILCA, and*
 - c. *exchange mineralized areas from existing CSU under the authority of Sections 103b and 1302h of ANILCA.*

INTERNATIONAL PARKS IN ALASKA

FINDING: Recent federal actions have proposed Beringia Heritage International Park on both sides of the Bering Straits, an international park which would encompass the Arctic National Wildlife Refuge, and a park which would encompass the Windy Craggy copper deposit in British Columbia and lands in the Wrangell-St. Elias National Park and Preserve. The Audubon Society further recommends the creation of a "Beringia International Marine Biosphere Reserve" and a "World Heritage Site". These actions would adversely impact Alaska through loss of future revenues promised under the Statehood Act, would result in negative impacts on

adjacent lands and landowners, would restrict or deny access and resource development, and would violate the "no-more" clause of ANILCA. Such international classifications are politically irreversible and effectively give up sovereignty over the affected lands.

THE COMMISSION RECOMMENDS THAT:

17. *The Governor and the Legislature, through the Congressional Delegation, the State's Washington, D.C. office, and by letter to the Secretary of Interior, should vigorously and resolutely oppose the creation of any International Park, World Heritage Site, or International Marine Biosphere Reserve in Alaska or in waters adjacent to Alaska.*

US GEOLOGICAL SURVEY AND BUREAU OF MINES

FINDING: Congressional proposals to abolish the U.S. Geological Survey (USGS) and the U.S. Bureau of Mines (USBM) fail to recognize the importance of these agencies, especially in States such as Alaska which contain considerable geologic hazards along with having natural resource dependent economies with an abundance of natural resources located on federal lands. The USGS is the nation's premier water and earth-science information and research agency, having an ever-increasing important role in land use and environmental issues. Similarly, the USBM is the premier agency responsible for providing information and analysis on mineral resources related issues; including worker safety and advanced technologies.

THE COMMISSION RECOMMENDS THAT:

18. *The Governor and the Legislature, should work with the State's Congressional Delegation to assure funding for field offices of the U.S. Geological Survey and the U.S. Bureau of Mines in Alaska.*

This publication was released by the Department of Commerce and Economic Development. Its purpose is to report the findings and recommendations of the Alaska Minerals Commission to the Governor and to the Legislature of Alaska. It was produced at a cost of \$1.38 per copy and printed in Juneau, Alaska. This publication is required by Chapter 98, Session Laws of Alaska, as amended by Chapter 4, Session Laws of Alaska, 1993.

