ALASKA LEGISLATURE COMMITTEE FILES 1981-1982 8072

2125 HT HB 676 - HB 804

2/125

The state has not developed a single boat launch on the Susitna River. Many boaters now use Willow Creek as an access route to the Susitna River and streams west of the Susitna. A major conflict has developed between boat traffic on Willow Creek and anglers trying to fish from the banks. We believe a boat launch on the Susitna River near the mouth of Willow Creek is the only practical answer. This type of facility would ease the access problem to streams west of the Susitna River and help resolve the conflict arising along Willow Creek. Also, it would substantially increase access to lower Willow Creek for those anglers not having riverboats.

Currently, the only boat launching facility on the Susitna River is a private site near the mouth of the Kashwitna River. Owners of this site charge for launching and parking of vehicles. More importantly, the site is far upstream of the west-side tributary streams which support important sport fisheries. That portion of the Susitna River between the mouth of Willow Creek and the existing private launch at Kashwitna consists of shallow, braided glacial water which limits use to persons having jet outboards. Conversely, a launch near the mouth of Willow Creek would allow propeller equipped outboards and a wide range of boats to be used for access to sportfishing streams west of the Susitna River.

We have been advised that the Division of Parks has proposed a boat launch at the Willow Creek/Susitna River confluence as a capital improvement project. We have also been told by Department of Fish and Game personnel that they consider this project to be of paramount importance in meeting sportfish angling needs. We wish to go on record as being strongly in support of this project.

Since statehood, we sportfishermen have paid our own way by supporting the entire sportfishing program through our license dollars. However, we also pay a full share of commercial management through general fund expenditures. So, along with independently supporting our own program, we have also paid to support the commercial fisheries management program and watched hatcheries built at a host of locations where sportsmen will receive absolutely no benefit, such as Cold Bay, Afognak Island, Bristol Bay and Kotzebue. We have never complained about paying for our own program; however, it is obvious that Alaska now can well afford to put a reasonable amount of general fund dollars each year back into projects which will directly benefit sportfishermen. We think purchasing and developing sportfishing access sites is an excellent way to support and encourage sportfishing and the large number of small businesses it supports.

Therefore, we urge you to support funding for the acquisition and development of sites which will allow sportfishermen to harvest a fair share of Alaska's fishery resources. Specifically, we request your support during the upcoming session for funding to develop a road down the north bank of Willow Creek and a launching area near the Willow Creek/Susitna River confluence as defined in the Division of Parks Capital Improvement budget.

Sincerely,

Dan Zivanich
President

(home phone) 345-5570

HB

6891

ALASKA ARMY NATIONAL GUARD
COMPANY B 5th ARCTIC RECON BN
202 WEIN STREET
FAIRBANKS, AK 99701
452-2364

Honorable Representative;

I am writing you in regards to Distinctive Auto license plates for National Guardsmen. At present there are 15 (fifteen) States that offer this to their Guardsmen, either FREE or at a reduced rate. They are as follows:Alabama, Arkansas, Florida, Idaho, Kentucky, Mississippi, New Jersey, New Mexico, North Carolina, South Carolina, Montana Tennessee, Utah, and Virginia.

A State such as our's surely could come up with something similiar. This would be a asset to our Recruiting and Retention efforts as well as making the general public aware of the National Guard.

John D. Riddle
SSG AK-ARNG
Recruiter

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: Feb. 18, 1992
LOCATION: Juneau
SUBJECT: HB689

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
Bill Brown	Div. of Motor Vehicles	Pouch N	465-4335	X	
Margaret King	Rep Battinwoth	Cap 501	465-4967	X	

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: 2/4/82
LOCATION: 112 Capitol
SUBJECT: HB 689

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
John Ringstad for Rep. Bettisworth					

TWELFTH LEGISLATURE

FISCAL NOTE
EXPENDITURES

I. REQUEST
Bill/Resolution No. SSHB 689
Title Act Relating to Registration of Motor Vehicles by the National Guard
Requested by Representative Bettisworth Date 2-16-82

II. FISCAL DETAIL
Agency Affected Department of Public Safety
Program Category Affected Life and Property Protection
BRU, Program, Or Subprogram(s) Affected Driver/Vehicle Services
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES		2.0	.5	.6	.7	.8
200 TRAVEL						
300 CONTRACTUAL		11.4	.7	.7	.8	.9
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL		13.4	1.2	1.3	1.5	1.7

FUNDING (Thousands of Dollars)

GENERAL FUND		13.4	1.2	1.3	1.5	1.7
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

1,500 20 10 0 0

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

The FY83 costs are startup costs for the program, and are based on the estimate of 1,500 Air and Army National Guard members obtaining the new plate. The costs are as follows:

100	Personal Services (1 man/month for initial issue and verification)		2.0
300	Contractual -	Plates (1,500 @ $5.00)	7.5
		Dies and Setup Charges	.5
		Mail Costs (1,500 @ $1.75)	2.6
		Forms	.3
		Computer Costs	.5
			13.4

The succeeding years costs are for re-registration and replacement plates, plus new Guardsmen.

IV. DATE February 16, 1982 PREPARED BY Robert J. Rowan
AGENCY Public Safety - Motor Vehicles
PHONE 269-5551

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

TWELFTH LEGISLATURE

FISCAL NOTE
REVENUE

I. REQUEST
Bill/Resolution No. SS HB 689
Title Act Relating to Registration of Motor Vehicles by the National GUARD
Requested by Representative Bettisworth Date 2-16-82

II. FISCAL DETAIL
Agency Affected Department of Public Safety
Program Category Affected Life and Property Protection
BRU, Program, Or Subprogram(s) Affected Driver/Vehicle Services
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL						

FUNDING (Thousands of Dollars)

GENERAL FUND		30.0	2.0	2.0	2.0	2.0
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

HB 689 sets same requirement to obtain specialized license plates for members of the National Guard as is now required for individuals who want to obtain personalized license plates, which is to pay an additional $20 fee for initial issuance of a set of plates. Using an estimate that 1,500 National Guard plates would be issued the first year, the increase in revenues would be $30,000 (1,500 x 20).

IV. DATE February 16, 1982 PREPARED BY Robert J. Rowan FOR by Hall
AGENCY Public Safety - Motor Vehicles
PHONE 269-5551

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/81)

Introduced: 1/25/82
Referred: Transportation

IN THE HOUSE BY BETTISWORTH

HOUSE BILL NO. 689

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to registration of motor vehicles by members of the Alaska National Guard."

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

* Section 1. AS 28.10.181 is amended by adding a new subsection to read:

(l) Vehicles owned by members of the Alaska National Guard. The department shall issue specially designed registration plates to members of the Alaska National Guard. The plates shall be of a color and design agreed upon by the adjutant general of the Alaska National Guard and the commissioner. Application for the plates shall be on a form prescribed by the department.

* Sec. 2. AS 28.10.411 is amended by adding a new subsection to read:

(f) A member of the Alaska National Guard is entitled to an exemption from the registration fee under this section for one motor vehicle subject to registration. An exemption may not be granted except upon written application for the exemption on a form prescribed by the department.

* Sec. 3. AS 28.10.421(d)(3) is amended to read:

(3) a vehicle owned by a disabled veteran or other handicapped person [,] and registered under AS 28.10.181, or a resident 65 years of age or older who complies with AS 28.10.411(c), or a member of the Alaska National Guard exempt from the registration fee under AS 28.10.411(f) . . . . . none;

You Need Sec. 2 to get the Special Plate Fee Exemption

Perhaps Bettisworth wants to draft a sponsor Substitute and bring this up in Next weeks Work session.

16,000.00

Introduced: 1/25/82
Referred: Transportation

IN THE HOUSE BY BETTISWORTH

HOUSE BILL NO. 689

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to registration of motor vehicles by members of the Alaska National Guard."

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HB

690


MONASHKA BAY
CEMETERY ROAD
MILL BAY
068550 SS
MELOI
068550 SS
0.6 DRIVE
068550 SS
0.5
068650 SS
MILL CIRCLE RD
Island Lake
068526 SS
ISLAND LAKE ROAD
Dark L.
MILL BAY CONNECTION
068680
Big Lake
MAINTENANCE
ISLAND
STATE
Mission L.
MISSION ROAD 068543
SHAHAFKA COVE
KODIAK
INNER HARBOR
068610
MARINE WAY
060500
CHANNEL

HB

101

The following is a description of harbor development prioities for the City of Kodiak.

1. Completion of the Near Island Bridge:

Funding: 50/80 $ 500,000.00
118/80 $5,000,000.00

Project Description: Existing funds will provide for the design of the sub-structure, superstructure and access routes; right-of-way acquisition and relocation costs; and sub-structure construction. An additional $17,300,000.00 supplemental request is part of the FY '83 Governor's Budget. These funds would be used to construct the superstructure and access roads from Rezanof Avenue and the Dog Bay Harbor Staging Area.

2. Completion of Kodiak/Dog Bay Small Boat Harbor:

Funding:	Phase I	75/78	$2,450,000.00
	Phase II	201/72	$ 724,650.00
		118/80	2,000.000.00
		50/80	150,000.00
	Total State		$2,874,650.00
	City of Kodiak's Share		$1,700,000.00
			$4,574,650.00

Project Description: Phase I construction included the placement of a floating breakwater. The breakwater components are in place. The project should be completed by March 1, 1982.

Phase II involves the construction of in-harbor floats and pilings capable of berthing over 300 vessels up to 100' in length. This phase should go to bid by mid-February.

An additive alternative program has been included in the bid package although funds are not currently available. This program would provide electricity to the slips, lighting of the float facilities and an access pier from Near Island. A ferry service will be initiated until road access via the proposed Near Island Bridge to transport people and goods between Dog Bay and the City.

The City of Kodiak is pursuing a quarantee of funding for the Alternative Program of $1,825,000.00 with the hope that they would be able to be reimbursed by the State. The State has requested $2,000,000.00 as part of the FY '83 voter's package to fund the Alternatives, project engineering and contingencies. The State

would only be able to reimburse the City if this request was approved by the Legislature this session and the voters in November of 1982.

(NOTE: The remaining projects are the preliminary recommendations for harbor development activities at Kodiak taken from the on going Kodiak Harbor Development Plan by Peratrovich and Nottingham, Inc. for the City of Kodiak. This study will also look at land use requirements as they relate to harbor development.)

3. Pillar Mountain stabilization and breakwater #6:

Funding: Non-available. Engineer's estimate for design and construction $36,000,000.00 for slope stabilization. Immediate funding request for design and engineering $2,500,000.00 of the stabilization project. Project Engineering and cost of the breaker facility is unknown at this time.

Project Description: This project would stabilize the slope of Pillar Mountain in the immediate vicinity of the existing city docks. The project would remove serious hazard as well as provide space for 2000 linear feet of ocean dock between the existing piers number 2 and 3 (initially a 400' x 80' dock would be constructed in this area). It would provide 13 acres of upland staging and industrial areas which is extremely limited in Kodiak. The material from the excavation could be used in the construction of the ocean dock and breakwater #6. (Please see attached brochure on the Pillar Mountain Project.)

Breakwater #6 would provide protection to the City Dock area. Core material could be available from the Pillar Mountain Project. Armor stone would have to be secured from another material source.

4. Pier Number 3 Repair/Dock Construction:

Funding: Non-available. Engineer's estimate is $2,500,000.00.

Project Description: The existing abutement serving as backwall of Pier Number 3 is failing due to corrosion of its supporting the back system. The proposed project would construct a dock 20' to 25' in depth for the length of 380' behind this backwall, install a cathodic protection system and install a fender system.

5. Improvement of Entrance Channel between Puffin Island and Kodiak Island:

Funding: Cost estimate unavailable at this time.

Project Description: The entrance channel to Kodiak/St. Paul Harbor is narrow with several marked ad unmarked shoals. This

project would clear the channel of obstacles to provide easier and safer maneuverability of ocean going vessels of 700' in length and 30' draft. This project is necessary to provide safer passage for the projected increase in large ocean class vessel traffic at Kodiak.

6. New Dock Development between Pier 2 and 3 and Boat Haulout Facility at Gibson Cove.

Funding: Cost estimate for a 400' x 80' dock is unavailable at this time.

Cost estimate for Boat Haulout Facility is $750,000.00.

Project Description: Initial dock development would consist of a structure 400' x 80' between Pier 2 and 3. This facility would meet the short-term needs of additional docking facilities for ocean going vessels at Kodiak. The area between Pier 2 and 3 could potentially provide 2000' of additional docking facilities if Pillar Mountain is stabilized.

A boat haulout facility capable of handling a 150 ton vessel is recommended at Gibson Cove. This facility would allow vessels up to class to be repaired and maintained at Kodiak.

7. Near Island Industrial Area Development:

Funding: Cost estimate not available at this time.

Project Description: It is recommended that the southwest tip of Near Island be filled to provide suitable area for industrial development. This filled area would also serve as a breakwater. A 400' x 80' dock is recommended at this location to serve the Kodiak Fishing Fleet. It is projected that as the bottom fish industry develops fishing boats of up to 300' could begin to be based out of Kodiak. These vessels could use the Near Island Dock. The filled area and dock would protect the rest of Dog Bay Harbor. Dog Bay harbor could be expanded to serve these larger vessels.

Access roads to the industrial area and Dog Bay Harbor should be completed as well as the necessary utilities for infrastructure development.

8. Gibson Cove Breakwaters and Small Boat Moorage Area:

Funding: Cost estimates unknown at this time.

Project Description: This would complete the Gibson Cove Small Boat Moorage (less than 100') and Repair Facilities. The breakwater

would afford the necessary protection for the moorage and repair facilities.

Projects 1 and 2 are projects that are under design with cost figures that are based on sound engineering estimates. Projects 3 and 4 are conceptual projects that have been given some study. There cost estimates should be fairly accurate. Projects 5 through 8 are the preliminary recommendations of the Port of Kodiak Development Plan. This plan will be completed by June 1982. More complete project scopes and refined cost estimates will be available some time before then. Estimates for projects 5 through 8 are best guesses based on available information.

Attachment

pillar mountain slide stabilization and port development

city of kodiak, alaska

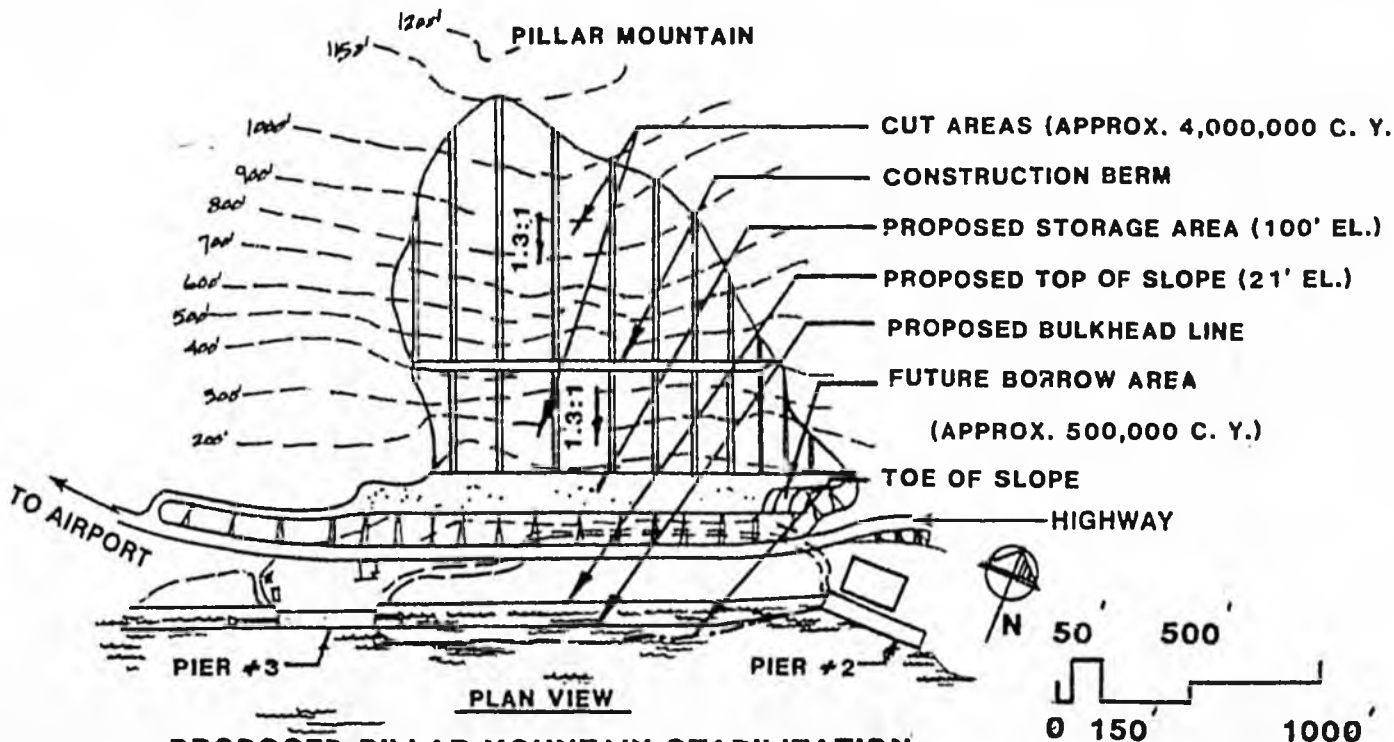
funding request

introduction

Kodiak depends upon the sea both for its existence and its primary means of transportation. The efficient use of the limited available uplands immediately adjoining Kodiak's harbor becomes of paramount importance to continuing economic growth.

St. Paul Harbor, which fronts the community of Kodiak, is the principal deepwater harbor in the area and provides primary access to the sea for direct movement of general cargo and fisherics products, and other commercial activities.

The existing deepwater port in St. Paul Harbor is located at the toe of Pillar Mountain and includes City Piers No. 2 and No.3. These two piers handle most of the heavy cargo movement, though they have minimal upland area for cargo storage due to the proximity of the state highway and the mountain. Limited space forces various users to transport and store containers at several locations remote from the port, resulting in a situation that is both undesirable and uneconomical.



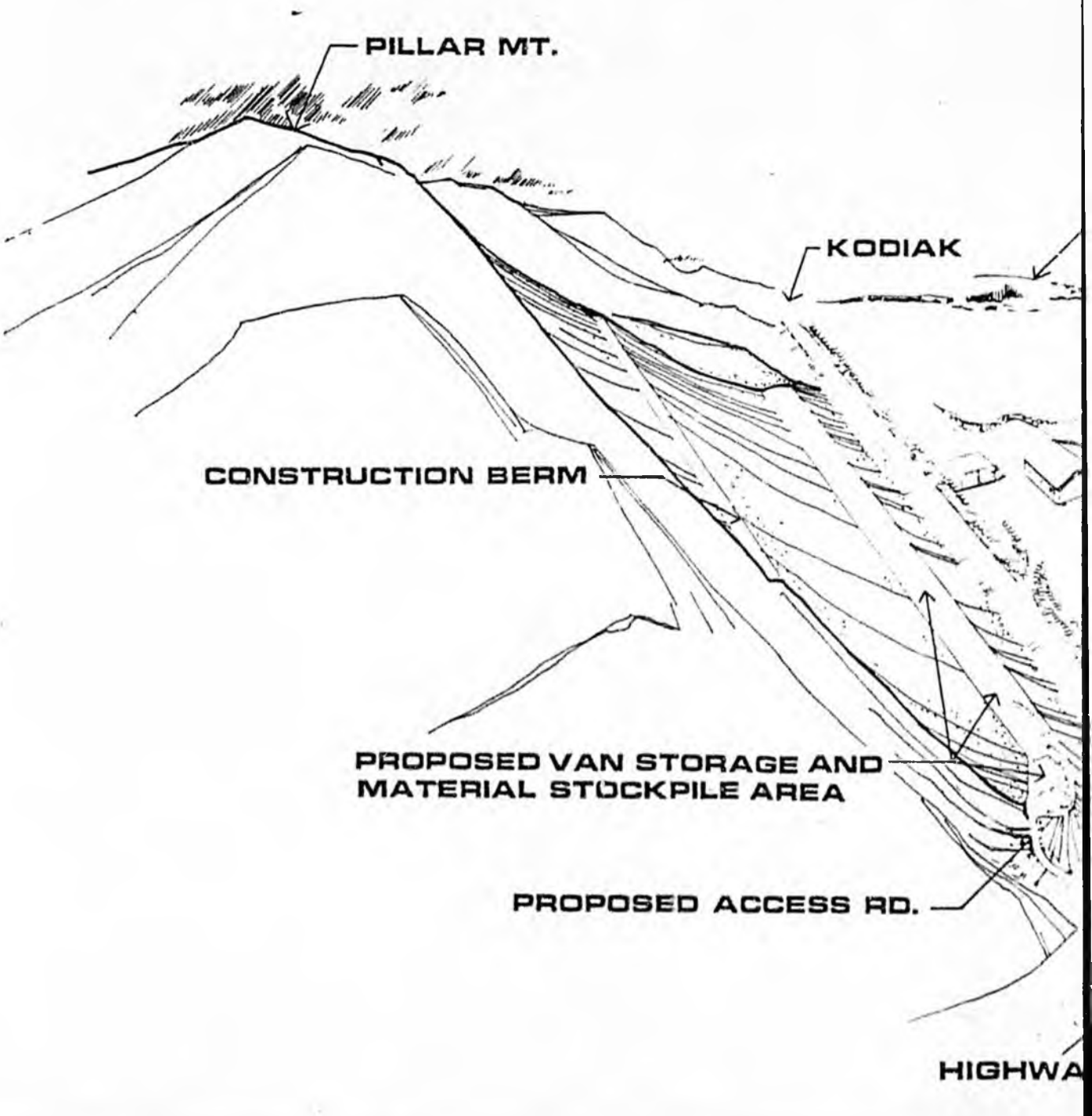
PLAN VIEW

PROPOSED PILLAR MOUNTAIN STABILIZATION

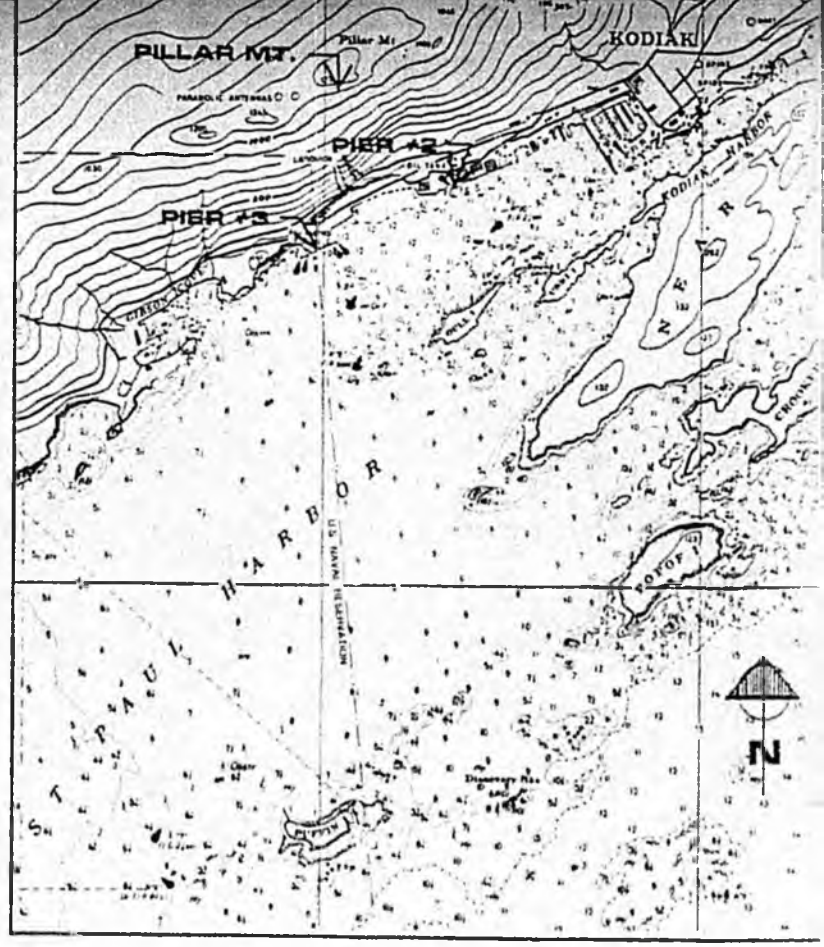
Immediately above the highway in the port area is an unstable slope of Pillar Mountain, which at times creates small rockslides that impact highway use between the airport area and Kodiak. While slides have been small to date, a significant and potentially dangerous condition has currently been identified. This problem has been the source of much controversy, study, and costly inconvenience. Studies now indicate that stabilization is possible, with considerable benefits.

project approach

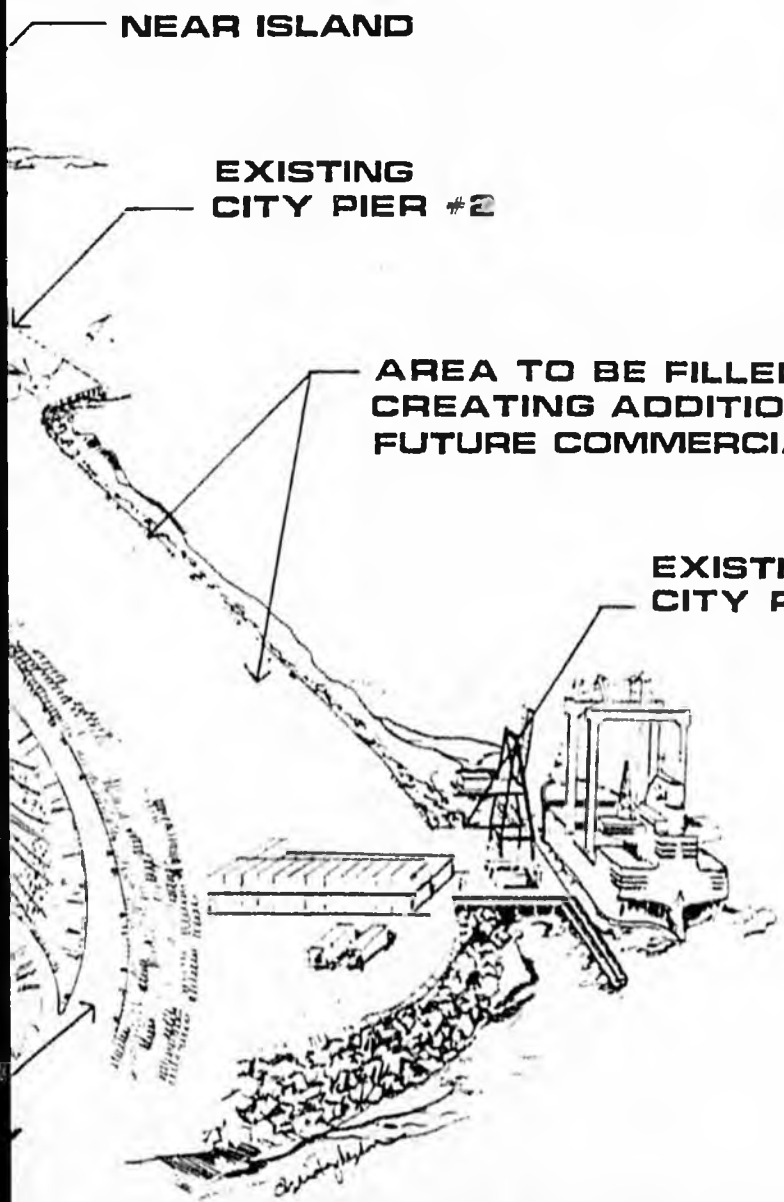
Pillar Mountain's stability is the key issue in the safe development of Near Island and additional port facilities. A coordinated effort, commencing with the stabilization of Pillar Mountain through rearranging approximately four million cubic yards of rock, could result in the following:



- Removal of a hazard which seriously impacts the construction of all future development in the immediate area.
- Provide a reserve stockpile of fill material, estimated in excess of 500,000 cubic yards, for immediate and future use.
- Provide space for over 2,000 linear feet of additional deepwater dock frontage between Piers No. 2 and No. 3.
- Create an additional 13 acres of critical port upland area for commercial and industrial expansion.



LOCATION MAP



The project should begin with a staged plan that includes sound engineering and design consistent with suitable construction methods. This can be accomplished over the next three years, with project construction completion in 1985.

project budget and timing

PHASE	PHASE DESCRIPTION	ESTIMATED BUDGET	TIME PERIOD
I	Land Use Plan Development	$ 100,000	1981 to 1982
II	Design and Construction Engineering (including additional field exploration, surveys, and geotechnical studies)	2,500,000	1982 to 1985
III	Construction (primary excavation and slope stabilization)	24,000,000*	1983 to 1984
IV	Construction (final finish work, including highway, utilities, surfacing, etc.)	3,000,000*	1985
	Base Project Cost	$ 29,600,000	
	Inflation for 1985 Completion	6,400,000	
	TOTAL FUNDING REQUEST	$ 36,000,000	

*Tentative - subject to Phase II findings.

For additional information, contact:

William C. Bivin, City Manager
Laurence Monroe, P.E., City Engineer

P.O. Box 1397, Kodiak, Alaska, 99615 (486-3224)

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: 2/9/82
LOCATION: R112
SUBJECT: HB 707

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
Rep Zharoff Richard					

HB

749

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 749
Title Appropriation for Girdwood/Alyeska Pathway
Requested by Rylsma Date 3/2/82

II. FISCAL DETAIL
Agency Affected Transportation and Public Facilities
Program Category Affected Transportation
BRU, Program, Or Subprogram(s) Affected
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL	1,675,000.					

FUNDING (Thousands of Dollars)

GENERAL FUND	1,675,000					
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

Construction of an 8 foot paved pathway along north side of Girdwood-Alyeska Highway from the Old School to the lodge parking lot and south side between the Crow Creek Highway to Hightower Road and Timberline Drive to the parking lot, and also a spur up Hightower Road to the new school. Includes new bridge across Glacier Creek. Length 3.7 miles.

Estimated Costs: $1,675,000

Operational Aspects: Responsibilities for maintenance have yet to be determined.

Estimated Costs - Municipality of Anchorage

Parks and Recreation Dept. utilized a $1,500 per mile figure for estimating maintenance costs (year round).
$1,500 x 3.7 mile length = $5,550.00 (Annual) (con't.)

IV. DATE 3/2/82 PREPARED BY John C. Bates
AGENCY DOT/PF
PHONE

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
33-C01 (Rev. 12/81)

Another mechanism would be for the Municipality of Anchorage to pass maintenance funds through to the Girdwood Board of Supervisors to handle maintenance efforts perhaps through local contract.

Estimated Costs - DOT/PF Maintenance Section

DOT/PF M & O currently does not own the proper equipment to maintain a pathway of this type. If DOT/PF maintenance forces were to be responsible, the necessary equipment would have to be purchased.

Initial Purchase of Equipment - 730J Rotary Snow Blow Bombardier MTD 500 TPH - cost $60,188.

Annual maintenance and operating costs $15,500 (30 hours monthly - amortize equipment - Dec., Jan., Feb., & March - manpower @ $25.00 hr.)

Another option would be for DOT/PF to pass through money made available to a local service supplier.

Note on Maintenance Costs

Paul Meyerhoff of the Girdwood Board of Supervisors said that the Board would take care of routine maintenance of the pathway. He thought that the funds provided by the municipality could be budgeted for this purpose.
He made these comments at a meeting held December 8, 1981 at the Governor's Office in Anchorage.

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

4111 AVIATION AVENUE
POUCH 6900
ANCHORAGE, ALASKA 99502
(TELEX 25-1851)

Date: February 8, 1982
Prepared By: Design

PRELIMINARY CONSTRUCTION COST ESTIMATE FOR:

Project: Girdwood-Alyeska Pathway
From: Old School (MP ---) TO: End of SMS (MP ---)
Total Length: 3.7 Miles
Location and Description: 8 foot paved pathway along north side of Girdwood - Alyeska Highway from the Old School to the lodge parking lot and south side between the Crow Creek Highway to Hightower Road and Timberline Drive to the parking lot. and also a spur up Hightower Road to the new school. This includes a new bridge across Glacier Creek.
Current ADT: 3500 Design ADT: NA
Required Width: 8'-0" Actual Width: NA
Assumed Structural Section H.A.P.: 1 1/2 in.
C.A.B.: 4 1/2 in.
Borrow: ----- in.

Estimated Costs (1981 Dollars) Based Upon Above Assumptions:

1.	Construction Estimate:	$ 950,000
2.	Construction Administration (12 % of 1):	$ 115,000
3.	Subtotal:	$ 1,065,000
4.	Preliminary Engineering (-- % of 1):	$ -0-
5.	Right of Way ($ 50,000.00 /Acre):	$ 450,000
6.	Utilities: ($1,000/pole)	$ 10,000
7.	Subtotal:	$ 1,525,000
8.	Contingencies (10% of 7):	$ 150,000
	TOTAL:	$ 1,675,000

GIRDWOOD
BOARD OF SUPERVISORS

P.O. BOX 249
GIRDWOOD, ALASKA 99587

George McCoy, Chairman
Tim Bennett
Roger Davis
Sewell Faulkner
Paul Meyerhoff

MUNICIPALITY OF ANCHORAGE
GEORGE M. SULLIVAN, MAYOR

December 13, 1981

Representative Bernie Bylsma
SRA Box 4106
Anchorage, Alaska 99502

Dear Bernie:

On behalf of the Girdwood Community, I would like to express our appreciation for the assistance of William Mailer in our current road situation. It is certainly most tragic that is has taken four horrible deaths along this road to make us realize that the situation must be corrected.

We would be most appreciative if you would direct a member of your staff to assist us in securing the necessary funding under a special or supplemental appropriation during the first month of the upcoming legislative session. Possibly this will be Mr. Mailer. With your help, that of our other legislative delegations, the municipality of Anchorage, and the Governor's Office, we will see a pedestrian walkway in place by next fall.

It is our sincere hope that the walkway funding will not be any sort of political football, and thus be stalled to the end of the session. No more time should be lost over this matter. All of us need to work together to see the design, construction, and funding through to a successful conclusion. We all hope no more lives are taken.

Please let me know who from your staff we can call while you are in Juneau. As soon as we have a good funding figure from DOTPF we should move on the funding request. Thank you for working on this. Your personal support is very much appreciated by our Board of Supervisors and our citizens.

Posted 1-8-82

Sincerely,

Paul Meyerhoff II
Acting Chairman

cc: Girdwood Board of Supervisors
Mayor George Sullivan
Mayor Elect Tony Knowles
Governor Jay Hammond
Senator Mike Colletta
Rep. Ray Metcalfe

December 17, 1981

To whom it may concern:

This letter is in regards to the tragic accident that took the lives of two young boys in Girdwood, December 5, 1981.

I haved lived in Girdwood for seven years. I am chief of the emergency medical services for this area. This is not the first time I have seen innocent young people killed on that road. Partidularly in the winter where there is even less of a place to walk than in the summer.

It is long overdue that pedestrian walkway be constructed along the Alyeska Highway. This should not be donfused with a adjacent bikeway. The walkway needs to be seperate from the road. It will need to be maintained in the winter so people can use it. A seperate walkway needs to be constructed over Glacier Creek.

Appropriate funding should be allocated for this and construction started early summer 1982.

Sincerly,

Judy Kuleta

cc:
Gov. Jay Hammond
Senator Mike Colletta
Rep. Bernie Bylsma

Logged 1-8-82

JAY S HAMMOND
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

September 5, 1978

Ms. Patricia L. Absher
Girdwood Board of Supervisors
P. O. Box 591
Girdwood, Alaska 99587

Dear Ms. Absher:

The Girdwood Bike Path project is still in the location and feasibility study stage. One proposed location along the utility corridor was rejected by the Borough Engineers and it received very little community support. The other possible location along the highway was found to be impractical because of the many driveways on the west side. This same location was found to be even less practical on the east side because of the topography.

During a meeting with residents last winter, the State agreed to the installation of a series of lights to illuminate the most dangerous areas. This has been done.

Parking and pedestrian problems are pointing to a common solution that involves minor widening of the west side and the construction of a curb, gutter and sidewalk system. The Department of Transportation and Public Facilities' staff engineers are presently developing this proposal. I am advised that the Department will be prepared to discuss this improvement with local residents by approximately September 15.

We still have high hopes that we will be able to reach a solution that is acceptable to the community and have a major segment completed in 1979.

Thank you for your support.

Sincerely,

Jay S. Hammond
Governor

Accident Kills Girdwood Girl

Nov. 14, 1977

Times

By The Associated Press

A 12-year-old girl has died of injuries received when she was struck by a car near Alyeska Ski Resort, Alaska State Troopers report.

A spokesman said Catherine Maule was walking with a male companion Saturday night when she was struck by a vehicle driven by a male juvenile. She died early yesterday.

Miss Maule was the daughter of Catherine Maule of Girdwood and Julian Maule of Seattle.

The driver of the vehicle said he could not see the two pedestrians because of darkness and falling snow, troopers reported. And witnesses say the victim and her friend were partially on the highway.

An investigation of the accident is under way, troopers said.

ANCHORAGE TIMES DECEMBER 7, 1981

Girdwood walkway plans resurface following deaths

by Ralph Nichols
Times Writer

Girdwood residents, angry at the deaths of two more children along the Girdwood Highway, have scheduled a meeting at 7:30 tonight in the Girdwood Community Hall to discuss ways to obtain a walkway along the road.

Wesley Gerrish, 10, and his brother Scott, 13, both of Girdwood, were struck by a rented car driven by Patrick Clemans, 32, of Sitka, at about 4:30 p.m. Saturday as they walked along the parking lane at Mile 2.5 of the highway, according to Alaska State Troopers. The two boys died Saturday night at Providence Hospital.

Clemans has been charged with two counts of criminally negligent homicide and jailed in lieu of $10,000 bond, troopers said.

The deaths of the Gerrish boys brought to four the number of car-pedestrian fatalities along the highway in Girdwood in the past five years, and a fifth young victim was

(See SAFETY, page A-3)

Safety

(Continued from page A-1)

permanently crippled in a similar accident.

Speed and careless driving are the causes of these accidents, Ellie Brown, a Girdwood merchant, said today. Needed to prevent such tragedies in the future is enforcement of the 30 mph speed limit that extends from Girdwood's residential and business area to Alyeska Ski Resort, and a pedestrian walkway and bike path along the highway, Brown said.

"We hope to get the funding we were allotted for bikeways and pedestrian paths" from the municipality of Anchorage, Brown said. She charged that Anchorage budgeted money for a walkway several years ago, but "every year the budget is cut, and every year (construction) is postponed."

Brown said: "It is commonplace that Anchorage takes Girdwood for granted except for higher taxes and zoning . . . but over half the people here have families with small children who walk that highway every day." Saturday's accident claimed the only children in a family that was planning to move to Hawaii soon, she added. The family also lost a child recently to Sudden Infant Death Syndrome.

"It's not the people who live in Girdwood who are the problem, it's the people who live in Anchorage who are the problem . . . We want an immediate solution," Brown said.

Paul Meyerhoff, a member of the Girdwood Board of Supervisors, said the resort community has been trying unsuccessfully to get a pedestrian walkway and bike path constructed along the highway since 1964.

"We seem to get a political runaround from people in Juneau, and from people in Anchorage," Meyerhoff said. "The question that goes through people's minds in Girdwood is how many more children have to die before we get what we need to take care of this situation."

He said Girdwood residents have also asked for lower speed limits and stop signs on the highway, but without success. "Citizens here are very frustrated. They don't know what to do to get the problem solved," he added.

Anchorage Mayor George Sullivan said today the roadway in question is a state highway. But, he added, "we did take the matter to the voters this fall." Approved in the election was a $1.5 million project to meet the Girdwood demand, of which $200,000 was funded. Sullivan said he hopes the balance will be appropriated by the Legislature next year.

However, Meyerhoff said, no one in Girdwood seems to know who in the municipality is responsibility for planning this project.

Troopers said Clemans had passed another vehicle, pulled back into the northbound lane on the Girdwood Highway, and veered onto the safety shoulder at the time of the accident. They said the investigation is continuing, and that they are awaiting the results of blood alcohol tests performed on Clemans.

PLEASE NOTE

THE ORGINAL FILE CONTAINS AN OVERSIZED DOCUMENTS THAT ARE UNSUITABLE FOR FILMING. PLEASE REFER TO THE ALASKA STATE ARCHIVES TO VIEW THE ORIGINAL.

HB

7688

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: 3/19/82
LOCATION: 112
SUBJECT: HB766

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
Charlie Boddy	Usibelli Coal Mine	POUCH 1909 USIBELLI, AK 99787	6832226		✓
Anne Deveres	House Research	-			✓
John Quinto	Dept Revenue				—
K. B. Stiles	Diamond Shamrock	430 TUDOR Rd ANCHORAGE AK	272-3583		—
Jill Lowenfels	C.A.L.	Birch Horton Bittner 1127 W 7th Anch 99501	276-1550		—
Ede McFarland	Parker Amek	SF CO.	415 986-0740	✓	

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: 3/5/82
LOCATION: 112 Capitol
SUBJECT: HB 768

HB 337 NB

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
Steve Bainbridge	City of Nenana	Box 177 Nenana	832-5501	✓	✓
Phil R Holdsworth	C.O.A.L. Association	326-4th St #1009 Juneau	586-1383	✓	
James R Deagan	Office of Mineral Dev. State Dept of Commerce Juneau AK		465-2022		✓

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

DATE: 3/18/82
LOCATION: 112
SUBJECT: HB 768

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
Dan Reashaw	Usibelli Coal Mine	Usibelli Alaska	683-2226		✓
CHARLIE BODDY	Usibelli Coal Mine	Usibelli Alaska	683-2226		✓
JEFF Lowenfels	Coal operators Assn Alaska Lessebetters Birch Horton, Kittleson et.	1127 W 7th - Anch 99501	276 1550		✓
West Boettger	Mobil Corp. Denver Colo.	999 18th st Denver Co 80122	(303) 628-6176	✓	✓
Wood Shelley	Mobil	2700 Douglas Juneau	586-2339		✓
R.B. Stiles	Diamond Shamrock	430 Tudor Rd Anchorage	277-3583		✓
CEMcFARLAND	PLACER AMEX INC	1 CALIF ST. # 2500	415 986 0740		✓
J R Deagan	Asst. C. Mgr. Gov. Affairs Placer		465-2022		✓
Phil Holdsworth	COHL Association	326 - 4th St - Juneau	586-1383	✓	
Jay Nelson	Alaska Environmental Lobby	419 6th St Suite 328 Juneau	586-2345		✓

Alaska State Legislature

House of Representatives

Rep. Bette Cato, Chairman

Committee on Transportation

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4858

MEMORANDUM

TO: Rep. Eric Sutcliffe

FROM: House Transportation Committee Staff

RE: Portion of committee meeting transcript - March 18, 1982

DATE: March 18, 1982

Per your request, the following is a transcript of Mr. Bob Stiles'testimony before the House Transportation Committee this morning.

Bob Stiles, Manager of Diamond Shamrock, Tuwitna Joint Venture, Beluga Fields.:

I'd like to make an opening comment...As West mentioned, I have spent considerable time in what we believe to be our market area over the last three or four months and have personally talked to what we'd like to think is every potential customer in the utility business in that area and if we had a port facility in there today we wouldn't have sold a pound of coal.

The biggest deterrent in the development of those particular resources at this point in time is something we've got to deal with in Mother Nature and that's 4500 kilocalorie coal and the market is buying 6,000. So we're 25% below in heating value in what the market's looking for.

The..a port facility now or next year, at least as far as the Beluga reserve are concerned, wouldn't make an iota of difference in terms of whether or not that those projects would go forward. The biggest problem that has to be solved in order to develop those resources is to get those particular customers convinced that they can utilize their coal in the same way that we are currently utilizing it in the United States.

The Pacific Rim Basin, and that's the danger in trying to compare tons out of Canada, Africa, Australia and China with tons out of Alaska, is you're talking about different kinds of coal. So that's the kind of problem that has to be overcome in the market place; and I think that, as far as my company is concerned, and I speak specifically to our development in Beluga field, that if it's not economic for us to develop a port facility so that the coal itself carries that cost, then there's no reason to suspect that it's going to be economic for the state to do that.

Rep. Metcalfe: Do you have an estimate of the cost....

3 parties - Diamond Shamrock B.H.W.
right & mine Sub-lease of 20,000 acres
plant comp -
mobile - - 35,000 ?

next year & 1990's
87 & 92 time frame -

drop in ~~load~~ growth demand -
~~.9% drop in~~
.9% drop in N.R.P.

window - 4yrs before power plant comes on line
11 tkm - BTU -

evaluation not restrained by. absence of infrastructure -

~~Export~~ -
~~Mitch~~ -
~~P~~ -
~~Pappy~~ -
~~Lander~~
Mitch -

% of mkt only effective source of sub-bituminous coal - and its in Alaska -
cheaper on per - ~~ton~~ ton basis
it is competitive - on BTU's
Marine transportation distance -
tapes

C

~~mining~~ licence
do not currently expect a need for state infrastructure it can carry on its own
interested in low interest loans -
situations where it would make sense for state to get involved

Coal industry not looking for a subsidy -

- phil Haldsworth -

- concern with coal field -

↔

West Bottger

Cost of facilities cannot be tied to one mineral & still be competitive.

market - demand driven to export.

other countries have infrastructure

must be done on a planned basis

planning phase then come out with L.D. Bonds.

Cannot give time frame (but is a bright future)

geographical location of state.

Beluga 81 to 88 pBTU. How

Pay their share of the use -

↔

length of study 12 + 18 mo. $200 than $500.

↓ who are the users + other uses than coal

↔

tap — Tennessee — look at Montana —

total U.S. export must exist 7 mil —

↔

private enterprize should

need to get into (window should not be lost)

Staff Comment

We need a task force on Coal (more than a Special on the Legislature) made up of industry and pro-people to study the and make specific recommendations and study the issues in detail.

"What is needed for public service is strong nerves, backbone, the instinct for combat, the hide of a rhinocerous and the willingness to work like a dog for an occasional rain-washed bone."

Governor Robert Bradford of Massachusetts set down these attributes for a successful politician:

"To live long in politics, you must possess the hide of a rhinoceros, the memory of an elephant, the persistence of a beaver, the native friendliness of a mongrel pup. You need the heart of a lion and the stomach of an ostrich. And it helps to have the humor and ubiquity of the crow. But all of these combined are not enough unless, when it comes to matters of principle, you also have the stubborness of an army mule."

He who exercises government by means of his virtue may be compared to the North polar star, which keeps its place and all the stars turn towards it.

Simondes
556-468 B.C.

Alaska State Legislature

House of Representatives

Rep. Bette Cato, Chairman

Committee on Transportation

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4858

COMMITTEE SCHEDULE
March 8 - March 12, 1982
8:30 a.m. - Capitol 112

Monday — March 8
Committee Work Session.

Tuesday — March 9
No scheduled committee meeting.

Wednesday — March 10
Meeting with Yukon Territorial Officials concerning issues related to railroads, highways, and other transportation systems.

** SJR 67 - (Transportation Committee) Relating to the exemption of the Alaska Railroad from federal employment ceilings and work force reductions.

Thursday — March 11

** HB 635 (Fanning) "An Act relating to the operation of implements of husbandry upon the highway."

** HB 804 (Cato) "An Act making a special appropriation for payment as a grant to the City of Cordova for a feasibility study of the Bering River coal field port and transportation system; and providing for an effective date."

Friday — March 12
No scheduled committee meeting.

ENERGY

The Coal-Export

Competitors are investing in shipping facilities as if the demand were unlimited.

y DAVID FAIRBANK WHITE

The forecast is stunning: by the year 000, most experts agree, U.S. shipments f coal abroad will exceed today's colossal xports of grain. Demand has already rown so strong that a frustrated armada f colliers was kept at anchor off Hampton oads, Virginia, this year, waiting months o load coal for Europe and Asia. Hoping to rosper from the coming trade, U.S. ports re launching their fastest and most dra- natic expansion of export capacity ever. otal investment in new coal terminals ould reach $4 billion as the ports make hanges unparalleled since the container evolution lifted the face of waterfronts.

Coal fever has hit the coasts with such a allop, in fact, that what was once a criti- al shortage of loading complexes now hows all the signs of becoming a glut. cross the country, 45 new terminals are eing built or planned at 29 harbors on hree coasts; if they are all completed, U.S. oal-loading capacity will top 625 million ons per year. This vastly exceeds even the Department of Energy's bullish projec- ons that 250 million tons will be shipped verseas annually by the turn of the centu- —a 342% increase over today's level. These export projections and figures on erminal capacity exclude the Canadian ade; Canada will buy some 15 million ons of U.S. coal this year and isn't expect- d to increase imports much.)

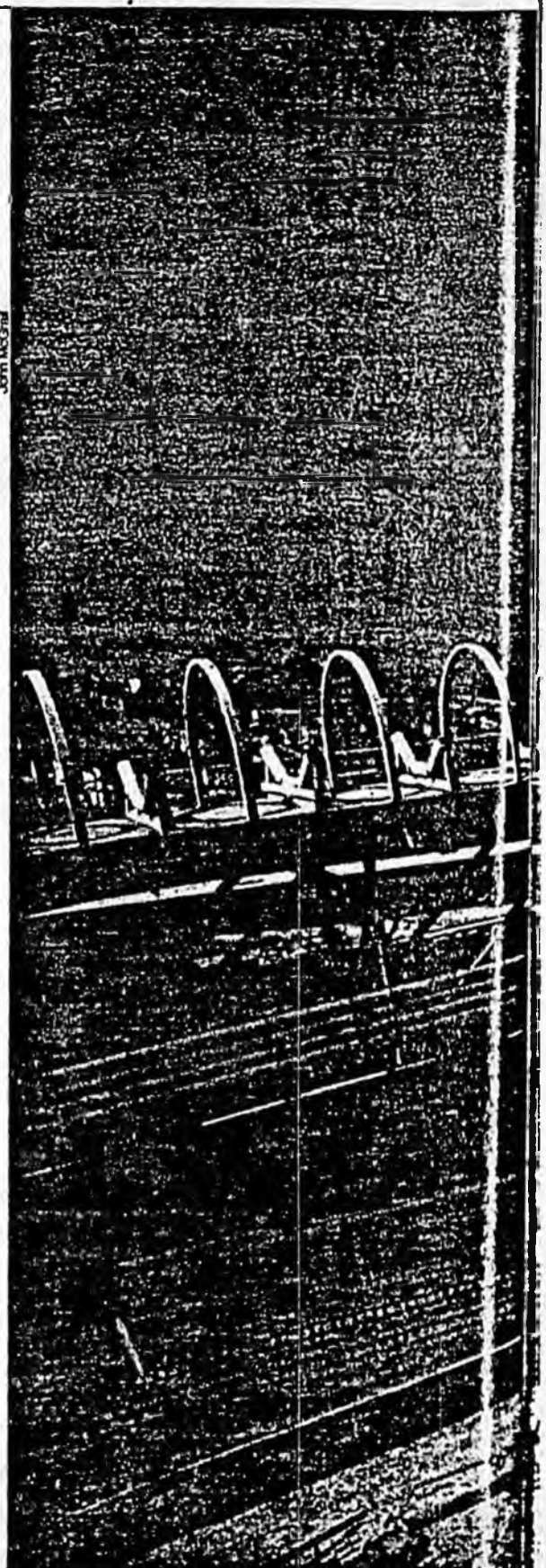
"I'm assuming somebody in these busi- esses has been doing some market stud- ies and knows what he's doing," says Baltimore's port administrator, W. Gregory Halpin. As aggressive a port developer as any in the nation, Halpin is himself hardly immune to coal fever. Baltimore has 14 million tons of export-terminal capacity and is building 22 million more. "I have only one comment," says Halpin in his modern office high above the harbor crescent. "Ship it through Baltimore."

Grow or die

Many proposed terminals will probably never be built, and some on the Mississippi may earn their basic income on domestic traffic. (About 740 million tons of coal will be consumed in the U.S. this year.) But the temptation to overbuild seems irresistible. Coal companies, railroads, barge lines, terminal builders, and local governments all want to profit from the export business.

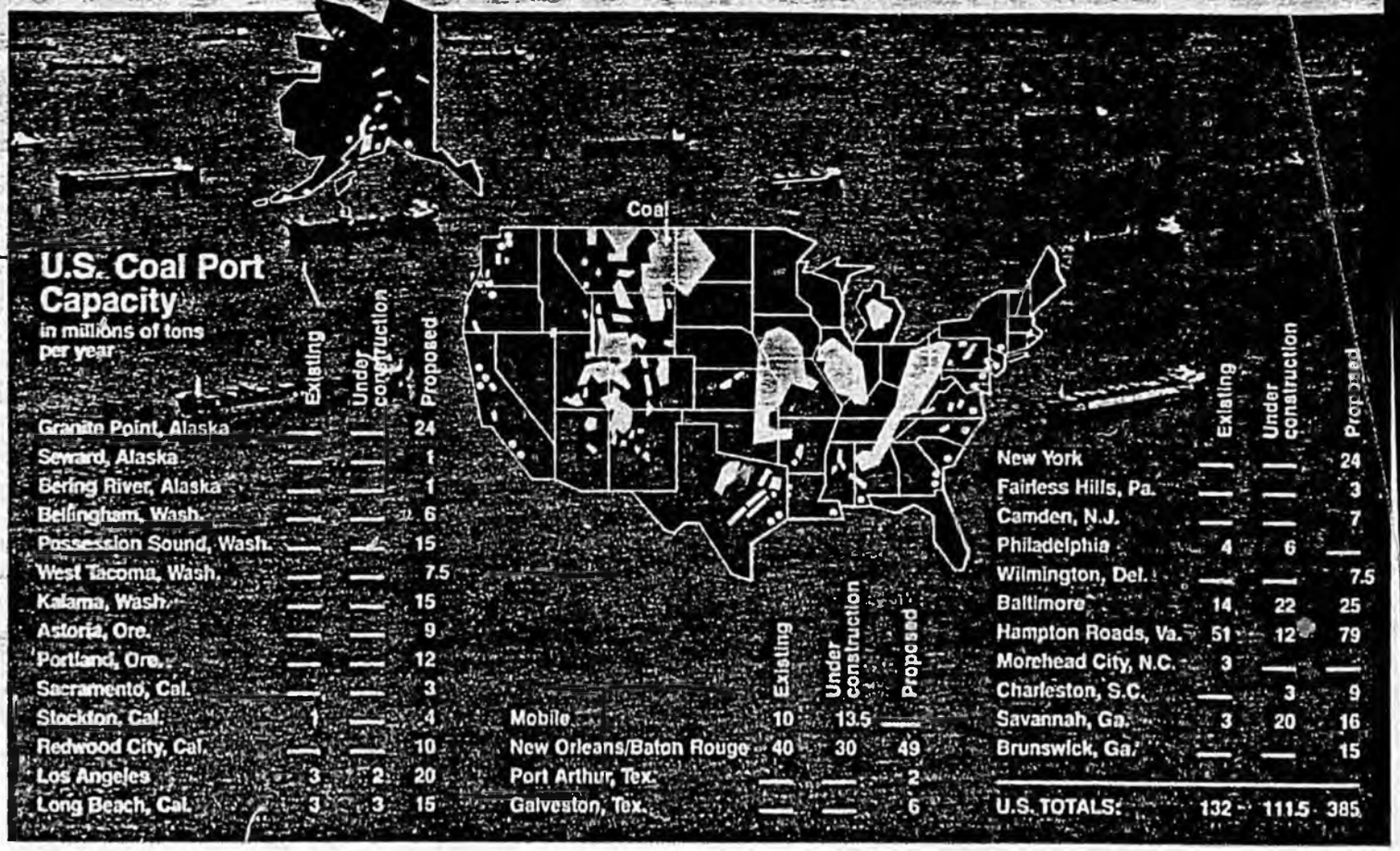
Each entity has its own special stake in the outcome. For the authorities that run the harbors, coal shipments mean jobs, income for local businesses, tax revenues. For big coal companies, terminals ensure that their product can move. For railroads and barge lines, the race is to protect their traditional livelihoods and to expand their markets. Each competitor is driven by the desire to grow and the fear of dying.

Entering the business for the first time, the Virginia Port Authority, a government body, will put up 25 million tons of capaci-



John McGrail

Occidental Petroleum expects to export 12 million tons of coal a year from this terminal going up in Baltimore. The elevated conveyor will feed coal from hopper cars into the stacking tubes. As coal rises in the tubes, it will spill out the windows into mounds. Conveyors under the holes in the ground will carry it to the loading pier.



Coal Fever on the Coasts

This FORTUNE survey of ports (orange dots) marks the battlefields in the coming war for coal-export traffic. The East Coast, with 75 million tons per year of loading capacity, has long dominated coal export and is fighting to retain its lead. The principal challenge will come from terminal builders on the Gulf of Mexico, where ports are fed mainly by inland waterways. The West Coast remains a small factor, with only seven million tons of capacity and five million under construction. If all proposed terminals are built, the U.S. will have coal-loading capacity of 628.5 million tons per year—vastly in excess of what will be needed. This survey excludes small terminals under one million tons.

ty at Hampton Roads, one of the biggest projects in the country. In Baltimore, Consolidation Coal, a Conoco subsidiary, has begun building a $100-million terminal that may ultimately handle 12.5 million tons annually from mines in Pennsylvania that the company owns with West German investors. Dravo Corp. is adding 240 barges to its Dravo Mechling fleet plying the inland waterways and, in its capacity as designer and builder, is planning terminals for operators situated from Chesapeake Bay to Puget Sound. On all three coasts, wherever grumbling machinery speeds the black mineral into the holds of waiting colliers, boom times are here and gloom is hard to find.

Crucial in the contest to handle coal traffic is access to the right kind of coal. Hardly a homogeneous product, coal is not even predictably black; most lignites are dark brown. Coal generally falls into two categories. Metallurgical coal is used in steelmaking, and until 1979 almost all U.S. coal exports were of "met" coal. But the projected growth in European and Asian demand is for steam coal, burned mainly by utilities to generate power.

Two important properties are required of steam coal—low sulfur and high energy content. As an antipollution measure, many governments limit sulfur content, often to 1% or less. And the more energy coal produces when burned, the more valuable it is. A buyer must purchase, transport, and handle 300 tons of coal rated at 8,000 BTUs per pound to get the same energy he would derive from 200 tons of 12,000-BTU coal.

A recent national survey of spot prices for steam coal FOB mine gives an idea of the extraordinary range in values. Wyoming and Idaho coal rated at 8,000 BTUs per pound and 1% sulfur recently sold for $7.50 per ton. Illinois coal rated at 10,500 BTUs per pound and 3% sulfur went for $19 per ton. Southern West Virginia and eastern Kentucky coal rated at 12,000 BTUs with a sulfur content of 1% cost $35 per ton. The latter is a hot commodity on any pier in the country.

Where advantage lies

Almost as important as coal grade is transportation cost from mine to port. CSX Corp.'s Chessie line and the Norfolk & Western Railway, which haul Appalachian coal to Hampton Roads, charge $14.72 to $15.37 per ton, depending on the distance from mine to terminal. In addition, both railroads charge for loading the coal aboard ship: 46 cents per ton at the N&W terminal and 74 cents at Chessie's. All together, it costs $15.18 to $16.11 to get a ton of Appalachian coal aboard ship at Hampton Roads. At Baltimore, served by the

continued

Research associate: Brian Dumaine

Three Ways to I

Ground Storage

Chessie, export rail rates run as low as $14, loading included, while Mobile, Alabama, another low-cost port, has transportation and loading costs as low as $10.25.

These factors give the principal ports exporting Appalachian coal—Hampton Roads, Baltimore, and Mobile—a commanding advantage over competitors. While western coal is available in vast quantities, it has serious drawbacks as an export commodity. The Northern Great Plains deposits are low in energy content, and high-grade Rocky Mountain coal has to travel 1,000 miles, often across mountain peaks, to the nearest port. By contrast, the greatest reserves of low-sulfur, high-BTU coal in the U.S., some 18.7 billion tons, lie in the majestic Appalachian deposits, beginning far up in Pennsylvania and extending down to Alabama. The eastern railroads can carry this premium-quality coal out of the mountains on an easy downhill run to the sea. Little wonder that the ports with access to this coal are fighting to maintain their edge, while every other port in the country is striving to compete with their economics.

These economics have made Chesapeake Bay the Persian Gulf of coal. Its waters carry over four-fifths of all coal shipped overseas from the U.S., more than the exports of any of America's chief rivals—Poland, Australia, and South Africa. Of the two coal ports on the Chesapeake, Hampton Roads is king. The *Monitor* and *Merrimack* fought the battle of the ironclads there, and coal runs as thick as history. Hampton Roads is expected to send 50 million tons abroad this year, almost two-thirds of all U.S. overseas shipments. Rolf Williams, chairman of Anders Williams & Co. and a prominent shipping agent whose livelihood comes from the vessels that call at Hampton Roads, is keenly watching the scramble for coal traffic. "We are very concerned," says Williams. "We will suffer if other ports get the business."

The battle for traffic

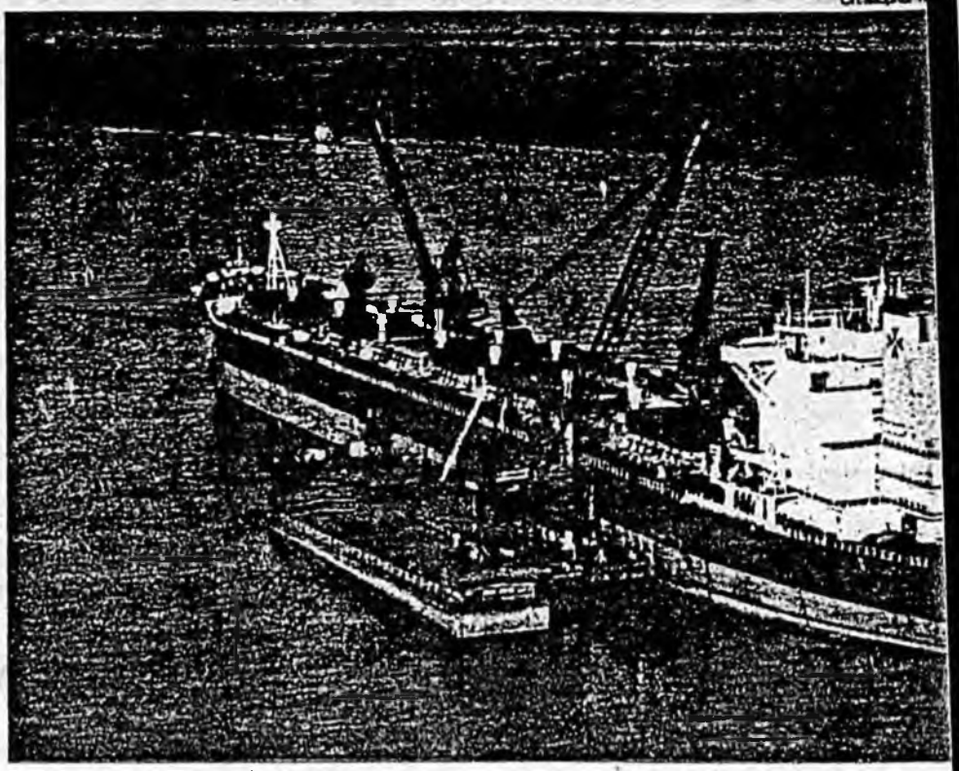
The two most important defensive players at Hampton Roads are the Norfolk & Western Railway and the Chessie line, which carry virtually every pound of coal into the harbor. Both are assured of new terminal capacity, which will prepare Hampton Roads, with its tremendous natural advantages, to handle a monumen increase in traffic. The Chessie has sc parcels of land served by its tracks to t A.T. Massey Coal Co. and to Dominic Terminal Corp., a consortium of Wes moreland Coal, Armco, Ashland Coal, ar Utah International; both groups will co struct terminals of their own. The tracl of the Chessie and Norfolk & Weste will feed into the 25-million-ton-per-ye superterminal to be developed by the Vi ginia Port Authority. "If we can get this fa cility built," says Port Authority Executiv Director J. Robert Bray, "we can put Vi ginia miners to work."

The proposed Port Authority termina recently won a fierce battle for traffic wit a competing proposal put forward by Par sons Brinckerhoff, an engineering anc project-development firm. Pittston, Con solidation, Island Creek, and others have agreed to send their coal through the Port Authority terminal, but Parsons Brincker hoff insists it will still try to develop a facility of its own. Thus Hampton Roads, which now has an export-loading capacity of just over 50 million tons a year, will be adding at least 55 million tons and perhaps

Big Cargo

The classic method is to dump from hopper cars into a conveyor system, as at the Norfolk & Western Railway's Hampton Roads terminal (below). Storing coal by the carload helps the yard select and mix grades to order, but it ties up rolling stock. Modern ground-storage facilities like the one at International Marine Terminals near New Orleans (left) can be more efficient. Railcars or barges unload coal into piles and immediately return for their next shipment. T. Smith Stevedores uses floating derricks in midstream (right) to transfer coal directly from barges to colliers on the Mississippi.

Classification Yard



Midstream Transfer

90 million. Shipping agent Williams says the new construction leaves the port confident but wary: "We're afraid of Mobile and New Orleans."

Not to mention the harbor just 150 miles up the bay at Baltimore, which is expanding even faster than Hampton Roads and could lure away traffic. With a 157% increase in coal-export capacity already abuilding, Baltimore will soon be able to ship 36 million tons a year. Beyond that, two groups are talking about adding 25 million tons more. Finally, Baltimore has an ace up its sleeve. It is the only major coal port in the nation that has obtained federal authorization for dredging to deepen its channel. If it can get the money to pay for the job (some $322 million is necessary), Baltimore could be in a commanding position to grab traffic.

Ocean-shipping costs are being radically altered by the proliferation of supercolliers, coal's counterpart of the supertankers that revolutionized oil transport in the Sixties and Seventies. The huge coal ships, which at 1,000 feet are almost as long as the Empire State Building is tall, provide significant economies of scale. While many supercolliers are active in world trade, they cannot take on a full load at U.S. coal ports, because at 100,000 deadweight tons they require a channel depth of about 50 feet. No major U.S. coal port is deeper than 45 feet.

Many ports have applied for the right to deepen their channels, but the approval process is still back in the age of the clipper ship. Approvals routinely take 20 years, though Congress is considering legislation to speed up the action. If Baltimore can deepen its channel to 50 feet, a 110,000-ton supercollier loading there could knock $4 off the current $15-a-ton cost of carrying coal to Amsterdam in a 60,000-ton vessel.

Mobile is after Appalachian coal, too. While the port can't economically handle traffic from the northern mines, southern producers in Tuscaloosa and Birmingham are less than 300 miles away by rail or barge. Gerry Robinson, general traffic manager of the Alabama State Docks D partment, surveys the machinery that sprawled over 100 acres of the impressi McDuffie Island export-coal terminal a pronounces it "a classic example of unde stated southern elegance." But there' nothing understated about McDuffie c what's happening to it. Backed by a $5 million bond issue, the coal station wi more than double capacity, to 23.5 millio tons, within two years.

A long way to Kenova

One hundred forty miles west, on th lower Mississippi, New Orleans and othe cities are enjoying an unprecedented coal export boom. The activity may seem sur prising since the New Orleans area is no the most economical place from which t ship Appalachian coal. The distances make handling it expensive, even when it is carried to portside by low-cost barge. For example, Dravo estimates that coal from the Kenova area in West Virginia, which can be hauled and loaded at Hampton Roads for around $15 a ton, would cost $20 a ton delivered and loaded at New Orleans. In many cases, the port is better situated to handle lower-quality midwestern coal, which can't be economically shipped to the East Coast and so follows the winding track of the inland waterway system that drains from lower Illinois into the Mississippi and the Gulf.

continued

But despite its handicaps, New Orleans shows promise of becoming a muscular, and perhaps disruptive, competitor. European and Asian customers have been flocking there because they have been getting poor service in the East. During the most serious logjams on Chesapeake Bay, foreign coal buyers descended on the ports, aghast at the disruptions. If a vessel is forced to wait in port, its charterer must pay demurrage, a waiting charge, just as a passenger pays the meter on a taxi stuck in traffic. Demurrage on a 60,000-ton collier can come to $15,000 a day. That's 25 cents a ton of coal for each day's waiting, $1.75 a week, $7.50 a month. Before long, demurrage charges can wipe out the East Coast ports' cost advantages.

Mary Ann Heider, manager of the bulk department at Anders Williams & Co. in the port of Hampton Roads, recalls the reaction of a group of visiting foreign customers during the worst delays. "They did some heavy threatening," she remembers. "They screamed and screamed and screamed." Their message: "We've either got to come to some arrangement or we'll go elsewhere."

Elsewhere, in many cases, has been New Orleans. When export demand picked up on the Mississippi, stevedoring companies began loading coal from barges directly onto colliers in the middle of the Mississippi. Midstreaming, as it's called, is a river technique long used for loading metal ore, grain, and meal. Floating derricks with clamshell buckets sling the coal from feeder barges into the ships' holds. Half a dozen stevedoring companies can load coal in midstream, at $2.75 per ton.

In search of security

Land-terminal operators saw the opportunity to get in on the business and are now looking to expand existing facilities or add new ones. No fewer than eight terminals—totaling nearly 50 million tons of capacity—are being planned along the lower Mississippi. "There's almost a Klondike fever in this whole coal thing," says Executive Port Director Edward S. Reed. The largest coal mover will be Louis H. Meece, president of International Marine Terminals, a husky, silver-haired entrepreneur who gained broad experience in coal-terminal facilities as a barge-company executive. Meece is undertaking an expansion that will nearly quadruple capacity at his terminal south of New Orleans to 15 million tons a year.

The question is whether the demand will continue once Baltimore, Hampton Roads, Mobile, and other ports increase their capacities. Marsden W. Miller Jr., president of Miller Coal Systems of Baton Rouge, Louisiana, returned from a recent European tour thinking that foreign customers would be willing to pay a premium for coal shipped through New Orleans to be certain that an alternative to the eastern ports is available. "As long as you're within a dollar or two," he says, "what the buyer wants is security."

But if terminal operators don't get long-term commitments from foreign customers, they may find their facilities operating way below capacity. Magnolia Coal Co. has broken ground on new facilities with ut long-term contracts, and U.S. Steel's River & Gulf Transportation Co. is think ing about doing the same. Whether that makes sense will depend on how many terminal operators have similar ideas —and whether overcapacity gives for-

continued

eign customers a chance to whipsaw their suppliers.

As if anticipating a future of overcapacity and rate wars, the terminal operators are looking hard at their economics. Meece believes that new eastern coal terminals will be more expensive than present facilities because they will have heavier capital costs to recover. While the loading fee at the N&W terminal is now only 46 cents, he thinks new East Coast terminals will have to charge $3 to $4. That could be enough to destroy their transportation-cost advantage.

Here come the Indians

In answer, eastern terminal developers are negotiating with the N&W and the Chessie to cut the costs of moving coal from mine to port. For example, the Chessie says it is considering a reduction of about $2 a ton in the cost of shipping coal by unit train into Consolidation Coal's new terminal in Baltimore. In answer to *that*, New Orleans operators are continually pressing for lower unit-tow rates on the Mississippi and other rivers. With many rates still being considered, it is too early to tell whose economics may turn out most favorable.

Other competitors could come out of nowhere. D. K. Ludwig, 84, plans to anchor a warehouse ship in Delaware Bay that could receive coal from barges and transfer it to 140,000-ton supercolliers. The Tulalip Indian tribe has retained Dravo to study the feasibility of building a 15-million-ton terminal on tribal land at Possession Sound, Washington. And the Sun Hill Shipping Co. of South Korea has obtained a contract to export coal at Seward, Alaska.

New York's harbor handles hardly any coal today, but that doesn't mean it wouldn't love to. The Port of New York and New Jersey has a marvelous advantage. The 12-mile channel from Ambrose Light to the piers of Staten Island and Port Jersey is much deeper than the entrances to other U.S. coal ports. New York could be dredged to 60 feet for less money than it would take to dredge any other port to 50 feet. A port 60 feet deep could accommodate supercolliers of 200,000 deadweight tons, nearly twice the size of any that has so far entered a U.S. harbor.

Local authorities are now thinking about putting up the $140 million ne to deepen the channel themselves. would avoid the lengthy federal autho tion process. New York officials are so ing out foreign coal buyers to see if would be interested in contracting for that Conrail could haul from Appalach the harbor. If they do show interest, York could build 24 million tons of te nal capacity.

Where chips are piled

With coal terminals being buil planned at 29 harbors, the winners hard to pick, but it's clear where the ting is heaviest. The chips are piled hig on the old and classic formula: coal f the Appalachian fields moving thro Chesapeake Bay. As the market explo Hampton Roads will surely find its do nance eroded, but it will still reign as k Elsewhere, terminals that have not broken ground face the risk of be instantaneously superfluous. Those build without having their traffic ensu by long-term contract face cutthroat c petition. Indeed, the coal trade looks lil marvelous opportunity. For the brave.

$400.\frac{13}{100} = \frac{X}{2000} \cdot 100$

$20.13 = \frac{X}{20} \cdot 20$

$260 = X$

Type of coal cleaning etc -

dredging permits - 20 yrs -
3 sites in Alaska not needing perm.ts - where?

8g - 82c Btu/lb
13g Btu/otton

wes ketchum

X private co. can planning - to do the very thing

w/o improved [illegible] but doubt [illegible] Road

Stage in plans? (how long - down the Rd)

Railroad & Dock part for

what other product could utilize the Mt. (copper/zinc/uranium) etc

Reasonable Return

How long would it take to construct the type of intra structure (3)

phase in planning of

Pay back - several Times D.R.

US a Alaska involvement will be that of participation - rather than a major contributor - is it absolutely necessary to make this great move now?

INTRODUCTION OF IAN ROSS

Our keynote speaker comes to us armed with a background rich in experience of the kind we believe to be needed in Alaska. A mechanical engineer himself, he is a member of various engineering associations in North America and Europe and is Chairman of the Swan Wooster Group of Companies headquartered in Vancouver, British Columbia.

The Swan Wooster Group has a staff of 600 professionals and technicians active in major port and harbor bulk-handling projects in North America as well as 12 or 13 in other countries of the world. These include the Roberts Bank, Vancouver and Richards Bay, South Africa ports which I'm sure we'll hear about today.

Mr. Ross has been with his company for 30 years, serving as president beginning in 1966 and Chairman and president in 1971. He is also a member of the board of directors of Sandwell and Company and Williams Brothers Canada Limited, gas and oil pipeline consultants.

Mr. Ross' topic is ANATOMY OF A SUPERPORT: A LOOK AT ALASKA'S NEEDS. The topic alone could be the subject of an entire symposium. Such a title suggests a presumption of need of such facilities in Alaska to support coal marketing outside the state. And should such facilities be shared by other industries for transloading oil and oil and gas products, minerals and agricultural products, for example.

It is with extreme pleasure that I introduce a gentleman who is eminently qualified to discuss, in the time we have allotted, Alaska's bulk port needs.

Ladies and gentlemen, let's give an Alaskan welcome to Mr. Ian Ross.

THE ALASKA COAL MARKETING CONFERENCE

JANUARY 23, 1981

ANCHORAGE, ALASKA

Notes from the Luncheon Address

By Ian S. Ross

Chairman: Swan Wooster Engineering Inc.

Sponsored by

THE RESOURCE DEVELOPMENT COUNCIL FOR ALASKA, INC.

As background, I would like to briefly comment on a few historical facts concerning coal and then look at what has happened during the past decade or so and what we forecast could occur over the next two decades.

Following this I have prepared some slides to show where Alaska might fit into the world coal trading pattern, followed by details of some of the larger coal terminals and then a brief description of the major machinery components which would form the nucleus of a world scale coal terminal for Alaska, what it might cost, and the impact of a bulk terminal on the community.

One can say that the main reason for the evolution of coal production is that mankind developed a great apoetite for energy. This appetite was fostered as man utilised tools to amplify human effort, harnessed gravity through water flow, captured fire and utilised heat and so on. This fire business started many years ago, and eventually moved to coal, particularly in the years leading directly to the feasibility in energy terms of the industrial revolution. This revolution created an appetite for more and more energy which in due course became satisfied by oil, relatively easy to move around the world, but remarkably concentrated as to its sources. That was of course the ultimate strength of the Organisation of Petroleum Exporting Countries (OPEC) - its concentration within that a dangerously unifying thread of Islam.

But coal's role was historically important - without its discovery, production and utilisation, the world would have stood still rather than advanced technically and economically but by the end of the 1960's the common view was that coal was an industry in decline even to the point that many countries, historically important as coal producers, were looking for ways to quietly and peacefully end their coal industries.

Indeed some still are, as an example France, where only 15 years ago France produced 50 million tons of coal a year but as a matter of policy this dropped by the progressive closing of pits to less than 20 million tons today and by 1990 this will be halved, and the end of the century is likely to see this coal production finished. This is more remarkable when at the same time the annual consumption of coal in France is now close to 50 million tons so that imports have had to compensate totally for the domestic production down turn.

Note: Slides Not Included in These Proceedings

Similar events are, and have taken place, in the U.K. Fifty years ago Britain produced 250 million tons of coal a year and this has steadily gone down so that today the level is about 50% or 125 million tons.

Pendulums swing, but who could have foreseen today the quite extreme statements from those in high places who say that coal is now the saviour of mankind, coal is the West's ace in the hole and so on.

Let us look for a minute at world energy consumption that is primary energy which is the consumption of energy for the first time. Today oil and gas account for about 60% of the world's primary energy needs, coal about 30% and the remaining 10% a combination of hydro and nuclear. Now a truly interesting and extraordinary fact underlying that division into energy sectors is transportation. Oil and gas have always moved to markets but coal has tended to bring consumption to the locality of its production.

After the decline of coal, principally steam or thermal coal towards the end of the 1960's the principal coal carried at that time on the oceans of the world was coking or metallurgical coal to be used in the production of steel. There were, of course, and still are major inland movements of coal - Eastern U.S.A. to Canada, Poland to its neighbours, etc., but very little steam coal was moved by ocean transport during this time. On the matter of coking coal the forecast world growth by 1990 is not expected to be dramatic it is only expected to be about 10% due to increased blast furnace efficiency requiring less coal per ton of iron produced, as well as further movement toward direct reduction of iron ore eliminating, in this case, the need for coal. One other interesting point is with regard to ship size concerning coking coal and this lies in the fact that coking coal has to be blended with other coals which is generally done at the blast furnace or importers site, thus limiting the tonnage of any one type of coal that can be accepted by the buyer. This in turn coupled in some cases by Panama Canal limits, means that some of our older coal exporting ports, which currently have 40' or so draft, that unless rebuilt will be less efficient as to the larger vessel size which will be required by the future steam coal trade.

In 1980 some 230 million tons of coal moved by sea, including coking coal, but only representing about 5% of the total annual world coal production of 2.5 billion tons, however in that same period the quantity of oil and gas moved by tanker from production areas to countries of utilisation was about 60% of total world production of oil and gas.

Now let us see how the expert forecasters of this world would have us shape our energy appetite, say over the next 20 years.

By any criteria this is the critical period. Why?

Because we have fear, not simply the matter of Islam or Iran but there is also the fear that no longer can we afford to have a bland reliance on the ongoing availability of oil.

Crude oil reserves are now at a level which must quite soon curtail the increase of oil production so that by the year 2000 we expect a plateau in oil production with a probable tailing off through the first half of next century.

So what of nucelar? It is clear to me that unquestionably we need to forge ahead on nuclear fission and fusion technology by applying it massively to the

base load production of electricity but even at a maximum rate of investment in such plants and full contract or commitment, we cannot expect to see any dramatic acceleration in nuclear energy production in percentage terms this side of the year 2000.

Much is talked today about solar energy and biomass, geothermal heat, tidal harness and wind. I cannot talk today adquately in the time allowed about these other alternatives except to give my view that these too must all be pursued and brought on to our energy menu.

And so I want to come back to coal.

We have seen the probability of a plateau for oil and gas on a global basis. The overall growth of our energy appetite, even allowing realistically for a successful effort at energy conservation will still grow at around 2.5% per year which means doubling about every 35 years, so that word 'massive' for coal's growth is not carelessly used.

Over the past 20 years the total global growth in annual coal production of coal was only 600 million tons including export and domestic coal. Currently about 230 tons move on the oceans in the form of export coal and now we are looking at an increase in this export coal over the next 20 years of 3 to 4 times that figure to conservatively 600 to 800 million tons but some groups are estimating that this figure can be as high as 1 billion tons a year by the end of the century.

Whichever we take, it is still a massive rate of growth but should not be confused with total world production, - this is the increase in volume to be moved by deep sea vessels to foreign markets.

Of this growth a significant tonnage will need the new infrastructure of rail, port and shipping to be moved across oceans to satisfy demands in distant countries. Coal will move from the U.S.A., Australia, Canada and South Africa to Japan and the Far East, to Europe, and of course coal from quite new coal producers such as Botswana, Mozambique, Nigeria, Colombia, Indonesia and from here in Alaska. I should mention that in the case of Colombia, in South America, they are getting ready to design a bulk coal terminal to export 15 m.t.p.y. rising to 30 m.t.p.y., this is an Exxon development.

Whether we take the low forecast for coal growth or the high figure the results of the required world-wide effort from the coal industry will have to be decisive if we are to satisfy our global energy appetite and I should mention that there are some very decisive steps being taken now in the way of new facilities by the importing countries.

The following slides show some of the world trends in coal exports, some of the major coal exporting and importing ports and where Alaska fits into this global scene from a transportation viewpoint.

It might be worth mentioning in the matter of transportation of coal to world markets that the total transportation cost (land, terminals and ocean) often exceeds the production cost of the coal. Therefore, one can readily see the need for all segments of the transportation system, including the port, to be highly efficient in operation.

SLIDE 1

The first slide indicates the relationship of Alaska to the world seaborne coal trade with the thickness of the lines in proportion to the annual volume of seaborne coal moved from the producing countries to receiving countries.

These are 1980 volumes and this picture is expected to change dramatically over the next 10 years. It is also interesting to note coal trade between the West coast of this continent to Europe - a coal trade that only a few years ago one would have said was impossible, and I gather that you have recently had enquiries from Europe.

SLIDE 2

There are a number of countries, some new to coal, planning substantial increases in coal imports, and we have overlaid these countries on the previous slide. Of particular interest to Alaska will be Japan, Taiwan and Korea, and of course your first trial shipment has already gone to Korea. Also in the Far East one cannot overlook the Philippines, Hong Kong and Singapore who are each requiring coal for power plant use. There are other possibilities such as Hawaii, who are now buying some coal from Australia whereas from a transportation advantage this coal should come from Alaska, as well as in the National interests, but in the case of Japan, Taiwan and Korea each one of these countries have already announced new coal import plans.

There is no doubt with the present situation in Poland, a country which was a major coal supplier for many years to neighbouring European countries, that these countries are now most concerned since it is vitally important to have security of supply of coal whether for power plant or blast furnace feed. One cannot over emphasize the matter of security and reliability and in a number of cases, in order to ensure security of supply, some countries will traditionally look for supply from several sources, a point which should benefit Alaska.

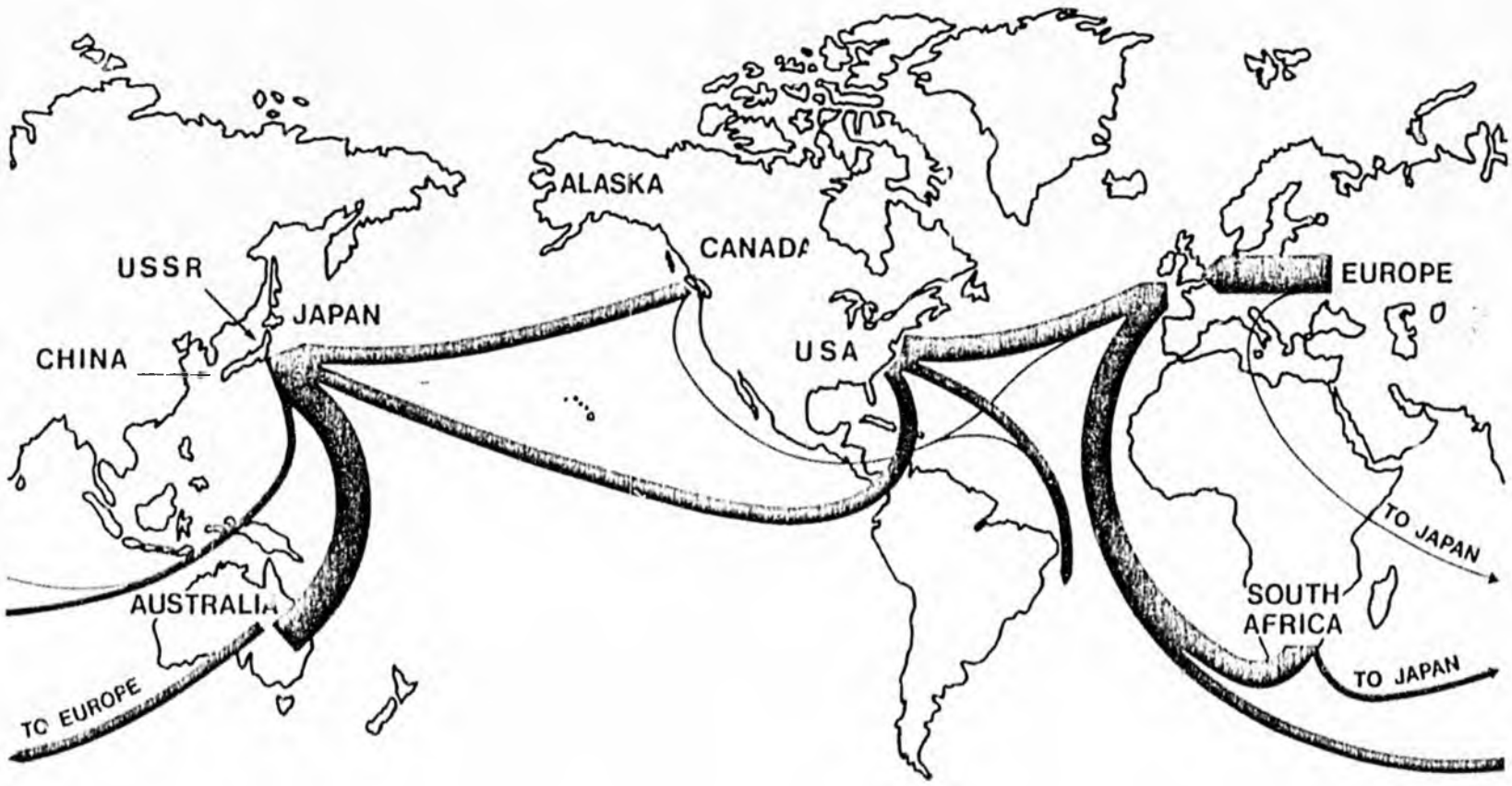
SLIDE 3

The next slide shows some of the major coal exporting ports in the world and provides an indication of the size in terms of annual tonnage thruputs of some of these terminals as well as some of the projected thruputs. These are order-of-magnitude figures only and could vary slightly, but will serve to indicate some developments which are taking place in coal terminals.

SLIDE 4

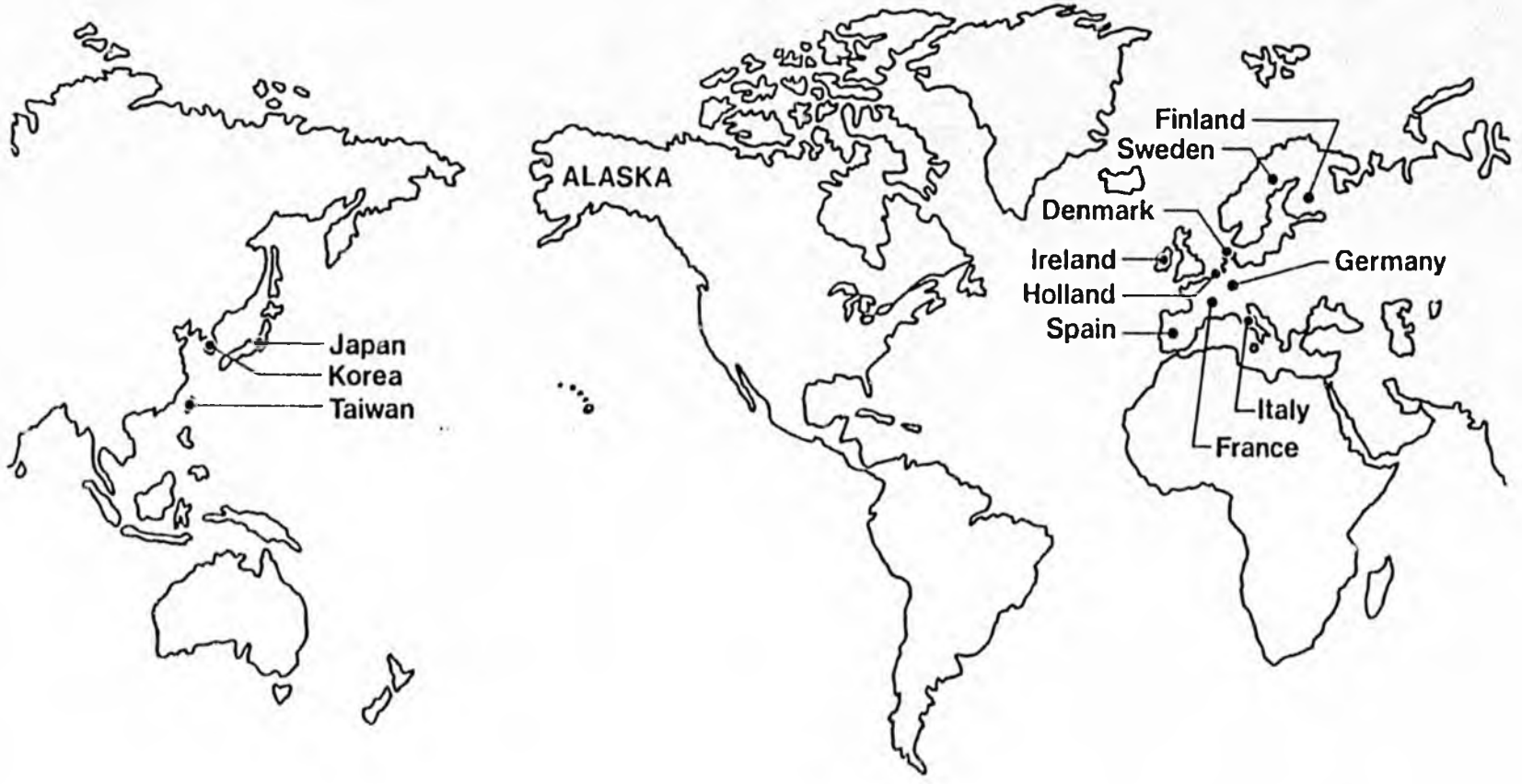
Complimentary to the previous slides this slide indicates a conservative growth in coal to be moved on the oceans of the world over the next two decades. Now these growth figures should not be confused with total world production which as pointed out before is some 2½ billion tons a year with most of this coal being consumed by the countries which mine it, nevertheless the forecast increase of 3 to 4 times today's ocean export volume to be carried on the oceans of the world by the year 2000 is dramatic.

MAJOR ROUTES OF SEABORNE COAL TRADE



SLIDE 1 Thickness of lines indicate annual volumes movement of coal.

COUNTRIES PLANNING SUBSTANTIAL INCREASES IN COAL IMPORTS



SLIDE 2

Note: There are other smaller increases of coal imports planned such as Singapore, Hong Kong, Philippines, etc. but these are relatively minor.

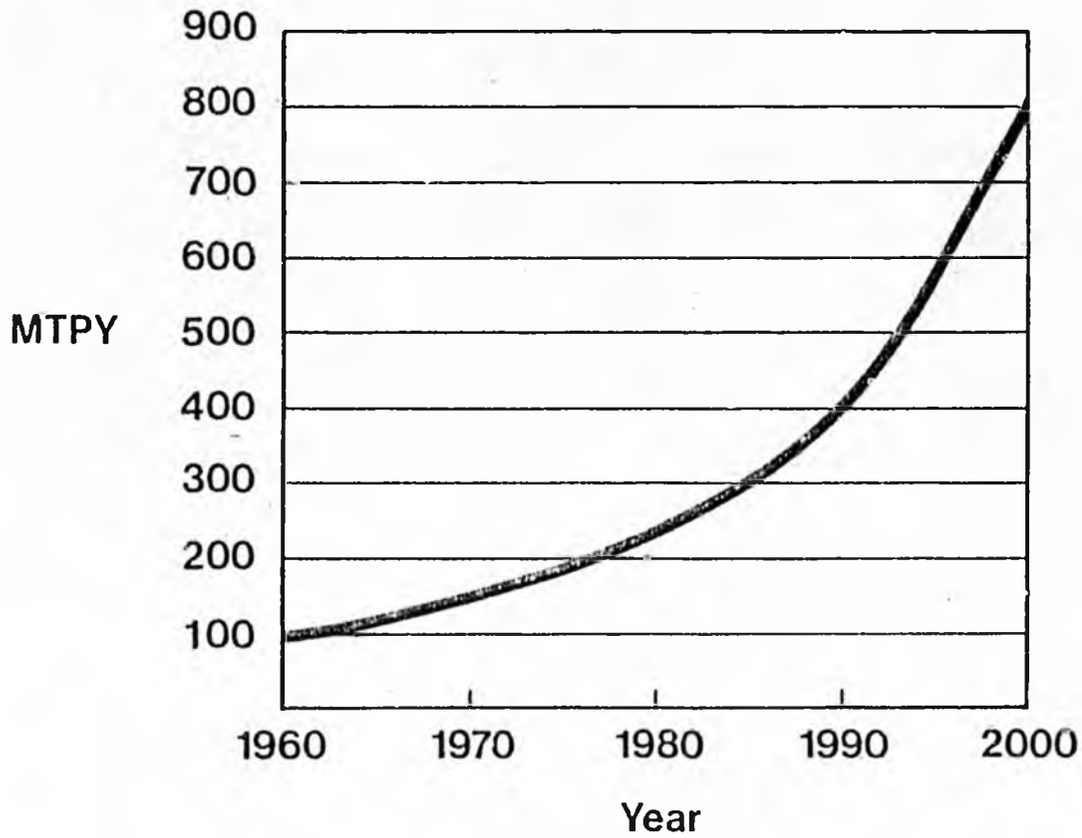
ANNUAL THROUGHPUT OF MAJOR COAL EXPORT TERMINALS (MTPY)

	Current	Expanded
AUSTRALIA		
Hay Point	17	23
Newcastle Basin	10	—
Port Gladstone	7	—
Port Kembla	5	20
Port Waratah	1	
CANADA		
Roberts Bank	11	32
Neptune Terminals	3.5	9
POLAND		
Swinoujscie	12	—
Gdansk	10	—
SOUTH AFRICA		
Richards Bay	24	44
U.S.A.		
Hampton Roads (2)	24	—
U.S.S.R.		
Vostochy	—	5

SLIDE 3

Note: These are order-or-magnitude figures only and will be constantly subject to change.

COAL GROWTH AND FORECAST TO THE YEAR 2000



SLIDE 4

Note: This forecast relates only to coal to be moved on the oceans of the world, i.e. overseas export coal and not to growth for domestic consumption which is, incidently, far greater than the above in terms of total tonnage.

SLIDE 5

Here we have taken a specific market - Japan - who propose to triple their coal imports by the year 2000, and compared the end cost of coal, or f.o.b. Japan, on an order-of-magnitude basis against Western Canadian and Australian coals. These are comparison units costs only but serve to indicate the advantages Alaska has on the transportation side, both land and ocean, and how it reflects in the end price. These figures also indicate the relatively high transportation component in the price of the coal at the market place.

SLIDE 6

This is a comparison table showing the various nautical mile distances between Alaska and some of the major coal export ports to the receiving ports in Europe and in the Far East.

SLIDE 7

Where does some of this coal go?

This is the EKOM terminal in Holland which is a typical European receiving terminal with much of this coal being transshipped inland in Europe either by barge or rail.

Immediately adjacent to this terminal we are currently designing a new receiving terminal to import initially 6 m.t.p.y. rising to 25 m.t.p.y. The maximum size of vessel which will be accommodated here is in the 200 - 250,000 DWT size. I mention this because it does mean in order to optimize the total transportation system that the ship size to be accommodated at, say the Alaskan end of the system, should be in this order but it will be a few years before we see vessels of this size in the coal trade.

SLIDE 8

This is the Richards Bay Coal Terminal located on the Indian Ocean side of South Africa which was first started on the basis of 2½ m.t.p.y. The construction of the overall project began just 8 years ago and was designed not only to handle coal, which started it all, but other bulk and heavy lift cargoes. Just 4 years later, in 1976, after a massive dredging operation the original Bay being only 6 or 8 feet deep, not 60 feet plus like you have here in Cook Inlet, the first coal was loaded.

About 80,000 tons of coal arrives daily with the current annual rate of, in a space of just under 5 years, reaching 28 m.t.p.y. making it today the largest single coal terminal in the world and now being planned for 44 m.t.p.y.

SLIDE 9

The future Richards Bay Coal Terminal at 44 million tons per year. We have this additional work underway now with completion in 2 to 3 years time. At this point it might be interesting to mention the matter or ownership and operator since this issue has recently been raised several times. The land is owned by the National Railway, an arm of the Government, who carried out the dredging, site preparation work (that is the rough grading only) and laid power, water, road and rail service to the site, all of which we refer to as infrastructure. This area was then leased to 10 or 12 coal producers who in turn formed a terminal company to operate and manage the terminal. This company designed, built and financed all of the necessary

APPROXIMATE DELIVERED COST OF COAL

$/tonne (1979)

	Western Canada to Japan	Australia to Japan	Alaska to Japan
Mine	17.50	20.00	same
Land Transport	15.00	7.50	much less
Export Port	2.00	2.00	same
Marine Transport	8.00	7.00	less
Import Port	2.00	2.00	same
Delivered Cost	44.50	38.50	less

SLIDE 5 Note: These costs shown are for steam or thermal coal

DISTANCE COMPARISON IN NAUTICAL MILES

	Japan	Rotterdam
Anchorage U.S.A.	3 700	9 350
Hay Point AUSTRALIA	3 950	14 550
Richards Bay SOUTH AFRICA	8 250	7 100
Roberts Bank CANADA	4 250	8 850

coal handling machinery, the electrical and mechanical work, the foundations, the terminal rail trackage, maintenance and office buildings, etc. Incidentally these coal producers include Shell, B-P, Total, Anglo-American and other major corporations. Most of the contracts for coal sales run for 10 - 15 years, as is the case with a number of similar coal developments, all of which allows for orderly investment and expansion.

On the matters of terminal charges the higher annual thruputs will reduce the cost of handling the coal across the terminal, certainly in the lower volume range.

SLIDE 10 & 11

Closer to home is Kaiser's Westshore Coal Terminal at Roberts Bank which is a large delta area off the mouth of the Fraser River near Vancouver. This terminal is now handling approximately 11 m.t.p.y. almost all this coking coal. The terminal began shipping some 10 or 12 years ago on the basis of 3 million tons per year. Plans are now underway to increase the thruput to 32 m.t.p.y. The new coal will be largely thermal coal. This has been a very efficient and successful terminal.

The site is unique -- it is a 50-acre artificial island constructed 3 miles offshore in order to reach deep water with minimal dredging and no maintenance dredging but at the same time, to produce a relatively economical site in terms of cost per acre which was achieved. The facility was in production 21 months from start of engineering and construction to completion and shipping coal including the creation of the "island".

SLIDES 12 & 13

This "island" at Roberts Bank is now being tripled in size at a cost of approximately $40 million to prepare for the 32 m.t.p.y. thruput. The cost of this additional infrastructure which includes as before, rough grading and services, is being borne by the Federal Government who recover the total amount at no cost to the taxpayer in the form of lease charges, plus a thruput charge which can have an incentive formula to encourage greater thruput. The terminal operator will then construct all the necessary on-site facilities, the berth, coal handling plant, buildings, etc. costing in this case about $200 million at the 32 m.t.p.y level.

SLIDES 14, 15 & 16

The following slides are to indicate that a coal terminal can live peacefully with the environment and with residential dwelling and commercial buildings close by.

In the case of the Neptune Terminal, SLIDE 14, it was coal which initially launched this terminal at 3 m.t.p.y. which now in addition to coal, the terminal handles bulk potash as an export and phosphate rock as an import.

Vancouver Wharves, SLIDE 15, is a multi-product bulk terminal handling products such as bulk fertilizer, sulphur, potash, copper, lead and zinc concentrates, packaged lumber and pulp again located close to commercial and residential areas.

The next slide takes us back to Richards Bay for a moment where immediately adjacent to the terminal is a nature reserve and here in the foreground, with the terminal right behind, is a flock of pelicans which have become the logo of the terminal.

What type of site do we need for a bulk port"

Ideally, level land and if the area is to be served by rail then a site initially in the order of 30 - 50 acres, but which could be expanded if necessary to several times this size.

Deep water is essential.

When we look at the forecast figures for export coal growth and the fact that today that we are already loading cargoes in the 160,000 DWT range then obviously for a new port we should, if possible, make provision for ships in the order of 200,000 to 250,000 DWT. It is interesting to note that 2 new coal receiving terminals now being planned, one in Europe as mentioned earlier and one in the Far East are both allowing for vessels of 200 - 250,000 DWT size.

The power demand by a terminal is not excessive nor are the other services but the land access by road and rail is important as well as availability to labor.

There are other opportunities once a facility is in place which can provide power, rail access, deepsea ship access, labor availability and land, and particularly where coal or other sources of energy are available which could lead to the establishment of an industrial park adjacent to such a terminal. This has occurred in other countries where the terminal has been the stimulant and there are obvious advantages in over-the-fence-trading.

SLIDE 17

The various key components at Roberts Bank are similar to most coal exporting terminals and would be typical examples of the equipment etc. required for a bulk c o a l terminal for Alaska. If we start at the receiving end and assume that the coal will arrive by train as compared to conveyor, pipeline or truck, then the unit trains which generally arrive, depending upon distance and other factors, in units from 60 or 70 cars up to 200 cars, are now handling upwards to 16 - 17,000 tons of coal per train.

SLIDE 18

These unit trains are permanently coupled with rotary couplings allowing the cars to be rotated and dumped without uncoupling and then moved ahead with an indexing mechanism, the whole process taking about 90 seconds per car of 100 tons of coal for a single dumper.

A fast train turn-around time is essential both at the mine and at the terminal, not only does it keep the number of trains needed to a minimum, but equally important it reduces the possibility of the coal freezing.

A good example of a high speed unit train operation is the Kaiser Coal/CPR unit train operation in Western Canada where the round trip distance is 1500 miles, much of it in sub-zero weather with heavy grades and including locomotive servicing, crew changes, loading and unloading - the complete round trip operation is accomplished in 85 hours.

The economics are obvious if you double this time you also double the number of cars and locomotives required to move the same annual tonnage plus the additional operating costs. All this reduces down to the need to have a good rail layout at each end of the system which in the case of the terminal can often dictate the shape and extent of land required. A complete loop track at the terminal is commonly used which allows the train to be unloaded and headed back to the mine without any shunting or reversing.

From the train the next major function is stockpiling, however, the terminal should always have the ability to move coal directly from train to ship. The calculation of the optimum volume to be allowed for in storage depends upon a series of factors, such as the train and ship arrival patterns, annual thruputs, number of grades to be handled and length of time due to internal combustion that certain coals can be allowed to remain in storage. The stockpiling and reclaiming operations can be carried out by separate machines or by the same machine or by various combinations depending upon annual thruputs.

SLIDES 19 & 20

The combined machine, known as the bucket wheel stacker reclaimer, is in common use today. This machine can stockpile and reclaim coal for shiploading at rates up to 6 - 7,000 T.P.H.

A coal sampling tower is often located just prior to the coal going into the ship. Sampling is important as it generally forms part of the contract and determines the final value of each shipment of coal.

SLIDE 21

There are a number of different types of shiploaders, and usually items such as cost, foundation conditions, type of berth, ship size, tidal ranges, etc. must be considered in selecting the best suited shiploading equipment.

SLIDE 22

The import and export of other commodities can be accommodated - a typical example would be bulk alumina or bauxite for the manufacture of aluminum which has a high power demand. I understand that proposals along those lines have been considered for Alaska.

SLIDE 23

What does all this equipment cost in order to get into the coal port business?

If we assume that the land is available and adjacent to deep water, and if we exclude the cost of the land then the capital cost in today's dollars for a typicl terminal to handle say 6 - 10 m.t.p.y. of coal would be in the order of $65 million and would break down into the major items as shown, most of which were shown on the previous slides. The only major variable in the above cost summary would be the cost of the marine structures which in any event vary from site to site as compared to the other items of equipment. (We are, at this moment, just starting 2 coal terminals which are being designed for thruputs of 9 - 10 m.t.p.y. and excluding the land cost the capital costs, similar to the terminal described here, are $58 and $65 million - these are todays prices which serve to indicate that the figures shown on the slide are in the right order).

6 - 10 MTPY TERMINAL APPROX. CAPITAL COSTS (1981) $

Site Services and Rail	$ 2,000,000
Unit Train Unloading	7,000,000
Conveyors	8,000,000
Stacker / Reclaimers	18,000,000
Shiploaders	12,000,000
Marine Structures	10,000,000
Sampling Plant	1,500,000
Electrical Equipment	5,000,000
Ancillary Buildings	1,500,000
TOTAL (excluding land costs)	$ 65,000,000

SLIDE 23

NOTE: The marine structures shown here at $10 million will vary from site to site. Due to conditions of depth, distance to shore, ice, tidal range and ship size.

A port can make a major contribution to the economy of the region in which it is located. The Port of Vancouver recently commissioned a study of its impact on the Greater Vancouver area and the study found that Vancouver, a major loading port for bulk commodities:

- directly and indirectly provided one job in ten in Greater Vancouver;
- created 12½ percent of the region's payrolls; and
- was responsible for, directly or indirectly, 16½ percent of sales and revenues in Greater Vancouver.

Although labour-intensive general cargoes have a greater economic impact than bulk cargoes such as coal, bulk cargoes are still very important and some comparative numbers for the Port of Vancouver adjusted to late 1980 price levels are:

- coal, with a total port-related payroll of $32 million per year and a volume of 14 million tons, or $2.90 per ton;
- other bulks such as copper concentrate and sulphur, with a payroll of $150 million and a volume of 11 million tons, or $13.00 per ton; and
- general cargo, with a payroll of $600 million, and a volume of 5,600,000 tons or $107.00 per ton.

A new bulk port in Alaska will add to the economic health of the surrounding community and it will provide productive, high-income jobs in the port and terminal. Expenditures by these employees will create service jobs for others, with the port generally creating an economic activity that would not otherwise take place.

Ports such as we are considering can be funded and managed privately by one user or by a consortium of users or by a local public authority. If there is to be more than one user and I assume that this could be the case in an Alaskan bulk coal port, as well as possibly more than one product to be handled, then there is merit in considering an independent terminal operator either public or private, in order to avoid conflicts of interest by different users - which arise in the accommodation of different cargoes, and different arrival patterns. I mention this because in some cases where a government organization has initially funded the infrastructure development they have stipulated in the lease agreement with the terminal operator that the terminal must be made available to others for handling their products, providing that these other products are of a similar nature and have reasonable annual thruput volumes for practical reasons.

Finally as to coal's future why not look at the oil industry?

In a phrase the oil majors are betting on coal.

These oil companies have invested over the past few years several billion dollars in the acquisition of or in securing of important participation in companies and coal reserves around the world. The catalogue of all these activities would take a long time to read out, to name a few - Shell, Exxon, Continental, Mobil, Sohio, B-P, Standard Oil California, Gulf, Petrofina, Occidental, Atlantic Richfield, Total of France, etc., are all deep into coal mining and marketing on several continents which perhaps best of all demonstrates that they, as the energy leaders of the post war period each

know that coal is to be the base energy for industry over the next similar period (30 - 40 years) by which time the new generation of nuclear energy should be well and truly starting to share the full strain.

As a last point I thought we could share some thoughts on the pricing of coal and how it differs from oil. Now you do recall the difference which I emphazied between oil, which moves in a major way internationally and coal which does so traditionally in a relatively minor way. Right from the 1920's there has been a recognized pricing mechanism for oil recorded daily in the journal Platt's Oilgram. It still carries on today. Thus a concentrated yardstick for pricing crude oil did simplify OPEC's job when they elected to force up the global level of crude oil prices in 1973 and continued the action progressively ever since!

The important point is that the impact of increased crude oil prices is direct and international, we all know that - wherever we reside or in whatever country our business is mainly involved. Now coal in this regard is completely different. I said earlier that the size of the international coal trade is but marginal relative to production - say 5% today of global coal production. This means that almost all coal is produced and consumed within its own region. Russian coal in Russia, U.K. in U.K., USA mainly in USA, India in India, China in China, South Africa in South Africa and so on. Each of these is an example of what I am saying. What these countries pay internally for their coal - their own coal, whether this is high or low by another's standard has no bearing whatsoever on the price which a consumer will pay for coal from another economic region.

Take Egypt as a typical example, Egypt is buying coal from USA, USSR, Poland and Australia. How much coal from each supplier is Egypt's affair as well as the various costs of coal laid down at Egypt's ports from the supplying countries. This is free trading in coal with no fixed pricing structure. But this free trading which is typical is forcing coal producers to establish real mining efficiencies and first class transportation to ports, as well as efficient port operations. It is also causing ship owners to set themselves up with properly designed coal carrying vessels. At the other end consumers must match all this by their own capabilities in receiving coal efficiently and economically as a part of the total transportation system. When the final decision is made on the port selection, the land and marine access, and this may sound elementary, but we must remember that the coal buyer in effect has the last word for not only is he looking for security and reliability of supply but also for the safest possible marine access and secure facilities for his ships. To put this another way, ideally one should decide from a national standpoint where the best port location is, the railroad route, etc. because our real competition is not here in the "backyard" - it is from other countries.

This has been a broad-brush review of coal on a global basis and of some of the world bulk coal ports together with the components which would go into a bulk port such as could be developed here in Alaska.

Today we are seeing certain new coal mines being developed at about half the cost of developing some of our oil reserves in terms of equivalent energy units. Also, as a typical example, the Hong Kong Power and Light Authority who are today installing new large coal fired thermal power plants, estimate that the cost of coal as a fuel, which they must import to fire these plants, will be half that of oil.

And in conclusion, while we know that we must control our future energy diet and that some items on the menu will be expensive, I can assure you that for some years ahead one of the main dishes on this energy menu will be coal.

HB

804

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FEB 27 1982

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 804
Title Bering River Coal Field Port & Transportation Feasibility Study
Requested by Representative Cato Date February 24, 1982

II. FISCAL DETAIL
Agency Affected Department of Commerce and Economic Development
Program Category Affected Development
BRU, Program, Or Subprogram(s) Affected Office of Mineral Development or O.S.I.P.
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES	0	0	0			
200 TRAVEL	0	0	0			
300 CONTRACTUAL	0	465.5	0			
400 COMMODITIES	0	0	0			
500 EQUIPMENT	0	0	0			
600 LAND & STRUCTURES	0	0	0			
700 GRANTS,CLAIMS,ETC.	0	0	0			
TOTAL	0	465.5	0			

Typo ?

FUNDING (Thousands of Dollars)

GENERAL FUND	0	465.5	0			
FEDERAL FUNDS	0	0	0			
OTHER (Specify Source)	0	0	0			

POSITIONS

FULL TIME	0	0	0			
PART TIME	0	0	0			
TEMPORARY	0	0	0			

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

The study(ies) will determine the feasibility of a potential coal development at Bering River (near Cordova) and the transportation system required.

The funding, up to $465,500 will be entirely contractual and be administered in joint agreement with the City of Cordova and the Nonprofit Native Association for the Region involved, the North Pacific Rim Regional Native Association.

IV. DATE February 24, 1982 PREPARED BY J. R. Deagen
AGENCY Office of Mineral Development
PHONE 465-2022

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
33-001 (Rev. 12/81)

Box 1210 602 Railroad Avenue
Cordova, Alaska 99574
Phone: (907) 424-3237
or 424-3238

"The Friendly City"

FEB 12 1982

February 9, 1982

Mr. Lionel L. Drage, President
Chguach Natives, Inc.
903 W. Northern Lights Blvd., Suite 201
Anchorage, AK 99503

Dear Mr. Drage:

The City of Cordova has been informed of your corporation's proposal to the Legislature to fund a Preliminary Feasibility Study of the necessary coal port and related transportation system for the Bering River Coal Field.

Cordova will be the community most directly affected by the development of the Bering River field. We have much to gain by the sound and prudent development of the fields including the diversification of our economic base, increased employment, and the possibility of an alternate source of electric power.

I believe that the proposal which you have submitted to the Legislature for the Prefeasibility Study is appropriate at this time and a legitimate means of State involvement in this project. We look forward to working with your corporation in the development of the project.

Very truly yours,

Perry D. Lovett

Perry D. Lovett
City Manager

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Chugach National Forest
2221 E. Northern Lights Blvd. Suite 238
Anchorage, Alaska 99508

FEB 12 19 82

1920
February 8, 1982

Carl A. Propes, Jr., Director
Lands and Natural Resources
Chugach Natives, Inc.
903 W. Northern Lights Blvd., Suite 201
Anchorage, Alaska 99503

Dear Carl:

In response to your February 8 letter to Walt Sheridan the Forest Service would be pleased to participate with the State, the City of Cordova, Chugach Natives, Inc., and others in the proposed study of Bering River coal fields transportation options should such a study be undertaken. We would not be able to provide any funds for the study, but would make available appropriate personnel. As you know, the Copper River Delta contains extremely high wildlife and fisheries values. The Alaska Lands Act at Section 501(b) recognized the importance of these resources and provided that the Copper River/Bering River/Rude River area be managed for the primary purpose of conserving fish and wildlife and their habitats.

A study such as you propose is an excellent way to begin examining options for development of the Bering River coal deposits in an environmentally sound manner--with specific emphasis on the fish and wildlife resources. We would welcome the opportunity to be a part of this effort.

Sincerely,

CLAY G. BEAL
Forest Supervisor

6200-11 (1/69)

Title Bering River Coal Field Port & Transportation Feasibility Study
Requested by Representative Cato Date February 24, 1982

II. FISCAL DETAIL

Agency Affected Department of Commerce and Economic Development
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IV. DATE February 24, 1982 PREPARED BY J. R. Deagon
AGENCY Office of Mineral Development
PHONE 465-2022

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/81)

Alaska State Legislature

TRANSPORTATION COMMITTEE HEARINGS

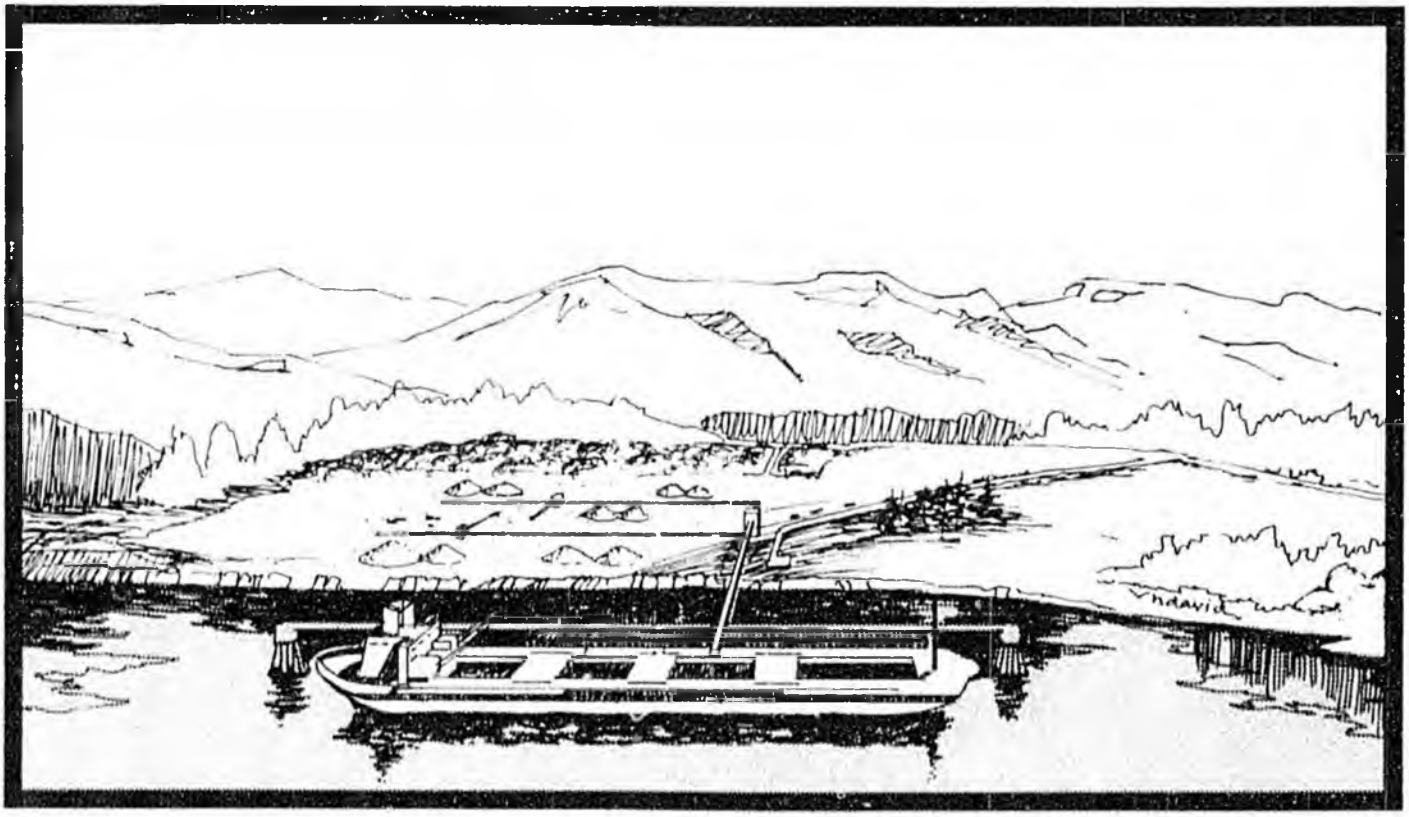
DATE: March 11, 1982
LOCATION: 112 Capitol
SUBJECT: HB 635 -
HB 804 -

NAME	REPRESENTING	ADDRESS	PHONE	HERE TO TESTIFY	HERE TO OBSERVE
				* please note type of number	
Carl Propes	Chugach Natives Inc	903 W No. Lts Blvd. Anchorage, Ak 99503	276-1080		✓
Lionel L. Drage	Chugach Natives Inc.	" " " "	"	✓	
Fred Boness	Chugach Natives Inc	Suite 404, 420 L St Anchorage	276-1969		✓

Proposal

To the Twelfth Alaska Legislature

BERING RIVER COAL FIELD PORT AND TRANSPORTATION STUDY



Prepared by

Chugach Natives, Inc./KADCO

February 1982

CHUGACH NATIVES, INC.
903 WEST NORTHERN LIGHTS, SUITE 201 • ANCHORAGE, ALASKA 99503
(907) 276-1080 TELEX 26-497

February 10, 1982

Jalmar M. Kerttula, President
Alaska Senate
Pouch V
Juneau, Alaska 99811

Joe L. Hayes, Speaker
Alaska House of Representatives
Pouch V
Juneau, Alaska 99811

Dear Gentlemen:

The attached proposal requests an appropriation of $456,500 from the Alaska Legislature for a Prefeasibility Study of the Bering River Coal Field Port and Transportation System.

Chugach Natives, Inc., expended over $1 million in exploration and drilling work in the Bering River Field in 1981, and a similar investment is scheduled for this year. The attached proposal details how the requested State funds fit into the overall development plan for this Coal Field.

Chugach believes that it is appropriate for the State to fund this portion of the project because it will serve to promote the development of Alaskan natural resources other than oil and natural gas. Moreover, benefits from the production of Bering River coal will accrue not only to Chugach's 2,100 shareholders, but also to Cordova through the diversification of that community's economic base and through the possibility of an alternative source of electric power. The revenue sharing requirements of the Alaska Native Claims Settlement Act will further guarantee that the profits from this mine will be distributed all over the State of Alaska.

This appropriation request was not included in the Governor's proposed capital budget because at the time that that was compiled we had not yet received the positive results of last summer's drilling program.

We should make clear that Chugach is not asking for this appropriation for itself to perform the requisite work. We do not even intend to bid on any of the work authorized by this appropriation, if it is authorized. We would prefer to see the funds channeled to the City of Cordova as the contract adminstrator, assuming that municipalities are awarded extraterritorial jurisdiction for port projects in pending legislation.

Our second preference for a funding entity would be the Department of Commerce and Economic Development, which has agreed to administer the project if the Legislature so decides.

Your favorable consideration of this proposal would be most appreciated. Please call us if you have any questions concerning it.

Sincerely,

CHUGACH NATIVES, INC.

Edgar Blatchford
Chairman of the Board

Lionel L. Drage
President

CONTENTS

EXECUTIVE SUMMARY

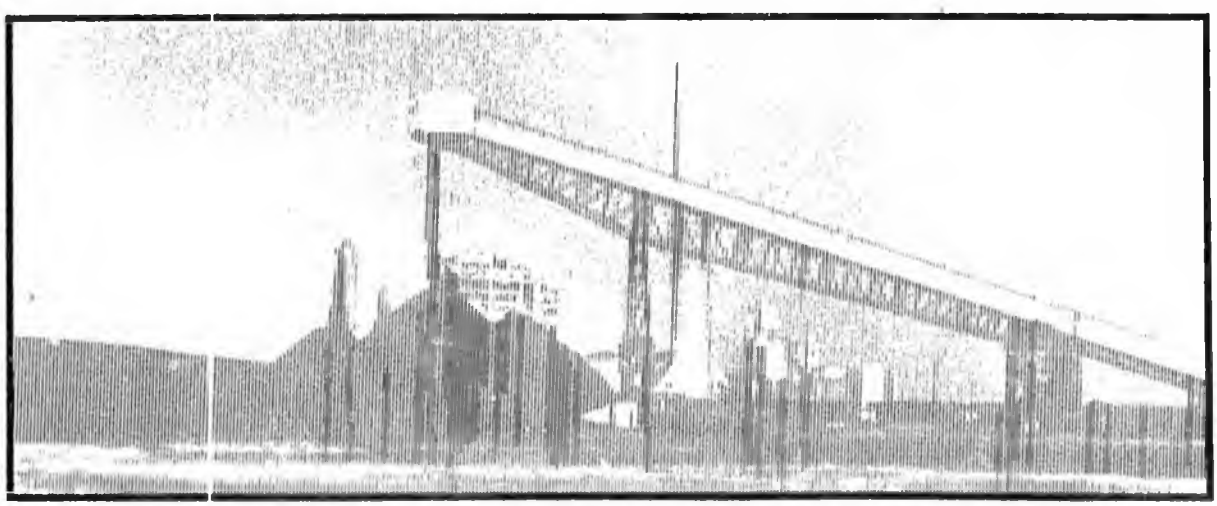
The high quality of Bering River coal has been known for 75 years. Drilling tests in 1981 reconfirmed this remarkably high quality and refuted the stereotype of Alaska coal as having high moisture content and low heating value. Probable recoverable reserves in the Bering River Coal Field have been identified in excess of 62 million tons; "possible" reserves are millions more. The precise extent of **economically** recoverable reserves, however, is currently undetermined. This uncertainty about the costs of Bering River Coal Field development is the reason for this proposal.

If the coal can be marketed profitably to Pacific Rim countries, the benefits to all Alaskans will be immense. Chugach Natives, Inc., has worked very hard for over a year to find compatible partners and to carry out preliminary studies and test drillings. All results have been positive, but a number of questions remain.

Our proposed Coal Port and Transportation Study will answer many, but not all, of these questions. It will provide information on whether more detailed engineering and environmental analyses are potentially worthwhile, or whether mining and transporting the coal will simply be too costly.

This proposal requests funding for $456,500 for this essential study. Chugach Natives, Inc., and KADCO, its joint venture partner, have already spend $1 million and are committed to spending another million dollars in the coming year. This request represents a relatively small, although vital, part (15 percent) of the initial planning and conceptual phase budget of roughly $3 million for 1981 through 1984.

For this investment, the state of Alaska will receive a straight answer to a question with potentially great significance to the state as a whole: Are the port and transportation concepts for the development of the Bering River Coal Field technically and economically viable, and are the requirements compatible with the high environmental standards of the state and Chugach Natives, Inc.?



INTRODUCTION

The Chugach region is located along 450 miles of the Alaska coast from lower Cook Inlet on the west to Icy Bay on the east. As the map below shows, the region includes the cities of Cordova, Seward, Valdez, and Whittier.

There are approximately 2,100 shareholders of Chugach Natives, Incorporated (CNI), one of the 12 Alaska Native regional corporations created under the Alaska Native Claims Settlement Act (ANCSA). Five village corporations, also created by this act, are located within this region. They are the Chenega, English Bay, Eyak, Port Graham, and Tatitlek village corporations.

The Chugach Region is a "melting pot" of Alaska Native cultures. The ancestry of the shareholders includes Aleut, Chugach Eskimo, and Eyak Indians. The Chugach people have occupied the Prince William Sound area for thousands of years.

The continued existence and livelihood of the Chugach people depends on a diversified economy as well as a clean environment. Many shareholders of CNI and other Chugach region residents are fishermen who depend on the continuing prosperity of the commerical salmon harvest. CNI's largest investment to date, the Orca seafood processing plant in Cordova, supports the region's involvement with this important industry.

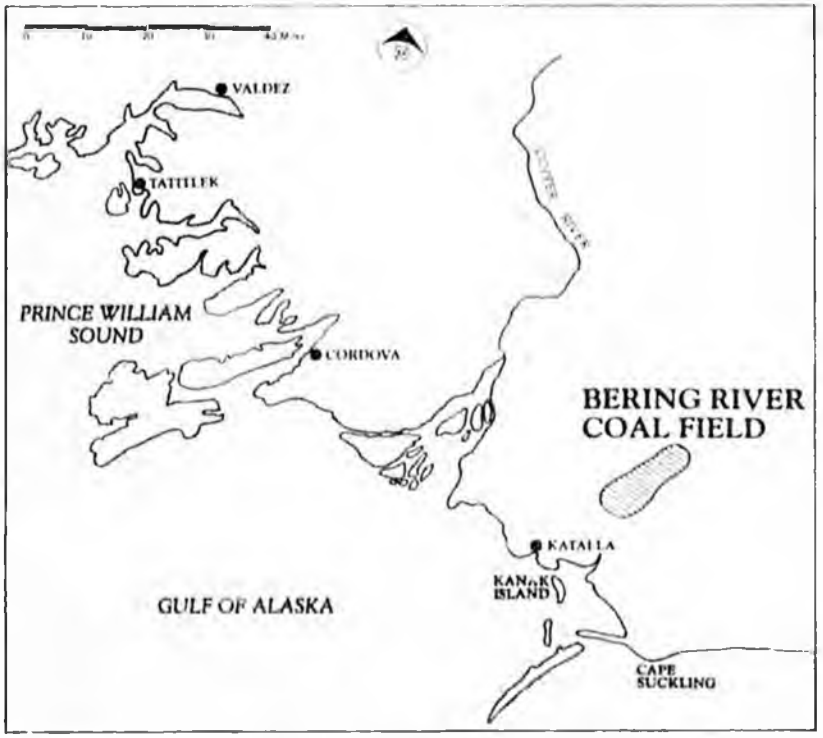
CNI promotes development that will broaden and stabilize the economic base while not jeopardizing the seafood industry.

The Bering River Coal Field Port and Transportation Study will be a major step toward diversifying and strengthening the economic base of the Chugach region. Development of the Bering River Coal Field will benefit:

- The 2,100 shareholders of Chugach Natives, Inc., through investment of their capital in a profitable venture
- The Cordova area economy, through the creation of hundreds of job opportunities and the diversification of the economic base
- The residents of Cordova, through the possible availability of electrical power from a mine-mouth power plant
- All Alaska Natives, through the revenue-sharing provision of the ANCSA
- The state of Alaska, through industrial growth and reduced regional dependence on state aid

Objective

The development of the Bering River Coal Field, like any other major project, will be expensive. For development to occur, many very difficult technical and economic questions must be answered and environmental concerns must be addressed. The proposed



Site Map

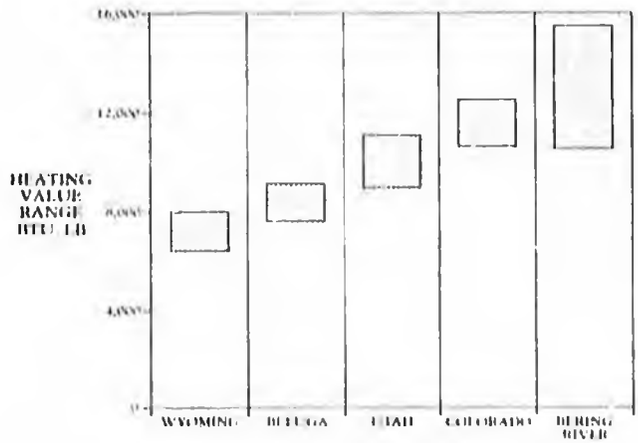
study will provide many, although admittedly not all, of the needed answers. It will attempt to answer enough questions about the potential port sites and transportation routing alternatives so that reasoned decisions can be made on whether or not to proceed with the next phase of preliminary engineering and permitting.

History

The commercial success of the Bering River Coal Field development seems probable based on the history of the field, the quality of the coal resource, and the interest already shown by potential buyers. The Katalla-Bering River area possessed the most valuable known fuel resources in Alaska until the development of the Cook Inlet oil and gas fields in the late 1950's and the North Slope discoveries in the late 1960's. The Bering River Coal Field was the first coal field discovered in Alaska, and 4 out of every 5 of the mining claims in the 1905 "coal rush" were made in this field. Regional development ceased in about 1916, however, for political reasons.

Coal Quality

The coal found in the Bering River field has long been recognized for its high quality. Alaska coal is, unfortunately, widely thought to be of lower quality than most other coals. This is a definite misconception in the case of Bering River coal, as the figure below demonstrates. Bering River coal compares very favorably with coal from Colorado, Utah, and Wyoming, as well as with coal from the Beluga fields. This fact is very encouraging because the Pacific Rim buyers of these other coals would compare Bering River coal against them.



Comparison of Typical Coal Heating Values

Coal Reserves

Alaska may actually have more coal resources than the rest of the western United States, although actual mineral reserves are still anybody's guess due to limited drilling information. Over 62 million tons of recoverable reserves were identified in the Bering River Coal Field following a drilling program conducted in the summer of 1981. Another 28 million tons are estimated as possibly recoverable reserves. Additional coal reserves will be better defined in 1982 and thereafter. Estimates of "recoverable" and "potential" reserves have invariably proven low throughout the country.

The size of CNI's land selection in the Bering field, the amount of land under coal exploration license, is slightly under 70,000 acres.

Markets

Far East countries are developing into good markets for Alaska coal. These countries are expected to use nearly 200 million tons of thermal coal by the year 2000. The United States is forecast to export over 50 million tons of steam coal annually to Asian countries by the year 2000.

Chugach Natives, Inc. and KADCO Agreement

The proposed Coal Port and Transportation Study follows more than a year of planning activity by CNI. In April of 1981, CNI executed an agreement for exploration and development in the Bering River Coal Field with a consortium of four major Korean companies (KADCO). The consortium includes the two largest Korean trading companies, Hyundai Corporation and Samsung Company, Ltd.; and the two largest Korean coal mining companies, Daesung Consolidated Coal Mining Company, Ltd., and Samchok Consolidated Coal Mining Company, Ltd.

In May of 1981, this joint venture began an aggressive core drilling program under the first Federal coal exploration license ever issued in Alaska. CNI and KADCO are pleased with the results of the 1981 program, and in January of 1982 the partners signed an agreement to continue with a similar drilling program during 1982.

CNI has valid land selection rights to the eastern third of the Bering River Coal Field, in the Carbon Mountain area, under the ANCSA. CNI was offered title to the two thirds of the field now in the Chugach National Forest by the Federal government as part of its land settlement in the Chugach Region Study (Section 1430 of the Alaska National Interest Lands Conservation Act of December 2, 1980.)

BERING RIVER COAL FIELD DEVELOPMENT PLAN

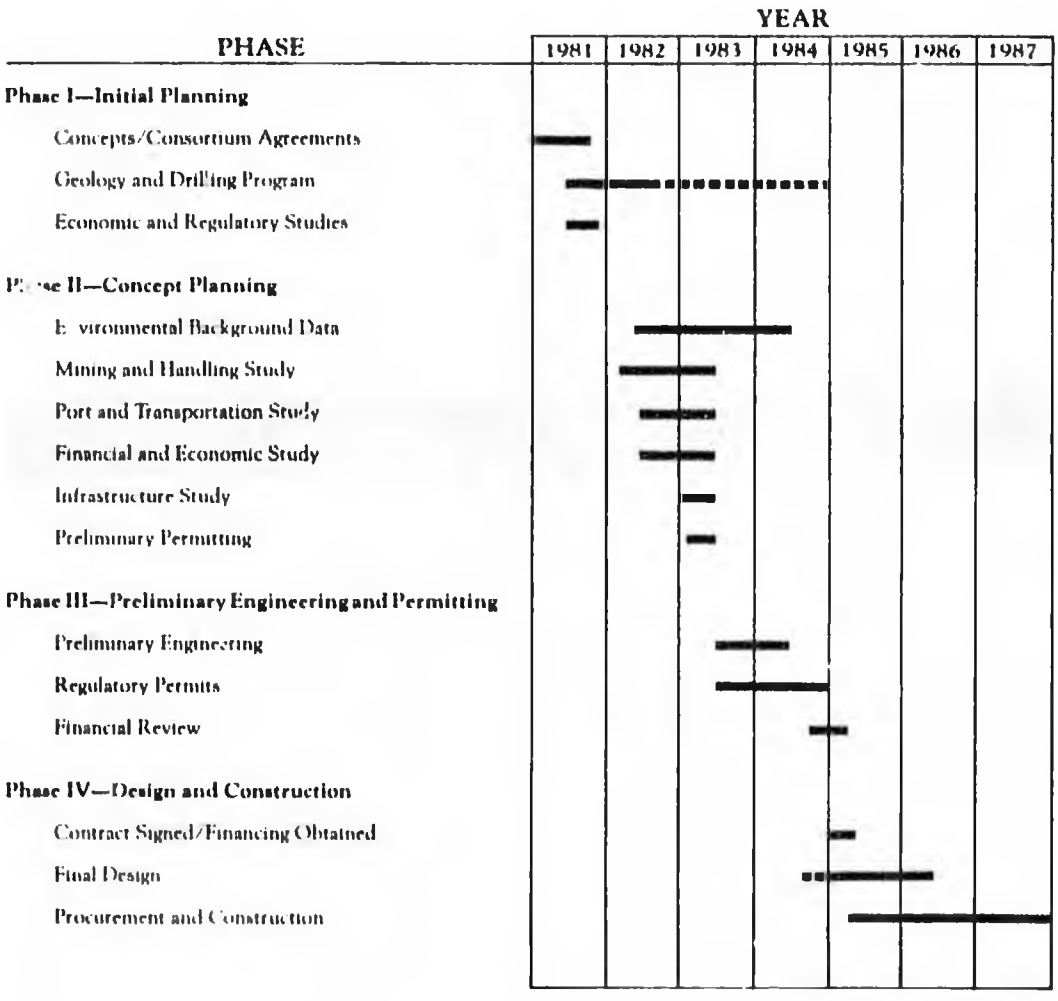
An Overview

The proposed Coal Port and Transportation Study follows more than a year of preliminary studies, test drilling, and consortium negotiations. A preliminary economic analysis, completed by KADCO in September 1981, concluded that economically recoverable coal resources are located in the Bering River field.

On the basis of these preliminary studies, Chugach Natives, Inc., and KADCO will continue development planning during 1982. A detailed market study is underway that will provide necessary baseline information for the Coal Port and Transportation Study. A number of technical, economic, and environmental issues were identified in the previous studies. The proposed study will provide many of the needed answers.

By following the development plan shown below, CNI can bring the Bering River Coal Field into production in a cost-effective manner. The development plan allows for periodic reappraisals of viability and a fast answer to the question of whether development of the coal field can or cannot be accomplished in a technically, environmentally, and economically sound manner.

As shown below, the Coal Port and Transportation Study follows initial studies that clearly indicated that further analysis of port and transportation alternatives is now warranted. This study will determine the advisability of proceeding with the remaining, more expensive, development phases. Although shown below as a separate analysis, the financial and economic analysis is considered in this proposal to be part of the Coal Port and Transportation Study.



Bering River Coal Field Development Plan

PORT AND TRANSPORTATION SYSTEM STUDY

The Coal Port and Transportation Study will provide many of the answers to key questions such as: Are port sites adequate? Can transportation corridors be created and maintained? What is the most cost-effective handling and transport system from mine to port?

The study has three main elements: a marine terminal investigation, a transportation systems investigation, and a financial and economic analysis. The terminal investigation includes three parts:

- A preliminary identification and assessment of terminal sites
- A marine geophysical and limited landside survey
- A detailed evaluation of conceptual layouts at the most promising sites

The transportation systems investigation will include:

- A preliminary mode and route evaluation
- A selection and detailed evaluation of a route plan
- A storage handling and loading evaluation

The financial and economic analysis of the overall development concept will be performed concurrent with the study. It will include:

- A market study to identify coal quantities, qualities, and likely vessel size
- A financial study to identify the ability of Bering River coal to compete with other world coal sources (such as Utah and Colorado) in the Asian markets, in terms of delivered cost per million Btu
- An economic study to identify the economic benefits and costs of coal field development

Transportation System Investigation

Objective

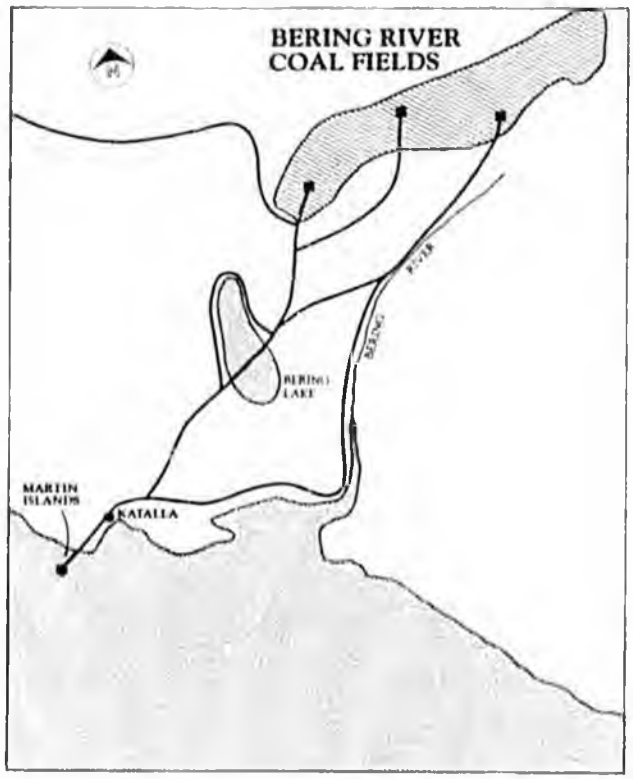
The transportation system investigation will address the technical, economic, and environmental aspects of transporting coal from the Bering River Coal Field to terminal sites in Katalla and Cordova.

Scope

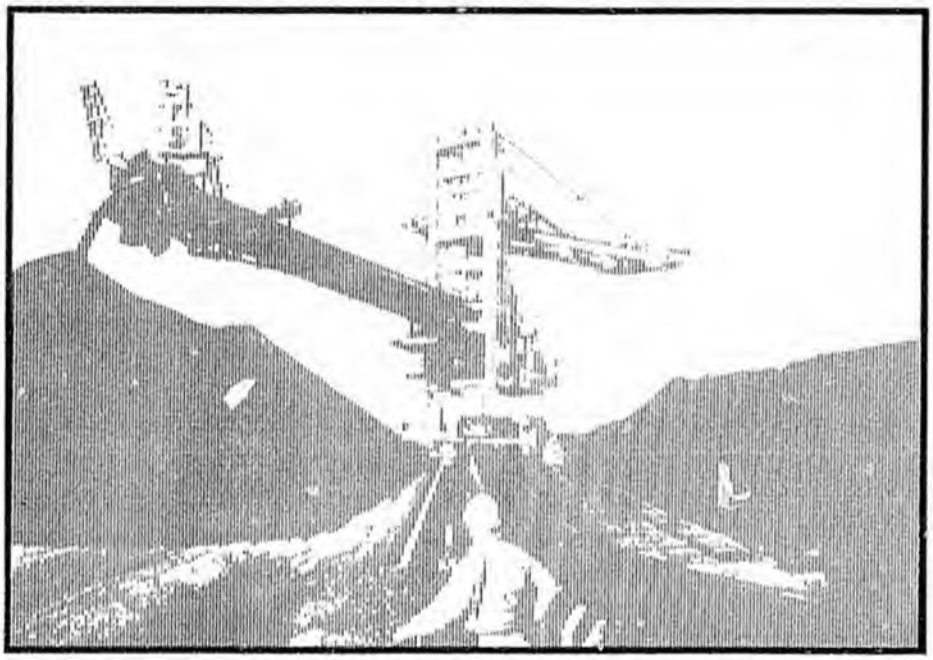
Design criteria for transporting coal via the modes of rail, truck, conveyor, and slurry will be defined first. These criteria will then be applied to those routes identified in preliminary studies conducted in 1981, shown on the figure at right. The selection of route and mode will require: (1) a reconnaissance survey of soil, drainage, relief, and geology; (2) a comparison of construction, operation, and maintenence costs for each mode and route; and (3) a comparison of environmental impacts. This element of the study will evaluate: whether grades identified in the design criteria for each mode can be created and maintained; adequacy of soil conditions along the identified routes; effects on flora and fauna; energy requirements and sources; borrow material quantities and sources; effects of weather; and drainage characteristics for each mode and route alternative.

The location and layout of the coal terminal, including a storage and reclamation system, will also be analyzed. Topography, soil conditions, geologic hazards, waste material disposal requirements, storage requirements, power access, site rehabilitation requirements, cost, and environmental effects will be considered.

The optimal mode and route will be selected on the basis of technical, economic, and environmental criteria and conceptual plans and cost estimates will be prepared for them.



Transportation Routes



Marine Terminal Investigation

Objective

The marine terminal investigation will evaluate the location and developmental requirements of ship moorage and loading sites in the Katalla-Cordova region.

Scope

A preliminary analysis of available terminal sites in the Katalla-Cordova region will identify the most likely sites for detailed evaluation. Criteria will be identified for: receiving coal via rail, road, conveyor, and slurry; storing and preparing coal upland from the terminal; and loading barges and deep draft vessels. These criteria will be used to evaluate the available sites regarding their size and topography, drainage, flora and fauna, soils, geology, bathymetry, currents, waves, tides, sedimentation, and navigation.

More detailed evaluations and site plans will be prepared for the most likely sites. The decision criteria will be further refined for the transportation, storage, and preparation systems identified as most cost-effective in the transportation study. A marine geophysical survey will be conducted to provide necessary data on subsurface contours and depth to bedrock. This survey will show whether the sites will support piling and other port structures, and whether dredging will be required. Site-specific climatological and current data will be acquired using an automatic weather station and current meters.

Conceptual layouts, cost estimates, and maps of topography, soil conditions, geologic hazards, and environmentally sensitive locations will be prepared for selected terminal sites. A final terminal site recommendation will be made on the basis of these considerations.

Financial and Economic Analysis

Objective

The financial and economic analysis will provide basic data, such as the required annual throughput, that are needed to optimize the port and transportation system design.

Scope

The analysis will be based on available published data verified through interviews with exporters, trading companies and shipping companies. It will provide an answer to the key question of whether Bering River coal reserves are **economically** recoverable.

The financial and economic analysis will project the cost of Bering River coal in dollars per million Btu. Ocean transport and receiving facility handling costs will be provided by KADCO. The delivered cost of Bering River coal will then be compared with the projected costs of coal delivered from other West Coast states and Australia.

The economic evaluation of the development will include a comparison of net benefits and costs to the state of Alaska, all Alaska Natives, the residents of the Chugach region, and the shareholders of Chugach Natives, Inc. A discounted cash flow analysis will be used to compare benefits and costs.