ALASKA LEGISLATURE COMMITTEE FILES 1981-1982 8672

1943 SRES SCR 14 - SCR 21

1943

SCR

15

COMMITTEE REPORT

SENATE

FURTHER: Finance

3/11/81

Date: _____

Mr. President:

The Committee on RESOURCES has had SCR 15

gathering and evaluation of comprehensive information about salmon stocks in Arctic-Yukon-Kuskokwim management area

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[ ] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[X] replace with CS for SCR 15 [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING
DO PASS

Brad Bradley

Alan Adams

Bob Medearis

H. Finkelman

MEMBERS HAVING
OTHER RECOMMENDATIONS:

Bettye Fahrenkamp

CHAIRMAN

Alaska State Legislature

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3834
(907) 465-3835

Senate

Committee on Resources

May 6, 1981
1:30 p.m.

Beltz Room
211 - Capitol

MEMBERS PRESENT

Senator Fahrenkamp
Senator Fischer
Senator Bradley
Senator Mulcahy
Senator Gilman

Hearing:

SB 388 — An Act relating to the Alaska Commercial Fishing and Agriculture Bank

SCR 15 — Relating to the gathering and evaluation of comprehensive information about salmon stocks in the Artic-Yukon-Kuskokwim mamagement area.

SB 249 — An Act relating to fisheries information planning and evaluation.

SJR 43 — Requesting the United States Senate to support continuation of the present fur seal harvest quota.

Rosaleen Moore, Chairman of the Alaska Commercial Fishing and Agriculture Bank, stated that she supported the amendments to SB 388 by the United Fishermen of Alaska.

Pete Argetsinger, General Counsel for CFAB, discussed the issue of auditing CFAB. He stated that the legislative auditors are not bound to keep information confidential, while the banking auditors are covered by very strict federal and state requirements of confidentality.

Larry Butterfield, Vice President, Spokane Bank of Cooperatives, stated that SB 388 clarifies CFAB's status as a private cooperative, and also, the confidentality of CFAB's records. He stated that government oversight is necessary to make sure the intent of the original law is being carried out and that the state's investment is protected.

In response to the question, if SB 388 did not pass would you keep loaning CFAB money? Mr. Butterfield, stated that they would keep loaning money to CFAB. He indicated that if CFAB was challenged in court it might be declared a state agency.

Senator Mulcahy put forth the motion to move the amendments to SB 388 by United Fishermen of Alaska.

Senator Mulcahy put forth the following amendments to SB 388: page 4, line 1 delete "may" and insert "shall" in its place; page 4, line 4, between the words "or a" insert "may provide to"; page 5, line 8 starting with the word "However" and delete the sentence to line 11.

Senator Mulcahy put forth the motion to move SB 388 as amended with individual recommendations.

Senator Mulcahy stated that SCR 15 is the result of finding out that alot of information is available in the Departments but there is a need for the gathering and evaluation of comprehensive information about the salmon stocks in the Artic-Yukon-Kuskokwim area.

Senator Mulcahy put forth the motion to move Committee Substitute for SCR 15 with individual recommendations.

Senator Mulcahy stated that SB 249 is the result of finding out that it is not easy to gather fisheries information because it is located in numerous locations. The Division of Commercial Fish spends most of its time on management of the fisheries and preparing for the Board of Fisheries meetings. They do not have enough time or employees to gather and put together the information addressed in the bill.

Senator Mulcahy put forth the motion to move CSSB 249 with individual recommendations.

Senator Mulcahy stated that the fur seals in the Pribilof Islands contribute to the economy and provide a subsistence food base. The United States Senate is proposing to cut the annual harvest down to 7800 fur seal. SJR 43 is directed to the U.S. Senate to encourage them to continue the present fur seal harvest quota.

Senator Fischer put forth the following amendment: on page 1 between lines 10 and 11 insert " WHEREAS a reduction of the annual take of adult male seals would endanger the population stability of the Pribilof fur seal herd;" The manedment was accepted.

Senator Mulcahy put forth the motion to move SJR 43 as amended with individual recommendations.

The Committee adjourned at 2:35 p.m.

Alaska State Legislature

BETTYE FAHRENKAMP, CHAIRMAN
VIC FISCHER, VICE-CHAIRMAN
BRAD BRADLEY
DICK ELIASON
DON GILMAN
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3434
(907) 465-3035

Senate

Committee on Resources

February 4, 1981 — Butro Room
1:30 p.m. — 207 - Capitol

MEMBERS PRESENT

SENATOR FAHRENKAMP
SENATOR FISCHER
SENATOR BRADLEY
SENATOR ELIASON
SENATOR GILMAN
SENATOR MULCAHY
SENATOR STURGULEWSKI

Hearing: SB 8 — Making a special appropriation to the Alaska Power Authority for construction of the Susitna River Hydroelectric project.

SSSB 25 — Establishing a power project revolving loan fund in the Alaska Power Authority.

SB 26 — Making special appropriations to the power project revolving loan fund of the Alaska Power Authority.

The hearing was teleconferenced to Anchorage, Fairbanks and Mat-Su.

Terry Reikhart, Fairbanks, representing himself, testified on SB 8 stating that the feasibility study is proceeding smoothly. Since Susitna is a major project it is necessary to have as much information as possible before making a decision to proceed.

Patricia Anderson, Fairbanks, a biologist, stated that the Department of Fish and Games needs 5 years to conduct fish and wildlife studies and when completed they will provide good base line data.

Fred Dure, Anchorage, representing himself, stated that he was opposed to SB 8 and that consideration should be given to wildlife.

Chuck Smith, Mat-Su, representing himself, stated that Susitna has been studied for over 40 years that it is time to move on with the project because the area is approaching a power shortage. He indicated that the Alaska Power Authority brochure on Susitna answered all the questions previously raised by the environmentalists.

Kevin Herrin, Fairbanks, representing himself, stated that the feasibility study is needed to determine if the size of the project is appropriate. He indicated that adequate power is needed at a reasonable rate but producing more power was not the solution. He saw the solution as energy conservation.

Vivian Cartwright, Fairbanks, representing herself, stated that the social consequences, of building Susitna, may be high and may disrupt the rural life style of the area. She indicated that the positive points of building the dam are: 1. it would produce cheaper energy for urban areas; and, 2. it would produce short term employment.

Thomas Star, Anchorage, Municipal Light and Power, stated that he was infavor of all three bills. He indicated that it was wise to use non-renewable resource revenues to build useful long term hydro structures. These bills will provide funding for our future energy needs.

Dorothy Jones, representing the MatSu Borough, stated she strongly supported Susitna and all other hydro projects in the State because they are environmentally clean and also a good use of a renewable resource.

Jeff Wilson, Fairbanks, representing himself, stated that it is important to know the potential impacts of Susitna since the river provides fish for the Cook Inlet fisheries. He felt that the feasibility study needs to be completed before a decision was made.

Bob Huffman, Fairbanks, representing himself, stated that he was infavor of all three bills because they will assure that Alaska will have a viable energy future. Hydro is a renewable resource and once the projects are completed they will be virtually inflation free.

David Singlesign, Anchorage, representing himself, stated that the Sierra Club has not taken a position on the Susitna project because they are waiting for the completion of the feasibility study. He further stated that it is logical to study a project of this size in depth.

Bob Lohr, Anchorage, Energy Director RuralCap, stated that he supports the assistant program portion of SSSB 25 and SB 26 because without them the bush communities would be paying

close to 50¢ per KWH.

Jim Booska, Fairbanks, representing himself, stated that the present systems are overloaded and therefore, Susitna is needed as soon as possible. He said that he thought that Snettisham was completed, so what is the appropriation for Snettisham Phase II? (Answered later by Mr. Holdsworth).

Elexis Dvorson, Fairbanks, representing herself, stated that she would like to see the feasibility study completed and was particularly concerned about any potential impact on the Cook Inlet fisheries. She indicated that there were other energy options such as solar energy, and conservation.

Eric Meyers, Anchorage, representing the Alaska Public Interest Research Group, stated that by surpressing the cost of electricity it encourages consumption. He suggested that undue emphasis was placed on electricity when there are other energy needs. He suggested that $20 million be put into the audit and retro-fitting program.

Nancy Lee, Anchorage, representing herself, stated that the amount of money under consideration may not be needed and suggested that the feasibility study be completed first.

David Lacey, Fairbanks, representing himself, stated he was opposed to SB 8 because it creates a big Golden Valley Electric Authority and big government.

Roxie Paiser, Fairbanks, stated she supported hydro electric projects because there have been changes in Alaska which have increased the need for hydro.

Jeff Bowman, Fairbanks, representing himself, stated he did not believe that the alternatives that are being studied are being given the same consideration as Susitna. He indicated that he thought that smaller projects may be more appropriate.

Doug McIntyre, Fairbanks, representing himself, stated he was opposed to SB 8 because the per capita cost was $10,000.

3:05 p.m. End of Teleconference.

Phil Holdsworth, Juneau, representing South Eastern Conference, stated that their policy statement #3 on hydro-electric fits SB 25. In reference to the previously asked question regarding Snettisham Phase II, he stated that the funds were to connect Lake Dorothy to the existing plant. The existing plant was built to take an extra turbine and flow from the lake and this comparatively small amount of money will increase the capacity.

Roland Shanks, Juneau, Alaska Environmental Lobby, stated that it is premature to appropriate money to start construction of the Susitna River Hydroelectric Project. That the decision to expend money for the Susitna Project should await the outcome of the studies. He indicated that it may be in the economic best interest of the State to foster an in-state economy based on energy conservation, retro-fitting and smaller more localized hydroelectric projects.

Dave Hutchens, Juneau, Executive Director, Alaska Rural Electric Cooperative Association, stated that there had been some missunderstanding about SB 8 because the Federal Energy and Regulatory Commission requires the feasibility studies to be completed prior to their issuance of a license. But, it is wise while the money is available from non-renewable income to put aside some of it so it can be used if and when Susitna is determined to be feasible. He stated that SB 25 and SB 26 use the revenue from non-renewable resources to finance permanent energy facilities at low interest rates so people across the state can benefit. He indicated that when these projects are completed 7/8 of the people in the state will be on hydro power. He further indicated that it will be years before Susitna is built but it can funded at todays cost with todays dollars. If it is proven infeasible the money becomes available for other projects in that area. He stated that the reason for such a large project like Sustina is it is economically more efficient.

Senator Jalmar Kerttula, President of the Alaska State Senate, stated that these bills represent a 8 year program. The basic philosophy behind the bills is: that the oil revenues are here today which can be used to build a sound economic base for the future. These projects represent a long term investment in the State's economic future. He stated that now is our chance to put the money aside because if for some reason there is a shortage of funds in the future even the money in the permanent fund will be spent.

Senator Mulcahy put forth the motion to move the bills, with Individual recommendations, with an amendment to SB 26 correcting the typographical error on page three, and with a letter of intent with SB 8.

The Committee adjourned at 4:10 p.m.

Alaska State Legislature

Senate

JUNEAU, ALASKA

RESOURCES SUBCOMMITTEE ON FISHERIES

TO: Senator Bettye Fahrenkamp, Chairman
Senate Resources Committee

FROM: Senate Resources Subcommittee on Fisheries

SUBJ: SCR 15 "Relating to the gathering and evaluation of comprehensive information about salmon stocks in the Artic-Yukon-Kuskokwim management area."

The subcommittee has taken testimony and replaced SCR 15 with CSSCR 15 and reports CSSCR 15 back to the committee as a whole with the following recommendations.

Members		Recommendation
Senator Mulcahy	Bob Mulcahy	Do Pass
Senator Eliason	Al Eliason	No rec. pending
Senator Gilman	Dan Gilman	No rec. pending possible Amendment

S-10

Alaska State Legislature

Senate

JUNEAU, ALASKA

RESOURCES SUBCOMMITTEE ON FISHERIES

April 29, 1981

Senate Resources Subcommittee on Fisheries meeting

The meeting was called to order by Chairman Mulcahy at 3:09 PM. All members of the committee were present.

First on the Agenda was SCR 15 "Relating to the gathering and evaluation of comprehensive information about salmon stocks in the A-Y-K management area".

Doug Pope, of the AYK Fin Fish Project testified on SCR 15. He stated that the resolution was a result of work that he and staff had done, and explained what was to be accomplished by the resolution.

SCR 15 was moved with individual recommendations.

Next on the agenda was SB 249 "An Act relating to fisheries information planning and evaluation".

Doug Pope testified on SB 249. He said that the bill came from the same project that SCR 15 came from. He explained the bill to the committee.

Senator Gilman explained some concerns he had with the bill, and proposed amendments to the bill.

SB 249 was moved with individual recommendations.

Next on the agenda was SB 508 "An Act making a special appropriation to the Department of Commerce and Economic Development for a pilot project to finance the Nushagak Fish Producers Coop".

Carl Heyano, Secretary of the Nushagak Fish Producers Cooperative, testified on SB 508. He briefly stated the history and present circumstances of the Nushagak Fish Producers Cooperative, and why he felt they needed funding.

Chairman Mulcahy asked if other attempts had been made to achieve funding, specifically with CFAB or ARRC.

Mr. Heyano stated that Archie Gottschalk could answer that question better.

Archie Gottschalk testified next on SB 508. He stated that attempts had been made to get funding from ARRC, but that they had fallen through.

The meeting was adjourned by Chairman Mulcahy at 3:57 PM.

Alaska State Legislature

Senate

JUNEAU, ALASKA

RESOURCES SUBCOMMITTEE ON FISHERIES

SCR 15

This resolution requests:

1. the Governor to direct the Department of Fish and Game to gather information on identification, enumeration, separation, migration patterns and run timing, escapement, and smolt outmigration of all salmon stocks in the Arctic-Yukon-Kuskokwim management area.

2. the Department of Fish and Game gather information regarding biological effects on salmon escapement from foreign interception.

3. the Department of Fish and Game and the Board of Fisheries initiate and complete an evaluation of information gathered, and report each year to the legislature any gaps in information and the success of in-season management in alleviating resource user and gear conflict, and recommend appropriate action.

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

SUBPORT BUILDING
JUNEAU, ALASKA 99801

April 1, 1981

The Honorable Frank R. Ferguson
Alaska State Senate
Pouch V, State Capitol
Juneau, Alaska 99811

Dear Senator Ferguson:

This letter is written in response to your March 12, 1981 request for Department assistance in preparation of a fiscal note for SCR 15 (your letter attached). I directed the Commercial Fisheries Division staff to develop a five-year approach or plan to the gathering and evaluation of comprehensive data concerning salmon stocks in the Arctic-Yukon-Kuskokwim Region. I directed the staff to consider the projects recommended by Douglas Pope which you provided and to consider the following assumptions as they developed the five-year plan:

(1) the level of program curreatly represented in the FY 82 Governor's operating budget request would be continued through the five-year period;

(2) only a limited number of the countless possible field projects can be implemented over the next few years due to logistic, personnel, and needed quality control considerations;

(3) an approach to better documentation and utilization of existing data must be identified;

(4) comprehensive studies keying on: (a) stock enumeration, identification, and migratory patterns and timing; (b) mixed stock fishery problems and solutions; and (c) juvenile salmon abundance must be considered in relation to improving the existing resource and fishery monitoring and management regime; and

(5) as a general guideline for the number of projects to include while addressing your specific requests, the total cost of the continuation and new proposed program cannot exceed more than one-half of the commercial value of the AYK salmon resource over the next five-years (five-year commercial fishery value is estimated at $40 million and five-year continuation cost is estimated at $10 million).

11-K11LH

Projects planned for the gathering and evaluation of comprehensive information about salmon stocks in the A-Y-K region.

Title of Proposal	Department priority	Duration	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Origins of Chinook Salmon Intercepted by the Japanese Mothership Fishery	High	3 years	85.2	120.0	130.0	0	0	337.2
Stock Biology of Yukon River Chinook Salmon	High	Continuous	291.2	228.1	251.0	276.0	303.7	1350.0
Kotzebue Chum Salmon Stock Separation Studies	High	3 years	84.6	78.1	85.9	0	0	248.6
Test Fishing in the North Mouth of the Yukon River	High	Continous	49.4	41.2	45.4	49.9	54.9	240.8
Assessment of Salmon Run Size in the Main Stem Yukon and Kuskokwim Rivers by Sonar	High	3 years	212.5	127.4	140.1	0	0	480.0
Norton Sound Salmon Escapement Studies	High	Continuous	70.9	57.1	62.8	69.1	76.0	335.9
Sonar Evaluation of Salmon in the Unalakleet River	High	Continuous	129.8	37.5	41.3	45.4	49.9	303.9
Biometric Analysis of Arctic-Yukon-Kuskokwim Fisheries Information	High	Continuous	224.4	148.9	163.8	180.2	198.2	915.5
Administrative Support for an Expanded A-Y-K Salmon Program	High	Continuous	709.9	252.9	278.2	306.0	336.6	1883.6
Arctic-Yukon-Kuskokwim Region Subsistence Salmon Surveys	High	Continuous	49.3	54.2	59.7	65.6	72.2	301.0
Upper Tanana Chinook Salmon Optimum Escapement Studies	Medium	5 years	169.0	84.6	93.0	102.4	112.6	561.6
Kobuk River Escapement Studies	Medium	Continuous	92.9	90.2	99.2	109.1	120.1	511.5
Lower Yukon River Juvenile Salmon Abundance Index	Medium	5 years	50.0	55.0	60.5	66.6	73.2	305.3
Eastern Norton Sound Fisheries Monitoring	Medium	Continuous	53.6	59.0	64.9	71.3	78.5	327.3
Stebbins-St. Michael Salmon Study	Medium	3 years	35.1	32.0	35.2	0	0	102.3
Kuskokwim Bay Salmon Tag and Recovery Study	Low	3 years	34.4	38.0	20.0	0	0	92.4
Yukon and Kuskokwim River Salmon Forecast Study	Low	5 years	69.2	82.2	90.4	99.5	109.4	470.7
Commercial Fishery Gear Selectivity Research	High	3 years	0	45.0	50.0	55.0	0	150.0
Sonar Enumeration of Salmon in the Upper Yukon River	Medium	4 years	0	110.0	50.0	55.0	60.0	275.0
Upper Tanana Coho and Chum Salmon Studies	Medium	3 years	0	34.5	38.0	41.7	0	114.2
Port Clarence Salmon Research	Medium	3 years	0	40.0	45.0	50.0	0	135.0
Yukon and Kuskokwim Smolt Studies	Low	4 years	0	150.0	100.0	110.0	121.0	481.0
False Pass Tagging Research	Low	3 years	0	0	150.0	165.0	181.5	496.5
TOTAL			2431.4	1965.9	2156.4	1917.8	1947.8	10,419.3

Origins of Chinook Salmon Intercepted by the Japanese Mothership Fishery

The Japanese Mothership drift gill net fishery operating in the Bering Sea and North Pacific Ocean continues to intercept significant numbers of chinook salmon despite regulations imposed on it. In fact, the 1980 harvest of 704,000 exceeded the combined Alaskan inshore and troll harvest. While one small study indicated that Alaskan stocks are intercepted by this fishery, no comprehensive study has been made. A more detailed understanding of the contribution of Alaskan chinook salmon to the past and present Mothership fishery will permit consideration of high seas interceptions to the inshore management of the resource and will be instrumental in assisting the United States delegation to the International North Pacific Fisheries Commission in requesting time and area closures to protect Alaskan stocks. Specific objectives of this proposal are to: update and summarize existing information on the origin of chinook salmon intercepted by the Japanese Mothership fishery; gather, compile and analyze basic biological data on chinook salmon collected by various agencies during the period 1966-1980; estimate the past and present interception of Alaskan chinook salmon to river of origin whenever possible. The expected cost of this project is $337,200 over a three-year period and the research would be contracted to scientists presently engaged in similar research at the University of Washington.

Stock Biology of Yukon River Chinook Salmon

The chinook salmon resource of the Yukon River Basin is a vital segment of the region's economic base and is also heavily utilized by subsistence fishermen. The physical size of the river, multitude of component stocks and nature of the fishery make achievement of optimal sustained yield difficult. Knowledge of the biology of the component stocks would greatly enhance the Department's ability to maximize the harvest while achieving optimal escapements. This study addresses three key areas of research identified as critical to management. First, to continue a pilot study to identify the origin of component stocks (based on scale pattern recognition techniques) as they enter the fishery. Secondly, to determine the age composition and sex ratios of the resulting escapement. Thirdly, to expand the Department's aerial survey coverage of spawning streams. The first year cost of implementing this project is $291,200 and will require 12 months of permanent employee services and 46 man months of seasonal employee services.

Kotzebue Chum Salmon Separation Studies

Chum salmon originating in the Kobuk and Noatak Rivers presently support the commercial chum salmon fishery in Kotzebue Sound and subsistence fisheries along these rivers. A major chum hatchery is proposed for the Noatak River. Management will be complicated by the addition of hatchery returns to the commercial fishery, and the absence of a terminal harvest area where discrete harvest and management for these hatchery stocks can occur. The proposed project would establish the timing and migration patterns of Kobuk and Noatak River wild stocks so that management strategies may be developed which conserve

wild chum stocks while fully utilizing surplus hatchery stocks. The project consists of tagging studies and scale pattern analysis, and would require 19 man months of seasonal time annually over a three year period. First year costs total $84,600.

Test Fishing in the North Mouth of the Yukon River

Management of the lower Yukon River commercial salmon fishery is dependent upon the analysis of catch per unit of effort data to assess run strength. Test fishing projects are presently located in the south mouth (Kwikluak Pass) and in the middle mouth (Kawanak Pass) of the lower Yukon River. Significant numbers of salmon also enter the river via the north mouth (Apoon Pass) in some years. In years when this occurs, substantial underestimation of run strength may result in underharvesting of the run. Deployment of a test fishing project in the north mouth will permit more complete assessment of the spatial and temporal abundance of salmon entering the Yukon River. First year project costs total $49,400 and the project continues indefinitely. Eight man months of seasonal technician time would be required annually.

Assessment of Salmon Run Size in the Mainstem Yukon and Kuskokwim Rivers by Sonar

The large silt-laden rivers of western Alaska present problems to effective salmon management because of the inability to visually enumerate escapement. The run strength of chinook, chum, and coho salmon is therefore currently assessed using a combination of test fishing indices and commercial catch statistics. Reliable indices of the total run of each species are possible only after the major segment of the return has passed through the fishery and entered the tributary streams to spawn. Implementation of a sonar enumeration project on the lower portions of the mainstem of these rivers would provide run strength data in the time frame required to assist in daily management decisions. Such a project would greatly enhance the Department's ability to maximize the harvest while insuring optimum escapement.

The 1978 Alaska State Legislature appropriated funds to develop adult salmon sonar enumeration capabilities for large rivers. The Department contracted with Bendix Corporation to develop a "fan scanning" sonar system. Two prototype transducer units and one control unit were received in 1980. The sonar unit scans the water column from the river bottom out to a maximum distance of 50 feet in a fan-shaped arc of 180 degrees. Preliminary testing of the new system occurred in 1980. This proposal requests additional operational funds for comprehensive testing of the fan scanning sonar system in the Kuskokwim River over a three year period.

A second segment of this project is to purchase, deploy and evaluate a shorebased, multiple transducer sonar unit in the lower Yukon river. This unit is different from the fan-scan system in that for a river as large as the Yukon, an estimate of the total escapement is possible. The fan-scan system will provide only indices of abundance on the Yukon. This project will cost $212,500 the first year and requires an additional 11 man months of seasonal employee services.

Norton Sound Escapement Studies

The Department relies heavily upon aerial surveys to gather escapement information for the major salmon producing streams in Norton Sound. Two factors make this technique undesirable. First, pink and chum salmon enter the rivers simultaneously, and it extremely difficult to distinguish between them from the air. This is complicated by the fact that chum salmon are the target species of the commercial fishery. Hence, errors in species identification may lead to over or underharvest of the resource. Secondly, inclement weather often precludes aerial surveys. These problems can be circumvented on two of the principle rivers in Norton Sound by deploying counting tower field stations. The two rivers are the North River (a tributary of the Unalakleet River), and the Nome River. This project will require $70,900 the first year and 15 man months of seasonal technician services.

Sonar Enumeration of Salmon in the Unalakleet River

The Unalakleet District (Norton Sound) salmon fishery is based primarily upon harvest of Unalakleet River spawning stocks of chinook, chum, pink, and coho salmon. Present management strategy strives to achieve conservation of Unalakleet River salmon stocks while allowing fishing time commensurate with perceived run size. Salmon abundance estimates are presently derived from catch per unit effort data taken from the commercial fishery and from aerial escapement surveys made during and after the season. Both abundance estimation techniques suffer from lack of precision and lead to the possibility of substantial over or underharvest of Unalakleet River salmon stocks. Aerial surveys have been particularly difficult to accomplish with regularity due to turbid river conditions, inclement weather conditions which often prevail in the area, and the presence of numerous pink salmon, which reduces the precision of aerial estimates for other species present. The objectives of the proposed project are to provide reliable, real-time estimates of salmon escapement by species in the Unalakleet River through sonar technology. This project will result in an improved system of regulatory management which will contribute to optimum sustained production of Unlakleet River salmon stocks. Two new permanent/seasonal employees are required for the project and first year and continuing costs total $129,800 and $34,100 respectively.

Biometric Analysis of Arctic-Yukon-Kuskokwim Fisheries Information

The Alaska Department of Fish and Game has been collecting catch and effort statistics on the salmon fisheries of the AYK Region since statehood. While these data provide the basis for management in most of the region, their value is not being fully utilized. This problem stems from a lack of access to the data in useable form and lack of staff support to analyze and interpret the data base. The proposal addresses each of these needs. The data bases collected on the predominant species taken in each of the primary fisheries of the Yukon River, Kuskokwim River and Bay, Kotzebue Sound and Norton Sound will be coded into a machine

readable form and detailed analysis of the migratory timing will be conducted. This will greatly assist in the development of catch estimation procedures which will assist area managers in maximizing the harvest while insuring adequate escapements. The first year cost of this project is $224,400 and would require 12 man months of permanent employee time and 32 man months of seasonal employee services.

Administrative Support for an Expanded Arctic-Yukon-Kuskokwim Salmon Program

This project is an element of the overall research and management program directed at substantially increasing the Alaska Department of Fish and Game's activities in the AYK Region to improve collection and dissemination of fishery information. The expanded program is composed of 22 major new projects with a first year cost of $1,721,500 and a total cost of $8,535,700 over the next five years. These projects call for the addition of five new permanent full-time employees and 251 man months of seasonal employee services. Addition of these new projects will significantly contribute to the administrative workload of the region. In order to meet this demand for supervisory, clerical, budgetary and personnel services the Department has identified a need for: a Regional Management Coordinator, an Assistant Regional Research Supervisor, an Administrative Assistant; and a clerk typist for the regional office in Anchorage. Six man months of clerk typist support for both the Fairbanks and Nome offices is also requested. The second element of this proposal is to provide warehousing, shop and bunkhouse space to support the ongoing and new projects out of the Fairbanks and Nome Area offices. First year cost is estimated at $709,900 and subsequent continuation cost is estimated at $229,900.

Arctic-Yukon-Kuskokwim Regional Subsistence Salmon Surveys

Annual surveys of the various subsistence salmon fisheries in the Arctic-Yukon-Kuskokwim region have been conducted since the early 1960's to collect and compile catch and effort data. This information has been of extreme importance in documenting yearly trends in harvest and fishing effort. Prior to 1979, these surveys were funded from the Division of Commercial Fisheries budget. In 1979 and 1980, funding was provided by the Subsistence Section. The Subsistence Section did not request funds to conduct these surveys in 1981 (FY 82) because of a change in program priorities. This project proposal requests first year funds in the amount of $49,300 to reinstate this vital project. Thirteen man months of seasonal technician time will be required to implement this project.

Upper Tanana Chinook Salmon Optimum Escapement Studies

Within the Alaskan portion of the Yukon River drainage the Chena and Salcha Rivers of the upper Tanana are the primary producers of chinook salmon. The available data on the escapements to these systems is however limited to aerial survey estimates. This dearth of information makes proper estimation of optimum

escapement imprecise. Determination of optimum escapement for these rivers would greatly enhance evaluation of management practices and contribute significantly to realization of maximum sustained yield from this resource. The primary method by which optimum escapements will be estimated is by relating escapements and subsequent egg deposition to resulting smolt production. Enumeration of adults on the Chena and Salcha Rivers will be by visual observation. Observations on the Chena will be made as the fish migrate through existing flood control gates. A moderately sized weir will have to be erected on the Salcha River. Smolt production will be determined on both rivers with a fyke net enumeration effort. The first year cost of the project is $169,000 and will require 24 man months of seasonal employee services.

Kobuk River Escapement Studies

The chum salmon fisheries of the Kotzebue District are based upon stocks which originate in the Noatak and Kobuk Rivers. Previously, but limited, tagging studies suggest that differences exist in run timing to these rivers. The current management strategy emphasizes commercial harvest of the more abundant Noatak run while attempting to reserve the Kobuk stocks for subsistence. Because no in-season estimates of the escapement to the Kobuk River are available, a very conservative approach must be taken to insure a Kobuk River harvest and escapement. The addition of in-season escapement enumeration would greatly enhance the Department's ability to maximize the commercial harvest while at the same time insuring escapement goals and subsistence harvests. The first year cost of this project is $92,900, and will require an additional 12 man months of permanent employee time and 6 man months of seasonal employee time.

Lower Yukon River Juvenile Salmon Abundance Index

Formal forecasts of the annual run of chinook and chum salmon to the Yukon River are not presently made because of a lack of certain kinds of data. A key element in many salmon forecast models is an estimate of the freshwater survival of the juveniles. This proposal addresses the need to provide information on the freshwater production of lower Yukon River chum and chinook salmon. The objective of this project is to develop indices of juvenile salmon abundance at three key tributary streams in the lower Yukon River drainage, and to develop a model capable of forecasting adult returns based on these and other indices. By constructing relationships of fry production to brood year escapement, the staff will also be able to better estimate optimum escapement levels. This project would greatly assist the processing industry in pre-season logistic and financial planning, and help reduce the risk of either over or underharvesting of the run. First year project costs are $50,000 and will require 6 man months of seasonal employee time.

Eastern Norton Sound Fisheries Monitoring

Management responsibility for Norton Sound, Kotzebue and Port Clarence is vested in a single area management biologist stationed in Nome. The salmon fisheries in eastern Norton Sound have grown substantially during the past six years. Because of a lack of personnel and the immense size of these areas, only minimal monitoring of these expanding fisheries has been possible. This proposal addresses the need perceived by both the public and the Department to upgrade management activities in eastern Norton Sound. This proposal would provide the funds to establish a new assistant area management biologist position for eastern Norton Sound. This position would compile and analyze data required to effectively manage this expanding fishery. Implementation of this project would cost $53,600 the first year most of which would be used to support 12 man months of permanent employee services.

Kuskokwim Bay Salmon Tag and Recovery Study

Fishermen in the Goodnews Bay district of the Kuskokwim River management area have petitioned the Board of Fisheries and the Department of Fish and Game to expand the legal fishing district to include waters outside of the Goodnews Bay entrance. This request was made because much of the area currently open to fishing becomes exposed mudflats during the daily tidal cycle. This severely limits the number of adequate fishing sties. The Board of Fisheries had not permitted an expansion of the boundaries because of the possibility that salmon bound for the other areas may be intercepted. The Department of Fish and Game has no information on the origins of salmon which may be intercepted if the boundaries were expanded. In order to determine if boundary expansion would result in significant interceptions, we would propose to conduct a tag and recovery program in the proposed expanded boundary area. The first year cost is $34,400 and the project requires 9 man months of seasonal employee time.

Yukon and Kuskokwim River Salmon Forecast Study

Forecasts of the annual runs of salmon returning to the Yukon and Kuskokwim Rivers are not currently being made. The Department is rapidly upgrading management and research activities on these river systems and will soon have large data bases from which forecasts can be made. In addition, a substantial amount of information which could be used to make forecasts is available in various Departmental publications. This proposal will provide funding for a staff biologist to: (1) organize the existing data bases and construct computer data files, (2) examine existing data for utility in forecasting and identify critical information gaps, and (3) plan methods by which needed information can be acquired to improve the forecast. The first year cost of this project is $89,200 and would include 12 man months of permanent employee services and 8 man months of seasonal employee time.

Stebbins-St. Michael Salmon Study

In recent years local residents have expressed interest in developing a commercial salmon fishery adjacent to the villages of Stebbins and St. Michael in southern Norton Sound. The Board of Fisheries has rejected these proposals because it is presumed that local streams do not support stocks of sufficient size to support a commercial fishery and that this fishery would intercept stocks bound for other river systems where they are fully utilized. The proposed research would determine: (1) the abundance and species composition of salmon in the streams which drain southern Norton Sound; (2) the timing and origin of salmon migrating through the nearshore waters adjacent to Stebbins and St Michael; and (3) the feasibility of establishing a commercial fishery in this area. The research requires four new seasonal positions, would take three years to complete and consists of a tagging study, a survey of local spawning streams, and collection of data from the existing subsistence fishery. First year costs of the three-year project totals $35,100.

Commercial Fishery Gear Selectivity Study

Mesh size restrictions for Alaskan commercial fisheries have been employed extensively by the Board of Fisheries. The rationale for these various restrictions has been quite complex and has been based upon local area fishery concerns, either biological or socioeconomic in nature. Mesh size in gill nets primarily affects the size of fish captured, regardless of species. Because the age at sexual maturity for males and females varies both between and within chinook, chum, sockeye and coho salmon populations, the actual sex ratio and age class composition of escapements can be significantly affected by the mesh size regulations pertaining to any gill net fishery that the populations pass through. Likewise, any regulation that affects the compo-sition of the effective breeding population of any species may cause long-term changes in the genetic composition of that population and certainly has the potential to alter the long-term yield derived from exploited stocks. However, the Board of Fisheries has not been provided with a comprehensive study of the biological and economic consequences of various mesh size restrictions that might be employed in Alaskan fisheries. In order to provide such a planning document for the Board of Fisheries the Department proposes to gather, compile and analyze new and existing information on this subject over the course of three years. First year cost is estimated at $45,000.

Sonar Enumeration of Salmon in the Upper Yukon River

Limited aerial survey data suggests that significant spawning populations of Yukon River chinook and chum salmon are located in the Yukon Territory, Canada. Accurate information on the timing and magnitude of the escapement of these stocks would provide fishery managers a valuable tool in regulating the harvest so as to achieve maximum sustained yield. In addition, recent and planned expansion of the commercial fishery at Dawson, Y.T., Canada, requires that the

Department have precise estimates of the contribution of Canadian stocks to the fisheries of the Yukon River. Such information would be of significant value in formulating an Alaskan position during U.S.-Canadian fishery interception negotiations. Estimation of the escapement of salmon into Canada would be made by deploying a specially designed sonar enumeration system near the U.S.-Canadian border at Eagle. The first year cost of this project is estimated at $110,000.

Upper Tanana Coho and Chum Salmon Studies

The upper Tanana River and its tributaries produce significant numbers of chum and coho salmon which contribute to commercial, subsistence and sport fisheries in the region. This study is directed at gathering basic biological information on these chum and coho stocks. Distribution, abundance, and age composition information of the contributing stocks coupled with assessment of egg density and survival would provide valuable information to fishery managers in making regulatory decisions and in assessing subsequent affects of those decisions. The anticipated first year cost of this three year project is $34,500.

Port Clarence Salmon Research

In the Port Clarence management district pink, chum and sockeye salmon stocks are heavily utilized by subsistence fisheries. The sockeye salmon run to Salmon Lake appears to be depressed while pink and chum salmon runs in the same vicinity are healthy. Insufficient data is currently available to implement a stock specific management program which will protect the sockeye salmon resource while permitting harvest of the pink and chum salmon runs. The Department proposes to collect and analyze the data required to develop more stock specific management for this area. Specifically, the Department will collect information on the temporal and spatial pattern and magnitude of the subsistence catches, and escapements of these stocks. The first year cost of this project is estimated at $40,000.

Yukon and Kuskokwim Smolt Studies

Enumeration of emigrating salmon smolt is used by the Department to forecast future years' returns and as an aid in evaluating optimum escapements in several rivers of the State. Implementation of similar efforts in both the Yukon and Kuskokwim rivers may be useful to accomplish similar objectives for the chinook, coho and chum salmon resources of these rivers. Unfortunately, application of existing technology which was designed for much smaller rivers is not readily applicable to the main stems of the Yukon and Kuskokwim rivers. Because of this problem, the Department would have to either research and develop new methods for enumerating the smolt migrations in the main stems or deploy numerous enumeration sites along key tributory rivers. A careful cost and feasibility study would have to precede any large scale field studies. The Department estimates that first year costs for such a study would be $150,000.

False Pass Tagging Research

Tagging studies conducted in the vicinity of False Pass show that many chinook, chum, coho, sockeye and pink salmon bound for rivers of Western Alaska pass through this area on their spawning migration. A more complete knowledge of the run timing and migration patterns of the various stocks passing through that area may be useful in formulating improved stock specific management strategies. This project would be accomplished by charter of a large purse seine vessel to capture salmon for tagging in the False Pass Area. Each salmon captured would be tagged and recovery would primarily rely upon returns by commercial fisherman in the Bristol Bay, Kuskokwim, Yukon, Norton Sound and Kotzebue areas. The first year cost of the project is estimated at $150,000.

I hope this information is useful to you and should you require any further assistance please don't hesitate to contact me. Thank you again for your interest in our program.

Sincerely,

for Ronald O. Skoog
Commissioner
465-4100

Attachments

cc: Senator George Hohman
Senator John Sackett
Doug Pope
Ron Lehr
Steve Pennoyer
Ron Regnart

Projects planned for the gathering and evaluation of comprehensive information about salmon stocks in the A-Y-K region.

Title of Proposal	Department priority	Duration	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Origins of Chinook Salmon Intercepted by the Japanese Mothership Fishery	High	3 years	85.2	120.0	130.0	0	0	337.2
Stock Biology of Yukon River Chinook Salmon	High	Continuous	291.2	228.1	251.0	276.0	303.7	1350.0
Kotzebue Chum Salmon Stock Separation Studies	High	3 years	84.6	78.1	85.9	0	0	248.6
Test Fishing in the North Mouth of the Yukon River	High	Continous	49.4	41.2	45.4	49.9	54.9	240.8
Assessment of Salmon Run Size in the Main Stem Yukon and Kuskokwim Rivers by Sonar	High	3 years	212.5	127.4	140.1	0	0	480.0
Norton Sound Salmon Escapement Studies	High	Continuous	70.9	57.1	62.8	69.1	76.0	335.9
Sonar Evaluation of Salmon in the Unalakleet River	High	Continuous	129.8	37.5	41.3	45.4	49.9	303.9
Biometric Analysis of Arctic-Yukon-Kuskokwim Fisheries Information	High	Continuous	224.4	148.9	163.8	180.2	198.2	915.5
Administrative Support for an Expanded A-Y-K Salmon Program	High	Continuous	709.9	252.9	278.2	306.0	336.6	1883.6
Arctic-Yukon-Kuskokwim Region Subsistence Salmon Surveys	High	Continuous	49.3	54.2	59.7	65.6	72.2	301.0
Upper Tanana Chinook Salmon Optimum Escapement Studies	Medium	5 years	169.0	84.6	93.0	102.4	112.6	561.6
Kobuk River Escapement Studies	Medium	Continuous	92.9	90.2	99.2	109.1	120.1	511.5
Lower Yukon River Juvenile Salmon Abundance Index	Medium	5 years	50.0	55.0	60.5	66.6	73.2	305.3
Eastern Norton Sound Fisheries Monitoring	Medium	Continuous	53.6	59.0	64.9	71.3	78.5	327.3
Stebbins-St. Michael Salmon Study	Medium	3 years	35.1	32.0	35.2	0	0	102.3
Kuskokwim Bay Salmon Tag and Recovery Study	Low	3 years	34.4	38.0	20.0	0	0	92.4
Yukon and Kuskokwim River Salmon Forecast Study	Low	5 years	89.2	82.2	90.4	99.5	109.4	470.7
Commercial Fishery Gear Selectivity Research	High	3 years	0	45.0	50.0	55.0	0	150.0
Sonar Enumeration of Salmon in the Upper Yukon River	Medium	4 years	0	110.0	50.0	55.0	60.0	275.0
Upper Tanana Coho and Chum Salmon Studies	Medium	3 years	0	34.5	38.0	41.7	0	114.2
Port Clarence Salmon Research	Medium	3 years	0	40.0	45.0	50.0	0	135.0
Yukon and Kuskokwim Smolt Studies	Low	4 years	0	150.0	100.0	110.0	121.0	481.0
False Pass Tagging Research	Low	3 years	0	0	150.0	165.0	181.5	496.5
TOTAL			2431.4	1965.9	2156.4	1917.8	1947.8	10,419.3

Alaska State Legislature

Senate

Official Business

Pouch V
State Capitol
Juneau, Alaska 9981

March 12, 1981

Ron Skoog, Commissioner
Alaska Department of Fish and Game
Subport Building
Juneau, Alaska 99801

Dear Commissioner Skoog:

Enclosed is a copy of SCR 15 recently introduced by Senator Hohman and myself that requests the Governor to urge the Department to initiate and complete a comprehensive research program in the A-Y-K management area. Also enclosed is a copy of supplemental research projects recommended by Douglas Pope, who is currently finishing his work for the legislature on the A-Y-K Finfish Management and Marketing Project.

The purpose of this letter is to request that a meeting be scheduled between appropriate members of your department, Douglas Pope, legislators and staff to discuss these proposals and to facilitate the preparation of the fiscal note. If you have any questions, please call.

Sincerely,

Frank Ferguson

Frank R. Ferguson
Alaska State Senator

SUPPLEMENTAL A-Y-K SALMON RESEARCH AND MANAGEMENT PROJECT RECOMMENDATIONS

A-Y-K Salmon Subsistence Use Surveys

When the Subsistence Section was created in 1978, the Commercial and Sport Fish Divisions phased out the annual surveys they had previously conducted of subsistence utilization of salmon throughout the state. However, the Subsistence Section was not funded sufficiently to perform these surveys in addition to performing the functions which were determined to be the highest priority in achieving the objectives of the new section. These surveys are essential in order to provide the Board of Fisheries with an accurate, useful and consistent data base for making use allocation decisions, and should be reinstated. Additions should be made to previous survey methods to provide for (1) summer and late fall surveys and distribution of catch calendars, as needed to obtain use data on all salmon species, (2) employment of local, bilingual technicians to perform interpreting and liaison functions in order to obtain more accurate survey results in areas where language is a barrier to communications between survey personnel and subsistence users, (3) annual coverage of all villages where subsistence fisheries occur, and (4) revision of survey content and approach, utilizing the findings of recent studies of the Subsistence Section. In addition, all data collected should be analyzed to determine estimates of total subsistence use for each village and to determine recent trends in subsistence use patterns. The findings of the survey and analysis should be compiled and presented in a comprehensive, useful annual report that is submitted to the Board of Fisheries to assist them in making use allocation decisions.

Stock Separation Studies of Bering Sea King and Chum Salmon

Studies should be undertaken to identify streams of origin and migration patterns of discrete stocks of king and chum salmon which are intermingled with Asian stocks in the high seas fisheries of the Bering Sea and north Pacific Ocean. Discrete stocks may be identified using scale pattern or electrophoresis analysis, and migration patterns determined using a tag and recovery program. This project may best be accomplished as a joint state-federal program in which the North Pacific Fishery Management Council provides for high seas sampling and program coordination, to insure that data is useful to the Council in international negotiations.

Biostatistical Analysis of A-Y-K Research and Management Data

The Department has collected catch and effort data on subsistence and commercial fisheries and on salmon escapement populations in most areas of the A-Y-K since statehood. However, due to the low level of research funding, unpredictable weather and stream conditions and remote nature of the region, much of the data is somewhat incomplete and is therefore not easily utilized in formulating management strategy. This project would involve a comprehensive analysis of fishery data throughout the region to produce run size, catch and escapement estimates, and determine trends in the composition of the runs, for use in developing management plans. In addition, this research would serve as a tool for planning future research and managmement projects by identifying critical gaps in the resource information data base.

Yukon and Kuskokwim Salmon Escapement Monitoring Expansion

The current escapement monitoring program, particularly in the upper Yukon and Kuskokwim River drainages, is not sufficient to provide the Department with reliable indices of fluctuations in important spawning populations of king, chum and coho salmon, which are essential to formulation of stock specific managment programs in these systems. Present coverage of tributary streams by aerial, boat and ground surveys and sampling of biological characteristics of spawning populations should be expanded, and the survey season should be extended to include data on late spawners. During the expanded surveys, more emphasis should be placed on reconnaissance work to determine effective locations for additional sonar, counting tower and weir escapement sites, as aerial surveys in this region have not produced reliable measures of escapement due to the turbid nature of many streams and unpredictable weather conditions.

Yukon and Kuskokwim Test Fishing Expansion

The data obtained from controlled test fishing projects is essential to developing statistically significant models of salmon runs for use in making inseason management decisions, forecasting, and planning future management strategy. The addition of new test fishing projects in key locations is therefore critical to obtaining the information base that is necessary to improve salmon management capability in the Yukon and Kuskokwim Rivers and in Kuskokwim Bay. In order to avoid excessive capital costs, this program expansion might best be conducted through contracts with local fishermen to provide test fishing services.

Salmon Smolt Outmigration Studies

Studies should be initiated on both the Yukon and Kuskokwim Rivers to provide estimates of the number of king, chum and coho juvenile salmon migrating to the sea from freshwater rearing areas. In addition, this research would provide information on smolt migration patterns, run timing, age class structure, length and weight. These data are needed by the Department to forecast future adult salmon returns to international and domestic fisheries and to calculate optimum escapement levels. This project should be incorporated as an ongoing program of the Department, in which initial studies focus on gathering reconnaissance information on run timing, distribution and migration patterns of the various species as well as gathering the necessary information to select key sites for future enumeration projects. Later studies would include collection of smolt for sampling age, weight and length characteristics and eventually sonar counters would be installed at key locations to provide the Department with consistent annual indices of smolt survival.

Estuarine and Near Shore Marine Salmon Rearing Investigations

Juvenile salmon originating in the Yukon, Kuskokwim and Norton Sound drainages rear in near shore areas of Norton Sound and the Yukon-Kuskokwim Delta during their early marine life. The identification of important marine rearing areas is needed in order to effectively evaluate impacts of planned OCS development in this region. After migration patterns and important rearing areas have been identified, future studies should focus on growth and survival factors for juvenile salmon in these areas. These data will be valuable not only in planning for development, but also in estimating oceanic survival and therefore improving the ability of the Department to forecast future runs.

Yukon and Kuskokwim River Stock Separation Studies

The Yukon River king and fall chum scale analysis program should be refined, and a similar program should be initiated to identify separate stocks of Kuskokwim River king salmon. In addition, tagging studies are needed to determine the migration patterns of king, fall chum and coho stocks in the Yukon River to utilize findings of the stock identification program in the formulation of stock specific management strategies for domestic fisheries. All stock identification work on these river systems will also contribute substantially to efforts to formulate international management strategies which will reduce interceptions of Yukon and Kuskokwim River salmon in the Bering Sea and North Pacific Ocean.

Yukon and Kuskokwim Gear Selectivity Studies

The Board of Fisheries is continually presented with proposals to establish new regulations concerning allowable gear types in various subdistricts of the Yukon and Kuskokwim Rivers. However, the Board has not been provided with the necessary information regarding the biological effects such regulations would have on salmon populations, on which to evaluate the proposals. Existing data should be analyzed and additional data gathered, as needed, to determine the selective effects of utilization of set gillnets, drift gillnets, and fishwheels on the biological characteristics of escapement populations of king, chum and coho salmon in the Yukon and Kuskokwim Rivers.

False Pass and Kuskokwim Bay Tagging Studies

King and chum tagging studies should be conducted in False Pass and Goodnews Bay with recovery in the Goodnews, Kanektok, Kuskokwim and Yukon Rivers to determine the extent to which cape fisheries are intercepting Yukon and Kuskokwim River stocks and to develop the necessary information on the run timing and migration patterns to be used in formulating more stock specific management strategies. Earlier studies conducted in both of these fisheries have yielded useful information that the Department has incorporated into management plans, but further refinement of strategies is needed to maximize utilization of these stocks, while providing for escapement needs.

Yukon and Kuskokwim King and Chum Forecasts

Forecasts should be developed for king and chum salmon in the Yukon and Kuskokwim Rivers in order to facilitate industry and Department planning and to contribute to international fishery management plans for the Bering Sea and north Pacific Ocean. Collection of the necessary baseline environmental and habitat data on which to base forecasts, including records of air and water temperatures, streamflow and spawning substrate, should be initiated immediately in conjunction with other field research projects in the A-Y-K region.

Yukon River Mouth Entry Pattern Investigations

The unpredictable pattern of entry of salmon stocks into the three major channels of the mouth of the Yukon River is a problem which has hindered management of this area considerably and has caused great economic hardship to local fishermen in recent years. The factors which contribute to the entry pattern in any particular season are largely unknown. Existing data should be analyzed and additional data gathered, as needed, to formulate a forecasting system for the Yukon River mouth area. This effort

should be coordinated with ongoing studies of oceanographic factors which may influence the entry pattern, and should include additional test fishing and commercial catch monitoring and sampling, as necessary, to obtain baseline data.

Kotzebue Sound Chum Salmon Stock Separation Studies

Tagging studies and additional scale analysis studies should be undertaken to determine migration patterns and run timing of discrete stocks of chum salmon from the entrance of Kotzebue Sound to the Kobuk and Noatak Rivers. These data are needed to develop a more precise, stock specific management strategy for the Kotzebue commercial fishery that will ensure protection of the less numerous Kobuk River chum run, which supports substantial, upriver subsistence utilization, while allowing harvest of Noatak River stocks. Development of such a management program is particularly critical to the protection of Kobuk River stocks in light of the planned Noatak River chum hatchery. In addition, a comprehnsive tag recovery program in test fisheries and in subsistence and commercial fisheries and spawning areas throughout the Kotzebue Sound area, will add considerably to the Department's data base on the timing and distribution of the area's chum stocks and the degree to which stocks are intercepted in mixed stock fisheries.

Kobuk River Escapement Monitoring

The current escapement monitoring program on the Kobuk River should be expanded to provide a more consistent and reliable data base on which to evaluate stock specific management strategies in the Kotzebue commercial fishery. This data base will be particularly important in determining the impacts on Kobuk River subsistence fisheries of harvesting Noatak hatchery stocks in the mixed stock Kotzebue fishery.

Unalakleet Fishery Monitoring

Monitoring associated with inseason management of the Unalakleet district, where the major commercial salmon fishing effort occurs in Norton Sound, has not kept pace with the growth of the fishery. Additional management capability and support gear are needed to provide for a more extensive season, expanded coverage and more timely inseason management of the salmon fishery in this district.

Norton Sound Escapement Monitoring

The current escapement monitoring program in Norton Sound is limited to two counting towers in the Moses Point District (district 3) and annual and ground surveys of about 20 spawning streams. This program should be expanded to include (1) additional enumeration sites on important spawning streams such as the Nome River, where intensive commercial, sport and subsistence use occurs, and (2) early and late season aerial and ground surveys to obtain king and coho as well as chum and pink escapement estimates.

Southern Norton Sound Escapement Survey

A reconnaissance survey should be conducted to determine estimates of run size and run timing in southern Norton Sound spawning streams to provide the Department with the necessary information to determine whether or not a commercial fishery which utilizes local stocks can be opened in the Stebbins-St. Michael area, without significant interception of Yukon and Unalakleet River stocks. Tagging studies may also be necessary to make this determination.

Port Clarence Salmon Research

Proper management is hindered in the Port Clarence District due to lack of baseline data on the local salmon populations. The Salmon Lake sockeye run appears to be depressed and may be below threshold population levels due to heavy subsistence use, however, a complete closure of this fishery would result in a closure of the area's chum and pink subsistence fisheries which appear to be healthy, but are intermingled with the sockeye run. Tagging studies, subsistence surveys, sampling of subsistence catches, escapement surveys and sampling of spawning populations are needed to obtain information on the run timing, run magnitude, current levels of utilization and basic life histories of these salmon, in order to formulate a stock specific management program that will permit maximum utilization of chum and pink runs, while protecting the sockeye population. In addition, it should be determined whether the sockeye population is below threshold levels and what, if any, rehabilitation measures will be needed to restore the run to its former levels. This program is envisioned as a joint effort of the Division of Commercial Fisheries and the Subsistence Section.

A-Y-K Sonar Enumeration Projects

In addition to those projects currently included in the FY 82 Budget Request, the following Sonar enumeration projects should be undertaken in the A-Y-K region:

Yukon and Kuskokwim River Fan Scan Sonar- Inseason management of the salmon fishery in the Yukon and Kuskokwim Rivers has been severly restricted by the inability of fishery managers to obtain accurate, timely estimates of run timing and magnitude in the wide, turbid lower river areas, where the major commercial fishing effort occurs. A highly sophisticated prototype fan scan sonar unit which is capable of providing such inseason management data, was developed by the Bendix Corporation and field tested by the Department in the Kuskokwim River, above Bethel, during the 1980 season. The results of the first field test of this new unit appear to be reliable, however, additional field testing is necessary to determine its precision and limitations. The development and application of fan scan sonar technology is critical for improving inseason management on the Yukon and Kuskokwim Rivers and throughout the A-Y-K, and all appropriate measures should be taken to advance its progress.

Unalakleet River Sonar Enumeration- Management of Unalakleet River stocks is currently based on catch per unit effort data from the commercial fishery and late season aerial escapement surveys, neither of which provide sufficient, timely, estimates of run strength for optimum inseason management. Enumeration of salmon escapements, using two side scan sonar units and a test fishing program to allocate sonar counts, by species, in the lower portion of the main Unalakleet River, would provide the timely, reliable, estimates of salmon escapements that are needed to implement a more precise management system for the district's commercial fishery.

Sonar Project Support Gear- The support gear and personnel needed to adequately conduct sonar enumeration projects throughout the A-Y-K should be provided so that maximum monitoring coverage can be obtained from all units.

SCR

17

COMMITTEE REPORT

SENATE

FURTHER: Finance

3/16/81

Date: _____

Mr. President:

The Committee on RESOURCES has had SCR 17 development of a wood products industry in the state

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[X] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING
DO PASS

Tom Stangeland Do Pass

Don Hilman (only if Amended)

Bob Marshall

MEMBERS HAVING
OTHER RECOMMENDATIONS:

W. Tom, no rec
Do Pass w/ amendments

Kitty Schumaker
CHAIRMAN

Tues

Alaska State Legislature

BETTYE FAHRENKAMP, CHAIRMAN
VIC FISCHER, VICE-CHAIRMAN
BRAD BRADLEY
DICK ELIASON
DON GILMAN
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3034
(907) 465-3035

Senate

Committee on Resources

April 8, 1981
1:40 p.m.

Beltz Room
Room 211 - Capitol

MEMBERS PRESENT

Senator Fahrenkamp
Senator Fischer
Senator Sturgulewski
Senator Mulcahy
Senator Gilman

Hearing:

SSSJR 10 Proposing amendments to the Constitution of the State of Alaska relating to agricultural rights in state lands.

SCR 17 Relating to the development of a wood products industry in the state.

SB 245 An Act amending the agricultural loan program to authorize loans for the harvesting, storage, and delivery of peat.

Bob Palmer, Coordinator, Special Projects for the Governor, stated that, nationwide annually, 3-5 million acres of are taken out of agricultural production. A number of states have recognized the negative impact of this and have been purchasing agricultural rights from private land owners. He indicated that SSSJR 10 would alleviate several potential problems: first, the sale of only agriculture rights could be repealed by a future legislature. And, second, with the approval from the adjacent city and the Division of Lands, the owner of agricultural lands can obtain full title. He indicated that there has been an increase in the number of people speculating in agriculture lands in hopes they can someday sub-divide the land and sell it. SSSJR 10 will eliminate this speculation.

Senator Fischer put forth the motion to move SSSJR 10 with individual recommendations.

Senator Colletta, stated that SCR 17 sets up a procedure to utilize one of the state resources. With the current emphasis on agricultural development, it is necessary to utilize the timber that is on the land. SCR 17 directs the various agencies to work together jointly to utilize all of the resources

Senator Sturgulewski offered language for amendments. The Chairman suggested since SCR 17 would be next in the Finance Committee that the amendments could take place there.

Bob Palmer, Coordinator, Special Projects for the Governor, stated that he supports the concept of SCR 17. He explained that the language "highest and best use" is not always the the most obvious use of the resource.

Senator Mulcahy put forth the motion to move SCR 17 with individual recommendations.

Bob Palmer, Coordinator, Special Projects for the Governor, stated he supports SB 245. He indicated that during a recent market trip to Japan he found that they import large amounts of peat from West Germany which contains 60% moisture. The Japanese use peat for cattle feed, oil spill clean up and potting soil. Peat offers a prime opportunity for a new industry in Alaska. One of the difficulties with the development of a peat industry is a large portion of it is located in wet lands which fall under the jurisdiction of the Army Corps of Engineers. He suggested that due to the limited funds in the Agricultural Loan Program that AIDA or ARRC might be more appropriate bodies to handle loans for peat.

The Committee was adjourned at 2:25 p.m.

Use of trees to be cleared from Alaska agricultural lands to develop a new wood-fiber industry: a proposal for state policy.

SAE17

Mead Treadwell
Comex Alaska
December 20, 1980

1131 West Fifth Avenue
Anchorage, AK 99501
907/276-7763
617/498-5317

Presented to the Alaska State Senate under work conducted in conjunction with Sen. Mike Colletta, Majority Leader

Abstract:

Alaska, which plans to dedicate up to two million acres to agriculture during the rest of this century, should not continue to allow cleared trees to rot as waste. This paper proposes whole-tree, in-the-field chipping as an alternative system of land clearing for future agricultural projects. Wood chips can help cover the cost of clearing when sold to supplement coal in utility boilers. New systems have been developed by the U.S. Forest Service to segregate bark from clean chips. . Segregating the chips before burning them as fuel creates higher profits since the clean chips can be sold for pulp on the world market. Finally, given the quantity of chips available with Interior Alaska's agriculture potential, there is little more government's agricultural planners may need to do to create an interior Alaska structural particleboard industry than to simply guarantee a long-term supply of the timber resource. A land clearing process which now costs the state and its farmers more than $200 an acre could be not only self-liquidating, it could also provide new permanent jobs and lower construction costs.

I. The present clearing process.

Land at Delta Junction, the state's most recent agricultural project, has been cleared with primary regard to quickly allowing grain planting on large parcels of land. For any project like Delta, virtually simultaneous clearing throughout the area is required. To get started, only immediate large-scale production can economically support the roads, equipment sales outlets, grain processing and marketing facilities modern agriculture needs.

A good team of two bulldozers can clear two acres an hour. They start by dragging a heavy chain between them, both ways through a stand of trees. The uprooted stumps, as well as trunks, roots, soil and moss are then pushed into berm rows at an edge of the field.

To cover costs of clearing Delta, the state has loaned farmers $165 per acre for 50,000 acres leveled in the past two years.

Haste, however, has made waste. Salvage, left to the individual farmer, is haphazard: some of the bigger trees are cut down ahead of the bulldozers and used in portable sawmills. A small portion of the berm piles are sources for hand-cut firewood. But huge amounts of biomass remain, posing a fire hazard.

Seven uncontrolled forest fires within the project have cost the state more than $5 million to fight during the past two years. It is not known to what extent these fires could have been limited had the berm rows been removed.

A $35,000 study conducted in 1979 by Battelle Laboratories for the State Division of Energy concluded that as a first option, the remaining Delta biomass could economically be chipped and used as a supplement to coal in existing electrical boilers in the Fairbanks area. Other options requiring greater capital investment included using the wood for small-scale power generation or for methanol or ammonia production. No action has been taken as a result of this study, which received but limited circulation.

The Battelle Study also recommended that an $800,000 Mobile Harvester and Chip Forwarder be considered for future clearing. Built by Nicholson Manufacturing, the machines can cut and chip standing timber at one acre per hour. The system is expected to provide chips at $4 to $12 a ton from standing timber, reducing the clearing cost by about $100 an acre. Stump removal costs are excluded from these savings. The state Agricultural Action Council is considering asking the legislature to purchase the machine for the Pt. MacKenzie Project, since conventional clearing costs there have risen to an estimated $185-200 an acre. Farmers will be loaned $200-240 per acre for land preparation.

II. The Tokchaket Proposal.

The land at Tokchaket, the state's third major agricultural project, will be cleared near Nenana, beginning late in 1981. The project planners intend to make land clearing costs as self-liquidating as possible. Furthermore, the City of Nenana is seeking the development of a diversified wood products industry to use the wood cleared from the Tokchaket lands.

Depending upon the amount of capital invested, three graduated steps are possible to add value to a supply of wood which would otherwise be wasted:

1. Wood chips for fuel in electric boilers. Municipal and military boilers in both the Fairbanks and Anchorage areas have the ability to supplement their use of coal with wood chips with only minor additions to their loading capacity.

2. Pulp chips for export from the State. Currently, pulp chips exported from Alaska are produced after debarking larger logs brought to a stationary mill. Newly developed processes for removing bark from the clean whole-tree chips have been projected to pay for themselves in fuel sales alone. Thus a chip fuel operation which adds a "sifter" can obtain clean, marketable pulp grade chips.

3. Use of clean wood fiber for particleboard manufacture. A world-scale structural particleboard plant requires an approximate annual green wood supply of 100,000 tons. Using a conservative estimate of ten tons per cleared acre, only 10,000 acres per year of trees would be needed to support a particleboard plant. Out-of state markets, given that Alaska's current use of structural boards and plywood is much less than the output of an optimally sized plant, are yet undetermined.

The planners of the Tokchaket agricultural project will seek proposals from companies interested in clearing and making use of the timber on two contiguous townships comprising 46,080 acres. These two townships are the first stage of an agricultural development which will eventually cover 175,000 acres or more.

A first step toward saving the trees from waste is a decision on the harvesting method. Besides the two machine system mentioned above, a more traditional means of whole-tree chipping is to fell trees with a feller-buncher and "skid" them to a stationary chipper. Debarking can occur

before or after chipping, depending on the end use of the product. Capital cost of this sytem, which includes a feller-buncher, two grapple-skidders, a delimber/debarker, a front end loader and two chipvans is estimated at $850,000.

III. Economic constraints of a change.

Better use of agricultural land timber will require tremendous investment and a certain risk on the part of private industry. New harvesting equipment to clear land without destroying the value of the trees will cost approximately $1 million for development with the projected size of Tokchaket. A 20 ton-per-hour bark segregator system is estimated to cost $200,000 with operating costs of less than one dollar per input ton. Going the full step, with construction of a structural particleboard plant, is estimated to cost between $12 and $20 million.

Payback, on the other hand, remains an open question. Markets, small now, can be expected to grow for instate fiberboard. Construction at Susitna, for instance, will have a significant impact on the demand for plywood or a substitute. Demand already exists for wood-chips as fuel and pulp.

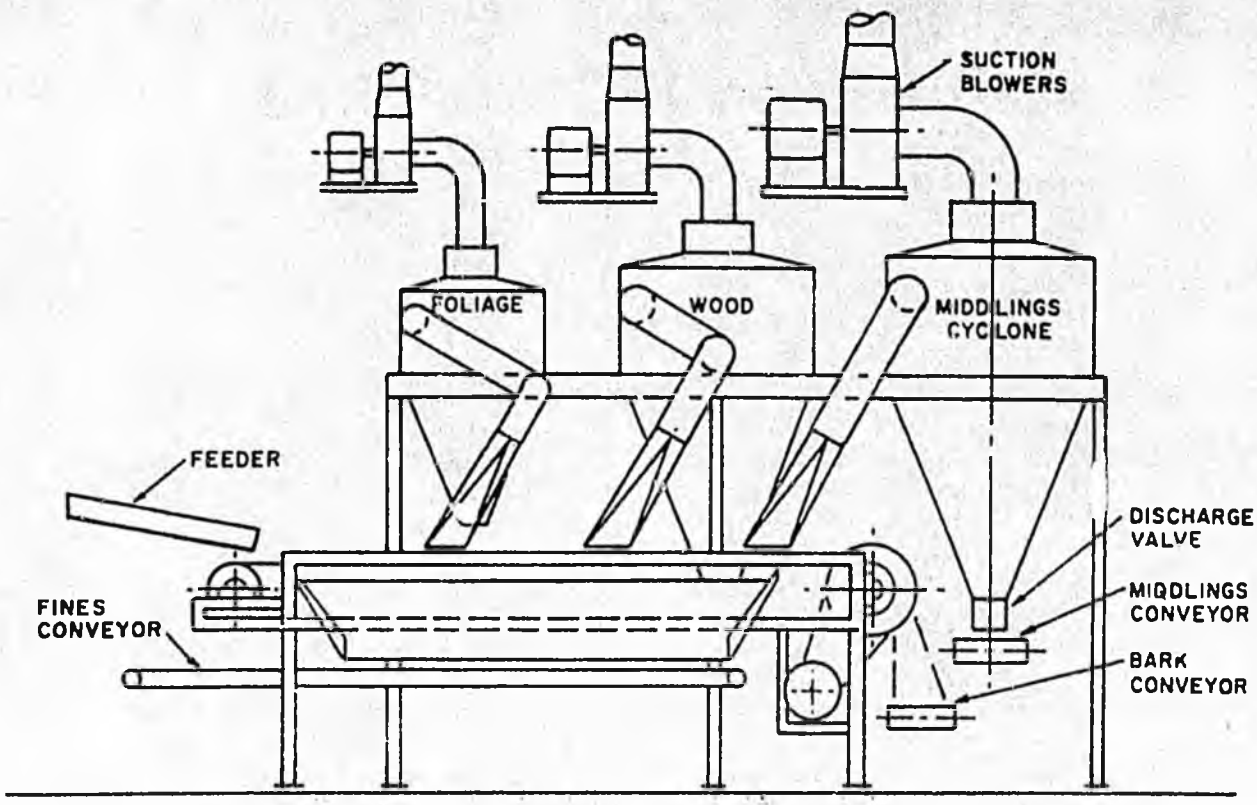
At present, the largest constraint on the development of a wood fiber industry is not money, it is supply. Government, as a prudent landowner, must recognize that if it wants to see development of a new industry concurrent with agriculture it must make a commitment large enough to ensure financing of plant and equipment. Such a guarantee is no different from the sales made to stimulate instate processing of petroleum resources. As well, a commitment now would help ensure the continued expansion of agriculture in years to come.

As a next step for government, it is important to balance the high costs to the state of clearing and firefighting attributable in part to the current technique of felling trees with whatever aid might be considered for a new harvest and processing method. Industrial development using a new process entails certain risks; government may decide to share in those risks for the greater good.

Industry's role must be to seek out the opportunities for wood product development with agricultural clearing. There will come a time when huge parcels of timber will only be available with large regeneration costs; the presence of agriculture is in effect a subsidy for this new industry.

IV. Conclusion

The references cited at the end of this paper are meant to be consulted. Compiled predominantly at a cost to the taxpayers, they contain the economic facts which back up the ideas contained here. Hardly another study is needed. We already know the value to utilities of burning



Multiple-stage vacuum airlift segregator. Developed by U.S. Forest Service. (Sturos-1)

wood chips. We already know that a system to segregate bark from whole-tree chips is feasible technically and profitable economically. We already know the costs of building a particleboard plant in Anchorage or Fairbanks and the potential markets to take up our capacity. The questions to ask now center on commitment and specifics: how many trees do we have, how do we want to harvest them, who do we want to be involved, how are we going to pay for it? Time, as well as wood, is a wastin'.

WASHINGTON IRON WORKS

DIVISION of FORMAC INTERNATIONAL, INC.

1500 Sixth Ave. South • Seattle, Wa. 98134 • Phone (206) 623-1292 • Cable Address "FRINK"

August 22, 1980

Mr. Mead Treadwell
1131 West 5th Avenue
Anchorage, Alaska 99501

Dear Mr. Treadwell:

I enjoyed our conversation concerning ways to make use of the wood resource becoming available as a result of Alaska's agricultural expansion program. To slash and burn two million acres of spruce, aspen and birch would certainly be a terrible waste. The manufacture of one or more of the reconstituted wood panel products is one of the more promising approaches for making use of this valuable resource.

Waferboard or Oriented Strand Boards (OSB) would make excellent use of the aspen and birch and could use some of the spruce. These boards could replace some of the 30 million square feet of plywood now imported into Alaska.

There should also be a market for these boards along the west coast of the United States and, perhaps, elsewhere around the Pacific Rim. I'm a bit skeptical of the ability of Alaskan produced board to compete in these markets because of the high labor and material costs in Alaska. You may have a special situation, however, where normal market economics do not apply.

Fiberboard is another reconstituted wood panel product that could be produced. This category of products includes the hardboards ("Masonite"), hardboard exterior siding, and medium density fiberboard (MDF). Some of your production of these boards could probably be used locally, but most of it would have to be exported from Alaska. There is a growing market for these boards all around the Pacific Rim. The Alaskan product in these categories would also suffer from high costs just as would the structural boards

The optimum plant size for Alaska is still open to a lot of questions. We spoke of small plants, but I wonder if a large plant, centrally located at a water, rail and road junction would'nt turn out to be the most efficient approach. This plant would operate year round, would be large enough to efficiently use the latest technology and would benefit from the usual economies of size, i.e., efficient use of manpower, energy and capital. The biggest unanswered question is one of raw material availability and cost delivered at the plant site. Can you assure an

annual supply of say 100,000 tons of green wood (150 TPD plant) at a reasonable cost, for a reasonably long plant lifespan (say 10 years)?

I spoke of a 75 TPD plant size as about the smallest we would get involved with. This is true when we are dealing in remote, foreign corners of the world, but Alaska doesn't fall in this category. Your plant site is not really that remote from Seattle, your people and customs are ours, and our commercial practices are identical. I would not want to shut off our involvement just because the optimum plant size turns out to be less than 75 TPD. (I don't think it will).

Without giving any serious thought to plant costs, I can tell you that the capital equipment and process engineering for a 75 TPD MDF plant will cost about $6,500,000.00. That for a 150 TPD plant will run about $11,000,000.00. The complete, installed cost of these plants normally would be about twice the cost of the equipment and engineering. I suspect building, utility, installation and erection costs will be higher than "normal" in Alaska, so this 2x multiplier is probably on the low side. For ballpark estimating, you can use the same approximate costs for structural board plants.

I've enclosed our normal selection of sale s literature, reprints, etc., which will give you a good picture of Washington Iron Works and what we do. We also work closely with Columbia Engineering International, Ltd., in Vancouver, B.C., who are one of the foremost engineering firms in the reconstituted wood panel field. With them, we offer the full range of services in this field, from early engineering and feasibility studies, through plant and process design to and including the direct manufacture and supply of the major process equipment. Our forte is in fiberboard but we have supplied a number of waferboard plants and are well-qualified in this field also.

Mead, you are involved on a very fascinating program that has elements reaching to all levels of community and industrial planning, involving a wide range of interests and skills. I hope we can be a party in this. Please let me know if we can help in any way.

Sincerely yours,

WASHINGTON IRON WORKS
Division of Formac International, Inc.

David Rudman
General Manager
Miller Hofft Division

Enclosures
cc: J. Chryst
DR/jvn

REFERENCES

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JAY S. HAMMOND
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 1, 1981

The Honorable Terry Gardiner
Alaska State Legislature
House Resources Committee
Pouch V
Juneau, Alaska 99811

Dear Representative Gardiner:

I have your letter of March 6, 1981, concerning timber utilization at Point MacKenzie.

Enclosed you will find a copy of the settlement of the litigation agreed to by the State and the Sierra Club concerning that issue.

Also enclosed please find an estimate from the Department of Natural Resources of the amount of commercial spruce on each tract and the dollar value calculated at $35/MBF (thousand board foot). Ted Smith states that $20/MBF is a more reasonable figure for a total value of about $50,000. If there is as much as 9 million board feet (9,000 MBF) the value would still be only $180,000. The value of the birch firewood has been estimated at $90,000.

Certainly, these figures are far less than the "millions" quoted by the media.

I am also enclosing statements from various individuals with knowledge and personal experience in the Point MacKenzie area. I believe you will find their statements of much value. I would especially commend to you the words of Glen Franklin, the Contracts Administrator for the Special Projects Office in Delta Junction. He has much experience in timber utilization in Canada's Peace River area and supervised the test clearing work at Point MacKenzie.

Thank you for your interest in this matter. We, too, are certainly desirous of the best possible use of those timber resources.

Sincerely,

Jay S. Hammond
Governor

Enclosures

✓ cc: The Honorable Bettye Fahrenkamp
Chairman
Senate Resources Committee
w/Enclosures

Alaska State Legislature

House of Representatives

RECEIVED
MAR 10 '81
GOVERNORS OFFICE

Committee on Resources

Terry Gardiner, Co-Chairman
Fred F. Zharoff, Co-Chairman
465-3715

State Capitol
Juneau, Alaska 99811

March 6, 1981

The Honorable Jay Hammond
State of Alaska
Juneau, Alaska 99811

Dear Governor Hammond.

We, as many Alaskans, are concerned about the utilization of timber resources on agricultural lands. Since the time schedule precludes any legislative action at this time, we are sending you our concerns in letter form.

It would seem wisest for Alaska to guarantee that we fully utilize timber resources on agricultural land developments. The Pt. McKenzie area, according to your Department figures, contains 9 million board feet of commercial timber and 40 million board feet of firewood. This timber has the value of $1-2 million, depending on your choice of estimates. While we desire agriculture development, we should not proceed such that wasteful uses are forced or utilized.

We would request that you insure that all timber in the Pt. McKenzie area is actually utilized rather than burned or put to any other such wasteful purpose. This will satisfy many concerns.

Terry Gardiner
Fred F. Zharoff
Ben Grussendorf
Tony Vaska
Ramona Barnes
Joseph Chuckwuk
Vernon Hurlbert
Eric G. Sutcliffe
Sally Smith

RECEIVED MAR 23 1981

Terry Gardiner
Fred F Zharoff
Ben Grussendorf
Anthony Vaska
Ramona Barnes
Joseph Chuckwuk
Vernon Hurlbert
Eric Sutcliffe
Sally Smith

MEMORANDUM

To: Barbara Miracle
Assistant Attorney General
Department of Law

Date: March 10, 1981

From: Glen Franklin
Contracts Administrator
Special Projects Office
Office of the Governor

Re: Surplus Wood Disposal on Point MacKenzie Agricultural Project: Your Request for Comments 3/6/81

As the person responsible for the administration of clearing contracts on the Delta project and for our test clearing effort on Point MacKenzie, I can write from substantial experience on the question of wood and timber values within these projects.

The claims by Mr. Lowe of the Sierra Club and some members of the Alaska Association of Independent Loggers concerning timber values on the Point MacKenzie Project are spurious. One may guess, without having been privy to their respective calculations, that the ADL Forestry stem-counts for one or two of the most heavily timbered tracts were used, then generalized for the entire project acreage. Our test clearing effort, which covered three large tracts, plus a small parcel of university land, showed fewer than 50 white spruce (picea glauca) stems of harvestable size and totaling less than 2,000 board feet. To be sure, these particular tracts were chosen for our test on that criterion (i.e., no timber).

Colleagues and I have cruised every tract within this project and have concluded that no more than eight of these 31 tracts show even marginal quantities of white spruce. As for firewood, one should dismiss without discussion the argument chained-down deciduous stems are rendered unusable. We heard this assertion prior to start-up in Delta and heard nothing more of it after woodcutters had experienced salvage after chaining. An excellent demonstration is also available on Point MacKenzie, Tract 11, where we left one mile-long strip by 300 feet chained down for salvage in December. By January 20, when I again looked at this test strip, virtually all birch and perhaps 50 percent of the aspen/poplar had been removed by woodcutters. This is the program and schedule which I would recommend:

Chain down of each tract this spring, then idle equipment through summer and fall, while log and wood salvagers are encouraged to work the entire project, now made accessible by the windbreak and chaining trails. Stacking of remaining debris would follow the succeeding winter.

Four tracts of our Delta I project were judged by ADL Forestry to contain marketable timber and assessed stumpage. Of these four, one owner was successful in selling the stumpage to a (an) (amateur) salvager, but for considerably less than his own assessment

by the State. The salvager worked for one season with free labor and a sawmill, but has "folded" before removing all the purchased stems. The other three tract owners who purchased "commercial timber" have all tried to sell stumpage without success. One has purchased and used a sawmill. Each now concludes that he cannot compete with current prices for commercial timber. Not one of these four would now, after the fact, agree to pay anything for the "commercial timber" on his property.

Again concerning chaining, please understand that root systems must be removed from soil intended for agricultural use. Salvagers who cut standing material leave a stump which cannot be lifted by the chain. Chaining, on the other hand, leaves a tree stem which IS available for salvage. Thus, if the landowner is permitted to chain his material down, it is both available for salvage and ready for subsequent consolidation.

In summary, I urge that we leave the wood disposal to the discretion of each tract owner and charge him/her no stumpage for any alleged "commercial timber". I also recommend that he/she be required to make the chained-down material available to the public.

REC'D FROM DNR.

Pt. MacKenzie Ag. Sale

White Spruce Data

Tract No.	Parcel No.	White Spruce MBF (9"DBH)		Estimated Value *
1	1	80		$ 2,800.00
2	20	Ø		Ø
3	21	40		1,400.00
4	2	10		350.00
5	3	30		1,050.00
6	22	168		5,880.00
7	23	100		3,500.00
8	4	200		7,000.00
9	5	400		14,000.00
10	6	125		4,375.00
11	24	40	(½chained)	1,400.00
12	7	110		3,850.00
13	8	109		3,815.00
14	9	370		12,950.00
15	10	80		2,800.00
16	11	75		2,625.00
17	12	80		2,800.00
18	25	125		4,375.00
19	26	175		6,125.00
20	Not For Sale			
21	27	80		2,800.00
22a	28	30		1,050.00
22b	29	50		1,750.00
23a&b	13	70		2,450.00
24	14	Ø		Ø
25	30	Ø	(chained)	Ø
26	31	120		4,200.00
27	15	Ø	(½ chained)	Ø
28	16	Ø		Ø
29	17	21		735.00
		2,688 MBF		$94,360.00

*Estimated value @ $35.00/MBF (Sale data from Trail Ridge Sales)

TED SMITH STATES THAT $20/MBF IS A MUCH MORE REALISTIC FIGURE. W.I.P.

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

March 23, 1981

Honorable Terry Gardiner, Chairman
House Resources Committee
Mail Station 3100
Pouch V
Juneau, Alaska 99811

Dear Representative Gardiner:

One very important stage in an economical clearing process is the knockdown of the trees. This can be accomplished in several ways. The old standard was to simply push over the trees with a bulldozer. This method tends to skin up the trees and break and crush them severly. It is also a very expensive first step, due to the fact that the cat has to essentially walk over every inch of the land before it can start to push up the trees into piles.

In recent years chaining has been used very efficiently for knockdown. This process is much faster, since the cats can be spaced out, not needing to walk over the entire land area. Additionally, the chaining process is much less destructive to the trees being knocked down. Most trees are not rooted very well and are easily tipped over by the chaining without having to apply the heavier weight of the cat. Thus fewer trees are damaged. Chaining also tends to leave the trees in a much "neater" and more easily accessible condition. Cat knockdown tends to leave the trees in a very tangled mess.

It has been stated that chaining damages the trees so that they are not fit for logs or firewood. That is definitely not true. I have personally seen many hundreds of logs salvaged from chained woodland on the Delta Ag Project and numerous other clearing done in the Delta area. I also have cut in excess of 50 cords of firewood during the past several years. Perhaps as much as 50 percent has come from chained woodland.

Additional facts should also be considered. If the wood on a parcel of land is to be harvested, access is needed. Most amateur timber cutters do not have the equipment nor time to create access. But after a chaining operation is completed, the access if then available, thus saving the amateur considerable time and effort.

In summary, chaining is an efficient and economical process used to help develop agricultural land, plus it is not severly destructive to the wood resource, which we all want to be utilized.

Sincerely,

Roger Boyer
District Conservationist
Fairbanks

COOPERATIVE EXTENSION SERVICE - UNIVERSITY OF ALASKA, FAIRBANKS

Tanana District
P. O. Box 349
Delta Junction, Alaska 99737
Phone: (907) 895-4215

March 23, 1981

Honorable Terry Gardiner, Chairman
House Resources Committee
Mail Station 3100
Pouch V
Juneau, Alaska 99811

Dear Representative Gardiner:

The following comments are offered in rebuttal to allegations, by special interest groups, that the primary phase of land clearing (i.e. chaining) renders timber unsalvageable for lumber, logs, or firewood.

As an advisor to the State of Alaska during the 2,000 acre agricultural land clearing trial conducted in Delta Junction in 1977 and 1978 I personally witnessed the effect of chaining on a variety of vegetative types. In addition, nearly all the vegetation on the 60,000 acre Delta Agricultural Project has been chained since 1978.

Chaining simply pulls the trees down to a nearly horizontal position and tends to dislodge the root structure from the soil. Chaining does not destroy the trees. Occasionally, trees will snap off or shatter at the base, but this is rare. The bark is usually marred, however this is an unimportant consideration in any of the previously stated uses. Also, chaining does not result in significant amount of timber being pulled through the soil and thereby becoming encased in silt.

In many instances chaining has improved public access to the timber by providing trails. This has resulted in large quantities of firewood, house logs, lumber, posts and rails being salvaged on the Ag Project here in Delta. I cannot imagine the situation being significantly different in other areas.

Sincerely,

Don Quarberg
Ag Agent

DO/pd/mn

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FOREST, LAND AND WATER
MANAGEMENT, NORTHCENTRAL DISTRICT

MEMORANDUM

TO: Honorable Terry Gardiner
Chairman, State House Resources Commission
Mail Station 3100, Pouch V
Juneau, Alaska 99811

FROM: George P. Fortier
Area Forester
Delta Area Office
Division of Forest, Land & Water Management

DATE: March 23, 1981

TELE: 895-4226

SUBJ: Forest material salvage: position taken by your Committee against use of chain during land-clearing operations. Requested by Glen Franklin of Special Projects Office, for my comment this issue.

Having observed land clearing operations since inception of the Delta project, I would offer the following observations concerning use of the heavy chain as a preliminary land-clearing operation:

1. Chaining is compatible with all wood-salvage operations practiced in the Delta Area to the best of my knowledge. If accomplished when roots are not anchored by frost, neither deciduous nor conniferous stems are seen to shatter if sound.

2. Such stem-damage as may occur should be less than that found in shear-harvest operations.

3. Salvage costs should not be increased by chaining, due to "trade-off" of new access (patterned) trails against somewhat entangled stems.

4. One finds no degredation of stem quality due to alleged dragging, which does not occur.

In summary, I as a professional forester, see no substantial reason to oppose the chaining operation on forest which might be scheduled for successive lumber or firewood salvage.

GPF/sk/mm

KANDIK CONSTRUCTION, INC.
P.O. Box 60583
Fairbanks, Alaska 99706

March 14, 1981

TO: Mr. Bill Ward
RE: Bid Proposal on Tract 23
LOCATION: Point MacKenzie Agricultural Project

This quote pertains to logged off areas where stumps will be encountered. The stacking price will be $450.00 per acre. This quote represents a $258.00 increase due to the excessive time involved in stump removal.

These figures were obtained by actual work performed in the logged off areas.

If any information other than the above is needed, please feel free to contact us at your convenience.

Sincerely,

Bud LaFon

GDL:jdy/mm

F

DURWOOD J. ZAELKE
Sierra Club Legal Defense Fund, Inc.
419 6th Street, Suite 321
Juneau, Alaska 99801
(907) 586-2751

IN THE SUPERIOR COURT FOR THE STATE OF ALASKA

THIRD JUDICIAL DISTRICT AT ANCHORAGE

Harley Brotherton, et. al., Plaintiffs, v. Department of Natural Resources, et. al., Defendants.	No. 3AN-81-1541 Civil

STIPULATION AND ORDER FOR DISMISSAL

WHEREAS, timber resources are among the state's most valuable resources;

WHEREAS agricultural projects sometimes require the clearing of valuable timber from state lands; and

WHEREAS clearing for agricultural projects involves the potential for wasting valuable timber resour

NOW THEREFORE, The Department of Natural Resources of the State of Alaska, the Agricultural Action Council of the State of Alaska, and the plaintiffs in Brotherton, et. al., v. Department of Natural Resources, Civil No. 3AN-81-1541, by and through their attorney Durwood J. Zaelke, do hereby stipulate as follows:

(i) Any and all loans of state money for clearing the Pt. MacKenzie agricultural project shall include a condition requiring the winners of the Pt. MacKenzie land lottery to offer the marketable, commercial timber resources on their lands to the highest bidder at a public auction duly noticed, and either to accept such bid or to reject it and purchase the timber themselves at the value established by the highest bid; if the highest bid is accepted, the lottery winners

shall provide the longest practical time for removing the timber resources, consistent with the schedule required by each farmer's approved development plan;

(ii) the value of marketable, commercial timber resources shall be included in all future disposals of state agricultural lands, except those lands which are not suitable for timber harvesting;

(iii) the costs of suit, including attorneys' fees in the amount of $2,720 (68 hours x $40/hour), in Brotherton et al., v. Department of Natural Resources, Civil No. 3AN-81- 1, shall be paid by defendants;

(iv) The action entitled Brotherton, et. al., v. Department of Natural Resources, Civil No. 3AN-81-1541, shall be dismissed with prejudice, said dismissal to be lodged by defendants.

DATED: 3/10/81

Durwood J. Zaelke
Attorney for Plaintiffs

DATED: 3/10/81

Rodger (W.) Pegues
(for Barbara Miracle)
Attorney for Defendants

DATED: 3/10/81

Geoffrey Haynes
Deputy Commissioner
Department of Natural Resources

DATED: 3/11/81

Bob Palmer
Agricultural Action Council

ORDER

The above stipulation is hereby approved and the action entitled Brotherton, et. al., v. Department of Natural Resources, No. 3AN-81-1541, is hereby dismissed.

DATED: _____

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Judge Johnstone

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SCR

21

COMMITTEE REPORT

SENATE

FURTHER: Finance

3/27/81

Date: _____

Mr. President:

The Committee on RESOURCES has had SCR 21 research relating to proposed state and federal oil and gas lease sales.

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[ ] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING DO PASS

MEMBERS HAVING OTHER RECOMMENDATIONS:

Don Silman (no Rec)

CHAIRMAN

Alaska State Legislature

BETTYE FAHRENKAMP, CHAIRMAN
VIC FISCHER, VICE-CHAIRMAN
BRAD BRADLEY
DICK ELIASON
DON GILMAN
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3034
(907) 465-3035

Senate

Committee on Resources

May 15, 1981
1:30 p.m.

Beltz Room
Room 211 - Capitol

MEMBERS PRESENT

Senator Fahrenkamp
Senator Fischer
Senator Mulcahy
Senator Gilman
Senator Sturgulewski
Senator Eliason

Hearing:

SB 304 An Act making a supplemental appropriation to the Department of Natural Resources for planning for the Tokositna Park.

SB 305 An Act making a special appropriation to the Department of Natural Resources for planning for the Tokositna Park.

SCR 21 Relating to research relating to proposed state and federal oil and gas lease sales.

SJR 35 Relating to the exemption of Alaska hydroelectric projects from the licensing authority of the Federal Energy Regulatory Commission.

SB 291 An Act making a special appropriation to the Department of Fish and Game for shooting and firearm safety programs.

Senator Rodey stated that SB 304 and SB 305 appropriate funds to continue the planning efforts on the Tokositna Park. He requested that the Committee consider passage of the suggested Committee Substitute and the letter of intent.

Senator Fischer put forth the motion to move CSSB 304 and CSSB 305 with individual recommendations. He also, asked for unanimous consent on the letter of intent.

Senator Parr stated that SCR 21 asks the Governor to submit a proposal in the next budget for an applied research program for proposed state and federal oil and gas lease sales.

Senator Sturgulewski put forth the motion to move SCR 21 with individual recommendations.

Dave Hutchens, Executive Director, Alaska Rural Electric Cooperatives, stated that SSSJR 35, would help shorten the time frame in which the Federal Energy Regulatory Commission issues licenses. All of FERC's personnel is located in Washington, D. C., and when they receive an application they are very ponderous in their deliberations

Senator Gilman put forth the motion to move SSSJR 35 with individual recommendations.

Robert Hinman, Deputy Director, Division of Game, Department of Fish and Game, stated that the $5 million appropriation in SB 291 is the recommendation of the State Range Planning Committee.

Randy Smith stated that he supports SB 291. The appropriation in SB 291 is for capital projects and for the Department of Fish and Game to provide some expertise to help the local organizations to institute the programs.

Senator Gilman put forth two amendments to SB 291. Senator Gilman put forth the motion to move SB 291 with individual recommendations as amended.

The Committee adjourned at 2:45 p.m.

SCR 21

A Proposed State-Sponsored Coastal Studies Program for Alaska Oil and Gas Development Issues

Final Report of a Workshop Convened
by the Division of Policy Development
and Planning, Office of the Governor

State of Alaska

April 1981

TABLE OF CONTENTS

Introduction

Demands on Alaska oil and gas reserves have resulted in the scheduling of federal or State lease sales along most of the State's coastline from the eastern Gulf of Alaska north to the Alaska-Canadian border. As the pace of petroleum-related activity has quickened, it has become increasingly apparent to many that federally-sponsored socioeconomic and environmental studies need to be intensified and expanded at a commensurate pace. There are at least ten federal lease sales scheduled off Alaska's coast within the next four years and there are strong indications that even this schedule may soon become more accelerated. In addition, coastal lands within the National Petroleum Reserve - Alaska are being considered for leasing beginning in fiscal year 1982. The State of Alaska has also scheduled eleven major oil and gas lease sales on submerged lands and coastal uplands (Table 1 and Figure 1).

There is a growing awareness that federally-sponsored studies do not address nearshore and onshore impacts of federal lease sales with the intensity that offshore impacts are dealt with. Moreover, there are significant areas affected by State sales that lie <u>beyond</u> the geographic scope of the federal studies program.

The question of whether the State of Alaska faces an obligation to sponsor a petroleum-related studies program prompted the Division of Policy and Development and Planning in the Office of the Governor to convene a workshop on January 28, 1981. Participants included State agency representatives and representatives of both the University of Alaska and the federal agencies currently engaged in coastal studies (Table 2). The purposes of the workshop were to 1) verify the value of a State-sponsored coastal studies program, 2) attempt to reach consensus on how such a program should be organized, and 3) determine what specific studies should be proposed for the first year of a program, in the event that one is approved by both the State Administration and the Legislature.

The purpose of this report is to summarize the results of the workshop and to provide the Governor's Budget Review Committee (BRC) with a better basis from which to evaluate the merits of a coastal studies program in its budget deliberations.

TABLE 1. ALASKA LEASING SCHEDULES

YEAR	STATE SALE NO.	STATE DATE	STATE AREA	FEDERAL SALE NO.	FEDERAL DATE	FEDERAL AREA
1981	33	2nd Qtr	Upper Cook Inlet (onshore and offshore, including the Susitna Valley)	NOTE - See new Federal Lease Schedule 1982-86 (attached)		
	32	3rd Qtr	Cook Inlet south of Kenai River (exempt acreage sale)	RS-1	7/81	Eastern Gulf of Alaska - re-offering sale
				60	9/81	Lower Cook Inlet
					12/81	NPR-A
1982	35	1st Qtr	Lower Cook Inlet (offshore and onshore)			
	34*	2nd Qtr	Prudhoe Bay Uplands			
	36*	2nd Qtr	2nd Beaufort Sea (submerged lands)			
	37	3rd Qtr	Middle Tanana Basin and Copper River Basin		7/82	NPR-A
				57	9/82	Norton Basin
				70	12/82	St. George Basin
1983	38	1st Qtr	Norton Basin	71	2/83	Beaufort Sea
	39	2nd Qtr	3rd Beaufort Sea	61	4/83	Kodiak Shelf
	40	3rd Qtr	2nd Upper Cook Inlet (offshore & onshore, including the Susitna Valley)	75	10/83	North Aleutian Shelf
1984	41	1st Qtr	SW Bristol Bay Uplands			
	42	2nd Qtr	Minchumina Basin			
	43	3rd Qtr	4th Beaufort Sea	83	12/84	Navarin Basin
1985**	44	1st Qtr	Chukchi (nearshore & onshore)***	85	2/85	Chukchi Sea***
	45	2nd Qtr	Hope Basin	86	5/85	Hope Basin
	46	3rd Qtr	Holitna Basin			

* Same day Sales

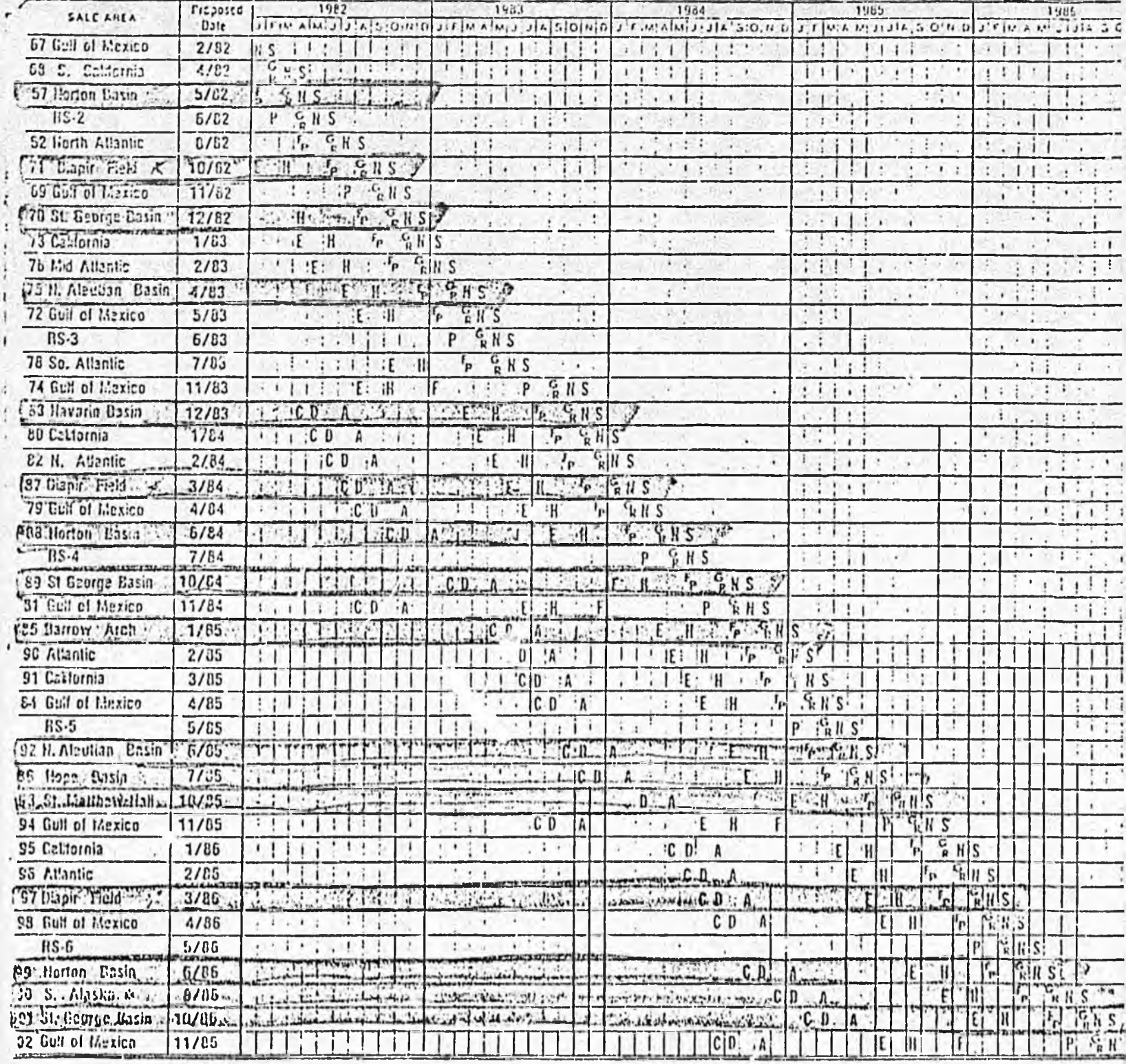
** 1981 additions to the State 5-year lease schedule

*** The holding of the Chukchi Sales at this time is contingent upon a reasonable assumption that technology will be available for exploration and development in the lease sale area.

DRAFT PROPOSED 5-YEAR OCS OIL AND GAS LEASING SCHEDULE

U.S. DEPARTMENT OF THE INTERIOR

April 19



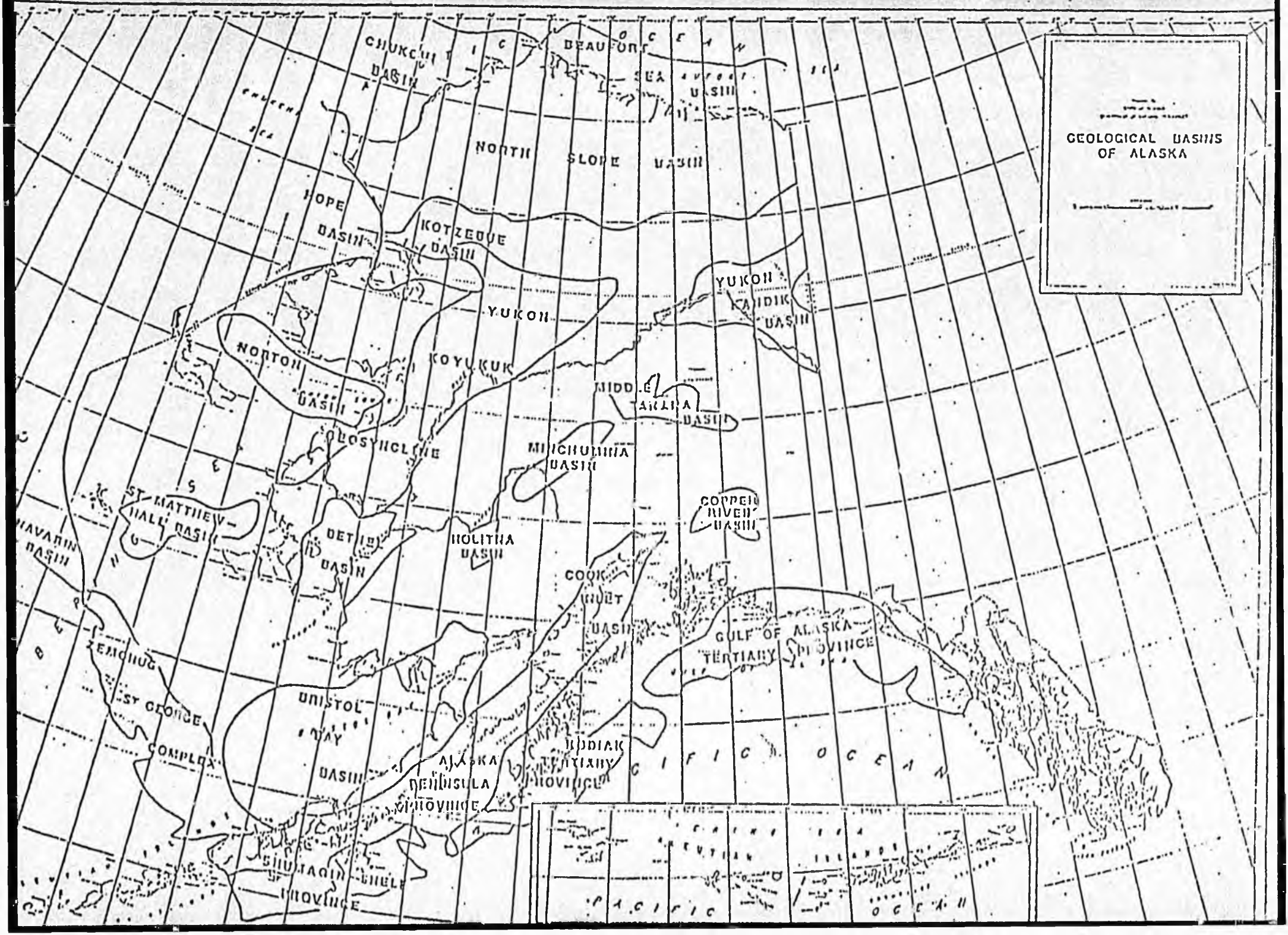
C - Call for Information
D - Information Due
A - Area Selection
E - Draft Environmental Impact Statement
H - Public Hearing

F - Final Environmental Impact Statement
P - Proposed Notice of Sale
G - Governors' Comments Due
R - DOE Review
N - Notice of Sale
S - Sale

* Includes Cook Inlet, Shumagin, Kodiak, Gulf of Alaska

APRIL 1981

FIGURE 1.


GEOLOGICAL BASINS
OF ALASKA
CHUKCHI
BASIN
BEAUFORT SEA
BASIN
NORTH SLOPE BASIN
HOPE
BASIN
KOTZEBUE
BASIN
YUKON
KOYUKUK
NORTON
BASIN
YUKON
ARCTIC
BASIN
MIDDLE
BASIN
GEOSYNCLINE
MINCHUMINA
BASIN
COPPER
RIVER
BASIN
HOLITNA
BASIN
COOK
INLET
BASIN
GULF OF ALASKA
TERTIARY
PROVINCE
BRISTOL
BAY
BASIN
ALASKA
PENINSULA
PROVINCE
KODIAK
TERTIARY
PROVINCE
PACIFIC OCEAN

LIST OF PARTICIPANTS IN ALASKA COASTAL STUDIES PROGRAM CONCEPTUAL WORKSHOP
(Juneau, Alaska - January 28, 1981)

NAME	AFFILIATION
Bruce Baker*	Division of Policy Development & Planning
Paul R. Becker*	NOAA Alaska Project Office (Juneau)
Lennie Boston*	Alaska Department of Natural Resources (Commissioner's Office)
Veronica Clark	Alaska Department of Community & Regional Affairs (Division of Community Planning)
Neil Davis	Alaska Council on Science & Technology
Kurt Fredriksson*	Office of Coastal Management
R.S. Hadley*	Alaska Sea Grant Program
Glenn Harrison**	Alaska Department of Natural Resources (Division of Minerals and Energy Management)
Gary Hennigh	Socioeconomic Studies Program/BLM OCS Office
Jerry Imm*	Environmental Studies Program/BLM OCS Office
Gretchen Keiser*	Division of Policy Development & Planning
Rod Mourant	Governor's Office (Fiscal Officer)
Chris Noah	Alaska Council on Science & Technology
Dave Norton*	NOAA Arctic Project Office/University of Alaska
Doug Redburn*	Alaska Department of Environmental Conservation
Rod Swope*	Division of Policy Development & Planning
Lance L. Trasky*	Alaska Department of Fish & Game (Habitat Protection Section)
James K. Trimble*	Alaska Oil & Gas Conservation Commission
Gunter Weller*	NOAA Arctic Project Office/University of Alaska
Carol Wilson*	Alaska Department of Natural Resources (Division of Research and Development)
Mark Wittow	Legislative Aide to Representative Malone, Alaska Legislature
Blair E. Wondzell*	Alaska Oil & Gas Conservation Commission
F.F. Wright*	Division of Policy Development & Planning/ NOAA Alaska Project Office (Juneau)

* Participants whose comments on a draft version of this report were received by 4/3/81.
** Did not attend workshop but submitted comments on a draft version of this report.

Present Situation

The existence of well-coordinated and integrated coastal studies in Alaska offshore petroleum provinces began in 1974 with the advent of the Bureau of Land Management's (BLM) Studies Program. This program consists of the Socioeconomic Studies Program (SESP), conducted under BLM's immediate direction and the Outer Continental Shelf Environmental Assessment Program (OCSEAP), funded and directed by BLM and administered by the Department of Commerce through its National Oceanic and Atmospheric Administration (NOAA). The State has been a major beneficiary of these federal studies. Study results have enabled the State to develop informed policy positions regarding 1) the pace of federal leasing off Alaska, 2) the configuration of lease sale areas that afford both economic development opportunities and renewable resource protection, and 3) the development of realistic lease sale terms and conditions.

Figure 2 indicates the general trend in federal funding that supports BLM's OCSEA Program in recent years. The decline in federal expenditures runs counter to the trend in increased federal leasing activity off Alaska's coast and is a concern that Governor Hammond has consistently expressed to the federal government.

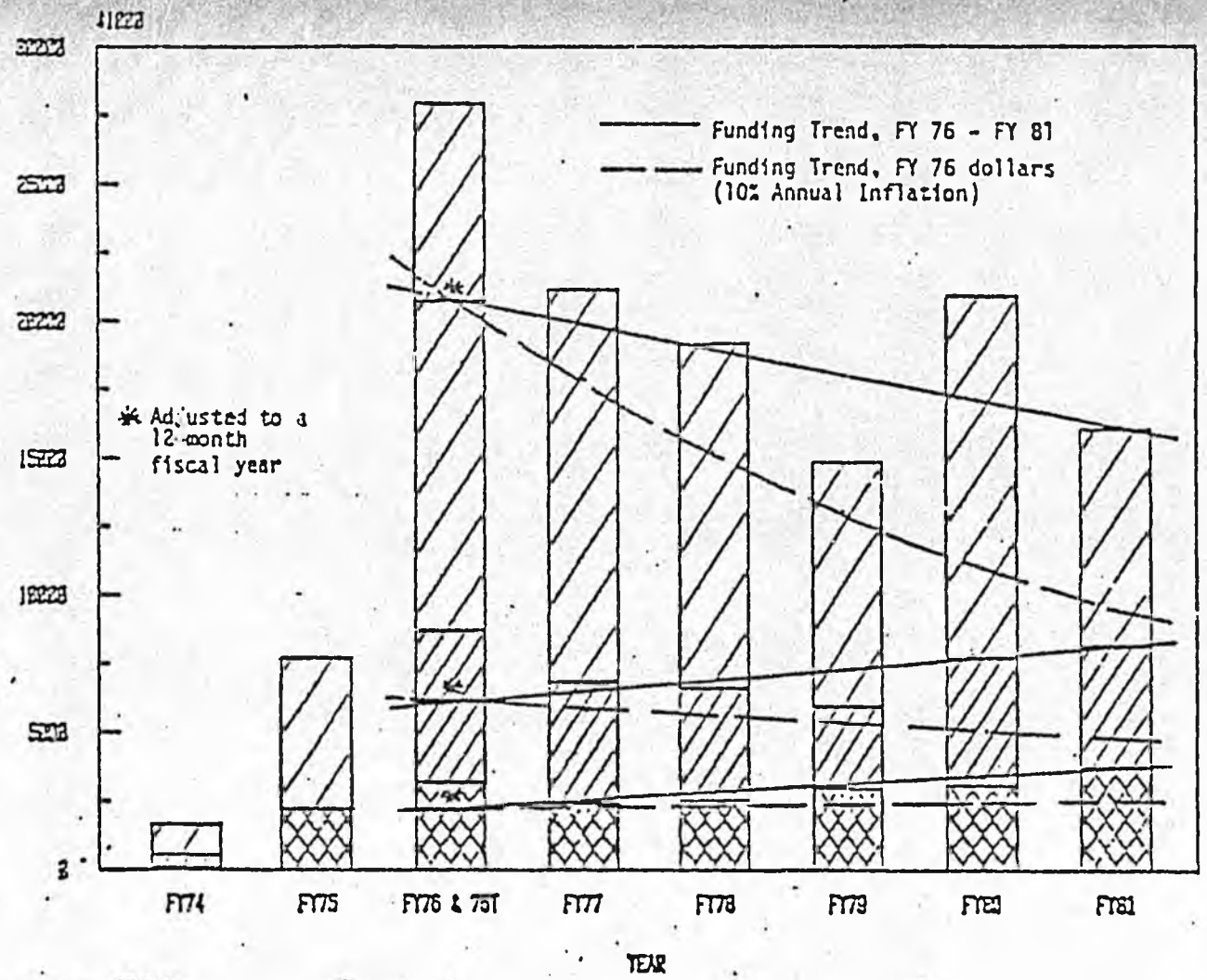
As a result of both federal and State leasing activities, the State has rapidly developed considerable scientific, management, and planning expertise to address the pressures of coastal energy development. Cook Inlet, Prudhoe Bay, and the Beaufort Sea continue to be the focal points of the State's learning process. Some of the lessons learned include:

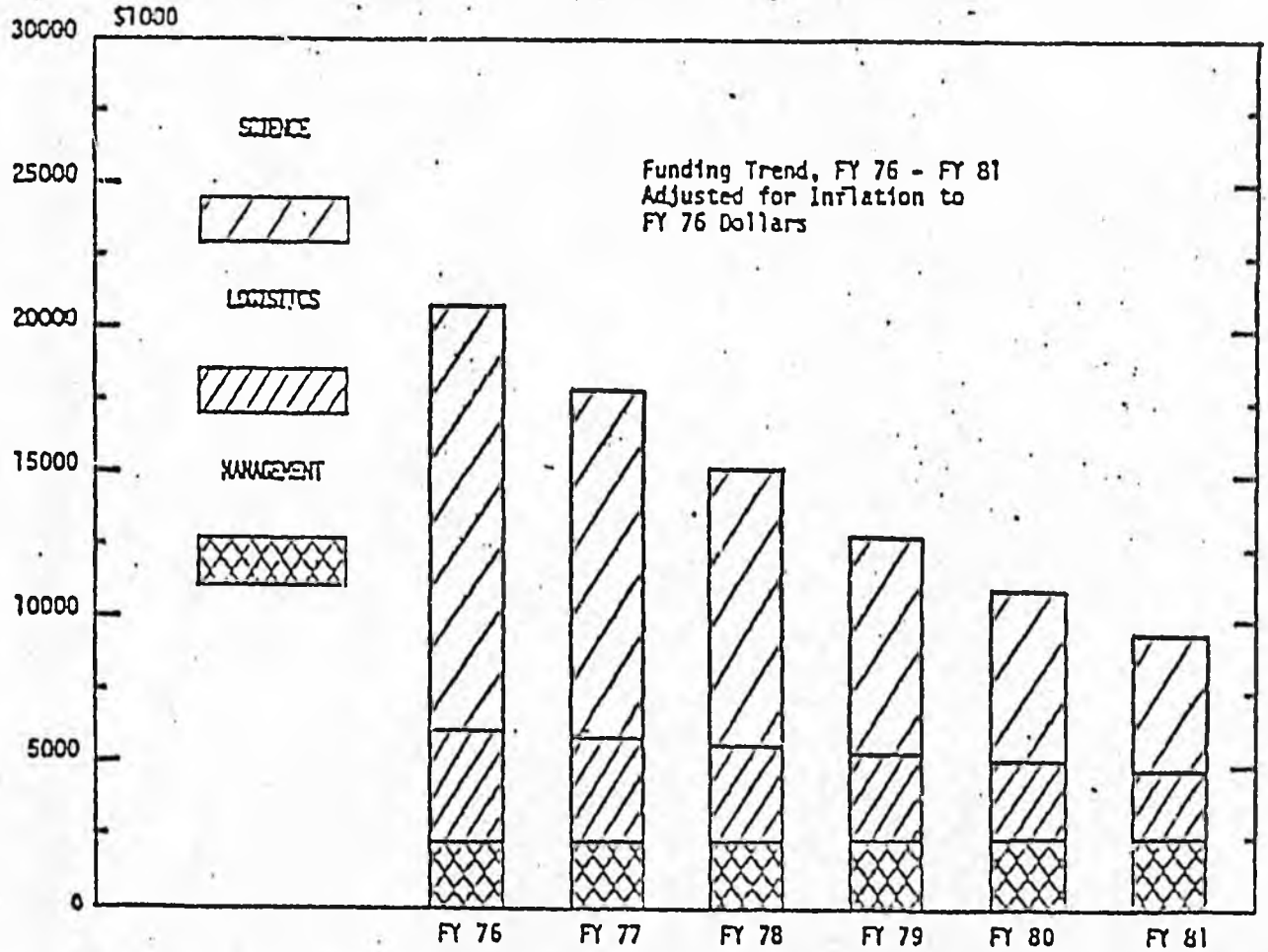
1. The existence of an adequate resource information base enables the State to competently direct State lease sale activities and to fully participate in federal leasing activities. The State was able to do both in the 1979 Joint State/Federal Beaufort Sea Lease Sale.

2. Adequate knowledge of the physical, biological, and social conditions that prevail before a lease sale or activity occurs can optimize mitigative and regulatory strategies. This approach ensures renewable resource protection yet minimizes litigative delays, costly buy-back situations such as in Kachemak Bay, and unnecessary burdens on industry. An example of the latter would be the unnecessarily stringent prohibitions on offshore disposal of drilling muds and cuttings in Cook Inlet. Once adequate knowledge of flushing and dilution rates was obtained, disposal regulations were modified.

3. Continuous monitoring of ongoing activities provides informational feedback which can be used to refine, strengthen, or relax mitigating requirements in future decisions.

BY CATEGORY





SOURCE: NOAA/OCSEAP Arctic Project Office, University of Alaska, Fairbanks.

Workshop Consensus Points

Workshop participants represented natural resource development and protection interests, the scientific community, and managers of federally-sponsored studies. The workshop also benefited from the participation of those familiar with administrative, fiscal, or legislative processes.

The following points represent the general consensus of workshop participants.

1. There should be a State-sponsored coastal studies program that is focused on current and future oil and gas leasing activities. The program should include the following objectives:

    a. To help ensure that informed decisions are made by State agencies responsible for coastal planning, resource development, or the regulation and permitting of petroleum-related activities.

    b. To help resolve high-priority issues in areas of particular geographic importance to the State, such as waters within its three-mile jurisdiction and nearshore or onshore coastal areas likely to be influenced by State or federal oil and gas lease sales.

    c. To initiate "problem-solving" studies designed to provide useful information which would thereby clarify and simplify the State's regulation of oil and gas development.

    d. To contribute site-specific socioeconomic information to minimize impacts on coastal communities likely to be affected by oil and gas development.

    e. To provide resource information to local communities for their comprehensive and coastal management planning.

2. A State-sponsored coastal studies program should be well-coordinated with studies sponsored by the federal government to ensure that State and federal efforts are complementary rather than duplicative.

3. A studies program should be implemented as soon as possible. Fiscal year 82 funding would produce the earliest possible results. Fiscal year 83 funding would be the next best alternative for producing timely results.

4. Overall administration of the program should utilize existing organizations and processes to the maximum extent possible, thereby avoiding unnecessary additions to the size of State government.

5. Although direct management of administrative or research studies is likely to be divided among different agencies and the University of Alaska, there should be one centralized funding entity which is vested with a degree of administration and coordination responsibility. The

consensus was that the group was that the Office of the Governor could serve well in this capacity and that the Division of Policy Development and Planning may be an appropriate source of staff support within the Governor's Office.

6. Policy direction should largely be provided by existing forums such as the Governor's Agency Advisory Committee on Leasing (AACL), the Alaska Coastal Policy Council (ACPC), Alaska Council on Science and Technology, and the University of Alaska. The AACL is co-chaired by the Commissioner of Natural Resources and the Director of Policy Development and Planning. Other members include the Attorney General and the Commissioners of Fish and Game, Environmental Conservation, Community and Regional Affairs, Transportation and Public Facilities, Revenue, and Labor. The ACPC is co-chaired by the Director of the Division of Policy Development and Planning and a public member, the Mayor of Haines. Other members include the Commissioners of Community and Regional Affairs, Fish and Game, Environmental Conservation, Commerce and Economic Development, and Transportation and Public Facilities. Public members appointed by the Governor to the ACPC include representatives from the regions of northwest Alaska, the Bering Straits, southwest Alaska, the Kodiak-Aleutians area, Upper Cook Inlet, Lower Cook Inlet, Prince William Sound, northern southeast Alaska, and southern southeast Alaska.

7. The composition of an annual coastal studies program should be determined by a technical review committee, comprised of voting representatives appointed by the Commissioners of the Departments of Community and Regional Affairs, Environmental Conservation, Fish and Game, Natural Resources, and the Director of the Division of Policy Development and Planning. These State agencies have community planning, management, regulatory, or policy authority in oil and gas matters and should, therefore, be the primary decision-makers in the structuring of an annual program. All State agencies and the University of Alaska could submit detailed study suggestions or proposals to the technical review committee for consideration. The AACL, the University of Alaska, and other research managers such as the Directors of BLM's OCS Office and NOAA's OCSEA Program could provide advisory input to the technical review committee.

8. Individual studies performed within this program, whether administrative or research, should be issue-oriented and designed to achieve measurable objectives within specified time periods. The technical review committee would have the key responsibility for ensuring this program orientation.

9. As a minimum, it would be helpful if those authorizing program funds could recognize the need for funding continuity in studies extending more than one year. Ideally, multi-year funding should be provided, perhaps through the Capital Budget. This would ensure a well-balanced mixture of short- and long-term studies.

Program Management - An Option

During the workshop, the group benefited considerably from a brief presentation by Mr. Rod Mourant, Fiscal Officer in the Governor's Office. Mr. Mourant identified various funding and management options available for a studies program. He indicated that either the State's Operating or Capital Budgets could be utilized and that the latter could provide for multi-year funding. He also suggested that were such a program to be administered out of the Governor's Office, the Division of Policy Development and Planning may be a suitable option for staff support. This option would involve the pass-through of study funds to State agencies and the University of Alaska by use of Reimbursable Service Agreements (RSA's). This option would also result in centralized funding and an opportunity for coordinated expenditure accountability. According to Mr. Mourant, it normally takes six to eight weeks to process administrative paperwork once funding is authorized.

Were funding authorized and directed to the Division of Policy Development and Planning within the Office of the Governor, the Division could fulfill the following functions:

1. Establish RSA's for disbursement of study funds to State agencies following recommendations of study priorities by the technical review committee. The RSA's would include sufficient detail to ensure management accountability (e.g., individual study work summaries, anticipated products, and synthesis of research results within specific timetables).

2. Monitor expenditures of funds within the overall studies program through quarterly reports required in RSA's between State agencies. DPDP would also coordinate end-of-the-year expenditure accountability.

3. Coordinate meetings of the technical review committee and provide information about the studies program to the public, upon request.

Within the coastal studies program, study interests of State agencies and the University of Alaska tend to sort out along the following lines:

Department of Community and Regional Affairs and Office of Coastal Management These agencies are well qualified to sponsor administrative and research studies involving social and economic impacts on coastal communities.

Departments of Natural Resources, Fish and Game, and Environmental Conservation These departments are deeply involved in the development of well-balanced measures designed to mitigate potentially adverse environmental and social impacts. They could sponsor or actually conduct certain administrative or research studies within the overall studies program. They, as well as the Department of Community and Regional Affairs, would also be major beneficiaries of research performed by other organizations such as the University of Alaska.

University of Alaska The Arctic Project Office (APO) within the Geophysical Institute is a University unit which could be involved in the management of certain physical and biological research studies identified within the studies program. The APO could receive guidance from the technical review committee identified earlier in this report, award contracts, and make logistical arrangements for contractors. Based on its experience, the APO could provide regular synthesis reports that summarize research results and translate results into recommended decision options.

At the end of the workshop, Mr. Mark Wittow of the Legislative staff expressed interest in the results of the meeting and in response to his request, the above consensus points were summarized.

In summarizing workshop results, three additional management considerations became evident. First, an office directly managing part of the overall studies program should figure on an overhead allowance of about ten percent of the total studies funding it requests. Second, funding to be used in any given year should be authorized in time to permit adequate planning, purchasing of equipment and supplies, and logistical arrangements for the summer and winter field seasons. Third, a year's study program should be closely coordinated with complementary federal programs administered by BLM, NOAA, or other agencies.

Workshop Proposal for an Initial Coastal Studies Program

Workshop participants agreed that the initial year of a Coastal Studies Program must involve a pragmatic selection of high-priority studies. Emphasis should be placed on those studies which are directly applicable to State agency information needs and which provide data within a relatively short time. The program should also include longer term studies, required to address more difficult resource concerns. While there is no clear indication of obtainable funding at this time, a program should be contemplated in case funds are authorized.

Readers of this report should realize that the studies proposed herein are preliminary. They would need to be carefully evaluated and screened by a technical review committee and, perhaps in some cases, revised by their proponents before a recommendation could be made to the Governor's Budget Review Committee. One purpose of identifying potential studies in this report is simply to enhance reader understanding of the overall direction that a studies program could take. A second purpose is to provide material for consideration by a technical review committee in the event that the concept of the program is approved.

Table 3 is a summary list of draft proposals developed as a result of the January 28th workshop, subsequent discussions among participants, and review of a draft version of this report. The table indicates clusters of potential study proposals. The design of companion proposals would need to be closely coordinated to prevent overlap.

The proposals are divided into four categories:

I. Long-range issue and resource identification analysis.

II. Monitoring the effectiveness of existing mitigating measures, regulations, and stipulations on oil and gas activities.

III. Pre-sale and pre-activity evaluations.

IV. Logistical and management tasks.

There is one new proposal addressing the effectiveness of existing stipulations and mitigating measures designed to minimize disturbance in the Kuparuk calving grounds of the Central Arctic caribou herd. The Alaska Department of Fish and Game has proposed this study, and it is included as a companion proposal to the study monitoring the effects of oil and gas activities, calving behavior, and calf survival of the Kenai caribou herd.

Table 4 identifies individual draft study proposals, those proposing the studies, potential managing agencies, study duration, and initial cost estimates.

TABLE 3

Summary of Alaska Coastal Studies Program Draft Proposals

I. Long-range issue and resource identification analysis:

1. Issue and resource identification in areas proposed for State oil and gas leasing. As a result of this analysis, the following companion proposals may be identified as significant study needs in specific lease areas:

   a. Coastal sensitivity and oil spill trajectory studies.

   b. Identification of endangered and protected wildlife species habitat.

2. Public opinion survey and analysis of the compatibility of oil and gas leasing/development with public use of State game refuges and critical habitat areas.

II. Monitoring the effectiveness of existing mitigating measures, regulations, and stipulations on oil and gas activities:

3. Monitoring the seasonal drilling restriction (November 1 - March 31) on downhole exploratory operations in the Arctic: An evaluation of oil spill risk and existing oil spill containment and cleanup technology.

A companion proposal is:

4. Oil spill cleanup technology for ice-covered waters.

5. Monitoring of the existing seasonal restriction (March 20 cutoff) on seismic operations in the Arctic.

6. Evaluation of the prohibition on continuous-fill causeway construction in the Arctic.

A companion proposal is:

7. Effects of causeways and artificial islands on nearshore circulation in the Arctic.

8. Monitoring the effects of oil and gas activities on waterfowl nesting and staging.

9. Colville River whitefish populations monitoring.

10. Monitoring existing stipulations designed to manage gravel and water resources in the Arctic.

11. Evaluation of current restriction on activities in the Stefansson Sound Boulder Patch areas.

12. Monitoring of current operating stipulations governing the disposal of drilling fluids and produced waters.

13. Evaluation of innovative, cost-effective approaches to aquatic monitoring.

14. Effectiveness of selected and temporary bird nesting enhancement possibilities by North Slope lessees.

15. Monitoring of existing stipulations and mitigating measures designed to minimize distrubance in the Kuparuk calving grounds of the Central Arctic caribou herd.

A companion proposal is:

16. Monitoring the effects of oil and gas activities on calving behavior and calf survival in the calving grounds of the Kenai caribou herd.

17. Monitoring the effects of oil and gas activities on fishing and hunting opportunities and harvest.

III. Pre-sale and/or pre-activity evaluations:

18. Effects of unburied submarine pipelines on commercial crab species.

19. Effects of continuous refinery, petrochemical, and offshore platform discharges on coastal embayments.

20. Nearshore mixing and pollutant transport studies in Alaskan estuaries: optimizing the location of new onshore development.

21. Sensitivity of coastal environments and wildlife to spilled oil (Prince William Sound).

22. Yukon Delta ecological processes studies.

23. Northern Chukchi Sea freshwater, anadromous, and nearshore marine fisheries.

24. Occurrence and management of "nuisance species" in upland, coastal, and marine areas.

25. Alaska marine and freshwater food-web studies utilizing natural stable and radio-isotopes.

26. Biological investigations of Belukha whales in the coastal waters of Alaska.

27. Ecological processes studies of the northern Chukchi Sea coast.

28. Technology development for Arctic marine transport operations.

29. Operation of Seismic Networks in Alaska.

30. Behavior and transport of oil spilled in ice.

31. Ice- and permafrost-related hazards in nearshore areas.

32. Bering Sea energy facility siting project.

33. Identification of primary socioeconomic data sources and an assessment of additional community survey needs.

The following are two companion proposals:

34. Coordination and transfer of information relating to research, coastal planning, and oil and gas development.

35. Impacts of oil and gas activities on local communities: a public education and planning tool.

IV. Logistics and research and information management tasks:

36. Logistics suppport, contract management, delivery and synthesis of research information.

TABLE 4

Alaska Coastal Studies Program Draft Proposals

Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
1. Issue and resource identification in areas proposed for State oil and gas leasing.	ADF&G (Trasky)	DPDP(?)	5 yrs. (plus)	250	1,502	Begin with 1984 lease sales: SW Bristol Bay Uplands and 4th Beaufort Sea. SW Bristol Bay study should be closely coordinated with Bristol Bay Cooperative S/F Management planning.
a. Coastal sensitivity and oil spill trajectory studies.	ADF&G (Trasky)	Arctic Project Office	5 yrs.	200(-400)	1,000 (low est.)	
b. Identification of endangered and protected wildlife species habitat.	ADF&G (Trasky)	ADF&G	5 yrs.	125	625	
2. Public opinion survey and analysis of the compatibility of oil and gas leasing/development with public use of State game refuges and critical habitat areas.	ADF&G (Trasky)	ADF&G	1 yr.	125	125	
3. Monitoring the seasonal drilling restriction (November 1 - March 31) on downhole exploratory operations in the Arctic: An evaluation of oil spill risk and existing oil spill containment and cleanup technology.	ADF&G (Trasky)	APO	2 yrs.	75	150	Also recommended by G. Harrison of DMEM/DNR
4. Oil spill cleanup technology for ice-covered waters.	APO (Weller)	APO/ADEC	5 yrs. (plus)	350	1,750	Companion proposal to No. 3.
5. Monitoring of the existing seasonal restriction (March 20 cutoff) on seismic operations in the Arctic.	ADF&G (Trasky)	APO	3 yrs.	140	400	Also recommended by G. Harrison of DMEM/DNR

Table 4 (Cont'd)

Alaska Coastal Studies Program Draft Proposals

Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
6. Evaluation of the prohibition on continuous-fill causeway construction in the Arctic.	ADF&G (Trasky)	APO	3 yrs.	33	100	
7. Effects of causeways and artificial islands on nearshore circulation in the Arctic.	APO (Weller)	APO	5 yrs.	150	1,650 (one 3-yr. case study)	Companion proposal to No. 6. Both should be coordinated closely with industry-sponsored Waterflood monitoring.
8. Monitoring the effects of oil and gas development on waterfowl nesting and staging.	ADF&G (Trasky)	ADF&G	2 yrs.	100	175	Begin with synthesis of existing Canadian information.
9. Colville River whitefish populations monitoring.	ADF&G (Trasky)	ADF&G or APO	5 yrs.	86	430	
10. Monitoring existing stipulations designed to manage gravel and water resources in the Arctic.	APO (Norton)	APO	5 yrs.-ongoing	160	1,500	Analysis of both onshore and offshore gravel resources.
11. Evaluation of current restriction on activities in the Stefansson Sound Boulder Patch areas.	APO	APO	3 yrs.	150(-190)	230	
12. Monitoring of current operating stipulations governing the disposal of:	ADEC (Redburn)	ADEC				
a. drilling fluids			3 yrs.	100	200	
b. produced waters			2 yrs.	150	300	

Table 4 (Cont'd)

Alaska Coastal Studies Program Draft Proposals

Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
13. Evaluation of innovative, cost-effective approaches to aquatic monitoring.	ADEC (Redburn)					Applicability to all coastal development.
a. Phase 1: Literature search and conference.		ADEC	1 yr.	75	75	
b. Phase 2: Site-specific field testing.		APO	3 yrs.	-0-	150	
14. Effectiveness of selected and temporary bird nesting habitat enhancement possibilities by North Slope lessees.	APO (Norton)	APO	3 yrs.	29	121	
15. Monitoring of existing stipulations and mitigating measures designed to minimize disturbance in the Kuparuk calving grounds of the Central Arctic caribou herd.	ADF&G (Trasky)	ADF&G (Game Division)	5 yrs.	75	375	
16. Monitoring the effects of oil and gas activities on calving behavior and calf survival in the calving grounds of the Kenai caribou herd.	ADF&G (Trasky)	ADF&G (Game Division)	5 yrs.	30	150	Companion proposal to No. 15 with possible reduced effort if No. 15 is undertaken.
17. Monitoring the effects of oil and gas activities on fishing and hunting opportunities and harvest.	ADF&G (Trasky)	ADF&G	3 yrs.	50	150	

Table 4 (Cont'd)

Alaska Coastal Studies Program Draft Proposals

	Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
18.	Effects of unburied submarine pipelines on commercial crab species.	ADF&G (Trasky)	ADF&G	1 yr.	50	50	Small scale field testing study in southcentral Alaska.
19.	Effects of continuous refinery, petrochemical, and offshore platform discharges on coastal embayments.	ADEC (Redburn)	APO	1 yr.	75	75	
20.	Nearshore mixing and pollutant transport studies in Alaskan estuaries: optimizing the location of new onshore development.	DPDP(w/ ADEC) (Wright)	ADEC	5 yrs. (plus)	100	500+	Applicability to all coastal development; two sites/year.
21.	Sensitivity of coastal environments and wildlife to spilled oil (Prince William Sound).	DPDP (Wright)	ADF&G	1 yr.	55	55	Finish a project 2/3 completed.
22.	Yukon Delta ecological processes studies (Norton Sound, Bering Sea).	Juneau Project Office (Becker)	APO	2 yrs.	100	200	
23.	Northern Chukchi Sea freshwater, anadromous, and nearshore marine fisheries.	APO (Norton)	APO	3 yrs.	150	350	
24.	Occurrence and management of "nuisance species" in coastal, upland, and marine areas.	APO (Norton)	APO	3 yrs.	130	550	Applicability to all coastal development.
25.	Alaska marine and freshwater food-web studies utilizing natural stable and radio-isotopes.	APO (Norton)	APO	2 yrs.	180	225	

Table 4 (cont'd) Alaska Coastal Studies Program Draft Proposals

	Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
26.	Biological investigations of Beluga whales in the coastal waters of Alaska.	APO (Norton)	APO	4 yrs.	160	680	Possible State/federal matching of funds.
27.	Ecological processes studies: northern Chukchi Sea coast	APO (Norton)	APO	3 yrs.	435	1,655	Inter-disciplinary studies in coastal lagoons.
28.	Technology development for Arctic marine transport operations.	APO (Sackinger)	APO	4 yrs.	600	2,150	
29.	Operation of Seismic Networks in Alaska	APO (Weller)	OCSEAP or DGGS(DNR)	long-term	750	3,750 (5 years)	Applicability to all coastal development.
30.	Behavior and transport of oil spilled in ice.	APO (Weller)	APO	3 yrs.	250	750	
31.	Ice and permafrost-related hazards in nearshore areas.	APO (Weller)	APO	3 yrs.	500	1,500	
32.	Bering Sea energy facility siting project	DPDP/ADC&RA (Keiser & Clark)	ADC&RA	1 yr.	30	30	State matching funds to federal CEIP grant application.
33.	Identification of primary socioeconomic data sources and an assessment of additional community survey needs.	DPDP (Keiser)	ADC&RA	1 yr.	50	50	
34.	Coordination and transfer of information relating to research, coastal planning and oil and gas development.	DPDP (Keiser)	ADC&RA	5 yrs. (plus)	75	375 (5 years)	Companion proposal to No. 35. These two proposals are subject to revision in order to emphasize dissemination of information at the regional level.

Table 4 (Cont'd)

Alaska Coastal Studies Program Draft Proposals

Title	Proposing Agency	Managing Agency	Duration	Cost ($k) First Year	Cost ($k) Total	Comments
c. Impacts of oil and gas activities on local communities: a public education and planning tool.	OPDP (Kelser)	ADC&RA	1 yr.	50	50	level.
3. Logistics support, contract management, delivery and synthesis of information:	APO	APO	ongoing			
a. Logistics				1,700	not	35% of total science budget.
b. Management				500	estimated	10% of total science budget.
TOTAL DRAFT COST ESTIMATE:				8.633	24.153	

WHILE IN SESSION:
POUCH V
JUNEAU, ALASKA 99811
(907)465-4925

BOX
FAIRBANKS, ALASKA
(907)456-2037

BRIAN ROGERS
Alaska State Legislature

3 April 1981

Honorable Jay Hammond
Governor - State of Alaska
Pouch A (Mail Stop 0101)
Juneau, Alaska 99811

Dear Governor Hammond,

It has come to my attention that the federal government is cutting back on the funding of scientific research related to oil and gas development at the same time that it is proposing an accelerated leasing schedule. Since the state is also planning a number of lease sales during the next few years, it seems imperative that we take the lead in funding the research required to obtain the necessary scientific and socio-economic data. This data is necessary in order to develope lease stipulations and adopt mitigating measures both to protect our environment and to protect the oil and gas industry from undue restrictions.

I understand that the federal cuts are effective this year and that, unless the state moves quickly, insufficient funds will be available to continue the research through FY 82. If we were to wait until FY 83 to reinstate a research program we would loose valuable time as well as continuity in the studies.

Do you intend to submit a budget amendment to the legislature to address this?

I'd like to encourage you to request the level of funding needed to replace the federal funds now supporting the oil and gas related research in various state agencies and the University. I believe that $8.5 million is an amount that can easily be justified for FY 82. I would recommend that it be appropriated to your office and that DPOP be responsible for its oversight.

Please let me know whether you plan to request such funding this year. I assure you that, once such a request is presented to the legislature, I'll do my best to see that it wins approval.

Sincerely,

Brian Rogers

Rep. Brian Rogers

CC: Lt. Governor Terry Miller
Rep. Terry Gardiner
Rep. Sam Cotten
Senator Charlie Parr

GOVERNOR

PAKR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 8, 1981

The Honorable Brian Rogers
House of Representatives
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Representative Rogers:

Thank you very much for your recent letter regarding potential federal budget cuts in research related to oil and gas development.

Several months ago I initiated an internal review process at the Cabinet level to assess the impact of President Reagan's proposed budget reductions. That process is in its final stages and recommendations from my Budget Review Committee will soon be placed on my desk. I intend to carefully evaluate all of the proposed budget cuts and then make a decision on those programs in which general fund monies should be used to replace lost federal funds.

I have asked Jerry Reinwand to work directly with you on this issue and to keep you fully informed of our efforts in this regard.

Sincerely,

Jay S. Hammond
Governor