LEG. FINANCE - BILLS 1979 - 1980 1256

SB 63 cont., thru SB 62

1256

	Cost ($1,000)	Year 1	2	3	4
FOUNDATIONS AND MATERIALS (FM)					
WATANA SITE.					
11. Conduct site geology study.	-	*	*	*	
12. Explore and test for site selection.	210	*	*		
13. Explore for potential construction materials sources.	845	*	*	*	
14. Evaluate site selection and dam.	170	*	*		
15. Explore and test for final design.	1,820		*	*	*
16. Conduct geophysical investigations.	93		*	*	*
17. Perform concrete studies.	265		*	*	*
18. Perform feature design for embankment dam, cofferdams and diversions. (F&M aspects).	910		*	*	*
19. Perform feature design for spillway, powerhouse and outlet works (F&M aspects).	410		*	*	
DEVIL CANYON SITE.					
20. Conduct site geology study.	35		*	*	
21. Explore and test for site selection.	650	*	*	*	
22. Evaluate for site selection and dam type.	-	*	*	*	
23. Study rock mechanics and conduct in-situ testing.	280	*	*	*	
24. Conduct concrete aggregate studies.	85	*	*	*	
OTHER SITES.					
25. Conduct field reconnaissance.	8	*			
26. Explore and test for site selection and dam type.	6	*			
DESIGN (D)					
PRELIMINARY SCREENING.					
1. Make preliminary selection of potential damsites.	12	*			
2. Conduct site inspection.	28	*			
3. Determine types and heights of dams.	34	*			
4. Determine powerhouse size and location.	25	*			
5. Develop diversion scheme.	25	*			
6. Develop water passages.	40	*			
7. Estimate project costs.	17	*			
DETAILED FEASIBILITY STUDIES (WATANA AND DEVIL CANYON).					
8. Study dam type and height.	90	*	*	*	
9. Study spillways.	68	*	*	*	
10. Study outlet works.	66	*	*	*	
11. Study water diversion and care.	62	*	*	*	
12. Study powerhouse size, type and location.	100	*	*	*	
13. Study power intake and conduit.	200	*	*		
14. Estimate selected project cost.	16	*	*		

	Cost ($1,000)	Year 1	2	3	4
DESIGN (D) (Cont.)					
DETAILED DAM ANALYSIS (WATANA SITE)					
15. Study dam type and height.	50		*	*	*
16. Study spillways.	406		*	*	*
17. Study outlet works.	498		*	*	*
18. Study water diversion and care.	393		*	*	*
19. Study powerhouse size, type and location.	200		*	*	*
20. Study power intake and conduit.	720		*	*	*
21. Estimate selected project cost.	18		*	*	
TRANSMISSION FACILITIES.					
22. Conduct route studies.	250	*	*	*	
23. Conduct transmission system study.	36	*	*	*	
24. Conduct tower, hardware, and conductor studies.	55	*	*	*	
25. Conduct foundation type studies.	30	*	*		
26. Conduct substation studies.	114	*	*		
27. Conduct switchyard studies.	76	*	*		
28. Estimate transmission facilities cost.	18	*	*		
ACCESS ROADS.					
29. Conduct route studies.	78	*	*	*	*
30. Conduct bridge studies.	60		*		
31. Estimate selected route costs.	21		*		
RESERVOIR CLEARING.					
32. Conduct field survey.	8	*			
33. Conduct marketability and disposal study.	20	*			
34. Estimate clearing costs.	8	*			
CONSTRUCTION AND PERMANENT CAMP FACILITIES.					
35. Determine requirements.	30	*	*		
36. Study locations and layouts.	40	*	*		
37. Estimate camp costs.	10	*	*		
OTHER HYDRAULIC CONSIDERATIONS.					
38. Study upstream and downstream effects.	75	*	*		
39. Determine model studies to consider.	4		*		
REAL ESTATE (RE)					
INVESTIGATIONS AND DETERMINATIONS.					
1. Conduct real estate field investigations.	7	*	*		
2. Make real estate legal determinations.	33		*		

	Cost ($1,000)	Year 1	2	3	4
REAL ESTATE (RE) (Cont.)					
RIGHTS OF ENTRY.					
3. Obtain rights of entry for survey and exploration at dam sites.	2	*			
4. Obtain rights of entry for survey and exploration along access road.	6	*			
5. Obtain rights of entry for survey and exploration along transmission corridor.	11	*			
CULTURAL RESOURCES					
ARCHEOLOGICAL					
1. Conduct an archeological reconnaissance.	100	*	*	*	
HISTORICAL					
2. Locate, map, and describe all significant historic properties within areas of project impact.	10	*	*	*	
FIELD CAMP (FC)					
FIELD CAMP					
1. Design, construct, and operate field camp.	1,500	*	*	*	*
AIR FIELD					
2. Design and construct airstrip.	125	*			
BIOLOGICAL STUDIES (B)					
VEGETATIVE COVER.					
1. Obtain necessary aircraft/satellite imagery and utilize manual interpretive techniques and automatic data processing techniques to type vegetation within areas of project impact.	158	*	*		
STUDIES OF AQUATIC ANIMAL AND PLANT LIFE.					
2. Identify and determine project impacts on significant invertebrate species.	127	*	*		
ANADROMOUS FISHERY STUDIES.					
3. Determine relative abundance, distribution, migrational characteristics, and habitat requirements of anadromous fish within impacted areas, and locate and define the seasonal freshwater habitat requirements important to the successful migration, spawning, incubation, and rearing of these species.	1,061		*	*	*
4. Determine project effects on anadromous fish.	83				*

	Cost ($1,000)	Year 1	2	3	4
BIOLOGICAL STUDIES (B) (Cont.)					
RESIDENT FISH STUDIES.					
5. Determine relative abundance, distribution, and habitat requirements of resident fish within impacted areas, and locate habitat critical to successful spawning and rearing of these specie .	778	*	*	*	
6. Determine project effects on resident fish.	83			*	
ESTUARINE STUDIES.					
7. Identify and assess effects of altered outflow of the Susitna River upon the estuarine area in upper Cook Inlet estuary.	232		*	*	
MOOSE STUDIES.					
8. Identify and map moose habitat within impacted areas, locate critical habitat, determine habitat condition and carrying capacity, and identify water conditions associated with moose habitat.	400	*	*	*	
9. Identify moose subpopulations and determine the seasonal distribution, movement patterns, size and trend of those subpopulations within areas of project impact, and determine the timing and degree of subpopulation dependency on impacted habitat.	624	*	*	*	
10. Determine impact of project upon moose habitat and populations.	42			*	
CARIBOU STUDIES.					
11. Identify and map caribou habitat associated with alternate transmission corridors and areas subject to impoundment and determine the seasonal ranges and migration routes of caribou with emphasis on traditional migration routes with respect to the proposed impoundment areas.	126	*	*	*	
12. Determine project impacts upon Nelchina caribou herd.	15			*	
STUDIES OF OTHER MAMMALS.					
13. Inventory the number, size, territory, and other essential activity areas and determine and evaluate probable project impacts on wolf packs which inhabit areas that will be directly impacted by the project.	76	*	*	*	

	Cost ($1,000)	Year 1	2	3	4
BIOLOGICAL STUDIES (B) (Cont.)					
STUDIES OF OTHER MAMMALS.					
14. Estimate black and brown/grizzly bear populations and distribution in the project impact area and determine and evaluate probable project impacts.	49	*	*	*	
15. Determine the general abundance and distribution of wolverines in the project impact area and determine and evaluate probable project impacts.	32	*	*	*	
16. Determine the relative abundance of Dall sheep inhabiting mountains adjacent to the project impact area and delineate seasonal ranges. Determine and evaluate probable project impacts.	6	*	*	*	
17. Determine the relative abundance and distribution of fur bearer, small game, nongame, and bird species in the proposed impoundment areas and determine and evaluate probable project impacts.	20	*	*		
STUDIES OF RARE AND ENDANGERED SPECIES.					
18. Determine whether any rare and endangered species of plants, fish, birds, mammals, or other wildlife are present in the project area, and evaluate impacts of the proposed action on these species.	29		*	*	
STUDIES RELATED TO ECONOMIC VALUE OF FISH AND WILDLIFE.					
19. Determine annual harvest rates of species of fish and wildlife utilized for commercial and recreational purposes, and estimate changes expected as a result of the project. Determine importance of impacted species to regional populations.	172	*	*	*	
20. Identify and display damages to fish and wildlife in monetary terms and determine measures required to reduce or offset damages or to enhance existing habitat.	100				*
IMPACTS OF ENERGY ALTERNATIVES.					
21. Identify and describe environmental components and impacts related to each alternative identified as a possible solution to electrical energy needs.	50	*			

	Cost ($1,000)	Year 1	2	3	4
REPORTS, REVIEWS, AND PUBLIC PARTICIPATION (RRP)					
INITIAL PUBLIC INVOLVEMENT.					
1. Conduct initial public meeting with supporting public involvement activities.	15	*			
PRELIMINARY SCREENING.					
2. Prepare preliminary hydrology studies report.	3	*			
3. Prepare preliminary site selection report.	3	*			
4. Prepare preliminary environmental studies report.	3	*			
5. Prepare preliminary marketability analysis.	3	*			
6. Prepare and submit draft plan formulation report.	6	*			
7. Conduct second public meeting.	15	*	*		
REPORT PREPARATION.					
8. Prepare Hydrology appendix.	14				*
9. Prepare Power Studies appendix.	14			*	
10. Prepare Site Selection appendix.	14			*	*
11. Prepare Plan Formulation appendix.	14				*
12. Prepare Transmission Facilities appendix.	14				*
13. Prepare Access appendix.	10				*
14. Prepare Foundation and Materials appendix.	14				*
15. Prepare Real Estate appendix.	40			*	*
16. Prepare Design and Cost Estimate appendix.	20				*
17. Prepare Marketing Analysis appendix.	7			*	*
18. Prepare Environmental Studies appendix.	14				*
19. Prepare Recreation appendix.	14			*	
20. Prepare Cultural Resources appendix.	14			*	*
21. Prepare and submit draft project analysis.	50			*	
22. Prepare and submit supplemental EIS.	26				*
23. Prepare and submit Project Feasibility Analysis, Main Report.	21			*	
FINAL REPORTS AND REVIEWS.					
24. Conduct Final Review.	45				*
25. Prepare and submit revised Project Feasibility Analysis Report.	40				*
26. Prepare and submit revised Supplemental EIS.	67				*

MONTHS

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46

ADVANCED PREPARATION

PRELIMINARY SCREENING

DETAILED FEASIBILITY STUDIES

DETAILED DESIGN STUDIES

BIOLOGICAL STUDIES

HYDROLOGY STUDIES

SITE SELECTION

WATANA

FEASIBILITY STUDIES DEVIL CANYON AND WATANA

CLEARING

CAMP

ACCESS

TRANSMISSION

INITIAL MOBILIZATION

PRELIM OFFICE STUDIES

INITIAL CONTRACT ACTIVITIES

RE. 4.8.5

KEY

- ACTIVITY
- NEAR CRITICAL PATHS
- CRITICAL PATH
- RESTRAINT
- NODE, DENOTES START & FINISH OF AN ACTIVITY

SOUTHCENTRAL RAILBELT AREA, ALASKA

PROGRAM NETWORK B ACTIVITY SCHEDULE

ALASKA DISTRICT, CORPS OF ENGINEERS
ANCHORAGE, ALASKA

FIGURE 5

RECORDS CERTIFICATION

I, the undersigned, an employee of the State of Alaska, do hereby certify that the microfilm images on this microform are accurate reproductions of the original records of the State of Alaska as accumulated during the regular course of business, and that it is the established policy and practice of this State to microfilm its records and to dispose of the original records after microfilm reproductions have been made.

James O Smith
Signature of Camera Operator

3/20/90
Date

Introduced: 1/18/79
Referred: Resources and Finance

IN THE SENATE

BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

SENATE BILL NO. 62

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making supplemental appropriations to the Special Projects Office, Office of the Governor, to continue funding the Delta Agricultural Development Project; and providing for an effective date."

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

* Section 1. The sum of $8,070,600 is appropriated from the renewable resources development fund to the Special Projects Office, Office of the Governor, to continue funding the Delta Agricultural Development Project. The sum appropriated shall be allocated as follows:

(1) Final phase of clearing in the Delta Agricultural Development Project	$ 5,736,000
(2) Road construction	1,080,000
(3) Purchase fund for test marketing and transporting barley and rapeseed	900,000
(4) Administration of the Delta Agricultural Development Project	127,900
(5) University of Alaska extension services to farmers	63,200
(6) Second-year soil testing of the Delta Agricultural Development Project	78,300
(7) Miscellaneous costs	85,200

* Sec. 2. The unexpended and unobligated portion of the appropriation in sec. 1 lapses into the renewable resources development fund July 1, 1981.

* Sec. 3. The amount needed for test marketing and transporting barley and rapeseed from the Delta Agricultural Development Project, beyond the test marketing and transportation appropriated for in sec. 1 of this bill, up to $900,000 or the level of program receipts from that project whichever is lower, is appropriated from the general fund to the Special Projects Office, Office of the Governor.

* Sec. 4. The unexpended and unobligated portion of the appropriation in sec. 3 lapses into the general fund July 1, 1981.

* Sec. 5. This Act takes effect immediately in accordance with AS 01.-10.070(c).

JANUARY 26,1979

ATE-BILL #62 SPONSOR - RULES, BY REQUEST OF THE GOVERNOR

For an Act entitled: "An Act making special appropriations the the Special Projects Office, Office of the Governor, to continue funding the Delta Agriculture Development Project; and providing for an effective date.

Section 3. An additional appropriation of up to 900,000 of program receipts derived from the test marketing of the barley and rapeseed,(From the General Fund to the Special Projects Office, Office of the Governor).

SB#62 would provide the necessary funding to carry the project into Phase II.

Governor Hammond requested and received from the 1977 Legislature, an appropriation of $400,000, for thr purpose of surveying, clearing, and breaking 2,000 acres of land, and clean-up of burn residue, to test the production of feed grains on a commercial scale, and for a environmental baseline date study for the project. (FCCS HCS CSSB 355)

In 1978, the Governor requested and received from the Legislature,the sum of $4,793,000 appropriated from the renewal resources development fund for the First Phase of the Big Delta Project, including $45/acre for clearing timber off the land. Approximately 2,000 of the total 60,000 acres were cleared as a result.(HCS CSSB 413)

On August 5,1978, a state lottery was held in which 22 persons were selected for tracts of the project, approximately 2,700 acres in size. 21 of the 22 Farmers decided to clear their own land and will be paid 150/acre depending on this legislation(SN#62). Included in the appropriations requested, is 5,736,000 for the final stage of clearing the land.

FISCAL IMPLICATIONS

A loan will soon be made for the construction of the first phase of the needed elevator facilities to be in operation by the private sector in the fall of 1980.

Initial loans for land-clearing equipment have been made from the Small Business Loan Fund. Additional funding for farm equipment, buildings and operating cost will be needed from the Agriculture Revolving Loan Fund. Legislation is being introduced to raise the capitalization ceiling on the Agriculture Loan Fund and also the ceilings on individual loans. The loan fund must then receive appropriations sufficient to meet the capital requirements of the agriculture community unless other sources of financing can be arranged.At least three such potential sources are currently inder investigation.

*The level of expectation and enthusiasm for the success of the Delta Agriculture Development Project is very high among the farmer participants as well as the "AD HOC" committee that put it together. This success will mean livestock feed grains will be available to Alaskan farmers at world competitive prices rather than the present price of Seattle plus freight--which almost doubles the price(S90 versus S160/ton).

AS SOON AS THE PRIVATE SECTOR IS PREPARED TO MARKET THE AGRICULTURE PRODUCTION, STATE INVOLMENT IN THE PROCESS WILL CEASE.

Jerrold Watts, 1-26-79

SENATOR SUMNER:

RE: SENATE BILL #62 TO BE HEARD ON JANUARY 26, 1979

A BREAKDOWN OF THE APPROPRIATIONS

CLEARING:	58,000 arces @ $142=$8,236,000 less $2,500,000 (1979 budget)	$5,736,000
ROAD CONSTRUCTION	18 Miles @ 60,00/mile	1,080,000
PURCHASE FUND FOR TEST MARKETING AND TRANSPORTATION 7,500 TONS OF BARLEY 300 TONS OF RAPESEED TRANSPORTATION @ $75,000		900,000
ADMINISTRATION		127,900

Carney	$36,000
Pollock	41,000
Fringe (25%)	19,000
Travel	11,000
Other	19,000
	$127,000

EXTENSION SOIL TESTING		63,200
MISCELLANEOUS		85,200
a. Grain Conveyor	$20,000	
b. Forage Cubing and Drying	22,000	
c. Market Development	25,000	
d. Travel and Per Deim (Trips to the Orient, Vancouver and Portland)	18,000	
	85,200	
SOIL TESTING - SECOND YEAR		78,300
****TOTAL WITH CLEARING		$8,070,600

IN THE ORIGINAL BUDGET - $300,00 was proposed for the Surveying of New Areas for Development. It was taken out of the Appopriation request.***

THE DIVISION OF LANDS IS PROPOSING A LAND DISPOSAL IN AND AROUND THE PROJECT AREA FOR SOMETIME ON THE SPRING. TO DO SO WOULD BE IN DIRECT CONFLICT WITH THE DEVELOPMENT PROJECT. THE SPECIAL PROJECTS OFFICE SUGGESTED THAT THEY(LANDS) POSTPONE THE DISPOSAL UNTIL THE CLEARING OF THE LAND HAS BEEN COMPLETED, LAND RESPONSE- THEY ARE UNDER PRESSURE TO RELEASE STATE LANDS AS SOON AS POSSIBLE AND THE DELTA JUNCTION AREA HAS LANDS THAT HAVE ALREADY BEEN SURVEYED THEREFORE WAS AN OBVIOUS CHOICE. THERE COULD, IN THE FUTURE, BE CONFLICT CONCERNING THE DELTA LANDS, UNLESS THE PEOPLE GETTING THE HOMESTEAD LANDS ARE ARE MADE ACUTELY AWARE, THAT THEY, WILL BE MUCH IN THE MIDST OF A 60,000 ACRE BARLEY AND RAPESEED FARM WITH DUST, INSECTICIDES AND PESTICIDES, IN SOME AREAS.

BOTH THE SPECIAL PROJECTS OFFICE (BOB PALMER) AND THE DIVISION OF LAND OFFICE(TED SMITH ARE AWARE OF THE PROBLEM AND THE FACT THAT THIS BILL HAS BEEN INTRODUCED.

JERROLD WATTS 1-25,79

STATE OF ALASKA

THE LEGISLATURE

BUDGET AND AUDIT COMMITTEE

FINANCE DIVISION
POUCH WF-STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

February 12, 1979

M E M O R A N D U M

TO: Representative Ernie Haugen
House Finance Committee

FROM: L. H. Logan, Director
Legislative Finance Division

SUBJECT: RRDF Appropriations

The following list sets out the FY 79 projects funded by appropriations from the Renewable Resources Development Fund:

NATURAL RESOURCES

Big Delta Agricultural Development Project	Ch. 171	$4,793,000
Cadastral Land Surveying (Homestead Act)	Ch. 113	$2,027,400
Pilgrim Hot Springs Geothermal Project	Ch. 163	$ 245,000
Agricultural Loan Fund	Ch. 113	$ 200,000
		$7,265,400

FISH AND GAME

Kodiak Shellfish Pots	Ch. 113	$ 36,000
Tutka Lagoon Bunkhouse	"	100,000
East Creek Bunkhouse	"	150,000
Kenai Salmon Trap Study	"	50,000
Water Source Inventory	"	60,000
Arctic Inventory Airplane	"	75,000
Deer Mt. Hatchery Equipment	"	82,700
Hidden Falls Hydro Project	"	650,000
Beaver Falls Rearing Expansion	"	76,000
		$1,279,700

Representative Ernie Haugen

February 8, 1979

REVENUE

Commercial Fish/Agriculture	Ch. 113	$2,000,000
Bank-fiscal note funding	Ch. 159	
		$2,000,000
		$10,545,100

JHH:pw

MEMORANDUM

Alison Farnan
Jay Hogan

TO: Senate Resources Committee

DATE: January 29, 1979

FILE NO:

TELEPHONE NO:

FROM: Bob Palmer
Special Projects Coordinator
Office of the Governor

SUBJECT: Senate Bill 62 - Supplementation Appropriation for the Delta Barley Project

Here is additional back-up material for Senate Bill No. 62.

It was my understanding that this material had been submitted with the legislation, but apparently that was in error.

Attachment

Note:

The items for pesticide and herbicide research are included as a result of the Senate Resources Committee in their discussion of the bill at the hearing on January 26.

Test Marketing

$900,000 for purchase of grain in 1979 for test marketing. This will enable purchase of 7,500 tons of barley and 500 tons of rapeseed. The purchase fund is returned when the purchased products are sold. Of the 7,500 tons of barley produced, approximately 2,500 tons will be of high quality and available for export sale if such sale is necessary to keep open export market channels. Eighty percent of the rapeseed will be exported, since there is no local market.

Administration

Salaries:		
	Pollock	$41,820
	Carney	36,120
Fringe (25%):		19,485
Travel:		11,000 *
Other (Office and supplies):		19,500
TOTAL		$127,925

Extension Service

$63,178

Pays salary, travel, fringe and all related costs for a full-time farm extension agent for the Delta area. A contract with the U of A will be explored as a means of coordinating this program with their extension program.

Explanation:

a. Grain conveyors would be purchased to provide capability of handling grain in Delta for both local and export trade, and at the port to load vessels.

b. To determine economic and technical parameters of use of existing and future heat sources, off grades of field crops, and other material to manufacture forage cubes and pellets.

c. Market development. $25,000 for market consultant and $18,200 for the U of A, travel and State's contribution for a symposium next year. This amount may be matched by a Federal grant. The market consultant and U of A contracts include local and export market work, establishment of feed trials and coordination of market efforts with Federal agencies.

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

Test Marketing

$900,000 for purchase of grain in 1979 for test marketing. This will enable purchase of 7,500 tons of barley and 500 tons of rapeseed. The purchase fund is returned when the purchased products are sold. Of the 7,500 tons of barley produced, approximately 2,500 tons will be of high quality and available for export sale if such sale is necessary to keep open export market channels. Eighty percent of the rapeseed will be exported, since there is no local market.

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Pays salary, travel, fringe and all related costs for a full-time farm extension agent for the Delta area. A contract with the U of A will be explored as a means of coordinating this program with their extension program.

SENATE BILL NO. 62

Fiscal Note Information

Clearing

$5,736,000

The $2.7 million appropriated from SB 413 last year was earmarked for the first phase of the clearing of the tracts. This amount ($5,736,000) is to complete the clearing, through final berm burning and clean-up. Use of the total $8,436,000 is as follows:

Contract Administration	$200,000
Clearing Contracts 49,915 acres @ $165	$8,236,000

Contracts are administered through the Delta Project under the Office of the Governor, Special Projects Office. All costs will be returned to the State through already signed repayment agreements by the farmers.

Note: The acreage figure stated above is the best available estimate of acreage to be cleared. The performance contract calls for clearing of at least 90 percent of the Class II and Class III soils on each tract. Until more detailed soil surveys are completed, the exact acreage of Class II and Class III soils will not be known.

Road Construction

Eighteen miles of road to be constructed for farm access within the project, to Local Roads and Service Trails Specification, with a 12" gravel surface. Cost is estimated by the Department of Transportation at $60,000 per mile, or $1,080,000 for the project. Construction will be through DOT.

Explanation:

a. Grain conveyors would be purchased to provide capability of handling grain in Delta for both local and export trade, and at the port to load vessels.

b. To determine economic and technical parameters of use of existing and future heat sources, off grades of field crops, and other material to manufacture forage cubes and pellets.

c. Market development. $25,000 for market consultant and $18,200 for the U of A, travel and State's contribution for a symposium next year. This amount may be matched by a Federal grant. The market consultant and U of A contracts include local and export market work, establishment of feed trials and coordination of market efforts with Federal agencies.

Pesticide and Herbicide Research	Professional pesticide specialist (12 mos.)	$31,900
	Technician/Grade 12	19,500
	Two months' clerical	2,700
	Staff benefits	11,900
	Travel, Contractual services	800
	Commodities	1,000
	Equipment, Pick-Up, Miscellaneous	8,500
	TOTAL	$78,500

Soil Testing

Extensive soil testing will be necessary to accurately determine the acreage of Class II and Class III soils and to measure soil nutrient availability as the Delta Junction farm soils change from permafrost to productive agricultural soils.

Commercial fertilizers will be the single largest annual operating expense. The rate and nutrient mix of the fertilizer application must be based on scientific evaluation of the existing soil fertility, not guesses.

Miscellaneous	a. Grain Conveyors $10,000 each	$20,000
	b. Forage Cubing and Drying	22,000
	c. Market Development Work	43,200
	TOTAL	$85,200

SB 62

January 17, 1979

President of the Senate
Alaska State Legislature
Juneau, Alaska 99811

Dear Mr. President:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a supplemental appropriation bill to provide the necessary funding to carry forward the Delta Agricultural Development Project. Since Phase I of the land clearing funded by Chapter 171 SLA 1978, is likely to be completed and Phase II begun before July 1, 1979, I am submitting this legislation in the form of a supplemental appropriation. Allocations in sec. 1 of the bill are as follows:

1. The $5.736 million figure is an estimate based on the best available information.

2. Road construction costs are calculated on the basis of $60,000 per mile (from the Department of Transportation, Fairbanks Office) times 18 miles.

3. The $900,000 requested for test marketing of barley and rapeseed will be recaptured, except for the transportation cost from farm to tidewater, and returned to the General Fund.

4. Administration costs are as detailed. A staff person presently in the Department of Commerce and Economic Development would transfer to the Special Projects Office to assume operational management of the Delta Project. Another person has been hired as an elevator and marketing specialist to oversee the design construction and development of the storage, transportation, and test-marketing system.

5. Growing conditions are sufficiently different between Fairbanks and Delta Junction, and the 200-mile round-trip travel poses so large a

penalty, that it is necessary to have an Extension Service office located in Delta Junction.

It will be extremely important to the new farmers of the area that they have the best available crop-growing information readily available. An Extension Service office in the area is a necessity.

6. Extension soil testing will be necessary as the Delta Junction farm soils change from permafrost to a producing soil. Commercial fertilizers will be the single largest annual operating expense. The rate and nutrient mix of the fertilizer must be based on scientific evaluation of the existing soil fertility -- not guesses.

7. Miscellaneous expenses including contractual, marketing, travel and equipment.

Section 3 of the bill will appropriate up to an additional $900,000 of program receipts derived from the test marketing of the barley and rapeseed. This second $900,000 will provide for further marketing and transportation. It is anticipated that a large portion of it too will be recaptured.

Sincerely,

5/85H

Jay S. Hammond
Governor

DELTA BARLEY HISTORY

This year's legislation contains the same contingent appropriation (Sec. 3) that the Finance substitute took out of last year's bill. Palmer doesn't want it there. Appropriates all program receipts from sale.

SB 413 - Last year's bill started at $4,793,000
Finance added *350,000 (House took it back out and put cont.approp. back in)

*To increase "grain storage facilities" from 1.0 to 1.35.
This was the amount covered by the contingent appropriation
Finance Committee substitute $5,143,000

Senate Resources had taken out "electricity in Delta Jct" $500,000 and put in "test marketing grain" $350K and environmental studies $150K. They also put in the contingent appropriation

File includes discussion of bid waiver Bob Palmer got to hire Dennis Gran & Sons to clear land. $220,000 contract.

SB 414 - Agricultural Revolving Loans asked for $500,000 for loans to Delta farmers.
This got as far as a conference committee and died.

Last year's appropriation was to the Agricultural Development Authority/Dept. of Natural Resources. This year it's to Bob Palmer.

1977 got 400,000 for clearing, survey, etc.

Cathy
Put this in SB62 File
Delta-Bulldog Addition

This years legislation contains the same contingent approp. ition (sec 3.) that the Finance substitute took out of last years bill. Palmer doesn't want it there. Appropriates all program receipts from sale

SB 413

Last years bill started at $4,793,000
Finance added * 350,000 (House took it back out & put cont. approp. back in)

*To increase "grain storage facilities" from 1.0 to 1.35 This was the amt. covered by the contingent appropriation

Finance comm. substitute $5,143,000

Senate Resources had taken out "electricity in Delta Jct" and put in "test marketing grain" $350K & Environmental studies $150K. They also put in the contingent appropriation.

$500,000

File includes discussion of bid waiver Bob Palmer got to hire Dennis Fran & Sons to clear land. $220,000 contract.

War Johnson Conf. Com.

SB 414

Ag. Revolving Loans asked for $500,000 for loans to Delta farmers.
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Last years approp. was to the Agricultural Develop. Auth. (Dept. of Nat. Res. This year its to Bob Palmer.

1977 got 400,000 for clearing, survey, etc.

COMMITTEE REPORT

SENATE

3/1/79

FURTHER: None

Date: March 10, 1979

Mr. President:

The Committee on FINANCE has had SB 62

supplemental appropriations to Special Projects Office, Office of Governor, to fund Delta Agricultural Development Project

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 SB 62 - Finance [ ] same title [ ] new title

and recommends individual recommendations.

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

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING
DO PASS

Holman

Hammond DO PASS

Lee Knutt

MEMBERS HAVING
OTHER RECOMMENDATIONS:

Lucky Do not pass Hammond

John Jacobs DO PASS
CHAIRMAN

S 60 (Rev. 12/78)

Original sponsor: Rules/Governor

Offered: 3/12/79
Referred: Rules

Funding Information

General Fund	-0-
Other Funds	$8,620,803
	$8,620,803

IN THE SENATE BY THE FINANCE COMMITTEE

CS FOR SENATE BILL NO. 62 (Finance) am

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making supplemental appropriations to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project; and providing for an effective date."

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

* Section 1. The sum of $4,000,000 is appropriated from the general fund and $4,070,803 from the renewable resources development fund to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project. The sum appropriated shall be allocated as follows:

(1) Final phase of clearing in the Delta agricultural development project	$ 5,736,000
(2) Road construction	1,080,000
(3) Purchase fund for test marketing and transporting barley and rapeseed	900,000
(4) Administration of the Delta agricultural development project	127,925
(5) Extension services to farmers	63,178
(6) Pesticide and herbicide research	78,500
(7) Miscellaneous costs	85,200

* Sec. 2. The sum of $400,000 is appropriated from the renewable resources development fund to the special projects office, Office of the Governor, to be paid as a grant to the Koyukon Development Corporation for expansion of farm projects.

* Sec. 3. The sum of $150,000 is appropriated from the renewable resources development fund to the special projects office, Office of the Governor, to be paid as a grant to the Kuskokwim Native Association for expansion of farm projects.

* Sec. 4. The unexpended and unobligated portion of the appropriations made in this Act lapse into the renewable resources development fund June 30, 1981.

* Sec. 5. This Act takes effect immediately in accordance with AS 01.-10.070(c).

Draft

Original sponsor: Rules/Governor

Funding Information

General Fund	$8,620,803
Other Funds	-0-
	$8,620,803

IN THE SENATE BY THE FINANCE COMMITTEE

CS FOR SENATE BILL NO. 62 (Finance)

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making supplemental appropriations to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project; and providing for an effective date."

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(2) Road construction	1,020,000
(3) Purchase fund for test marketing and transporting barley and rapeseed	900,000
(4) Administration of the Delta agricultural development project	127,925
(5) Extension services to farmers	63,178
(6) Pesticide and herbicide research	78,500
(7) Miscellaneous costs	85,200

* Sec. 2. The amount expended for test marketing and transporting barley and rapeseed from the Delta agricultural development project which exceeds the amount appropriated for test marketing and transportation in sec. 1 of this Act, not to exceed $900,000 or the amount of program receipts from that project, whichever is less, is appropriated from the general fund to the

special projects office, Office of the Governor.

* Sec. 3. The sum of $400,000 is appropriated from the general fund to the special projects office, Office of the Governor, to be paid as a grant to the Koyukon Development Corporation for expansion of farm projects.

* Sec. 4. The sum of $150,000 is appropriated from the general fund to the special projects office, Office of the Governor, to be paid as a grant to the Kuskokwim Native Association for expansion of farm projects.

* Sec. 5. The unexpended and unobligated portion of the appropriations made in this Act lapse into the general fund June 30, 1981.

* Sec. 6. This Act takes effect immediately in accordance with AS 01.-10.070(c).

Debts

		Names of Farmers	
100	Land Clearing	2-28-Balance	2,212,747
	3/5	Ferguson	18,000
		Buck	24,921
		Karr	26,343
		D. Crean	9,057
		~~[illegible]~~	~~[illegible]~~
	3/9	Boyd	24,345
		Helkens	23,670
	3/13	Bannon	24,768
		Emery	14,751
		Carlson	23,409
		Buck	6,588
		D. Crean	20,530
		Fett	22,060.80
		Ferguson	18,000
			$ 1,906.304.20

Janet Crean says $288,000 was paid in Feb. to the above farmers also -- she doesn't have the breakdown on that now but can get you one today.

There are about 40 farmers involved in this so far.

☆

3B 14

Original sponsor: Rules/Governor

SB 114

Funding Information
General Fund -0-
Other Funds $8,620,803
$8,620,803

IN THE SENATE BY THE FINANCE COMMITTEE

CS FOR SENATE BILL NO. 62 (Finance)

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making supplemental appropriations to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project; and providing for an effective date."

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

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(2) Road construction	1,080,000
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* Sec. 3. The sum of $150,000 is appropriated from the renewable

resources development fund to the special projects office, Office of the Governor, to be paid as a grant to the Kuskokwim Native Association for expansion of farm projects.

* Sec. 4. The unexpended and unobligated portion of the appropriations made in this Act lapse into the renewable resources development fund June 30, 1981.

* Sec. 5. This Act takes effect immediately in accordance with AS 01.-10.070(c).

COMMITTEE REPORT

SENATE

FURTHER: Finance

1/18/79

Date: _____

Mr. President:

The Committee on RESOURCES has had SB 62
supplemental appropriations to Special Projects Office, Office of Governor, to fund Delta Agricultural Development Project

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 SB 62 [X] same title [ ] new title

and recommends DO Pass with Individual Recommendations

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

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING
DO PASS

/ Meland

2/ Kuffel Pass with attached SB 14 with changes in language as amended

/ Boatwright

/ Boylan

/ Dahl

MEMBERS HAVING
OTHER RECOMMENDATIONS:

/ Lee Vice Chairman
CHAIRMAN

S 60 (Rev. 12/78)

January 17, 1979

President of the Senate
Alaska State Legislature
Juneau, Alaska 99811

Dear Mr. President:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a supplemental appropriation bill to provide the necessary funding to carry forward the Delta Agricultural Development Project. Since Phase I of the land clearing funded by Chapter 171 SLA 1978, is likely to be completed and Phase II begun before July 1, 1979, I am submitting this legislation in the form of a supplemental appropriation. Allocations in sec. 1 of the bill are as follows:

1. The $5.736 million figure is an estimate based on the best available information.

2. Road construction costs are calculated on the basis of $60,000 per mile (from the Department of Transportation, Fairbanks Office) times 18 miles.

3. The $900,000 requested for test marketing of barley and rapeseed will be recaptured, except for the transportation cost from farm to tidewater, and returned to the General Fund.

4. Administration costs are as detailed. A staff person presently in the Department of Commerce and Economic Development would transfer to the Special Projects Office to assume operational management of the Delta Project. Another person has been hired as an elevator and marketing specialist to oversee the design construction and development of the storage, transportation, and test-marketing system.

5. Growing conditions are sufficiently different between Fairbanks and Delta Junction, and the 200-mile round-trip travel poses so large a

penalty, that it is necessary to have an Extension Service office located in Delta Junction.

It will be extremely important to the new farmers of the area that they have the best available crop-growing information readily available. An Extension Service office in the area is a necessity.

6. Extension soil testing will be necessary as the Delta Junction farm soils change from permafrost to a producing soil. Commercial fertilizers will be the single largest annual operating expense. The rate and nutrient mix of the fertilizer must be based on scientific evaluation of the existing soil fertility -- not guesses.

7. Miscellaneous expenses including contractual, marketing, travel and equipment.

Section 3 of the bill will appropriate up to an additional $900,000 of program receipts derived from the test marketing of the barley and rapeseed. This second $900,000 will provide for further marketing and transportation. It is anticipated that a large portion of it too will be recaptured.

Sincerely,

5/8SH

Jay S. Hammond
Governor

Dineega Corporation

Box 28
Ruby, Alaska 99768
February 7, 1979

Jimmie Farmer
Koyukon Development Corporation
Box 29
Galena, Alaska 99741

Dear Jimmie;

The Dineega Corporation is a strong supporter of your proposal for Basic Subsistence Arctic Agriculture for Native Alaskans. This proposal will help us gain the necessary skills to cope with a changing way of life. We find ourselves being rapidly thrust into an environment that is unfamiliar and even frightening. Our former way of life is disappearing. The caribou have disappeared, the moose is rapidly declining, subsistence fishing is being cut back each year, and pressures from many sources are reducing-trapping-- our main source of income. We need the skills to cope with an additional means of support. Subsistence Agriculture is the answer here in Ruby. It fits into our way of life and allows us to live with dignity and harmony with the world about us that traditionally has been a part of our culture and heritage. I speak for my people when I say that we need help to make this change. I view this proposal as a means to help us help ourselves. My people will be the teachers in the same way that we were taught to by our fathers to hunt, fish, and trap. Now we will have the way to teach ourselves subsistence agriculture in a manner that is adaptable to our way of life.

The Galena Regional Learning Center has worked with my people for the past two summers. I let them use part of my native allotment of land at six mile. The first year the perma-frost was twelve to fourteen inches down. They grew potatoes, carrots, redishes, lettuce, peas, and many other vegetables. Oats, barley, wheat and rye grass grew in test plots. This past summer oats, barley and rye grass was planted on the first years clearing. I could not dig to perma-frost. There is enough hay and grain to feed a beef calf supplied by the University of Alaska's Agriculture Experimental Farm at Fairbanks. Additional pellets were bought to supplement his feed. I grew potatoes on newly cleared perma-frost ground at six mile this past summer. I got a good yield. I want to build a root cellar next summer to keep my vegetables all winter. The whole village wants to learn! Last summer every family but one had a garden. The results were real good for the first year. The food we raised has allowed us to use the little bit of money that we make for other things. We can preserve fish and meat for winter use; now we need to know how to keep vegetables. Your proposal will do this three [illegible] from now.

We need a study and a planning [illegible] our area so we will know what we have and where and how we should cope [illegible] changes. We need to move forward at the same time with the start the Galena Regional Learning Center has made in our area. Please write to the University of Alaska and ask them to put more people and resources into the Galena Regional Learning Center during the summer months so that they can furnish adequate help to those who are requesting it. I know our present demands are too great for the amount of people they have.

Dineega Corporation

Box 28
Ruby, Alaska 99768

They need some time for their families. You may use my letter when you write to them.

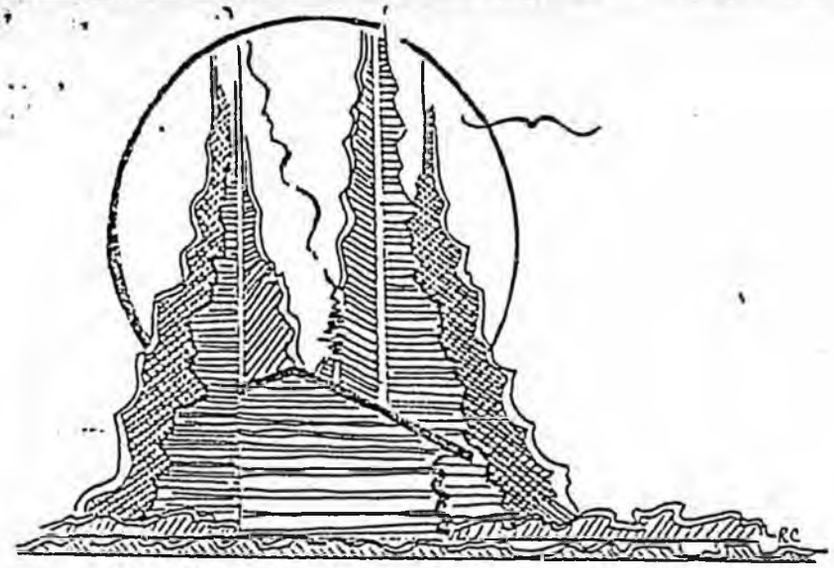
Clara and I are raising twelve children. Most families in this area are large. Like the rest of my people we have always been able to make a living on our own. We want our children to have the necessary skills that will allow them to cope with the world about them and live in harmony with all. Education, that is adaptable to our way of life, will allow this.

We, of Dineega, wholeheartedly support your proposal to use the University of Alaska's Learning Center at Galena to help us help ourselves.

Yours truly,

Donald V. Honea Sr.

Donald V. Honea Sr., President
Dineega Corporation



The Village Gardener

Vol. 1 - No. 1 NOVEMBER

Jack Utton, Director Natural Resources
Morris Morgan, Agriculture Specialist
Roy Corral, Publications

HELLO!

This is the first of many newsletters we will be sending during the winter to keep in touch with you. We hope you will keep these articles for future use. If you have some hints, ideas, or gardening know-how that you would like to share with us and other gardeners throughout the Tanana Chiefs region, please write us and we will include them in the newsletter.

Winter is often a good time to begin planning for the summer gardening projects which you may want to start. We hope this newsletter will give some helpful hints and we will include some articles on such things as seedbed preparation, fertilizing, transplanting, canning, watering/irrigation, as well as nutrition and recipes, just to name a few.

Remember, in another month we will be getting more daylight again! So, it's really not too early to begin thinking about that summer garden.

****

A new hit song (our own brand of corn!): "And the Beet Grows On"

ROOT CELLARS

It has come to our attention that some people have made root cellars. We would like to include an article "How To Make A Root Cellar" in our next newsletter, so please contact us if you have made one and would like to share your design. Any kind of drawings or directions will be very much appreciated. Our address appears on the back page.

****

NUTRITION AT BREAKFAST
by Anna Frank
Health Educator

How many times have you heard the advice to eat a good breakfast to start a good day? At least a thousand times; but, whoever said that breakfast had to be juice, toast, coffee, eggs, or cereal?

Breakfast can be almost any nutritious food. If you're lucky to be able to get eggs but are tired of them, try something else like fish and potatoes. The breakfast I like is cooked rolled oats (mush) and dried fish. How about cooked hot rice and raisins, milk, and sugar. (Cont. page 2)

"Agriculture seems to be the most viable industry to be developing here in interior Alaska. Our soil is prime and the "spirits" are willing. There would be strong support for agricultural development. It's seasonal work, so it would fit into our schedule of fishing, trapping, and hunting, like the Indians of old."

---Dee Olin
Mayor
Ruby, Alaska

SEASONINGS, SPICES, AND HERBS

To make vegetables taste better and take the humdrum out of ordinary vegetable dishes, you might try experimenting with the different kinds of spices. Some of these spices can be grown right in your own garden this summer. There will be more about that later.

Spices and herbs must be used in small amounts or they might overpower the natural flavor of the vegetables. One-fourth (¼) to about one-half (½) teaspoon of most dried spices and herbs is enough for about 2 cups of vegetable.

Here are some ways to combine vegetables and spices to make some good tasting meals:

Vegetable	Spice or Herb
Potatoes	Basil, bay leaves, caraway seed, dill, chives, oregano, thyme, cr mustard seed.
Tomatoes	Basil, bay leaves, celery seed, sage, sesame seed, thyme, or tarragon.
Onions	Carraway seed, sage, thyme, nutmeg, or mustard seed.
Cabbage	Dill, mint, nutmeg, savory, tarragon, carraway seed, or celery seed.
Peas	Basil, dill, sage, mint, marjoram, and oregano.

****

(Continued) NUTRITION by Anna Frank

Whatever you want for breakfast, whether the traditional or something unusual, be sure to eat before you start your day. Studies have shown that people who eat a good meal before starting their day get more done than those who skip breakfast or eat a poor one. Some people skip breakfast because they are in a hurry, or they think they can take off a few pounds by missing a meal, or are bored with their food.

Better breakfast build better bodies, so eat some breakfast every day.

STORING FRESH VEGETABLES

Even under perfect conditions, with the right humidity, most fresh vegetables will only last for a few days. Green leafy vegetables (spinach, collards, kale, etc.) quickly wilt and change flavor if allowed to sit in warm places; but, will keep well and stay crisp if put in covered containers or plastic bags and stored in a cool place. Be sure to drain the water off vegetables after washing to avoid decay. Also always sort through vegetables before storing and do not store good fresh vegetables with those beginning to turn soft.

To get the best out of fresh green vegetables, they should be used according to the following time period:

Beans	2-3 days
Beets	2 weeks
Broccoli, brussel sprouts	3-5 days
Cabbage	1 or 2 weeks
Carrots	2 weeks
Cauliflower	1 week
Celery	1 week
Cucumbers	1 week
Greens (spinach, kale, collards, chard, beet, turnip, and mustard greens)	3-5 days
Lettuce/salad greens	1 week
Onions	3-5 days
Radishes	2 weeks
Squash(summer)	3-5 days

****

LONG, LONG AGO.....

More than 4000 years before the whiteman came to the American continent, the Native Americans had domesticated plants and were farming. When Europeans arrived they found great cities supported by very intensive gardening techniques. Tenochitlan or present day Mexico City is one example where hundreds of thousands lived in a city environment and were fed by local gardeners.

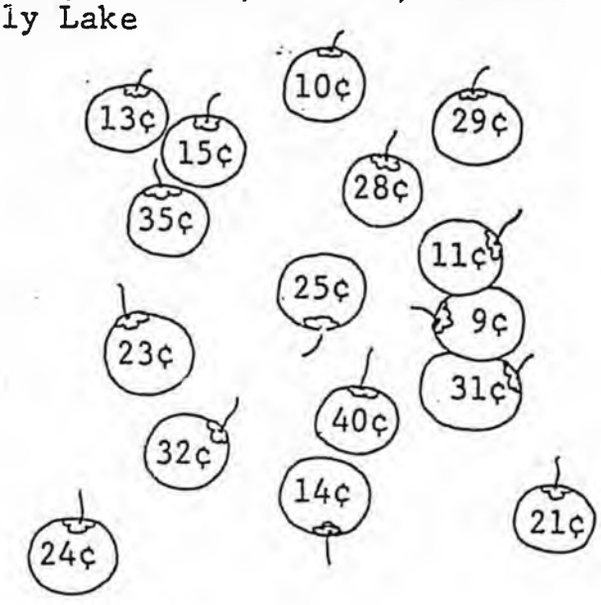
The Native American has always lived in harmony with the forces of nature. He has understood the weather, the animals, plants, and all those forces around him. Before the whiteman came to the Americas, he was supporting most of his people with agriculture. The American Indian was probably the world's best farmer. It is a heritage, the nature of which the Native can be proud.

$$$$$$$$$ IN YOUR YARD!

A pound of food you produce in your garden saves you the price in Fairbanks plus the cost of freight per pound to your village.

Can you match the cost of freight with your village? The prices scattered about on the right will let you find what each pound of food flown in from Fairbanks costs you.

Tanana	Tanacross	Telida, Takotna, Medfra, Nikolai
Galena	Northway	Healy Lake
Ruby	Eagle	
Minto	Dot Lake	
Manley	Bettles/Evansville	
Nenana	Allakaket	
Lk. Minchumina	Alatna	
McGrath	Ft. Yukon	
Koyukuk	Chalkyitsik	
Nulato	Arctic Village	
Kaltag	Venetie	
Huslia	Birch Creek	
Hughes	Circle	
Central	Beaver	
Rampart	Stevens Village	
Tetlin	Holy Cross	
Tok	Grayling	
Anvik	Shageluk	



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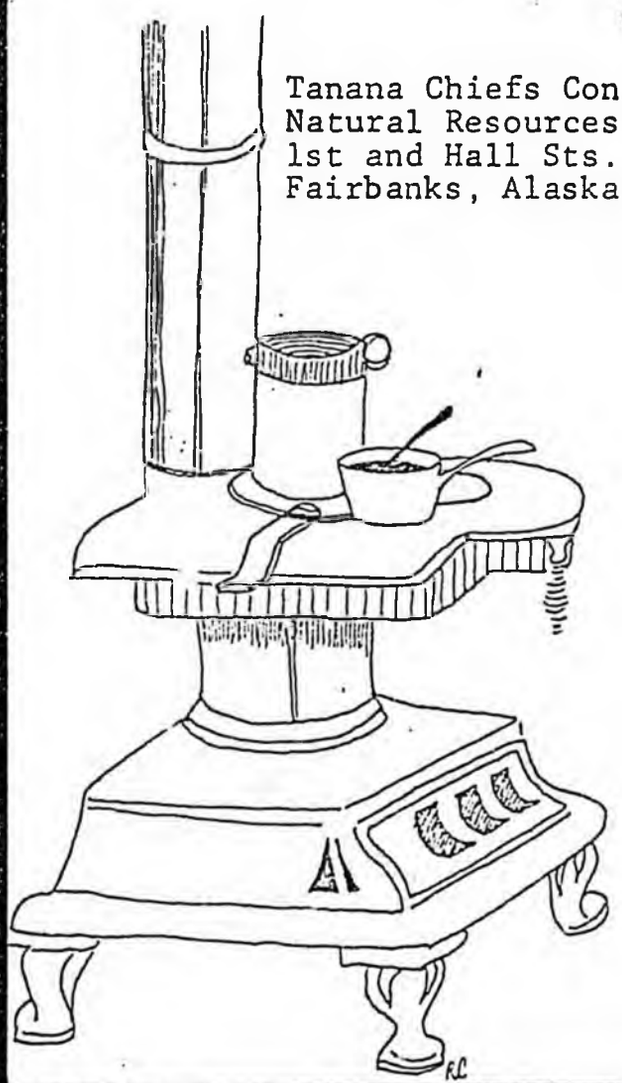
Tanana Chiefs Conf., Inc.
Natural Resources Dept./Agriculture
1st and Hall Sts.
Fairbanks, Alaska 99701



ADDRESS:

NATURAL RESOURCES DEPARTMENT

AGRICULTURE PROGRAM

What we've done:

In fiscal year ending September 30, 1978, the Agricultural program of the Natural Resources Department of the Tanana Chiefs Conference, Inc. provided assistance to twenty two villages. Seven rototillers were distributed, as were 2000 pounds of seed potatoes, 1500 pounds of fertilizers, garden seeds and hand tools.

This work was accomplished with funds from an Agricultural Extension grant and funds from the Agriculture Program.

The extension grants provided monies for the purchase of hardware as well as seed and fertilizers. Staffing for an Agriculture Specialist and summer assistant came from the Agriculture Program. This funding allowed follow-up work that increased the effectiveness of the Extension funds, led to an increased knowledge of the total problems of local food productions, and provided direct assistance in agriculture to Native Allottees and to the villages. The "on site" field work has pointed the way for our program to proceed.

As a result of this help many new gardens were evident. These numbered approximately 80 gardeners who had never gardened before, and revived many garden plots of people who have previously gardened. The primary volume was in potatoes with approximarely 17,000 pounds produced. Essentially $300.00 worth of seed produced over $10,000.00 worth of potatoes. An added expense of $450.00 for fertilizer and $900.00 freight all added up to a total expense of $1650.00 to produce in excess of $10,000.00 worth of potatoes not to mention the value of the vegetables produced. Fresh vegetables cost 89¢ per pound in Fairbanks (some over $1.00/pound) and if you add the cost per pound for flying these to the villages the value of the food produced locally in the initial year amounts to over $20,500.00 for the 22 villages involved. Average vegetable production per garden was low because of bad gardening year and many untrained gardeners, but even so, of the average of 110 gardens surveyed the amount of vegetables produced other than potatoes was 86 pounds per garden or $10,595.20 valued at $1.12 per pound. This was produced against heavy odds and can be considered a good success with better yields to come and better cost-benefit ratio when seed potatoes are produced locally.

The staff of the Agricultural Program was actively involved in ground breaking, fertilizing, planting, cultivation, weeding and harvesting of the past years gardens. There was little involvement in food preservation. This must be remedied by a training program in food preservation techniques. Plans are to institute such in the coming year.

A photo file has been started in order to help in training and record progress. A mailing list of the interested Native gardeners has been compiled and a newsletter entitled "THE VILLAGE GARDENER" is being mailed to them.

On site visits were made to 25 villages and discussion were held with gardeners regarding problems and potentials. From these interviews the mailing list was compiled.

A food price survey was made in sixteen villages. This survey was undertaken in order to assist us in an understanding of village food costs.

A Resolution
of the Tanana Valley Rural Development Council
Unanimously adopted and Passed at the February meeting.

WHEREAS, due to Alaska's geographic position which puts it at the end of a long and expensive transportation net, and

WHEREAS, at present great quantities of fossil fuels are used for this transportation, and

WHEREAS, there exists in Alaska a need to produce foodstuffs and other agricultural products locally to save transportation and fossil fuel costs, and to enhance the self-reliance of Alaska, and

WHEREAS, national or international emergencies, labor disputes, fuel and material shortages, crop failures and other factors outside of Alaska can further disrupt normal supply lines and can create serious shortages of food in Alaska, resulting in human wants, and

WHEREAS, it has been demonstrated and documented that many vegetable, grain and forage crops have been grown with success in Alaska for many decades, and

WHEREAS, that although there are risks involved in any agricultural pursuit, these risks can be greatly reduced by a thorough knowledge of scientific agriculture.

THEREFORE, be it resolved that vocational agricultural training be incorporated into the high school curriculum in appropriate areas of the state of Alaska.

RESOLUTION

Whereas:

The high cost of food places a burden on villagers.

Whereas:

There exists the possibility to produce food in garden plots.

Whereas:

The production and preservation of food would lower the food bills of villagers.

Therefore be it resolved that the Village of _____ requests assistance in gardening from the Department of Natural Resources of the Tanana Chiefs Conference, Inc.

SPECIFIC ASSISTANCE NEEDED

Item	Number/Amount
Rototiller	Limit 1
Potatoe Seed	_____ lbs.
Fertilizer	_____ lbs.
Garden Seed Assort.	_____ no. of families
Irrigation Equipment	Needed ____ Not Needed ____
Other Equipment or Assistance needed	_____

Signed: _____

Note:

This resolution is typical of the many resolutions received from Village Councils.

We have on file Village Council requests for gardening assistance involving 375 families.

March 7, 1979

Marie Morgan

* Sec. 3. The sum of $400,000 is appropriated from the general fund to the special projects office, Office of the Governor, to be paid as a grant to the Koyukon Development Corporation for expansion of farm projects.

* Sec. 4. The sum of $150,000 is appropriated from the general fund to the special projects office, Office of the Governor, to be paid as a grant to the Kuskokwim Native Association for expansion of farm projects.

* Sec. 5. The unexpended and unobligated portion of the appropriation in sections 1, 2, 3, and 4 of this Act lapse into the general fund June 30, 1981.

Delete current Sec. 2.

Change current Sec. 3 to Sec. 2.

Change current Sec. 4 to above Sec. 5.

Change current Sec. 5 to Sec. 6.

Funding Information

General Fund	$8,620,803
Other Funds	-0-
	$8,620,803

CS SB 62 (Finance)
Delete Section 2.

Sections 1, 3 and 4 - change general fund to renewable resources development fund

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

M E M O R A N D U M March 8, 1979

SUBJECT: CS for Senate Bill 62 (Finance)
(Appropriations to special projects office, Office of the Governor).

TO: Senator John Sackett, Chairman
Senate Finance Committee

FROM: James L. Baldwin
Legislative Counsel

I have some difficulty with Section 2 of the bill.

First, the period of time involved is not clear from the wording of the section. It is impossible to tell the time period within which "the amount of program receipts from that project" is to be collected. Perhaps the section is intended to cover receipts from the effective date of the Act until June 30, 1981 -but that fact is not apparent from the text of the bill.

Second, I question the practice of appropriating indefinite amounts, even though I recognize such appropriations have been made in the past. AS 24.30.030 requires that appropriation bills include "the amount involved."

JLB:jdn

Original sponsor: Rules/Governor

Offered: 3/1/79
Referred: Finance

Funding Information
General Fund $8,070,803
Other Funds -0-
$8,070,803

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE BILL NO. 62

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making supplemental appropriations to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project; and providing for an effective date."

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

* Section 1. The sum of $8,070,803 is appropriated from the general fund to the special projects office, Office of the Governor, to continue funding the Delta agricultural development project. The sum appropriated shall be allocated as follows:

(1) Final phase of clearing in the Delta agricultural development project	$ 5,736,000
(2) Road construction	1,080,000
(3) Purchase fund for test marketing and transporting barley and rapeseed	900,000
(4) Administration of the Delta agricultural development project	127,925
(5) Extension services to farmers	63,178
(6) Pesticide and herbicide research	78,500
(7) Miscellaneous costs	85,200

* Sec. 2. The unexpended and unobligated portion of the appropriation in sec. 1 of this Act lapses into the general fund July 1, 1981.

* Sec. 3. The amount expended for test marketing and transporting barley and rapeseed from the Delta agricultural development project which exceeds the amount appropriated for test marketing and transportation in sec. 1 of

this Act, not to exceed $900,000 or the amount of program receipts from that project, whichever is less, is appropriated from the general fund to the special projects office, Office of the Governor.

* Sec. 4. The unexpended and unobligated portion of the appropriation in sec. 3 of this Act lapses into the general fund July 1, 1981.

* Sec. 5. This Act takes effect immediately in accordance with AS 01.-10.070(c).

MEMORANDUM

TO: Senator Sackett March 5, 1979

FM: Nancy Harvey

RE: Agricultural Projects

I met with Jimmy Farmer of Galena this morning concerning the request from McGrath for assistance in developing an agricultural program.

Currently Galena has little money for their project within the Galena Regional Learning Center, although plans are underway to secure additional funds on both the state and federal levels. Galena has applied for two federal grants: one from HEW Indian Desk for approximately $500,000 to fund a three year educational program; and another through Tanana Chiefs Conference to build canning centers in a number of the villages. These canning centers would help teach the local residents both production of food and the process of preserving foods. Notification on the funding of these grants is expected within the next month.

Koyukon Development Corporation has submitted a bill sponsored by Rep. Moss for $664,000 to purchase and distribute agricultural equipment, seeds and fertilizer to 18 communities within the regi Those communities are: Ruby, Galena, Allakaket, Huslia, Kaltag, Huges, Bettles, Nulato, Koyukuk, Takotna, McGrath, Telida, Nikolai, Medfra, Shageluk, Grayling, Anvik, Holy Cross and Tanana. This bill is being considered by the special agricultural committee and they hope it to be in (H) Finance possibly by the end of the week (March 9). Co-sponsors of the bill are Rep. Anderson and Hurlbert.

After my conversation with Mr. Farmer, it seems at this time it might be advisable for McGrath to wait until the Galena projects have received work on funding. McGrath is covered in each of the grants proposed by Galena and will receive a significant amount of equipment, training and instruction in the agricultural process currently under development in Galena.

??

9 - here put 500,000 on the Bills Bobby Pug. - See me on hearing.

Funding Information
General Fund $664,000
Other Funds -0-
$664,000

Introduced: 2/2/79
Referred: Resources and Finance

IN THE HOUSE BY MOSS, ANDERSON AND HURLBERT

HOUSE BILL NO. 120

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making a special appropriation to the Department of Community and Regional Affairs as a grant for the purchase and distribution of agricultural equipment, seed, and fertilizer; and providing for an effective date."

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

* Section 1. The sum of $664,000 is appropriated from the general fund to the Department of Community and Regional Affairs for disbursement as a grant to the Kovukon Development Corporation for the purchase and distribution of agricultural equipment, seed, and fertilizer to 18 communities within or adjacent to the area served by the corporation.

* Sec. 2. This Act takes effect immediately in accordance with AS 01.10.-070(c).

to Kingdom Regional Corp.

Put $500,000 - in the Delta Barley Project for an experiment of Yukon and Kuskokwim.
Kusk. Natives Assoc. (see Vern).

Put Money in U. of A. ⇒ Marjorie Wiker.

Put more money in Jack Quirk budget.

Ask me
Write put in
Budget.
on this —
Delta Barley

Copy for all members.

Original sponsor: Rules Committee by request of the Governor

IN THE SENATE BY THE RESOURCES COMMITTEE

HOUSE CS FOR CS FOR SENATE BILL NO. 413

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act making special appropriations to the Departments of Natural Resources, Commerce and Economic Development, and Revenue for renewable resource development projects; and providing for an effective date."

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

* Section 1. The sum of $4,793,000 is appropriated from the renewable resources development fund to the Department of Natural Resources to fund the Big Delta agricultural development project. The sum appropriated shall be allocated as follows:

(1) First phase of land clearing in the Big Delta agricultural development project	$2,700,000
(2) Surveying of land to be cleared	300,000
(3) Test marketing operations for grain	350,000
(4) Environmental baseline studies	150,000
(5) Grain storage facilities	1,000,000
(6) Transportation charges of test marketing shipments of barley and rapeseed	43,000
(7) Administration of Big Delta agricultural development project	100,000
(8) Miscellaneous costs	150,000

* Sec. 2. An amount, not to exceed $350,000, representing receipts of the Department of Natural Resources from the sale of grain purchased and marketed by it from funds appropriated by sec. 1(3) of this Act is appropriated to the Department of Natural Resources for additional expenses of construction of

the grain storage facilities for which an appropriation is made under sec. 1(5) of this Act.

* Sec. 3. The sum of $150,000 is appropriated from the general fund to the Department of Commerce and Economic Development, Commercial Fishing and Agriculture Bank, for expenditures incurred during the initial year of operation of the bank by its board of directors.

* Sec. 4. The sum of $2,000,000 is appropriated from the general fund to the Department of Revenue for use by the commissioner of revenue to purchase preferred stock of the Commercial Fishing and Agriculture Bank during the fiscal year ending June 30, 1979, in accordance with AS 41.45.010.

* Sec. 5. Sections 1 and 2 of this Act take effect immediately in accordance with AS 01.10.070(c). Sections 3 - 5 of this Act take effect on the effective date of a version of an Act entitled "An Act relating to commercial fishing and agriculture", which provides for the establishment of a Commercial Fishing and Agriculture Bank.

CONTENT

BASIC SUBSISTENCE ARCTIC AGRICULTURE FOR NATIVE ALASKANS

Jimmy Farmer, Director
Koyukon Development Corporation

The Koyukon region includes 17 villages in Interior Alaska along the Yukon and Koyukuk Rivers. 4,539 people live in the region. They are dependent on natural fish, game, water fowl and wild plant food items for the major part of their diet. No roads or transportation routes service the area. A cash economy is minimal. Latest village estimates based on a house to house subsistence survey in the 17 villages, conducted in September and October, 1978, shows an estimated income from all sources to be $1,425,207. The number of people, (4,539 divided by $1,425,207) and the income level comes to $314 per person average income in the region. In some villages prices are as much as 200% higher than Anchorage despite the meager cash flow in the area.

During the past two years the Galena Regional Learning Center has established village garden and subsistence agriculture projects in villages in the area. Results have been outstanding, both in terms of human interest and the high yields from the agriculture plots. Village gardens will expand in the coming summer 1979 to include hot houses, root cellars, soil heating, and larger plots.

At this point in time there is little or no data available to facilitate the transition to agriculture use of the land. Population and food consumption is increasing. Indigent natives are gaining title to their lands and their outlook toward agriculture is changing. There is a need for training in agriculture and gardening in the villages. There is a need for comprehensive surveys of the region to assess interest, organize measurable data to determine what will grow, fertilizer, diet information and life survival skills appropriate to the village level.

What minimal data that is available has been created in the past two years by evaluating results from the Galena Regional Learning Center's projects. There is ample evidence that the potential exists for agriculture development, but at this point in time, the potential has not been explored. It has been determined by Dr. Wayne Burton, Agricultural Economist, University of Alaska, that 1/8 of 1% of potential lands are being used in Alaska for agriculture use.[1]

Mr. Virgil Severns, Cooperative Extension Agent, University of Alaska, writes in October, 1978:[2]

> The potential for growing hardy vegetables, grains, and forages grasses and to a lesser extent livestock has been repeatedly proven by the evidence of people participating in such activities throughout Interior and Western Alaskan villages and the rail and highway belt of the Interior.

Results from the Galena Regional Learning Center:

The first year (1977) potatoes, carrots, radishes, peas, beans, and sweet corn were planted in the villages of Ruby and Galena on small test plots. Test plots were planted in wheat, rye grass, oats, and barley. This was the first time that gardens or grain had been planted in this soil. The areas were divided between river bottom land and small clear areas over permafrost. Results of the test plots:

VARIETY	YIELD	YEAR
potatoes	11.2 ton per acre	1977
potatoes	10.13 ton per acre	1978
peas	980 bushels per acre (estimated)	1977
green beans	1020 bushel per acre (estimated)	1977
gasser wheat	87.5 bushel per acre	1977
golden oats	231 bushel per acre	1977
black nip oats	217 bushel per acra	1977

[1]Dr. Wayne Burton, Creating a Northern Agriculture, (Institute of Agriculture Sciences, University of Alaska, 1975, Bulletin 44) page 5.

[2]Virgil D. Severns, Paper on Arctic Agriculture in Interior Alaska, (Agriculture Agent for Cooperative Extension Serivce) page 1.

The initial success is encouraging and the time is appropriate to expand the interest further into other villages, and build on the successes in existing villages. Thorough, comprehensive planning of the region's potential is necessary. The human interest has to be determined and evaluated, and the land and soil content in specific villages need compilation. It is apparent to involved parties that the Alaskan native has the land, realizes the potential of its use in an agricultural setting and is willing to investigate the steps needed to advance in that direction.

Koyukon Development Corporation has the capacity to implement necessary survey and data collection procedures in the region. Local village people are interested in such efforts and are capable of assimilating the skills appropriate to making village level, subsistence agriculture into a viable force in native life. The University of Alaska through the Galena Regional Center has demonstrated outstanding competence in teaching subsistence Arctic Agriculture and is capable of planning, implementing, and conducting the program. The Galena Regional Learning Center's policy on non-high school graduate is a mature student, residing in Alaska, who has not graduated from high school or been awarded a high school diploma or the basis of GED or military tests, may be admitted. Such a student will become a baccalaureate degree candidate after completion of not fewer than 30 collegiate semester hours of credit with at least a C average.

FIRST YEAR PLAN

The remoteness of the area, the severe winter climate, and the lack of data, training, and resources dictates that the plan be divided into three areas to encompass three years.

1. Data collection and a Regional Planning Guide for agricultural use.
2. Recruitment and training of agricultural teacher aides.
3. Agriculture teacher aide practicum.

This requires a developmental approach to provide the proper training of local Indian residents to gather the data and compile a regional planning guide during the first year. This will allow the residents of each village a year and ten months lead time for land clearing, equipment inventory, fertilizer and seed needs, and selection of students to become agriculture teacher aides. Across our state it has been traditional to select teacher aides with little background for either the job or subject matter. This is due primarily to the remoteness and non-availibility of proper training facilities. This proposal will train agriculture teacher aides. The third year will allow the teacher aide to practice teach under the guidance of a recognized expert in arctic agriculture and education. The over all objective of this proposal is to develop and field test. A plan to train agriculture teacher aide to implement basic subsistence Arctic Agriculture in villages.

The objectives of the first year are:

1. Train eight local people as data collectors.
2. Compile a regional planning guide.
3. Determine how much land and where the ground for garden and test plots will be cleared in each village.

During April, 1979, the proposal for basic subsistence arctic agriculture for native Alaskans will be disseminated to the villages. The first week in May, 1979, the Koyukon Development Corporation will advertise in Galena and the

surrounding area for the eight data collection position. The basic plan for the eight data collectors are:

1. One week of training and practicum at the Galena Regional Learning Center. Courses will be special topic courses (6 credits) to cover data collection and planning for garden development in native villages. Areas to be covered:

    a. soil
    b. type
        1. permafrost
        2. dry lake
    c. flood areas
    d. frost in low area
    e. measurable interest in gardens (how many want to plant)
    f. types of vegetables people consume
    g. amount of vegetables
    h. determine how much land is needed
    i. type of food in present diet
    j. winter storage facilities for vegetables
    k. cost of shipped in food
        1. winter prices
        2. summer prices
    l. how to set realistic one, two, three and five year goals
    m. what type of red meat
        1. reindeer
        2. moose
        3. cattle, pigs, goats, sheep, and fowl
    n. use of Sudburg Soil Test kit
    o. number of people in villages (ages, education and training desired)

This course will be a lecture, demonstration and work shop combination. Student data collectors will receive practical experience in the village of Galena. Course material will be extracted from appropriate cooperative extension bulletings related to subject. (See attachment #1) The data collectors will go in teams of two to their assigned villages. Each team will have four assigned villages. Two teams will have five villages. Line four in first year budget will be used to cover the extra week for two teams, ($3,000) The remaining two teams will be used for any slippage. They will spend approximately one week in each village. After two weeks they will return to Galena for one week to:

1. Compile data,
2. Test soil gathered from villages; mail results back to villages.
3. Discuss and share techniques
    a. refine technique,
    b. define any problem areas.
    c. group discussion of problem areas,
    d. list problem areas.

Data collectors will continue work in their assigned villages. After the data collection is complete they will spend remaining time at the Galena Regional Learning Center compiling data and arranging format for the regional planning guide.

The secretary will be hired at the same time the data collectors start their training. The secretary will work for the Project Director and the coordinator of Galena Regional Learning Center to:

1. Answer correspondence.
2. Arrange transportation for workers,
3. Keep budget.
4. Complete and forward reports.
5. Type up draft of regional planning guide for publisher.

The position will be part time temporary. If work is culminated before six months the job will be terminated.

BUDGET: FIRST YEAR

SALARIES:	
1 - Project Director (in kind)	($ 8,000)
2 - Data Collection/8 Positions	$24,000
3 - Secretary/six months	$10,000
4 - 8 Data Collection positions, 1 week optional to be used for slippage due to weather, fire fighting, big fish run, etc.	$ 6,000
5 - Employee Benefits	$ 8,000
6 - Guest lectures	$ 1,200
TRAVEL:	
7 - Travel for Data Collectors	$15,576
8 - Travel for Koyukon Staff to Monitor	$ 2,000
9 - Travel for Guest Lecturers	$ 2,375
TUITION:	
10 - 8 students @ 6 credits each	$. 960
ADMINISTRATIVE EXPENSES:	
11 - Office supplies	$ 500
12 - Advertising for help	$ 350
13 - Printing Costs for Regional Planning Guide	$ 1,000
14 - Film and Processing	$ 300
15 - KOYUKON DEVELOPMENT CORPORATION	$ 5,780
TOTAL BUDGET FIRST YEAR	$78,041

SECOND YEAR PLAN

The objectives of the second year are:

1. Train agriculture teacher aides.
2. Train agriculture teacher aides to do basic agriculture research and collect test plot data.

During the two years of agriculture research four villages have emerged having the potential resources necessary to implement the program. They are Allakaket, Galena, Ruby, and McGrath. Agriculture has began to become assimilated into the native culture at a rapid pace. The common reason stated by many is that not only is the work seasonal, but allows time for other traditional seasonal work such as hunting, fishing, fire fighting. The Galena Regional Learning Center has submitted the following force plan for training.

The teaching of basic gardening can be taught in a block developmental approach. The blocks of learning for the size gardens envisioned can be adaptable to a weeks time. The following schematic will be used as a pattern. Weather will be the influencing factor in start & stop. Dates are for planning purposes only.

May 14	May 21	May 28	June 4	June 11	June 18	June 25
Training on use of equipment and seed bed preparation		Planting	Student work experience	Off	Cultivating and Irr. gation	Student's work experience
Instructor					Instructor	

July 2	July 9	July 16	July 23	July 30	Aug. 6	Aug. 13
Student work experience	Cultivating &irrigation & thinning harvest radish,gre.	Off	student work experience	Off	Food preservation, peas, beans,greens, cauliflower broccoli,etc.	Harvest & food preservation.
	Instructor				Instructor	instructor

Aug. 20	Aug.27	Sept.3	Sept.10	Sept.17	Sept.24	Oct. 1
Off	Ed. 201 Orientation to Ed.	Student Work Experience	Off	Harvest &storage of root crops, cabbage, & small grain test plots. Collect data on crops		Collect data & prepare data in rough draft
	Instructor			Instructor		Instructor

Each village will have seven student teacher aides under one instructor. The instructor will be from the University of Alaska as first choice. A resume of Dr. Wayne Burton is attached. (See attachment #2.) He was the consultant that helped to implement the agriculture project for the Galena Regional Learning Center. The pay scale used to determine line 1 in the second year budget is the maximum pay for a part time instructor. The first choice of instructors will be the most qualified available people.

The student will receive a maximum of 18 semester credit hours for the summer training. The minimum acceptable is 15 credits for the student to continue on to the following year of training. The credit breakdown is as follows:

1. Ten semester hours of classes with the part time Agriculture Teacher. This will include classrooms, field demonstration, and practical application.
2. Five semester hours (work experience). Student must plant a small garden to include at least six vegetable varieties and two test plots of grain or grasses.
3. Three credits Education 201 - Orientation to Education. This will be taught by a part time teacher from the Education Department.

The amount of credit hours from item two is variable. It will be a written contract between the Instructor and the student.

Bulletins and pamphlets from the Cooperative Extension Service will be used whenever possible.

The students stipends, line five of the second year budget, are designed to provide incentives for quality work and completion. The stipends cover a sixteen week period and are computed on a monthly grade average. The $100 monthly completion bonus is paid in the last pay check. The definition of a month is four weeks. The stipends are computed as follows:

AVERAGE GRADES for four weeks	PAY	BONUS
F	0	
D	$200.00	
C	$500.00	
B	$650.00	
A	$800.00	$400.00

With the block delivery approach the part time instructor will commute from his home campus to his assigned village to deliver the block of instruction. The block of learning portrayed as schematic is also the syllabus of instruction to be followed. Fertilizer application will be on a trial basis to record results. Past results from the Galena Regional Learning Center may be used as a guide.

The instructor will recommend whether marginal students will continue into the Practicum course the following year. If the student contests the instructor's recommendation within thirty days of receipt, a panel consisting of three local villagers, picked by the school board, the Project Director, and the Coordinator of the Galena Regional Learning Center will review the student records and proceedings and make a final recommendation.

Budget: Second Year

SALARIES:		
1.	Project Director	$25,000
2.	Part Time Instructors (agriculture)	$26,000
3.	Part Time Instructors (education)	$ 7,800
4.	Secretary/6 months	$10,000
5.	Student Stipends	$100,000
6.	Staff Benefits	$7,000
TRAVEL:		
7.	Part Time Instructors	$25,770
8.	Staff Travel	$5,000
TUITION:		
9.	28 Students @ 18 Credits	$10,080
10.	Books	$2,800
ADMINISTRATION:		
11.	Telephone	$4,000
12.	Office Supplies	$1,500
13.	Film and Processing	$ 800
14.	Koyukon Development Corporation	$18,124
TOTAL:		$244,644

THIRD YEAR PLAN

The objectives of the third year are;

1. Use Indian agriculture teacher aides in nineteen villages.
2. Involve 20% of the household in Arctic Agriculture.
3. Complete the education and practicum courses for the agriculture teacher aides.
4. Collect and disseminate data from the project to all Learning Centers and community college in rural Alaska.
5. Provide highly competent Indian agriculture teacher aides for employment in summer agriculture projects for school districts, the regional learning centers and community colleges.

The agriculture teacher aides will use the data gathered from their assigned villages to determine the scope of their project. Their method of delivery will be the same method that was used in their training from the previous year, with any modifications agreed upon with the agriculture staff and instructors. (See blocks of learning, second year project.)

The schedule for the third year will be as follows:

1. Last two weeks in April - two weeks of classes and workshops.
   a. ED/HE 303 teaching nutrition
   b. Special Topics ED 393 Teaching Basic Agriculture
   c. One day workshop with Alaska Agriculture foundation meeting.
      1. Projected Panel.
         a. Closed environment Agriculture, Dr. Schudara
         b. A domestic and pacific rim markets - President of Foundation
         c. Red beef, Dr. Tomlin
         d. State Agriculture Development Secretary of Foundation.
2. Be assigned an instructor to work out a demonstration test plot for a village.
3. Follow the block delivery system.
4. Be evaluated by the instructor during a block of instruction, preferably during August. Instructor will furnish written evaluation to the center covering at least the following:
   a. number of gardens in village
   b. progress of gardening projects
   c. attitude of the teacher aide
   d. estimate of village reception of the teacher aide and gardening.
   e. recommendations to further teaching of agriculture

The Director of the agriculture project will use his staff to finalize all the data and complete reports that are necessary to the grantor.

I have included letters and papersof interested people from the area.

1. Dee Olin, Mayor of Ruby.
2. Sherrie Moses, business student from Allakaket.
3. Pictures of Galena Learning Center agriculture.

Rural Alaska needs trained people to teach subsistence agriculture. This plan will blend modern agriculture methods into the culture of the people. Their own people will do the teaching in the villages. The next step for the certified agriculture teacher aide will be an Asssociate Degree in Arctic Agriculture that will lead to a Bachelors Degree in Agriculture.

I did not recieve this grant until January 25, 1979. More letters of support from interested people will be forwarded. See attachment #2 for map of the area.

Budget: Third Year

SALARIES:		
1.	Director	$25,000
2.	Part Time Instructors (Education)	$15,600
3.	19 Student Teadhers	$43,700
4.	Part Time Instructors (Agriculture)	$1,300
5.	Full Time Secretary	$20,000
6.	Part Time Secretary	$10,000
7.	Staff Benefits	$ 9,000
TRAVEL:		
8.	Student Teachers	$48,350
9.	Part Time Instructors (Education)	$11,000
10.	Part Time Instructors (Agriculture)	$10,000
11.	Staff	$ 5,000
12.	Student Travel to Galena	$11,500
TUITION:		
13.	Student Tuition	$10.080
14.	Books	$ 2,800
ADMINISTRATIVE EXPENSES:		
15.	Telephone	$ 4,000
16.	Office Supplies	$ 3,000
17.	Film and Processing	$ 1,500
18.	Koyukon Development	$18,546
TOTAL:		$250,376

DEVLEOPMENT OF AN AGRICULTURAL OPERATION

I. Slope

A. Mid slope or higher, south or west facing hillside is best
   1. Probably no permafrost
   2. Good air drainage - avoid frost pockets
   3. Good exposure to sun
   4. Footslopes probably have ice

B. Avoid north facing hillside
   1. Permafrost
      a. Limit what can be grown
         1. Soils are cold, seed germination is delayed
         2. As permafrost melts, excess moisture results. This can hamper farming operations and cause other problems. Artifical drainage will probably be required.
   2. No direct sunlight

C. Valley Floor
   1. O.K. if soils free from permafrost
   2. On permafrost, drainage if flat areas may be difficult if not impossible to provide
   3. Probably will be a frost pocket reducing length of growing season

Look at slope, aspect, vegetation, and drainage requirement.

II. Vegetation
   A. Large trees <u>may</u> indicate absence of permafrost
   B. Stunted black spruce, hummocks, and scrub willows <u>do</u> indicate permafrost

III. Clearing
   A. Must be done while ground is frozen
      1. Minimizes soil disturbance
   B. Disadvantages of summer clearing
      1. Cat may get stuck in wet permafrost areas.
      2. Impossible not to remove topsoil with vegetation
         a. Topsoil is thin and can't afford to be lost
         b. Soil in berms makes them almost impossible to burn

IV. Berms
   A. Place across slope to help control erosion, but do not block natural drainageways.
      1. If water drains into berms and freezes, berms are almost impossible to remove

V. Windbreaks
   A. If they are necessary, they should be laid out at right angles to prevailing wind. Heed and orentation should be determined before clearing is begun
   B. Removel
      1. Let berms dry all summer and fall, or a full year longer than this
      2. Burn after first snow removes fire hazard
      3. Bunch and reburn if necessary
      4. Scatter remaining residue on fields

Development of an Agricultrual Operation

VI. Land Areas
- A. Low Areas
  - 1. Flood
  - 2. Early frost in low areas plant early maturing vegetables
- B. High Areas
  - 1. South and west slope
  - 2. No flood
  - 3. Late frost
  - 4. Plant late maturing root vegetables

Attch. #1

Development of an Agricultrual Operation

VI. Land Areas
- A. Low Areas
  1. Flood
  2. Early frost in low areas plant early maturing vegetables
- B. High Areas
  1. South and west slope
  2. No flood
  3. Late frost
  4. Plant late maturing root vegetables

Attch. #1

Wayne E. Burton

Professor Agricultural Economics
(432-50-0741)

ADDRESS:

Palmer Research Center
P. O. Box AE
Palmer, Alaska 99645

TELEPHONE:

907-745-3257, ext. 39

PERSONAL DATA:

Born: Bingham, Nebraska - November 3, 1922

Married: Stillwater, Oklahoma - December 23, 1945 (children 4)

Residence: Lot 9, Block 1, Woodside Estates, Wasilla

Address: P. O. Box 622, Palmer, Alaska 99645

Phone: 907-376-5983

EDUCATION:

1967-'68	Ph.D in Agricultural Economics (minors in Sociology and Philosophy), Montana State University
1960-'62	Agricultural Economics and Sociology, Montana State University
1958-'60	M.S. in Agriuclturaal Economics (with additional work in Voc. Ag. and Sociology), Texas A & M University
1957-'58	B.S. in General Agriculture (also requirements for Voc. Ag. teaching certificate), University of Wyoming
1944-'47	Undergraduate - Agriculture, Oklahoma State University

EXPERIENCE:

1975-'76	Professor, Agricultural Economics, University of Alaska - Agricultural Experiment Station Palmer Research Center, Palmer, Ak. Sabbatical leave - Western States and Canada.
1972-'75	Associate Professor, Agricultural Economist, University of Alaska - Institute of Agricultural Sciences, Palmer Research Center, Palmer, Ak. Research on interrelationships of rural development infrastructures and production modernization in Northern environments, greenhouse industry, dairy industry, and agricultural development policy. Member of Alaska Rural Development Council Committee on Agricultural Potentials.

Attch #2

Interagency cooperation with State Division of Agriculture on policy development; Soil Conservation Service - USDA on defining possible parameters of agricultural development; and Joint Land Use Planning Commission work group on nature of possible agricultural development in identified latent agricultural regions.

1971-'72 Associate Professor, Agricultural Economist, University of Alaska - Institute of Social, Economic and Government Research, College, Ak. Research on agricultural development problems, agricultural process, and agroeuthenics. Member of Alaska Rural Development Council, and Tanana Valley Irrigation Potential Study Team.

1969-'71 Associate Professor, Agricultural Economist, University of Alaska - Institute of Agricultural Sciences, College Research Center. Research on agricultural marketing infrastructures, greenhouse industry characteristics, and shelf appearance of Alaska produced vegetables. Member of NCRS-3 Rural Development Committee, and chairman of Institute red-meats research and goals committee. University coordinator for University of Alaska-OHM, Inc. Cooperative Project. Served on MBA program committee at EFRU, Anchorage, and on numerous individual graduate student committees.

1963-'69 Assistant Professor, Agricultural Economist, Alaska Agricultural Experiment Station, Palmer. Research on dairy, swine, forage crops, potatoes, field vegetables, agricultural development, and institutional development theory. Member of NCR-4 Farm Management Research Committee, Federal Field Committee for Development Planning in Alaska-Agriculture Taskforce, University of Alaska - E.R.S. Agricultural Study Committee, chairman of Institute red-meats research and goals committee, and Institute public relations committee. Served on MBA program committee at EFRU, Anchorage, and taught graduate course in resource development. Taught economics courses at Mat-Su Community College.

(On L.W.O.P at Montana State University September 1967 - June 1968. Instructor in Economics. Completed research and writing of dissertation.)

1962-'63 Assistant Professor and Assistant Agricultural Economist, University of Nevada, Reno. Taught farm management and farm records courses. Research on beef cattle shrink in marketing, irrigation distribution systems, and economics of grazing fees on public lands. Chaired graduate student selection and examining committee, member of Western Region Farm Management Committee, and Western Region Irrigation Research Committee. Coordinated liaison and cooperation with Nevada Central Grazing Committee.

1960-'62 Graduate Assistant and Instructor in Agricultural Economics and Economics, Montana State University, Bozeman. Taught farm and ranch management, labor economics, and economic theory, and assisted in other agricultural economics and economics courses. Research on risk and uncertainties strategies in farm management.

Resume - Wayne E. Burton

1958-'60 Graduate Research Assistant - 1959-60 and Graduate Teaching Assistant - 1958-59 in Agriucltural Economics, Texas A & M University, College Station. Teaching assistant in farm records, farm management, and production economics. Research on part-time farming, farm family business organization, and enterprise suitability for part-time farms. Participated as resource person Pakistan agriculturalist training program.

1956-'57 Family ranch operation redevelopment, Bingham, Nebraska.

1952-'56 Veterans Institutional On-Farm Training Program, instructor, Verdigre, Nebraska, (developed and carried out instructional service programs to accommodate commercial corn-hog-fed cattle farming types in one area and commercial ranching types in another sector; program participants varied from beginning farmers to well-established commercial farmers; major program emphasis centered on incorporating latest technical knowledge into production programs, particularly swine enterprise (program participants would have been classed as "innovators"); swine program inclusions were genetic improvement, nutrition, sanitation and disease control, production systems and facilities, and a comprehensive performance evaluation program; beef cattle program included genetic improvement, both range and feed lot nutrition, sanitation and disease control, including brucellosis and T.B. control program, range management; field crops program centered on varietal selection, fertilizer use, cultural practices, land use planning and soil conservation, etc., combined into production system to maximize yields and economic profits; farm buildings, machinery, and equipment program centered on planning, construction, and maintenance; dairy program was centered on new enterprise introduction into the community; farm organization and management program featured forward planning, farm records of all types, and farm production and business evaluation; ethnic group working experience included; carried on own farming operation, swine, sheep, dairy).

1951 (April-June) Veterans Institutional On-Farm Training Program, instructor, Hemingford, Nebraska, (organization and development of instructional and service program to suffice needs of commercial wheat farming community with secondary potato, swine, and beef enterprises).

1947-'51 Veterans Institutional On-Farm Training Program, instructor, Westville, Oklahoma, (developed and carried on institutional and service programs to suffice needs of "traditional" subsistence - small farming production orientation of mixed Indian and non-Indian community beginning transition to small-scale commercial farming and large-scale broiler production; major institutional and service program orientation included dairy, poultry, sheep, beef, swine, field crops, horticulture crops, farm development and land use planning, family living and nutritional needs and combination of

information, technology, and physical capital along with labor into viable farm firms, both in physical and economic aspects; introduction of new information and technology into "traditional" subsistence and farming systems was central theme of program: carried on own farming operation - swine, sheep, dairy, cereal and hay crops).

1947
(Feb.-Aug.) Veterans Institutional On-Farm Training Program, instructor, Bergman - Lead Hill, Arkansas, (developed and carried out instructional and service program to suffice needs of development transition from "traditional" subsistence rural setting traditional Ozark communities to small-scale commercial farming orientation; program emphasis included beefbeef, dairy, forages, grains, vegetables, small fruits, farm organization and management, and family living and nutritional needs). Carried on own farming operation (dairy).

1944-'47 Self-employed student (farm - Lead Hill, Arkansas).

BIOGRAPHICAL REFERENCES

AMERICAN MEN AND WOMEN OF SCIENCE, 1973, 12th Edition, Jaques Cattell Press/ R.R., Bowher Company, New York & London.

WHO'S WHO IN THE WEST, 14th Edition, Marquis Who's Who, Inc., Chicago, Illinois, 60611, USA.

REFERENCES

Dr. Arne M. Degn, Economist, Planning Support Group, Bureau of Indian Affairs, 316 North 26th Street, Billings, Montana 59101.

Dr. Clarence W. Jensen, Professor, Dept. of Agricultural Economics and Economics, Montana State University, Bozeman, Montana 59715.

Mr. Allan Linn, Director, Alaska Dept. of Agriculture, Box 1088, Palmer, Alaska 99645

Dr. Charles E. Logsdon, Professor and Associate Director, University of Alaska Agricultural Experiment Station, Palmer Research Center, Box AE, Palmer, Alaska 99645.

Mr. Weymeth E. Long, State Conservationist, Soil Conservation Service - USDA, 2221 East Northern Lights Blvd. - Suite 129, Anchorage, Alaska 99504.

Mr. Mike Zacharof, President, Tanadguisix Corporation, St. Paul Island, Alaska 99660

Senator Jalmar M. Kerttula, Pouch V. Juneau, Alaska 99801 or P.O. Box Z, Palmer, 99645.

Senator Clem R. Tillion, Pouch V, Juneau, Alaska 99801 or Halibut Cove, Alaska 99603.

Resume - Wayne E. Burton

PUBLICATIONS AND PAPERS

CREATING A NORTHERN AGRICULTURE: V. AN AGROEUTHENICS APPROACH TO DEVELOPMENT, University of Alaska School of Agriculture and Land Resource Management, AES Bulletin 46, February 1976.

CREATING A NORTHERN AGRICULTURE: IV. RESERVATION AND PRESERVATION OF AGRICULTURAL LANDS IN ALASKA, University of Alaska School of Agriculture and Land Resource Management, AES Bulletin 45, January 1976.

CREATING A NORTHERN AGRICULTURE: III. DEFINING PARAMETERS OF AGRICULTURAL POTENTIAL IN ALASKA,, University of Alaska Institute of Agricultural Sciences, Bulletin 44, August 1975.

CREATING A NORTHERN AGRICULTURE: II. HISTORICAL PERSPECTIVES IN ALASKAN AGRICULTURE, University of Alaska Institute of Agricultural Sciences, Bulletin 43, July 1975.

CREATING A NORTHERN AGRICULTURE: I. AN AGRICULTURAL DEVELOPMENT PERSPECTIVE, University of Alaska Institute of Agricultural Sciences, Bulletin 42, July 1975.

"Agricultural Applications of Geothermal Resources: Part II. Identification of Energy Requirements, and Probable Uses of Geothermal (and Wind) Resources, in Agricultural (Food) Production in Alaska," paper presented at Alaska Geothermal and Wind Resources Planning Conference, Anchorage, July 8, 1975.

"The Value of Alaska's Agricultural Potential", paper presented at Alaska Association of Soil Conservation Subdistricts - Spring Meeting, Palmer, April 25, 1975.

"Preservation of Agricultural Lands", paper prepared for inclusion in Alaska Division of Budget and Management FY '75 Issue Analysis - "Preservation of Agricultural Lands", July 1974

"Meeting the Needs of Tomorrow's Agricultural and Agroeuthenics Development in Alaska - The University of Alaska, " a statement prepared for presentation to Dr. Robert W. Hiatt and the professional faculty of the University of Alaska, April 1974. (Informally released summer 1975)

"Historical Perspectives in Alaskan Agriculture" and "Markets and Marketing: A Foreword Look" in ALASKA'S AGRICULTURAL POTENTIAL, Alaska Rural Development Council, Publication No. 1, March 1974.

"An Agroeuthenics Approach to Rural-Urban Development Under Sub-Arctic and Arctic Constraints", informal paper circulated during summer of 1972.

"Agricultural Potentials" and "OHM, INC.: A Modern Commercial Farm Development" in IRRIGATION POTENTIALS TANANA RIVER VALLEY, ALASKA - SUPPORTING REPORT, by the study team, Alaska Power Administration, Juneau, 1972.

Resume - Wayne E. Burton

ALASKA'S AGRICULTURE: AN ANALYSIS OF DEVELOPMENT PROBLEMS, University of Alaska Institute of Social, Economic and Government Research, ISEGR Report No. 30, October 1971 (260 pages).

"Report of Research and Goals Committee on Red-Meat Research," mimeo. report, University of Alaska, Agricultural Experiment Station, 1970.

A FIVE-CENT PENCIL: THE MOST POWERFUL TOOL OF MANAGEMENT, Alaska Agricultural Experiment Station, Misc. Cir., 1966.

"Problems of Acquiring and Combining Economic Resources into Viable Farm Firms," paper presented at Agricultural Forum, 17th Alaska Science Conference, Alaska Division of American Association for the Advancement of Science, Anchorage, August 31, 1966.

MARGINAL ECONOMIC ANALYSIS: A MANAGEMENT TOOL, Alaska Agricultural Experiment Station, Misc. Cir., 1965.

HOG PRODUCTION: SOME ECONOMIC ASPECTS, Alaska Agricultural Experiment Station, Misc. Cir., 1964.

Burton, Wayne E. and Don C. Tomlin, A Study of the Possible Role of Grazing Livestock in the Aleut Resource Development Plan, prepared for the Aleut League and the Bureau of Indian Affairs, September 1975.

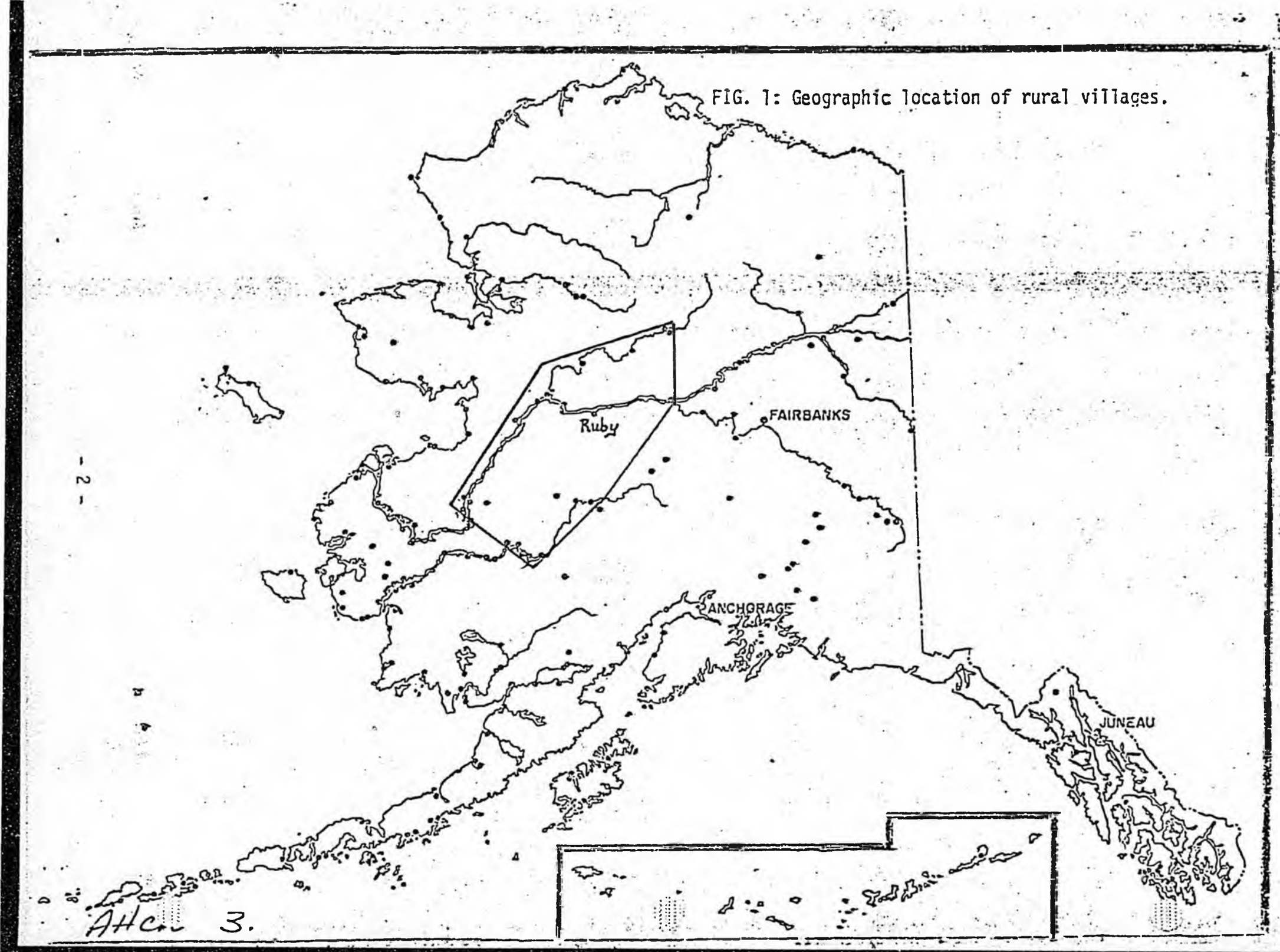
Dinkel, D. H. and Wayne E. Burton, "Ornamentals" in ALASKA'S AGRICULTURAL POTENTIAL, Alaska Rural Development Council, Publication No. 1, March, 1974.

Dinkel, D. H. and Wayne E. Burton, and C. R. Osland, "Controlled Environment Agriculture (CEA)," in AGROBOREALIS, Vol. 5, No. 1, University of Alaska, Institute of Agricultural Sciences, July 1973.

Burton, W. E., D. H. Dinkel, and F. J. Wooding, "So Many Questions - So Few Answers," in AGROBOREALIS, Vol. 3, No. 1, April 1971.

Atch #2

FIG. 1: Geographic location of rural villages.



Attach 3.

Office of the Mayor
P.O. Box 15
Ruby, Alaska 99768
August 4, 1978

Mr. Harold H. Joe
Interim Committee
Alternatives to Juvenile Incarceration
Budget and Audit Committee
Pouch W
Juneau, Alaska 99801

Subject: Alternatives to Juvenile Incarceration.

Dear Mr. Joe:

John Quirk, the coordinator of the Galena Regional Center approached me about his concern over development of interior Alaska's opportunity to expand into a agricultural state. Thus far, we've been a gold state, fur state and oil state, all non-renewable resources. Nations the world over realize they've got to slow down and return to the basics in order to survive much longer. This day and age we find the air, water, land, oceans, and rivers are all polluted. Our grains and cattle are full of pesticides, insecticides, and beef fattening chemicals. These nations would jump at the opportunity to start all over again and delete time saving and money making inventions to insure healthy stable products.

Alaska has that opportunity. Its true that the land is rich in mineral soil.

The American Indian has always stood in harmony with Mother Earth. We never took more than could be utilized. That is still true today. The Athabascan Indian of Interior Alaska still maintains the migratory lifestyle of yesteryear. Summertime is spent at fish camp, fall time we hunt to fill our winter lard'er, trap in winter and spring camp preparing for summer.

If any change is to come about, it has to be a gradual and beneficial step. The Indian has never jumped into gold mining or oil rigging due to choice - nothing can replace our lifestyle and pure environment. Agricultural development would be seasonal, in harmony with environment and a cultural growth step forward.

If it is the intention of the Alaskan Indian to maintain our traditional lifestyle the young have to be taught/indoctrinated now. Courses in planting, soil preparation, cultivation, harvesting, etc., could be academically offered. Vocational training could start in junior high. To insure success of any viable alternative to youth despondency and alienation, you have to start at an early age. With these courses offered in school, the youth could learn the academics of agriculture and apply the learned principles by summer employment. This would instill a sense of confidence, pride and self-worth. Too much of tod s yo th stand in confusement over what seems to be endless opportunity. Opportunity for what tho? Office work...not hardly. Seems most career training is geared to living in urbanized areas. Out here in the bush we subsist off the land. Always have and pray we always will.

by Sherrie Moses

"Why Allakaket Should Have An Experimental Program in Agriculture this Summer"

There are a couple of reasons why Agriculture can affect our lives in the years ahead.

Sometime in the near future Aala Kaa Ka' Inc. of Allakaket will receive patent to approximately ninety-two thousand acres of land. I foresee the possibility of developing some of this land for commercial agriculture.

The major reason being that instead of buying our produce from outside farmers, we can grow our own and cut down on food costs. Also, bush villagers can have the satisfaction of knowing exactly to whom their money is going, plus having fresh produce on their tables more frequently at a cheaper price.

The problem is most of us presently do no farming here in Allakaket and Alatna. We simply do not know how. We do not understand the basic principles involved in how plants photosynthesize. We also do not know how fertilizer helps the plants to grow bigger and better. If we expect our village corporation to work for us, we must work for it by learning about Agriculture.

An experimental project, similar to the one we saw on slides of Galena's project would be the first step. Young people can work together on a community garden either on their own or as a part of the summer work program if we get funding through Dena Aka. We can do something like plant flowers around the church. If the Episcopal Church permits us to use a plot of their land in front of the mission we can grow a vegetable garden. Seeds and fertilizer will be provided by G Regional Learning Center if enough people are interested. We can grow potatoes, lettuce, cabbage, peas, green beans, carrots, turnips and radishes. Also as a demonstration, we can plant grain by the side of the mission. If we speak up and say we want this program, we will all get alot out of it.

Adults who want to start gardents can get seed and fertilizer also. Growing your own garden can be fun and save you some money.

The work you put in will be worth it when you start eating fresh vegetables out of your own garden. If we don't take advantage of this program through G Regional Learning Center now we may never have another opportunity to do so. The funds will go to another village. The long range effect of a project like this would be to show how our village corporation can develop some of its land for Agriculture on a much larger scale.