HB
495

(11)

HOUSE COMMITTEE REPORT

Date referred: 3/17/88 FURTHER REFERRALS:

DATE: 3-23-88

The Finance Committee has considered HB 495

"An Act relating to a fisheries education curriculum; and providing for an effective date."

RECOMMENDS:

[X] replace with CS HB 495 (HESS) [ ] the same title [X] a new title

[ ] attached amendment(s)

[X] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: [ ] _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[X] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published _____

[ ] same as previous zero fiscal note published _____

SIGNING DO PASS:

Adams

Larson

Goll

Swack

Boyer

Davis

SIGNING OTHER RECOMMENDATIONS:

Pourchot no rec

Rieger No Recommendation

Frank No rec.

Brown No Rec

Chairman's signature

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION: CSHB 495 (HESS)
PUBLISH DATE: _____

FISCAL NOTE

REQUEST:

Revision Date: 3/23/88
Title: re: fisheries education curriculum
Sponsor: Herrmann
Requestor: House Finance Committee

Agency Affected: Education
BRU: _____
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Al Adams, Chair
Division: House Finance Committee
Phone: 465-3706
Date: 3/23/88

Approved by Commissioner: _____ Date: _____
Agency: _____

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

Offered: 3/17/88
Referred: Finance

5-1957B

Original sponsors: Herrmann, Davidson, Goll and Wallis

IN THE HOUSE

BY THE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

CS FOR HOUSE BILL NO. 495 (HESS)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to fisheries education; and providing for an effective date."

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

* Section 1. FINDINGS. The legislature finds that

(1) the commercial fishing and processing industry contributes millions of dollars to the state's economy and employs thousands of people in the state each year;

(2) major segments of the state's commercial fishing and processing industry are controlled by interests outside the state and outside the United States, and a large proportion of jobs in the industry are held by nonresidents;

(3) elementary, secondary, and adult students in the state generally do not receive coordinated instruction about the importance to the state of the commercial fishing and processing industry, and about opportunities for jobs and careers in the industry; and

(4) the establishment of fisheries education programs in elementary, secondary, vocational, and community schools would be of great benefit to Alaskans, to the industry, and to the state's economy.

* Sec. 2. AS 14.30 is amended by adding new sections to read:

ARTICLE 5A. FISHERIES EDUCATION.

Sec. 14.30.420. FISHERIES EDUCATION PROGRAMS. (a) A school board may establish a fisheries education program in elementary, secondary, vocational, and community schools in the district or regional educational attendance area.

(b) A school designated by the department under AS 14.35.025(5) may establish a fisheries education program as a part of its vocational education or vocational rehabilitation plan.

(c) Under AS 14.07.020(a)(12) and this section, the department shall develop and implement model fisheries education programs and instructional materials. The department shall encourage and assist schools to develop programs under (a) and (b) of this section.

Sec. 14.30.425. FISHERIES EDUCATION FUND AND GRANTS. (a) There is established in the department the fisheries education fund as an account in the general fund. The fund consists of (1) money appropriated to it, and (2) federal funds and private grants, endowments, and contributions for fisheries education that the department may apply for or accept subject to AS 37.07. Money deposited in the fund may be used to make grants to develop and implement fisheries education programs, model programs, and to develop instructional materials. Money in the fund under (2) of this subsection shall be used for a purpose that is consistent with AS 14.30.420 - 14.30.435 and applicable federal law or terms and conditions of a private grant, endowment, or contribution.

(b) The department shall adopt regulations for the determination of entitlement to fisheries education grants, application and approval of grants, and administration of grants. In making grants under this section, the department shall consider programs that are designed to assist in the economic development of the attendance area served by the applicant and shall give priority to programs in elementary and secondary schools.

Sec. 14.30.430. REPORT. The department shall report to the governor and the legislature, by January 31 of each year, a summary of its activities under AS 14.30.420 - 14.30.435 during the preceding

calendar year. The report must include a description of each grant made under AS 14.30.425.

Sec. 14.30.435. DEFINITION. In AS 14.30.420 - 14.30.430 "fisheries education program" means a coordinated program of instruction that includes instruction in one or more of the following:

(1) the importance to the state of the commercial fishing and processing industry;

(2) opportunities for jobs and careers in the industry;

(3) skills relevant to employment in the industry;

(4) other components identified by the department under AS 14.30.420(c).

* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION: HB 495
PUBLISH DATE: _____

FISCAL NOTE

REQUEST: _____

Revision Date: _____
Title: . . . fisheries education . . .

Agency Affected: Education
BRU: Adult and Vocational Education

Sponsor: House HESS
Requestor: House HESS

Components: Adult and Vocational Education Administration

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES		57.9	57.9	57.9	57.9	57.9
TRAVEL		10.0	10.0	10.0	10.0	10.0
CONTRACTUAL		50.0	50.0	50.0	10.0	10.0
SUPPLIES		1.0	1.0	1.0	1.0	1.0
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	Ø	118.9	118.9	118.9	78.9	78.9
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	Ø	118.9	118.9	118.9	78.9	78.9
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME	Ø	1	1	1	1	1
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Personnel services: 1 full-time position, range 21A to develop and implement model fisheries education programs; travel: $10.0 to enable travel to school districts for program development and monitoring; contractual: $50.0 for purchase and development of instructional materials;

Prepared by: Mary Hakala
Phone: 465-2800
Division: Commissioner's Office
Date: 3-16-88

Approved by Commissioner: William G. Demmert
Date: 3-16-88
Agency: Department of Education

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

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LEGISLATIVE FINANCE

Commodities: $1.0 for basic operational supplies (pens, pencils, paper, etc.).

It is estimated that contractual, materials, and development funds will be necessary for the first three years of this program.

Position Title	Education Specialist II	No. of Positions	1	Range/Step	21A	Barg. Unit	6
Time Status	Staff Months	Location		Election District			
Full time	12.0	Juneau					

Type of Expenditure		Amount
1	2	3
Salary	46,068	
Benefits	11,850	
Premium Pay		
Other		
Total Personal Services		57,918.50
Travel		*
Contractual		*
Commodities		*
Equipment		*
Other		*
Total Cost		57,918.50

Funding Source for Total Cost	
Federal Receipts 1002	
G. F. Match 1003	
General Fund 1004	57,918.50
GF Program Receipts 1005	
Other	

Justification

HB 495 Fiscal Note - Position is responsible for development and implementation of model fisheries education programs as proposed under HB 495.

* see fiscal note cost estimates

Request For New Position

Agency Department of Education

BRU Adult and Vocational Education

Component Adult & Vocational Administration

Page	of
Revised Date	

FY 89

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION: CSHB 495
PUBLISH DATE: _____

FISCAL NOTE

REQUEST:

Revision Date: _____
Title: . . fisheries education. . .

Agency Affected: Education
BRU: Adult and Vocational Education

Sponsor: House HESS
Requestor: sponsor

Components: Adult and Vocational Education Administration

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES		27.0	27.0	27.0	27.0	27.0
TRAVEL		7.0	7.0	7.0	7.0	7.0
CONTRACTUAL		10.3	10.3	10.3	10.3	10.3
SUPPLIES		.7	.7	.7	.7	.7
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	Ø	45.0	45.0	45.0	45.0	45.0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		45.0	45.0	45.0	45.0	45.0
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME		2	2	2	2	2
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

See attached.

Prepared by: Karen Ryals
Phone: 465-2800
Division: Office of Adult and Vocational Education
Date: 3-21-88

Approved by Commissioner: William G. Demmert
Date: 3-21-88
Agency: Department of Education

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

Following is the proposed first year budget to provide leadership in implementing a grant program to develop a statewide fisheries curriculum, instructional materials, and model programs. Administrative services would include providing technical assistance, and preparation and dissemination of printed materials. The budget includes six months' personnel costs for a project assistant and quarter-time clerical support.

Line Item	Description	Amount
100	Personal Services	
	Project Assistant, .5 FTE, Range 16A	$20,000
	Clerk Typist III, .25 FTE, Range 8B	7,000
200	Travel	
	Technical assistance travel to five sites, one fisheries conference, and one economic development conference	7,000
300	Contractual Services	
	RFP advertising	800
	Printing of curriculum materials and reports	5,500
	Postage, mailings to districts, agencies	2,000
	Resource publications	500
	Telephone, long distance charges	1,500
400	Supplies	
	Stationery, desk supplies, folders, labels	700
	Total FY88 expenses	$45,000

SOUTHWEST ALASKA
MUNICIPAL CONFERENCE
Box 89 • Unalaska • Alaska 99685

RESOLUTION 88-11

A RESOLUTION OF THE SOUTHWEST ALASKA MUNICIPAL CONFERENCE (SWAMC) SUPPORTING THE DEVELOPMENT OF FISHERIES AND SEAFOOD INDUSTRY EDUCATION AND TRAINING OPPORTUNITIES AT THE UNIVERSITY OF ALASKA.

WHEREAS, the commercial fishing industry is the largest private employer in the State of Alaska; and

WHEREAS, in the rural, coastal communities of Southwest Alaska the fishing industry is the only private source of employment; and

WHEREAS, these fisheries and the majority of the income and employment opportunities in the industry are currently held by urban Alaskans or non-State residents; and

WHEREAS, lack of trained, skilled local Alaskan residents is one of the major reasons cited by the industry in preventing local hire.

NOW, THEREFORE, BE IT RESOLVED that the SWAMC urges the University of Alaska to recognize its responsibility toward fisheries education and training in SW Alaska by:

- Designating fisheries training as a major segment of its vocational-technical program and funding;

- Establishing an industry advisory committee capable of assessing educational and training needs directly linked to employment possibilities;

- Working together through the School of Fisheries and Ocean Sciences and the Alaska Vocational Technical Institute to establish coordinated fisheries training.

NOW, BE IT FURTHER RESOLVED that the University of Alaska research and develop scholarship programs designed to allow rural Alaskans the opportunity to benefit from these training opportunities.

Phone (907) 581-1251, 581-1357

KEMP PACIFIC FISHERIES, INC.

P.O. Box 70647 • Seattle, Washington 98107-0647 • Phone (206) 283-6808

January 27, 1988

A.W. Hall
Alaska Commercial Fishing and Agricultural Bank
2550 Denali Street
Suite 1201
Anchorage, AK 99503

Dear Bill:

Thank you for the information you provided me regarding the Alaska Seafood Industry. Both papers represented extended research on your part. Not being familiar with any of the resource references you made, I found some new sources for information.

Your paper on Alaska Hire has inspired me to do two things: First, I will send a copy to our plant managers. I want all our people to be aware of the Alaska hire problem in our industry. Secondly, I am having our human resource department study and review your papers and develop a program that Kemp Pacific Fisheries can follow.

Hopefully I will be able to report some positive results the next time I see you in Alaska.

Thanks again.

Regards,

KEMP PACIFIC FISHERIES, INC.

R. Stephen Smith
President

RSS/be

Dear Adelbert + Rhona,

Our shared efforts to promote a better education program in ... appear to have some value despite the luke warm reception of the Dept of Labor Seafood Industry Advisory Group.

Regards,
Bill Hall

COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF ALASKA, USDA & SEA GRANT COOPERATING

MARINE ADVISORY PROGRAM, PO BOX 10048, DILLINGHAM, ALASKA 99576

March 7, 1988

Rep. Adelheid Herrmann
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Rep. Herrmann,

I am writing in support of HB 495 and HB 496, which support the development of fisheries education curriculum. I am commenting on behalf of the Marine Advisory Program, a subset of the School of Fisheries and Ocean Sciences at the University of Alaska Fairbanks. The region I serve includes Bristol Bay and the Alaska Peninsula/Aleutian Islands communities.

The lack of access to fisheries education has lately been a major topic of discussion in Southwest Alaska. The bottomfish boom in the Bering Sea has clearly indicated that right now, Alaskans are just not prepared to actively participate in this million dollar industry. Bristol Bay has the highest drain on high priced salmon permits leaving the region in the state, pointing out to residents that becoming a fisherman will not be an option for many local young people.

A recent meeting of the Southwest Alaska Municipal Conference focussed on the lack of access to fisheries classes and course materials within the region. A workshop at the 1987 Bristol Bay Fisheries Conference brought together educators from four school districts to assess needs for fisheries curriculum in the region. Only two of the four school districts in Bristol Bay offer any sort of fisheries classes. Many other communities are interested.

The limiting factor has been coordination and development of curriculum materials and training time for teachers who are unfamiliar with the industry. The Marine Advisory Program agents throughout the State have and are working with school districts to encourage this development. HB 495 and 496 are the tools needed to implement the programs.

Fisheries are the major source of private income in all of the coastal communities in the State. Local residents have the opportunity to become not just harvesters of the resource, but biologists processors, accountants and managers in the fishing industry of Alaska. It is vital that the State invest in this important contribution to our economy. Clearly the best way to do this is to present students with the range of opportunities and the route to get there.

Sincerely,

Paula Cullenberg
Marine Advisory Program

Rosa

RECEIVED MAR 21 1988

BRISTOL BAY BOROUGH SCHOOL DISTRICT
P O. BOX 169
NAKNEK. ALASKA 99633

PHONE 246-4225 OR 4265
HIGH SCHOOL

RICHARD W LEATH
SUPERINTENDENT

*

March 10, 1988

Representative Adelheid Herrmann
Alaska State Legislature
P.O. Box V (MS 3100)
Juneau, Alaska 99811

Dear Representative Herrmann:

The staff and administration of the Bristol Bay Borough School District would like to voice their support for H.B. 495 and H.B. 496.

The economy of Bristol Bay is fish based and it is important that the school promote and educate in those areas that are important to the local people. We have just recently started development of more marine related courses and find it more important each year as the students consistently are faced with a more competitive fishery.

Passage of these two bills would provide a greater opportunity and flexibility for our district to devote more effort on the area of fishery curriculum development.

Sincerely,

Richard W. Leath
Superintendent of Schools

George T. Reynolds
School Board President

Larry Bradley
School Board Clerk

Rosa

CORDOVA PUBLIC SCHOOLS

BOX 140
CORDOVA, ALASKA 99574
PHONE: (907) 424-3265 OR 424-3292

RECEIVED MAR 17 1988

March 14, 1988

Rept. Adelheid Herrmann
Alaska State Legislature
PO Box V
Juneau, AK 99811

Dear Rept. Herrmann:

I am glad to hear that you and Rept. Davidson are sponsoring House Bill No. 495 on Fisheries Education. The fisheries industry is one of the largest employers in the state, and it is appropriate to incorporate fisheries education in our schools.

A great majority of summer jobs and careers in Cordova are fishing related. This year the Cordova Public Schools, Prince William Sound Community College, and the Cordova Aquatic Marketing Association initiated a commercial fisheries vocational program which has every indication of success. Students and the community are enthusiastic. Plans to expand this initial effort to a solid three year training program are underway. Our program aims to help students gain experience and confidence in the fishing industry, plus provide a means for students to gain a limited entry permit by utilizing a portion of their wages as a down payment.

At the elementary school level, we incorporate fisheries concepts as part of our Sea Week program. Students and teachers decorate the school, go on field trips, listen to speakers, and utilize the sea and fishing in their classes.

Fisheries education has proven an excellent way to involve the community in our educational system. It provides a way for elder residents to pass on their knowledge to our young people, and to increase the interest of the young.

HB 495 and 496 will allow school districts to invest in the future by educating students to participate in one of our most important industries. The Cordova Commercial Fisheries Apprenticeship Program is preparing a slide/video production and some curriculum materials that we will be glad to share with other districts. The Cordova Public Schools supports HB 495-496. However, the $100,000 is just a beginning toward making Alaskan youth productive and safety conscious members of our fishing community. Dollar for dollar, the $100,000 will be returned by students able to contribute to Alaska's growth and development.

Thanks for your efforts.

Sincerely,

William Fairall, Supt.

Ketchikan Daily News
Dec 24-27, 1987

Sunken trawler's owner says ship was well-found

SEATTLE (AP) — The 127-foot fishing trawler Nordfjord had always been operated within safety standards and was in "very good condition" when it mysteriously disappeared in Alaska waters last September, the owner testified Tuesday at a Coast Guard hearing.

The vessel, after a brief Mayday message, apparently sank Sept. 19 with all five crew aboard, including the son of Nordfjord owner Agust Gudjonsson.

The only object ever found from the Nordfjord was a float located by a fisherman two days later, Gudjonsson told Coast Guard investigators, who hope their hearing will solve the mystery and possibly affix blame for the Nordfjord's loss in the tempestuous Gulf of Alaska.

The Coast Guard says that between 1981 and last summer, 103 fishermen have died and 877 vessels have been wrecked in Alaska waters. Losses amounted to $142 million.

Blasts CG response

Gudjonsson, of Bellevue, testified at length on the fishing boat, which was en route to the Bering Sea when it disappeared 200 miles south of Valdez, Alaska. He also criticized the Coast Guard's initial response.

"They didn't start looking for them until 12 to 14 hours after the mayday," he said. "We thought that was really disgusting."

Doug Rabe, a hearing examiner with the National Transportation Safety Board, said that agency would investigate the Coast Guard's response if complaints warranted.

Lt. Cmdr. Douglas Lentsch, Coast Guard hearing examiner, said he could not respond to Gudjonsson's criticisms. The Coast Guard suspended the search for the Nordfjord Sept. 27, after covering nearly 180,000 square nautical miles.

A Coast Guard tape recording of the distress call, made at 1:04 a.m. PDT, was played during a recess, after Gudjonsson and members of his family and other victims's families had left the room.

Radio transmission

"Mayday. Mayday. This is Nordfjord. Mayday. Mayday. Over," was the radio transmission, stated in a clear voice that sounded as if the person were out of breath. Another vessel responded, but there was no reply.

The voice was described as that of the vessel's skipper, Gudjon Roy Gudjonsson, 30. Haraldur Gudjonsson, brother of Gudjon and the older son of Agust Gudjonsson, said friends and fellow fishermen who had heard the transmission identified the voice.

Others aboard were engineer Marty Mercer, 29, of Seattle; Schmalfeldt, 31, of Seattle, and Gretar Halldorsen, 40, of Iceland, described as an observer interested in fishing in Alaska.

During his testimony, Agust Gudjonsson said he had been in touch with Gudjon only a few hours before the distress message was sent, and everything appeared fine.

He said the boat left Seattle Sept. 14 and then made stops at Port Angeles and Neah Bay because the crew found a "faulty electrical connection that needed replacing. He took the part to Neah Bay, and watched as the boat departed, he said.

Experienced skipper

Gudjonsson also testified that Gudjon did not have a Coast Guard license. However, such a license is not required, and the father noted his son had been on fishing boats since he was 13 or 14. Haraldur Gudjonsson said his younger brother had intended to get the license, but that it was a time-consuming process.

The elder Gudjonsson testified that the Nordfjord, built in 1978 specifically for Alaska fishing, had been checked thoroughly when it was dry-docked for maintenance and minor repairs in June and July at a Seattle shipyard.

Gudjonsson said the vessel carried two emergency position indicators, a life raft, seven survival suits, and eight radios.

A 1986 survey of the vessel found it seaworthy, but there were several suggestions for improvements, including installation of fire extinguishers. Gudjonsson said several recommendations were followed through on. However, a sophisticated fire extinguisher system for the engine room had been investigated but not installed.

Suggest collision

Haraldur Gudjonsson said during a hearing recess he believes the fishing boat might have been run down by a larger vessel.

"Everything was OK," he said of the vessel and its experienced crew. "So what does that leave?"

Lentsch acknowledged the family's concern, but said such a collision would probably have been noticed and the mayday recording led him to believe it wasn't a case of the Nordfjord being rammed.

He said he had heard recordings from other vessels that were rammed, and the panic was obvious as the speaker watched the bigger vessel approach. The Nordfjord mayday voice, he said, "was out of breath, perhaps, but not panicked."

However, he said, officials "don't know what happened. We might

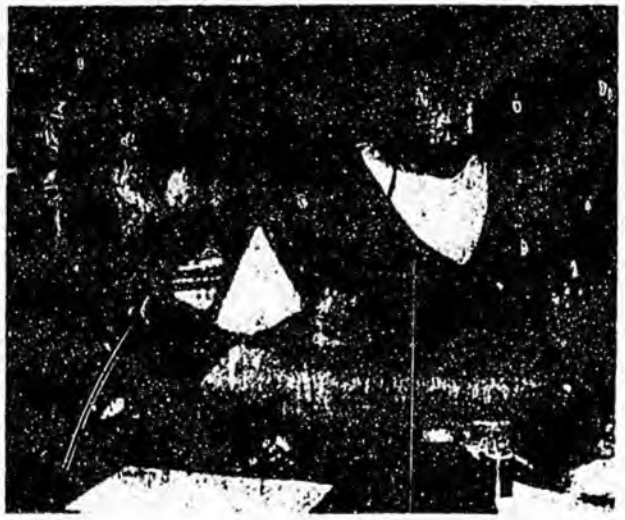
Dear Archive -
You Fisheries Education bill should help to improve the fisheries safety record -- as safety - conscious students enter the fisheries industry!
Thanks again.
Bill McLeod, Jr.
P.S. That affects our economy, too!

"Learning navigation is really interesting."

Neil Galosich
Junior

The Cordova Aquatic Marketing Association (CAMA) is a co-sponsor of the Commercial Fishing Apprenticeship Program along with the Cordova Public Schools. CAMA is an association of fishermen committed to the promotion of fish sales, the sponsorship of CFAP and providing the fishing fleet with an insurance program.

CAMA assists the students in the CFAP with a Big Brother or Big Sister who answers questions and provides encouragement. CAMA helps match students and skippers for summer employment.



Commercial Fisheries Apprenticeship Program

Our goal is to better prepare students for jobs in the fishing industry by developing their confidence and skills in safety and survival, knots, anchoring, steering, nautical terminology, weather, navigation, electronics, rules and regulations and basic fisheries biology and management.

Students take classes at the high school and at Prince William Sound Community College. The classes in combination with the field trips prepare students to work in the fishing industry during the summers.

The program is open to Cordova Junior and Senior High School students and to members of the community who want to go back to school or to take individual classes.

Funds for the 1987/88 year's program are provided by the Alaska State Office of Adult and Vocational Education.

Belle Mickelson
Cordova Public Schools
P.O. Box 140
Cordova, Alaska 99574
907/424-3292

Alaskan Youth Preparing for a Fishing Future in Alaska

Commercial Fisheries Apprenticeship Program

Cordova, Alaska

"Learning navigation is really interesting."

Neil Galosich
Junior

The Cordova Aquatic Marketing Association (CAMA) is a co-sponsor of the Commercial Fishing Apprenticeship Program along with the Cordova Public Schools. CAMA is an association of fishermen committed to the promotion of fish sales, the sponsorship of CFAP and providing the fishing fleet with an insurance program.

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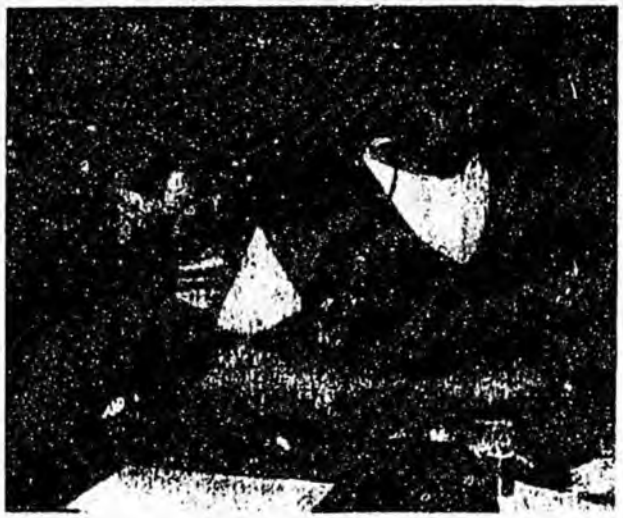

Commercial Fisheries Apprenticeship Program

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Belle Mickelson
Cordova Public Schools
P.O. Box 140
Cordova, Alaska 99574
907/424-3292

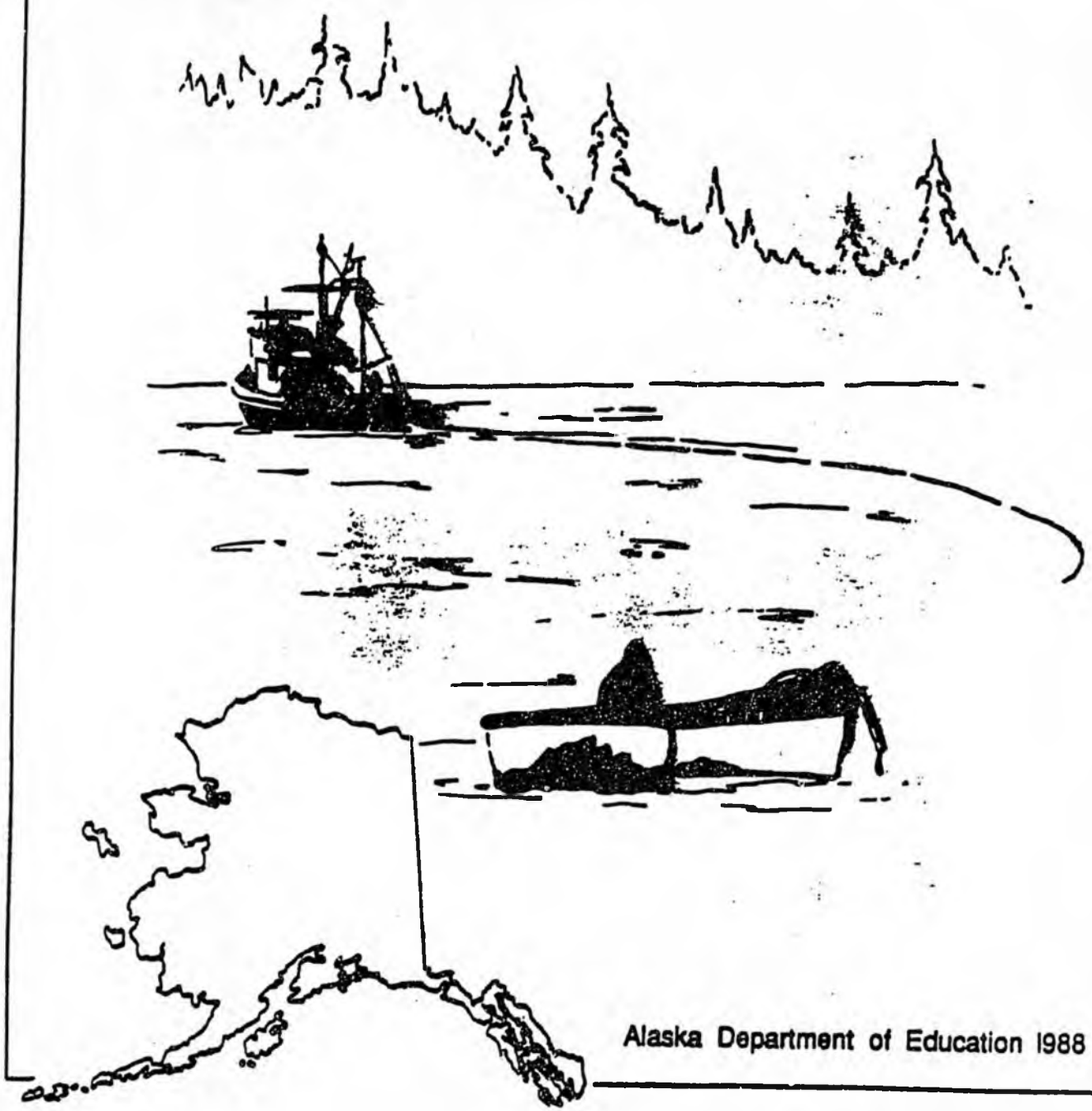
Fathom Graphics

Alaskan Youth Preparing for a Fishing Future in Alaska

Commercial Fisheries Apprenticeship Program

Cordova, Alaska

Renewable Natural Resources/ Agriculture Curriculum



Alaska Department of Education 1988

Renewable Natural Resources/ Agriculture Curriculum

Secondary and Postsecondary Articulated Curriculum

State of Alaska
Steve Cowper, Governor

Developed by the
ALASKA DEPARTMENT OF EDUCATION
Adult and Vocational Education

William Demmert, Commissioner

Karen Ryals, Acting Director for Vocational Education

This publication was prepared with the support of U.S. Department of Education funds under the Carl Perkins Vocational Education Act, PL 98-524. Copies are available from the Alaska Department of Education, Adult and Vocational Education, Alaska Vocational Materials Library, Box F, Juneau, Alaska 99811, (907) 465-2980. This publication may be duplicated.

Alaska Department of Education 1988

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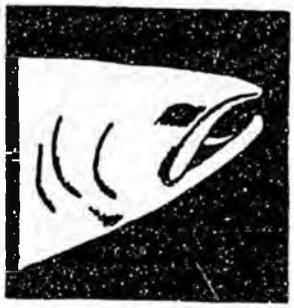
Fishing and Fisheries



(A) Denotes more advanced competency or task.

I. Work with the Resource.

Competency: **Identify employment and educational opportunities in fishing and fisheries**

Tasks:
Identify educational and occupational opportunities
Locate resources for finding employment
List prospective employers
Identify and implement SOEP, Coop, or OJT
Identify work in:

a. fisheries enhancement
b. hatcheries
c. commercial fishing
d. canneries
e. cold storages
d. equipment and facility maintenance
e. fish and game biology
f. fish and wildlife protection
g. sports fishing
h. fisheries laboratories

II. Use the Resource.

A. Safety

Competency: **Practice personal safety and accident prevention**

Tasks:
Prepare for vessel emergencies
Explain emergency procedures for: fire, collisions, capsize, foundering, man-overboard and personal injuries:

a. alert crew
b. issue personal flotation and immersion protection devices
c. administer first aid to prevent shock and control bleeding
d. administer CPR
e. don survival suit
e. launch and operate lifeboat and life raft
f. close emergency fuel shutoff valves
g. extinguish Class "C" fire
h. act as lookout to keep person in sight who has been lost overboard
i. secure engine room to prevent spread of fire
j. send out distress signals
k. sound abandon-ship alarm

Use cold-water survival skills
Treat victims for hypothermia
Apply first aid
Explain preparation for helicopter rescue
Use life raft survival
Explain survival suit use
Identify shore survival techniques
Identify sources of water and food in a wilderness setting

Competency: **Use boating safety and seamanship skills**

Tasks:
Explain the basic terms and principles of seamanship
Use basic knot techniques
Describe boating laws
Explain navigational aids and charts
Use nautical equipment including:

a. barometers
b. CB
c. compasses
d. dividers
e. fathometers
f. loran
g. marine radios
h. radar
i. sextants
j. sonar

Use marine VHF, using proper procedures, etiquette, and channels
Obtain and explain a current weather forecast
Recognize changes in weather conditions
Recognize importance of US Coast Guard
(A) Complete a USCG license course

B. Seamanship.

Competency: **Use a tide book, nautical chart, and coast pilot**

Tasks:
Determine tide for a given location
Explain how to determine tide from a known tide level
Use the "Rule of Twelve" to determine tide level at any point in tidal cycle
Identify symbols used on nautical charts
Plot and find directions and distances on a chart
Read current tables

Competency: **Check out and get a vessel underway**

Tasks:
Develop and follow a check list for getting underway
Engage bilge and engine room blowers and bilge pumps
Maintain proper level of coolant in expansion tank
Determine if all navigation lights are functioning
Tighten engine mounts
Inspect fire-fighting equipment for wear, location, and type
Secure deck equipment, lashings, hausers, or mooring lines
Inspect personal flotation devices for number, fit, integrity, and location
Inspect survival suits for number, fit, integrity, location and type
Inspect vessel for fuel leakage
Prepare list of equipment to be checked for oil leakage
Secure watertight doors, hatches, vents, and skylights
Bleed air compressor of water
Check and maintain batteries
Determine fuel levels
Inspect water level indicators for cleanliness
Test radio equipment
Inspect antennas
Determine if hydraulic steering equipment is free of air and water
Determine that rudder stuffing box is functioning properly
Tighten propeller stuffing box
Determine if proper voltage is being generated
File a float plan

Competency: **Maneuver a vessel**

Tasks:
Observe the "rules of the road"
Follow safe boating practices
Pilot using dead reckoning, time, distance, and speed
Use various forms of running fixes including:
a. 45-90
b. 22 1/2-45 c. 26 1/2-45
Pilot using a cross bearing
Use navigational aids, tide and current charts and equipment
Maintain adequate safety margins regarding weather and sea conditions

Competency: **Use the rules of the road**

Tasks:
Identify marine vessel boundaries
Identify terms and definitions related to marine charts and rules of the road
Use steering and sailing rules including:
a. rules when approaching sailing vessels
b. rules for vessels meeting, nearing a bend, leaving berth
c. rules for passing a vessel head on
d. rules for overtaking a vessel
e. general prudential rule
Identify special situation lighting and signals
Plot a course on a chart and convert true bearings to compass bearings
Identify day markers and fog signals
Identify distress signals

Competency: **Use modern electronic systems**

Tasks:
Use echosounders and depthfinders to:
a. differentiate among types
b. interpreting signals
Use Radio Direction Finders (RDF) to:
a. identify range of equipment available
b. install loop antenna
c. use RDF aboard small craft
d. identify marine radio beacon stations and systems
e. plot radio bearing and finding position with RDF
Use RADAR including:
a. install, identify components of, and operate RADAR
b. use RADAR as a navigational aid
c. interpret RADAR signals
d. pilot using RADAR
e. monitor RADAR beacons (RACON)
f. identify radiation hazards
g. install and use RADAR reflectors
Use LORAN C or OMEGA including:
a. explain hyperbolic navigation systems
b. differentiate among groundwaves and skywaves
c. characterize LORAN C and OMEGA receivers
d. navigate with LORAN C

Use SONAR
- a. install, identify components of, and operate SONAR
- b. interpret SONAR signals
- c. navigate and find fish with SONAR

Competency: Use marine lights and sound signals

Tasks: Explain when marine lights are needed
Identify rules for the following situations:
- a. steam vessel underway
- b. steam vessel towing and pushing
- c. sailing vessel and vessels in tow
- d. small vessels
- e. pilot vessels
- f. fishing vessels
- g. stern lights
- h. anchor lights
- i. signals to attract attention

Sound signals for the following situations:
- a. steam vessels underway
- b. sailing vessels underway
- c. vessels at anchor
- d. vessels towing or being towed
- e. speed in fog

Competency: Get along with other members of crew

Tasks: Explain common causes of strife aboard vessels
Explain the importance of getting along with others while at sea
Utilize stress-reduction techniques
Utilize communications techniques
Practice communications techniques with others
Explain how to take a grievance to the captain

Competency: Anchor vessel

Tasks: Anchor vessel by using anchor winch or windlass
Secure anchor on bottom
Retrieve and secure anchor and stack (tier) anchor chain in locker

Competency: Dock a vessel

Tasks: Assign tasks and stations for vessel mooring
Maneuver to dock
Secure mooring lines to dock and/or other vessels
Secure engine room and secure propeller shaft
Release towing gear

C. Building, handling, and maintaining gear

Competency: Build, mend and repair nets and lines

Tasks: Define terms related to net and line construction and repair
Build, mend and repair lines including:
- a. corkline
- b. leadline
- c. weedline
- d. breastline

Melt, tape, or whip line ends to prevent unraveling

Mend nets by:

a. using 1, 2, and 3-bar hole repair
b. trimming problem area
c. initiating starter knot
d. using pick up sider and bar
e. maintaining proper net length with repair

Patch nets by:

a. trimming problem area
b. splitting edges
c. squaring repair patch
d. lacing twine

Complete complicated net and line repairs

Competency: Operate and maintain gear hydraulics

Tasks: Define basic principles of hydraulics
Diagram vessel hydraulic systems
Use proper hand signals while operating hydraulic equipment

Competency: Maintain and operate processing equipment

Tasks: Explain the maintenance and operating procedures for:

a. freezing equipment
b. canning equipment
c. ice-making equipment
d. auxiliary power generating equip.
e. seafood cleaning equipment
f. conveyor and product handling equip.
g. chilling and cooling equipment
h. testing and quality control equipment

D. Vessel operation and maintenance.

Competency: Conduct deckhand duties

Tasks: Wear proper clothing for duties
Hand or hoist equipment and supplies aboard
Cast vessel off
Coil lines
Work riggings such as nets, slings, hooks, cables, booms, and hoists
Stand lookout, steering, and engine room watches
Operate dories, dinghies, and skiffs
Attach accessories, such as floats, weights, and markers to nets and lines
Pull and guide nets and lines onto vessel
Wash deck, conveyors, knives, and other equipment, using brush, detergent, and water
Lubricate, adjust, and maintain engines and equipment

Competency: Maintain vessels

Tasks: Arrange for grid, dry docking, or haul-out
Change brushes in auxiliary engines
Change lube oil and fuel filters on auxiliary engines
Determine if motor bearings are excessively worn
Clean electric motor
Prepare list of hoses, valves, connections, gaskets, and tanks needing repairs
Determine if const-a-voltage regulator is functioning properly
Determine if drive belts on air compressors are excessively loose
Tighten panel box fittings to prevent vibration
Clean keel cool strainers, oil coolers and oil strainers in marine gears

Drain water out of fuel traps
Tighten fuel and oil line connections on engines
Inspect day tanks containing fuel for leaks
Lubricate deck and engine room equipment
Determine vessel's manning requirements
Splice eye into line
Wash down vessel's superstructure and decks
Inspect and maintain hull, keel, and rudder assembly

Competency: Prevent marine corrosion problems

Tasks:
Explain how electrolysis causes marine corrosion
Design appropriate bonding systems for vessel components
Wash, brush, and paint problem areas

E. Other duties and skills.

Competency: Prepare meals aboard the vessel

Tasks:
Plan menus
Order supplies
Store food properly
Prepare a balanced meal
Clean galley deck, woodwork, cabinets, dishes, glasses, flatware, trays, pots and pans
Practice safety with oil stoves
Use a microwave
Use a fire extinguisher

Competency: Maintain and analyze records related to fishing

Tasks:
Maintain trip record
Maintain ship's log
Maintain business ledger
Record catch
Record income
Record fish sales records
Keep expense records
Use checking account
Reconcile bank statement
Inventory assets
Analyze profits and losses including:
a. variable and fixed costs
b. opportunity cost
c. return to labor, management investment
Determine net worth
Apply skills to SOEP, Coop, or OJT

(A) Competency: Secure loans from bank and state agencies

Tasks:
Differentiate among types of credit:
a. commercial credit
b. production credit
c. state loans

Explain the procedure for obtaining a limited entry permit
Keep records related to loan

(A) **Competency: Compute the tax liabilities of a fisherman**

Tasks:
Calculate estimated tax payments
Calculate depreciation of vessel and other equipment
Calculate investment credit
Calculate sale and exchange of assets
Calculate deduction and substantiation

F. On-board fish handling.

Competency: Understand the importance of fish quality

Tasks:
Explain the importance of maintaining on-board fish quality
Maintain fish quality

Competency: Handle fish correctly aboard the vessel

Tasks:
Explain the importance of good handling practices
Relate catching rates to correct fish handling
Correctly bleed and gut fish
Wash fish
Store fish on the vessel
Unload fish from vessel

Competency: Practice vessel sanitation

Tasks:
Explain the importance of vessel and product sanitation
Use sanitation tools
Use chemical sanitizers
Identify potential sanitation problems

Competency: Store fish aboard the fishing vessel

Tasks:
Explain the importance of chilling seafood
Store fish without refrigeration
Ice fish
Store fish with chilled sea water
Store fish with refrigerated sea water
Freeze fish at sea

G. Marine products processing.

Competency: **Process fish**

Tasks: Describe both shore-based and floating processing operations
Use processing procedures including:

a. assembly-line processing
b. beheading
c. gutting
d. skinning
e. scaling
f. cleaning
g. icing
h. chilling and cooling
i. crating
j. canning
k. cooking
l. drying
m. smoking
n. foil wrapping
o. freezing
p. maintaining quality control
w. shipping live

Explain steps involved in roe processing

Competency: **Handle and process marine products**

Tasks: Store fish products using icing and refrigeration
Clean seafood
Use quality control in processing
Keep seafood cool, clean, moist and moving
Pack fish eggs for shipping
(A) Trace marine products from the ocean to the retailer
(A) Explain economics of seafood processing
(A) Explain marketing considerations involved in proper seafood handling

Competency: **Maintain fish quality during storage and shipping**

Tasks: Explain the importance of chilling seafood
Define fish processing and refrigeration terms
Identify fish processing sanitation principles and procedures
Determine how long various marine products can be preserved by refrigeration
Identify potential chemical, biological and bacteriological problems in the fishing industry

a. conduct bacteria tests
b. identify problems by sight and smell
c. dispose of contaminated marine products
d. recognize how to anticipate and prevent sanitation problems before they occur

Explain upper and lower refrigeration temperature limits for the various marine products

a. recognize potential sanitation problems
b. explain disinfecting procedures
c. plan stock rotation to insure freshness
d. control temperature during processing

Control/modify atmosphere storage of product
Freeze product
Ship processed product

Competency: **Sanitize seafood plant**

Tasks:
Explain the importance of cleaning and sanitizing seafood plant
Use cleaning equipment
Use chemical sanitizers
Control pests
Maintain personal health and hygiene

H. Actively fish.

Competency: **Net fish**

Tasks:
Explain principles and techniques associated with various net fisheries
Locate quarry using equipment available
Operate and maintain net fishing equipment such as dip, diver, gill, hoop, lampara, pound, trap, reef, trammel, and travel nets
Operate and maintain seine equipment such as purse seine, haul, drag, or beach seine and power skiffs
Insert and attach hoops, rods, poles, ropes, floats, weights, beam runners, other boards, and cables to form, reinforce, position, set, tow, and anchor net as required
Tow net to location and anchor in place
Attach appropriate flags and lights to buoys to mark and identify nets
Haul net with appropriate gear
Remove catch using appropriate techniques and equipment such as dip net, brail buckets, hydraulic pumps, conveyor, lifting net, blocks, tackles, and dumping catches
Clean, store and transfer catch appropriately
Sort and clean fish, throwing undesirable and illegal catch overboard
Stow catch in hold or transfer to tender
Repair fishing nets and gear
Complete minor repairs of engines and equipment
Wash deck and equipment

Competency: **Line fish**

Tasks:
Define line fishing terms
Explain principles and techniques associated with various line fisheries
Lay out gear
Attach:
a. hooks
b. bait
c. sinkers
d. anchors
e. floats
Anchor bottom line for bottom fishery
Cast line into water and hold, anchor, or troll for troll fishery
Retrieve gear onto boat deck by hand, reel, or winch
Haul line by hand or reel and winch onto deck
Unload fish from boat
Clean, pack and store catch appropriately
Slit fish, remove viscera, wash cavity and prepare for storage
Wash deck and equipment using brush, detergent and water
Lubricate and make minor repairs to engines and equipment

Competency: **Pot and trawl fish**

Tasks:
Define pot fishing terms
Explain pot fishing techniques
Rig boat and deploy gear such as pots, floats and markers
Tie marker float to line, attach line to pot, fasten bait inside pot, and lower pot into water
Retrieve gear and remove catch
Hook marker float with pole and haul up pot
Remove catch or dump catch on deck
Measure catch with fixed gauge
Place legal catch in container and return illegal catch to sea
If applicable, rig and lower dredge (rake scoop with bag net attached), drag dredge behind boat to gather marine life from water bottom, and hoist it to deck by hand using block and tackle
Store catch aboard vessel

(A) Competency: **Plan and implement mariculture venture, SOEP, Coop, or OJT**

Tasks:
Gain capital securities
Obtain required permits and necessary statements
Complete business plan including:
a. five-year cash flow plan
b. production system
c. construction and operating costs
d. expected problems and solution
e. projected market supply and demand
f. projection of overall stability and flexibility

(A) Competency: **Analyze economic factors related to a mariculture venture**

Tasks:
Analyze economic factors including:
a. tenure of site
b. initial capital investment for constructing and operating
c. environmental conditions which will affect production cost
d. level of security needed
e. transportation means and distance to marketplace
f. local competitors
g. type and cost of personnel

(A) Competency: **Select species for mariculture venture**

Tasks:
Analyze viability of species including:
a. sources and availability of stocking species
b. stocking density and rates
c. feeding requirement and sources, availability, cost, quality, quantity, etc.
d. growth rates
e. behavioral response to environmental stress, handling, and transporting
f. vulnerability to disease and predators, and response to treatment
g. behavior patterns which will influence management strategies
h. harvesting strategies and frequencies

Analyze marketability of selected species including:

a. demand throughout the year and its stability
b. supply throughout the year and degree of saturation
c. wholesale and retail prices
d. consumer's preferences
e. similar and substitute products
f. expenses and cost
g. gross and net profits
h. rate of return

(A) Competency: Locate feasible mariculture site

Tasks: Analyze environmental resources including:

a. sea conditions
b. bottom conditions
c. topography of site and surrounding areas
d. climatic conditions
e. other uses of site
f. accessibility throughout the year
g. activities of surrounding area
h. other marine resources present and impacts of mariculture development

(A) Competency: Construct and maintain mariculture site

Tasks: Examine area

Sketch out design, taking into account:

a. biological needs of the cultured species
b. ecological needs of the cultured species
c. utilizing topography and environment so as to minimize operating costs
d. keeping harvesting methods efficient
e. keeping construction costs minimal

Remove obstacles which may interfere with operations

Select appropriate type and size of cage to:

a. meet the biological need of the cultured species
b. withstand the elements
c. endure pressure of water current and when transporting
d. screen out predators

Examine unit cost per cage in relation to operating, harvesting, yields, and net profit

Design cage lay-out system considering:

a. position of cages in water column
b. water quality and circulation
c. predators
d. disease
e. ease of cultivation
f. ease of transportation
g. unexpected problems
h. security

Construct cages to endure interaction with environment

Install and secure cages

Maintain cages

(A) Competency: Stock and maintain species in cages

Tasks: Calculate proper stock density considering:

a. natural productivity
b. the need for supplemental feeding and/or fertilizer
c. the size of the cages
d. biological characteristics of the target species
e. economic (profitability) factors

Check that stocking material are healthy

Acclimate stocking material to sea water and sea water temperature and release
Determine available natural food source by analyzing:
a. quality of food present
b. quantity of food present
c. environmental influences including temperature, sunlight, and water chemical characteristics
d. characteristics of the cage
Clean cages of undesirable sea life
Select feeds to meet nutritional requirements of target species
Determine feeding rates and amount
Mix, mince, dry, and/or cook foods as needed
Store foods
Apply feeds manually, mechanically, and/or automatically

(A) Competency: Harvest mariculture fish and/or material

Tasks:
Net, trap and/or lift material from cages
Process fish and/or material, including:
a. sorting and grading
b. chilling or putting fresh material in tanks
c. freezing whole, tails only, or fillets, depending on market
Transport fish and/or material to market

(A) Competency: Increase production as feasible

Tasks:
Increase production by:
a. expanding numbers of cages
b. manipulating stocking frequency and rates
c. sorting population size and/or ages, then segregating into different ponds
d. using supplemental feeding techniques and formulas
e. altering harvesting techniques

III. Manage and Protect the Resource.

Competency: Understand the important state and federal regulations and regulatory agencies pertaining to fisheries

Tasks:
Identify the role of:
a. State Board of Fisheries
b. fishery advisory committees
c. International Halibut Commission
d. Alaska Department of Fish and Game
e. Alaska Division of Fish and Wildlife Protection
f. U.S. Coast Guard
Identify rules pertaining to catch and size for local fishery - include throwing illegal catch overboard

Competency: **Understand the important state and federal regulations and regulatory agencies pertaining to navigation**

Tasks: Identify different classes of vessels including:

a. Class A
b. Class 1
c. Class 2
d. Class 3

Register vessel and display number on boat
Explain how vessels and/or captains may take passengers for hire
Explain enforcement of rules of navigation
Identify the role of the U.S. Coast Guard
Explain rules pertaining to distressed vessels

Competency: **Understand fish management practices**

Tasks: Assess fish stock
Explain concepts of sustained yield fishery
Explain concepts of limited entry fisheries
Identify the consequences of fishery over-exploitation
Explain the future of local and statewide fisheries
Trap and strip fish
Maintain rear ponds
Stock lakes and streams
Rehabilitate waters
Explain how to rescue fish
Survey fish
Remove rough fish
Improve spawn areas
Explain enforcement of proper fishing harvest laws and fish habitat protection laws

(A) Competency: **Define important factors for hatchery placement**

Tasks: Contrast early salmon hatcheries with contemporary ones
Explain the need for salmon hatcheries
Explain a hatchery's need for a steady water supply
Explain environmental factors of salmon hatchery placement
Explain the importance of proximity to good fish habitat

Competency: **Define important hatchery techniques**

Tasks: Explain salmon hatchery spawning
Explain salmon hatchery incubation
Explain the feeding of salmon fry
Explain the issue of fish disease in hatcheries
Explain how hatchery smolt are released

Competency: **Work in a hatchery**

Tasks: Complete paperwork related to hatchery
Construct and maintain incubation system
Collect adults to serve as brood stock
Transport milt and eggs
Fertilize eggs
Monitor eggs during incubation

Identify various developmental stages
Remove dead fish and eggs
Determine survival rates at various stages of development
Maintain environmental factors promoting the development and survival of eggs, fry, and adults
Collect and analyze samples from incubation water
Mark released fry
Monitor return runs to establish survival rates
Collect, record, and analyze data obtained

Competency: Care for fish in a hatchery

Tasks:
Explain salmon development from unfertilized egg to adult salmon
Define anadromous
Identify salmon hatchery procedures
Identify internal and external characteristics of salmon anatomy
Identify environmental factors affecting salmon survival
Identify natural events and cycles affecting salmon survival

Competency: Manage salmon

Tasks:
Identify agencies involved in management of Alaska's salmon
Explain different methods for assessing the fishery
Identify the goals of salmon management

IV. Define the Resource.

Competency: Understand Alaska's water resources

Tasks:
Explain the origins of the oceans
Examine the geology of Alaska's sea bottom
Point out major tidal areas in Alaska
Explain possible effects of water pollution on Alaska's water resources
Point out locations of major Alaskan fisheries
Identify major Alaskan seaports
Identify major Alaskan watersheds

Competency: Identify attributes of Alaska's commercial fish species

Tasks:
Understand attributes of salmonids including:
a. external anatomy
b. internal anatomy
c. classification
d. distinguishing characteristics
e. life histories including:
1. embryology
2. life history stages

Identify attributes of bottomfish including:
a. anatomy
b. classification
c. distinguishing characteristics
d. life history including:
1. embryology
2. life history stages

Identify attributes of dungeness, tanner, and king crabs including:
- a. anatomy
- b. classification
- c. distinguishing characteristics
- d. life history including:
  1. embryology
  2. life history stages

Identify attributes of shrimp including:
- a. anatomy
- b. classification
- c. distinguishing characteristics
- d. life history including:
  1. embryology
  2. life history

Identify the natural foods of fish including:
- a. aquatic insects
- b. plankton

Age fish by:
- a. scales
- b. otoliths
- c. bones
- d. back calculations (growth)

Use plankton net in studying microscopic water life
Use hand dredge for examination of bottom samples
Use seines for identification of small forage fish
Identify Alaska's under-utilized marine resources

Competency: **Understand the life cycles of Pacific salmon**

Tasks: Explain the:
- a. hatching process of salmon
- b. life processes of salmon fry
- c. life processes of adult salmon
- d. reproductive phase of salmon
- e. importance of dead salmon to stream replenishment
- f. issue of man-made hindrances to salmon reproduction

V. Understand the Importance of the Resource.

Competency: **Understand the economic importance of fishing to Alaska**

Tasks: Understand the importance of marketing fisheries resources to the viability of Alaska's fishing industry
Identify the relative dollar value of the Alaskan fishing industry
Locate important Alaskan fishing ports on a map
Identify potential expansion in the fishing industry including:
- a. salmon farms
- b. oyster farms
- c. other shellfish and finfish mariculture developments
- d. bottom fishery

Explain the importance of seafood in the life and economy of Alaska
Contrast life histories of the major commercial fishery species of Alaska
Contrast methods, vessels and gear involved in the Alaskan commercial fisheries
Explain how fisheries managers attempt to regulate the fisheries to the mutual benefit of the resource and the fisherman

Compare and contrast the following fisheries:

a. salmon
b. halibut
c. herring
d. king crab and tanner crab
e. bottom fish
f. shrimp and other invertebrates
g. shellfish

Identify different species within each fishery
Identify gear and vessels used for each fishery

Competency: Understand the traditional importance of fishing to Alaska

Tasks: Trace the history of the marine harvest in Alaska including:

a. historic Native harvest
b. Russian fur trade
c. turn of the century canneries

Relate the importance of fishing to Native Alaskan cultures
Contrast the Native salmon fishery past and present with the non-Native salmon fishery
Project future trends in Alaska's fisheries

Competency: Understand the international importance of fishing to Alaska

Tasks: Identify foreign fishing fleets which frequent Alaskan waters
Identify international rules and regulations which pertain to fishing in Alaskan waters
Identify boundaries of U.S. fishing regulations

VI. Understand Competing Uses.

Competency: Understand the role of fisheries management

Tasks: Explain the importance of fisheries management
Identify general management policies related to fish species including:

a. sport fish
b. rough fish
c. forage fish

Identify general management policies related to fish habitat management

Competency: Understand forces competing for Alaska's fishery resources

Tasks: Identify state, national, and international groups competing for Alaska's fishery resources
Explain the introduction of shellfish and finfish mariculture on traditional fisheries

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AFFAIRS COMMITTEE

House of Representatives

DISTRICT 28

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ILIAMNA
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KING SALMON
KOKHANOK
KOLIGANEK
LEVELOCK
MANOKOTAK
NAKNEK
NELSON LAGOON
NEWHALEN
NEW STUYAHOK
NIKOLSKI
NONDALTON
PEDRO BAY
PILOT POINT
PORT ALSWORTH
PORT HEIDEN
PORT MOLLER
PORTAGE CREEK
SAND POINT
SOUTH NAKNEK
SQUAW HARBOR
ST. GEORGE
ST. PAUL
TOGIAK
TWIN HILLS
UGASHIK
UNALASKA

M E M O R A N D U M

TO: Representative Al Adams, Chairman
House Finance Committee

FROM: Representative Adelheid Herrmann

DATE: March 15, 1988

RE: CSHB 495 (HESS) - Relating to fisheries education programs

CSHB 496 (HESS) - Approp: fisheries education grants

Please schedule the following bills, HB 495 and HB 496, at your earliest convenience.

CSHB 495 (HESS) would allow a school board to establish a fisheries education program in elementary, secondary, vocational, and community schools in a district or regional educational attendance area. The program should include instruction related to the importance to the state of the commercial fishing and processing industry, opportunities for jobs and careers in the industry, and skills relevant to employment in the industry. The Department of Education would be required to both develop and implement model fisheries education programs and instructional materials, and to ecourage and assist schools in developing the programs.

CSHB 495 (HESS) would establish in the Department of Education the fisheries education fund. This fund would consist of money appropriated to it and federal funds and private grants, endowments, and contributions for fisheries education. In making grants the Department would have to both consider programs that are designed to assist in the economic

development of the attendance area served by the applicant, and give priority to programs in elementary and secondary schools. In addition, the Department would have to report to the governor and the legislature a summary of its activities during the preceding calendar year.

CSHB 496 (HESS) makes an appropriation in the amount of $100,000 to the Department of Education for the fisheries education fund, for payment as grants to schools for fisheries education programs in schools throughout the state. The enexpended and unobligated portion of the appropriation lapses June 30, 1989.

Introduced: 2/15/88
Referred: Health, Education &
Social Services and Finance

IN THE HOUSE BY HERRMANN AND DAVIDSON

HOUSE BILL NO. 495

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to a fisheries education curriculum; and providing for an effective date."

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

* Section 1. FINDINGS. The legislature finds that

(1) the commercial fishing and processing industry contributes millions of dollars to the state's economy and employs thousands of people in the state each year;

(2) major segments of the state's commercial fishing and processing industry are controlled by interests outside the state and outside the United States, and a large proportion of jobs in the industry are held by nonresidents;

(3) elementary pupils and secondary students in the state generally receive no instruction about the importance to the state of the commercial fishing and processing industry, and about opportunities for jobs and careers in the industry; and

(4) the establishment of a fisheries education curriculum in elementary and secondary schools would be of great benefit to young Alaskans, to the industry, and to the state's economy.

* Sec. 2. AS 14.30 is amended by adding new sections to read:

ARTICLE 5A. FISHERIES EDUCATION.

Sec. 14.30.420. FISHERIES EDUCATION. (a) A school board may establish a fisheries education curriculum in elementary and secondary schools in the district or regional education attendance area. The curriculum should include instruction related to the importance to the

state of the commercial fishing and processing industry, opportunities for jobs and careers in the industry, and the development of skills relevant to employment in the industry.

(b) The department shall encourage boards to develop programs under (a) of this section. The department may develop model programs and materials for distribution to school boards.

Sec. 14.30.425. FISHERIES EDUCATION FUND. (a) There is established in the department the fisheries education fund as an account in the general fund. The fund consists of money appropriated to it. Money in the fund may be used to make grants to districts and regional education attendance areas to develop and implement a fisheries education curriculum.

(b) The department shall adopt regulations for the determination of entitlement to fisheries education grants, application and approval of grants, and administration of grants. In making grants under this section, the department shall give priority to the development of new programs and to programs that are designed to assist in the economic development of the attendance area served by the applicant.

* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).