

ALASKA LEGISLATURE COMMITTEE FILES 1997-1998 00/2

9386 HOUSE RESOURCES

ANALYSIS OF PUBLIC NEED

Limited Analysis

The following analysis of board activities relates to the public need factors defined in the "sunset" law, Alaska Statute 44.66.050. These analyses are not intended to be comprehensive, but address those areas we were able to cover within the scope of our review.

The extent to which the board, commission, or program has operated in the public interest.

Projects with the greatest health and environmental threats receive priority

In accordance with its statutory responsibility, the board has adopted regulations to be used by the Department of Environmental Conservation (DEC) to rank requests for assistance. Regulations specify the criteria to be used for ranking applications for cleanup, upgrade, and closure. Although not in regulation, the board has established a point system to prioritize each type of project. The point system is designed to give the highest points to leaking underground petroleum storage tanks (USTs) that pose the greatest threat to public health and the environment, thus ensuring projects requiring prompt corrective action are funded first.

Projects with imminent public health threats receive emergency funds

An owner or operator of a UST is eligible for emergency financial assistance if a leak or overfill of their tank poses an imminent public health threat and the owner or operator does not have the funds to begin clean up action. This type of release is usually evidenced by groundwater that has a high potential for contamination with a distinct probability that drinking water is or will be threatened.

After determining eligibility for an emergency grant, DEC must consult the board. At a public meeting the board reviews the severity of the situation, the need for financial assistance, and the applicant's compliance with federal and state laws. Also, the board reviews the preliminary scope of work. The board determines whether the amount of requested funds is appropriate for the proposed scope of work.

Since the board's inception, they have approved seven projects in which almost \$700,000 has been expended on emergency projects.

Board resolves disputes

DEC receives and processes applications for financial assistance. If determined eligible, an applicant's project receives a score (or rank). Once the project receives funding, documentation of expenses is submitted to DEC for reimbursement.

One of the board's statutory duties is to hear appeals from owners and operators who disagree with DEC's determinations. The board has adopted regulations on the appeal process. Once an appeal is requested, regulations require a hearing to be held at the next scheduled board meeting and the board is required to issue a decision within 10 days. According to the board, the hearing date and time is scheduled at the convenience of the appellant. If the location of the next board meeting is inconvenient, a teleconference is held.

Our testing revealed that the board is in compliance with regulations. The files we reviewed showed that appeal hearings were heard within 30 days after a written request was made. Decisions were issued at the end of each hearing.

Since 1991, the board has heard eleven appeals. The majority were related to rank and the remainder related to the eligibility of costs. Appeals over eligibility for the financial assistance program have never been brought before the board. The board has ruled in favor of the appellant in 6 of the eleven appeals (55%), with the remainder in favor of DEC.

According to the board, they have worked with numerous UST owners and operators who have disagreed with DEC's actions but, due to the board's intervention, did not request an appeal. Often, an explanation or clarification of procedures by the board's executive director has eliminated the need for a formal appeal.

Information provided to interested parties

The board utilizes several mediums to ensure that owners and operators are kept abreast of federal and state regulations. After the new storage tank statutes and regulations were adopted, the board, in conjunction with DEC, conducted workshops in seven different areas of the State to introduce individuals to the UST program. The workshops were attended by owners and operators of USTs and individuals from private companies; city, borough, and state agencies.

Currently, the board contributes one or two articles to DEC's newsletter, "Alaska Underground," which is published approximately three times a year. Articles are about board activities or changes in regulations or policies. In addition to owners and operators, the newsletter is distributed to consultants, certified workers, legislators, state agencies and interested persons.

In between publication dates, the board prepares information bulletins that are distributed to tank owners and operators. The bulletins are one to two page reports on issues of interest.

The board has prepared a booklet of "Questions and Answers" about the UST program. It is designed to introduce people to the program and provide answers to questions most frequently asked of the board. It is updated annually and distributed to tank owners and operators, legislators, DEC staff, and federal Environmental Protection Agency staff.

The extent to which the operation of the board, commission, or agency program has been impeded or enhanced by existing statutes, procedures, and practices which it has adopted, and any other matter, including budgetary, resource, and personnel matters.

The board's establishing legislation also provided financial assistance programs to assist the owners and operators of USTs to comply with federal and state requirements. Appropriations are made to the storage tank assistance fund to provide assistance to owners and operators of UST. Although DEC manages the fund, the board is responsible for allocating funds to the financial assistance programs.

Each year, at its July meeting, the board discusses funding. DEC informs the board of the number of applications received and the amount requested. They also suggest various methods to allocate the funds. The board then decides which projects to fund.

When the fund was first established in 1991 more than \$6 million was allocated to storage tank grants. Since then, funding has decreased. While funds have decreased, requests for financial assistance have increased. DEC estimates that over \$54 million is needed to fund all projects on file.

The FY 96 appropriation to financial assistance grants and loans was \$1.9 million. If funding continues at the this level it will take approximately 19 years to fund all projects.

Due to insufficient funding, no funds have been paid to eligible applicants of the reimbursement program. Original legislation allowed tank owners and operators to apply for reimbursement for a part of their eligible costs for UST upgrade activities if such activities took place prior to the law's effective date. Applicants had to apply by March 5, 1991 to be considered for funding. Legislation required that payments under this program would only be made after other requests for financial assistance had been satisfied. Since there remains outstanding funding requests under the various other programs, the board has not allocated any funding for this purpose.

DEC's records indicate that approximately \$3 million is needed to reimburse the 158 eligible applicants on file.

The extent to which the board, commission, or agency has recommended statutory changes that are generally of benefit to the public interest.

The board has actively participated in statutory changes regarding USTs. In 1994, three changes were made to the statutes:

1. Original legislation required the board to hear appeals when disputes arose on eligibility of costs and priority ranking. Statutes were amended to allow the board to also hear appeals on program eligibility.

2. The due date for applications for financial assistance for the tank closure and upgrade and closure program was set for December 31, 1994.
3. The application due date for the tank cleanup grant and loan program (cleanup program) was June 30, 1994. Statutes were amended to extend the due date for two years for eligible applicants of the upgrade and closure program if they discover and report contamination before July 1, 1996.

The extent to which the board, commission, or agency has encouraged interested persons to report to it concerning the effect of its regulations and decisions on the effectiveness of service, economy of service, and availability of service that it has provided.

Activities of the board are discussed at meetings that are open to the public. All meetings are announced in newspapers in the three largest cities in the State. The announcement includes a brief summary of the major issues that will be discussed.

The meeting agenda provides for public comment at the beginning and end of each meeting. Also, the board chair solicits public comments throughout the meeting.

The extent to which the board, commission, or agency has encouraged public participation in the making of its regulations and decisions.

The board has encouraged public participation in the making of its regulations. Prior to adoption, regulations are discussed at board meetings which are advertised and open to the public.

The efficiency with which public inquiries or complaints regarding the activities of the board, commission, or agency filed with it, with the department to which a board or commission is administratively assigned, or with the Office of the Ombudsman have been processed and resolved.

From a review of the ombudsman closed case files we determined that no complaints have been filed against any activities of the board.

The extent to which the board or commission which regulates entry into an occupation or profession has presented qualified applicants to serve the public.

Since the board does not regulate any occupation or profession, this criterion is not applicable to the activities of the board.

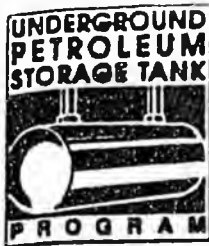
The extent to which state personnel practices, including affirmative action requirements have been complied with by the board, commission, or agency to its own activities and the area of activity or interest.

Nothing has come to our attention to indicate that the board has not complied with state personnel practices.

The extent to which statutory, regulatory, budgeting, or other changes are necessary to enable the agency, board or commission to better serve the interests of the public and to comply with the factors enumerated in this subsection.

See Recommendation No. 1.

(Intentionally left blank)



Board of Storage Tank Assistance

410 WILLOUGHBY AVENUE
JUNEAU, ALASKA 99801
(907) 465-5219
FAX (907) 465-5218

Tony Knowles, Governor

December 22, 1995

Division of Legislative Audit
P.O. Box 113300
Juneau, AK 99811-3300

RECEIVED
DEC 27 1995

LEGISLATIVE AUDIT

Attention: Jim Griffin

RE: Preliminary Report, Sunset Review of the Board of Storage Tank Assistance
Audit Control Number: 18-1432-95

Dear Mr. Griffin,

This letter is in response to the Preliminary Report pertaining to the Sunset Review of the Board of Storage Tank Assistance.

Several errors were noted as follows:

Page 7, paragraph 3. Actual number is \$1.9 million, not \$2.9 million.

Page 15, paragraph 5. Actual number is \$1.9 million, not \$2.9 million.

Page 16, Items 2 & 3. References to "closure program" should read "upgrade and closure program"

The Board of Storage Tank Assistance discussed at length the findings and recommendation outlined in the Preliminary Report, specifically Recommendation No 1, "*The legislature should consider amending Board statutes to provide for the appointment of a public member with no specialized knowledge of, or commercial interest in, underground storage tanks.*"

The Board fully supports modifying existing statutes to allow for additional appointments. With nearly 50 million dollars in financial assistance requests currently on file, the Board welcomes any additional input and insight that might be brought forward by citizens concerned with protecting Alaska's public health and environment. The Board of Storage Tank Assistance has been extremely successful in protecting and restoring Alaska's fragile environment from petroleum contamination resulting from leaking underground storage tanks and has done so without jeopardizing Alaskan jobs or Alaska's transportation dependant economy. The program is under funded at this time and needs to develop an alternative funding source to address current and future needs. The appointment of a concerned representative from outside the tank industry will help the Board evaluate future needs, scope and funding alternatives to insure the continued future success of the Storage Tank Assistance program.

The Board is committed to constantly refining and improving the Storage Tank Assistance Fund consistent with the program's original assistance-oriented intent. Tank owners and operators are a hard working and indispensable segment of Alaska's economy and deserve a hard working, conscientious and diversified Board of Storage Tank Assistance.

As you are aware, funds appropriated by the Alaska State Legislature to the Storage Tank Assistance Fund are allocated annually by the Board of Storage Tank Assistance to different financial assistance programs, the tank cleanup program, the tank upgrading program and the tank closure program.

The Board of Storage Tank Assistance makes the annual allocations after taking into consideration the amount of money in the Fund, the money required to meet the needs for each program, as supported by approved applications and the requirement that the greatest priority be given to funding projects that present the greatest threat or potential threat to public health. Although all regulated tank owners and operators are eligible, all applicants are priority ranked for funding according to regulations and criteria established by the Board of Storage Tank Assistance. The ranking system emphasizes public health threat foremost followed by numerous other considerations such as size of business, number of tanks owned, whether the company is too small to be self-insurable, nearest alternative fuel source and whether the facility is in a rural location. Several other criteria are used to rank applications with an emphasis on small rural tank owners that pose an imminent public health threat and have acted in good faith to undertake as much of the work as possible on their own.

Although the Board has addressed public health threats associated with leaking underground petroleum storage tanks to a considerable extent, the problem is not yet resolved and will take many years to resolve statewide. Again, the Board fully supports the recommendation outlined in the Preliminary Report.

Please feel free to contact me at 465-5219 at your convenience if you have any questions or wish to discuss this matter further.

Sincerely Yours,



John C. Barnett
Executive Director, Board of Storage Tank Assistance

cc: Judy Chadwick-Anderson, Board Chairperson

ALASKA STATE LEGISLATURE
LEGISLATIVE BUDGET AND AUDIT COMMITTEE
Division of Legislative Audit




P. O. Box 113300
Juneau, AK 99811-3300
(907) 465-3830
FAX (907) 465-2347

December 29, 1995

Members of the Legislative
Budget and Audit Committee:

We have reviewed the response of the Board of Storage Tank Assistance to our audit report. We have made the suggested editing changes noted in the letter regarding a dollar amount used in the report and the description of one of the State's underground storage tank programs.


Randy S. Welker
Legislative Auditor

ALASKA Winter 1997 UNDERGROUND



A Newsletter for Alaska Storage Tank Owners, Operators and Contractors

ALASKA UNDERGROUND Volume 6- Number 1

Editor - Karen Paulick
Regular Columns - John Barnett, Bonnie Bladow,
Cathy Gilkov, Cynthia Pring-Ham, Ben Thomas
James Hayden - Storage Tank Manager
Kurt Fredriksson - Director, Spill Prevention & Response

To access the newsletter on the Internet, go to:
http://www.state.ak.us/local/akpages/ENV/CONSERV/dec_pub.htm.

ALASKA UNDERGROUND is published quarterly, free-of-charge, for interested individuals and organizations. It is specifically for education and information and is not intended to replace the standards and guidelines in the state and federal UST regulations. This newsletter is one of several methods the Department of Environmental Conservation has implemented to meet the Educational Assistance requirements in AS 46.03.370.

The State of Alaska, Department of Environmental Conservation, complies with Title II of the Americans with Disabilities Act of 1990. This publication is available in alternative communication formats upon request. Please contact Karen Paulick at 465-5200, or FAX to 465-5218, to make any necessary arrangements.

IN THIS ISSUE

- 1 New Cleanup Standards
- 2 Financial Assistance
- 3 Questions & Answers
- 4 Risk Assessment Plan
- 5 Facility Inspections
- 6 Aboveground Tank News
- 7 News Briefs

Cleanup Standards Revised

Cleanup Levels

The Department of Environmental Conservation (DEC) is proposing changes to the cleanup levels for petroleum contamination. The proposal calls for replacement of the current underground storage tank (UST) matrix and cleanup levels. The Department anticipates releasing a draft of contaminated sites cleanup standards (Article 3 of the Oil and Hazardous Substance regulations, 18 AAC 75), by early 1997. To be consistent with these regulations, the UST Regulations, 18 AAC 78, will be changed to reference these cleanup standards.

3 Types of Cleanup Standards

Three types of cleanup standards have been proposed and are listed below. These standards will increase flexibility to cleanup property. The standards are all risk based but vary depending on the complexity of the site.

■ Generic

The generic numerical standards are intended to protect human health and the environment at any site within three climate zones, without further consideration of site specific conditions. They are based on:

- human health risks associated with the possible ingestion of hazardous substances in the soil/groundwater;
- inhalation of volatile hazardous substances in the soil; and,
- migration of hazardous substance to groundwater.

The generic standards are in a table format and have been calculated for:

- indicator compounds (i.e. benzene, toluene, ethylbenzene, xylene and specific polynuclear aromatic hydrocarbons and metals); and,
- aliphatics and aromatics in the petroleum hydrocarbon ranges, C_6-C_{10} , $C_{10}-C_{25}$, and $C_{26}-C_{36}$.

Maximum concentration levels for different petroleum ranges, based on aesthetic and nuisance considerations, are also addressed.

■ Site Specific

Site specific numerical standards are derived for certain exposure risks using the same models and equations for the generic cleanup standards, but with the inclusion of site specific data. This standards are protective of the groundwater ingestion pathway at the contaminated site.

■ Full Risk Assessment

Full risk assessment based standards are the most sophisticated type of standards and are developed when the owner and operator wants to consider extensive site specific data for multiple exposure risks, for property use that is not expected to be residential, or when unusual characteristics or features are found at the site. These can be determined by following a Risk Assessment Procedures Manual being proposed by DEC.





DOLLARS AND SENSE

STATUS OF THE FINANCIAL ASSISTANCE PROGRAM FOR UNDERGROUND STORAGE TANKS

Since September 5, 1990, the underground storage tank Financial Assistance Program issued over \$18 million (400 grants to 282 facilities) throughout Alaska. The grants were used to cleanup contamination from leaking underground storage tanks (UST), to upgrade underground storage tank facilities for leak detection, spill prevention, and corrosion protection requirements mandated by federal law, and to remove or permanently close USTs.

Grants for FY 1997

Based on allocations by the Board of Storage Tank Assistance, the Financial Assistance Program anticipates continuing cleanup

efforts at the 36 ongoing cleanup projects funded with prior fiscal year funds and beginning cleanup efforts at six new facilities. In addition, funds should be sufficient to award grants for six new upgrade projects and 30 closure or removal projects.

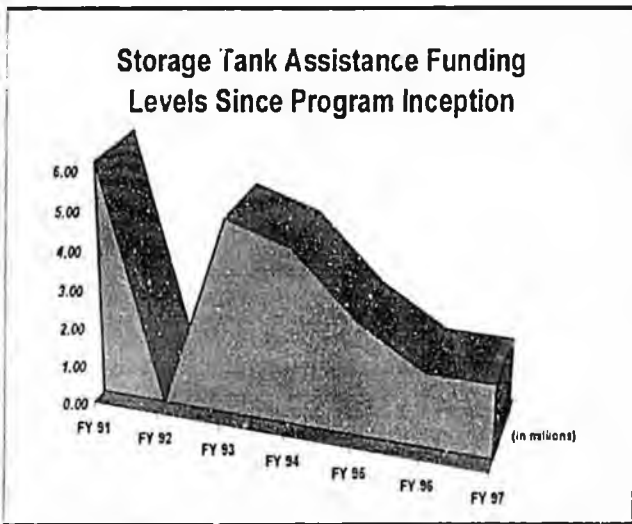
Pending Applications

You can no longer apply to the Financial Assistance Program for grants and loans as the application deadlines ended on June 30, 1994 for the Tank Cleanup Program and on December 30, 1994 for the Tank Upgrade and Closure Program. There are many applicants who applied before the application deadlines, and who are still waiting for financial assistance.

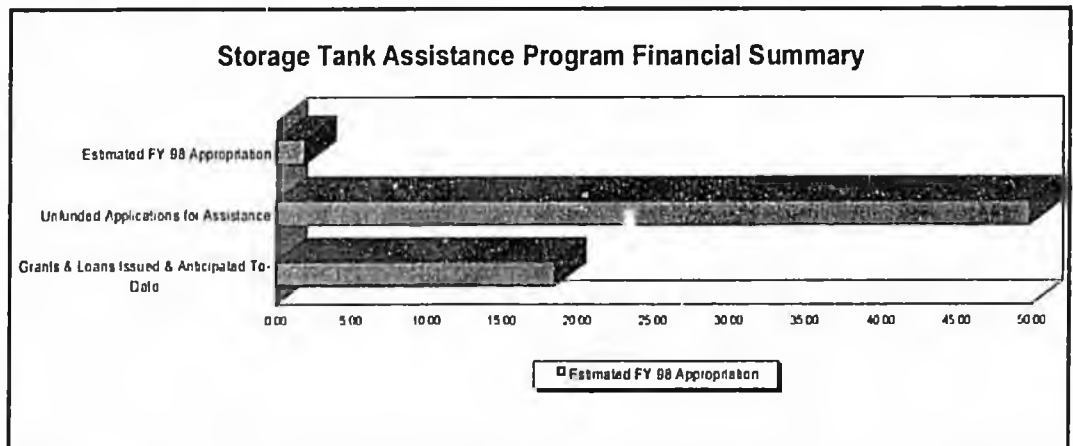
Applications that are pending include: 295 requests for cleanup grants; 190 for upgrade; and 361 for closure. This does not include the 158 applications pending under the Reimbursement Program for work completed prior to September 5, 1990 (the effective date of the Underground Storage Tank Statutes). These applicants, by statute, receive the lowest priority for funding and will not be funded until all applicants under the Tank Cleanup Grant and Loan Program and the Tank Upgrade and Closure Program receive funds.

Additional Funding Needed

The Department is in the process of submitting a request under the capital improvement budget to provide close to \$2.0 million for grants in Fiscal Year 1998 and \$2.0 for Fiscal Year 1999.



Since the inception of the Storage Tank Assistance Fund in 1990, Legislative appropriations have steadily declined. In the FY 91 budget the Fund received \$6.0 million. For FY 97 the Fund received \$1.9.



The Storage Tank Assistance Fund has 1,004 financial assistance applications on file requesting a total of \$49.8 million in aid. The amount anticipated to be received from the next legislative session is expected to be less than \$2.0 million.

QUESTIONS & ANSWERS

DID YOU KNOW?



- **A new UST system must be installed at least 75 feet away from a Class C drinking water well.** This requirement applies to the many facilities that have their own water supply wells.
- **If you have a steel tank and piping with cathodic protection, you are required to have your cathodic protection system tested every three years.** Testing must be performed by a person currently certified by the State of Alaska in cathodic protection testing.
- **The owner/operator of a UST system is responsible for hiring an Alaska certified tank worker to perform UST work.** If an unauthorized worker is used, the owner/operator may need to have the work redone, and may be subject to violations. This includes work for installation, repair, reconfiguration, closure, tank tightness testing, and cathodic protection testing. Not sure? Call your tank worker!
- **A newly installed spill prevention device (catchment basin) must be of sufficient capacity to hold the amount of fuel in a typical delivery hose.** A hose usually holds about 14 gallons. Some catchment basins are only 5 gallons. Make sure yours is large enough!
- **A newly installed UST system must have corrosion protection for both tanks and piping.** There is no piping exemption for the corrosion protection requirements.
- **Deadbeat parents can not be certified tank workers.** A new rule went into effect October 1, 1996, that allows the State to deny renewal of an occupational license to people who are delinquent in paying child support. This includes people who are certified to perform UST work. A new certification will not be reissued or renewed without a release from the Child Support Enforcement Division. The next renewal date for UST workers is December 31, 1997.
- **Owners/operators of USTs must notify the Storage Tank Program when they install, upgrade, repair, or significantly reconfigure a UST, including piping.** Notification must be filled-out and signed by owner/operator AND the certified worker who performed the work.
- **Inventory control with tank tightness testing is only a temporary method of leak detection.** Inventory control will not be an acceptable method of leak detection after December 22, 1998 for tanks without spill/overflow devices and corrosion protection. Inventory control, started before December 22, 1998, may be used for ten years following the installation of a new tank or the upgrading of an existing tank to meet the corrosion protection and spill/overflow requirements.
- **Inventory control can never be used alone.** Inventory control (as a means of leak detection) must always be used in combination with tank tightness testing or statistical inventory reconciliation.

COMMONLY ASKED QUESTIONS ABOUT UNDERGROUND STORAGE TANKS

"Don't Wait Till '98": Last Chance for Free Tank Workshops

The Storage Tank Program will be hosting free, one-day workshops for tank owners and operators in March of 1997. Workshop locations will include Ketchikan, Juneau, Kenai, Anchorage and Fairbanks. Exact times and locations will be announced soon. The workshops will focus on options and technical requirements for upgrade and closure of tanks. We will also have a large collection of free publications. If there is a topic you would like us to cover, or if you think there is sufficient interest in your community to add another workshop near you, please contact Ben Thomas at 907-465-5206. E-mail: bthomas@envircon.state.ak.us



CORRECTIVE ACTION

WORK PLANS: THE KEY TO PREPARING A GOOD RISK ASSESSMENT

If the procedure outlined here is followed, the risk assessment procedure should flow quite smoothly saving a great deal of time and money.

The Underground Storage Tank regulations (18 AAC 78), contain provisions, within Article 3 (Cleanup Standards), for the approval of alternative soil cleanup levels, as well as alternative surface and groundwater cleanup levels. This is done through the submittal of a site specific work plan and risk assessment report by the responsible party (RP). The key to preparing a credible risk assessment document, is the **prior** submittal of a work plan for the proposed risk assessment.

Scoping Meeting

The first item of "preliminary work" is the scoping meeting. This typically involves the RP and/or the RP's consultant, and members of the DEC staff. This is a good opportunity for DEC staff and the RP to discuss the general approach, and identify any problems (data gaps, etc.) that may need to be addressed.

The Work Plan

When the conceptual site model is approved by DEC, the RP can begin to prepare the work plan.

The risk assessment work plan must address the magnitude and probability of threats to both human health and ecological conditions at a site.

The risk assessment work plan should include:

- Submittal of a **conceptual site model (CSM)**. The CSM is used to evaluate exposure pathways. Pathways can be classified as ingestion (through food or drink), dermal (touch), and inhalation (through breathing). Sources of contamination are most often thought of as soil, water, or air.

- An **introduction** sufficient to acquaint the reader with the background of the site (vicinity maps, geologic, and hydrogeologic setting, historical investigations);
- A section to address the selection of **compounds of potential concern**, and a proposed point of compliance; and,
- A discussion of the **fate and transport modeling** of the compounds of concern.

Other sections of the risk assessment work plan should address **exposure assessment** (including land uses, ground water uses, and soil exposure areas), **toxicity assessment**, and **risk characterization**. Ecological receptors need to be adequately addressed.

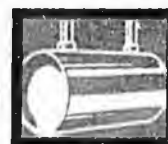
After looking at the data, it may be decided that additional information is required to complete the risk assessment. In this case, it would be important to include in the risk assessment work plan a section on: field activities, to describe such things as the installation of additional monitoring wells; collection of additional soil and ground water samples; and, data collection to support an argument for natural attenuation.

The Department looks forward to working with tank owners and operators in the development of alternative cleanup levels at those sites where the source of contamination has been removed, and the remaining soil and/or groundwater contamination poses no significant threat to human health.

For More Information

For additional information contact Steve Bainbridge, in Fairbanks, at 907-471-2182.

TECHNICAL REVIEW



This past summer, the Environmental Protection Agency (EPA) and Department of Environmental Conservation (DEC) together conducted a second season of (underground storage tank) UST facility inspections throughout the state.

28 Facilities Inspected

The two agencies inspected 76 UST tanks at 28 facilities located on the Kenai Peninsula, Fairbanks, Anchorage, and Fort Greely. The main focus of the inspections was to ensure that owners/operators were performing leak detection and had obtained financial responsibility for their tanks. Inspectors also provided owners with information regarding the upcoming 1998 UST standards and improvements their UST systems would need to meet the 1998 standards.

Who Was Inspected?

This year's inspections covered a wide variety of facilities including: mom & pop businesses; major gas station chains; state facilities; and a military facility. Owners were contacted by DEC approximately two weeks in advance of the inspection date and were requested to have specific documentation readily available for review. Inspections generally took anywhere from a half-an-hour to two hours depending on the number of tanks at the facility, the type of systems being operated, and the age of the tanks.

More Compliance Noted

Compared to last year's inspections, inspectors found more tank owners had upgraded or replaced their systems in an effort to meet the 1998 standards.

Upgrading Worth The Cost

Most owners with upgraded or new systems said it was a stretch financially to upgrade or replace their old systems. However, most were glad they had the work done. Benefits of upgrading included: reduced annual tank registration fees; avoidance of possible business shutdowns due to delays in finding qualified individuals to do the work as the 1998 deadline approaches; and having confidence in their systems, knowing there was less likelihood a release would occur and if one did they would be alerted to the problem before it became a huge financial liability.

Out-of-Compliance Tanks

An owner whose system was found to be out-of-compliance with federal and state regulations was issued a Notice of Non-Compliance (NoNC) and was given a time period to correct violations without monetary fines being assessed. The majority of the NoNC issued were for improper leak detection, specifically improper or incomplete inventory control record keeping and failure to conduct annual tank tightness test. Other violations included: improper leak detection for pressurized lines; failure to have financial responsibility; and failure to do cathodic protection testing.

In general, inspectors found owners and operators cooperative and more aware of the regulatory requirements.

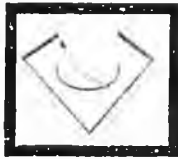
For Information

For information about the inspection program, or for UST facility requirements, contact Tim Stevens at 907-269-7538 or you may call the DEC hotline at 800-478-4974.

EPA AND DEC CONDUCT UST FACILITY INSPECTIONS

Problems Found During Inspections:

- improper leak detection, specifically improper or incomplete inventory control record keeping;
- failure to conduct annual tank tightness test;
- improper leak detection for pressurized lines;
- failure to have financial responsibility;
- failure to do cathodic protection testing.



COAST GUARD INSPECTIONS AND REQUIREMENTS FOR ASTS

ABOVE AND BEYOND

Coast Guard Inspections

The United States Coast Guard (USCG) conducted 187 aboveground storage tank (AST) facility inspections in rural Alaska during the spring and summer of 1996. The major problems discovered were related to lack of, or deterioration of safety equipment. Examples of these discrepancies are:

- no operation manuals;
- inadequate or lack of secondary containment;
- failure to perform pressure testing on transfer piping;
- failure to post "no smoking signs";
- lack of facility security.

In several areas, there was evidence of spills, leaky connections and unstable tanks.

USCG staff noted that they have seen some improvement to AST facilities in rural Alaska and that the awareness level for USCG requirements is improving.

Next year the Coast Guard is hoping to conduct approximately the same number of inspections in rural Alaska. They intend to focus on facilities where problems were found in addition to facilities that they were unable to inspect during this season.

USCG Requirements

The Clean Water Act and the Oil Pollution Act give the USCG authority to regulate "Marine Transportation Related" (MTR) facilities. This includes bulk facilities that are capable of transferring oil to or from vessels with a capacity of 10,500 gallons or more and facilities that pose a significant and substantial threat of discharge.

These requirements, were recently updated, and can be found in 33 CFR 154 and 156. They are briefly summarized below:

- Owner/operator must submit a "Letter of Intent to Operate," to the Captain of the Port. The letter must contain the names, addresses, and telephone numbers of the facility owner and operator;
- Owner/operator must submit two copies of an "Operations Manual" describing how the operating rules and equipment requirements will be met and responsibilities of personnel who conduct transfers;
- Owner/operator must submit two copies of a Facility Response Plan for approval;
- Owners/operators are liable for oil spill removal costs and damages of up to \$350 million including civilian and criminal penalties;
- The Coast Guard will inspect MTR's, focusing on immediate dangers to life and health, pollution prevention, and danger to property;
- The Coast Guard is responsible for testing and maintaining transfer hoses and piping.

For Information

For additional information on USCG requirements for ASTs contact your local Marine Safety Office:

Juneau 907-463-2464
Anchorage 907-271-6700
Valdez 907-835-7215

NEWS BRIEFS



Attention Local Governments

The Storage Tank Program recently mailed local governments in Alaska a UST information packet that is designed to be used by small towns and municipalities to better prepare for the 1998 upgrade or closure deadline. If you did not get the packet, or would like another, please call Ben Thomas at 907-465-5206; or e-mail: bthomas@envircon.state.ak.us

Go Ask "Alice"

Alaska Storage Tank Program staff recently attended a meeting in Washington D.C. to assist in the development of a national standard for UST facility inspections. The meeting, sponsored by the American Society of Testing and Materials (ASTM), explored the possibility of a third-party inspection procedure that could be used by tank owners, state regulators, loan officers, insurance brokers, or licensed tank workers. The standard would look like a comprehensive checklist and would include all the federal tank requirements. (Alaska's UST requirements are very similar, so a checklist for Alaskans would be almost identical.) Alaska is considering moving towards the concept of requiring third-party inspectors to perform a facility inspection every few years.

Liners May Be Used For Corrosion Protection

The last issue of the newsletter had a headline article concerning the upgrading of tanks to meet the 1998 requirements. One method of upgrade for corrosion protection that was not mentioned, but that is an acceptable method of corrosion protection is the use of a liner. See 18 AAC 78.030 (d) for further details.

1997 Registration Fees Due

UST Registration for 1996 expires on December 31, 1996. An annual registration renewal fee is required by AS 46.03.385(a), and must be paid to the Department at least 30 days before the registration expires each year.

A courtesy 1997 Registration Invoice was mailed around November 1, 1996. Registration fees are due **December 1, 1996!** Late fees of \$10 per tank, per day, for non-payment begin January 1, 1997! (The "day of payment" means the day the fee is received by the Department of Environmental Conservation or, if mailed, the day of the postmark.)

Questions about registration or fees? Contact David Allen at (907) 269-2537, or outside Anchorage: (800) 478-4974.

State Tanks

Seven State of Alaska agencies, that manage USTs, are developing a capital budget to upgrade, or close and replace, 200 state-owned USTs throughout Alaska.

Publications Available

The Storage Tank Program has a large stock of publications, such as "Don't Wait Till '98," "Doing Inventory Control Right," "Controlling Cleanup Costs," "Musts for USTs," and "Dollars and Sense." We also have a number of other publications dealing with things such as closure, statistical inventory reconciliation, manual tank gauging, financing options for state and local agencies, and general information about underground storage tanks. Copies of these documents are free to the public.

We also have copies of industry standards related to USTs which may be reviewed in our DEC offices.

For further information about available publications please call or visit your local office of DEC (see listing on back of this newsletter).

Look for this Logo

This logo is a reminder that tank owners/operators should not wait until 1998 to upgrade or close their tanks.



We recently learned that the official Michie version of the UST regulations has a typographical error. The Cleanup Levels, as published in the October 1996, Supplement, Page 264, Part B, Table E, are incorrect. **Do not use these values.** Please refer to the regulations published by the Department and dated November 3, 1995, for the correct values. If you are unsure which version to use or if you have questions, please contact Cynthia Pring-Ham at 907-465-5301.

Department of Environmental Conservation
STORAGE TANK PROGRAM
 410 Willoughby Ave, Suite 105
 Juneau, AK 99801-1795

Bulk Rate
 U.S. Postage
 PAID
 Juneau, AK
 Permit No. 39

ALASKA UNDERGROUND

IMPORTANT DATES

December

1 1997 UST Registration Fees Due
 31 1996 UST Registration Expires

January

February

March Alaska Workshops: Don't Wait Till '98 (Ketchikan, Juneau, Kenai, Anchorage
 Fairbanks)

(Every Saturday - Tank Worker Exam - Anchorage)
 (Fourth Saturday of every month - Tank Worker Exam - Fairbanks)

TANK.NET

The Storage Tank Program has a web page on the Internet to help answer many questions about tanks in Alaska. Currently we get about 20 visits per week. Visitors can: download UST regulations, forms, lists of tank workers, and lists of all tanks; provide links to other tank pages; provide answers to frequently asked questions; and, even download this newsletter. Is there a service that you need that we don't yet provide? Go check it out at: www.state.ak.us/dec/dspar/stp_home.htm, and tell us what you think.

CENTRAL/JUNEAU OFFICE
 410 Willoughby Ave, Suite 105
 Juneau, AK 99801-1795
 907-465-5200

ANCHORAGE OFFICE
 555 Cordova
 Anchorage, AK 99501
 907-269-7500

FAIRBANKS OFFICE
 610 University Ave
 Fairbanks, AK 99709-3643
 907-451-2360

KENAI OFFICE
 35390 Kalifonsky Beach Rd.
 Soldotna, AK 99669
 907-262-5210

FINANCIAL ASSISTANCE
 & REGISTRATION INFORMATION
 555 Cordova
 Anchorage, AK 99501
 907-269-7504

WASILLA OFFICE
 1075 Check St.
 Wasilla, AK 99687
 907-376-5038



The Alaska Underground Storage Tank Program has a
 Toll-Free Hotline. For assistance call:
800-478-4974

HB

141



Official Business

COMMITTEE:

HOUSE RESOURCES COMMITTEE

DATE: March 27, 1997

SIGN-IN

Subject of meeting:

HB 141 - SCALLOP FISHERY/VESSEL MORATORIUM

PLEASE PRINT!

NAME	ADDRESS (MAILING) & (ZIP)	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY?
Earl Krygier	ADFG / CFMID	6112	ADFG	Yes
Susan Shirlley	CFEC	789-6116		No
DALE ANDERSON	CFEC	789-6160		yes.
Mark Kardianis	326 Center Ave F/u Provider, STE 205 KODIAK AK	486-3309	F/u Provider	yes.
Steve White	P.O. Box 110300 Juneau 99811	465-6724	Law	Yes No
<p>MARK KARDIANIS, KODIAK SCALLOPER IS ALSO HERE TO TESTIFY</p>				

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB141

Revision Date: _____ Dept. Affected: Fish and Game
 Title: An Act relating to a vessel permit moratorium for the Alaska weathervane scallop fishery; relating to management of scallop fisheri BRU: Commercial Fisheries (Limited) Entry Commission
 Component: Limited Entry Program Administration
 Sponsor: Rep. Austerman
 Requester: Rep. Austerman COMPONENT SERIAL NO. 0471

(Thousands of Dollars)

Expenditures/Revenues	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
OPERATING EXPENDITURES						
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ()						

(Thousands of Dollars)

FUND SOURCE	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1006 GF/MHTIA						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

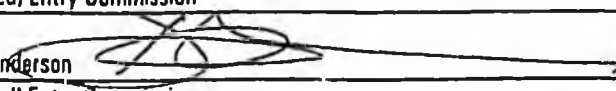
Estimate of any current year (FY97) cost: \$ 0.0

POSITIONS

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary.)

No fiscal impact.

Prepared By: Roger Kolden Phone: 789-6160
 Agency: Commercial Fisheries (Limited) Entry Commission Date: 2/24/97
 Approved by Commissioner: Dale Anderson 
 Agency: Commercial Fisheries (Limited) Entry Commission Date: 2/24/97

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE


REPRESENTATIVE ALAN AUSTERMAN Alaska State Legislature

P.O. Box 2368, Kodiak, Alaska 99615 (907) 486-5930 • Session: State Capitol, Juneau, Alaska 99801 465-2487

FEB 27 1997

Memorandum

TO: Representative Bill Hudson, Co-Chairman
Representative Scott Ogan, Co-Chairman
House Resources Committee

FROM: Representative Alan Austerman 

DATE: February 27, 1997

RE: HB 141 Relating to a vessel permit moratorium for Alaska
weathervane scallop fishery; and management of the scallop fisheries

I respectfully request that a hearing for my bill, HB 141, be scheduled before the House Resources Committee at your earliest possible convenience.

Please contact us if you have any questions concerning HB 141. My staff will provide appropriate backup for your information, including a zero fiscal note by the Department of Fish and Game. Your assistance will be greatly appreciated.



REPRESENTATIVE ALAN AUSTERMAN Alaska State Legislature

P.O. Box 2368, Kodiak, Alaska 99615 (907) 486-5930 • Session: State Capitol, Juneau, Alaska 99801 465-2487

SPONSOR STATEMENT

HB 141

*A VESSEL PERMIT MORATORIUM
FOR THE ALASKA WEATHERVANE SCALLOP FISHERY*

I have introduced HB 141 to implement a moratorium within the state waters off Alaska similar to the moratorium being implemented by the North Pacific Fisheries Management Council affecting the federal waters off Alaska. Without a moratorium implemented in state waters, it is probable that there would be an increase in effort on our state water scallop stocks, as well as on the associated marine habitat, and create an unmanageable fishery.

World wide scallops have proven to be susceptible to overfishing and boom/bust cycles. Scallops are long lived shellfish. The large scallop meats which bring premium prices come from scallops eight years or older.

The Alaska scallop fishery started in 1968. Nineteen east coast scallop vessels came to Alaska and took 1.7 million pounds of scallop meats. The fishery continued at a harvest level of 1.3 million pounds of meats annually until 1973. Catches dropped off sharply after 1973 and fishing ceased in 1978 when scallop beds were depleted. This boom and bust cycle was repeated in the 1980's and appeared to be repeating for a third time in the 1990's until the state developed a fishery management plan for scallops in 1993. All scallop fishing was stopped in February 1995 in order to prevent an east coast scalloper, Mr. Big, from fishing in unregulated federal waters. The fishery reopened in late 1996 under a federal management plan.

At present weathervane scallops are managed jointly by the federal government and the State of Alaska. There is a federal fishery management plan to delegate management authority of scallops to the state "in process" which has not been finalized. The management plan includes mandatory 100% observer coverage, caps on the amount of crab bycatch which can be taken and area specific quotas. Under new language in the Magnuson-Stevens Fisheries Conservation and Management Act, the State of Alaska could exercise management authority out to 200 miles under delegated authority.

It is also in the State of Alaska's best interest that both the State and federal water scallop fisheries have a similar management plans and be managed by the State of Alaska. My goal is delegation of management authority by the U.S. Department of Commerce to the State of Alaska with a more restricted moratorium base. It should be noted that the North Pacific Fishery Management Council's Environmental Assessment and Regulatory Impact Review found that four vessels could efficiently harvest the Alaska scallop quotas.

Within this legislation, I have separated out the weathervane scallop fishery conducted in Area H, in Cook Inlet. The Area H scallop fishery is unique in that it is managed as an entirely separate fishery, has different gear specifications, and has more recently been developed.

HB 141 is needed to ensure careful conservation of the scallop stocks, as well as the marine habitat in which the scallops live, and to ensure that the bycatch of other marine animals, such as crabs, are properly controlled and managed. It is imperative to implement a moratorium on new entrants into the weathervane scallop fishery now.

AMENDMENT # 1

OFFERED IN THE HOUSE

TO: CSHB 141(FSH)

JK

- 1 Page 5, line 1:
- 2 Delete "Alaska"
- 3 Insert "the state and the adjacent United States exclusive economic zone"

A M E N D M E N T #2

OFFERED IN THE HOUSE

TO: CSHB 141(FSH)

1 Page 3, line 24:

2 Following "registration area":

3 Insert "(1)"

4 Delete "1995"

5 Insert "1994"

6 Following "1996":

7 Insert "; and

8 (2) during each of at least three calendar years between 1984 and
9 1996, inclusive"

10 Page 3, following line 24:

11 Insert a new subsection to read:

12 "(f) Notwithstanding (d) and (e) of this section, a vessel owner who does not
13 own a commercial fishing vessel that qualifies for a vessel permit for a scallop fishery
14 registration area may receive a vessel permit for that registration area if the vessel
15 owner owned and fished two or more commercial fishing vessels whose combined
16 participation in the scallop fishery for that registration area would satisfy the
17 requirements for a vessel permit for that registration area under this section. The
18 commission shall issue a vessel permit under this subsection to the last commercial
19 fishing vessel that the vessel owner owned to satisfy the requirements for the vessel
20 permit for the registration area if the vessel owner still owned that commercial fishing
21 vessel on July 1, 1997."

22 Reletter the following subsections accordingly.

A 3

AMENDMENT #3 TO CSHB 141 (FSH)

page 3, line 14:

change "July 1" to "June 30"

- 1 Page 3, line 28:
- 2 Delete "(d) - (f)"
- 3 Insert "(d) - (g)"

Ernest E. Beile, Jr.

PO Box 36 ◀ Homer AK 99803
Home Phone (907) 235-7821

March 18, 1997

Rep. Gail Phillips
House of Representatives
State Capitol
Juneau AK 99801-1182
FAX 465-3472

Dear Rep. Phillips,

I hate to write a letter of this context to anyone but a truly grave injustice is about to happen again. I am a Scallop fisherman from Homer, 25 years of paying taxes and building a life of five children all born and raised here. Fourteen years ago a Scallop fisherman from New Bedford, MA named Mark Candianice rolled around here from the East in a vessel called the F/V Pursuit. I don't usually bring up personal names, but since I called to speak with Rep. Austerman from Kodiak who introduced House Bill No. 141(FSH) my reply back was a call from Mr. Candianice who is obviously a constituent.

In his pursuit to structure how this fishery will continue he has participated in several strange practices such as darting in and out of Cook Inlet as other Kodiak fisherman did for years hitting Kamashak Bay, Cook Inlet during the month of December when the fishery was closed. In 1986 the state totally closed the Scallop fishery in Cook Inlet due to these infractions. Who paid? We did in Homer.

Only because name of them fished open waters to qualify for statewide district.

◀ According to Bill 141, Cook Inlet Scallop fisherman are to be locked into area H. (See Sec. 16.43.9006 (e) and definition (i) #1). We who of all Scallopers have demonstrated very clean dredging practices, and by the way are not even required to have observers. Check out our record with AK State Fish and Game. We are given no credit for clean fishing, why keep us out of the Exclusive Economic Zone (EEZ) when others show no effort on their own part to police themselves.

However, competitors are also locked out of area H!

Mr. Austerman's bill states we should stay in area H, basically super exclusion. One problem in being locked into Cook Inlet it does not allow for oil spill-related problems shutting us down. We would have nowhere to fish. At the same time I have never been one to protest oil development in Cook Inlet. Another unfair situation is the fact that there is a vessel from Petersburg which has only fished the Yakutat district. It will under Mr. Austerman's bill be allowed to range everywhere. There is a lot of new frontier in the Western Aleutians that no one has explored. Why should that area be just for a select few fisherman from Kodiak and the Eastern Seaboard.

This boat has always fished open waters, and therefore, will qualify for all open waters.

I might point out that my argument was well received with our State Fishery Advisory Panel. When passed on to the North Pacific Fisheries Council it fell to deaf ears. Please represent some true Alaskan people in this issue. Throw out Sec. 16.43.9006 (e) of this bill and let all Alaskan scallop fisherman (only 6 registered in 1996) fish anywhere in coastal Alaska, respecting the gear size regulations that have been in place for 16 years.

This boat has fished 12 years in Yakutat - the chance of it being very slim & hypothetical.

⇓
18 months ago, BOF denied a proposal to combine management and gear types.

Sincerely,
Ernest E. Beile, Jr.
Captain F/V Northern Explorer

Ernest E. Beile

The result to the long time fishers were lost homes, broken families and near insolvency for the resident fleet. But all but one of the recently arrived east coast vessels returned to fish back east during the federal closure as they had permits to do so. On their way, this fleet stopped to fish off Washington and Oregon. They depleted those beds with gear that is illegal in both Alaska and on the east coast. The resident Alaskan fleet does not have the licenses to fish in the east coast's limited entry scallop fishery. Neither did our single purpose vessels qualify for any of the other Alaskan fisheries.

These events happened, I honestly feel, due to the lengthy three and a half years the NPFMC took to develop a management plan and federal moratorium for the Alaskan scallop fishery. This allowed the fleet, along with greed from the then newly arrived east coast fleet, to double in size and increase capacity way beyond the boundaries the resource can support in the long run.

It is sad that regulators do not react to curtail overcapitalization in fisheries until it is too late. It is then left to managers and what fishers remain to pick up the pieces to try to make a viable fishery. In this case, the cost and harm done to the resident fleet was, without question, immense.

In closing, I must again state that, in my estimation, this fishery can only support a handful of dedicated full time vessels. Anything more than this will result in attrition due to insolvency. The long term fishers here can not move to other fisheries as they have no other fisheries to move to.

* I can not speak to issues concerning the Cook Inlet scallop fishery as this is not an area that we fish.

Thanks for your attention to these issues. Please call for any additional information.

Sincerely,

Mark P. Kandianis

MARK P. KANDIANIS
FV Provider

Bill - There are two districts

1) Cook Inlet

a) smaller boats

b) smaller nets

c) state funded ADF+G observer

2) Statewide Coastal

a) larger boats

b) larger nets

c) \$6000⁰⁰/mo fee for state-certified
contact observer

Post-it Fax Note	7671	Date	1-31-97	# of pages	6
To	Clara Dougherty	From	Mark Kandianis		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	907-465-4956	Fax #			

Mark Kandianis
 c Fish Company
 326 Center Avenue
 Suite 205
 Kodiak, AK 99615

January 30, 1997

Mr. Dale Anderson
 Commercial Fisheries Entry Commission
 State of Alaska

VIA FAX: 907-784-6170

Dear Dale:

My name is Mark Kandianis. I'm a commercial scallop fisherman from Kodiak. I have fished scallops commercially in Alaska since 1980 as mate and captain aboard the F/V Pursuit and later owner and captain aboard the F/V Provider.

In 1993, the North Pacific Fishery Management Council did an analysis which stated that the Alaskan scallop fishery could support nine vessels at break-even with a GHL of approximately 1.0 - 1.3 million lbs. of shucked scallops. This overstates the abundance of Alaska's scallop resource as GHL's are actually all set at 0 to the upper range of harvest. Since 1993, several management areas have had GHL's reduced or were closed early due to low CPUE, with signs that other areas may also be in decline. Additionally, many of the areas for which a GHL is established do not support any commercial weathervane scallop beds while other areas are closed due to crab bycatch long before the GHL is reached. Many commercially viable scallop beds are not available to harvest due to their location within closed areas such as sea lion rookeries and crab savings areas.

I have witnessed localized stock depletions often in the past. The Bering Sea started with no set quota in 1993 - later a GHL was set at 0-600,000 lbs. I fully expect to see reductions in this area in the near future. In Kodiak, the long term mainstay of our fishery, the GHL was set at 400,000 lbs. In the recent past, this production came almost exclusively from the Shelikof District as beds on the east side of Kodiak are depleted. Last year, the CPUE in Shelikof dropped quickly, and as I recall, the harvest was 210,000 lbs. when it was closed. The Prince William Sound quota was set at 50,000 lbs in 1994 and was reduced this year to 22,000 lbs. even after a lengthy closure.

I believe that many of the western area stocks are comprised of sporadic year classes with little or no sign of recruitment. In light of this, I believe in the near future that the statewide GHL's will be diminishing. I believe the Alaskan scallop resource to be classified as being spasmodic which shows irregular pulses of high abundance followed by periods of scarcity or collapse. Most scallop stocks fit this type. Environmental conditions

underlie spasmodic pulses in at least two well documented and dramatic cases. Another factor to consider is crab bycatch which can and has limited catch in most districts in the westward region.

However, conservative management measures can allow this fishery to stabilize. The weathervane is a longlived animal so good year classes can be spread out to accomodate a small fleet over time until the next successful recruitment event occurs.

As small a number as it might seem, it has been my experience over time that this resource has never supported more than four to five full time vessels on a year round basis and in some years fewer than that.

I own one vessel in the fishery and have many times in the past been asked if I would be interested in expanding to other vessels in the fishery. I have declined knowing from nearly two decades of experience the limits of the resource and the abundance fluctuations.

In 1992 with the arrival of two unusually large, high capacity vessels and with very little in the way of management, it became evident that the resource was about to be overexploited with no consideration for the future health of the fishery.

As word of large landings reached the east coast, gold fever seemed to prevail as owners sent vessels through the Panama Canal two at a time. In 1992, a Federal moratorium was sought when it became evident that the State of Alaska had no mechanism to limit the number of permits by vessel. (We also found that the Federal groundfish moratorium would not cover scallops as they were not covered under the federal groundfish management plan. Though the resource is located primarily in the EEZ, the scallop fishery had been managed by the State for over twenty years.)

As the newly arrived fleet steadily increased, their assertions were that though the fishery had been prosecuted for twenty years, neither the State nor the long-term fishers really knew the extent of the resource. Also, the North Pacific Fishery Management Council had only limited interest in this fishery as they had bigger fish to fry. State management concerns grew, along with many restrictive measures - which we supported.

At this time, with the inclusion of the newly arrived east coast vessels there were approximately 9-10 full time vessels participating. The historic participants found themselves operating at break even or less. In January 1995, one of the new high capacity vessels (Mr. Big) turned in its Alaskan scallop permit and fished exclusively in federal waters in order to avoid Alaska's regulations. Without an FMP, operators in the EEZ without any Alaskan permits could fish without adhering to any regulations. This resulted in the fishery being shut down completely by the NPFMC for over eighteen months. Only a limited fishery in state waters occurred during that time.

HB0141
CSHB 141(FSH)

CS FOR HOUSE BILL NO. 141(FSH)
IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTIETH LEGISLATURE - FIRST SESSION

BY THE HOUSE SPECIAL COMMITTEE ON FISHERIES

Offered: 2/27/97
Referred: Resources

Sponsor(s): REPRESENTATIVE AUSTERMAN

A BILL

FOR AN ACT ENTITLED

"An Act relating to a vessel permit moratorium for the Alaska weathervane scallop fishery; relating to management of the scallop fisheries; and providing for an effective date."

BE IT ENACTED BY THE STATE OF ALASKA:

- * **Section 1. LEGISLATIVE FINDINGS AND INTENT.** (a) The legislature finds that
- (1) the scallop fishing fleet in Alaska is overcapitalized;
 - (2) fishing effort in the Alaska weathervane scallop fishery has reached levels that may threaten the sustained yield management of the fishery;
 - (3) weathervane scallops are long-lived animals with few natural predators; these attributes are common to species that are the most susceptible to overfishing;
 - (4) the status of many Alaska weathervane scallop stocks is largely unknown, and the stocks are susceptible to localized depletion and general overfishing;
 - (5) scallop fisheries around the world have collapsed after relatively short periods of intense fishing;
 - (6) scallop dredges may adversely affect important bottom-dwelling species, such as king crab and Tanner crab, and without careful management may threaten the conservation of these other fishery resources;
 - (7) the conventional limited entry and moratorium system under AS 16.43 cannot adequately protect the economic health and stability of the Alaska weathervane scallop fishery or adequately promote the sustained yield management of the Alaska weathervane scallop fishery;
 - (8) the United States Department of Commerce has taken action to restrict access to the Alaska weathervane scallop fishery in the waters of the United States exclusive economic zone adjacent to Alaska;
 - (9) state management of the entire Alaska weathervane scallop fishery will provide a uniform and comprehensive management regime for the fishery, protect the economic health and stability of the fishery, and promote sustained yield management of the fishery;
 - (10) establishment of a moratorium on the issuance of vessel permits to new vessels seeking to enter the Alaska weathervane scallop fishery promotes the purposes of art. VIII, sec. 15, Constitution of the State of Alaska, and AS 16.43 while providing an opportunity to study and evaluate the feasibility of a permanent vessel permit limited entry system for the Alaska weathervane scallop fishery.
- (b) It is the intent of the legislature that the Board of Fisheries maintain 100 percent observer coverage for all vessels engaged in the Alaska weathervane scallop fishery.

*oil on other scallop areas
have no oil clean*

* **Sec. 2.** AS 16.05 is amended by adding a new section to article 5 to read:

Sec. 16.05.735. Management of offshore fisheries. The state may assume management of the scallop fisheries in offshore water adjacent to the state in the absence of a federal fishery management plan for scallops or in the event that a federal fishery management plan for scallops delegates authority to the state to manage scallop fisheries in the United States exclusive economic zone.

* **Sec. 3.** AS 16.43 is amended by adding a new section to read:

Sec. 16.43.906. Vessel permits for weathervane scallop fishery. (a) The commission shall issue annual vessel permits for commercial fishing vessels used in the weathervane scallop fishery. The commission shall issue vessel permits to the vessel upon application by the vessel owner. The commission shall issue separate vessel permits for each registration area. The weathervane scallop fishery registration areas are the statewide Alaska weathervane scallop fishery registration area and the area H weathervane scallop fishery registration area.

(b) A vessel permit is a use privilege authorizing the vessel to take weathervane scallops in the registration area for which the vessel permit is issued. The use privilege conveyed by a vessel permit may be modified or revoked by the legislature without compensation.

(c) On or after July 1, 1997, a commercial fishing vessel may not be used to take weathervane scallops in a registration area unless a vessel permit for that registration area has been issued under this section for the vessel.

(d) The commission may not issue a vessel permit under this section to a commercial fishing vessel for the statewide Alaska weathervane scallop fishery registration area for the period from July 1, 1997, through June 30, 2001, inclusive, unless the vessel has landed at least 1,000 pounds of weathervane scallops that were legally taken in the statewide Alaska weathervane scallop fishery registration area.

(1) during calendar year 1995 or 1996; and

(2) during each of at least four calendar years between 1984 and 1996, inclusive.

(e) The commission may not issue a vessel permit under this section to a commercial fishing vessel for the area H weathervane scallop fishery registration area for the period from July 1, 1997, through June 30, 2001, inclusive, unless the vessel has landed at least 1,000 pounds of weathervane scallops that were legally taken in the area H weathervane scallop fishery registration area during calendar year 1995 or 1996.

(f) Use of a vessel in a weathervane scallop fishery on or after July 1, 1997, may not be used to establish eligibility for a vessel permit for a weathervane scallop fishery that may be issued after June 30, 2001.

(g) Subsections (d) - (f) of this section may be superseded by regulations adopted by the commission under subsequent legislation enacted by the legislature authorizing

(1) a permanent vessel permit limited entry system for the weathervane scallop fishery; or

(2) termination of the temporary moratorium on issuance of new vessel permits established by this subsection.

(h) An application for a vessel permit under this section must contain the name of each permit holder authorized to operate the vessel in the weathervane scallop fishery and other information the commission may require to implement this section. The owner of a vessel for which a vessel permit is issued shall notify the commission in writing of a change in the permit holders who are authorized to operate the vessel in the weathervane scallop fishery. In this subsection, "permit holder" means a person who holds an entry permit or interim-use permit issued under this chapter for the weathervane scallop fishery.

(i) If a commercial fishing vessel that qualifies for a vessel permit under this section is sunk, destroyed, or damaged to the extent that the vessel is inoperable for a weathervane scallop fishing season, the commission may, upon the request of the owner of the vessel, reissue the vessel permit for that fishing season to another commercial fishing vessel with an overall

wants to be able to go ahead where (oil spill C.I.)

Supports oil in C.I. but if spill need to go elsewhere

Shut down by F&G couldn't fish some years

length and horsepower rating that does not exceed the overall length and horsepower rating of the vessel that was sunk, destroyed, or damaged.

(j) The fee for the annual vessel permit is \$1,000. A vessel permit is valid for the calendar year that is inscribed on the license.

(k) The commission may adopt regulations that the commission considers necessary to implement this section.

(l) In this section,

(1) "area H weathervane scallop fishery registration area" means the marine waters of Cook Inlet north of the latitude of Cape Douglas (58 degrees 52 minutes North latitude) and west of the longitude of Cape Fairfield (148 degrees 50 minutes West longitude);

(2) "landed" includes catching or catching and processing of weathervane scallops taken in state waters or the adjacent United States exclusive economic zone for sale as evidenced by a Department of Fish and Game fish ticket;

(3) "statewide Alaska weathervane scallop fishery registration area" means the marine waters of Alaska, outside of the area H weathervane scallop fishery registration area.

* **Sec. 4.** AS 16.43.911(c) is amended to read:

(c) Notwithstanding AS 16.05.815 and AS 16.43.975, the commission may release to the owner of a vessel information on the vessel's history of harvests in a [THE KOREAN HAIR CRAB] fishery that is necessary to apply for a vessel permit

under AS 16.43.901 - 16.43.906.

* **Sec. 5.** Section 5, ch. 126, SLA 1996, is amended to read:

Sec. 5. AS 16.43.901 [AND 16.43.911], added by sec. 3 of this Act, is [ARE] repealed July 1, 2000.

* **Sec. 6.** AS 16.43.906, added by sec. 3 of this Act, and AS 16.43.911 are repealed July 1, 2001.


* **Sec. 7.** This Act takes effect immediately under AS 01.10.070(c).

March 22, 1997

To: Rep. Alan Austerman
Chairman, House Fisheries Committee

From: Rep. Gail Phillips
SPEAKER OF THE HOUSE

Re: HB141 - Moritorium for Scallop Industry



Alan, please review the attached letter from Ernest E. Beile, a 25-year Cook Inlet scallop fishermen, during your committee meeting pertaining to the above proposed legislation.

His concern is for limiting the fishing area to just area A, when new areas may open which would then exclude Cook Inlet scallopers, but not the few fishermen from Kodiak. (Section 16.43.906(e)).

Additionally, Section 16.43.906 (d) of the bill calls for qualifying years of 1984 - 96; however, apparently during this time Cook Inlet was shut down due to overfishing from boats outside the district. This timeframe limits Cook Inlet fishermen, who could not fish due to regulation, not because they did not want to fish during those years.

Please get back to me with your committee's response after your meeting. Thank you.

GP:ps

encl.

*Manette - here's draft of what's coming
to Austerman - I should have his other
letter today - tomorrow. Pat*

108

Ernest E. Beile, Jr.

PO Box 36 Homer AK 99603
Home Phone (907) 235-7821

March 18, 1997

Sen. John Torgerson
Senate
State Capitol
Juneau AK 99801-1182
FAX 465-4779

Dear Sen. Torgerson,

I hate to write a letter of this context to anyone but a truly grave injustice is about to happen again. I am a Scallop fisherman from Homer, 25 years of paying taxes and building a life of five children all born and raised here. Fourteen years ago a Scallop fisherman from New Bedford, MA named Mark Candianice rolled around here from the East in a vessel called the F/V Pursuit. I don't usually bring up personal names, but since I called to speak with Rep. Austerman from Kodiak who introduced House Bill No. 141(FSH) my reply back was a call from Mr. Candianice who is obviously a constituent.

In his pursuit to structure how this fishery will continue he has participated in several strange practices such as darting in and out of Cook Inlet as other Kodiak fisherman did for years hitting Kamashak Bay, Cook Inlet during the month of December when the fishery was closed. In 1986 the state totally closed the Scallop fishery in Cook Inlet due to these infractions. Who paid? We did in Homer.

According to Bill 141, Cook Inlet Scallop fisherman are to be locked into area H (See Sec. 16.43.9006 (e) and definition (l) #1). We who of all Scallopers have demonstrated very clean dredging practices, and by the way are not even required to have observers. Check out our record with AK State Fish and Game. We are given no credit for clean fishing, why keep us out of the Exclusive Economic Zone (EEZ) when others show no effort on their own part to police themselves.

Mr. Austerman's bill states we should stay in area H, basically super exclusion. One problem in being locked into Cook Inlet it does not allow for oil spill-related problems shutting us down. We would have nowhere to fish. At the same time I have never been one to protest oil development in Cook Inlet. Another unfair situation is the fact that there is a vessel from Petersburg which has only fished the Yakutat district. It will under Mr. Austerman's bill be allowed to range everywhere. There is a lot of new frontier in the Western Aleutians that no one has explored. Why should that area be just for a select few fisherman from Kodiak and the Eastern Seaboard.

I might point out that my argument was well received with our State Fishery Advisory Panel. When passed on to the North Pacific Fisheries Council it fell to deaf ears. Please represent some true Alaskan people in this issue. Throw out Sec. 16.43.9006 (e) of this bill and let all Alaskan scallop fisherman (only 6 registered in 1996) fish anywhere in coastal Alaska, respecting the gear size regulations that have been in place for 16 years.

Sincerely,
Ernest E. Beile, Jr.
Captain F/V Northern Explorer

Melinda,
This is the guest letter
that Mary was talking
to you about at the
dks.

Reference to House Bill 141

March 25, 1997

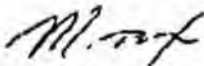
Please let the following clause for an amendment to HB 141 supercede my suggestion for an amendment which I sent Monday, March 24, 1997, - - - the part which referred to a reciprocal clause.

The amendment should be: Each vessel owner who qualifies for a permit to fish scallops during the moratorium in the Cook Inlet, Area H, Alaska registration area will also qualify for a permit in the statewide Alaska weathervane scallop fishery.

Note: The four vessel owners who would qualify with the above amendment are all Alaskan. They live here in Alaska, and sell their product in Alaska, (one from Cordova, two from Homer, and one from Eagle River).

This is a fair and simple way for the legislature to assure deserving Alaskan fishermen their rights.

Thank you.



Max Hulse
FV La Brisa
P O Box 770881
Eagle River, AK 99577
907-694-2413
FAX 907-694-2413

OCEANIC RESEARCH SERVICES, INC.

P.O. BOX 192
ESTER, AK. 99725

PHONE: 907/479-5426
FAX: 907/479-5425

TO: HOUSE RESOURCE COMMITTEE

ATTN: REP. BILL HUDSON/ AIDE HANS

FROM: WILLIAM KOPPLIN

DATE: 26 March, 1997

NO. OF PAGES:

Rep. Hudson,

I would like to comment on HB 141 that your committee is having a teleconference on 27 March. I plan on being present and plan to testify during the teleconference. I own a small fishing vessel that I use to scallop. We also fish in other fisheries. I have scalloped in the Yakutat, Kodiak, and Cook Inlet areas. If this bill is passed without any revisions, I will only be able to fish in Cook Inlet. I have been an Alaskan resident for 22 years and I intend to stay here for a long time. I hire Alaskan residents for crew and I spend the proceeds from the scallop harvest in the State. My comments and concerns are:

Page 1:

Line 6: The scallop fishing fleet has not been shown to be overcapitalized. The North Pacific Fisheries Management Council (NPFMC) in 1994 could not and did not determine that the fleet was over capitalized. At that time there were only 18 boats in the fleet. I am not aware of any analysis that has been done since that time and the scallop fleet has decreased in size from 18 to 11. Under the NPFMC moratorium, only 11 vessels qualified for a permit. The same amount of fishable area on the East Coast is presently supporting approximately 350 vessels. This is decreased from over 500 vessels four years ago. HB 141 would further reduce the number of qualified vessels to fish in Alaska to 4. The 1996 scallop quota was approximately 1.5 million lbs. The ex-vessel price was \$7.00 per lb. That makes the harvest worth \$10.5 million or \$2.6 million per vessel for four vessels. I am hard pressed to believe that any vessel is not financially viable that can gross \$2.6 million. It should also be noted that all four of the qualifying vessel are owned by people that do not live in the State of Alaska and that the majority of the crews are not Alaskan residents. Neither the jobs or the money will stay in the State.

Line 7: The Catch Per Unit Effort (CPUE) for the scallop industry is low in some areas that have been heavily fished for many years. The largest scallop areas, Yakutat, Kayak Island, and the Bering Sea have not shown any drop in the CPUE that would indicate that the stocks are threatened. In most of the areas the CPUE has remained high until the quota is reached. This indicates that the stocks are healthy and over fishing is not occurring.

Page 2:

Line 4-7: The NPFMC has spent four years working on a scallop moratorium plan and it is

currently ready to implement. Why is the State inventing another plan? This appears to me to be overlap of resources, time, and money. What is the reasoning behind the statement that the current plan can not "adequately promote the sustained yield management of the Alaska Weathervane scallop?" ADF&G has recently increased the quota in both the Yakutat and Cook Inlet areas. This appears to indicate that the management plan is working well and does not require change.

Page 3:

Line 15: The Alaska Department of Fish and Game (ADF&G) has a current practice of using the term "landing" to prove of a vessel's participation in a fishery instead of a certain amount of poundage to show proof that a vessel has participated in a fishery. The NPFMC also uses this definition as proof of participation in the scallop fishery. The use of a set number of pounds is not required and will cause increased time and money to verify each boat. Small boat owners such as myself, can often be disqualified if due to mechanical breakdown or bad weather we can not make large landings. Putting a certain amount of poundage in order to qualify discriminates against small boat owners.

Lines: 17-19: The qualifying years for a vessel. Can you explain the logic for the proposed dates, especially since the scallop season was closed in 1995 due to the "Mister Big" situation. The requirement for a vessel to qualify in both stipulations is not practical and as I stated earlier, this will exclude most of the vessels that qualify for the NPFMC moratorium. This will also reduce the total number of vessels that qualify to only 4 and all of these vessels are owned by non-Alaskans. These requirements will also exclude all Alaskan vessels from fishing our State resource.

Lines 20-24: There is no reason to spend the time and money to set up a separate regulations and permitting for area H. This area presently has a separate quota and gear restrictions. This area should not be separated from the rest of the State and should be open to any vessel that wants to fish in those waters and follow the regulations that are in place. This clause is creating a "super exclusive" area and past history has shown that these types of areas are costly and difficult to manage. Again by setting up this region separately, small boat owner is being excluded from fishing in the remainder of the State.

Page 4:

Line 19: The annual fee of \$1,000 will be a great hardship for small boat owners. The current scallop license fee for Ak. residents is \$250. This is the highest fee for all the fishery licenses. I can not understand the reasoning for quadrupling the fee.

Page 5:

Lines 4-12: I do not have the resources to look up the stated statutes. Can you explain them to me and what is meant in lines 4-7?

I would like to add the following Amendments:

1) Page 3, Line 15, Delete "at least 1,000 pounds of weathervane scallops" and replace with "the vessel must have at least one landing of weathervane scallops".

2) Page 3, Lines 17-19, delete the lines and insert "use the same qualifying criteria as specified in the NPFMC Scallop Moratorium for vessel qualification. There would be no exceptions."

3) Page 3, Lines 20-24, delete the entire clause and add "any vessel legally registered, can fish

any area as long as the vessel follows the ADF&G regulations for that area."

4) Page 4, Line 10, delete "\$1,000" and add, "use the current fee for State residents and increase non-resident fee to \$2,000.

My closing remarks on HB 141; this Bill was written to give the scallop fishery to out of State residents. HB 141 will disqualify all the small boat owners in the State from fishing scallops. This is a resource that belongs to the residents of the State of Alaska. The NPFMC has spent over four years working on this moratorium project and they have reduced the scallop fleet from approximately 22 down to 11 vessels. At the current harvest level, current price, and 11 vessels fishing, this allows for more than \$1 million per vessel. I find it difficult to understand that the industry is overcapitalized with that amount of money. I also know that our boat did not come close to grossing \$1 million last year from scallop fishing. Our boat qualifies under the NPFMC moratorium but not with this Bill. I urge you to rewrite HB 141 to be more equitable to small boat owners and residents of Alaska, or accept the NPFMC Moratorium and save your time and money enacting a similar bill.

Thank you for your time.

Sincerely,



William Kopplin
resident

COST DATA FOR ALASKAN SCALLOP FLEET

AVERAGE BREAKEVEN COST FOR SCALLOP FLEET IS \$ 824,234.00, NPFMC
RANGE 1.1 MIL-7 MIL

NUMBER OF VESSELS THAT WILL BREAK EVEN AT PROJECTED PRICE LEVELS
AND AVAILABLE HARVEST LEVELS

<u>PRICE /LB</u>		<u>6.00/LB</u>	<u>5.50/LB</u>	<u>5.00/LB</u>	<u>4.50/LB</u>
IF QUOTA =	900,000 LBS	6.5	6	5.4	4.9
IF QUOTA=	800,000 LBS	5.8	5.3	4.8	4.3
"96 HARVEST" aprox	704,000 LBS	5	4.6	4.2	3.8
IF QUOTA=	600,000 LBS	4.3	4	3.6	3.2
IF QUOTA=	500,000 LBS	3.7	3.3	3	2.7

* VESSELS WITH ABOVE THE AVERAGE BREAKEVEN COSTS WILL HAVE TROUBLE WITH
THIS SCENARIO

ALASKAN SCALLOP FISHERY (BERING SEA AND GULF OF ALASKA)**AREA PRODUCTION FORECASTS 97-98**

1. BERING SEA -- SEASON STARTS JULY '97. EXPECT DROP IN CPUE MID SEASON AND BYCATCH PROBLEMS. VIRGIN GROUNDS STARTED '92" (NO QUOTAS, NO OBSERVERS). '93" 100% OBSERVERS AND QUOTAS, HEAVY FISHING EFFORT AND HIGH BYCATCH RATES.
2. SHUMAGINS -- CRAB BYCATCH HAS BEEN MAJOR PROBLEM, TWO VESSELS HAVE CLOSED AREA EARLY WITH HEAVY BYCATCH RATES LAST TWO SEASONS. LOW SCALLOP HARVEST.
3. KODIAK (SHELIKOF) -- EXPECT DROP IN CPUE EARLY ON. HAS BEEN MAINSTAY OF KODIAK SINCE MID 80'S. HAS HAD HEAVY FISHING PRESURE SINCE 92, BYCATCH MED.
4. KODIAK (EAST SIDE) -- FISHED HEAVLY SINCE EARLY 80'S, NOW DEPLETED. NEEDS RECRUITMENT.
5. PRINCE WILLIAM SOUND -- KAYAK ISLAND - DOWN, VESSEL MR. BIG OVEREXPLOITED RESOURCE BY OVER 100% IN '95". QUOTA HAS BEEN CUT FROM 50K TO 17K
6. YAKUTAT -- STABLE. NO BYCATCH PROBLEMS, FISHING SEASON CHANGED FROM JAN 10TH TO JULY 1ST. NEEDS TO BE WATCHED, MAY BE SOURCE OF LARVAL RECRUITMENT FOR WESTERN AREAS DUE TO THE CURRENT FLOW PATTERNS IN THE GULF OF ALASKA
7. SOUTHEAST (AREA 16) -- CPUE DROPE FEB '97", EXPECT RESRICTIVE ACTION FOR '98"

SCALLOP HARVEST SHOULD LEVEL OUT AT BETWEEN 600K TO 800K IN THE NEXT FEW YEARS

<i>Number of vessels fished during the eligibility periods for the federal scallop vessel moratorium</i>	
Time Period	Number of Vessels with Landings
1991	7
1992	7
1993	15
Fished in 4 years during Jan. 1, 1980-Jan. 20, 1993	7
Total Unique Vessels	18

Prepared by:
 Commercial Fisheries Entry Commission
 8800 Glacier Highway, #109
 Juneau, AK 99801
 (907) 789-6160

October 4, 1996

DEVELOPMENT OF THE FISHERY FOR WEATHERVANE SCALLOPS, *PATINOPECTEN CAURINUS* (GOULD, 1850), IN ALASKA

SUSAN M. SHIRLEY¹ AND GORDON H. KRUSE²

¹Alaska Commercial Fisheries Entry Commission
8800 Glacier Highway, Suite 109
Juneau, Alaska 99801-8079

²Alaska Department of Fish and Game
Commercial Fisheries Management and Development Division
P.O. Box 25526
Juneau, Alaska 99802-5526

ABSTRACT The Alaska scallop fishery harvests weathervane scallops, *Patinopecten caurinus* (Gould 1850), in the Gulf of Alaska and Bering Sea, although small quantities of *Chlamys* spp. were harvested in recent years. The fishery began in 1967 and evolved from a sporadic, low-intensity fishery to one characterized by a highly specialized fleet by 1993. An influx of larger, more efficient vessels from 1990 through 1993 increased harvests and altered the character of the fishery. Vessel length increased 85% from a mean (± 1 standard error) of 18.5 ± 2.9 m in 1983 to 34.3 ± 4.5 m in 1991, and crew sizes doubled. The number of scallop landings increased significantly from 65.9 ± 8.3 y^{-1} during 1980 through 1989 to 140.7 ± 3.3 y^{-1} during 1990 through 1993, although the mean number of vessels did not change significantly between the two periods. Scallop harvests averaged 667.1 ± 54.8 mt of shucked meats from 1990 through 1993, three times the average harvest of 216.7 ± 30.3 mt from 1983 through 1989. The percentage of the fleet's total Alaskan fishing income derived from the scallop fishery increased from 57.7% in 1983 to 100% by 1990. The decreased diversification of scallop vessels into other fisheries represented a shift from a part-time fleet to a dedicated, full-time scallop fleet with greater harvesting efficiency. New management measures were adopted to address the changing nature of the fishery and included altered fishing seasons, observer coverage, area harvest limits, ceilings on catch of incidental species, restrictions on crew size and a moratorium on vessels fishing in the exclusive economic zone.

KEY WORDS: Scallops, fishery, *Patinopecten caurinus*, Alaska

INTRODUCTION

The commercial fishery in Alaska for weathervane scallops, *Patinopecten caurinus* (Gould 1850), is a relatively small fishery occurring primarily in the Gulf of Alaska and the Bering Sea in the northeastern Pacific Ocean. Although other scallop species (*Chlamys pseudoislandica* and *C. rubida*) were harvested in 1991 and 1992 in small directed fisheries in the Aleutian Islands or caught incidentally in the fishery for weathervane scallops, their contributions to the total harvest were minimal.

Interest in the Alaskan fishery developed in the late 1960s at the time catch-per-unit-effort (CPUE) was declining in the U.S. and Canadian scallop fisheries on Georges Bank (Orensanz 1986). The decreasing supply of Georges Bank scallops to U.S. markets and increased prices encouraged development of new fisheries and expansion of existing fisheries worldwide to meet the demand for scallops (Caddy and Lord 1971).

The contribution of the Alaskan fishery to the total U.S. harvest of scallops is small, but has grown in recent years. Landings for Alaska and U.S. are commonly reported as shucked meat weight (e.g., U.S. Dept. Commerce 1993). The Alaskan percentage of the U.S. harvest increased from an average of 1.7% from 1980 through 1985, to 2% from 1986 through 1990, to 4% in 1991 through 1992 (U.S. Dept. Commerce 1982-1993). The larger percentage resulted from declining harvest in other U.S. fisheries and increased harvest in the Alaskan fishery. Worldwide scallop landings are commonly reported as live whole weight (e.g., Anonymous 1991). Shucked weight of weathervane scallops averages 11.5% of whole weight (Haynes and Powell 1968). Thus, in 1991 the Alaskan harvest of 536 mt shucked weight was approximately 4,661 mt (0.57%) of the world scallop harvest of 816,000 mt whole weight (Anonymous 1991).

Because the Alaskan scallop fishery was relatively minor until recently, it was passively managed and data collection was minimal. Without a time series of routine abundance and catch sampling data, historical description of stock dynamics is not possible. Standardized CPUE data are unavailable. In any case, CPUE data may not be indicative of relative abundance due to the spatial distribution of scallop beds and the pattern of vessel movement among beds to sustain high CPUE (Orensanz et al. 1991). On the other hand, good records on landings, vessels, and participants have been maintained since the inception of the fishery.

In this paper, we review the geographic distribution of weathervane scallops in Alaska and chronicle the development and management of the commercial fishery, with particular emphasis on the evolution of the scallop fleet from a part-time, diversified, small-vessel fleet to a full-time, large-vessel fleet fishing almost exclusively for scallops.

MATERIALS AND METHODS

We analyzed databases of commercial vessel license applications, commercial fishing permit applications, and fish tickets which are maintained by the Alaska Department of Fish and Game (ADF&G) and Commercial Fisheries Entry Commission. Vessel license applications contain data on fishing vessels such as length, whereas fishing permit applications include information on permit holders such as residency, age, fishery and type of fishing gear.

Fish tickets are sales receipts which include information such as the date of landing, species, number and weight of fish caught, and area of harvest. In Alaska, scallop landings data are generally considered to be accurate, because there have been fewer than 20 vessels to monitor and overall compliance with fish ticket requirements is excellent. The scallop harvests reported herein include all

species, and represent weights of shucked meats without roe. Alaska state statutes protect the confidentiality of individual fishers' harvests and earnings. To maintain the confidentiality of this information, we omitted scallop harvest and earnings data when the number of persons or number of vessels participating in the fishery was less than four. For this reason, data were considered confidential in 1976, 1977 and 1979.

The Weathervane Scallop

The weathervane scallop, *P. caurinus*, is a large, long-lived species. The largest specimen recorded in Alaska was 250 mm shell height (SH), and had an adductor meat weight of 340 g (Hennick 1973). Bourne (1991) reported weathervane scallops over 20 years of age from the Strait of Georgia, British Columbia, and scallops up to age 28 have been found in Alaska (Hennick 1973).

Weathervane scallops are distributed along the western coast of North America from California northward to the Bering Sea and westward as far as the Aleutian Islands in depths to 300 m (Grau 1959, Bernard 1983). Commercial quantities of weathervane scallops in Alaska are located primarily in the relatively shallow waters of the submerged continental shelf (Kaiser 1986, Fig. 1). From 1973 through 1976, 68 to 100% of the calculated scallop biomass in Alaska was reported at depths of 0 to 100 m, and commercially harvestable quantities were identified at depths of 46 to 128 m (Ronholt et al. 1977). *P. caurinus* in the northeastern Gulf of Alaska comprised 31% to 37% of the benthic biomass, at depths of 100 m or less (Feder et al. 1981). Unfortunately, scallop assessment surveys were conducted in only a few years and their geographic coverage was limited.

Locations of commercially important beds of *Placopecten magellanicus* on the Atlantic coast were characterized in areas with oceanographic features, including persistent tidal gyres, which contribute to retention of pelagic larvae in the area during the larval period (Sinclair et al. 1985, Caddy 1989). The dominant oceanographic feature of the Gulf of Alaska is a permanent, counterclockwise gyre of the Alaska Current which generally parallels the continental slope at velocities of 30 to 100 cm s⁻¹. The velocities are relatively slow, but as the current narrows into the Alaskan Stream from Kodiak Island westward, velocities increase to a maximum of 100 cm s⁻¹ (Hood 1986). Shoreward of the shelf break, the Alaska Coastal Current borders the Gulf of Alaska from the southeastern panhandle to beyond Kodiak Island and into the Bering Sea. The Alaska Coastal Current flows counterclockwise and is driven by wind and freshwater discharge (Royer 1983).

The largest commercial scallop harvests in Alaska were produced from the coastal margin of the Gulf of Alaska near Kodiak and Yakutat (Fig. 1). Smaller harvests occurred in Southeast Alaska, Prince William Sound, Cook Inlet, Dutch Harbor and the Bering Sea. Analyses have not been completed to determine if scallops in these areas are genetically distinct populations, although larvae could conceivably be transported by currents between some of the closer areas.

Weathervane scallops are found in aggregations which tend to form elongated beds, oriented along the direction of current flow as described for other scallop species (Orensanz 1986, Caddy 1989), on substrates of sand, mud, clay and gravel (Hennick 1973). Growth and size at maturity of weathervane scallops may vary spatially within beds in the same area or between beds in geographically different areas (Haynes and Hitz 1971, Orensanz

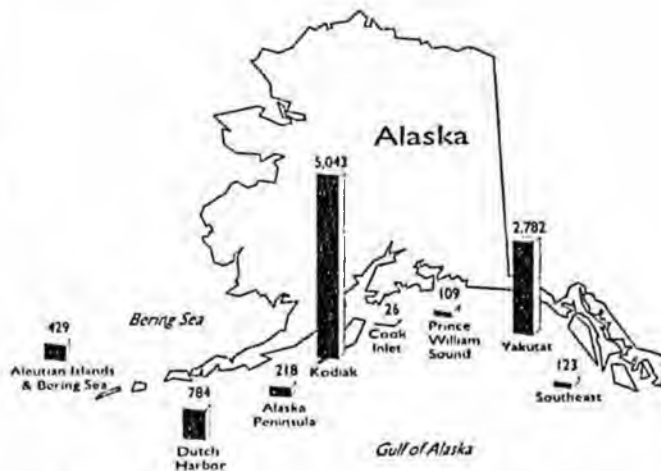


Figure 1. Distribution of total commercial scallop harvest in the Gulf of Alaska and Bering Sea from 1967 through 1993. Cumulative harvests in metric tons of shucked meats are indicated above the bar for each area; bar height is proportional to the area harvest.

1986, MacDonald and Bourne 1987, Caddy 1989). Based on von Bertalanffy growth estimates, weathervane scallops sampled in 1975 from Marmot Flats off the northeast side of Kodiak Island grew faster (131 mm SH at age 4) and achieved larger asymptotic sizes ($L_{\infty} = 190$ mm SH) than those sampled in 1980 from Cape St. Elias to Cape Fairweather in the eastern Gulf of Alaska (91 mm SH at age 4; $L_{\infty} = 144$ mm SH) (Kaiser 1986). Growth and mortality rates may be density dependent (Orensanz 1986) or may vary with spatial differences in temperature or feeding conditions (MacDonald and Thompson 1985).

Annual survival of long-lived species, such as the weathervane scallop, tends to be high. Kruse (1994) estimated the instantaneous natural mortality (M) of *P. caurinus* between 0.04 and 0.25, corresponding to annual mortality rates of 4 to 22%. A median estimate of $M = 0.16$, corresponding to 15% annual mortality, was obtained using Hoening's (1983) method based on a Hennick's (1973) maximum scallop age of 28 (Kruse 1994).

The level of fishing mortality for weathervane scallops in Alaska is unknown. For other species of commercially important scallops, direct and indirect mortalities have been identified in association with fishing activities. Direct mortality includes damage or crushing within scallop dredges, and handling and exposure of undersized scallops that are later returned to the sea (Naidu 1988, Medcof and Bourne 1964). Indirect mortality results when scallops in the path of a dredge are not caught but are lethally damaged or exposed to increased predation as predators are attracted to dredge tracks (Caddy 1968, Elner and Jamieson 1979, Caddy 1973). Indirect fishing mortality of Iceland scallops, *Chlamys islandica*, was estimated to range up to 17% or 31%, depending on the type of dredge used (Naidu 1988).

The vulnerability of scallops to fishing mortality may be increased by commensal or parasitic organisms. Scallops in the Cape Yakutat/Cape Yakutat region of Alaska were reported to be infested by the burrowing, spionid polychaetes *Pygospio elegans* and *Polydora ciliata* in the mid- and late-1970s (Feder et al. 1981). The polychaetes weakened the valves and increased the susceptibility of scallops to breakage in trawls or dredges.

The Fishery

The commercial scallop fishery progressed through several developmental phases along the Alaskan coast. In the initial phase

from 1967 through 1977, previously unexploited scallop beds were explored and harvested. Scallop landings were greatest in the years 1968 and 1969 (Fig. 2). Harvest effort decreased from 1970 to 1978, and a smaller, more stable fishery followed from 1979 through 1989. Beginning in 1990, the fishery for weathervane scallops in Alaska expanded with an influx of new, more efficient vessels. New state and federal management regimes were implemented in 1993 and 1994 to address concerns in the growing fishery.

The first commercial landings of weathervane scallops in the Alaskan fishery were made in 1967 in the western Gulf of Alaska near Kodiak Island. The fishery consisted of two vessels which delivered scallops alive and in the shell to processors on shore for an ex-vessel price of \$0.15 kg⁻¹ (Kaiser 1986). The fishery expanded rapidly in 1968 and 1969 when 19 vessels entered the fishery in the Kodiak area and the eastern Gulf of Alaska near Yakutat. A record harvest for the Alaskan fishery of 839.2 mt was produced in 1969. The costly process of shucking scallops by shore-based processors was soon abandoned, and scallopers began delivering shucked meats to processors for freezing and packaging (Kaiser 1986). The weighted average ex-vessel price for shucked meats in 1969 was \$1.89 kg⁻¹. Unsuccessful attempts were made to extract scallop mantles and gonads for sale as frozen food (ADF&G 1968). To this date, a market for "roe-on" scallops has not developed, and shucked meats continue to be the only product of the Alaskan scallop industry.

During the years 1970 through 1978, the scallop fishery entered a phase of declining effort and harvest. Harvest levels of 1968 and 1969 were not sustained. More restrictive management measures, such as closed areas to limit bycatch, may have contributed to a reduction in the fishery. A catch sampling program conducted during 1968–1972 showed that the largest scallops were fished from previously unexploited populations. Hennick (1973) estimated catch age composition by enumerating annuli on the left valves of scallops. In the early years of the fishery the majority of scallops sampled from commercial harvests were at least 7 years old, but by the early 1970s, the percentage of scallops 2 to 6 years old had increased (Hennick 1973, Fig. 3). Scallopers continued to explore for new beds in attempts to boost their harvests in response to the decreasing abundance of large scallops.

The number of vessels in the fishery dropped from 19 in 1969 to 7 in 1970, but because the most efficient scallop vessels remained in the fishery (Kaiser 1986), the relatively high harvests continued from 1970 through 1973 and mean (± 1 standard error

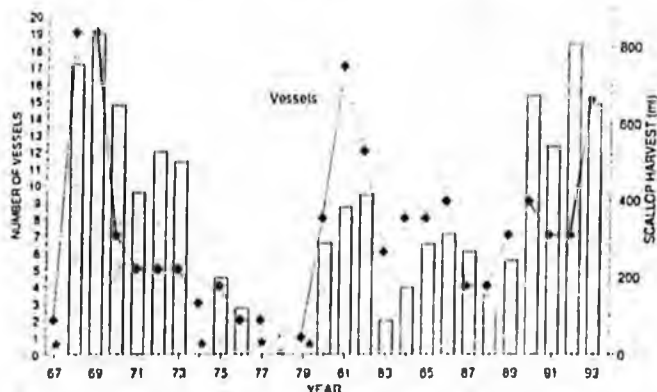


Figure 2. Annual scallop harvest (metric tons of shucked meats) and number of vessels fished in the Alaskan scallop fishery. Confidential harvests are indicated by an asterisk (*).

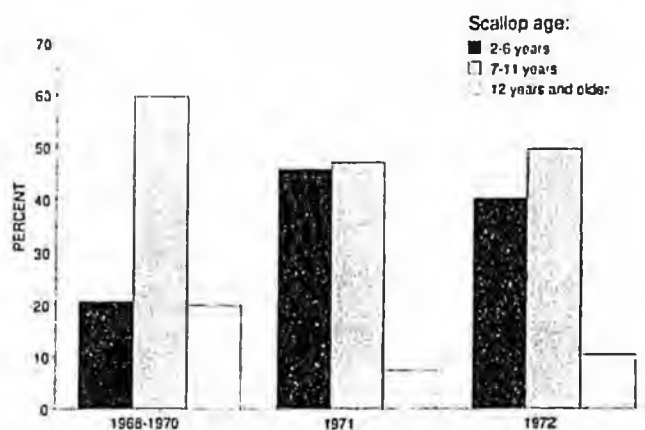


Figure 3. Age composition of scallops sampled from 1968 through 1972 commercial harvests from the Kodiak and Yakutat areas combined (Hennick 1973).

landings were 522.9 ± 94.9 mt y⁻¹. By 1977, the number of vessels had dwindled to two. The fishery was opened in 1978, but no vessels participated and commercial harvest of scallops ceased.

The scallop fishery emerged again in 1979 with one vessel fishing off Kodiak Island. Marked increases in ex-vessel prices from an average of \$3.49 kg⁻¹ in 1976 and 1977 to \$6.11 kg⁻¹ in 1979 to \$9.23 kg⁻¹ in 1981 stimulated more interest in the fishery, and the number of vessels increased to 17 by 1981. Kaiser (1986) attributed much of the growth in the Alaskan fishery to an influx of vessels from the east coast of the U.S. A five-fold increase in the number of vessels in the Atlantic sea scallop fishery from 1975 through 1979 and a 22% decrease in the sea scallop harvest from 1978 through 1981 (NEFMC 1982) caused scallopers to move to the west coast in search of more productive scallop fisheries. This search led to an intense fishery for weathervane scallops off the Oregon coast in 1981 in which 532 mt (shucked weight) was harvested by 118 vessels (Starr and McCrae 1983). Subsequent landings in Oregon have been small (Bourne 1991).

Vessels began harvesting scallops from new areas of Alaska in the 1980s. Whereas previous fisheries occurred entirely in the Kodiak and Yakutat regions of the Gulf of Alaska, an increasing percentage of the harvest in the 1980s was from less traditional areas. Scallops were harvested from Southeast Alaska along the Alexander Archipelago south of Yakutat, for the first time in 1980. The first scallop harvest from the Alaska Peninsula in the western Gulf of Alaska south of Kodiak was recorded in 1982. Harvests were reported from the Dutch Harbor area of the Aleutian Islands beginning in 1982, and the first harvest from Cook Inlet was produced in 1983. Expansion of the scallop fishery continued into the Bering Sea in 1986. From 1983 through 1989, effort in the Alaskan fishery varied from 4 to 9 vessels. The harvest level fluctuated during that period, and averaged 216.7 ± 30.3 mt y⁻¹.

Expansion of the fishery continued as scallopers explored and exploited new scallop grounds further west along the Aleutian Islands chain to Adak in 1991. In 1992, scallops were harvested from Prince William Sound in the north central Gulf of Alaska for the first time.

The period from 1990 through 1993 represented the most recent growth phase in the fishery. The average harvest more than tripled from an average of 216.7 ± 30.3 mt y⁻¹ during 1983 through 1989 to 667.1 ± 54.8 mt y⁻¹ from 1990 through 1993. The 1992 harvest of 806.9 mt, with an ex-vessel value of \$6.9

million, was the second largest recorded in the Alaskan scallop fishery. Although scallop harvests were much larger, effort was similar to that of recent years. Nine vessels fished in 1990 and 7 vessels in 1991 and 1992.

The number of vessels in the scallop fishery doubled to 15 in 1993. As in the early years of the fishery, many of the new vessels entering the fishery from 1990 through 1993 were east coast scallopers. A proposed moratorium in the Atlantic sea scallop fishery (NEFMC 1993) caused some vessels, which would be excluded from the east coast fishery by the moratorium, to move into west coast scallop fisheries.

In 1993, the North Pacific Fishery Management Council (NPFMC) considered a vessel moratorium for the Alaska fishery within the exclusive economic zone (3–200 miles) and gave notice to scallopers that new participants in the fishery after January 20, 1993 may not qualify to fish during a moratorium (NPFMC 1993). Effort escalated in anticipation of a moratorium in the Alaska scallop fishery as vessel owners established their eligibility by harvesting scallops in Alaska prior to January 20, 1993. State management agencies also considered a moratorium on new entrants within territorial (0–3 miles) waters (Kruse et al. 1992).

Vessel Length

Vessel size in the Alaskan scallop fishery increased substantially from the onset of the fishery in 1967. During the developmental period of the Alaskan fishery, scallop vessels consisted of a variety of converted crab, halibut and shrimp vessels, as well as scallop vessels from the east coast of the U.S. The east coast vessels averaged 24 to 28 m keel length and were capable of fishing two scallop dredges 3 to 5 m wide. These were the most efficient harvesters in the fleet (Kaiser 1986). Other vessels were fishing modified beam and otter trawls and an assortment of scallop dredges of various sizes.

Kaiser (1986) summarized vessel lengths in the scallop fishery from ADF&G data for 1967 through 1981. Vessels that fished in the Kodiak area were reported separately from vessels in Yakutat, although some vessels fished in both areas. Vessels that fished near Yakutat varied in length from 12 to 16 m to 24 to 28 m from 1967 through 1977. The largest number of vessels each year is 24 to 28 m in length. Similarly, most scallop vessels that fished in the Kodiak area were 24 to 28 m, although the size range for Kodiak vessels was greater than the range for Yakutat vessels in the early years of the fishery. Kodiak vessels varied from a 6 to 10 m length class to 48 to 52 m in length.

Vessel lengths after 1977 are shown in Figure 4 for all fishing areas combined. The largest component of the fleet in most years was the 18 to 31 m vessel class (Fig. 4A). Registered vessel length averaged 25.1 ± 0.8 m from 1980 through 1982 (Fig. 4B). An influx of vessels smaller than 18 m was evident beginning in 1982 and was associated with initiation of a scallop fishery in the Cook Inlet area where vessels tended to be smaller than vessels fishing in other areas. The mean vessel length reached a minimum of 18.5 ± 2.9 m in 1983 as a result of the increase in small vessels.

By 1988 all scallop vessels in the Alaskan fleet were larger than 18 m. Mean vessel length increased as the number of vessels over 31 m began to rise. Vessel size was largest during the years 1990 through 1992, when the percentage of vessels over 31 m varied from 30 to 57% of the fleet (Fig. 5). Mean length in 1991, 34.3 ± 4.5 m, was 85% larger than the mean length of 18.5 ± 2.9 m in 1983. The mean vessel length dropped to 26.8 ± 1.7 m as more vessels under 31 m in length entered the fishery.

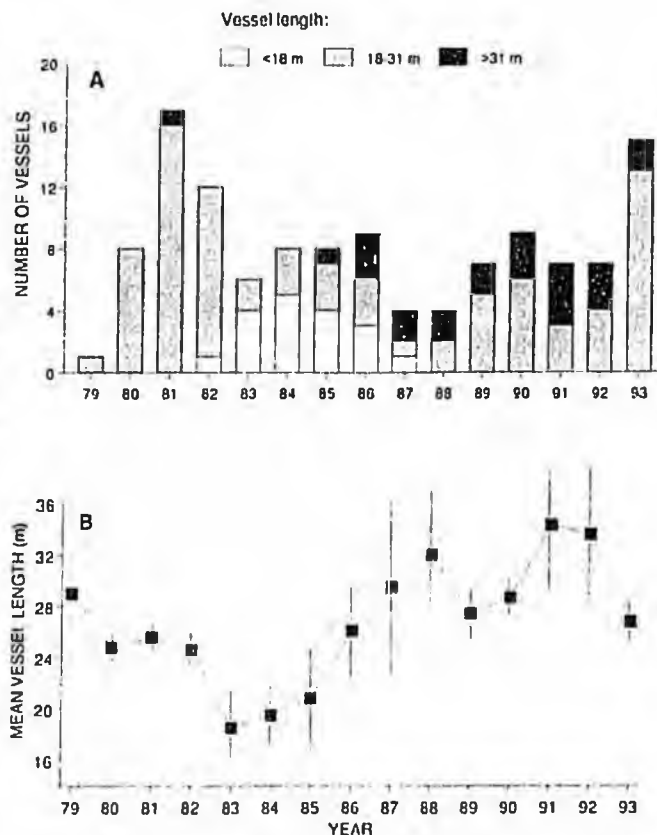


Figure 4. (A) Annual number of vessels in the Alaska scallop fishery from 1979 through 1993, by vessel length class. (B) Annual mean vessel lengths ± 1 standard error.

Fishing Capacity

One of the more important changes in the scallop fishery was the change in fishing capacity of the fleet. Fishing capacity was measured as the mean number of scallop landings (deliveries) per year and the mean size of landings.

In a previous study, we reported an escalation in the number of landings in the Alaskan scallop fishery in recent years (Kruse and Shirley 1994). A Student's *t*-test (SAS 1989) revealed that the mean number of landings of 140.7 ± 3.3 in 1990 through 1993 was significantly larger ($p \leq 0.01$) than the mean of 65.9 ± 8.3 landings in 1980 through 1989. The number of landings increased although the mean number of vessels fished per year from 1990 through 1993, 7.7 ± 0.7 , was not significantly different from the number of vessels fished in the earlier period, 8.3 ± 1.2 . The mean landing size (in mt) was not significantly different between the two time periods.

Diversification of Fishing Income

The proportion of Alaska fishing income derived from the scallop fishery was used as an indicator of the economic dependence of vessels on the scallop fishery and the extent of effort exerted in the fishery by these vessels. All ex-vessel earnings (gross receipts paid to fishers) from Alaskan fisheries were compiled annually for vessels that made scallop landings each year. Scallop earnings were calculated as a percentage of the scallop fleet's total earnings to estimate the degree of diversification from 1975 through 1992. The fleet was considered to be more diversified in years when the percentage of fishing income derived from scallops was low and

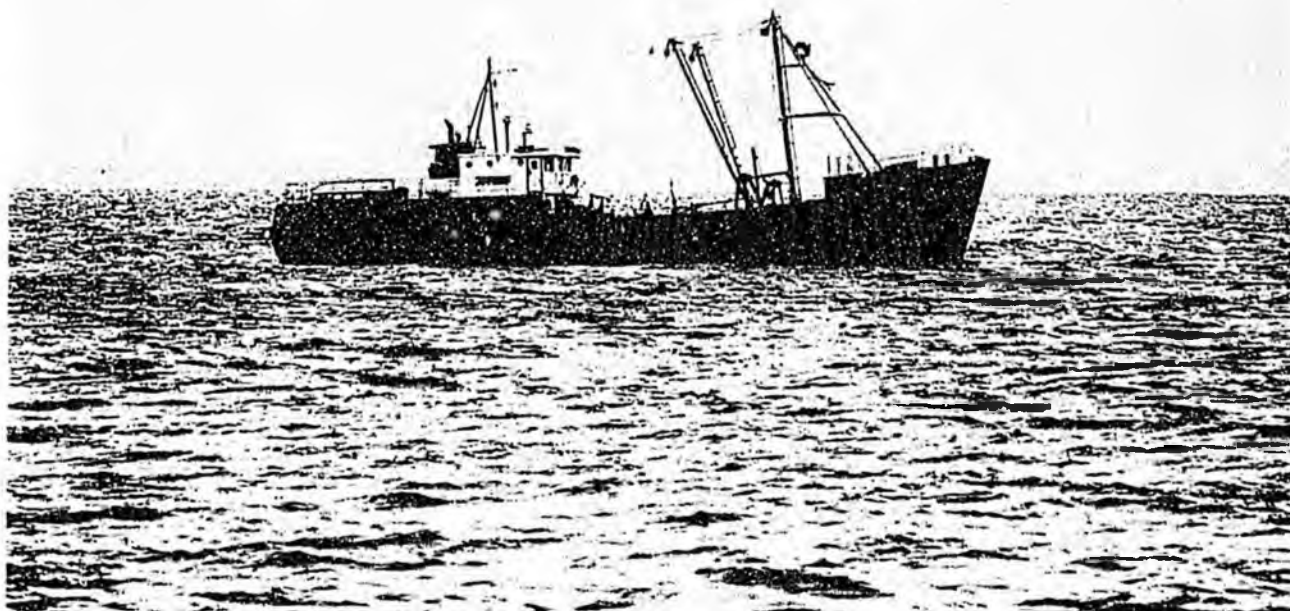


Figure 5. The commercial scallop vessel F/V PROVIDER which is an example of the type of vessel which has been used in the Alaskan scallop fishery since 1990. (Photo by Augustine Delahay)

less diversified in years when scallops contributed larger percentages to the fishing income.

The percentage of fishing income derived from the scallop fishery varied over time from a low of 57.7% in 1983 to 100% in 1979, 1990 and 1991 (Fig. 6). In 1975 through 1979, effort and harvests were reduced, and almost all fishing income for the few vessels during that period was generated from the scallop fishery.

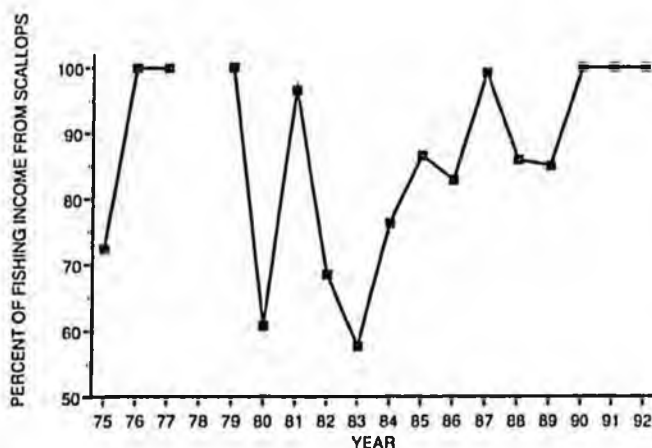


Figure 6. Percent of total ex-vessel fishing income derived from the scallop fishery for vessels participating in the fishery from 1975 through 1992. Total fishing income does not include any income generated from fisheries outside of Alaska.

Small percentages of non-scallop income were produced from king crab, halibut and salmon fisheries.

The contribution of scallops to total fishing income generally decreased after 1979 to the lowest level in 1983, suggesting an increased diversification of the fleet into fisheries other than scallops. Scallop vessels were also used in king crab, Tanner crab, shrimp, salmon, halibut and herring fisheries during that period.

Diversification of the scallop fleet began to change in 1983. The percentage of fishing income produced from the scallop fishery increased from 1983 to 1990. By 1990, scallops contributed 100% of the fishing income for the first time since 1979. All of the fishing income for the scallop vessels from 1990 through 1992 was produced from the scallop fishery. The change in fishing income represented a shift from a diversified fleet in the 1980s to a fleet concentrating almost entirely on scallops. The number of landings and the total harvest increased concurrently.

The contribution of the scallop fishery to total fishing income was not directly related to ex-vessel price of scallops or to the total scallop harvest. Ex-vessel prices remained relatively stable from 1982 through 1992, although when corrected for inflation, the price of scallops decreased over time (Kruse and Shirley 1994).

Harvesting Efficiency

The harvesting efficiency of the scallop fleet improved during the 1980s and 1990s. As vessels became larger and more specialized, crew sizes expanded and mechanical shuckers came into use. The average crew size for scallop vessels during 1980 through

1984 was estimated to be 5 persons per-vessel in the Yakutat area, 6 per-vessel in Prince William Sound, 6.3 per-vessel in Cook Inlet, the Alaska Peninsula, Aleutian Islands and Bristol Bay, and 8 per-vessel in Kodiak (Alaska Department of Labor, unpublished). By 1993, all vessels except the smallest in the fleet carried 12-person crews (NPFMC 1993). The Alaska Board of Fisheries limited the crew size on scallop vessels to 12 persons in 1993.

The use of mechanical shucking devices in Alaskan scallop fisheries was first reported in the 1991 fishery (Griffin and Ward 1992). Automatic shucking machines were employed to make harvest of smaller scallops more economical (Kruse and Shirley, in press). Although shucking machines were used primarily on vessels exploiting *Chlamys* spp., their use in processing weathervane scallops was banned in Alaska in 1993.

DISCUSSION

Alaska's commercial fishery for scallops evolved from a sporadic, low-intensity fishery to a fishery characterized by a highly specialized fleet capable of harvesting with greater efficiency. This growth and specialization within the fishery created conservation concerns for the scallop resource. Recent anecdotal reports indicated that the proportion of smaller scallops harvested in the commercial fishery may be increasing (NPFMC 1993). Additional concern has arisen over the increased threat to species caught incidentally in non-selective scallop dredges. Particularly vulnerable are benthic migratory species, such as crab, which move into shallower depths during their molting and mating periods (Haynes and Powell 1968, Hennick 1973, Stone et al. 1992). Protection of non-targeted species is especially critical in some areas of Alaska where depressed populations of commercially valuable king and Tanner crabs are rebuilding.

The rapid growth, specialization and over-capitalization of the scallop fishery may have jeopardized the economic viability of the fishery. Larger vessels and crews and mandatory observer coverage have increased operating costs for scallop vessels. Shorter fishing seasons and harvest limits have constrained the earning potential in the scallop fishery.

With increased competition, over-capitalization and decreased ex-vessel value, the tendency for some fisheries in Alaska has been for vessels to become more diversified by participating in more fisheries in order to maintain the level of income necessary to support their operations (Shirley 1993). More restrictive measures (e.g., harvest limits, seasons, crab bycatch caps) recently adopted by state and federal management agencies may also cause some scallop vessels to diversify their fishing activities.

Management changes have been made to address some of these problems in the fishery and to provide more scientific data to analyze the impact of the fishery on Alaskan scallop populations. For many years, the small scallop fishery prompted few conservation or management concerns, and was managed using gear restrictions, fishing seasons and closed areas (Kruse and Shirley, in press). The Alaska scallop fishery recently shifted from a passive management mode to more active management and monitoring of the fishery in response to expanded effort and increased harvest levels in the 1990s.

A management plan adopted in 1994 established a more comprehensive management regime for the scallop fishery (Kruse 1994). Scallop gear in Alaska was restricted to two New England-style dredges (Bourne 1964) per vessel, with a maximum dredge

width of 4.57 m and a minimum ring size of 10.16 cm. Dredges used in Cook Inlet cannot exceed 1.83 m in width. Alaskan waters were divided into 9 registration areas, and vessels are now required to register with ADF&G before harvesting scallops in an area. Annual harvest limits were established for each registration area. All scallop vessels are required to have, and pay for, observers on board to monitor incidental catch of crab and collect biological data on scallops. Restrictions on scallop crew size and prohibition of automatic shucking machines on vessels fishing for weathervane scallops were implemented to control harvesting efficiency. Fishing seasons were amended in the new plan to protect molting and mating crabs from incidental harvest by scallop dredges. The regulatory season extends from July 1 in most areas (August 15 in Cook Inlet) through February 15. In the Yakutat and Prince William Sound areas, the season opens on January 10. The fishing season ends when the harvest limit has been met, when the incidental catch limit has been met, or on the regulatory closing date, whichever comes first.

The NPFMC adopted a federal management plan for scallops in 1994 which included a moratorium on vessels fishing in the exclusive economic zone (NPFMC 1993). Vessels fishing scallops outside of territorial waters were previously managed by ADF&G in the absence of a federal management plan. Management changes provided by the new ADF&G and NPFMC management plans should help to curtail rapid expansion of the scallop fishery.

Because the weathervane scallop is a long-lived, slow-growing species with low natural mortality, it may be vulnerable to overfishing (Adams 1980). Historically, an overall depletion of scallop populations may have been avoided because of the widespread distribution of scallops in the Gulf of Alaska and the Bering Sea and the small fleet's motivation to move to new areas to maintain catch rates or to other fisheries. However, some local populations may have been overfished. As a fishery begins on virgin stocks it is normal for age composition to shift toward younger ages. However, the magnitude of the age shift during the early years of the fishery, coupled to subsequent fishery performance, suggests to us that high harvests during the early years of the fishery off Kodiak and Yakutat may not have been sustainable over the long term. Unfortunately, fishery-independent data are unavailable to verify whether overfishing occurred.

Oceanographic features similar to those described by Sinclair et al. (1985) and Caddy (1989) for self-sustaining scallop populations also may have contributed to the apparent resiliency of weathervane scallop populations in Alaska. Nonetheless, recent expansion of fishing capacity by the fleet concerned fishery managers who sought to conserve and sustain natural populations, and thereby avoid stock collapses that have often occurred in many other scallop fisheries after periods of intense fishing (Orensanz 1986, Bourne 1991, Gwyther et al. 1991, Orensanz et al. 1991, Piquimil et al. 1991). As biological data are collected from the new observer program, our knowledge of the sustainability of exploited weathervane scallop populations in Alaska should improve markedly with the estimation of recruitment, growth and mortality parameters.

ACKNOWLEDGMENTS

We thank Don Huntsman for producing the income diversification data, Thomas C. Shirley and anonymous reviewers for their helpful comments on the manuscript.

LITERATURE CITED

- Adams, P. B. 1980. Life history patterns in marine fishes and their consequences for fisheries management. *Fish. Bull.* 78:1-12.
- ADF&G. 1968. 1967 Kodiak management area annual report. Alaska Dept. Fish & Game, Division of Commercial Fisheries. Kodiak, Alaska.
- Anonymous. 1991. Food and Agriculture Organization of the United Nations (FAO) Yearbook of Fishery Statistics. Vol. 72. Rome.
- Bernard, F. R. 1983. Catalogue of the living Bivalvia of the eastern Pacific Ocean: Bering Strait to Cape Horn. *Can. Spec. Publ. Fish. Aquat. Sci.* 61.
- Bourne, N. 1964. Scallops and the offshore fishery of the Maritimes. *Fish. Res. Bd. Canada. Bull.* No. 145.
- Bourne, N. 1991. West Coast of North America. pp. 925-942. In S. E. Shumway (ed.). *Scallops: Biology, Ecology and Aquaculture*. Developments in Aquaculture and Fisheries Science, 21. Elsevier, Amsterdam.
- Caddy, J. F. 1968. Underwater observations on scallop (*Placopecten magellanicus*) behaviour and drag efficiency. *J. Fish. Res. Bd. Can.* 25:2123-2141.
- Caddy, J. F. 1973. Underwater observations on tracks of dredges and trawls and some effects of dredging on a scallop ground. *J. Fish. Res. Bd. Can.* 30:173-180.
- Caddy, J. F. 1989. A perspective on the population dynamics and assessment of scallop fisheries, with special reference to the sea scallop *Placopecten magellanicus* Gmelin. pp. 559-589. In J. F. Caddy (ed.). *Marine Invertebrate Fisheries: Their Assessment and Management*. John Wiley and Sons, New York.
- Caddy, J. F. & E. I. Lord. 1971. High price of scallop landings conceals decline in offshore stocks. *Fisheries of Canada* 23(5):3-7.
- Elnor, R. W. & G. S. Jamieson. 1979. Predation on sea scallops, *Placopecten magellanicus*, by the rock crab, *Cancer irroratus*, and the American lobster, *Homarus americanus*. *J. Fish. Res. Bd. Can.* 36: 537-543.
- Feder, H. M., S. C. Jewett, S. G. McGee & G. E. M. Matheke. 1981. Distribution, abundance, community structure, and trophic relationships of the benthos of the northeastern Gulf of Alaska from Yakutat Bay to Cross Sound. Research Unit 5. Final report to Outer Continental Shelf Environmental Assessment Program. pp. 305-391. Institute of Marine Science, University of Alaska Fairbanks. Fairbanks, Alaska.
- Grau, G. 1959. Pectinidae of the eastern Pacific. *Univ. Calif. Publ. Allan Hancock Found. Pac. Exp.* 23.
- Griffin, K. L. & M. L. Ward. 1992. Annual management report for the shellfish fisheries of the Eastern Aleutians area, 1991. pp. 109-126. In *Annual Management Report for the Shellfish Fisheries of the Westward Region, 1991*. Alaska Dept. Fish & Game, Division of Commercial Fisheries, Regional Information Report 4K92-9. Kodiak, Alaska.
- Gwyther, D., D. A. Cropp, L. M. Joll & M. C. L. Dredge. 1991. pp. 835-851 In S. E. Shumway (ed.). *Scallops: Biology, Ecology and Aquaculture*. Developments in Aquaculture and Fisheries Science, 21. Elsevier, Amsterdam.
- Haynes, E. B. & C. R. Hitz. 1971. Age and growth of the giant Pacific sea scallop, *Patinopecten caurinus*, from the Strait of Georgia and outer Washington coast. *J. Fish. Res. Bd. Can.* 28:1335-1341.
- Haynes, E. B. & G. C. Powell. 1968. A preliminary report on the Alaska sea scallop-fishery exploration, biology, and commercial processing. Alaska Dept. Fish & Game, Division of Commercial Fisheries, Informational Leaflet 125. Juneau, Alaska.
- Hennick, D. P. 1973. Sea scallop *Patinopecten caurinus*, investigations in Alaska. Alaska Dept. Fish & Game, Division of Commercial Fisheries, Completion Report 5-23-R. Juneau, Alaska.
- Hoening, J. M. 1983. Empirical use of longevity data to estimate mortality rates. *Fish. Bull.* 82:898-903.
- Hood, D. W. 1986. Physical setting and scientific history. pp. 5-27. In D. W. Hood and S. T. Zimmerman (eds.). *The Gulf of Alaska Physical Environment and Biological Resources*. U.S. Department of Commerce. Washington, D.C.
- Kaiser, R. J. 1986. Characteristics of the Pacific weathervane scallop (*Pecten [Patinopecten] caurinus*, Gould 1850) fishery in Alaska, 1967-1981. Alaska Dept. Fish & Game, Division of Commercial Fisheries (Unpublished Report, Catalog RUR-5J86-01). Juneau, Alaska.
- Kruse, G. H. 1994. Fishery management plan for commercial scallop fisheries in Alaska. Draft Special Publication 5, Alaska Dept. Fish & Game, Commercial Fisheries Management and Development Division. Juneau, Alaska.
- Kruse, G. H., P. R. Larson & M. C. Murphy. 1992. Proposed interim management measures for commercial scallop fisheries in Alaska. Alaska Dept. Fish & Game, Division of Commercial Fisheries, Regional Information Report 5J92-08. Juneau, Alaska.
- Kruse, G. H. & S. M. Shirley. 1994. The Alaskan scallop fishery and its management. pp. 107-177. In N. F. Bourne, B. L. Bunting and L. D. Townsend (eds.). *Proceedings of the Ninth International Pectinid Workshop*. Nanaimo, B.C., Canada, April 22-27, 1993. Volume 2. *Can. Tech. Rpt. Fish. Aquat. Sci.* 1994.
- MacDonald, B. A. & N. F. Bourne. 1987. Growth, reproductive output, and energy partitioning in weathervane scallops, *Patinopecten caurinus*, from British Columbia. *Can. J. Fish. Aquat. Sci.* 44:152-160.
- MacDonald, B. A. & R. J. Thompson. 1985. Influence of temperature and food availability on the ecological energetics of the giant scallop *Placopecten magellanicus*. I. Growth rates of shell and somatic tissue. *Mar. Ecol. Prog. Ser.* 25:279-294.
- Medcof, J. & N. Bourne. 1964. Causes of mortality of the sea scallop *Placopecten magellanicus*. *Proc. Nat. Shellfish Assoc.* 53:33-50.
- Naidu, K. S. 1988. Estimating mortality rates in the Iceland scallop, *Chlamys islandica* (O. F. Muller). *J. Shellfish Res.* 7:61-71.
- NEFMC. 1982. Fishery management plan-final environmental impact statement, regulatory impact review for Atlantic sea scallop (*Placopecten magellanicus*). New England Fishery Management Council. Saugus, Massachusetts.
- NEFMC. 1993. Draft amendment #4 to the Atlantic sea scallop fishery management plan. New England Fishery Management Council. Saugus, Massachusetts.
- NPFMC. 1993. Draft fishery management plan for the scallop fishery of the Gulf of Alaska, Bering Sea and Aleutian Islands. North Pacific Fishery Management Council, Anchorage, Alaska. November, 1993.
- Orensanz, J. M. 1986. Size, environment, and density: the regulation of a scallop stock and its management implications. pp. 195-227. In G. S. Jamieson and N. Bourne (eds.). *North Pacific Workshop on Stock Assessment and Management of Invertebrates*. *Can. Spec. Publ. Fish. Aquat. Sci.* 92.
- Orensanz, J. M., A. M. Parma & O. O. Iribarne. 1991. Population dynamics and management of natural stocks. pp. 625-713. In S. E. Shumway (ed.). *Scallops: Biology, Ecology and Aquaculture*. Developments in Aquaculture and Fisheries Science, 21. Elsevier, Amsterdam.
- Piquimil, R. N., L. S. Figueroa & O. C. Contreras. 1991. Chile. pp. 1001-1015. In S. E. Shumway (ed.). *Scallops: Biology, Ecology and Aquaculture*. Developments in Aquaculture and Fisheries Science, 21. Elsevier, Amsterdam.
- Ronholt, L. L., H. H. Shippen & E. S. Brown. 1977. Demersal fish and shellfish resources of the Gulf of Alaska from Cape Spencer to Unimak Pass, 1948-1976; a historical review. U.S. Department of Commerce, NOAA/OCSEAP, Final Report 2:1-955.

- Royer, T. C. 1983. Observations of the Alaska Coastal Current. pp. 9-30. In H. G. Gade, A. Edwards and H. Svendsen (eds.). *Coastal Oceanography*. Plenum Press, New York.
- SAS Institute Inc. 1989. *SAS/STAT User's Guide*, Version 6, Fourth Edition, Volume 2. Cary, North Carolina.
- Shirley, S. M. 1993. Characterization of the 1990 Dungeness crab fleet in southeast Alaska: vessel attributes, fishery participation and fishery performance. Alaska Commercial Fisheries Entry Commission Report 93-9C. Juneau, Alaska.
- Sinclair, M., R. K. Mohn, G. Robert & D. L. Roddick. 1985. Consideration for the effective management of Atlantic scallops. *Can. Tech. Rpt. Fish. Aquat. Sci.* 1382.
- Starr, R. M. & J. E. McCrac. 1983. Weathervane scallop (*Patinopecten caurinus*) investigations in Oregon, 1981-1983. Oregon Department of Fish and Wildlife, Information Reports 83-10. Newport, Oregon.
- Stone, R. P., C. E. O'Clair & T. C. Shirley. 1992. Seasonal migration and distribution of female red king crabs in a southeast Alaskan estuary. *J. Crust. Biol.* 12(4):546-560.
- U.S. Department of Commerce. 1982-1993. Fisheries Statistics of the United States. Current Fishery Statistics. Washington, D.C.

ALASKA DEPARTMENT OF FISH AND GAME



Commercial Fisheries Management
and Development Division
333 Raspberry Road, Anchorage, AK 99518
Phone: (907)267-2158 Fax: (907)267-2462



FAX TRANSMITTAL SHEET

To: Amy Dougherty

Date: 2-26-97

Pages: 5
(Includes Cover Sheet)

From: James Brady
267-2125

Original is being mailed: No

Message: Information on Kamishuk Bay scallop
fishery from the 1995-96 Cook Inlet
Area Annual Shellfish Mgmt. Report.
RIR # 2A96-30 - Aug. 96

Effective January 1, 1996, all commercial pots were required to be partly covered by rigid mesh, which must have 7/8ths inch minimum diameter openings. This regulation was designed to reduce handling of small non-marketable shrimp thereby decreasing avoidable fishing mortality. Similar regulations are utilized in the Prince William Sound Management Area, Southeast Region, and State of Washington.

SCALLOP FISHERY

Introduction

The commercial scallop fishery in the Cook Inlet Management Area (H) began in 1983. The target species for the fishery is the Pacific weathervane scallop (Patinopecten caurinus). In 1983 and 1984 the Alaska Board of Fisheries responded to a public proposal by directing the department to allow restricted exploratory fisheries for scallops. These initial fisheries were characterized by low effort due to severe permit restrictions when compared with traditional scallop fisheries both inside and outside Alaska. The most important restrictions were:

- 1) Legal gear limited to a 6 foot wide dredge with minimum ring size of 4 inches inside diameter.
- 2) Only 1 unit of gear allowed on board at any one time.
- 3) Mandatory log book completion.
- 4) Contact with the Homer office prior to and at the completion of each trip.
- 5) An agreement to carry department observers on board if requested.

Except for some brief exploratory fishing elsewhere in the Kamishak District in 1984 and in the Outer District in 1987, a single bed of scallops near Augustine Island in the Kamishak District has sustained almost the entire harvest since the fishery began in 1983 (Figure 1). Using the state research vessel Pandalus, the department conducted an assessment survey in August, 1984 to define the extent of this particular bed and to aid in establishing appropriate harvest levels.

Based on information from the 1984 survey as well as data from the initial fisheries, the 1985 Board of Fisheries adopted regulations for scallops in Cook Inlet. These regulations included a season in the Kamishak District from August 15 through October 31, a guideline harvest level of 10,000 to 20,000 lb (changed to 0 to 20,000 lb in 1994) of shucked meats, and the restrictions mentioned previously (except for the single unit of gear provision). Commercial fishery performance has been used inseason to adjust guideline harvest levels. Historic harvest and effort peaked fishery during 1994 when 4 vessels took 20,431 lb of shucked meats (Figure 12 and Appendix K).

By regulation the Southern District was not open to scallop fishing in order to protect crab stocks, while the Outer and Eastern Districts were opened year round to encourage exploratory fishing.

In 1987 review of inseason fishery performance data clearly demonstrated that the Kamishak District stock had taken an unexpected decline. Substantial undocumented information indicated that the Kamishak scallop bed had been fished illegally between the 1986 and 1987 seasons. Regardless of the reason for the sharp decline in abundance, the department closed the fishery.

No commercial effort occurred in Cook Inlet from 1988 through 1992. Although some local fishermen expressed interest in fishing during these years, the potential of a fishery closure after 1 trip did not warrant the investment in time and effort because the department told fishermen that their catch data would be used to justify continuance of the fishery. Fishermen speculated that the probability of good catches were low. Information required from the fishermen would have included logbooks, shell samples, interviews, and a potential for observers.

In 1993 the fishery was essentially redeveloped when a single fishermen took a chance and began fishing the Kamishak District scallops. After his initial trip it was apparent that the stock had recovered to near historic levels. Two other boats joined the fishery before the season was over. The resultant catch was 20,115 lb. Logbooks and shell samples indicated a small but healthy stock of weathervane scallops once again existed near Augustine Island.

1995 Season Summary

In early 1995 a single vessel commercially fished scallops in a venture that was illegal by state law. This occurred in federal waters off Kayak Island (adjacent to the Prince William Sound Management Area) and resulted in the closure of all commercial scallop fisheries in federal waters. Virtually the entire stock of scallops in the Kamishak District resides in federal waters. Although state waters opened by regulation on August 15, 1995, no one fished as fishermen did not want to waste their time in an area where few scallops existed.

1996 Management Outlook

It appears that the state and federal regulatory problems, that provided a loophole for illegal fishing, have been resolved. The Kamishak District fishery, in both state and federal waters, will likely open by regulation on August 15, 1996. It appears that management of the fishery will be by the state with consent from the federal government. The harvest guideline, however, will be set based on the results of a department dredge survey that will occur in July 1996. It seems likely that the data should justify a harvest guideline of 20,000 lb or more because of the size and age structure of the stock coupled with no fishing mortality in 1995.

The scallop fishery in the Outer and Eastern Districts will be managed by regulation, which includes a requirement for an observer. The department does not anticipate significant effort or catch from these districts because exploratory fishing by 2 large commercial scallopers in 1994 yielded a catch of 11 scallops.

Appendix K. Pacific weathervane scallop catches, Cook Inlet Management Area., 1983-95.

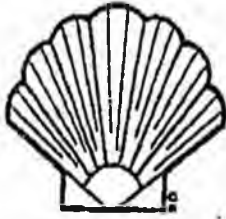
Year	District	Number of vessels	Catch in pounds of shucked meats
1983	Kamishak	1	2,346
1984	Kamishak	3	6,305
1985 ^a	Kamishak	1	11,810
1986	Kamishak	3	15,364
1987	Outer	1	1,128
	Kamishak ^b	2	360
	'87 Total	2	1,488
1988		NO	EFFORT
1989		NO	EFFORT
1990		NO	EFFORT
1991		NO	EFFORT
1992		NO	EFFORT
1993	Kamishak	3	20,115
1994	Kamishak	4	20,431
1995 ^c	Kamishak	0	0

a/ Season and harvest guideline set by regulation.

b/ Season closed by E.O. on August 21, 1987, one week after opening, due to low cpue.

c/ State waters open only.

1996 Kamishak 5 28,228



KODIAK FISH COMPANY
 FT ALLIANCE FT LEGACY FT PROVIDER



326 Center Avenue
 Kodiak, Alaska 99615

2977 Fox Road
 Ferndale, Washington 98248

Date: 1-23-96

Fax To: Amy Dougherty 907 465 4956

Attention:

From: Mark K.

Subject: Scallop licence

Amy

This is from NPFOMC.
It looks like nice vessels for breakeven
@ 1.3 million lbs. In reality some quota's
have dropped this year. and I expect
there will be further reductions as
the fishery is comprised of one strong
year class and one weak one in some
areas with no signs of recruitment which
actually is normal for scallops. One year
class sometimes has to last quite a
while.

Respect.

Mark Kaniolianis

Ferndale
 Phone 360-366-9131
 Fax 360-366-9132

Kodiak
 Phone 907-486-3309
 Fax 907-486-1676

Draft for Public Review

**ENVIRONMENTAL ASSESSMENT/
REGULATORY IMPACT REVIEW/
INITIAL REGULATORY FLEXIBILITY ANALYSIS
of**

Amendment 1

**to the
FISHERY MANAGEMENT PLAN
for the
SCALLOP FISHERY
off Alaska**

NOTE: *The Council is scheduled to take final action on this amendment at it's June 1995 meeting. However, reviewers should note that there are a number of policy decisions regarding State and Federal management that need to be resolved before management measures considered by this amendment could be implemented. Also note that several management measures proposed under the alternative to the status quo contain more than one option. The suite of management measures and options identified under Alternative 2 in this document are subject to change when the Council takes final action.*

**Prepared by staff of the
National Marine Fisheries Service
North Pacific Fishery Management Council
Alaska Department of Fish & Game**

May 26, 1995

harvested may indicate an increase in fishing mortality of larger individuals, or high recruitment (Ricker 1975). It has been well-established that scallop populations worldwide are vulnerable to overharvest, and stock recovery may be slow (Aschan-1991; Bannister 1986; Bourne 1986; McLoughlin et al. 1991; Orensanz 1986). For these reasons, significant increases in scallop harvests in Alaska beyond historic levels should be avoided, as they may jeopardize stock health and sustained yield.

The longevity of weathervane scallops in Alaska implies that they experience low natural mortality rates (Hoenig 1983), and this requires that conservative commercial harvests of weathervane scallops may be necessary to maintain healthy stocks and sustainable fisheries. The rate of natural mortality is one of the biological reference points commonly used in management of other fisheries to establish appropriate exploitation rates (Clark 1991). Unfortunately, other benchmarks that would bear on the choice of appropriate exploitation rates for weathervane scallops are not presently available; there is inadequate information on other biological production parameters, and uncertainty in scallop population dynamics for Alaskan scallop fisheries.

An unrestricted harvest in the EEZ would allow recruitment overfishing. It is widely accepted that fishery harvest levels should be prescribed in ways to prevent "recruitment overfishing", which is the condition that occurs when stocks are reduced to levels too low to produce adequate numbers of young scallops -- the future recruits to the fishery (Gulland 1983). Recruitment is a prerequisite for maintenance of viable populations, and is needed for sustainable harvests that support long-term economic benefits from the fishery. By closing the EEZ to harvest, recruitment overfishing of scallops would be prevented, and a future fishery would be assured.

Overcapitalized Fleet

The existence of an overcapitalized fleet increases the potential of overfishing the resource in an unrestricted fishery. At its January 1993 meeting, the Council determined that unrestricted access to this fishery may be harmful to the resource and result in a net loss to the Nation. A control date of January 20, 1993 was set to place the industry on notice that a moratorium for this fishery may be implemented. This control date was again reaffirmed at the Council's June 1993 meeting. As anticipated, effort in this fishery apparently increased in 1993; 32 permits, representing 21 vessels were issued to fish scallops in 1993. Eleven of these vessels had made landings as of July 31, 1993, and a total of 15 vessels had made landings by the end of the year.

Even without additional vessels entering the fishery, the 1993 fishery was overcapitalized. In 1992, seven vessels harvested 1.8 million lb (816 mt), for an average of 257,143 lb (116.6 mt) harvested per vessel. The 1993 quota was set at 890,000 lb (403.7 mt) for areas with specified guideline harvest levels, or about one-half of the 1992 landings. Efficient harvesting of this quota could be done by only three to four vessels. Preliminary estimates of 1993 landings from areas without guideline harvest levels total 524,000 lb (237.7 mt), that potentially could have been taken by an additional two vessels. Yet, 11 vessels participated in the 1993 fishery by July 31. Hence, the 1993 fishery was overcapitalized, meaning that too much capital was invested relative to the fleet size necessary to efficiently conduct the fishery. In 1994 the fishery continued the trend; 16 vessels harvested 1,235,269 lb (560.3 mt) of scallops.

Conservation impacts of the scallop fishery in Alaska depend upon the particular suite of management measures adopted. Where no management exists there is every indication that the fishery would be subject to local and eventual general overfishing were the condition to persist. One vessel fishing in the EEZ without the effort restrictions on gear, and crew required by State law was apparently able to take over 100 percent of the State's GHL (54,000 lb) (24.5 mt). When the overcapitalization of the fishery is considered, it is clear the current scallop fleet could take several years' worth of the State's GHL in many areas in several months.

Because of the serious effects unrestricted fishing in this overcapitalized fishery would have on this resource, this proposed action concentrates on strict conservation in the fishery. Ideally, management strives to achieve a balance of factors, such as cost-effectiveness, enforceability, resource conservation, and positive economic

Projected Landings

The number of vessels which can participate and still produce profits depend on expected landings in future years. Based on landings of weathervane and other scallop species, up to 1.3 million pounds in landings statewide (EEZ, plus State waters) are expected during the duration of the proposed moratorium. These landings were estimated by assuming that catch limits and landings in the near term will be at the upper end of the OY range for the EEZ (0 - 1.1 million pounds). Some catches will also come from State waters. Hence, using the best available information, near term landings for Alaskan scallops are likely to be on the order of 1.0 to 1.3 million pounds of shucked meats.

Break-even Analysis

A break even analysis for an individual fishing vessel provides an estimate of the scallop harvest necessary to cover annual operating (variable) and fixed costs. Information about the operating and fixed costs for vessels in the scallop fleet has not been readily available, but owners of seven vessels volunteered cost data for their operations as part of their public testimony. These vessels represent the approximate average size of all vessels participating in the 1993 fishery. With the exception of the smallest vessel in the fleet, all vessels generally carry a 12 person crew, which includes the captain, cook, and engineer. This information represents the best available for the scallop fishery, and therefore, is used to develop a breakeven analysis for the fleet.

Annual operating costs all vessels were estimated to be about 59 percent of the gross revenues and fish taxes about 3 to 4 percent of gross revenues. Fixed costs, however, are likely to vary considerably from one vessel to the next, depending primarily on the amount of repair and supplies required, insurance costs, and debt repayment costs. The number of vessels that will break even in the fishery greatly depends on exvessel price paid for scallops. Industry sources have indicated that price may vary from vessel to vessel. Exvessel prices received in 1993 ranged from \$4.76 to \$6.65 per pound of shucked meat. These prices were higher than the historically paid for Alaskan scallops. Exvessel price ranged from \$3.12 to \$4.88 per pound from 1980-1991.

Based on the information provided through public testimony, about nine vessels would be able to operate at the breakeven level, assuming total landings of 1.3 million pounds and the reported 1993 exvessel price per pound. Fewer vessels would break even if quotas (landings) or price was reduced. Alternatively, more vessels would break even if quotas or price increased. For example, if future exvessel prices were in the order of \$7.00 per pound or more, several more vessels could operate at a breakeven level.

This analysis assumed that the fishery will occur year-round. Both fixed and operating costs are reduced when the fishery is limited by short seasons, as vessels can tie up to the dock. In fact, some vessels were not able to operate in all months during the 1993 fishery. The same situation could occur in future years. Under this amendment to the scallop FMP, fishing seasons could be set to restrict harvest during scallop spawning or to address safety concerns, or for other reasons.

Although the information used in this analysis was available for some vessels in the fleet, other analyses suggest that assuming operating costs of about 59 percent of gross revenues is not unreasonable. Operating (variable) costs for various types of groundfish trawl and longline catcher/processor vessels were estimated for analysis of cod allocation in the BSAI (Amendment 24 to the BSAI Groundfish FMP, NPFMC 1993). Appendix D of that analysis provided the following estimates of operating costs as a percent of gross revenues: (1) 41 percent for trawl vessels heading and gutting product (2) 46 percent for trawl vessels

filleting product, (3) 51 percent for a large longline catcher/processor, and (4) 66 percent for a small longline catcher processor. Note that the size distribution of small longline vessels are similar to the sizes of scallop vessels, hence supporting operating costs used in this analysis for the scallop fishery.

Overcapitalization

From the perspective of the individual fisherman, net returns decline as the vessel's share of the quota decreases due to increased fishing pressure and shorter seasons. Capitalization of the fishery continues beyond an efficient level because fishermen do not bear the entire social cost of the fishery resource. The resource is owned by the public, and although it has some value, fishermen are allowed to take the fish for free. This encourages capitalization beyond the level of operation that would exist if fishermen had to incur the cost or value society places on the fish. Effort continues to increase in the fishery beyond an efficient or profitable fleet size until average net returns reach or fall below zero. The cumulative effect is a fleet that dissipates net economic value and perpetuates low incomes in the fishery. The overcapitalized fleet also represents an unnecessarily large and unproductive share of the economy's capital investment base. This condition of overcapitalization prevents achievement of optimum yield from the fishery to the extent that economic rents are lower than those achievable, and overall capital costs in the fishery are higher than required. The status quo will perpetuate these inefficiencies.

Options available to vessels that do not qualify under the moratorium are limited. Some of the vessels previously harvested scallops in the Atlantic Ocean, and may still qualify to scallop on the east coast. Although many scallop vessels could be rigged to fish for groundfish, the opportunities for new vessels to participate in North Pacific fisheries are limited. The Council recently adopted a moratorium on new vessels entering the groundfish and crab fisheries in the North Pacific, and the analysis for that moratorium (NPFMC 1992c) details many of the same overcapitalization problems addressed in this analysis for a moratorium for the scallop fishery. Beyond existing fisheries under Council management, the opportunities and capabilities of this fleet to engage in other fisheries imply a shift to one of several alternatives: 1) state-managed fisheries within Alaska; 2) state or federally managed fisheries in the U.S. outside Alaska; or 2) high-seas or foreign fisheries elsewhere in the world.

Opportunities for new entrants in Alaska state-managed fisheries are restricted by the state's limited entry program that covers most of the important commercial fisheries, including salmon, sablefish, herring, and crab. In order to access most of these fisheries, new entrants from EEZ fisheries would have to purchase a permit, as well as adopt necessary vessel and gear modifications. In the case of salmon, asking prices for permits vary from around \$50,000 up to over \$250,000 for the most desirable areas. Salmon vessels in some areas have been developed to operate in specific regulatory and oceanographic conditions, such that halibut or groundfish boats may prove inadequate without modifications. The Alaska state fisheries are managed under a limited entry permit system because of existing concerns over excess capacity, such that the entry of vessels from Council-managed fisheries would require the exit of an existing vessel. In general, there appear to be few, if any, unexploited opportunities in existing state-managed fisheries that are capable of absorbing an influx of new entrants from the EEZ fisheries.

Overcapitalization is common in many EEZ fisheries of the United States, and many of these fisheries have been subject to limited entry systems. A moratorium and effort reduction package has recently been adopted for the East Coast scallop fishery under Amendment #4 of the Atlantic Sea Scallop FMP (NEFMC 1993). That moratorium will affect the North Pacific scallop fisheries in two ways. First, vessels that would not participate under the proposed moratorium for Alaska scallop fishery would not be able to participate in the Atlantic sea scallop fishery unless they had previously fished for sea scallops and met the

moratorium qualifying criteria outlined in Amendment #4. Second, vessels that do not qualify to continue scalloping in the Atlantic may look to enter the scallop fishery in Alaska, if access remained unrestricted. Under Amendment #4, 34 vessels that derived at least 85% of their income from sea scallops in 1991, will not qualify under that moratorium (Lou Goodreau, NEFMC staff, personal communication). It is likely that some of these vessels would participate in the Alaska scallop fishery if access were unrestricted.

Many fisheries in the Pacific Council waters off Washington, Oregon, and California are already governed by trip limits, and fishery managers have recommended that the Secretary approve their adoption of a license limitation scheme to restrict further unneeded fishing effort (Pacific Fishery Management Council, 1992). In the Western Pacific waters off Hawaii, a moratorium on entry into certain longline fisheries has already been adopted. Although the fleet operating in the Alaska EEZ may have the technical capability to operate in these and other domestic fisheries, the real constraint is obtaining access to these already overcapitalized fisheries.

Outside domestic waters, fishing opportunities are less certain, although it is recognized that excess harvesting capacity exists for many of the world's developed fisheries. Following the extension of fisheries jurisdiction in the mid-1970s, most coastal nations--led by the U.S.--endeavored to claim the economic benefits associated with the marine resources in their exclusive economic zones, greatly reducing the opportunities for distant water fleets of some countries. As a result, access to the coastal waters of foreign nations must be arranged through joint venture arrangements, in competition with the distant water fleets of many other nations, such as Japan and Korea. However, the shift to foreign fisheries requires both logistical and diplomatic arrangements that may be beyond the scope of many small boat operators. Also, opportunities for the Alaska fleet in foreign fisheries likely favor technologically advanced, higher valued vessels not readily available in the host country.

In summary, the problems associated with excess capacity and overcapitalization cannot be easily overcome by shifting unneeded vessels to other fisheries. This is not so much because of an incompatibility of technology, as the dilemma of widespread overcapitalization. Efficient, adaptable vessels are capable of shifting to other fisheries, and may well enter different fisheries in response to economic efficiency criteria. Entrepreneurs may also be capable of finding and competing in a variety of world-wide fisheries. Overall, however, there is no simple means of shifting excess Alaska EEZ vessels into other fisheries in the current environment, primarily because already there appears to be more than adequate capacity throughout the Alaskan, U.S. and world fishing industry.

Implementation of a Moratorium

Implementation of a moratorium is essentially a matter of issuing licenses for qualified vessels and tracking the vessel configuration to verify adherence to capacity restrictions. There are several levels of possible enforcement and vessel qualification checks that could occur, however. The most basic level of qualification checking would occur when a vessel owner applies for a permit to harvest scallops. The vessel identification would be checked against landings data going back through the applicable qualification dates. If the vessel was found to have made a landing in a moratorium fishery then the owner would be issued a license. A second level of qualification checking would require the maintenance of a vessel database containing all vessels which qualify to participate in the moratorium regardless of whether licensing applications had been submitted. This would be a "master" database which would be the baseline for determining all vessel qualifications.

HS 141

ALASKAN SCALLOP FISHERY (BERING SEA AND GULF OF ALASKA)**AREA PRODUCTION FORECASTS 07-98**

1. BERING SEA -- SEASON STARTS JULY '97. EXPECT DROP IN CPUE MID SEASON AND BYCATCH PROBLEMS. VIRGIN GROUNDS STARTED '92" (NO QUOTAS, NO OBSERVERS). '93" 100% OBSERVERS AND QUOTAS, HEAVY FISHING EFFORT AND HIGH BYCATCH RATES.
2. SHUMAGINS -- CRAB BYCATCH HAS BEEN MAJOR PROBLEM, TWO VESSELS HAVE CLOSED AREA EARLY WITH HEAVY BYCATCH RATES LAST TWO SEASONS. LOW SCALLOP HARVEST.
3. KODIAK (SHELIKOF) -- EXPECT DROP IN CPUE EARLY ON. HAS BEEN MAINSTAY OF KODIAK SINCE MID 80'S. HAS HAD HEAVY FISHING PRESURE SINCE 92, BYCATCH MED.
4. KODIAK (EAST SIDE) -- FISHED HEAVLY SINCE EARLY 80'S, NOW DEPLETED. NEEDS RECRUITMENT.
5. PRINCE WILLIAM SOUND -- KAYAK ISLAND - DOWN, VESSEL MR. BIG OVEREXPLOITED RESOURCE BY OVER 100% IN '95". QUOTA HAS BEEN CUT FROM 50K TO 17K
6. YAKUTAT -- STABLE, NO BYCATCH PROBLEMS, FISHING SEASON CHANGED FROM JAN 10TH TO JULY 1ST. NEEDS TO BE WATCHED, MAY BE SOURCE OF LARVAL RECRUITMENT FOR WESTERN AREAS DUE TO THE CURRENT FLOW PATTERNS IN THE GULF OF ALASKA
7. SOUTHEAST (AREA 16) -- CPUE DROPPED FEB '97", EXPECT RESRICTIVE ACTION FOR '98"

SCALLOP HARVEST SHOULD LEVEL OUT AT BETWEEN 600K TO 800K IN THE NEXT FEW YEARS

COST DATA FOR ALASKAN SCALLOP FLEET

**AVERAGE BREAKEVEN COST FOR SCALLOP FLEET IS \$ 824,234.00, NPFMC
RANGE 1.1 MIL- 7 MIL**

**NUMBER OF VESSELS THAT WILL BREAK EVEN AT PROJECTED PRICE LEVELS
 AND AVAILABLE HARVEST LEVELS**

<u>PRICE /LB</u>		<u>6.00/LB</u>	<u>5.50/LB</u>	<u>5.00/LB</u>	<u>4.50/LB</u>
IF QUOTA =	900,000 LBS	6.5	6	5.4	4.9
IF QUOTA=	800,000 LBS	5.8	5.3	4.8	4.3
"96 HARVEST" aprox	704,000 LBS	5	4.6	4.2	3.8
IF QUOTA=	600,000 LBS	4.3	4	3.6	3.2
IF QUOTA=	500,000 LBS	3.7	3.3	3	2.7

*** VESSELS WITH ABOVE THE AVERAGE BREAKEVEN COSTS WILL HAVE TROUBLE WITH
 THIS SCENARIO**

Draft for Public Review

**ENVIRONMENTAL ASSESSMENT/
REGULATORY IMPACT REVIEW/
INITIAL REGULATORY FLEXIBILITY ANALYSIS
of**

Amendment 1

**to the
FISHERY MANAGEMENT PLAN
for the
SCALLOP FISHERY
off Alaska**

NOTE: The Council is scheduled to take final action on this amendment at it's June 1995 meeting. However, reviewers should note that there are a number of policy decisions regarding State and Federal management that need to be resolved before management measures considered by this amendment could be implemented. Also note that several management measures proposed under the alternative to the status quo contain more than one option. The suite of management measures and options identified under Alternative 2 in this document are subject to change when the Council takes final action.

**Prepared by staff of the
National Marine Fisheries Service
North Pacific Fishery Management Council
Alaska Department of Fish & Game**

May 26, 1995

harvested may indicate an increase in fishing mortality of larger individuals, or high recruitment (Ricker 1975). It has been well-established that scallop populations worldwide are vulnerable to overharvest, and stock recovery may be slow (Aschan-1991; Bannister 1986; Bourne 1986; McLoughlin et al. 1991; Orensanz 1986). For these reasons, significant increases in scallop harvests in Alaska beyond historic levels should be avoided, as they may jeopardize stock health and sustained yield.

The longevity of weathervane scallops in Alaska implies that they experience low natural mortality rates (Hoenig 1983), and this requires that conservative commercial harvests of weathervane scallops may be necessary to maintain healthy stocks and sustainable fisheries. The rate of natural mortality is one of the biological reference points commonly used in management of other fisheries to establish appropriate exploitation rates (Clark 1991). Unfortunately, other benchmarks that would bear on the choice of appropriate exploitation rates for weathervane scallops are not presently available; there is inadequate information on other biological production parameters, and uncertainty in scallop population dynamics for Alaskan scallop fisheries.

An unrestricted harvest in the EEZ would allow recruitment overfishing. It is widely accepted that fishery harvest levels should be prescribed in ways to prevent "recruitment overfishing", which is the condition that occurs when stocks are reduced to levels too low to produce adequate numbers of young scallops -- the future recruits to the fishery (Gulland 1983). Recruitment is a prerequisite for maintenance of viable populations, and is needed for sustainable harvests that support long-term economic benefits from the fishery. By closing the EEZ to harvest, recruitment overfishing of scallops would be prevented, and a future fishery would be assured.

Overcapitalized Fleet

The existence of an overcapitalized fleet increases the potential of overfishing the resource in an unrestricted fishery. At its January 1993 meeting, the Council determined that unrestricted access to this fishery may be harmful to the resource and result in a net loss to the Nation. A control date of January 20, 1993 was set to place the industry on notice that a moratorium for this fishery may be implemented. This control date was again reaffirmed at the Council's June 1993 meeting. As anticipated, effort in this fishery apparently increased in 1993; 32 permits, representing 21 vessels were issued to fish scallops in 1993. Eleven of these vessels had made landings as of July 31, 1993, and a total of 15 vessels had made landings by the end of the year.

Even without additional vessels entering the fishery, the 1993 fishery was overcapitalized. In 1992, seven vessels harvested 1.8 million lb (816 mt), for an average of 257,143 lb (116.6 mt) harvested per vessel. The 1993 quota was set at 890,000 lb (403.7 mt) for areas with specified guideline harvest levels, or about one-half of the 1992 landings. Efficient harvesting of this quota could be done by only three to four vessels. Preliminary estimates of 1993 landings from areas without guideline harvest levels total 524,000 lb (237.7 mt), that potentially could have been taken by an additional two vessels. Yet, 11 vessels participated in the 1993 fishery by July 31. Hence, the 1993 fishery was overcapitalized, meaning that too much capital was invested relative to the fleet size necessary to efficiently conduct the fishery. In 1994 the fishery continued the trend; 16 vessels harvested 1,235,269 lb (560.3 mt) of scallops.

Conservation impacts of the scallop fishery in Alaska depend upon the particular suite of management measures adopted. Where no management exists there is every indication that the fishery would be subject to local and eventual general overfishing were the condition to persist. One vessel fishing in the EEZ without the effort restrictions on gear, and crew required by State law was apparently able to take over 100 percent of the State's GHL (54,000 lb) (24.5 mt). When the overcapitalization of the fishery is considered, it is clear the current scallop fleet could take several years' worth of the State's GHL in many areas in several months.

Because of the serious effects unrestricted fishing in this overcapitalized fishery would have on this resource, this proposed action concentrates on strict conservation in the fishery. Ideally, management strives to achieve a balance of factors, such as cost-effectiveness, enforceability, resource conservation, and positive economic

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB141

Revision Date: _____ Dept. Affected: Fish and Game
 Title: An Act relating to a vessel permit moratorium for the Alaska BRU: Commercial Fisheries (Limited) Entry Commission
weathervane scallop fishery; relating to management of scallop fisheri Component: Limited Entry Program Administration
 Sponsor: Rep. Austerman
 Requester: Rep. Austerman COMPONENT SERIAL NO. 0471

Expenditures/Revenues	(Thousands of Dollars)					
OPERATING EXPENDITURES	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ()						

FUND SOURCE	(Thousands of Dollars)					
1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1006 GF/MHTIA						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

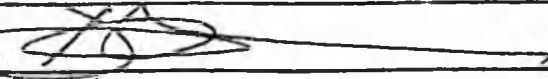
Estimate of any current year (FY97) cost: \$ 0.0

POSITIONS						
FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary.)

No fiscal impact.

Prepared By: Roger Kolden Phone: 789-6160
 Agency: Commercial Fisheries (Limited) Entry Commission Date: 2/24/97

Approved by Commissioner: Dale Anderson 
 Agency: Commercial Fisheries (Limited) Entry Commission Date: 2/24/97

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE



KODIAK FISH COMPANY
 FT ALLIANCE FT LEGACY FT PROVIDER



326 Center Avenue
 Kodiak, Alaska 99615

2977 Fox Road
 Ferndale, Washington 98248

Date: 1-23-96

Fax To: Amy Doucynerty 907 465 4956

Attention:

From: Mark K.

Subject: Scallops licence

Amy

This is from NPFMC.
 It looks like nice vessels for breakeven
 @ 1.3 million lbs. In reality some quota's
 have dropped this year.. and I expect
 there will be further reductions as
 the fishery is composed of one strong
 year class and one weak one in some
 areas with no signs of recruitment which
 actually is normal for scallops. One year
 class sometimes has to last quite a
 while.

Respect.

Mark Xenophonis

Ferndale
 Phone 360-366-9131
 Fax 360-366-9132

Kodiak
 Phone 907-486-3309
 Fax 001-486-4676

Projected Landings

The number of vessels which can participate and still produce profits depend on expected landings in future years. Based on landings of weathervane and other scallop species, up to 1.3 million pounds in landings statewide (EEZ plus State waters) are expected during the duration of the proposed moratorium. These landings were estimated by assuming that catch limits and landings in the near term will be at the upper end of the OY range for the EEZ (0 - 1.1 million pounds). Some catches will also come from State waters. Hence, using the best available information, near term landings for Alaskan scallops are likely to be on the order of 1.0 to 1.3 million pounds of shucked meats.

Break-even Analysis

A break even analysis for an individual fishing vessel provides an estimate of the scallop harvest necessary to cover annual operating (variable) and fixed costs. Information about the operating and fixed costs for vessels in the scallop fleet has not been readily available, but owners of seven vessels volunteered cost data for their operations as part of their public testimony. These vessels represent the approximate average size of all vessels participating in the 1993 fishery. With the exception of the smallest vessel in the fleet, all vessels generally carry a 12 person crew, which includes the captain, cook, and engineer. This information represents the best available for the scallop fishery, and therefore, is used to develop a breakeven analysis for the fleet.

Annual operating costs all vessels were estimated to be about 59 percent of the gross revenues and fish taxes about 3 to 4 percent of gross revenues. Fixed costs, however, are likely to vary considerably from one vessel to the next, depending primarily on the amount of repair and supplies required, insurance costs, and debt repayment costs. The number of vessels that will break even in the fishery greatly depends on exvessel price paid for scallops. Industry sources have indicated that prices may vary from vessel to vessel. Exvessel prices received in 1993 ranged from \$4.76 to \$6.65 per pound of shucked meat. These prices were higher than the historically paid for Alaskan scallops. Exvessel price ranged from \$3.12 to \$4.88 per pound from 1980-1991.

Based on the information provided through public testimony, about nine vessels would be able to operate at the breakeven level, assuming total landings of 1.3 million pounds and the reported 1993 exvessel price per pound. Fewer vessels would break even if quotas (landings) or price was reduced. Alternatively, more vessels would break even if quotas or price increased. For example, if future exvessel prices were in the order of \$7.00 per pound or more, several more vessels could operate at a breakeven level.

This analysis assumed that the fishery will occur year-round. Both fixed and operating costs are reduced when the fishery is limited by short seasons, as vessels can tie up to the dock. In fact, some vessels were not able to operate in all months during the 1993 fishery. The same situation could occur in future years. Under this amendment to the scallop FMP, fishing seasons could be set to restrict harvest during scallop spawning or to address safety concerns, or for other reasons.

Although the information used in this analysis was available for some vessels in the fleet, other analyses suggest that assuming operating costs of about 59 percent of gross revenues is not unreasonable. Operating (variable) costs for various types of groundfish trawl and longline catcher/processor vessels were estimated for analysis of cod allocation in the BSAI (Amendment 24 to the BSAI Groundfish FMP, NPFMC 1993). Appendix D of that analysis provided the following estimates of operating costs as a percent of gross revenues: (1) 41 percent for trawl vessels heading and gutting product, (2) 46 percent for trawl vessels

filleting product, (3) 51 percent for a large longline catcher/processor, and (4) 66 percent for a small longline catcher processor. Note that the size distribution of small longline vessels are similar to the sizes of scallop vessels, hence supporting operating costs used in this analysis for the scallop fishery.

Overcapitalization

From the perspective of the individual fisherman, net returns decline as the vessel's share of the quota decreases due to increased fishing pressure and shorter seasons. Capitalization of the fishery continues beyond an efficient level because fishermen do not bear the entire social cost of the fishery resource. The resource is owned by the public, and although it has some value, fishermen are allowed to take the fish for free. This encourages capitalization beyond the level of operation that would exist if fishermen had to incur the cost or value society places on the fish. Effort continues to increase in the fishery beyond an efficient or profitable fleet size until average net returns reach or fall below zero. The cumulative effect is a fleet that dissipates net economic value and perpetuates low incomes in the fishery. The overcapitalized fleet also represents an unnecessarily large and unproductive share of the economy's capital investment base. This condition of overcapitalization prevents achievement of optimum yield from the fishery to the extent that economic rents are lower than those achievable, and overall capital costs in the fishery are higher than required. The status quo will perpetuate these inefficiencies.

Options available to vessels that do not qualify under the moratorium are limited. Some of the vessels previously harvested scallops in the Atlantic Ocean, and may still qualify to scallop on the east coast. Although many scallop vessels could be rigged to fish for groundfish, the opportunities for new vessels to participate in North Pacific fisheries are limited. The Council recently adopted a moratorium on new vessels entering the groundfish and crab fisheries in the North Pacific, and the analysis for that moratorium (NPFMC 1992c) details many of the same overcapitalization problems addressed in this analysis for a moratorium for the scallop fishery. Beyond existing fisheries under Council management, the opportunities and capabilities of this fleet to engage in other fisheries imply a shift to one of several alternatives: 1) state-managed fisheries within Alaska; 2) state or federally managed fisheries in the U.S. outside Alaska; or 2) high-seas or foreign fisheries elsewhere in the world.

Opportunities for new entrants in Alaska state-managed fisheries are restricted by the state's limited entry program that covers most of the important commercial fisheries, including salmon, sablefish, herring, and crab. In order to access most of these fisheries, new entrants from EEZ fisheries would have to purchase a permit, as well as adopt necessary vessel and gear modifications. In the case of salmon, asking prices for permits vary from around \$50,000 up to over \$250,000 for the most desirable areas. Salmon vessels in some areas have been developed to operate in specific regulatory and oceanographic conditions, such that halibut or groundfish boats may prove inadequate without modifications. The Alaska state fisheries are managed under a limited entry permit system because of existing concerns over excess capacity, such that the entry of vessels from Council-managed fisheries would require the exit of an existing vessel. In general, there appear to be few, if any, unexploited opportunities in existing state-managed fisheries that are capable of absorbing an influx of new entrants from the EEZ fisheries.

Overcapitalization is common in many EEZ fisheries of the United States, and many of these fisheries have been subject to limited entry systems. A moratorium and effort reduction package has recently been adopted for the East Coast scallop fishery under Amendment #4 of the Atlantic Sea Scallop FMP (NEFMC 1993). That moratorium will affect the North Pacific scallop fisheries in two ways. First, vessels that would not participate under the proposed moratorium for Alaska scallop fishery would not be able to participate in the Atlantic sea scallop fishery unless they had previously fished for sea scallops and met the

moratorium qualifying criteria outlined in Amendment #4. Second, vessels that do not qualify to continue scalloping in the Atlantic may look to enter the scallop fishery in Alaska, if access remained unrestricted. Under Amendment #4, 34 vessels that derived at least 85% of their income from sea scallops in 1991, will not qualify under that moratorium (Lou Goodreau, NEFMC staff, personal communication). It is likely that some of these vessels would participate in the Alaska scallop fishery if access were unrestricted.

Many fisheries in the Pacific Council waters off Washington, Oregon, and California are already governed by trip limits, and fishery managers have recommended that the Secretary approve their adoption of a license limitation scheme to restrict further unneeded fishing effort (Pacific Fishery Management Council, 1992). In the Western Pacific waters off Hawaii, a moratorium on entry into certain longline fisheries has already been adopted. Although the fleet operating in the Alaska EEZ may have the technical capability to operate in these and other domestic fisheries, the real constraint is obtaining access to these already overcapitalized fisheries.

Outside domestic waters, fishing opportunities are less certain, although it is recognized that excess harvesting capacity exists for many of the world's developed fisheries. Following the extension of fisheries jurisdiction in the mid-1970s, most coastal nations--led by the U.S.--endeavored to claim the economic benefits associated with the marine resources in their exclusive economic zones, greatly reducing the opportunities for distant water fleets of some countries. As a result, access to the coastal waters of foreign nations must be arranged through joint venture arrangements, in competition with the distant water fleets of many other nations, such as Japan and Korea. However, the shift to foreign fisheries requires both logistical and diplomatic arrangements that may be beyond the scope of many small boat operators. Also, opportunities for the Alaska fleet in foreign fisheries likely favor technologically advanced, higher valued vessels not readily available in the host country.

In summary, the problems associated with excess capacity and overcapitalization cannot be easily overcome by shifting unneeded vessels to other fisheries. This is not so much because of an incompatibility of technology, as the dilemma of widespread overcapitalization. Efficient, adaptable vessels are capable of shifting to other fisheries, and may well enter different fisheries in response to economic efficiency criteria. Entrepreneurs may also be capable of funding and competing in a variety of world-wide fisheries. Overall, however, there is no simple means of shifting excess Alaska EEZ vessels into other fisheries in the current environment, primarily because already there appears to be more than adequate capacity throughout the Alaskan, U.S. and world fishing industry.

Implementation of a Moratorium

Implementation of a moratorium is essentially a matter of issuing licenses for qualified vessels and tracking the vessel configuration to verify adherence to capacity restrictions. There are several levels of possible enforcement and vessel qualification checks that could occur, however. The most basic level of qualification checking would occur when a vessel owner applies for a permit to harvest scallops. The vessel identification would be checked against landings data going back through the applicable qualification dates. If the vessel was found to have made a landing in a moratorium fishery then the owner would be issued a license. A second level of qualification checking would require the maintenance of a vessel database containing all vessels which qualify to participate in the moratorium regardless of whether licensing applications had been submitted. This would be a "master" database which would be the baseline for determining all vessel qualifications.

HB

144

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB 144

Revision Date: _____
Title: Pesticide Fees

Department Affected: Environmental Conservation

Sponsor: House State Affairs
Requestor: House Resources

BRU: Environmental Health
Component: Laboratory Services

COMPONENT SERIAL NO. #2065

Expenditures/Revenues:

(Thousands of Dollars)

OPERATING EXPENDITURES	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
PERSONAL SERVICES	0.0	0.0	0.0	0.0	0.0	0.0
TRAVEL	0.0	0.0	0.0	0.0	0.0	0.0
CONTRACTUAL	0.0	0.0	0.0	0.0	0.0	0.0
SUPPLIES	0.0	0.0	0.0	0.0	0.0	0.0
EQUIPMENT	0.0	0.0	0.0	0.0	0.0	0.0
LAND&STRUCTURES	0.0	0.0	0.0	0.0	0.0	0.0
GRANTS, CLAIMS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES	0.0	0.0	0.0	0.0	0.0	0.0
----------------------	-----	-----	-----	-----	-----	-----

CHANGE IN REVENUES ()	0.0	0.0	0.0	0.0	0.0	0.0
------------------------	-----	-----	-----	-----	-----	-----

FUND SOURCE

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	(55.5)	0.0	0.0	0.0	0.0	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipt	55.5	0.0	0.0	0.0	0.0	0.0
1006 GF/MHTIA	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY97) cost: \$ 0.0

POSITIONS:

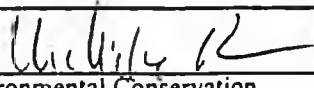
FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary.)

Convert existing general fund match to general fund program receipts.

Prepared by: Janice Adair, Director
Division: Environmental Health

Phone: 269-7644
Date: 3/7/97

Approved by Commissioner: 
Agency: Department of Environmental Conservation

Date: 3/7/97

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE
For further distribution information, call the Governor's Legislative Office

Alaska State Legislature

REPRESENTATIVE
JEANNETTE JAMES

P.O. Box 56622
North Pole, Alaska 99705
(907) 488-1546
FAX (907) 488-4271



White in Juneau
State Capitol
Juneau, Alaska
99801-1182
(907) 465-3743
FAX (907) 465-2381

House Of Representatives

House District 34

DATE: March 5, 1997

TO: Representatives Oyan and Hudson, Co-Chairs
House Resources Committee

FROM: Representative Jeannette James

A handwritten signature in black ink, appearing to be 'J. James', written over the name 'Representative Jeannette James'.

Please schedule House Bill 144, "D.E.C. Fees, Pesticides and Chemicals" for hearing in the House Resources Committee at your earliest convenience.

A sponsor statement and copy of the bill are attached.

Thank you very much for your assistance.

Collateral references. — 61A Am. Jur. 2d, Pollution Control, § 1 et seq.
39A C.J.S., Health and Environment, § 61 et seq.

Sec. 44.46.020. Duties of department. The Department of Environmental Conservation shall

(1) have primary responsibility for coordination and development of policies, programs, and planning related to the environment of the state and of the various regions of the state;

(2) have primary responsibility for the adoption and enforcement of regulations setting standards for the prevention and abatement of all water, land, subsurface land, and air pollution, and other sources or potential sources of pollution of the environment, including by way of example only, petroleum and natural gas pipelines;

(3) promote and develop programs for the protection and control of the environment of the state;

(4) take actions that are necessary and proper to further the policy declared in AS 46.03.010;

(5) adopt regulations for

(A) the prevention and control of public health nuisances;

(B) the regulation of sanitation and sanitary practices in the interest of public health;

(C) standards of cleanliness and sanitation in connection with the construction, operation, and maintenance of a camp, cannery, food handling establishment, food manufacturing plant, mattress manufacturing establishment, industrial plant, school, barbershop, hairdressing or cosmetology establishment, soft drink establishment, beer and wine dispensaries, and for other similar establishments in which lack of sanitation may create a condition that causes disease;

(D) the regulation of quality and purity of commercially compressed air sold for human respiration. (§ 2 ch 120 SLA 1971; am E.O. No. 51, § 40 (1981))

NOTES TO DECISIONS

Approval of subdivision plans. — Department of environmental conservation can validly require its approval of potential subdivision plans as a prerequisite to the recording and sale of any lots in the

subdivision. *State v. Anderson*, 749 P.2d 1342 (Alaska 1988).

Cited in *Noey v. Department of Env'tl. Conservation*, 737 P.2d 796 (Alaska 1987).

Sec. 44.46.025. Fees for services. (a) The Department of Environmental Conservation may adopt regulations that prescribe reasonable fees, and establish procedures for the collection of the fees, to cover the applicable direct costs, not including travel, of inspections, permit preparation and administration, plan review and approval, and other services provided by the department relating to

(1) agriculture and animals under AS 03.05; food, drugs, and cosmetics under AS 17.20; and public accommodations and facilities under AS 18.35;

(2) certificates of inspection for motor vehicles under AS 46.14.400 or 46.14.510;

(3) sewerage system and treatment works and wastewater disposal systems, and drinking water systems, under AS 46.03.720;

(4) [Repealed, § 43 ch 128 SLA 1994.]

(5) [Repealed, § 43 ch 128 SLA 1994.]

(6) water and wastewater operator training under AS 46.30;

(7) control of solid waste facilities under AS 46.03.020(10) and 46.03.100;

(8) certification of laboratories conducting environmental analyses of public drinking water systems or of oil or hazardous substances, or conducting other analyses required by the department;

(9) certification of federal permits or authorizations under 33 U.S.C. 1341 (sec. 401, Clean Water Act).

(b) The department may not charge a fee for a service that is provided by a municipality under a delegation by the department to the municipality.

(c) The department may adopt regulations that prescribe reasonable fees to cover the direct and indirect costs of air quality permit programs under AS 46.14 and may establish procedures for the collection of those fees.

(d) Notwithstanding (a) of this section, the department may not charge a fee for inspection, permit preparation and administration, plan review and approval, or other services provided by the department under AS 03.05 or AS 44.46.020(5) to a school. In this section, "school" means a public school or private school for children of school age, as defined in AS 14.03.070, or a head start center that receives federal financial assistance under 42 U.S.C. 9835. (§ 63 ch 36 SLA 1990; am §§ 76, 77 ch 63 SLA 1993; am §§ 12, 13 ch 74 SLA 1993; am § 43 ch 128 SLA 1994; am § 1 ch 90 SLA 1995)

Revisor's notes. — Section 77, ch. 63, SLA 1993 enacted a subsection (c) for this section that is almost identical to that enacted by § 13, ch. 74, SLA 1993 and set out above. The only difference between the two is that the latter contains the words "and indirect" after the word "direct". Because § 13, ch. 74, SLA 1993 was the later enactment and had an immediate effective date, the amendment made by ch. 63 will not be codified.

Effect of amendments. — The first 1993 amendment, effective January 1, 1993, rewrote subsection (a).

The second 1993 amendment, effective June 26,

199 substituted the present language of paragraph (a)(2) for "air quality permits under AS 46.03.140 and 46.03.160" and added subsection (c).

The 1994 amendment, effective October 2, 1994, repealed paragraphs (a)(4) and (a)(5), relating to oil discharge financial responsibility and oil discharge contingency plans, respectively.

The 1995 amendment, effective July 1, 1995, added subsection (d).

Editor's notes. — Section 87, ch. 63, SLA 1993 provides "[i]f any section of this bill is found to violate the single subject rule it is severed from the rest of the bill."

Article 2. Environmental Advisory Board.

Secs. 44.46.030 — 44.46.050. Environmental Advisory Board. [Repealed, § 13 ch 43 SLA 1994.]

Secs. 44.46.070 — 44.46.110. Alaska Council on Science and Technology. [Repealed, E.O. No. 48, § 6 (1981). For current law, see AS 37.17 and AS 44.19.255.]

Chapter 47. Department of Community and Regional Affairs.

Article

1. Organization and Administration (§§ 44.47.010 — 44.47.055)
2. Planning Assistance (§§ 44.47.080 — 44.47.100)
3. Rural Development (§§ 44.47.130 — 44.47.155)
4. Legal Assistance and Juvenile Justice Grants (§§ 44.47.200 — 44.47.230)
5. Day Care Assistance (§§ 44.47.250 — 44.47.310)
6. Local Boundary Commission (§§ 44.47.565 — 44.47.583)
7. Borough Feasibility Studies (§§ 44.47.700 — 44.47.730)
8. Business Incentive Training Program (§§ 44.47.750 — 44.47.772)
9. Rural Development Initiative Program (§§ 44.47.800 — 44.47.820)
- 9A. Regional Economic Assistance Program (§ 44.47.900)
10. General Provisions (§§ 44.47.980, 44.47.998)

Article 1. Organization and Administration.

Section

10. Commissioner of community and regional affairs
20. Purpose of department
50. General powers and duties

Section

55. Fees for publications, research data, and other services

mental Conser-
 f policies, pro-
 sious regions of
 lations setting
 e land, and air
 environment,
 nvironment of
 eclared in AS
 public health;
 constructi...
 ishment, food
 plant, school,
 ishment, beer
 k of sanitation
 old for human
 d 1342 (Alaska
 Envtl. Conserva-
 ntal Conserva-
 procedures for
 ing travel, of
 val, and other
 ics under AS
 14.510;
 systems, and
 ;
 ublic drinking
 s required by
 341 (sec. 401,

HB

151

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO: HB 151

Revision Date: 3/4/97
Title: An Act relating to personal hunting of big game guides while clients are in the field...
Sponsor: Representative Ogan
Requestor: H. Resources

Dept. Affected: Public Safety
BRU: Fish and Wildlife Protection
Component: Detachments
COMPONENT SERIAL NO. 0490

EXPENDITURES/REVENUES: (Thousands of Dollars) (inflation not included)

OPERATING	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
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-
CHANGE IN REVENUES ()	-0-	-0-	-0-	-0-	-0-	-0-
Revenue Code						

FUNDING: (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program						
1006 GF/MHTIA						
Other						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

Estimate of current year (FY 97) impact: \$ -0-

POSITIONS:

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

ANALYSIS: (Attach a separate page if necessary.)

This Bill will return to statute the prohibition of big game guides personally hunting while clients are in the field. It will also allow guides to register for more than three guide use areas if the lands requested would otherwise not be used and the request is approved by DOC. It should not impact our Division's program objectives or budget.

Prepared By: Lt. Joel L. Hard Phone: 269-5409
 Division: Fish and Wildlife Protection Date: March 4, 1997
 Approved by Commissioner: *Joel Smith* Date: 3/4/97
 Agency: Ronald L. Otte, Department of Public Safety

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE
 For further distribution information call the Governor's Legislative Office

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB 151

Revision Date: _____ Dept. Affected: Fish and Game
 Title: Big Game Guides and Registration Areas BRU: Wildlife Conservation
 Component: Wildlife Conservation
 Sponsor: Representative Ogan
 Requester: House Resources COMPONENT SERIAL NO. 473

Expenditures/Revenues (Thousands of Dollars)

OPERATING EXPENDITURES	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES	0.0	0.0	0.0	0.0	0.0	0.0
-----------------------------	------------	------------	------------	------------	------------	------------

CHANGE IN REVENUES (1024)	0.0	0.0	0.0	0.0	0.0	0.0
------------------------------------	------------	------------	------------	------------	------------	------------

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY96) cost: \$ 0.0

POSITIONS

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

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Wayne Regelin, Director *WR*
 Division: Wildlife Conservation
 Approved by Commissioner: [Signature]
 Agency: Department of Fish and Game

Phone: 464-4190
 Date: 2/28/97
 Date: 3/5/97

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE

For further distribution information, call the Governor's Legislative Office

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB 151

Revision Date: _____
 Title: An Act relating to personal hunting of big game by
big game guides while clients are in the field.....
 Sponsor: Representative Ogan
 Requestor: House Resources

Department: Commerce and Economic Development
 BRU: Occupational Licensing
 Component: Operations
 COMPONENT SERIAL NO. 1844

Expenditures/Revenues

(Thousands of Dollars)

OPERATING EXPENDITURES	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES	0.0	0.0	0.0	0.0	0.0	0.0
--------------------	-----	-----	-----	-----	-----	-----

FUND SOURCE

(Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 General Fund						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other 1091 Designated PR						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY 97) cost: \$ 0.0

POSITIONS

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

HB 151 amends the big game guide statutes in AS 08.54 making it unlawful for big game guide licensees to take big game while guiding clients in the field. New funds are not required to implement this bill.

Prepared by: Jennifer Strickler, Administrative Manager
 Division: Occupational Licensing
 Approved by Commissioner: William L. Hensley
 Agency: Commerce and Economic Development

Phone: 465-2144
 Date: 3/3/97
 Date: 3-4-97

PREPAPER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE
 For further distribution information, call the Governor's Legislative Office

Alaska State Legislature

Co-Chair Resources Committee
Special Committee on Oil & Gas
Legislative Council
Community and Regional Affairs
Fisheries



State Capitol, Rm 128
Juneau, Alaska 99801
907-465-3878
Fax: 907-465-3265
1-800-862-3878

Representative Scott Ogan

House District 27

SPONSOR STATEMENT - HB 151

This bill is a good faith effort to cleanup a statute that was passed last year in the form of the Big Game Guide Bill HB 335.

HB 151 Accomplishes the following:

- Makes it illegal for registered guides, class-A assistant guides, and assistant guides to hunt while a client of theirs is in the field.
- Makes it a misdemeanor to break the law created above.
- Closes a loophole that had allowed felons to apply for a new class of license under a grandfather clause. A person is still protected by the grandfather clause so that they may maintain their current license. However, they would no longer be able to apply for a new class license.
- Creates the ability for guides to register for one more guide use area if the federal lands requested would otherwise not be used and are adjacent to the existing guide use area. This is subject to approval by the Department of Commerce.

Alaska State Legislature

Co-Chair Resources Committee
Special Committee on Oil & Gas
Legislative Council
Community and Regional Affairs
Fisheries



State Capitol, Rm 128
Juneau, Alaska 99801
907-465-3878
Fax: 907-465-3265
1-800-862-3878

Representative Scott Ogan

House District 27

SECTIONAL ANALYSIS HB 151

BILL SECTION 1: AS 08.54.605(b) is amended by adding language that closes a loophole that had allowed felons to apply for and receive a new class license even if there was warranted concern for public safety. This is simply an alteration of a grandfather clause that protected those who possessed a certain class license prior to the passage of the existing statute.

BILL SECTION 2: AS 08.54.720(a) is amended by adding subsections (17) & (18) which make it an illegal act for registered guides, class-A assistant guides or assistant guides to take big game while clients are in the field.

BILL SECTION 3: AS 08.54.720(b) is amended by adding subsections (17) & (18) which makes it a misdemeanor for violating the crimes set forth in Bill Section 2. Violation is punishable by a fine of not more than \$10,000 or by imprisonment of up to one year, or both.

BILL SECTION 4: AS 08.54.720(f) is amended by adding subsections (17) & (18) which allows the court to order the department to suspend the guide license of a person who commits a misdemeanor offense.

BILL SECTION 5: AS 08.54.750 is amended by adding a new subsection (e). This section allows guides to register for one more guide use area if the federal lands requested would otherwise not be used and are adjacent to the existing guide use area. The request is subject to approval by the Department of Commerce.

A M E N D M E N T

OFFERED IN THE HOUSE

TO: Draft CSHB 151(RES) (Dated 3/11/97)

1 Page 3, line 26:

2 Delete "class-A assistant guide"

3 Insert "person who is licensed as a registered guide, a class-A assistant guide,"

4 Page 3, line 28:

5 Delete "class-A assistant guide or the assistant guide"

6 Insert "person"

7 Page 3, line 29:

8 Delete "class-A assistant guide or assistant guide"

9 Insert "person"

10 Page 3, line 31, through page 4, line 1:

11 Delete "class-A assistant guide or assistant guide"

12 Insert "person"