

PROPOSED INTERIM MANAGEMENT MEASURES
FOR COMMERCIAL SCALLOP FISHERIES
IN ALASKA

By
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Regional Information Report No. 5J92-08
Alaska Department of Fish & Game
Division of Commercial Fisheries
P.O. Box 25526
Juneau, Alaska 99802-5526

July 27, 1992

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EXECUTIVE SUMMARY

The commercial fishery for weathervane scallops (*Patinopecten caurinus* Gould, 1850) in Alaska began in 1967. Since then, harvests of scallops have ranged from 1,850,187 pounds of shucked meats in 1969 to zero in 1978. Currently, maximum sustainable yield may be exceeded. Recent harvests are the highest since early exploitation on virgin stocks and shifts in effort to new fishing areas have occurred to achieve these harvests. Worldwide, scallops are vulnerable to overharvest, and recovery of depressed stocks may be very slow.

To address conservation concerns, the Alaska Department of Fish and Game is considering adoption of an interim management plan and associated regulations to manage the scallop fisheries in Alaska. To date, no comprehensive set of regulations exists to address issues of conservation, allocation, and conduct of an orderly fishery. If approved, the interim plan will be implemented, and the Alaska Board of Fisheries will be petitioned to consider adoption of a permanent management plan and regulations at its meeting in February 1993. Also, with the approval of the Alaska Board of Fisheries, the department is considering an option to submit a petition to the Commercial Fisheries Entry Commission to establish a four-year moratorium on new entrants into the Alaska scallop fishery.

The purpose of this document is to provide a profile of the proposed scallop management strategy and associated regulations for public review. Although these management provisions are intended for all scallop species, most discussion focusses on weathervane scallops, the species of greatest commercial importance. The document provides a summary of the management goal and objectives, commercial fishery and existing regulations, biology and life history of the species, outlook for future fishery yields, conservation concerns, proposed management alternatives and regulations, evaluation of potential effects on users, and a note on subsistence use. The department is soliciting comments on management alternatives and proposed regulations, including the possibility of a moratorium on new fishery participants.

The management goal for scallop fisheries is to maximize the overall long-term benefit of scallop resources to residents of the State of Alaska and the nation, while providing for conservation of scallop populations and their habitats. Within the scope of this goal, there are five specific objectives that address: (1) biological conservation of scallop stocks; (2) bycatch of other species and gear-induced habitat alteration; (3) sustainable and orderly fisheries that promote long-term economic and social benefits; (4) maintenance of resource availability to subsistence users; and (5) conduct of fishery research to increase the information base for future management decisions.

The draft interim management plan is designed to attain the management goal and objectives. Although a wide range of management approaches and regulations are being considered, at a minimum, the department is favoring the adoption of four new regulations in addition to those already in place: (1) closure of the commercial fishing season during the spawning period; (2) establishment of a minimum size for retention of scallops; (3) requirement for onboard observers; and (4) establishment of guideline harvest levels or optimum yields from each stock. Agency staff analyses and public comments on the proposed interim management plan and

regulations will be thoroughly considered by the department before adoption of a final interim management plan and implementation of associated fishing regulations.

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) is considering adoption of an interim management plan and associated regulations for the scallop fisheries in the State of Alaska until such time that the Alaska Board of Fisheries (BOF) can adopt permanent regulations. The interim management plan and regulations may be adopted under authority of the Alaska Administrative Code (AAC): 5 AAC 39.210 (ADF&G 1992), Management Plan for High Impact Emerging Fisheries (See chapter 39: "general provisions" in Appendix 1).

The purpose of this document is to provide a draft framework of the proposed interim management plan and associated regulations for public review. Although most discussion focusses on the weathervane scallop (*Patinopecten caurinus* Gould, 1850), the management framework is intended to apply to all scallop species in Alaska. Specifically, the following are reviewed in this report: (1) goal of the interim fishery management plan; (2) management objectives; (3) brief description of the Alaskan scallop fishery and current regulations; (4) overview of biology and life history of weathervane scallops; (5) outlook of future fishery productivity and sustained yield; (6) possible fishery impacts and resource conservation concerns; (7) proposed management alternatives and regulations; (8) evaluation of potential effects on existing users; and (9) customary and traditional subsistence use patterns.

The department is soliciting comments and suggestions on the interim management plan and regulations described in this document. Interested persons may present written comments relevant to the proposed actions in this document and legal notice (see Appendix 2) no later than 5:00 p.m. September 4, 1992. Written comments should be addressed to: Commissioner Carl L. Rosier, Alaska Department of Fish and Game, P.O. Box 25526, Juneau, Alaska 99802-5526.

GOAL OF FISHERY MANAGEMENT PLAN

The management goal for scallop fisheries is to maximize the overall long-term benefit of scallop resources to residents of the State of Alaska and the nation, while providing for conservation of scallop populations and their habitats.

MANAGEMENT OBJECTIVES

Within the scope of the management goal, five specific objectives have been identified. These objectives concern biological conservation, habitat, sustainable and orderly fisheries, subsistence, and fishery research.

Biological Conservation Objective

The biological conservation objective is to ensure the long-term reproductive viability of scallop populations. The maintenance of adequate reproductive potential in each scallop population takes precedence over other economic, social, management and research considerations. To ensure continued reproductive viability of scallop stocks, management measures will be designed to prevent recruitment overfishing by preventing the spawning stock from being reduced to too low a level to ensure adequate production of recruits to future fisheries. Management measures that could be used to attain the biological conservation objective include: (1) closures during spawning seasons; (2) minimum shell height; (3) size limits on dredge rings; and (4) guideline harvest levels (GHLs) or optimum yields (OYs).

Bycatch and Habitat Objective

The impacts of scallop dredges on other fish and shellfish populations and the quality and availability of habitat supporting populations of scallops and other species are of concern. The bycatch and habitat objective is to minimize adverse effects of this gear on incidental harvest of other species and on bottom habitat needed for recruitment and survival of scallops and other bottom-dwelling organisms, particularly those of commercial importance. Management measures that could be used to attain this objective may include onboard observers and closed areas. Research studies on bycatch and habitat may promote this objective, as well.

Sustainable and Orderly Fishery Objective

The sustainable and orderly fishery objective is to ensure the conduct of manageable, steady-paced scallop fisheries that provide stable employment opportunities and maintain supplies of high quality scallops to seafood markets. Toward this end, populations of large scallops will be perpetuated to enhance product marketability, favorable prices, and stability in landings, personal income, and employment. It is recognized that this objective will promote long-term economic and social benefits over and above short-term gains associated with "boom-and-bust" fisheries. Therefore, management measures will be designed to sustain scallop fisheries over the long-term despite sporadic recruitment events. Applicable management measures may include: (1) GHLs; (2) time/area closures; (3) observers; (4) trip limits; (5) rotational harvest areas; (6) quarterly fishing periods with separate quotas; (7) moratorium on new entrants; and (8) measures that reduce harvest/processing rates, such as minimum dredge width or crew size limits.

Subsistence Objective

Where appropriate, the subsistence objective is to ensure that scallop harvest requirements by traditional users in coastal communities are met, as required by law. Abundance and availability of local scallop stocks to subsistence users must be protected from deleterious effects of

commercial fisheries. Management must assure that traditional subsistence users are not adversely impacted by commercial harvest of scallops. This objective could be attained by closing subsistence harvest areas to commercial harvest.

Research Objective

The research objective is to gather and analyze data relevant to attaining fishery management objectives and to ensure that management plans are adjusted to reflect this new knowledge. Priority research topics may include: (1) new gear designs to increase efficiency, reduce bycatch, and minimize adverse effects on bottom habitat; (2) estimation of comparative mortality associated with regulations for minimum dredge ring size or minimum shell height; (3) estimation of population abundance and size/age structure; (4) scallop biology, life history, and stock production parameters; (5) analyses of reproductive potential, population thresholds, and recruitment overfishing; (6) investigations into exploitation rates and alternative management strategies; (7) genetic stock structure; and others. This objective may be attained by the institution of an observer program and the conduct of scallop research, perhaps paid by test fishing receipts, State of Alaska general fund appropriations, federal aid funds, or research grants.

THE ALASKA SCALLOP FISHERY AND CURRENT REGULATIONS

Interest in an Alaskan scallop fishery has existed since the early 1950's when the Bureau of Commercial Fisheries began systematic surveys to determine if commercial quantities were available. It was not until 1967 that the first commercial deliveries were made. The numbers of vessels, numbers of landings and harvest (weight of shucked meats) have varied annually (Table 1). Generally, approximately two-thirds of the harvest has been taken off Kodiak Island and about one-third has come from the area between Cape Spencer to Cape St. Elias; other areas have made minor contributions to overall landings. Total commercial harvest of scallops has fluctuated from a high of 157 landings totalling 1,850,187 pounds of shucked meats by 19 vessels in 1969 to no landings in 1978. Harvests in 1990 and 1991 were the highest on record since the early 1970's.

Economic trends of the fishery depend upon the performance measures considered. For example, vessels averaged 212,000 pounds each during the early "fishing-up period" (1970-1973) of the fishery. During 1974-1986, landings per vessel averaged only about one-third (66,000 pounds) of the 1970-1973 average, but increased to about one-half (114,000 pounds) of the original level during the 1987-1991 period (Table 1). On the other hand, average gross receipts (exvessel value) per vessel reveal a different trend due to price effects during these same three time periods: \$234,000, \$178,000, and \$400,000, respectively (Table 1).

The department's current scallop fishery management efforts are very minimal and passive in nature. In general, area specific regulations have been designed to address crab bycatch issues and not scallop fishery management directly. With the exception of recent actions that closed a portion of Prince William Sound (PWS), the department has not taken an active role in

inseason management of scallop resources. In the long term, more active scallop fishery management may be needed to ensure resource conservation.

The Alaskan commercial scallop fishery is currently being managed under miscellaneous shellfish regulations, contained in Chapter 38 of the Alaska Administrative Code; these regulations (Appendix 1) authorize management within five statistical areas (5 AAC 38.005). The state extends its management authority beyond Alaska's territorial sea to include the adjoining waters of the Exclusive Economic Zone (EEZ, 5 AAC 38.010). Because there is no federal fishery management plan, clearly the state has authority to regulate the scallop fishery in the EEZ.

For miscellaneous shellfish, the entire State of Alaska is considered as a single registration area (5 AAC 38.020). Therefore, an individual can fish scallops in all areas under a single Commercial Fishery Entry Commission (CFEC) Permit (commercial fishing license). However, in addition to an entry permit, a commissioner's permit is needed to take scallops commercially (5 AAC 38.062). The commissioner's permit may:

- (1) stipulate location and duration of harvests;
- (2) limit gear and other harvest procedures; and
- (3) require periodic or annual reporting.

The allowable commercial gear is limited to scallop dredges (5 AAC 38.055). Scallop dredges are required to have rings with minimum inside diameters of four inches; except for vessels fishing west of Sanak Island (in the Aleutian Islands), where three inch rings may be used. The department is authorized to require observers aboard vessels fishing dredges with less than four inch rings. However, no existing regulations authorize the department to require observers aboard vessels operating dredges with standard four inch rings.

The current regulations in the Southeastern Alaska and PWS areas specify that there is no closed season for scallops (5 AAC 38.120 and 38.220). In the Yakutat area, the waters of Yakutat Bay are closed to scallop fishing (5 AAC 38.180). In these three areas, the scallop fishery is generally managed under the authorities provided in the existing statewide miscellaneous shellfish regulations, discussed above.

In the Cook Inlet and Westward areas, limited area-specific regulations are stipulated in addition to existing statewide regulations. These include fishing seasons (5 AAC 38.400) and area closures (5 AAC 38.424) in the Westward area and fishing seasons (5 AAC 38.280), area closures (5 AAC 38.324), a six foot wide dredge restriction (5 AAC 38.322), and a guideline harvest range (5 AAC 38.330) for portions of the Cook Inlet area.

MORATORIUM ON NEW ENTRANTS

In 1991, the Alaska Statutes were amended by the Alaska Legislature to authorize the Commercial Fisheries Entry Commission to establish a four-year moratorium on new entrants into new and emerging commercial fisheries. The statute [AS 16.43.325 (a)] allows a moratorium in a new and emerging commercial fishery:

- 1) that has experienced recent increases in fishing effort that are beyond a low, sporadic level of effort;
- 2) that has achieved a level of harvest that may be approaching or exceeding the maximum sustainable level for the fishery; and
- 3) for which there is insufficient biological and resource management information necessary to promote the conservation and sustained yield management of the fishery.

The enabling statutes (see Appendix 1) require the Commissioner of the Department of Fish and Game to petition the Commercial Fisheries Entry Commission to establish a moratorium before CFEC can take any action. Further, the statutes specify that the Board of Fisheries needs to approve the petition in a public meeting prior to submission to CFEC.

A moratorium on new entrants would stabilize fishing effort while the scallop fishery management plan is being developed and implemented. Additional increases in fishing effort could adversely impact the health of the resources, and could lead to a complete closure of the fishery by ADF&G. Rather, a moratorium would promote the orderly development of the state's scallop fishery, may be necessary to protect Alaska's scallop stocks from over-exploitation, and could preserve the economic health and stability of the commercial fishery. ADF&G is considering the possibility of seeking approval of the BOF to petition the CFEC to establish such a moratorium on new entrants.

REVIEW OF SCALLOP BIOLOGY AND LIFE HISTORY

Weathervane scallops are distributed from Point Reyes, California, to the Pribilof Islands, Alaska. The highest known densities in Alaska occur off Kodiak Island and along the eastern gulf coast from Cape Spencer to Cape St. Elias (Foster 1991). Scallops are found from intertidal waters to depths of 300 m (Foster 1991), but abundance tends to be greatest between depths of 45-130 m on beds of mud, clay, sand, and gravel (Hennick 1973). Similar to patterns documented for other scallop species (Caddy 1989; Robert and Jamieson 1986), beds are elongated along the direction of current flow, and aggregations often represent different age or size groups.

Mature males and females are distinguishable: female gonads are pink or orange-red whereas gonads of males are creamy white (Haynes and Powell 1968; Robinson and Breese 1984). Although spawning time varies with latitude and depth (Robinson and Breese 1984; MacDonald

and Bourne 1987), in Alaska weathervane scallops appear to mature in mid-December to late January and spawn in May to July depending on location (Hennick 1970a).

Scallops develop through egg, larval, juvenile, and adult life stages (Hennick 1973). Eggs and spermatozoa are released into the water, and fertilized eggs settle and become fixed to the bottom. After a few days, eggs hatch, and larvae rise into the water column and drift with ocean currents for about 3 weeks. Then, the larvae transform, and "post-larvae" settle and attach to a hard surface on the bottom with strings called "byssal threads." Young juveniles may remain attached, or they may become mobile by use of a "foot," or they may swim. Within a few months the shell develops pigmentation, and juveniles then resemble the adult in appearance.

Weathervane scallops are long-lived and natural mortality rates are low; individuals may live 28 years old or more (Hennick 1973). Generally, many juvenile scallops mature by age 3 at about 7.6 cm (3 inches) in shell height (SH), and virtually all scallops are mature by age 4 (Haynes and Powell 1968; Hennick 1973). Growth is most rapid during the first 10-11 years (Hennick 1973). However, growth, maximum size, and size at maturity vary significantly within and between beds and geographic areas. For example, on average, maximum size tends to be about 190 mm (7.5 inches) SH for Marmot Flats off Kodiak Island and only 144 mm (5.7 inches) SH for the Cape Fairweather - Cape St. Elias area (Kaiser 1986). The largest recorded specimen measured 250 mm (9.8 inches) SH and weighed 340 g (12 ounces, Hennick 1973). Although increasing with age and size, weight varies seasonally; meat yield declines during the spawning season and increases during the growing season.

OUTLOOK OF FISHERY PRODUCTIVITY AND SUSTAINED YIELD

Only limited information on biological productivity is available for weathervane scallops to promote the conservation of stocks and sustained yield of the fishery. Much of this information (Haynes and Powell 1968; Hennick 1970b, 1973) was collected during the early years of the fishery, but has been summarized more recently by Kaiser (1986). Although the fishery has been prosecuted every year since 1967 except 1978, the only assessment survey since 1972 was conducted in 1984 in lower Cook Inlet (Hammarstrom and Merritt 1985). Likewise, there have been no routine biological or fishery sampling programs conducted on weathervane scallops. The distribution of scallops in Alaskan waters is rather well-known, but insufficient information on abundance, exploitation rates, recruitment, mortality, and other key population dynamics parameters hampers fishery management.

It is widely accepted that fishery harvest levels should be prescribed in ways to prevent "recruitment overfishing" -- 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.

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). The longevity of weathervane scallops in Alaska implies that they experience very low natural mortality rates, and this requires that conservative commercial harvests of weathervane scallops may be necessary to maintain healthy stocks and sustainable fisheries. 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, uncertainty in scallop population dynamics, and a lack of fishery yield models for Alaskan scallop fisheries.

Recent large variations in harvest (Table 1) and shifts in effort to new fishing areas may indicate that the maximum sustainable yield of the fishery is being exceeded. Further, 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 fishery yield.

POSSIBLE FISHERY IMPACTS AND RESOURCE CONSERVATION CONCERNS

The Alaska Department of Fish and Game has a mandate to *manage, protect, maintain, improve, and extend the fish ... resources of the state in the interest of the economy and general well-being of the state* (State of Alaska 1987). Therefore, the impact of scallop fisheries on resource conservation is an important issue to the department, and fishery management plans must address these concerns.

Although not thoroughly investigated in Alaska, numerous studies elsewhere have examined the impacts of dredges on scallop stocks, other bottom-dwelling species, and habitat. Aside from appropriate levels of directed harvest discussed earlier, incidental mortality is another area of concern about fishery impacts with respect to scallop populations. Both direct and indirect sources of mortality must be considered in the fishery management plans that ensure long-term maintenance of healthy scallop stocks and productive fisheries.

Incidental mortality may occur by two mechanisms. The first is associated with the capture of small scallops that are handled and discarded at sea due to size regulations or economic considerations. Although many undamaged sea scallops that are quickly returned to the sea may experience no side effects (Naidu 1988), mortality may be significant when scallop catches containing rocks are dumped on a vessel's deck (Naidu 1988) or when scallops experience prolonged exposure to unfavorable onboard conditions (Medcof and Bourne 1964), such as extreme air temperatures or prolonged desiccation.

The second source of mortality is associated with "inefficiency" of scallop dredges. This type of fishing gear typically harvests only 5-35% of the scallops in their path, depending on dredge design, target species, bottom type, and other factors (McLoughlin et al. 1991). Of those 65-95%

that come in contact with the dredge but are not captured, some elude the passing dredge and recover completely from the gear interaction. But, others experience injuries that lead to immediate or subsequent mortality (Caddy 1968; Naidu 1988). Some scallops experience damage and death due to crushing by the dredge (Naidu 1988), the body cavities of others become impacted with sediment or shell fragments (Naidu 1988), and others may experience increased vulnerability to disease (McLoughlin et al. 1991) or predators (Elner and Jamieson 1979).

Not all injuries lead to subsequent death. Sublethal injuries occur, as evidenced by occurrences of shell deformities on live specimens (Naidu 1988; Caddy 1989). These injuries may occur during onboard handling of undersized scallops that are returned to the sea or during gear interactions on the sea floor.

Scallop dredges may adversely affect other organisms comprising benthic communities and these effects must be considered in the fishery management plan. Effects of scallop dredges on benthic communities in Alaska are not known, but limited data are available on incidental catches. In some areas, the catches of king and Tanner crabs may be high, and many captured crabs may be lethally damaged (Haynes and Powell 1968; Hennick 1973; Kaiser 1986). Some catches contain other species of crabs, shrimps, octopi, and fishes such as flatfishes, cod, and others (Hennick 1973). Seasonal and area-specific differences in bycatch rates exist. For example, in some areas incidental catches of king crabs may increase in spring as adult crabs migrate inshore for molting and mating, whereas other areas of dense scallop concentrations may possess few king crabs (Hennick 1973) and bycatch may be of little concern in these locations.

The last area of conservation concern is the alteration of bottom habitat by dredges. Dredging places fine sediments into suspension, buries gravel below the surface and overturns large rocks that are embedded in the substrate (NEFMC 1982). For some scallop species, it has been demonstrated that dredges may adversely affect substrate required for settlement of young to the bottom (Fonseca et al. 1984; Orensanz 1986). In fact, dredges have been banned in some parts of the world for these reasons (Orensanz 1986).

Conservation impacts of the scallop fishery in Alaska depend upon the particular suite of management measures adopted. An active management strategy may include stock assessment surveys, calculation of optimal exploitation rates, estimation of key biological production parameters (e.g., growth, mortality, recruitment, etc.), an observer program to monitor the incidental catches of other species, use of exploratory fisheries as a research tool to refine time/area closures, a catch sampling program, and evaluations of gear effects on habitat. As knowledge accrues from such an active program and conservation concerns are dealt with fittingly, new areas could be opened to fishing, higher exploitation rates may be specified, and overall fishery productivity may increase.

On the other hand, a passive management strategy may not contain a program to increase knowledge through data-gathering and analysis. A passive management program may be designed with a limited set of restrictive regulations to try to ensure resource conservation despite uncertainty about stock status and fishing effects. For example, grounds may be closed to scallop

fishing due to the possibility of crab bycatch, other areas may be closed to create scallop refuges that serve as "seed" stock, conservative minimum dredge ring sizes may be chosen in an attempt to ensure adequate escapement of juvenile and adult scallops for future growth and reproduction, and broad summer seasonal closures may be selected to cover the range of possible spawning seasons in Alaska. In addition, conservative estimates of OY based on historic catch may be prescribed to cap the harvest in an attempt to prevent boom-bust fisheries, recruitment overfishing, and stock collapses.

An optimal management plan strives to achieve a balance of factors, such as cost-effectiveness, enforceability, resource conservation, and positive economic benefits that accrue from commercial harvests. Ideally, the plan would provide mechanisms to gain information that can be used to improve the management plan without being too costly, and would provide for resource conservation without being overly restrictive to the fishery. Management alternatives and measures, articulated as follows, are being considered by the department in an attempt to achieve this balance.

PROPOSED MANAGEMENT ALTERNATIVES AND REGULATIONS

Management Alternatives

Management options for the scallop fishery cover a wide spectrum from very passive ("hands off") regulations to an active inseason management program. Passive regulatory measures require a minimum of inseason management activities while active regulatory measures require maximum inseason attention. The department is considering both active and passive measures to improve scallop management capabilities.

At one end of the spectrum, a passive management plan may consist of basic elements that include limited open seasons, closures of high bycatch areas, conservative minimum size limits to provide for near-maximal growth and high reproductive potential, and restrictive gear configurations. These elements would require very limited monitoring, and could be accomplished with minimal annual operating expenditures. However, to protect the health of scallop resources while lacking adequate data on stock status and fishery biology, management measures must be conservative.

On the other end of the spectrum, an active management program may permit more liberal management measures and higher harvest levels, but would require an increase in annual and inseason management activities. For example, an active management program may include such elements as a stock assessment survey, perhaps funded through a test fishing program; management to obtain a GHM based on a fixed exploitation rate strategy; inseason adjustments based on fishery-based assessments of local stock status; annual adjustments to time/area closures to minimize bycatch and to increase the numbers of scallop beds available to harvest; and

onboard observers to monitor fishery performance, enumerate bycatch, and to collect biological data, such as size, age, and spawning condition.

The examples of passive and active management, just provided, can be considered as "bookends" of the spectrum of possible management strategies. Obviously, a fully active management program may be very costly and may be unwarranted, given the present economic value of the scallop fishery in Alaska. Conversely, a fully passive management program designed to satisfy resource conservation concerns, given limited data, may be too restrictive to conduct a viable fishery. Therefore, it is likely that a blend of active and passive management measures are necessary to build a cost-effective program that attempts to maximize long-term benefits to the extent possible, while achieving resource conservation requirements.

Regulatory Options

The following are potential regulations that could be implemented by ADF&G in association with an interim fishery management plan:

1. registration requirements for scallop fishing vessels to identify and monitor fishing effort;
2. closure of the commercial season during the spawning season, which occurs approximately from May through July;
3. establishment of fishing periods to allow inseason monitoring of catch and effort by area;
4. establishment of an OY that caps annual harvest or a specification of annual GHs;
5. measures to curtail harvesting/processing rates, such as specification of maximum size for scallop dredges or maximum crew sizes;
6. an increase in the legal minimum size for scallop dredge rings;
7. specification of a minimum size limit for scallops, as measured by shell height;
8. establishment of closed waters to minimize bycatch or establishment of new closed areas to create scallop refuges for seed stocks;
9. establishment of a rotational harvest system;
10. requirement of onboard observers;
11. establishment of trip limits; and
12. establishment of crew size limits.

In addition, the department is considering submitting a petition, with the approval of the Alaska Board of Fisheries, to the Commercial Fisheries Entry Commission to establish a four-year moratorium on new entrants to the Alaskan scallop fishery.

Preferred Actions

Agency staff analyses and public comments on the proposed interim management plan and regulations will be thoroughly considered by the department before adoption of a final interim management plan and implementation of associated fishing regulations. However, to meet the stated objectives, it should be noted that at the present time the department is favoring the adoption of at least four new regulations in addition to those already in place: (1) closure of the commercial fishing season during the spawning period; (2) institution of a minimum size for retention of scallops; (3) requirement for onboard observers funded by the industry; and (4) establishment of GHs or OYs. Regardless of the regulations included in the interim management plan (assuming one is adopted by the commissioner of ADF&G), other regulations could be proposed for adoption at subsequent meetings of the BOF. For example, analyses of observer data on size composition of the catch may reveal that a need for greater ring sizes to increase yield per recruit by minimizing discard mortality of sublegal-sized scallops.

Once an interim management plan is adopted by the commissioner of ADF&G, the BOF will be notified that the scallop fishery is being managed as a high impact emerging fishery. Also, the department will petition the board to consider formal adoption of the scallop management plan and associated regulations at its next scheduled meeting (probably February 1993). Thereafter, the next planned BOF meeting to address scallops regulations will occur during spring 1994.

EVALUATION OF EFFECTS ON EXISTING USERS

Effects of an interim fishery management plan on existing users depends upon the particular suite of management measures and regulations adopted. Because this document only provides a mechanism for public comments and subsequent board evaluation, the exact set of regulations to be adopted cannot be specified at this time. For these reasons, it is not possible to estimate precise impacts of the management plan and regulations on existing users. However, insights are provided into potential impacts of the four new management measures currently favored by the department.

Potential *closures during the scallop spawning season* may impose costs to those vessels that would have otherwise fished during closed periods. Marginal costs will be nil for vessels fishing in those areas (e.g., Kamishak district of lower Cook Inlet) where fishing is not permitted currently during the spawning season, whereas costs may be greater for areas (e.g., Southeast Alaska, Yakutat, etc.) where there are no closed seasons at present. However, given available fishing effort during the balance of the year, it is unlikely that total harvest will be significantly affected by seasonal closures alone.

Establishment of a minimum size limit will reduce catch rates. Increased costs will occur due to avoidance of high density areas of undersized scallops or due to additional onboard sorting of sublegal scallops. On the other hand, catch rates of larger scallops may increase in the future as more young scallops survive and grow to legal size. Additionally, to the extent that a minimum size limit acts to prevent recruitment overfishing, long-term fishery productivity may be higher than levels that would occur without this regulation.

New *requirements for onboard observers* would impose a cost to existing users. As a benchmark, it was recently estimated that observers in the ADF&G shellfish observer program cost an average of about \$7,400 per month. This estimate includes salary, benefits, insurance, travel, and other taxes and fees. In the crab and groundfish fisheries in the EEZ off Alaska, such costs have been widely accepted as necessary to enumerate harvests, discards, and bycatches and for enforcement considerations.

Establishment of an optimum yield or annual guideline harvest levels may have differential effects on existing users, depending on the level of yield specified, productivity of scallop stocks, and future changes in numbers of participants. If the number of participants exhibits historic patterns in the future, then total harvest per vessel may reflect historical values, as well. In such case, higher exvessel value would be realized only through increases in exvessel price. On the other hand, if more vessels participate in the fishery in the future, then existing users will capture smaller harvest shares. Establishment of OYs or GHs may increase long-term future harvest above those levels that would occur in the absence of these management measures, if OYs and GHs help prevent overharvest and promote sustainable fisheries, as planned.

CUSTOMARY AND TRADITIONAL SUBSISTENCE USE PATTERNS

Scallops do not comprise a major component of subsistence harvest. However, under the current management system, commercial fishing permits for weathervane scallops have not been issued for inside waters of Southeast Alaska (Statistical Area A), because these stocks are considered too limited to sustain a commercial fishery in addition to existing harvests by subsistence, personal use and sport fishermen.

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Table 1. Historic number of vessels, number of landings, landed weight of shucked meats, price per pound, exvessel value, landings per vessel, and exvessel value per vessel for the weathervane scallop fishery in Alaska during 1967-1991. All data for 1967-1968, and prices and exvessel values for 1967-1975 and 1979 were taken from Kaiser (1986); all other data were summarized from fish tickets. The 1991 data are preliminary. In years when only one or two vessels participated in a fishery, the harvest statistics are confidential.

Year	No. of Vessels	No. of Landings	Landings Wt. (lbs)	Price (\$/lb)	Exvessel Value (\$)	Landings (lbs) per Vessel	Value (\$) per Vessel
1967	-----Confidential----->						
1968	19	125	1,677,268	0.85	1,425,678	88,277	75,036
1969	19	157	1,850,187	0.85	1,572,659	97,378	82,772
1970	7	137	1,440,338	1.00	1,440,338	205,763	205,763
1971	5	60	931,151	1.05	977,709	186,230	195,542
1972	5	65	1,167,034	1.15	1,342,089	233,407	268,418
1973	5	45	1,109,405	1.20	1,331,286	221,881	266,257
1974	3	29	504,438	1.30	655,769	168,146	218,590
1975	4	56	435,672	1.40	609,941	108,918	152,485
1976	-----Confidential----->						
1977	-----Confidential----->						
1978	0	0	0	-	0	0	0
1979	-----Confidential----->						
1980	8	56	632,535	4.32	2,732,551	79,067	341,569
1981	18	101	924,441	4.05	3,743,986	51,358	207,999
1982	13	120	913,996	3.77	3,445,765	70,307	265,059
1983	6	31	194,116	4.88	947,286	32,353	157,881
1984	10	61	389,817	4.47	1,742,482	38,982	174,248
1985	9	54	647,292	3.12	2,019,551	71,921	224,395
1986	9	86	682,622	3.66	2,498,397	75,847	277,600
1987	4	55	583,043	3.38	1,970,685	145,761	492,671
1988	4	47	341,070	3.49	1,190,334	85,268	297,584
1989	7	54	525,598	3.68	1,934,201	75,085	276,314
1990	9	144	1,488,642	3.37	5,016,724	165,405	557,414
1991	10	125	1,006,332	3.75	3,773,745	100,633	377,375

APPENDIX 1. SCALLOP FISHING REGULATIONS AND SELECTED STATUTES

ALASKA COMMERCIAL SCALLOP FISHING REGULATIONS (IN EFFECT FOR 1992)

MISCELLANEOUS SHELLFISH CHAPTER 38 - MISCELLANEOUS SHELLFISH

5 AAC 38.005. STATISTICAL AREAS ESTABLISHED. (a) For the miscellaneous shellfish fishery, there are established the following statistical areas with the following code letters:

Code Letter

A - Southeastern Alaska Area. (5 AAC 38.100)

D - Yakutat Area. (5 AAC 38.160)

E - Prince William Sound Area. (5 AAC 38.200)

H - Cook Inlet Area. (5 AAC 38.300)

J - Westward Area. (5 AAC 38.400)

(b) Statistical areas are areas which the department shall utilize to obtain biological and fishing effort data and other information necessary for the formulation of comprehensive and effective conservation and management regulations governing miscellaneous shellfish resources inhabiting territorial waters of Alaska. However, regulations governing territorial waters will be applied to the remainder of the Statistical Area consistent with 5 AAC 38.010.

(c) The seaward boundary of a statistical area is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured.

5 AAC 38.010. APPLICATION OF REGULATIONS. (a) Notwithstanding any other provision of this chapter, all regulations in this chapter applicable to territorial waters of Alaska shall be applicable also to the remainder of the Statistical Area or areas encompassing the territorial waters.

(b) Persons on a vessel navigating within a statistical area shall conduct their operations and activities in full compliance with the regulations applicable to the territorial waters of Alaska encompassed by the statistical area.

(c) The commissioner may suspend the application of this section wholly or partially in any statistical area if he finds that such application:

(1) does not tend to facilitate enforcement of regulations applicable to territorial waters of Alaska;

(2) does not tend to protect or conserve miscellaneous shellfish inhabiting the territorial waters of Alaska; or

(3) that the state has an insufficient interest in the miscellaneous shellfish inhabiting the statistical area to warrant extension of the jurisdiction of the state throughout the area.

5 AAC 38.020. REGISTRATION. (a) For the miscellaneous shellfish fishery, all territorial waters of Alaska shall be considered one registration area. All miscellaneous shellfish gear shall be registered, and all miscellaneous shellfish vessels shall be licensed and registered prior to fishing for any miscellaneous shellfish during a registration year.

(b) The registration year shall be January 1 through December 31.

5 AAC 38.035. AREA CLOSURES. (a) The commissioner shall monitor the condition of miscellaneous shellfish stocks in all statistical areas through the use of such data and information as are practically available.

(b) When the commissioner finds that continued fishing effort would jeopardize the viability of miscellaneous shellfish resources in territorial waters of Alaska within any statistical area, he shall close such waters by emergency order.

(c) In determining whether to close territorial waters of Alaska, the commissioner shall consider all appropriate factors to the extent there is information available on such factors. Factors which may be considered include:

(1) the effect of overall fishing effort within the Statistical Area encompassing the territorial waters of Alaska;

(2) catch per unit of effort and rate of harvest;

(3) relative abundance of miscellaneous shellfish resources in the area in comparison with preseason expectations of the department;

(4) such guideline harvest levels as may be promulgated by regulation;

(5) the proportion of immature shellfish being handled;

(6) general information on the condition of miscellaneous shellfish within the area;

(7) information pertaining to the maximum sustainable yield of miscellaneous shellfish within the area;

(8) timeliness and accuracy of catch reporting by buyers, fishermen or vessel operators within the registration area to the extent that such timeliness or accuracy may reasonably be expected to affect proper management; and

(9) adequacy of subsistence harvest within the areas.

(d) Within five days after the closure of any territorial waters of Alaska, the owner of any vessel registered for miscellaneous shellfish may formally request the commissioner to reopen such waters. The commissioner shall personally review pertinent information on the condition of the species within the area, and shall formally announce his decision within 14 days of the receipt of the request.

ARTICLE 2 GENERAL SPECIFICATIONS AND RESTRICTIONS

5 AAC 38.055. GEAR FOR SCALLOPS. (a) Scallops may be taken only by scallop dredges.

(b) Scallop dredge rings with less than four inch inside diameter may not be used or carried aboard scallop fishing vessels except as follows:

(1) scallop dredges with rings of three inches or greater inside diameter may be used from vessels fishing west of the longitude of the westernmost point of Sanak Island;

(2) a permit issued by the department is required for the use or transport of scallop dredges with rings of three inches or greater inside diameter; the permit may require a department observer aboard the vessel during periods or in locations as may be specified by the department; the permit may also specify conditions for transporting scallop dredges with rings of three inches or greater inside diameter to or from the area west of the longitude of the westernmost point of Sanak Island.

5 AAC 38.062. PERMITS FOR SCALLOPS, OCTOPI, SQUID, KOREAN HAIR CRAB, SEA URCHINS, SEA CUCUMBERS, SEA SNAILS, CORAL, AND OTHER MARINE INVERTEBRATES. (a) Unless otherwise specified in 5 AAC 03-5 AAC 38, marine invertebrates, except king crab, Tanner crab, Dungeness crab, clams and spot, coonstripe, sidestripe and pink shrimp, may be taken only under the authority of a permit issued by the commissioner or his authorized designee.

(b) The permit may:

(1) stipulate location and duration of harvests;

(2) limit gear and other harvest procedures; and

(3) require periodic or annual reporting.

(c) The commissioner will in his or her discretion, require an application for a permit. The commissioner will, in his or her discretion refuse or terminate a permit if he finds that the terms of the permit have been violated or that the harvest operations jeopardize the sustained viability of the resource.

5 AAC 38.070. REGISTRATION AND INSPECTION DOCUMENTS. A vessel being registered for a registration area pursuant to 5 AAC 38.020, if the necessary information is provided, if properly licensed, and if the vessel is otherwise in compliance with the regulations of this title, shall be issued a registration certificate after the applicant completes a registration form available from the local representative of the department. The registration certificate shall be signed by the registrant, kept immediately available at all times during fishing operations by the vessel operator and shall be shown upon request to any authorized representative of the department.

ARTICLE 5
STATISTICAL AREA A (SOUTHEASTERN ALASKA)

5 AAC 38.120. FISHING SEASON FOR SCALLOPS IN AREA A. There is no closed season on scallops.

STATISTICAL AREA D (YAKUTAT)

5 AAC 38.167. FISHING SEASONS FOR SCALLOPS IN AREA D. There is no closed season on scallops.

5 AAC 38.180. CLOSED WATERS IN AREA D. The waters of Yakutat Bay east of a line from the easternmost tip of Ocean Cape to the southernmost tip of Point Manby are closed to the taking of scallops.

ARTICLE 6.
STATISTICAL AREA E (PRINCE WILLIAM SOUND)

5 AAC 38.220. FISHING SEASON FOR SCALLOPS. There is no closed season on scallops.

ARTICLE 7.
STATISTICAL AREA H (COOK INLET)

5 AAC 38.320. FISHING SEASONS FOR SCALLOPS. Scallops may be taken or possessed in

- (1) the Kamishak District from August 15 through October 31, and
- (2) in all other districts from January 1 through December 31.

5 AAC 38.322. GEAR FOR SCALLOPS. In the Kamishak, Southern, and Central districts, scallops may be taken only with a single dredge. The opening of a dredge may not be more than six feet in width.

5 AAC 38.324. CLOSED WATERS FOR SCALLOPS. Scallops may not be taken in the following waters:

(1) Cook Inlet north of a line from Cape Douglas to Point Adam, except for the Kamishak district;

(2) inshore from a line from Point Adam to Cape Elizabeth, then to the southwestern point of Perl Island, then to the southern point of East Chugach Island, then to Gore Point;

(3) Nuka Bay inside a line from Yalik Point to 59°27'30" N. lat., 150°22'50" W. long.

5 AAC 38.330. GUIDELINE HARVEST RANGE. The guideline harvest range for the taking of scallops from the Kamishak District is 10,000 to 20,000 pounds of shucked meat.

ARTICLE 8. STATISTICAL AREA J (WESTWARD)

5 AAC 38.420. FISHING SEASONS FOR SCALLOPS. Scallops may be taken:

(1) from June 1 through March 31 in the Pacific Ocean waters north of 57°37'07" N. lat., and east of 152°09'01" W. long. (Cape Chiniak Light) and the waters of Shelikof Strait north of 57°17'20" N. lat. (the latitude of Cape Ikolik);

(2) from July 15 through March 31 in the Pacific Ocean waters south of the latitude of Cape Chiniak Light and waters east of the longitude of Cape Barnabas, excluding those waters northwest of a line from Cape Barnabas to Narrow Cape;

(3) there is no closed season for scallops in the remainder of Statistical Area J except as provided in Sec. 425 of this chapter.

5 AAC 38.425. CLOSED WATERS FOR SCALLOPS. Scallops may not be taken:

(1) in the Pacific Ocean waters of the Alaska Peninsula area between the longitude of Scotch Cap and the longitude of Cape Pankof, and waters of king crab registration area M extending shoreward and three miles seaward of a line (the base line) beginning at the southernmost tip of Cape Kumlik to the easternmost tip of Unavikshak Island to the southernmost tip of Atkulik Island to the easternmost tip of Kak Island to the easternmost tip of Castle Cap (Tuliumnit Point) to the easternmost tip of Chankliut Island and from there along the seaward coast to the southernmost tip of Chankliut Island to the southernmost tip of Seal Cape to the easternmost tip of Mitrofanina Island to the southernmost tip of Spitz Island to the southernmost tip of Chiachi

Island, and all waters west of the southernmost tip of Kupreanof Point which are depicted as Territorial Sea on NOAA Chart #16540 (10th Ed. Oct 10/81) entitled, "Shumagin Island to Sanak Island", and all waters east of the longitude of Scotch Cap Light and south of Unimak Island and the Alaska Peninsula which are depicted as Territorial Sea on NOAA Chart #16520 (20th Ed. July 10/82) entitled, "Unimak and Akutan Passes and Approaches";

(2) in waters south of the latitude of Cape Ikolik ($57^{\circ}17'20''$ N.lat.), west of the longitude of Cape Barnabas ($152^{\circ}52'$ W. long.), east of the longitude of Kilokak Rocks ($126^{\circ}19'$ W. long.) and in Old Harbor Narrows west of $153^{\circ}16'$ W. long.;

(3) all waters of Sitkalidak Strait, Kiliuda Bay, and Ugak Bay east of $153^{\circ} 16'$ W. long. in Sitkalidak Passage and enclosed by a line from Black Point ($56^{\circ} 59'30''$ N. Lat., $153^{\circ}18'$ W. long.) to $56^{\circ}57'30''$ N. Lat., $153^{\circ} 13'$ W. long., then a line along the three mile contour to $57^{\circ} 20'$ N. lat., $152^{\circ} 23'$ W. long., then a straight line to the southernmost tip of Ugak Island ($57^{\circ} 22'$ N. lat., $152^{\circ}18'30''$ W. long.) and west of a line from the northernmost tip of Ugak Island ($57^{\circ} 23'30''$ N. lat., $152^{\circ} 17'$ W. long.) to Narrow Cape ($57^{\circ}26'$ N. lat., $152^{\circ}19'$ W. long.):

(4) all waters enclosed by a line from Cape Chiniak ($57^{\circ}38'$ N. Lat., $152^{\circ} 09'$ W. long.) to $57^{\circ}38'$ N. lat., $151^{\circ}47'$ W. long. then to Cape St. Hermogenes ($58^{\circ}15'$ N. lat., $151^{\circ}47'$ W. long.) and from Marmot Cape ($58^{\circ}10'$ N. lat., $151^{\circ}52'$ W. long) on Marmot Island to Pillar Cape on Afognak Island ($58^{\circ}09'$ N. lat., $152^{\circ}07'$ W. long.)

(5) in waters of the Alaska Peninsula east of the longitude of Three Star Point ($159^{\circ}10'$ W. long.), west of the longitude of Seal Cape ($158^{\circ}25'$ W. long.), and north of the latitude of Kupreanof Point ($55^{\circ}34'$ N. lat.).

(6) in waters of Inanudak Bay enclosed by a line from Cape Kigunak to Cape Ilmalianuk on Umnak Island;

(7) all waters of Akutan Bay south of a line from Akun Head ($54^{\circ}18'$ N. lat., $165^{\circ}38'$ W. long.) to North Head ($54^{\circ}14'$ N. lat., $165^{\circ}56'$ W. long.),

(8) in waters of Kalekta Bay enclosed by a line from the tip of Erskine Point to the tip of Cape Kaletka on Unalaska Island.

(9) all waters of Akun Bay enclosed by a line from Billings Head ($54^{\circ}17'30''$ N. lat., $165^{\circ}28'30''$ W. long.) to $54^{\circ}13'$ N. lat., $165^{\circ}24' 30''$ W. long. on the opposite shore; and

(10) all waters of Unalaska Bay enclosed by a line from Cape Cheerful ($54^{\circ}01'$ N. lat., $166^{\circ}09'30''$ W. long.) to Cape Kalekta ($54^{\circ} 00'30''$ N. lat.),

(11) all waters of Makushin Bay enclosed by a line from Cape Kovrizhka ($53^{\circ}51'$ N. lat., $167^{\circ}09'30''$ W. long.) to Cape Idak ($53^{\circ}31' 20''$ N. lat., $167^{\circ}47'$ W. long.) to Konets Head ($53^{\circ}19'30''$ N. lat., $167^{\circ}50'45''$ W. long.);

(12) all waters of Beaver Inlet south of a line from Brundage Head (53°56' N. lat., 166°12'30" W. long.) to Cape Sedanka (53°50'30" N. lat., 166°05'20" W. long.) and north of 53°42' N. lat.: and

(13) all waters of Uyak Bay, Uganik Bay, Viekoda Bay, Kupreanof Strait, Raspberry Strait, Malina Bay, Paramanof Bay, Foul Bay, and Shuyak Strait east of a line from Cape Uyak (57°38'20" N. lat., 154°20'50" W. long.) to Cape Ugat (57°52'20" N. lat., 153°50'40" W. long.) to Raspberry Cape (58°03'35" N. lat., 153°25' W. long.) to Black Cape (58°24' 30" N. lat., 152°53' W. long.) to Party Cape on Shuyak Island (58°31"N. lat., 152°34"W. long.) west of 152°30' W. long. in Shuyak Strait and west of 152°50' W. long. in Whale Pass and Afognak Strait.

GENERAL PROVISIONS
CHAPTER 39. - GENERAL PROVISIONS
ARTICLE 1. - GENERAL

5 AAC 39.105. TYPES OF LEGAL GEAR.

(d) Unless otherwise provided in this title, the following are legal types of gear;

(16) a "scallop dredge" is a dredge-like device designed specifically for and capable of taking scallops by being towed along the ocean floor;

5 AAC 39.210. MANAGEMENT PLAN FOR HIGH IMPACT EMERGING FISHERIES (a) To guide management of high impact emerging commercial fisheries a plan is needed that ensures resource conservation, minimizes impacts on existing users, and provides orderly development of new fishery resources.

(b) The department may regulate a commercial fishery as a high impact emerging fishery if the commissioner determines that any of the following conditions apply to a species or species group in an area or region:

(1) harvesting effort has recently increased beyond a low sporadic level;

(2) interest has been expressed in harvesting the resource by more than a single user group;

(3) the level of harvest might be approaching that might not be sustainable on a local or regional level;

(4) the board has not developed comprehensive regulations to address issues of conservation, allocation, and conduct of an orderly fishery.

(c) The commissioner shall notify the board when a determination is made to manage a fishery as a high impact emerging fishery.

(d) The department shall close a high impact emerging fishery once it is designated as such by the commissioner and may not reopen the fishery until an interim management plan and associated regulations have been developed. If an interim management plan and regulations have been adopted, the commissioner may allow the fishery to continue.

(e) The department shall develop an interim management plan for each high impact emerging commercial fishery. An interim management plan shall contain at least the following information:

(1) a review of the history of commercial exploitation of the species in Alaska and other relevant jurisdictions;

(2) a review of the life history of the organism;

(3) identification of specific management goals and objectives;

(4) an evaluation of potential impacts on existing users;

(5) designation and justification of the preferred management measures;

(6) an evaluation of the conservation impacts of the preferred management approach on non-target species and on non-target individuals of the same species;

(7) a plan for determining the productivity of the species and impact of the fishery;

(8) a listing of proposed interim regulations;

(9) a cost estimate for plan implementation;

(10) an analysis of customary and tradition subsistence use patterns.

(f) The commissioner may adopt regulations and open the fishery consistent with measures identified in the interim management plan. The regulations will remain in effect until the board adopts regulations under (g) of this section.

(g) Upon completion of an interim plan, the department shall petition the board under 5 AAC 96.625 to consider adoption of the management plan and associated regulations at its next regularly scheduled meeting.

(h) The department may require onboard observes as specified in 5 AAC 39.141 and 5 AAC 39.645, on fishing vessels, catcher/processor, and floating processors that participate in high impact emerging fisheries.

SELECTED ALASKA STATUTES

SEC. 16.05.050. POWERS AND DUTIES OF THE COMMISSIONER. The commissioner has, but not by way of limitation, the following powers and duties:

(20) to petition the Alaska Commercial Fisheries Entry Commission, unless the Board of Fisheries disapproves the petition under AS 16.05.251(g), to establish a moratorium on new entrants into commercial fisheries

(A) that have experienced recent increases in fishing effort that are beyond a low, sporadic level of effort;

(B) that have achieved a level of harvest that may be approaching or exceeding the maximum sustainable level for the fishery; and

(C) for which there is insufficient biological and resource management information necessary to promote the conservation and sustained yield management of the fishery.

SEC. 16.05.251. REGULATIONS OF THE BOARD OF FISHERIES.

(g) The Board of Fisheries shall consider a request of the commissioner for approval of a petition to the Alaska Commercial Fisheries Entry Commission to establish a moratorium on new entrants into a commercial fishery under AS 16.43.225 at the board's next regular or special meeting that follows the receipt by the board of the request for approval of the petition and that allows time for the notice required under this subsection. The board may consider the request of the commissioner for approval of the petition only after 15 days' public notice of the board's intention to consider whether the commissioner, in support of the request for approval of the petition, has adequately shown that the fishery meets requirements for a moratorium on new entrants under AS 16.05.050. The board by a majority vote of its members at the meeting when the petition must be considered shall approve or disapprove the petition.

SEC. 16.43.225. MORATORIUM ON NEW ENTRANTS INTO CERTAIN FISHERIES. (a) Subject to (b) of this section, the commission may establish a moratorium on new entrants into a fishery

(1) that has experienced recent increases in fishing effort that are beyond a low, sporadic level of effort;

(2) that has achieved a level of harvest that may be approaching or exceeding the maximum sustainable level for the fishery; and

(3) for which there is insufficient biological and resource management information necessary to promote the conservation and sustained yield management of the fishery.

(b) The commission may establish a moratorium on new entrants into a fishery described in (a) of this section if

(1) the commissioner of fish and game, subject to AS 16.05.251(g), petitions the commission under AS 44.62.220 to establish a moratorium on new entrants into the fishery; and

(2) the commission finds that

(A) the fishery has reached a level of participation that may threaten the conservation and sustained yield management of the fishery resource and the economic health and stability of commercial fishing; and

(B) the commission has insufficient information to conclude that the establishment of a maximum number of entry permits under AS 16.43.240 would further the purposes of this chapter.

(c) The commission may establish a moratorium under this section for a continuous period of up to four years. A fishery that has been subject to a moratorium under this section may not be subjected to subsequent moratorium under this section unless five years have elapsed since the previous moratorium expired.

(d) While a moratorium is in effect, the commission shall conduct investigations to determine whether a maximum number of entry permits should be established under AS 16.43.240 by

(1) conducting research into conditions in the fishery;

(2) consulting with the Department of Fish and Game and the Board of Fisheries, and

(3) consulting with participants in the fishery.

(e) The commission shall establish by regulation the qualifications for applicants for an interim-use permit for a fishery subject to a moratorium under this section. The qualifications must include the minimum requirements for past or present participation and harvest in the fishery. The commission may not issue an interim-use permit for a fishery subject to a moratorium under this section unless the applicant can satisfy the qualifications established under this subsection and establish the present ability and intent to participate actively in the fishery.

APPENDIX 2. NOTICE OF PROPOSED CHANGES IN THE REGULATIONS OF THE ALASKA DEPARTMENT OF FISH AND GAME

Notice is given that the Alaska Department of Fish and Game, under authority of AS 16.05.050, AS 16.05.251, AS 16.05.270 and 5 AAC 39.210, proposes to adopt regulations in Title 5, of the Alaska Administrative Code, Chapter 38, Miscellaneous Shellfish Fishery.

Specifically, the department proposes to adopt an interim management plan and associated regulations to manage the scallop fisheries of the state until the Board of Fisheries adopts permanent regulations.

The interim management plan and regulations may be adopted by the commissioner under authority of 5 AAC 39.210, Management Plan for High Impact Emerging Fisheries.

Subjects and topic areas that may be addressed include registration of vessels, fishing season closures, fishing periods, guideline harvest levels, maximum size of dredges, minimum size for dredge rings, minimum scallop size, closed waters, rotational harvest system, onboard observers, trip limits, and crew size limits.

In addition to the above proposed regulatory options, the department, under AS 16.05.050(20), may petition the Commercial Fisheries Entry Commission to establish a moratorium on new entrants to the scallop fishery.

This action is not expected to require an increased appropriation.

Copies of the proposed interim management plan and regulations may be obtained from the Alaska Department of Fish and Game, Division of Commercial Fisheries, P.O. Box 25526, Juneau, Alaska, 99802-5526. (907) 465-4210

The department is soliciting comments and suggestions on the proposed interim management plan, potential regulations, and the advisability of petitioning for a moratorium. Notice is also given that anyone interested may present written comments or arguments relevant to the proposed actions in this notice. Written comments must be received by the department at the above address no later than 5:00 p.m. September 4, 1992.

Anyone interested in or affected by these proposed changes is hereby informed that, by publishing this legal notice, the commissioner may consider all of the subjects covered by the proposed changes contained in this notice. The commissioner is not limited by the specific language of the proposed regulations. The commissioner's actions are limited to the subject matter given in this legal notice, but pursuant to AS 44.62.200(b), the full range of activities appropriate to any of the subjects listed may be reviewed.

The commissioner may adopt regulations that fall within the range of subjects and topic areas identified in this legal notice. Unless otherwise specified, references to such topics as areas,

seasons, species, gear, and harvest levels apply to all or portions of the specific topic. The commissioner may adopt regulations that apply to all gear types used in a fishery or to selected gear types. On his own motion, after considering all relevant matter presented by the public, the commissioner may adopt, amend, reject, supplement, or take no action on these matters. In addition, the commissioner may adopt other regulations necessary to implement, administer, or enforce the regulations adopted. Anyone interested in or affected by the subject matter contained in this legal notice should make written comments if they wish to have their views considered by the commissioner.

Date: 7/27/92
Juneau, Alaska


Ron Somerville, Deputy Commissioner
Alaska Department of Fish and Game

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