

PROPOSAL 169

5 AAC 39.223. Policy for statewide salmon escapement goals.

Repeal and readopt the *Policy for Statewide Salmon Escapement Goals*, as follows:

5 AAC 39.223 Policy for statewide salmon escapement goals (a) Escapement goals have been the mainstay of salmon management since long before statehood. These goals are set to achieve Maximum Sustained Yield (MSY) whenever possible, which results in escapements that are orders of magnitude (10X or higher) more than needed to sustain these salmon runs. The goal of this policy is to maximize yields for stocks with sufficient information (spawner-recruit) and to use methods developed by Willette and Yanetz as a proxy for MSY for stocks without sufficient information (escapement only). The purpose of this policy is to establish the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. The department will publish an escapement goal report for each area as it comes before the board during its regular meeting cycle. This report for each management area will be published by January 10th, three months prior to the proposal deadline. This report will contain a scientific analysis with supporting data for all escapement goals and management targets within the management area, along with the department's recommendation for the goal.

(b) The department will develop a biological escapement goals (BEG) for all important salmon stocks for which the department can enumerate salmon escapement levels, as well as total annual returns. This goal will be established with a range of 90 percent of the MSY value on both sides of MSY regardless of data quality. This will be the goal the department manages the fisheries to achieve. Important stocks are generally the larger stocks of salmon within the management area that the department actively manages with emergency orders, collects in-season data on harvest, age composition and escapements.

(c) The department will develop a management target (MT) for those salmon stocks in need of in-season management for which the department has collected only escapement information. These stocks are generally less important than stocks for which an escapement goal has been established or are harvested in mixed stock fisheries where it is not cost effective or necessary to determine harvests by stock. These management target stocks will not be used as an index to the health or size of the return of other stocks of the same or different species since the harvest is unknown. The department will follow the guidelines set out in Fisheries Manuscript No. 14-06, An evaluation of the Percentile Approach for Establishing Sustainable Escapement Goals in Lieu of Stock Productivity Information by Clark et.al. when evaluating or setting these management targets without consideration of the allocative impacts.

(d) The board after public input during the regular board meeting will approve or may recommend changes to the department's report and goals or targets if warranted.

(e) Unless the context requires otherwise, the terms used in this section have the same meaning given those terms in 5 AAC 39.222(f).

What is the issue you would like the board to address and why? The Policy for statewide salmon escapement goals, 5 AAC 39.223 is not serving the fishing public or the state very well and needs to be rewritten and simplified. The current policy allows the department to submit an

escapement goal report just days before a BoF meeting, months after proposals are due, which subverts the entire public process and does not give any one enough time to review the escapement goals the department is proposing, what methods were used or have them reviewed by other experts. Additionally the policy gives the department way too much discretion in establishing goals which has lead to the insertion of unknown “allocation” being added to escapement goals which is entirely illegal and outside of the department’s authority. This was admitted to by an ADF&G Chief Fishery Scientist at the most recent Cordova meeting for Copper River. The results of these actions can be seen on the figure on page 66 of FMS 17-02, Spawner-Recruit Analyses and Escapement Goal Recommendations for Kenai River Chinook Salmon, where all goals are shifted to the right, to much larger escapements than is necessary or prudent, sometimes by as much as 100 percent. Ironically the board and department have deigned numerous petitions and ACR’s alleging this very thing in recent years. While these huge escapements may result in better in-river fishing in some years it leads to numerous restrictions and closures of all fisheries in order to pay for these inflated goals. The Deshka River Chinook return is a perfect example of this mismanagement, in 2018 yet another year of closures and restrictions announced prior to the first fish showing up and an overall return per spawner of 0.27 or one fish returning for every four that escape. The documented waste of salmon and lost fishing time for all participants is staggering, and this is for stocks with good spawner-recruit data, no telling what problems are associated with SEG’s and OEG’s which should both be done away with and replaced with a management target. In no case should the Board or department trade away yield of any species in favor of allocation.

PROPOSED BY: Jeff Fox

(HQ-F18-043)

PROPOSAL 170

5 AAC 39.222. Policy for the management of sustainable salmon fisheries.

Amend the *Policy for the Management of Sustainable Salmon Fisheries* to include management targets, as follows:

5 AAC 39.222. Policy for the management of sustainable salmon fisheries (a) The Board of Fisheries (board) and Department of Fish and Game (department) recognize that

[(1) WHILE, IN THE AGGREGATE, ALASKA'S SALMON FISHERIES ARE HEALTHY AND SUSTAINABLE LARGELY BECAUSE OF ABUNDANT PRISTINE HABITAT AND THE APPLICATION OF SOUND, PRECAUTIONARY, CONSERVATION MANAGEMENT PRACTICES,] there is a need for a comprehensive policy for the regulation and management of sustainable salmon fisheries;

(2) **Alaska's salmon fisheries will be managed to meet escapement goals or management targets. These goals or targets are set to achieve Maximum Sustained Yield (MSY) whenever possible, which results in returns that are orders of magnitude more than needed to simply sustain these salmon runs.** [IN FORMULATING FISHERY MANAGEMENT PLANS DESIGNED TO ACHIEVE MAXIMUM OR OPTIMUM SALMON PRODUCTION,] [THE BOARD AND DEPARTMENT MUST CONSIDER FACTORS INCLUDING ENVIRONMENTAL CHANGE, HABITAT LOSS OR DEGRADATION, DATA UNCERTAINTY, LIMITED FUNDING FOR RESEARCH AND MANAGEMENT PROGRAMS, EXISTING HARVEST PATTERNS, AND NEW FISHERIES OR EXPANDING FISHERIES;]

(3) to effectively assure sustained yield and habitat protection for wild salmon stocks, fishery management plans and programs require specific guiding principles and criteria, and the framework for their application contained in this policy.

(b) The goal of the policy under this section is to ensure **the perpetuation** [CONSERVATION] of salmon and salmon's required marine and aquatic habitats, protection of customary and traditional subsistence uses and other uses, and the sustained economic health of Alaska's fishing communities.

(c) Management of salmon fisheries by the state should be based on the following principles and criteria:

(1) wild salmon stocks and the salmon's habitats should be maintained at levels of resource productivity that assure sustained yields as follows:

(A) salmon spawning, rearing, and migratory habitats should be protected as follows:

(i) salmon habitats should not be perturbed beyond natural boundaries of variation;

(ii) scientific assessments of possible adverse ecological effects of proposed habitat alterations and the impacts of the alterations on salmon populations should be conducted before approval of a proposal;

(iii) adverse environmental impacts on wild salmon stocks and the salmon's habitats should be assessed;

(iv) all essential salmon habitat in marine, estuarine, and freshwater ecosystems and access of salmon to these habitats should be protected; essential habitats include spawning and incubation areas, freshwater rearing areas, estuarine and nearshore rearing areas, offshore rearing areas, and migratory pathways;

(v) salmon habitat in fresh water should be protected on a watershed basis, including appropriate management of riparian zones, water quality, and water quantity;

(B) salmon stocks should be protected within spawning, incubating, rearing, and migratory habitats;

(C) degraded salmon productivity resulting from habitat loss should be assessed, considered, and controlled by affected user groups, regulatory agencies, and boards when making conservation and allocation decisions;

(D) effects and interactions of introduced or enhanced salmon stocks on wild salmon stocks should be assessed; wild salmon stocks and fisheries on those stocks should be protected from adverse impacts from artificial propagation and enhancement efforts;

(E) degraded salmon spawning, incubating, rearing, and migratory habitats should be restored to natural levels of productivity [WHERE KNOWN AND DESIRABLE];

(F) ongoing monitoring should be conducted to determine the current status of habitat and the effectiveness of restoration activities;

(G) depleted salmon stocks should be allowed to recover or, where appropriate, should be actively restored; diversity should be maintained to the maximum extent possible, at the genetic, population, species, and ecosystem levels;

(2) salmon fisheries shall be managed to **maintain** [ALLOW] escapements within ranges necessary to [CONSERVE AND] sustain potential salmon production and maintain normal ecosystem functioning as follows:

(A) salmon spawning escapements should be assessed in a **scientifically acceptable manner** both temporally and geographically; escapement monitoring programs should be appropriate to the scale, intensity, and importance of each salmon stock's use;

(B) salmon escapement goals **and management targets**[, WHETHER SUSTAINABLE ESCAPEMENT GOALS, BIOLOGICAL ESCAPEMENT GOALS, OPTIMAL ESCAPEMENT GOALS, OR INRIVER RUN GOALS,] should be established in a manner consistent with sustained yield; [UNLESS OTHERWISE DIRECTED,] the department will manage Alaska's salmon fisheries [, TO THE EXTENT POSSIBLE,] for maximum sustained yield;

(C) salmon escapement goal ranges will be set to achieve 90 percent of MSY [SHOULD ALLOW FOR UNCERTAINTY ASSOCIATED WITH MEASUREMENT TECHNIQUES, OBSERVED VARIABILITY IN THE SALMON STOCK MEASURED, CHANGES IN CLIMATIC AND OCEANOGRAPHIC CONDITIONS, AND VARYING ABUNDANCE WITHIN RELATED POPULATIONS OF THE SALMON STOCK MEASURED];

(D) salmon escapement should be managed in a manner to maintain genetic and phenotypic characteristics of the stock by assuring appropriate geographic and temporal distribution of spawners as well as consideration of size range, sex ratio, and other population attributes;

(E) impacts of fishing, including incidental mortality and other human-induced mortality, should be assessed and considered in harvest management decisions;

(F) salmon escapement and harvest management decisions should be made in a manner that protects nontarget salmon stocks or species;

(G) the role of salmon in ecosystem functioning should be evaluated and considered in harvest management decisions and setting of salmon escapement goals;

(H) salmon abundance trends should be monitored and considered in harvest management decisions;

(3) effective management systems should be established and applied to regulate human activities that affect salmon as follows:

(A) salmon management objectives should be appropriate to the scale and intensity of various uses and the biological capacities of target salmon stocks;

(B) management objectives should be established in harvest management plans, strategies, guiding principles, and policies, such as for mixed stock fishery harvests, fish disease, genetics, and hatchery production, that are subject to periodic review;

(C) when wild salmon stocks are fully allocated, new fisheries or expanding fisheries should be restricted, unless provided for by management plans or by application of the board's allocation criteria;

(D) management agencies should have clear authority in statute and regulation to

(i) control all sources of fishing mortality on salmon;

(ii) protect salmon habitats and control nonfishing sources of mortality;

(E) management programs should be effective in

(i) controlling human-induced sources of fishing mortality and should incorporate procedures to assure effective monitoring, compliance, control, and enforcement;

(ii) protecting salmon habitats and controlling collateral mortality and should incorporate procedures to assure effective monitoring, compliance, control, and enforcement;

(F) fisheries management implementation and outcomes should be consistent with regulations, regulations should be consistent with statutes, and effectively carry out the purpose of this section;

(G) the board will recommend to the commissioner the development of effective joint research, assessment, and management arrangements with appropriate management agencies and bodies for salmon stocks that cross state, federal, or international jurisdictional boundaries; the board will recommend the coordination of appropriate procedures for effective monitoring, compliance, control, and enforcement with those of other agencies, states, or nations;

(H) the board will work, within the limits of its authority, to assure that

(i) management activities are accomplished in a timely and responsive manner to implement objectives, based on the best available scientific information;

(ii) effective mechanisms for the collection and dissemination of information and data necessary to carry out management activities are developed, maintained, and utilized;

(iii) management programs and decision-making procedures are able to clearly distinguish, and effectively deal with, biological and allocation issues;

(I) the board will recommend to the commissioner and legislature that adequate staff and budget for research, management, and enforcement activities be available to fully implement sustainable salmon fisheries principles;

(J) proposals for salmon fisheries development or expansion and artificial propagation and enhancement should include assessments required for sustainable management of existing salmon fisheries and wild salmon stocks;

(K) plans and proposals for development or expansion of salmon fisheries and enhancement programs should effectively document resource assessments, potential impacts, and other information needed to assure sustainable management of wild salmon stocks;

(L) the board will work with the commissioner and other agencies to develop effective processes for controlling excess fishing capacity;

(M) procedures should be implemented to regularly evaluate the effectiveness of fishery management and habitat protection actions in sustaining salmon populations, fisheries, and habitat, and to resolve associated problems or deficiencies;

(N) conservation and management decisions for salmon fisheries should take into account the best available information on biological, environmental, economic, social, and resource use factors;

(O) research and data collection should be undertaken to improve scientific and technical knowledge of salmon fisheries, including ecosystem interactions, status of salmon populations, and the condition of salmon habitats;

(P) the best available scientific information on the status of salmon populations and the condition of the salmon's habitats should be routinely updated and subject to peer review;

(4) public support and involvement for sustained use and protection of salmon resources should be sought and encouraged as follows:

(A) effective mechanisms for dispute resolution should be developed and used;

(B) pertinent information and decisions should be effectively disseminated to all interested parties in a timely manner;

(C) the board's regulatory management and allocation decisions will be made in an open process with public involvement;

(D) an understanding of the proportion of mortality inflicted on each salmon stock by each user group, should be promoted, and the burden of conservation should be allocated across user groups in a manner consistent with applicable state and federal statutes, including AS 16.05.251(e) and AS 16.05.258; in the absence of a regulatory management plan that otherwise allocates or restricts harvests, and when it is necessary to restrict fisheries on salmon stocks where there are known conservation problems, the burden of conservation shall be shared among all fisheries in close proportion to each fisheries' respective use, consistent with state and federal law;

(E) the board will work with the commissioner and other agencies as necessary to assure that adequately funded public information and education programs provide timely materials on salmon conservation, including habitat requirements, threats to salmon habitat, the value of salmon and habitat to the public and ecosystem (fish and wildlife), natural variability and population dynamics, the status of salmon stocks and fisheries, and the regulatory process;

(5) in the face of uncertainty, salmon stocks, fisheries, artificial propagation, and essential habitats shall be managed conservatively as follows:

(A) a precautionary approach, involving the application of prudent foresight that takes into account the uncertainties in salmon fisheries and habitat management, the biological, social, cultural, and economic risks, and the need to take action with incomplete knowledge, should be applied to the regulation and control of harvest and other human-induced sources of salmon mortality; a precautionary approach requires

(i) consideration of the needs of future generations and avoidance of potentially irreversible changes;

(ii) prior identification of undesirable outcomes and of measures that will avoid undesirable outcomes or correct them promptly;

(iii) initiation of any necessary corrective measure without delay and prompt achievement of the measure's purpose, on a time scale not exceeding five years, which is approximately the generation time of most salmon species;

(iv) that where the impact of resource use is uncertain, but likely presents a measurable risk to sustained yield, priority should be given to conserving the productive capacity of the resource;

(v) appropriate placement of the burden of proof, of adherence to the requirements of this subparagraph, on those plans or ongoing activities that pose a risk or hazard to salmon habitat or production;

(B) a precautionary approach should be applied to the regulation of activities that affect essential salmon habitat.

(d) The principles and criteria for sustainable salmon fisheries shall be applied, by the department and the board using the best available information, as follows:

(1) at regular meetings of the board, the department will, [TO THE EXTENT PRACTICABLE,] provide the board with reports on the status of salmon stocks and salmon fisheries under consideration for regulatory changes, which should include

(A) a stock-by-stock assessment of the extent to which the management of salmon stocks and fisheries is consistent with the principles and criteria contained in the policy under this section;

(B) descriptions of habitat status and any habitat concerns;

(C) identification of healthy salmon stocks and sustainable salmon fisheries;

(D) identification of any existing salmon escapement goals, or management actions needed to achieve these goals, that may have allocative consequences such as the

(i) identification of a new fishery or expanding fishery;

[(II) IDENTIFICATION OF ANY SALMON STOCKS, OR POPULATIONS WITHIN STOCKS, THAT PRESENT A CONCERN RELATED TO YIELD, MANAGEMENT, OR CONSERVATION; AND

(III) DESCRIPTION OF MANAGEMENT AND RESEARCH OPTIONS TO ADDRESS SALMON STOCK OR HABITAT CONCERNS;

(2) IN RESPONSE TO THE DEPARTMENT'S SALMON STOCK STATUS REPORTS, REPORTS FROM OTHER RESOURCE AGENCIES, AND PUBLIC INPUT, THE BOARD WILL REVIEW THE MANAGEMENT PLAN, OR CONSIDER DEVELOPING A MANAGEMENT PLAN, FOR EACH AFFECTED SALMON FISHERY OR STOCK; MANAGEMENT PLANS WILL BE BASED ON THE PRINCIPLES AND CRITERIA CONTAINED IN THIS POLICY AND WILL

(A) CONTAIN GOALS AND MEASURABLE AND IMPLEMENTABLE OBJECTIVES THAT ARE REVIEWED ON A REGULAR BASIS AND UTILIZE THE BEST AVAILABLE SCIENTIFIC INFORMATION;

(B) MINIMIZE THE ADVERSE EFFECTS ON SALMON HABITAT CAUSED BY FISHING;

(C) PROTECT, RESTORE, AND PROMOTE THE LONG-TERM HEALTH AND SUSTAINABILITY OF THE SALMON FISHERY AND HABITAT;

(D) PREVENT OVERFISHING; AND (E) PROVIDE CONSERVATION AND MANAGEMENT MEASURES THAT ARE NECESSARY AND APPROPRIATE TO PROMOTE MAXIMUM OR OPTIMUM SUSTAINED YIELD OF THE FISHERY RESOURCE;

(3) IN THE COURSE OF REVIEW OF THE SALMON STOCK STATUS REPORTS AND MANAGEMENT PLANS DESCRIBED IN (1) AND (2) OF THIS SUBSECTION, THE BOARD, IN CONSULTATION WITH THE DEPARTMENT, WILL DETERMINE IF ANY NEW FISHERIES OR EXPANDING FISHERIES, STOCK YIELD CONCERNS, STOCK MANAGEMENT CONCERNS, OR STOCK CONSERVATION CONCERNS EXIST; IF SO, THE BOARD WILL, AS APPROPRIATE, AMEND OR DEVELOP SALMON FISHERY MANAGEMENT PLANS TO ADDRESS THESE CONCERNS; THE EXTENT OF REGULATORY ACTION, IF ANY, SHOULD BE COMMENSURATE WITH THE LEVEL OF CONCERNS AND RANGE FROM MILD TO STRONGER AS CONCERNS RANGE FROM

NEW AND EXPANDING SALMON FISHERIES THROUGH YIELD CONCERNS, MANAGEMENT CONCERNS, AND CONSERVATION CONCERNS; (4) IN ASSOCIATION WITH THE APPROPRIATE MANAGEMENT PLAN, THE DEPARTMENT AND THE BOARD WILL, AS APPROPRIATE, COLLABORATE IN THE DEVELOPMENT AND PERIODIC REVIEW OF AN ACTION PLAN FOR ANY NEW OR EXPANDING SALMON FISHERIES, OR STOCKS OF CONCERN; ACTION PLANS SHOULD CONTAIN GOALS, MEASURABLE AND IMPLEMENTABLE OBJECTIVES, AND PROVISIONS, INCLUDING

(A) MEASURES REQUIRED TO RESTORE AND PROTECT SALMON HABITAT, INCLUDING NECESSARY COORDINATION WITH OTHER AGENCIES AND ORGANIZATIONS;

(B) IDENTIFICATION OF SALMON STOCK OR POPULATION REBUILDING GOALS AND OBJECTIVES;

(C) FISHERY MANAGEMENT ACTIONS NEEDED TO ACHIEVE REBUILDING GOALS AND OBJECTIVES, IN PROPORTION TO EACH FISHERY'S USE OF, AND HAZARDS POSED TO, A SALMON STOCK;

(D) DESCRIPTIONS OF NEW OR EXPANDING SALMON FISHERIES, MANAGEMENT CONCERN, YIELD CONCERN, OR CONSERVATION CONCERN; AND

(E) PERFORMANCE MEASURES APPROPRIATE FOR MONITORING AND GAUGING THE EFFECTIVENESS OF THE ACTION PLAN THAT ARE DERIVED FROM THE PRINCIPLES AND CRITERIA CONTAINED IN THIS POLICY;

(5) EACH ACTION PLAN WILL INCLUDE A RESEARCH PLAN AS NECESSARY TO PROVIDE INFORMATION TO ADDRESS CONCERNS; RESEARCH NEEDS AND PRIORITIES WILL BE EVALUATED PERIODICALLY, BASED ON THE EFFECTIVENESS OF THE MONITORING DESCRIBED IN (4) OF THIS SUBSECTION;

(6) WHERE ACTIONS NEEDED TO REGULATE HUMAN ACTIVITIES THAT AFFECT SALMON AND SALMON'S HABITAT THAT ARE OUTSIDE THE AUTHORITY OF THE DEPARTMENT OR THE BOARD, THE DEPARTMENT OR BOARD SHALL CORRESPOND WITH THE RELEVANT AUTHORITY, INCLUDING THE GOVERNOR, RELEVANT BOARDS AND COMMISSIONS, COMMISSIONERS, AND CHAIRS OF APPROPRIATE LEGISLATIVE COMMITTEES, TO DESCRIBE THE ISSUE AND RECOMMEND APPROPRIATE ACTION.]

(e) Nothing in the policy under this section is intended to expand, reduce, or be inconsistent with, the statutory regulatory authority of the board, the department, or other state agencies with regulatory authority that impacts the fishery resources of the state.

(f) In this section, and in implementing this policy,

(1) "allocation" means the granting of specific harvest privileges, usually by regulation, among or between various user groups; "allocation" includes quotas, time periods, area restrictions, percentage sharing of stocks, and other management measures providing or limiting harvest opportunity;

(2) "allocation criteria" means the factors set out in AS 16.05.251(e) considered by the board as appropriate to particular allocation decisions under 5 AAC 39.205, 5 AAC 75.017, and 5 AAC 77.007;

(3) "biological escapement goal" or "(BEG)" means the escapement that provides the greatest potential for maximum sustained yield; **BEG will be expressed as a range which will be**

evenly centered at 90 percent of MSY; BEG will be the primary management objective for the escapement **and will** [UNLESS AN OPTIMAL ESCAPEMENT OR INRIVER RUN GOAL HAS BEEN ADOPTED; BEG WILL BE DEVELOPED FROM THE BEST AVAILABLE BIOLOGICAL INFORMATION, AND SHOULD] be scientifically defensible on the basis of available biological information; [BEG WILL BE DETERMINED BY THE DEPARTMENT AND WILL BE EXPRESSED AS A RANGE BASED ON FACTORS SUCH AS SALMON STOCK PRODUCTIVITY AND DATA UNCERTAINTY;] the department will seek to maintain evenly distributed salmon escapements within the bounds of a BEG;

[(4) "BURDEN OF CONSERVATION" MEANS THE RESTRICTIONS IMPOSED BY THE BOARD OR DEPARTMENT UPON VARIOUS USERS IN ORDER TO ACHIEVE ESCAPEMENT, REBUILD, OR IN SOME OTHER WAY CONSERVE A SPECIFIC SALMON STOCK OR GROUP OF STOCKS; THIS BURDEN, IN THE ABSENCE OF A SALMON FISHERY MANAGEMENT PLAN, WILL BE GENERALLY APPLIED TO USERS IN CLOSE PROPORTION TO THE USERS' RESPECTIVE HARVEST OF THE SALMON STOCK;]

(5) "chronic inability" means the continuing or anticipated inability to meet escapement thresholds over a four to five year period, which is approximately the generation time of most salmon species;

[(6) "CONSERVATION CONCERN" MEANS CONCERN ARISING FROM A CHRONIC INABILITY, DESPITE THE USE OF SPECIFIC MANAGEMENT MEASURES, TO MAINTAIN ESCAPEMENTS FOR A STOCK ABOVE A SUSTAINED ESCAPEMENT THRESHOLD (SET); A CONSERVATION CONCERN IS MORE SEVERE THAN A MANAGEMENT CONCERN;

(7) "DEPLETED SALMON STOCK" MEANS A SALMON STOCK FOR WHICH THERE IS A CONSERVATION CONCERN;]

(8) "diversity", in a biological context, means the range of variation exhibited within any level of organization, such as among genotypes within a salmon population, among populations within a salmon stock, among salmon stocks within a species, among salmon species within a community, or among communities within an ecosystem;

(9) "enhanced salmon stock" means a stock of salmon that is undergoing specific manipulation, such as hatchery augmentation or lake fertilization, to enhance its productivity above the level that would naturally occur; "enhanced salmon stock" includes an introduced stock, where no wild salmon stock had occurred before, or a wild salmon stock undergoing manipulation, but does not include a salmon stock undergoing rehabilitation, which is intended to restore a salmon stock's productivity to a higher natural level;

(10) "escapement" means the annual estimated size of the spawning salmon stock; quality of the escapement may be determined not only by numbers of spawners, but also by factors such as sex ratio, age composition, temporal entry into the system, and spatial distribution within the salmon spawning habitat;

(11) "expanding fishery" means a salmon fishery in which effective harvesting effort has recently increased significantly beyond historical levels and where the increase has not resulted from natural fluctuations in salmon abundance;

[(12) "EXPECTED YIELDS" MEAN LEVELS AT OR NEAR THE LOWER RANGE OF RECENT HISTORIC HARVESTS IF THEY ARE DEEMED SUSTAINABLE;]

(13) "genetic" means those characteristics (genotypic) of an individual or group of salmon that are expressed genetically, such as allele frequencies or other genetic markers;

(14) "habitat concern" means the degradation of salmon habitat that results in, or can be anticipated to result in, impacts leading to yield, management, or conservation concerns;

(15) "harvestable surplus" means the number of salmon from a stock's annual run that is surplus to escapement needs and can reasonably be made available for harvest;

(16) "healthy salmon stock" means a stock of salmon that has annual runs typically of a size to meet escapement goals and a potential harvestable surplus to support optimum or maximum sustained yield;

(17) "incidental harvest" means the harvest of fish, or other species, that is captured in addition to the target species of a fishery;

(18) "incidental mortality" means the mortality imposed on a salmon stock outside of directed fishing, and mortality caused by incidental harvests, interaction with fishing gear, habitat degradation, and other human-related activities;

[(19) "INRIVER RUN GOAL" MEANS A SPECIFIC MANAGEMENT OBJECTIVE FOR SALMON STOCKS THAT ARE SUBJECT TO HARVEST UPSTREAM OF THE POINT WHERE ESCAPEMENT IS ESTIMATED; THE INRIVER RUN GOAL WILL BE SET IN REGULATION BY THE BOARD AND IS COMPRISED OF THE SEG, BEG, OR OEG, PLUS SPECIFIC ALLOCATIONS TO INRIVER FISHERIES;]

(20) "introduced stock" means a stock of salmon that has been introduced to an area, or portion of an area, where that stock had not previously occurred; an "introduced salmon stock" includes a salmon stock undergoing continued enhancement, or a salmon stock that is left to sustain itself with no additional manipulation;

(21) **"Management Target (MT) means the escapement that provides the greatest potential for maximum sustained yield or at least sustained yield, used for stocks for which the department has no harvest or age composition data; because there is only limited escapement information for these stocks the department should manage for BEG stocks first and then if practical manage these stocks with management targets (MT). The department will follow the guidelines set out in Fisheries Manuscript No. 14-06, An evaluation of the Percentile Approach for Establishing Sustainable Escapement Goals in Lieu of Stock Productivity Information by Clark et.al. when evaluating or setting these management targets without consideration of the allocative impacts.**

”[“MANAGEMENT CONCERN” MEANS A CONCERN ARISING FROM A CHRONIC INABILITY, DESPITE USE OF SPECIFIC MANAGEMENT MEASURES, TO MAINTAIN ESCAPEMENTS FOR A SALMON STOCK WITHIN THE BOUNDS OF THE SEG, BEG, OEG, OR OTHER SPECIFIED MANAGEMENT OBJECTIVES FOR THE FISHERY; A MANAGEMENT CONCERN IS NOT AS SEVERE AS A CONSERVATION CONCERN;]

(22) "maximum sustained yield" or "(MSY)" means the greatest average annual yield from a salmon stock; in practice, MSY is achieved when a level of escapement is maintained within a specific range on an annual basis, regardless of annual run strength; the achievement of MSY requires a high degree of management precision and scientific information regarding the relationship between salmon escapement and subsequent return; the concept of MSY should be interpreted in a broad ecosystem context to take into account species interactions, environmental changes, an array of ecosystem goods and services, and scientific uncertainty;

(23) "mixed stock fishery" means a fishery that harvests fish from a mixture of stocks, **almost all fisheries are mixed stock to some degree;**

(24) "new fishery" means a fishery that new units of effort or expansion of existing effort toward new species, areas, or time periods, results in harvest patterns substantially different from those in previous years, and the difference is not exclusively the result of natural fluctuations in fish abundance;

[(25) "OPTIMAL ESCAPEMENT GOAL" OR "(OEG)" MEANS A SPECIFIC MANAGEMENT OBJECTIVE FOR SALMON ESCAPEMENT THAT CONSIDERS BIOLOGICAL AND ALLOCATIVE FACTORS AND MAY DIFFER FROM THE SEG OR BEG; AN OEG WILL BE SUSTAINABLE AND MAY BE EXPRESSED AS A RANGE WITH THE LOWER BOUND ABOVE THE LEVEL OF SET, AND WILL BE ADOPTED AS A REGULATION BY THE BOARD; THE DEPARTMENT WILL SEEK TO MAINTAIN EVENLY DISTRIBUTED ESCAPEMENTS WITHIN THE BOUNDS OF THE OEG;

(26) "OPTIMUM SUSTAINED YIELD" OR "(OSY)" MEANS AN AVERAGE ANNUAL YIELD FROM A SALMON STOCK CONSIDERED TO BE OPTIMAL IN ACHIEVING A SPECIFIC MANAGEMENT OBJECTIVE OTHER THAN MAXIMUM YIELD, SUCH AS ACHIEVEMENT OF A CONSISTENT LEVEL OF SUSTAINED YIELD, PROTECTION OF A LESS ABUNDANT OR LESS PRODUCTIVE SALMON STOCK OR SPECIES, ENHANCEMENT OF CATCH PER UNIT EFFORT IN SPORT FISHERY, FACILITATION OF A NONCONSUMPTIVE USE, FACILITATION OF A SUBSISTENCE USE, OR ACHIEVEMENT OF A SPECIFIC ALLOCATION;

(27) "OVERFISHING" MEANS A LEVEL OF FISHING ON A SALMON STOCK THAT RESULTS IN A CONSERVATION OR MANAGEMENT CONCERN;]

(28) "phenotypic characteristics" means those characteristics of an individual or group of salmon that are expressed physically, such as body size and length at age;

(29) "rehabilitation" means efforts applied to a salmon stock to restore it to an otherwise natural level of productivity; "rehabilitation" does not include an enhancement, which is intended to augment production above otherwise natural levels;

(30) "return" means the total number of salmon in a stock from a single brood (spawning) year surviving to adulthood; because the ages of adult salmon (except pink salmon) returning to spawn varies, the total return from a brood year will occur over several calendar years; the total return generally includes those mature salmon from a single brood year that are harvested in fisheries plus those that compose the salmon stock's spawning escapement; "return" does not include a run, which is the number of mature salmon in a stock during a single calendar year;

(31) "run" means the total number of salmon in a stock surviving to adulthood and returning to the vicinity of the natal stream in any calendar year, composed of both the harvest of adult salmon plus the escapement; the annual run in any calendar year, except for pink salmon, is composed of several age classes of mature fish from the stock, derived from the spawning of a number of previous brood years;

(32) "salmon" means the five wild anadromous semelparous Pacific salmon species *Oncorhynchus* sp., except steelhead and cutthroat trout, native to Alaska as follows:

- (A) Chinook or king salmon (*O. tshawytscha*);
- (B) sockeye or red salmon (*O. nerka*);
- (C) coho or silver salmon (*O. kisutch*);
- (D) pink or humpback salmon (*O. gorbuscha*); and
- (E) chum or dog salmon (*O. keta*);

(33) "salmon population" means a locally interbreeding group of salmon that is distinguished by a distinct combination of genetic, phenotypic, life history, and habitat

characteristics, comprised of an entire stock or a component portion of a stock; the smallest uniquely identifiable spawning aggregation of genetically similar salmon used for monitoring purposes;

(34) "salmon stock" means a locally interbreeding group of salmon that is distinguished by a distinct combination of genetic, phenotypic, life history, and habitat characteristics or an aggregation of two or more interbreeding groups which occur within the same geographic area and is managed as a unit;

[(35) "STOCK OF CONCERN" MEANS A STOCK OF SALMON FOR WHICH THERE IS A YIELD, MANAGEMENT, OR CONSERVATION CONCERN;

(36) "SUSTAINABLE ESCAPEMENT GOAL" OR "(SEG)" MEANS A LEVEL OF ESCAPEMENT, INDICATED BY AN INDEX OR AN ESCAPEMENT ESTIMATE, THAT IS KNOWN TO PROVIDE FOR SUSTAINED YIELD OVER A 5 TO 10 YEAR PERIOD, USED IN SITUATIONS WHERE A BEG CANNOT BE ESTIMATED OR MANAGED FOR; THE SEG IS THE PRIMARY MANAGEMENT OBJECTIVE FOR THE ESCAPEMENT, UNLESS AN OPTIMAL ESCAPEMENT OR INRIVER RUN GOAL HAS BEEN ADOPTED BY THE BOARD; THE SEG WILL BE DEVELOPED FROM THE BEST AVAILABLE BIOLOGICAL INFORMATION; AND SHOULD BE SCIENTIFICALLY DEFENSIBLE ON THE BASIS OF THAT INFORMATION; THE SEG WILL BE DETERMINED BY THE DEPARTMENT AND WILL TAKE INTO ACCOUNT DATA UNCERTAINTY AND BE STATED AS EITHER A "SEG RANGE" OR "LOWER BOUND SEG"; THE DEPARTMENT WILL SEEK TO MAINTAIN ESCAPEMENTS WITHIN THE BOUNDS OF THE SEG RANGE OR ABOVE THE LEVEL OF A LOWER BOUND SEG;

(37) "SUSTAINABLE SALMON FISHERY" MEANS A SALMON FISHERY THAT PERSISTS AND OBTAINS YIELDS ON A CONTINUING BASIS; CHARACTERIZED BY FISHING ACTIVITIES AND HABITAT ALTERATION, IF ANY, THAT DO NOT CAUSE OR LEAD TO UNDESIRABLE CHANGES IN BIOLOGICAL PRODUCTIVITY, BIOLOGICAL DIVERSITY, OR ECOSYSTEM STRUCTURE AND FUNCTION, FROM ONE HUMAN GENERATION TO THE NEXT;]

(38) "sustained yield" means an average annual yield that results from a level of salmon escapement that can be maintained on a continuing basis; a wide range of average annual yield levels is sustainable; a wide range of annual escapement levels can produce sustained yields, **MSY is what is dictated by this and other policies;**

[(39) "SUSTAINED ESCAPEMENT THRESHOLD" OR "(SET)" MEANS A THRESHOLD LEVEL OF ESCAPEMENT, BELOW WHICH THE ABILITY OF THE SALMON STOCK TO SUSTAIN ITSELF IS JEOPARDIZED; IN PRACTICE, SET CAN BE ESTIMATED BASED ON LOWER RANGES OF HISTORICAL ESCAPEMENT LEVELS, FOR WHICH THE SALMON STOCK HAS CONSISTENTLY DEMONSTRATED THE ABILITY TO SUSTAIN ITSELF; THE SET IS LOWER THAN THE LOWER BOUND OF THE BEG AND LOWER THAN THE LOWER BOUND OF THE SEG; THE SET IS ESTABLISHED BY THE DEPARTMENT IN CONSULTATION WITH THE BOARD, AS NEEDED, FOR SALMON STOCKS OF MANAGEMENT OR CONSERVATION CONCERN];

(40) "target species" or "target salmon stocks" means the main, or several major, salmon species of interest toward which a fishery directs its harvest;

(41) "yield" means the number or weight of salmon harvested in a particular year or season from a stock;

[(42) "YIELD CONCERN" MEANS A CONCERN ARISING FROM A CHRONIC INABILITY, DESPITE THE USE OF SPECIFIC MANAGEMENT MEASURES, TO MAINTAIN EXPECTED YIELDS, OR HARVESTABLE SURPLUSES, ABOVE A STOCK'S ESCAPEMENT NEEDS; A YIELD CONCERN IS LESS SEVERE THAN A MANAGEMENT CONCERN, WHICH IS LESS SEVERE THAN A CONSERVATION CONCERN];

(43) "wild salmon stock" means a stock of salmon that originates in a specific location under natural conditions; "wild salmon stock" may include an enhanced or rehabilitated stock if its productivity is augmented by supplemental means, such as lake fertilization or rehabilitative stocking; "wild salmon stock" does not include an introduced stock, except that some introduced salmon stocks may come to be considered "wild" if the stock is self-sustaining for a long period of time;

(44) "action point" means a threshold value for some quantitative indicator of stock run strength at which an explicit management action will be taken to achieve an optimal escapement goal.

What is the issue you would like the board to address and why? The sustainable fisheries policy is cumbersome, confusing and misleads the public as to what the board and department are managing the salmon fisheries to achieve. This policy has numerous prescriptions which neither the board nor department follow, which need to be removed. In addition this policy and the escapement goal policy are in need of changes to put side boards on the board's authority as well as ensure that the department is following the guidelines established in these board policies. The department has been manipulating the escapement goal policy since 2001 to hide allocations and alter goals to increase in-river returns at the overall expense of yield. This proposal and a companion proposal for 5 AAC 39.223 seek to eliminate this undue discretion and standardize all goals statewide, eliminate OEG's, SET's, in-river goals and SEG's which are replaced with a new term, "Management Target", which must be developed using the state's own guidelines set out in Fisheries Manuscript No. 14-06, An evaluation of the Percentile Approach for Establishing Sustainable Escapement Goals in Lieu of Stock Productivity Information by Clark et al.

PROPOSED BY: Jeff Fox

(HQ-F18-044)

PROPOSAL 171

5 AAC 39.205, 5 AAC 75.017, and 5 AAC 77.007. Criteria for the allocation of fishery resources among personal use, sport, and commercial fisheries.

Modify criteria for the allocation of fishery resources among personal use, sport, and commercial fisheries, as follows:

Criteria for the allocation of fishery resources among personal use, sport, and commercial fisheries.

(a) Before adopting regulation that allocate fish among personal use, sport, and commercial fisheries, the board will, as appropriate to particular allocation decisions, consider the factors set out in AS. 16.05.251 (e).

(b) The allocation of fishery resources should follow an adaptive management process. Adaptive Management is the on-going process of evaluating if numerically based management objectives and stated Board intent have been met and adjusting management strategies in response. This process includes periodic re-evaluation and updating of the management goals and objectives to ensure they are relevant to current conditions and needs.

(c) Allocation decisions are often closely aligned with historical use of the resource; however, while historical use may be taken into consideration when reviewing and making an allocation decision, this criterion alone shall not be determinate.

(d) When allocating fishery resources within the Nonsubsistence Use Areas of the State as described in 5 AAC 99.015 the Board shall consider those factors listed in this section in the following order of importance with the degree of importance descending from criteria 1 through 7,

- (1)** The importance of each fishery for providing residents the opportunity to harvest fish for personal and family consumption;
- (2)** The number of residents and nonresidents who have participated in each fishery in the past and the number of residents and nonresidents who can reasonably be expected to participate in the future;
- (3)** The importance of each fishery to the economy of the region and local area in which the fishery is located;
- (4)** The importance of each fishery to the economy of the state;
- (5)** The history of each personal use, sport, guided sport, and commercial fishery with emphasis on the previous 20 years;
- (6)** The importance of each fishery in providing recreational opportunities for residents and nonresidents;
- (7)** The availability of alternative fisheries resources of similar characteristics.

What is the issue you would like the board to address and why? Here is the State statute that provides the Board of Fisheries with direction for allocation of fisheries resources. This statute was adopted in 1989. The Board subsequently complied with the statute by adopting it in

regulation, essentially by reference, in 1991. No action has been taken to amend or improve the regulation since that time.

Sec. 16.05.251. Regulations of the Board of Fisheries. (e) The Board of Fisheries may allocate fishery resources among personal use, sport, guided sport, and commercial fisheries. The board shall adopt criteria for the allocation of fishery resources and shall use the criteria as appropriate to particular allocation decisions. The criteria may include factors such as

- (1) The history of each personal use, sport, guided sport, and commercial fishery;
- (2) The number of residents and nonresidents who have participated in each fishery in the past and the number of residents and nonresidents who can reasonably be expected to participate in the future;
- (3) The importance of each fishery for providing residents the opportunity to obtain fish for personal and family consumption;
- (4) The availability of alternative fisheries resources;
- (5) The importance of each fishery to the economy of the state; Rev. Jan. 2018
- (6) The importance of each fishery to the economy of the region and local area in which the fishery is located;
- (7) The importance of each fishery in providing recreational opportunities for residents and nonresidents.

The Board adopted in regulation criteria for the allocation of fishery resources in 1991 and placed the regulations in the general sections for commercial fish (5 AAC 39), sport fish (5 AAC 75) and personal use (5 AAC 77). The following is the one proposal that we submit that will address each of the three sections in the same manner.

PROPOSED BY: Kenai River Sportfishing Association (HQ-F18-046)
