Regional Information Report No. 1J08-23

Report to the Board of Fisheries, Status of the Allocation of Enhanced Fish, Southeast Region

by

Garold V. Pryor

December 2008

Alaska Department of Fish and Game **Divisions of Commercial Fisheries**

Symbols and Abbreviations

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye to fork	MEF
mideye to tail fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

REGIONAL INFORMATION REPORT NO. 1J08-23

REPORT TO THE BOARD OF FISHERIES, STATUS OF THE ALLOCATION OF ENHANCED FISH, SOUTHEAST REGION

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January 2009

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This document should be cited as:
Pryor, G.V. 2008. Report To The Board Of Fisheries, Status Of The Allocation Of Enhanced Fish, Southeast Region. Alaska Department of Fish and Game, Regional Report Series No. 1J08-23, Douglas.

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ABSTRACT

This report summarizes the development and implementation of the Southeastern Alaska Area Enhanced Salmon Allocation Management Plan [5 AAC 33.364], and the status of the allocation of enhanced fish among the three commercial gear groups in the Southeast Region: gillnet, seine, and troll through 2007.

Key words: Enhanced salmon, allocation, gillnet, seine, troll, chum salmon, Chinook salmon, coho salmon, Alaska Board of Fisheries, Regional Planning Team, and Southeast Alaska.

INTRODUCTION

This report summarizes the development and implementation of the Southeastern Alaska Area Enhanced Salmon Allocation Management Plan [5 AAC 33.364], and the status of the allocation of enhanced fish among the three commercial gear groups in the Southeast Region: gillnet, seine, and troll through 2007. At the present time the allocation does not conform to the recommended guidelines. Two factors outside of regulatory control, marine survival and price paid to fishers, have exerted substantial influence on the distribution of benefits from the enhancement program.

BRIEF HISTORY OF THE ALLOCATION PLAN

In early 1991 the Board of Fisheries (BOF) asked the commercial fishers of Southeast Alaska, through the two Regional Aquaculture Associations, to develop a plan for the equitable sharing of the catch of enhanced salmon. The Southeast Allocation Task Force (SATF) was formed to draft a plan. The SATF consisted of voting members from the Northern Southeast Regional Aquaculture Association (NSRAA) and the Southern Southeast Regional Aquaculture Association (SSRAA), with equal representation from each association and from the three commercial gear groups. Non-voting members included ADF&G staff, regional aquaculture association staff, and a representative from Douglas Island Pink and Chum, Inc., a non-association hatchery corporation. The allocation plan was developed through a lengthy public process, and in 1994 the BOF approved the plan, which is now regulation 5 AAC 33.364. As set forth in regulation, the Joint Northern Southeast and Southern Southeast Regional Planning Team (Joint RPT) reviews the status of the allocation of enhanced fish each spring and recommends production or harvest changes if necessary.

DESCRIPTION OF THE ALLOCATION PLAN

The Southeastern Alaska Area Enhanced Salmon Allocation Management Plan delineates percentage ranges of the commercial harvest *value* that should be realized by each commercial gear group. Recommended ranges are: seine, 44%–49%; hand and power troll, 27%–32%; and drift gillnet, 24%–29%. Harvest value is computed from: 1) the number of enhanced fish harvested by each commercial gear group, based primarily on marking or tagging programs, reported by hatchery operators, and 2) average price per pound by gear type, computed by the Commercial Fisheries Entry Commission (CFEC). Allocation percentages are evaluated as five-year moving averages. If a gear group is out of its allocation range for three consecutive five-year averages, some adjustment in production or harvest may be implemented to bring a gear group back into its range.

The Alaska Board of Fisheries Finding #94-02-FB is associated with the allocation regulation[1]. It provides a detailed explanation of the plan development process, the Report of the Southeast Alaska Allocation Task Force for Enhanced Salmon, and contains flexible guidelines for plan implementation. The Alaska Board of Fisheries Finding #94-02-FB is printed in it's entirety in Appendix A.

MECHANISMS FOR CORRECTION

The tools for making adjustments to the distribution of the harvest, in order to achieve allocation percentage targets, are: 1) special harvest and or terminal area management adjustments, 2) new enhanced salmon production, and 3) modification of enhancement project production, including remote releases (Guideline #13 in Finding #94-02-FB). Special harvest area management adjustments can be used for short-term corrections. New production or modification of existing projects are remedies for the long term, and can be instigated by facilities requesting changes or by the Joint RPT making recommendations, through the commissioner of ADF&G, for changes in production.

THE STATUS OF ALLOCATION

The status of the allocation of enhanced fish through 2007 is shown in Figures 1 through 3. The most recent calculations include preliminary 2007 numbers.[2] The five-year average seine harvest value has been below the target range for three consecutive years. While the single year value in 2006 was in the target range, it was not enough to bring the five-year average into target range (Figure 1). The five-year-average troll harvest value has been below its target range since 1995. While the single year value in 2003, 2004, and 2005 have been in the target range, it was not enough to bring the five-year-average into target range (Figure 2). The gillnet five-year harvest value has been over its target range for the last four years. The single year value has been above the target range since 2001 (Figure 3).

FACTORS AFFECTING THE ALLOCATION OF ENHANCED FISH

It became apparent with the preliminary 1997 numbers that an imbalance in the allocation had developed. Early in 1998, the Joint RPT conducted an in-depth analysis of the factors that led to the imbalance in order to recommend the most effective changes. Department staff constructed a series of graphs showing trends in harvest, price per pound, marine survival, and hatchery releases for the species most important to the troll fleet (Chinook and coho salmon) and to the seine fleet (chum salmon). These graphs have been updated each year and appear as Figures 4 to 15 of this report. Trend lines on the graphs are three point polynomials. All data for these tables are from the ADF&G statewide hatchery data base, with the exception of marine survival, which was provided by Northern Southeast Regional Aquaculture Association (NSRAA), Southern Southeast Regional Aquaculture Association (SSRAA), and Douglas Island Pink and Chum, Inc (DIPAC). Chinook and coho salmon marine survivals do not typically differ greatly from release site to release site, so the entire production of each operator is shown on one graph. Chum

[1] Finding #94-02-FB is in "Private Nonprofit Salmon Hatcheries Statutes and Regulations," 2002 edition, compiled by ADF&G Commercial Fisheries Management and Development Division, Private Nonprofit Hatchery Program, P.O. Box 25526, Juneau, AK 99802-5526.

[2] PNP operators will finalize 2007 fish numbers with updates on the 2008 annual reports in January 2009.

salmon marine survivals can vary greatly between release sites. Each operator was given their own graph to show variation in marine survivals from different release sites, within the same brood year.

COHO SALMON

The 2007 coho salmon value of $1.32/pound is up from the most recent ten-year average price of $0.99/pound (Figure 4). The 2007 troll harvest rate of enhanced coho salmon is 256,168 fish, which is below the most recent ten-year average of 314,897 fish. Releases of coho salmon have shown a gradual but consistent increase; the 2007 release of 16 million coho salmon (BY '05) is an increase above the ten-year average of 12.8 million fish (Figure 5). The marine survivals for coho salmon, provided by the operators, are shown in Figure 6.

CHINOOK SALMON

The 2007 Chinook salmon value of $3.52/pound is up from the most recent ten-year average of $2.06/pound (Figure 7). Records of the harvest rate of enhanced Chinook salmon began in 1987. The highest troll harvest of enhanced Chinook salmon was 38,395 fish in 1991. The 2004 troll harvest rate of 37,484 enhanced Chinook salmon is the second highest harvest on record. The 1998 troll harvest rate of 10,654 enhanced Chinook salmon is the lowest harvest rate on record. Both the 2004 and 1998 harvest rates are included in the latest ten-year average of 24,879 enhanced Chinook salmon. The 2007 troll harvest rate of enhanced Chinook salmon is 26,609, which is above the latest ten-year average. The 2007 release of 8.6 million Chinook salmon is an increase above the ten-year average of 6.4 million (Figure 8). Increases in Chinook salmon production can be attributed to increased use of zero-check programs. Zero-check programs allow the release of Chinook salmon smolts without the traditional use of a full year of fresh water rearing. Marine survivals, provided by the operators, are shown in Figure 9.

CHUM SALMON

The seine harvest of enhanced chum salmon increased over 10-fold from 595,000 chum salmon in 1991 to nearly 6.5 million in 1996, but has decreased to an average annual harvest of about 2.5 million fish since 2001 (Figure 10). The increase in harvest in the late 1990s more than compensated for a 40% decline in price over the same period, resulting in a high economic return to the seine fleet. The 2007 release of 452 million chum salmon fry is up from the previous ten-year average of 368 million (Figure 11). Marine survivals, provided by the operators, are shown in Figures 12, 13, and 14. All three figures demonstrate there can be vast differences in survival at different release sites, with fish from the same brood year.

The troll fleet has shown that it can be effective in targeting chum salmon. The troll fleet has had over a million dollars of exvessel value of troll caught enhanced chum salmon in 1993, 2000, and 2001 (Figure 15). The troll fleet harvest of enhanced chum salmon has averaged 390 thousand dollars since 2002.

Recent trends in marine survival of chum salmon have had an impact on allocation. Strong survivals of DIPAC fish in Lynn Canal have benefited the gillnet fleet, while an overall drop in survivals at Hidden Falls and Neets Bay have negatively effected the seine fleet. 2009 forecasting by the hatchery operators suggest Hidden Falls and Neets Bay survivals may increase.

ACTIONS TAKEN BY THE REGIONAL PLANNING TEAM

Two of the most influential factors affecting allocation are marine survival and price per pound, which are factors outside the control of the associations, the department, and the Board of Fisheries. The Joint RPT has never suggested that the present allocation imbalance is due to failure of the associations to follow the board's allocation guidelines. The allocation plan and associated findings of the board do not *require* the board to make changes in access, or the Joint RPT to recommend changes in production, when an imbalance occurs.

The Joint RPT takes their assignment of 'allocation plan oversight' very seriously. Joint RPT meetings are a forum to discuss hatchery production changes, and possible modifications of the harvest of enhanced fish to address the allocation imbalance[3]. The Joint RPT believes the intent of the allocation plan has always been to try and increase targeted production and/or harvest opportunity of the gear group below its allocation range using measures that do not significantly and directly penalize the historical harvest opportunities of the gear group that is above its target range. Because the allocation is relational, a percentage increase in one gear group value will mean a corresponding decrease in the other two gear groups.

The Joint RPT has recommended to the commissioner that hatcheries continue to increase Chinook, coho, and chum salmon production, where possible. The inherent risk of adjusting production to correct an imbalance is the lag time from egg takes to harvest, especially for Chinook and chum salmon. A decision to modify production numbers in a given brood year will take four years before the majority of fish return for chum salmon, and five years for Chinook salmon. In the worst-case scenario, a decision to *increase* production results in little or no increased harvest value, if survivals and prices decline. A decision to *decrease* production could result in a magnified drop in harvest value, if survivals and prices decline.

Overall increases in Chinook and coho salmon releases, as well as changes in harvest management, have been a positive step to increasing troll allocation. If future marine survivals and exvessel prices do not adversely override the increase in production, the value of the troll harvest should increase. It is important to note, however, that the value of Chinook and coho have increased dramatically in terminal "clean up" fisheries for all the gear groups. Increased restraints imposed by the Pacific Salmon Treaty have limited the amount of fishing time for the troll fleet, which reduces the troll catch and allows more fish to return to the terminal areas. In essence, projects specifically designed to help the troll fleet may be working against the allocation imbalance by providing significant value to the seine and gillnet fleets in the terminal areas. These projects do raise the value of the troll harvest, but do not necessarily raise the allocation portion based on value.

The Joint RPT submitted two proposals that were adopted by the Board of Fisheries during the 1999/2000 cycle. A proposal to eliminate the chum salmon cap during the spring Chinook fishery at Hidden Falls, and a proposal to allow the department to extend the length of the weekly Snow Passage spring fishery based on enhanced coho harvest, were both intended to increase the opportunity for the troll fleet to harvest enhanced Chinook, coho, and chum salmon. While both of these proposals may have increased value to the troll fleet, neither project has had

[3] The role of the Joint RPT in making recommendations relative to allocation poses a unique situation for the three ADF&G representatives on the team. ADF&G staff provide technical input and participate in team discussions, but only the six industry representatives on the Joint RPT have voted on proposals or recommendations submitted to the Board of Fisheries.

a significant impact on allocation percentages. A proposal by the Joint RPT submitted to the Board of Fisheries during the 2008/2009 cycle to change the rotation of the Deep Inlet Special Harvest Area (Proposal 273), will likely result in a higher percentage of the Deep Inlet harvest going to the seine fleet, which should have a direct impact on allocation by shifting fish value from the gillnet to the seine fleet.

FIGURES

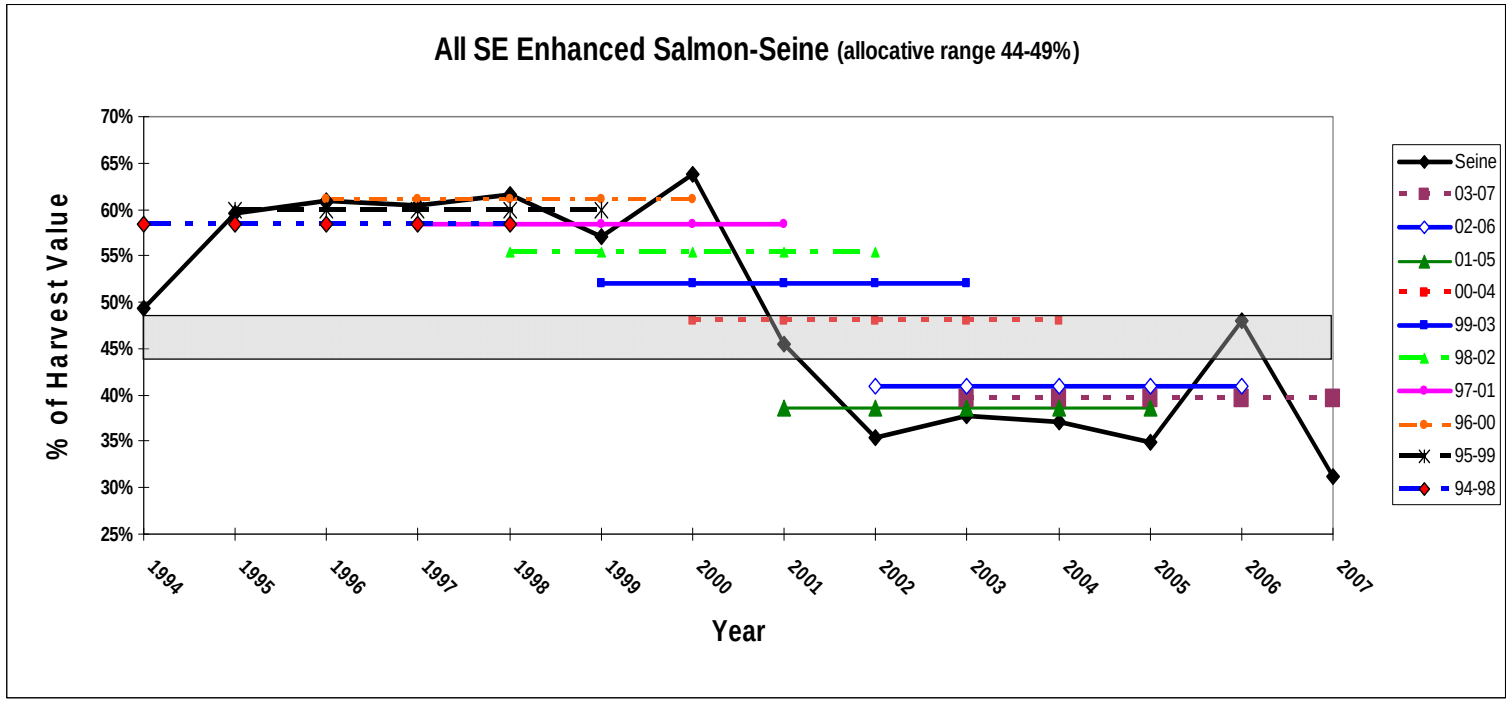

Figure 1.–Seine harvest of enhanced salmon, as a percent of enhanced harvest value.

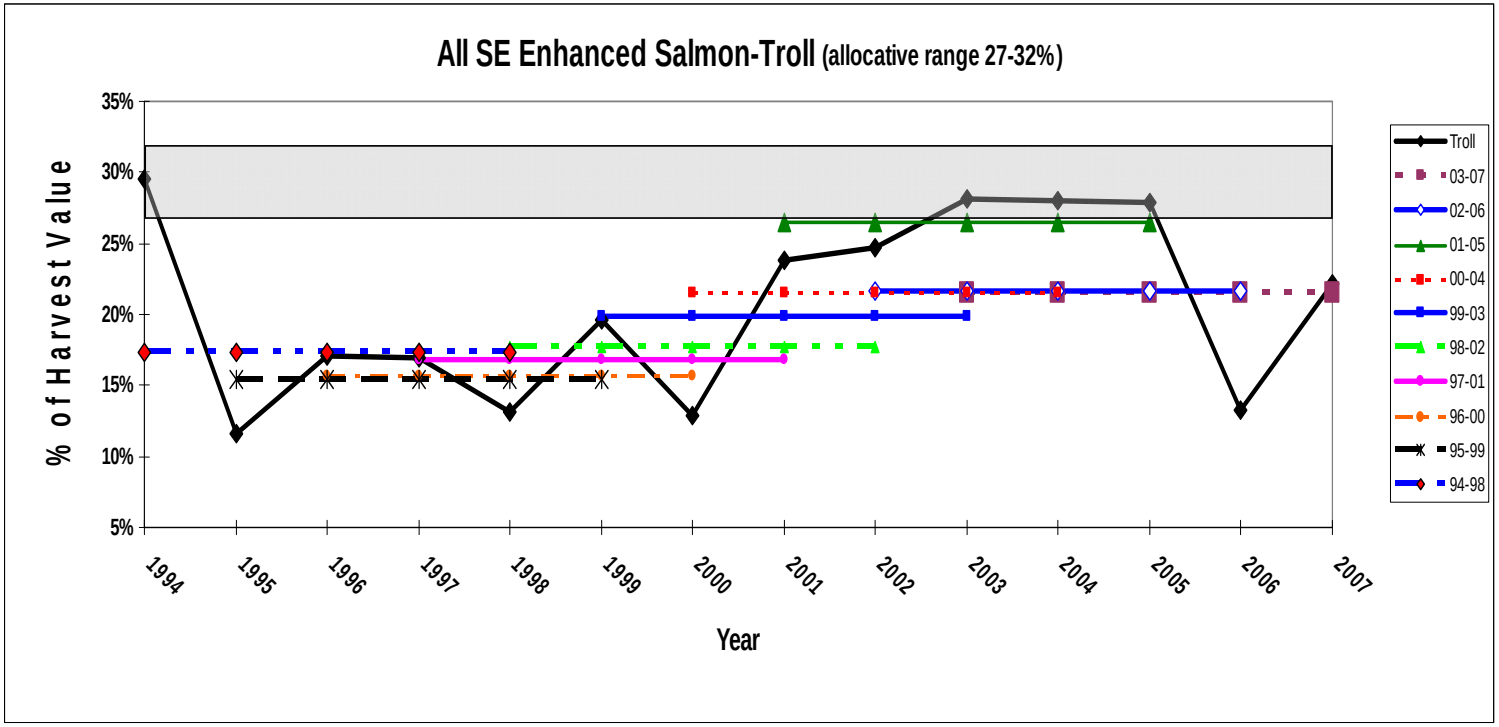

Figure 2.–Troll harvest of enhanced salmon, as a percent of enhanced harvest value.

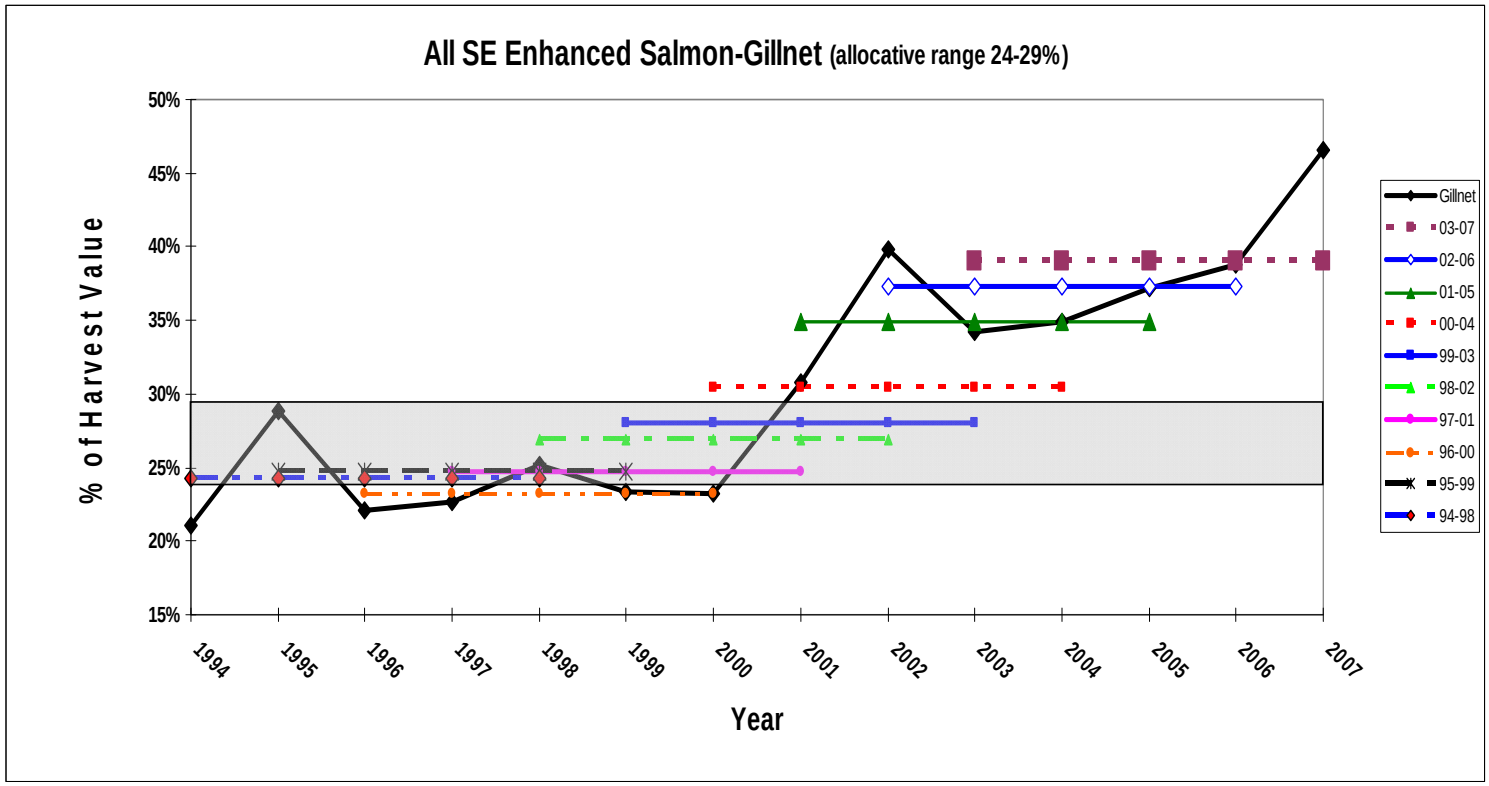

Figure 3.–Gillnest harvest of enhanced salmon, as a percent of enhanced harvest value.

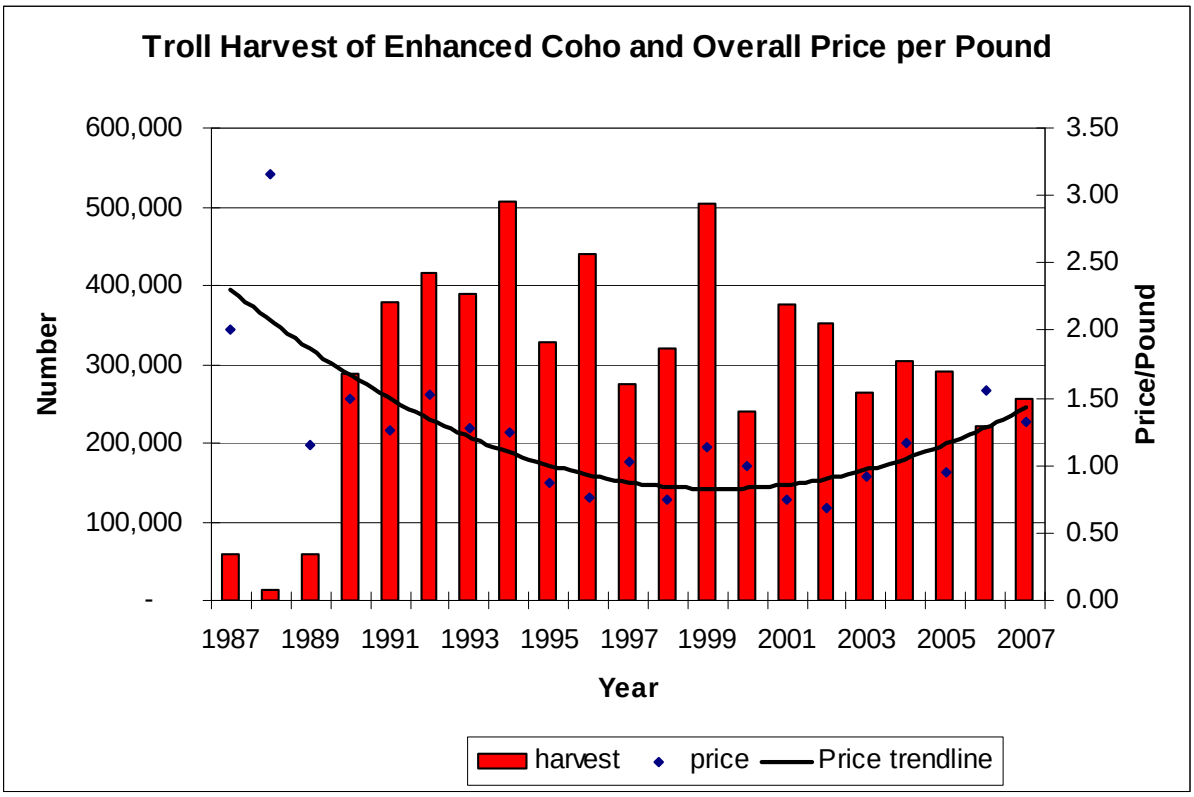

Figure 4.–Troll harvest of enhanced coho salmon and overall price per pound.

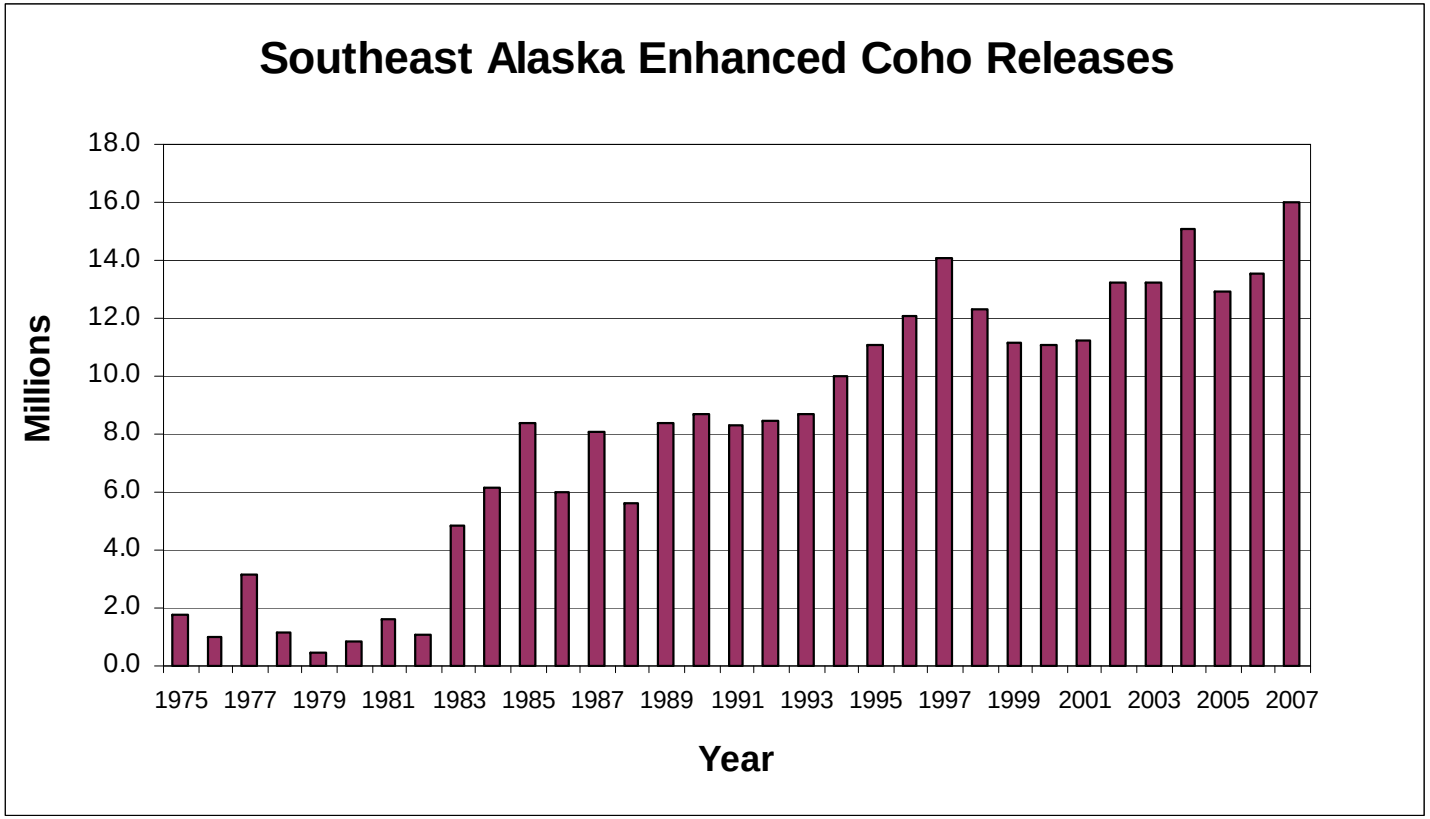

Figure 5.–Southeast Alaska enhanced coho salmon releases.

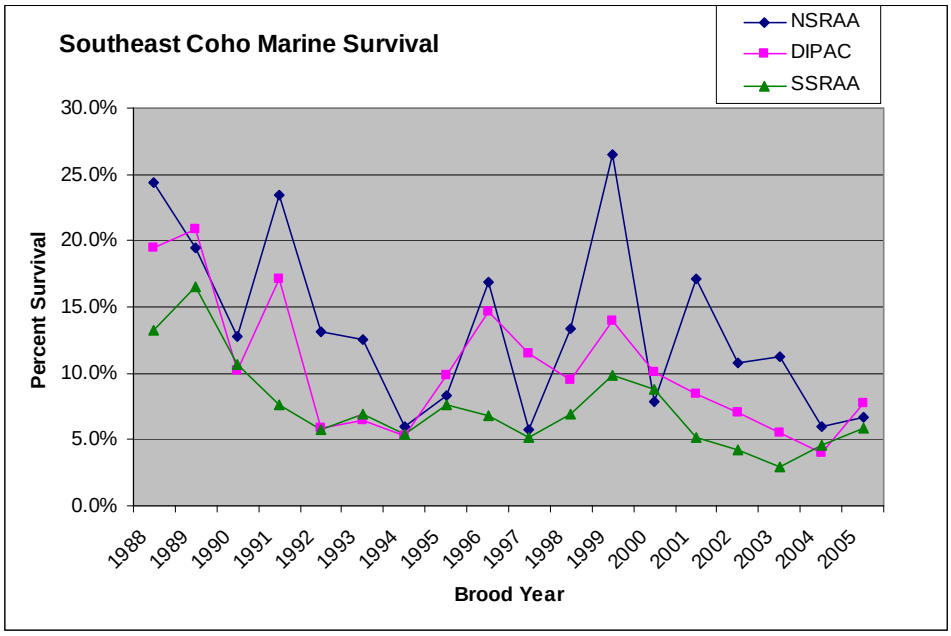

Figure 6.–Southeast coho salmon marine survivals.

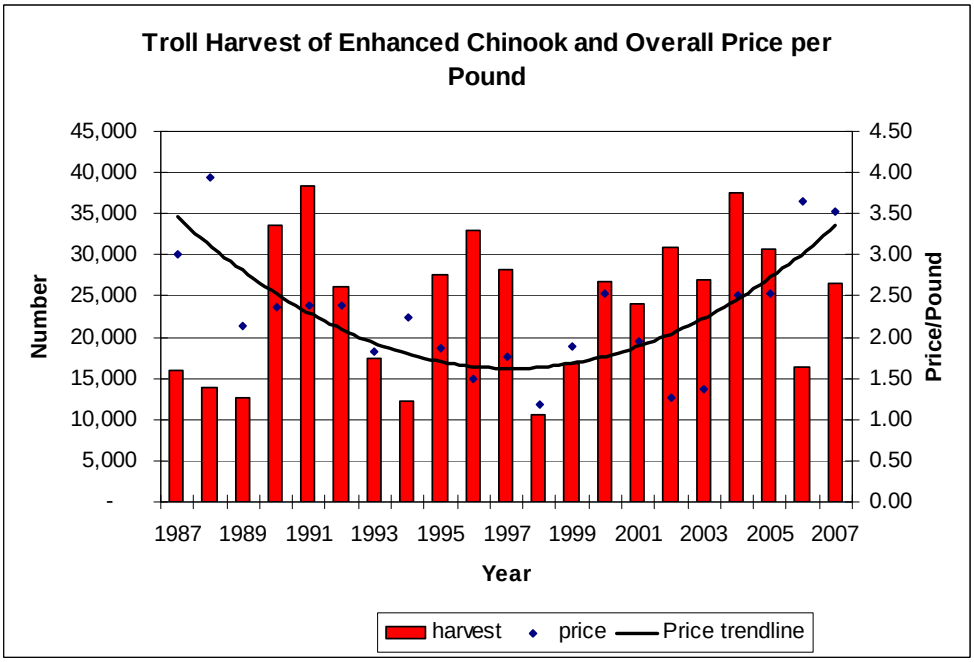

Figure 7.–Troll harvest of enhanced Chinook salmon and overall price per pound.

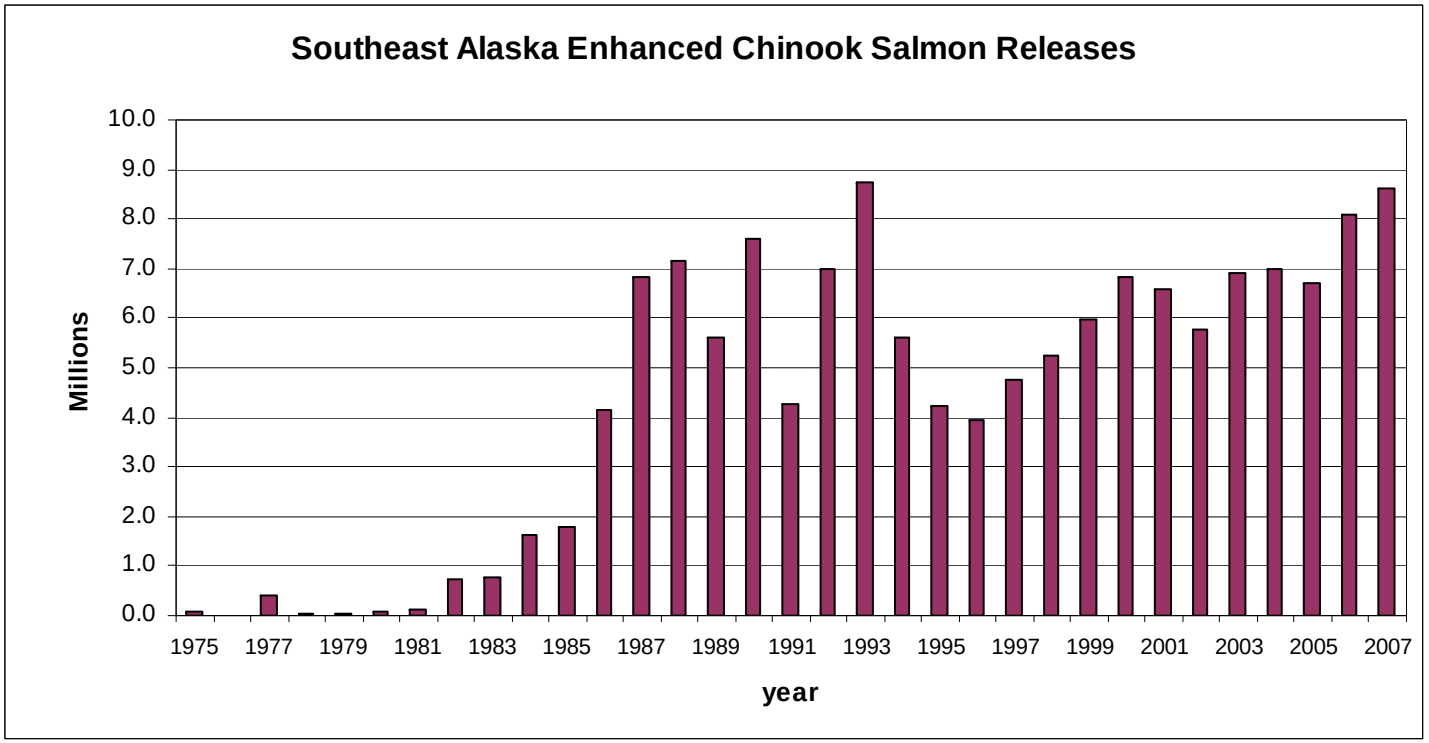

Figure 8.–Southeast Alaska enhanced Chinook salmon releases.

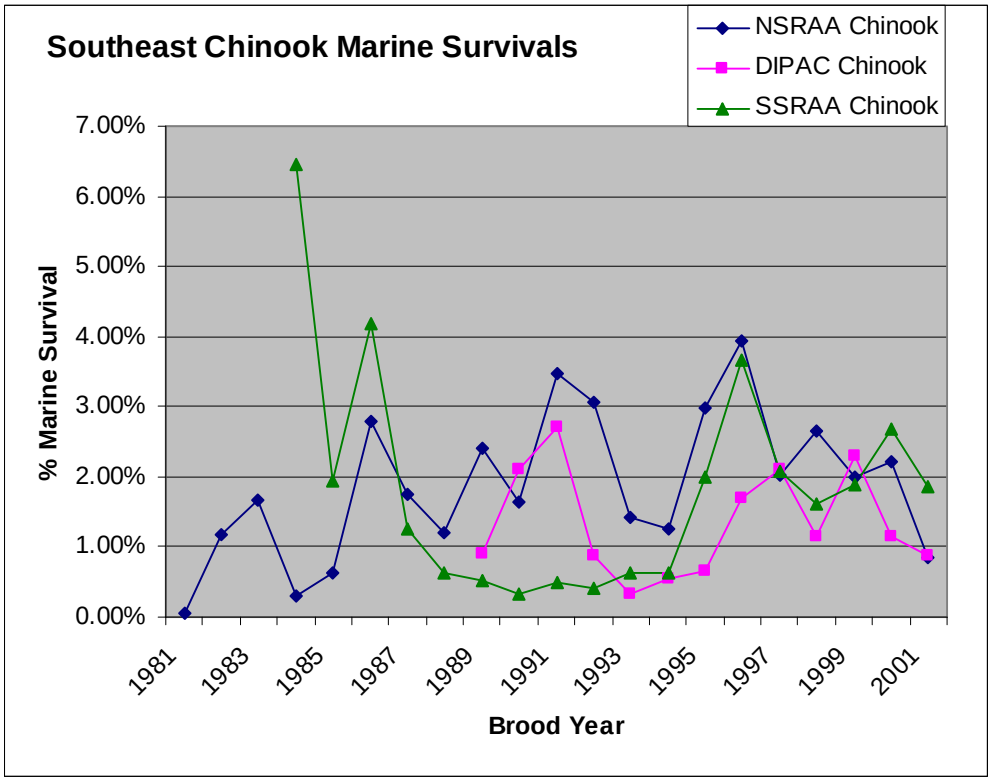

Figure 9.–Southeast Alaska enhanced Chinook salmon marine survivals.

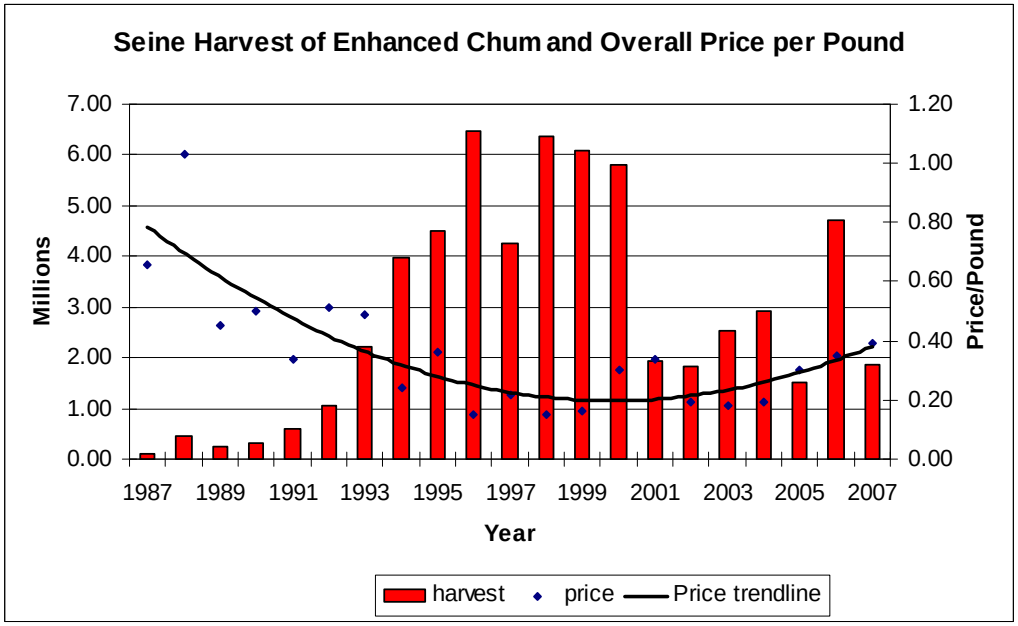

Figure 10.–Seine harvest of enhanced chum salmon and overall price per pound.

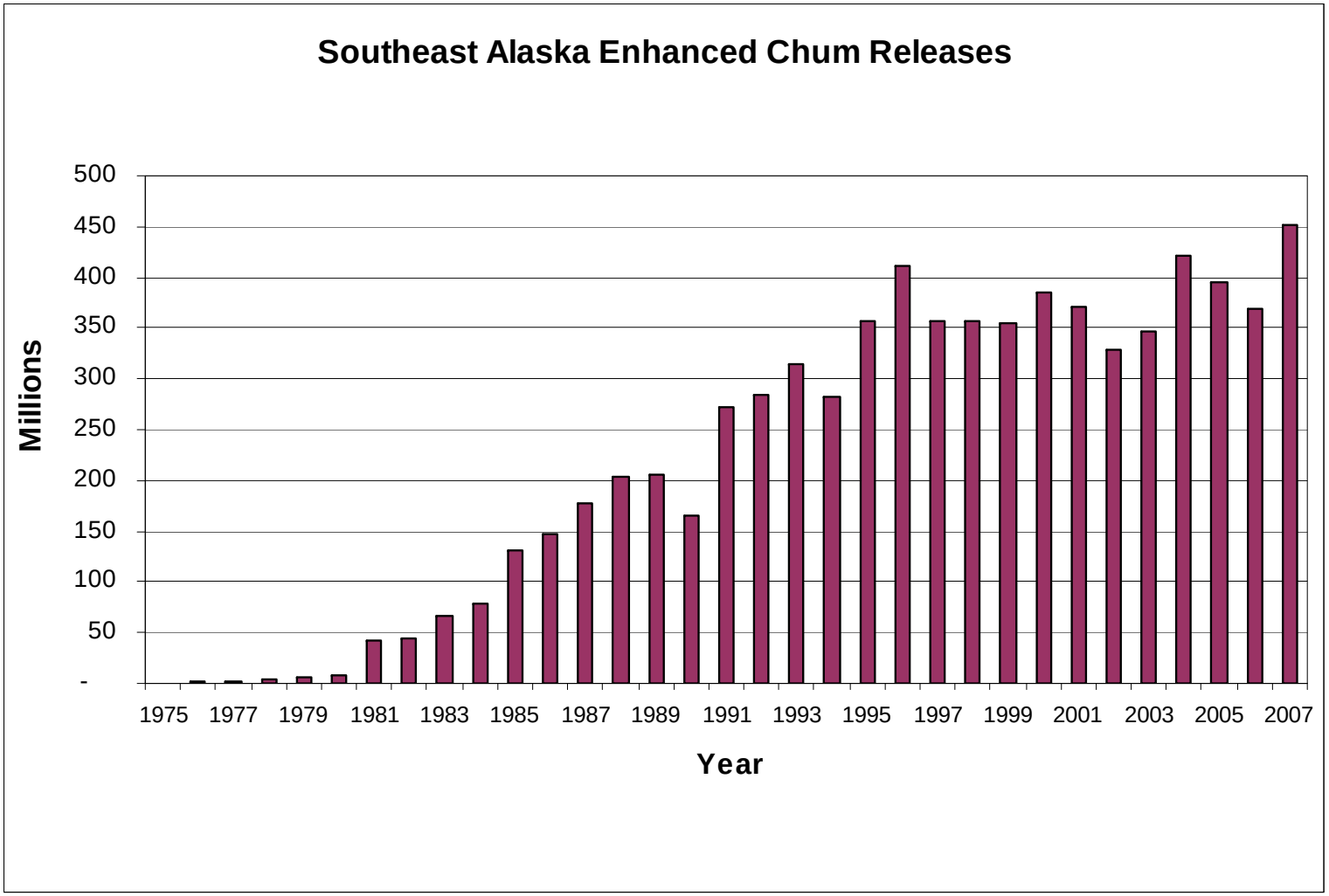

Figure 11.–Southeast Alaska enhanced chum salmon releases.

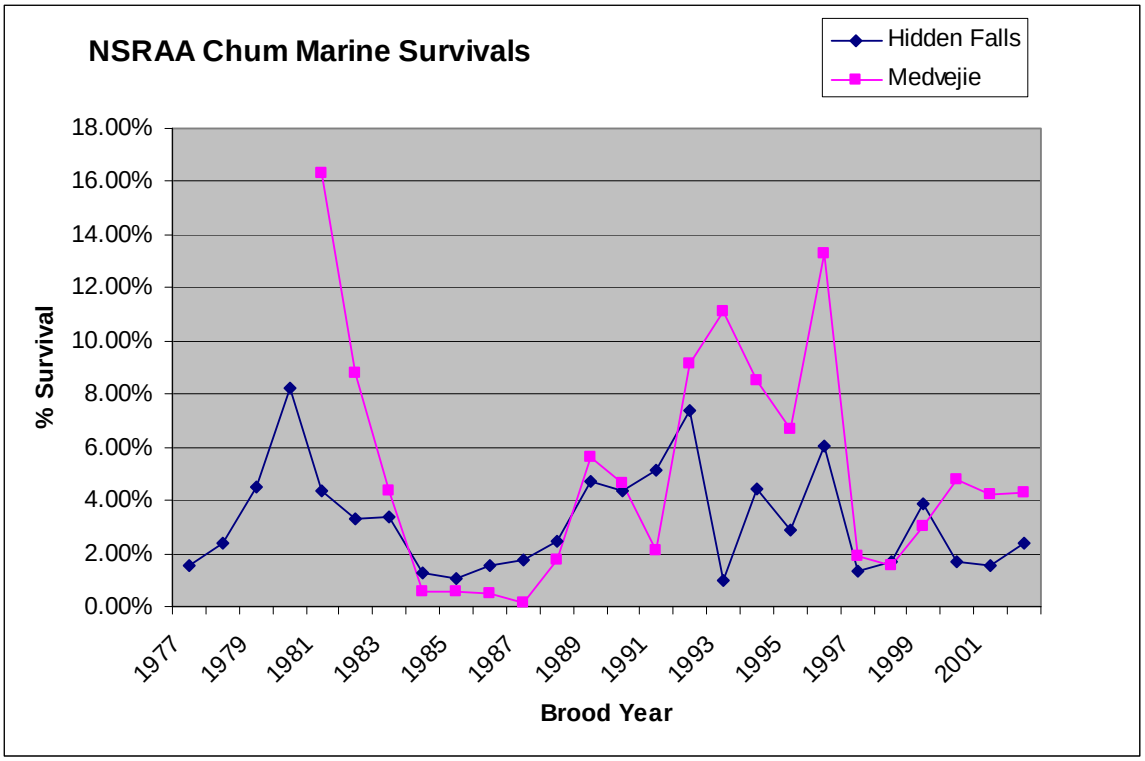

Figure 12.–Northern Southeast Regional Aquaculture Association chum salmon marine survivals.

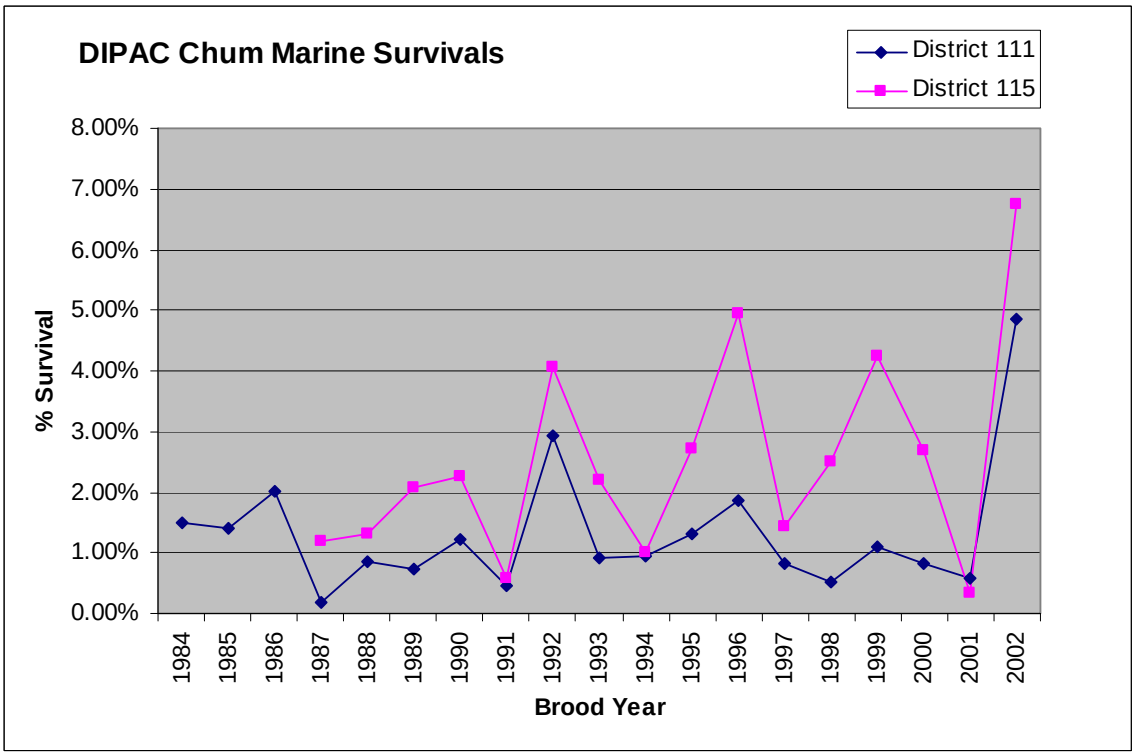

Figure 13.–Douglas Island Pink and Chum, Inc. chum salmon marine survivals.

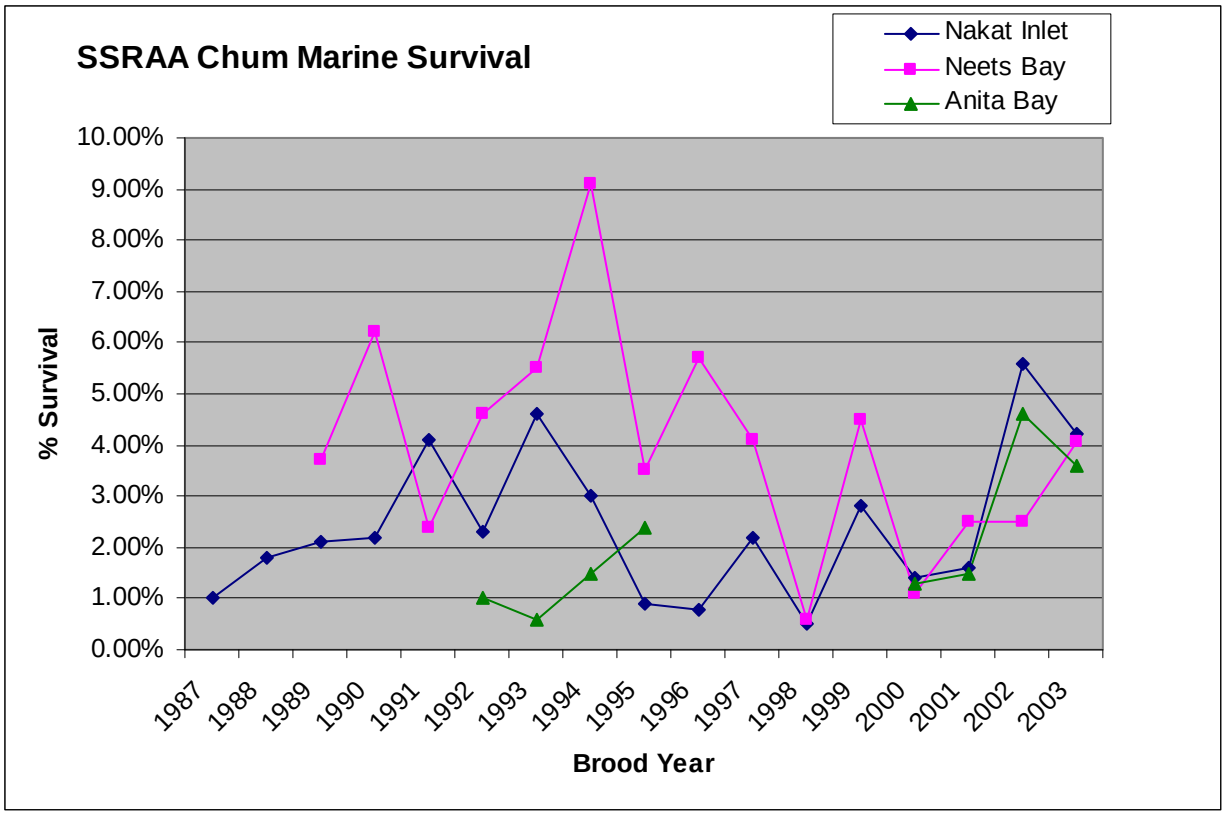

Figure 14.–Southern Southeast Regional Aquaculture Association chum salmon marine survivals.

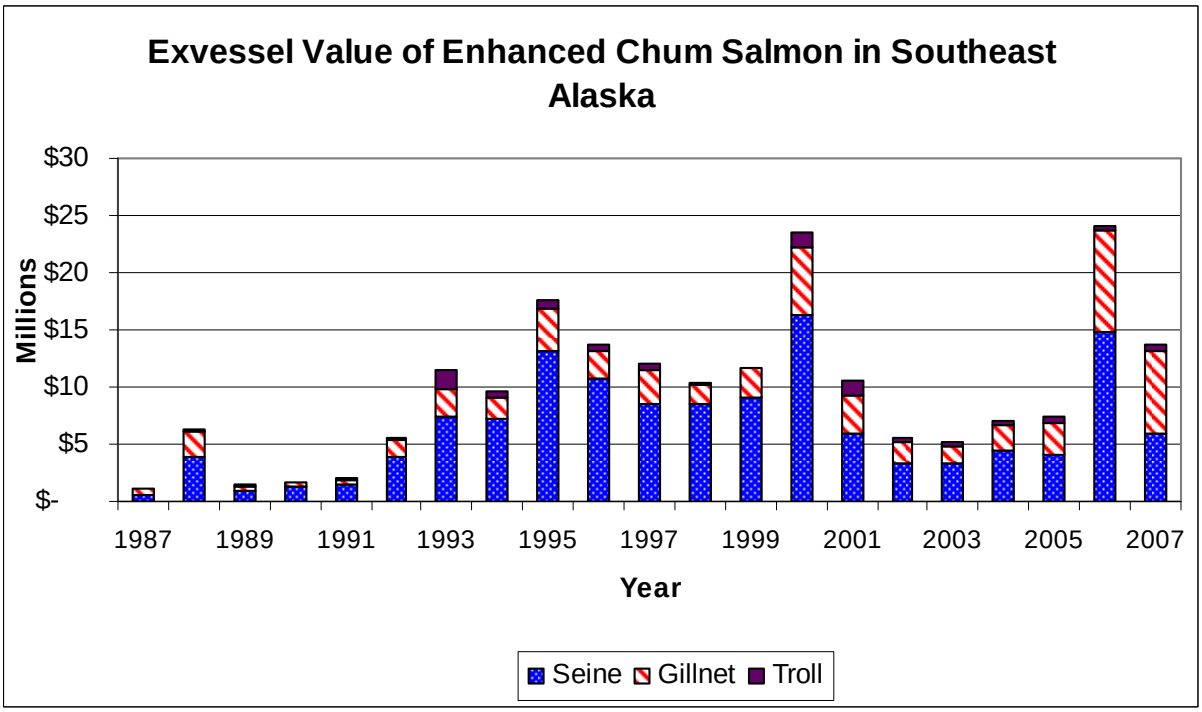

Figure 15.–Exvessel value of enhanced chum salmon in the Southeast Region.

APPENDIX

Southeastern Alaska Area Enhanced Salmon Allocation Management Plan (5 AAC 33.364)

Background: In March 1991, Mike Martin, Chairman of the Board of Fisheries, asked the Northern Southeast Regional Aquaculture Association (NSRAA) and the Southern Southeast Regional Aquaculture Association (SSRAA) to coordinate the development of the southeast wide allocation plan for all enhanced salmon.

The issue concerned the benefits of commercial fishermen received from the enhancement activities especially in relation to the amount of the 3% Salmon Enhancement Tax (SET) paid. The issue was different between the Regional Associations and could not be resolved. Numerous proposals have been submitted to the Board of Fisheries to resolve the issue but none were acted upon. Chairman Martin requested that the two Regional Associations consider an all Southeast Alaska Allocation Plan to include all enhancement activities: Fish and Game FRED division, Independent Non-profit Aquaculture corporations; and Regional Aquaculture Associations.

The Board of Directors of NSRAA and SSRAA agreed to accept the challenge. They formed a group that first met on March 29, 1991 in Ketchikan. The group called itself the Southeast Allocation Task Force (SATF). The SATF is composed of six voting members, three each from NSRAA and SSRAA, and each association provided one seiner, one troller, and one gillnetter for a total of two people from each gear type on SATF. All decisions were by consensus. No meeting was held without six voting members present.

There were two non-voting members on the SATF, one each from the FRED Division and a representative from the independent non-profit aquaculture corporations. DIPAC represented the independent seat. Also, each Regional Association provided on staff member. Pete Esquiro represented NSRAA and Don Amend represented SSRAA. The staff and non-voting members are resource people who provided technical input and comments when appropriate. The SATF also has had technical input from the NMFS at Auke Bay, the limited entry commission, and other people as needed.

All meetings were publicly held. Announcements were made southeast wide in newspapers and radios. Public attendance was minimal, but a few showed up at each meeting. These people were allowed to address the SATF as recognized by the chair. There were no appointed sport representative, but these interests were present at a few meetings. There was a total of five meetings.

The SATF developed the number of fish caught and this was reviewed by scientists at the Auke Bay Laboratory. The value of the fish was provided by the Limited Entry Commission. The data does not include enhancement activities by the National Marine Fisheries Service (NMFS), Metlakatla Indian Community (MIC) on Annette Island, or the U.S. Forest Service (USFS). The production at NMFS is small and experimental. Although the production by the MIC is significant and they also harvest Alaska enhanced fish, this was not included because their harvest and production cannot be controlled by the State. The USFS conducts many habitat enhancement activities, but the numbers cannot be verified or evaluated. All of S.E. Alaska was included (Districs 1–15), but the Yakutat area was excluded.

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The base period for data analysis was 1985. Production prior to 1985 was not significant and most projects were just coming on line. The data was evaluated through 1990 and will be updated annually as it becomes available. Averages were based on this period when production was still increasing and changing. Estimates were made based upon all currently permitted capacity when at full production. Future production was based on planned increases in capacity, but not yet permitted or operational.

The development of the agreement was based on catches by power and hand trollers, purse seiners, and drift gillnetters. Set nets were not included and are not used in the areas analyzed. Sport, sport charter, subsistence, and personal use were not included. The agreement was based only upon those who pay the 3% SET. No allocation was suggested for these other groups. The belief was that they are restricted by bag limits and an allocation of enhanced fish is inappropriate.

The guidelines will be submitted to the Board of Fisheries and may be set in regulation, or developed into policy. The guidelines will be used by the Regional Planning Teams (RPTs) as one element in the evaluation of permit requests and proposed production changes. The Commissioner of Fish and Game will consider the guidelines when evaluating permits or establishing special harvest areas. The Commissioner of Commerce of Economic Development will consider them in determining salmon enhancement loans for changes in production. The Board of Fisheries will use it to make decisions concerning gear group disagreements that involve enhanced fish production. The guidelines are viewed as goals to achieve and remain flexible for changing conditions, such as management changes, treaty changes, gear changes, legislative changes, etc. It was not intended for Fish and Game management to use in managing the common property fishery, except in a very few special instances.

REPORT OF THE SOUTHEAST ALASKA ALLOCATION TASK FORCE (SATF) FOR ENHANCED SALMON.

Following are the fourteen (14) guiding principles which were developed along with rationale statements of each:

1). The primary goal of the Southeast Alaska salmon enhancement program is to provide additional fishing opportunities and revenue to traditional common property fisheries.

(A) Performance Goals: Hatchery program plans and performance, over time, should provide a 70% contribution (after broodstock) to common property fisheries. Out of recognition for those hatcheries not receiving any salmon enhancement tax (SET) revenues, a 60% contribution (after broodstock) to common property fisheries is an acceptable goal. This goal should be expanded to 70% when these non-association hatcheries retire their existing debt obligation to the State of Alaska.

(B) Operators of hatcheries and other enhancement projects will use these performance goals in designing the annual management plans they submit to the joint Regional Planning Team (RPT) for review prior to approval by the Commissioner.

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(C) It is recommended that enhancement programs that achieve these performance goals be given priority from the Dept. of Commerce and Economic Development on the requests for funding from the Fisheries Enhancement Revolving Loan Fund.

(D) Common property fisheries means those fisheries available to the people for common use.

Rational: The enhancement programs are primarily for the benefit of the common property fishery and not for the benefit of private and state ownership. To assure the emphasis is on the common property fisheries, the 70% and 60% performance goals specified in 1A shall be used in evaluating projects. Although contributions to the common property fisheries will vary from year to year depending on run strength, survival rates and management, the long term benefit must be to the common property fisheries. No penalty for failures is suggested. However, hatchery proformas should include these production goals and, if not achieved over time, it is intended that management changes be made to assure these goals.

Broodstock are not included because they were viewed the same as escapement goals. Broodstock do not financially benefit anyone directly and are essential for continued production (see number 3).

2). Management of traditional "wildstock" fisheries are not to be restricted by cost recovery needs (economic escapement) of hatcheries.

Rationale: This concept is embodied in Alaska Statues (AS 16.05.730). The SATF could not envision any circumstance where a wildstock fishery should be interrupted to assure a cost recovery harvest.

3). Restrictions on conduct of traditional "wildstock" fisheries to meet broodstock needs should be absolutely minimal and should be clearly documented by adequate production and harvest data. Protection of broodstock should only occur in close proximity to terminal areas. (Consistent with AS 16.05.730, and regulations 5 AAC 40.005 and 5 AAC 40.220).

Rationale: The SATF recognizes the importance of broodstock. However, broodstock alone should not drive a common property fishery. Protection of broodstock should only occur in close proximity to terminal areas and only when the wildstocks can be adequately harvested in another area. The need for protection of broodstock in any area must be documented by showing that broodstock goals are adversely affected and the area contains significant broodstock. However, it is not intended that an operator manipulate activities just to ask for broodstock protection. For example, by conducting cost recovery harvest without taking proper steps to assure broodstock collection.

4). Enhancement projects should include tagging or marking that will allow determination of the amount of production harvested in the various fisheries.

Rationale: It is recommended that adequate tagging programs be required under the Commissioner's authority (AS 16.10.400). Operator estimates are not adequate for estimating contribution to common property fisheries. Tagging or marking programs are essential; however, because the technology for marking fish is still evolving, no method is recommended. It is assumed that the most reliable and cost effective method will be used.

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5). The State of Alaska should commit to an adequate mark recovery program for all enhanced salmon to provide harvest and production data.

Rationale: It is recommended that those responsible for enhancing fish should pay for the marking, but only the state has the resources to conduct the tag recovery program. The allocation agreement will not work unless the state commits to a mark recovery program. Also, there was evidence that the tag recovery program will not being conducted equally among the gear types or species harvested. For example, troll Chinook fisheries have been more intensively sampled, while the seine harvest has been sampled the least of the groups. The tag recovery program should be designed to provide an equal level of confidence in the contribution of enhanced salmon to each gear type.

6). Habitat enhancement and restoration projects where marking is not feasible will not be counted. Other field projects where marking is feasible and economically acceptable will be counted.

Rationale: Lake fry plants, stream bioenhancement, stream rehabilitation, and other enhancement strategies are frequently conducted with small numbers of fish in remote areas. It may not be practical or economically feasible to mark the fish. These enhancement and restoration projects are encouraged and it is recognized that they contribute to the common property fisheries, but they will not be counted in the allocation percentages. However, where feasible, marking should be conducted.

7). The allocation percentage goals will be used to provide a fixed target for production.

Rationale: Enhancement projects and production goals have frequently been established based on political expediency or the economic viability of the operator. However, whenever fish are released and the returning adults harvested, an allocation is made. The allocation can become disproportionate based on the number of fish and where they are release.

It is desirable that new production, or revised existing production contribute to achieving the allocation percentage goals established. This however, should not be the only criteria used to judge the desirability of new or revised production. If such new or revised production is "projected" to unbalance the distribution of enhanced salmon, and the change in production is otherwise considered desirable, the RPT will evaluate the overall enhancement program to determine what adjustments may be necessary to bring distribution of the harvest into compliance with the allocation percentage goals and make recommendations to the Commissioner.

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8). Allocation percentage goals will be long term.

Rationale: It is recognized that survival rates can vary considerably within and among enhancement projects throughout S.E. Alaska. Also, variations in the management of the common property fisheries influence the harvest rates. The allocation percentage goals are not expected to be attained each year, but should be attained over the long term. Any change in the production takes two to five years to impact a fishery. Therefore, allocation percentage goals should be based on a minimum of five year increments (see number 9).

9). Overall contribution of revenue from salmon enhancement projects should be evaluated using the most recent five year average. Adjustments should be implemented only after discrepancies are determined to exist in the five year average for three consecutive years.

Rationale: See number 8 above. The distribution of enhanced fish is expected to vary widely from year to year. A five year rolling average was used because it constitutes a production cycle and levels year to year variation. It is recognized that a single abnormal year can change the five year average outside the range of the allocation percentage goals; therefore, the guidelines establish a three year period of consistent discrepancy before any change is made.

10). The joint RPT will evaluate current enhanced salmon production and the distribution of harvest revenues and update this on an annual basis.

(A) Each facility should be evaluated after a minimum five years of operation to determine whether the 70% or 60% common property contribution, referred to in guiding principle 1A, is being achieved or to determine the realistic production and common property contribution for the facility.
(B) The joint RPT will conduct an evaluation to determine when the allocation percentages are not being achieved and adjustments are necessary.
(C) The joint RPT will recommend to the Commissioner adjustments to facilities' annual operating plans as necessary to accomplish the desired allocation goal.

Rationale: The SATF believes the joint RPT is the appropriate body to review the contribution data. The joint RPT is responsible for establishing and maintaining the comprehensive salmon plan, under the Commissioner's authority, and is responsible for recommending the permit changes for production to the Commissioner.

11). Achieving these allocation percentage goals should not result in any modifications, in time or area, to the traditional "wildstock" fisheries. Minor modification may be considered to allow experimental or test fisheries that would not adversely impact wildstocks.

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Rationale: The SATF strongly believed that the common property fisheries for wildstocks should not be manipulated in order to achieve the allocation percentage goals. However, this is not intended to preclude experimental or test fisheries, special hatchery access fisheries, or the establishment of new special harvest areas in order to access enhanced fish. For example, this could include the June troll fisheries for Chinook, or late season openings, or other special openings used to target enhanced fish as long as wildstocks are not adversely impacted. It is recommended that the department allow targeted fisheries on enhanced stocks when they will not adversely impact sustained yield of wildstocks. The department should work closely with hatchery operators in establishing these fisheries, keeping in mind the 70% and 60% contribution goals. The harvest of enhanced salmon in a targeted wildstock fishery is considered incidental to the harvest of wild stocks.

12). There should be no inseason changes in management of enhanced salmon in or out of the special harvest areas to achieve the allocation percentage goals.

Rationale: These guidelines are established to reach long term allocation percentages. Inseason common property fisheries adjustments should not be considered to meet allocation goals. No adjustment of wildstock fisheries should be allowed in order to meet the allocation percentage goals.

13). When adjustments are deemed necessary to the distribution of the harvest to meet allocation percentage goals, the following tools should be used: (1) special harvest area management adjustments; (2) new enhanced salmon production; and (3) modification of enhancement projects production, including remote releases. Hidden Falls shall remain a seine/troll terminal harvest area (Consistent with 5 AAC 33.374).

(A) The joint RPT will make appropriate recommendations through the Commissioner to facility(s) annual operating plan(s) to attain allocation goals.
(B) Facilities may request changes in operating plans to meet allocation requirements.

Rationale: New production and facility modifications to meet the allocation percentage goals are long term changes and will take five to ten years to have an impact. Changes in special harvest areas can be used in the short term to help modify any imbalances that occur.

For example, special harvest areas can be designated to only one gear group or the fishing time allowed to different gear groups could be adjusted. The effectiveness of this will also be contingent on the gear type and the targeted species. The SATF expects these adjustments will be reviewed by the joint RPT, and the joint RPT will make recommendations to the Commissioner as to the most appropriate action needed to achieve the allocation percentage goals. It is anticipated that short term solutions such as special harvest area management adjustments will only be used until decisions concerning long term adjustments can take effect. The allocation percentage goals will also be considered when reviewing permit alteration requests. If new production is not feasible or desirable, changes in remote releases can include new sites, change in species composition, change in the numbers of salmon released, or a combination of these.

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(14). The allocative percentages will be:

Note: The following percentages refer to the total value (nominal dollars) of enhanced salmon. These percentages are not intended to apply to wildstock allocations.

Seine– 44% to 49%

Troll– 27% to 32%

Gillnet– 24% to 29%