

2024 ANNUAL MANAGEMENT PLAN

MAIN BAY HATCHERY

Prince William Sound Aquaculture Corporation

This Annual Management Plan (AMP) is prepared to fulfill the requirements of 5 AAC 40.840. This plan must organize and guide the hatchery's operations regarding production goals, broodstock management, and harvest management of hatchery returns. The plan must be developed with consideration of the hatchery's production cycle. The production cycle begins with adult returns, that lead to egg takes and end with fish releases. Action may be taken outside of the management plan if allowed under the hatchery permit or modified by emergency order. In-season assessments and project alterations by Prince William Sound Aquaculture Corporation (PWSAC) or Alaska Department of Fish and Game (ADF&G) may result in changes to this AMP in order to reach or maintain program objectives. PWSAC will notify the ADF&G private nonprofit (PNP) hatchery program coordinator in a timely manner of any departure from the AMP. The ADF&G PNP coordinator will advise as to whether an amendment, exception report, or other action is warranted. No variation or deviation will be implemented until an AMP amendment has been approved or waived by both the department and PWSAC. This policy applies to all hatchery operations covered under the AMP.

I. OPERATIONAL PLAN

1.1 Egg-take Goals by Species

Main Bay Hatchery/Coghill stock sockeye salmon: The egg-take goal is 12.4 million green eggs. Anticipated broodstock requirements to achieve the egg-take goal are approximately 5,550 females and 3,700 males, for a total of 9,250 fish, assuming:

- (a) Average fecundity of 3,100 eggs/female
- (b) 3:2 female to male ratio
- (c) 15% holding mortality and culling of injured adults*
- (d) 15% green/over-mature spawners

*ADF&G Sockeye Salmon Culture Protocol requires culling of broodstock with any sign of external scarring to reduce risk of infectious hematopoietic necrosis virus (IHNV) transmission.

1.2 Broodstock

PWSAC intends to adhere to the broodstock acquisition schedule for Main Bay Hatchery (MBH) sockeye salmon stocks. The brood collection window for the MBH/Coghill stock is June 15 through July 20 and is based on the approximate run timing of the donor stock. The adult return summary includes the projected total return, hatchery escapement schedule, and fish available for common property fishery harvest (Table 3).

To ensure that run timing is proportionally represented in the broodstock, a hatchery escapement schedule, that includes the broodstock acquisition schedule, will be implemented based on run timing percentages by date in the AMP tables to establish a hatchery escapement goal by week. At hatcheries with barrier nets, these goals will be measured according to the number of fish estimated upstream of the barrier net. At hatcheries without barrier nets, the goal will be measured as an estimate of the fish in front of the hatchery. It is recognized and accepted that barrier nets are semi-permeable to fish and the number there is an estimate.

If in-season catch data indicate the return is earlier or later than the historic run curve would suggest, then PWSAC may alter the hatchery escapement schedule according to a mutually agreed upon amendment to match the actual return.

Broodstock fish will be collected by volitional entry through the fishway leading to the brood holding pond.

1.3 Egg-Take Schedule and Data Reporting

Ultimately, the egg-take schedule depends upon broodstock recruitment and the maturation rate of the broodstock in salt and fresh water. The table below summarizes an anticipated egg-take schedule based on the average historical egg-take percent completion 1998–2023. All data associated with egg take and broodstock collection will be provided to the department by November 1 each year. Data will be provided in electronic format (Excel file) and include all the categories presented in the template attached as Table 6. Data to be collected specifically includes the numbers of green and overripe females from the broodstock and associated cost recovery.

Anticipated Egg-take Schedule based on egg takes of previous 5 years

Percent Complete	Sockeye Salmon
25%	August 5
50%	August 10
75%	August 15
100%	August 20

A complete listing of all PWSAC hatchery egg-take schedules is shown in Table 4. PWSAC egg-take goals are shown in Table 2.

1.4 Egg-take Transport and Broodstock Carcass Disposal Plans

No eggs will be transported off-station.

During egg-take PWSAC may sell broodstock carcasses and inviable eggs if a market is available. The carcass of a salmon from which milt or eggs are extracted for lawful use as broodstock may be disposed of in accordance with Alaska Department of Environmental Conservation (DEC) requirements. If carcasses are not sold, inviable eggs and carcasses will be disposed of in accordance with Alaska DEC requirements.

1.5 Incubation Plans

The incubation layout at MBH consists of 35 "Kitoi" incubators. All incubators are horizontally and vertically isolated to reduce the risk of production loss due to IHN virus.

Hatchery Production Summary

Species	Green Eggs	Eyed Eggs	Fry/Smolt Released
Sockeye Salmon	12,400,000	11,900,000	11,080,000

The above table was generated with the following assumptions:

- 1) 96% survival from green to eyed stage
- 2) 99% survival from eyed stage to emergent fry
- 3) 95% survival from emergent fry to fed fry
- 4) 99% survival from fed fry to smolt release

All eggs will be incubated at MBH during 2024. During the fall incubation period, 100% of sockeye salmon production will be thermally otolith-marked at the eyed stage.

1.6 Rearing and Release Plans

Isolation will be maintained during rearing in fresh water. Sockeye salmon fry will emerge non-volitionally from incubators into a 2.6 m³ start tank, remaining isolated from the others during initial start-up rearing. After they have reached a size of approximately 0.4 grams/fish, fingerlings from three start tanks are combined in 84 m³ freshwater raceways. Maximum freshwater densities for sockeye salmon fry in the start tanks and raceways are 55 kg/m³ and 70 kg/m³, respectively.

Size at release seems to be positively correlated with marine survival. Since saltwater temperatures are warmer than fresh water, and more rearing space is available, smolt can be reared to a significantly greater size by utilizing saltwater pens for eight weeks or longer. Approximately 40% of the brood year 2022 (BY22) smolt will be reared for 12 weeks in saltwater net pens.

The smolt are transferred through a six-inch pipeline to net pens anchored in Main Bay. The saltwater net pen rearing complex consists of six, 12.2 m x 12.2 m x 6.1 m rearing pens. The maximum density will be 14 kg/m³. The saltwater rearing complex is located away from any hatchery effluent waters to reduce the risk of IHNV transmission. See Table 5 for PWSAC's 2023 estimated releases.

MBH/Coghill stock: Approximately 5.5 million BY22 fry are currently being reared in 5 raceways. Approximately 40% of these fry will be transferred to two saltwater net pens in March and will be released in May 2024 at a target size of 12 grams. The remaining 60% will be split evenly into six raceways in March and will be released directly into saltwater in May 2024 at a target size of 10 grams.

MBH/Coghill stock: Approximately 11.9 million BY23 fry will begin feeding in the start tanks in February 2024. At a target size of 0.4 grams, they will be transferred to 10 raceways mid-June and remain there until the spring of 2025.

1.7 Fry Transport Methods

MBH will collect 12.4 million MBH/Coghill stock sockeye salmon eggs annually to ensure that 11.08 million fry are produced for 10 raceway rearing units. The production of extra fish is necessary to mitigate production loss in the event that emergent fry are lost due to disease (IHNV or *Pseudomonas* sp.). The potential production range of these extra fry is 0 to 1.2 million, dependent upon the intensity of the disease epizootic.

1.8 Permitted Capacity

Main Bay Hatchery was issued PNP Hatchery Permit #31 in 2001. It is currently permitted to incubate 12.4 million sockeye salmon eggs.

Fish Transport Permit Summary

FTP Number	Expiration Date	Purpose
SOCKEYE SALMON		
96A-0042	4/30/26	Allows 12.4 million egg take, incubation, rearing, and release of Coghill stock sockeye salmon at MBH.

II. DONOR STOCK MANAGEMENT – N/A

III. HATCHERY RETURN MANAGEMENT

PWSAC operates five facilities: Armin F. Koernig Hatchery (AFK), Cannery Creek Hatchery (CCH), Gulkana Hatchery (GH), MBH, and Wally Noerenberg Hatchery (WNH). The corporation generates revenues for annual operations from a 2% salmon enhancement tax and from the sale of hatchery produced salmon returning to the facilities.

In 1997, the PWSAC Board of Directors (BOD) elected to have corporate cost recovery based upon revenue goals specific to the seine and gillnet salmon fisheries rather than a goal of harvesting a fixed percentage of the returning adults. This results in each gear group paying for enhanced production from which they benefit. PWSAC calculates these revenue goals by allocating production costs between the seine-caught and gillnet-caught salmon fisheries.

On March 8, 2024, the PWSAC BOD approved the annual corporate budget for Fiscal Year 2025 detailing potential sources of revenue and expenditures. The pink salmon cost-recovery revenue goal is \$8,523,164. The WNH chum and MBH sockeye salmon cost-recovery revenue goals are \$4,535,009 and \$1,500,000, respectively. Additional revenue may be generated through PWSAC’s raceway fish sales during its egg-take full utilization program.

PWSAC uses preseason assumptions for the number of returning fish, price per pound, and average adult weight to calculate the total projected value of the returning hatchery-produced salmon. Based on these assumptions, PWSAC estimates that approximately 54% of the total run will be required to meet the revenue goal that in the Fiscal Year 2025 financial plan.

Hatchery escapement means all fish that escape the common property fishery and includes two categories of escapement; (a) the number of brood to meet production objectives; and (b) the number of hatchery produced fish taken for the hatchery harvest requirement, to be used to pay for the hatchery's reasonable operating and capital costs (5 AAC 40.990(6)).

Pink Salmon Returns: The AFK, CCH, and WNH pink salmon runs will be managed collectively through openings and closures of hatchery subdistricts. Managing the enhanced pink salmon runs in aggregate may result in site-specific common property fishery (CPF) contribution rates being above or below the approximate target of 37% CPF pink salmon harvest.

WNH Chum and MBH Sockeye Salmon Runs: The WNH chum salmon and MBH sockeye salmon runs will be managed collectively through openings and closures of nearby subdistricts or hatchery management areas. The collective management will occur concurrently for the WNH chum and MBH sockeye salmon revenue goal. Managing runs in aggregate may result in site-specific CPF contribution rates being above or below the approximate targets of 43% and 70% for the WNH chum and MBH sockeye salmon harvest, respectively.

The AFK Hatchery and Port Chalmers remote-release chum salmon runs are expected to have a 100% CPF harvest.

Reduction of CPF opportunity in hatchery subdistricts may be necessary to ensure hatchery escapement objectives are met. PWSAC will work closely with local ADF&G management biologists to achieve the seine and gillnet fisheries revenue goals as rapidly as possible to allow for an orderly and consistent CPF.

3.1 Hatchery Fish Migration Routes and Timing

The MBH/Coghill stock sockeye salmon are present in Area E fisheries from mid-June to late July. Data from the coded-wire-tag program and otolith mark-recovery sampling indicate that sockeye salmon returning to MBH are caught in the Copper River, Eastern, Northern, Southwestern, and Coghill districts. Sockeye salmon returning to MBH are assumed to enter Prince William Sound through the Southwestern District and Montague Strait. A portion of the run may also enter through Hinchinbrook Entrance. Sockeye salmon will traverse the Crafton Island Subdistrict (Figure 1) and home towards Main Bay from both northerly and southerly directions. Identification of migration routes of returning Main Bay sockeye salmon will improve as data is recovered from future returns.

3.2 Special Harvest Area

The MBH Special Harvest Area (SHA) is located within the Main Bay Subdistrict. The boundaries of the SHA are illustrated in Figure 2. The SHA encompasses the alternating gear zone (AGZ)

and approximately half of the existing terminal harvest area (THA) of the Main Bay Subdistrict (5 AAC 24.367). The SHA is used by the hatchery operator to harvest broodstock and fish for cost recovery (AS 16.10.455(g)(2)). The THA is normally closed to commercial and subsistence fishing and provides a buffer between the hatchery SHA and open waters of the Main Bay Subdistrict.

Harvest of salmon in the SHA by sport anglers and personal use fishermen is managed by the ADF&G Division of Sport Fish in accordance with regulations as provided in 5 AAC 47–5 AAC 75. Emergency orders may be issued to liberalize or restrict sport fisheries based on achievement of broodstock goals.

The SHA is defined as the waters of Main Bay west of a line from 60°31.61'N lat, 148°05.02'W long to 60°31.85'N lat, 148°05.42'W long. The AGZ is defined as the waters of Main Bay south of a line from 60°31.43'N lat, 148°05.67'W long to 60°31.36'N lat, 148°05.52'W long. The THA is defined as the waters of Main Bay west of a line from 60°32.26'N lat, 148°04.85'W long to 60°31.88'N lat., 148°04.03'W long. All latitude and longitude coordinates are based on the North American Datum of 1983.

3.3 Hatchery Returns

3.3.1 On-Station Returns

MBH/Coghill stock sockeye salmon: The anticipated 2024 adult run of MBH/Coghill stock to MBH is 864,0000 fish, assuming a 8.27% marine survival (Table 1). Assuming a broodstock goal of 8,940 and approximately 250,000 sold for cost recovery, the hatchery escapement will be approximately 30% of the return.

Sockeye Salmon Projected Run Summary

Total Run	Hatchery Escapement			CPF Harvest ¹
	Broodstock	Cost	Total	
864,000	9,250	250,000	259,250	604,800
% of Total	1%	29%	30%	70%

¹Terminal and non-terminal.

Sockeye Salmon Projected Run, Age-Composition Summary

BY	Fry Released	Anticipated Marine Survival	Anticipated Total BY Return	Return Age	2024 Projected Run	% of Total
2019	10,725,328	8.18%	877,120	Age-5	297,000	34%
2020	10,301,034	8.50%	875,087	Age-4	567,000	66%
				Total	864,000	100%

Historical average return age composition: 34%% age-5 and 65% age-4.

3.4 Separation of Hatchery Escapement

Fish available for brood are kept separate from sales fish by means of a barrier net located in the SHA near MBH. Fish available for brood pass volitionally behind the barrier net to mature. The AGZ is closed to the commercial CPF by regulation to protect the barrier net (5 ACC 24.367(c)(5)).

3.5 Special Management Strategies

Effective management of mixed-stock fisheries is difficult. It is the intent of ADF&G to provide the stated PWSAC hatchery escapement goals by species. Achieving the target revenue goal will depend upon the timing and magnitude of the PWSAC salmon returns, average fish size, and price per pound PWSAC receives. It will also depend upon precise in-season assessment of both wild and hatchery run strengths. Depending upon the precision of in-season run assessment, actual percentages of PWSAC total returns, by species, which are provided for hatchery escapement, may fall above or below the stated goals. If precise and timely stock identification data are available, ADF&G will use them to manage fisheries in-season for an allocation of PWSAC-produced pink, chum, and sockeye salmon between the CPF and PWSAC. Pink salmon will be managed for PWSAC hatchery escapement after July 20. Sockeye and chum salmon will be managed for PWSAC hatchery escapement by stock.

PWSAC will submit written management recommendations to the department with clear justifications as to how the recommendations support achieving cost recovery and/or broodstock collection goals. Each recommendation, in the form of a brief email, will include, but not be limited to, current cost-recovery harvest data, THA and SHA estimates, actual and anticipated run entry, and actual and anticipated cost-recovery progress. Each recommendation will also include a summary of actual and anticipated hatchery escapement and broodstock collection progress as it relates to the weekly goals established in this AMP. For this reporting, hatchery escapement will be defined as fish in the SHA both upstream and downstream of the barrier net, as appropriate. Fish in the raceways or brood holding ponds will be defined as broodstock.

To ensure accurate and clear reporting, the AMP Adult Return Summary table from the AMP for each hatchery and species will be submitted to the department when requested, as well as with written management recommendations.

It will be the responsibility of PWSAC staff, with written consent of the PWSAC Executive Committee, to advise ADF&G of any desired in-season adjustments to the preseason hatchery escapement goals and/or significant changes to the preseason management strategy. Recognizing the imprecision of assessing wild and hatchery contribution estimates in-season in the absence of a stock identification program, ADF&G will assess PWSAC requests based upon the best available information. If, based on the assessment of ADF&G, the total hatchery return is less than or greater than the original PWSAC forecasted return, then ADF&G will adjust openings, as necessary, to best provide for wild-stock and hatchery escapement needs. Total hatchery and wild stock returns will be estimated after a thorough postseason analysis of all available data. Postseason estimates may not coincide with ADF&G's or PWSAC's in-season estimates.

During periods when the Main Bay Subdistrict closure is in effect, ADF&G may allow the hatchery operator to harvest fish in Main Bay outside the SHA boundaries (Figure 1) to maintain fish quality. When the Main Bay Subdistrict is open to the CPF the SHA will not be expanded.

MBH/Coghill stock: Beginning in early June, the Eshamy District will be managed for returning MBH/Coghill stock sockeye salmon. The return of MBH/Coghill stock sockeye salmon will likely be available for common property harvesting during scheduled openings from early June through July 20. Fishing periods in the Main Bay Subdistrict will be based solely upon returns to MBH. It is the department's intent to open all gillnet districts concurrently, where possible, to more evenly distribute gillnet effort. When the Eshamy District is open to the CPF, both the Main Bay and Crafton Island subdistricts will open when possible. The department recognizes that the interception rate of Coghill Lake-bound sockeye salmon is higher in the Coghill District than in the Eshamy District, but that the management of the two districts is linked. Fishing time in the two districts will be balanced to allow adequate Coghill Lake sockeye salmon escapement.

3.6 Sport Fish Harvest

Sport fisheries will be managed in accordance with regulations as provided in 5 AAC 47–5 AAC 75. Emergency orders may be issued to liberalize or restrict sport fisheries based on achievement of broodstock goals. A sport fishery targets sockeye salmon returning to Main Bay. Conflicts between user groups have occurred during broodstock collection and cost-recovery operations, and sport tackle and boats/motors has impacted the barrier net. Injured fish resulting from attempted snagging must be culled from broodstock to comply with ADF&G Sockeye Salmon Culture Protocol. In an effort to protect MBH broodstock and the integrity of the barrier net, the Alaska Board of Fisheries designated that in Main Bay, sport fishing from a vessel that is within 60 feet of the hatchery barrier net or from a vessel that is anywhere inside the barrier net is prohibited (5 AAC 55.023(10)).

3.7 Personal Use Harvest

There is no personal use fishery that can target MBH sockeye salmon in the Eshamy District.

3.8 Subsistence Harvest

The MBH facility is within the Prince William Sound general subsistence area. Alaska residents may harvest fish for subsistence use using the legal gear type for the Eshamy District.

3.9 Avoidance of Nontarget Species

Numerical abundance of stocks of fish other than MBH stocks of salmon are insignificant in the Main Bay Subdistrict and SHA. No particular problems are expected to occur.

IV. EVALUATION STUDIES

4.1 Otolith Marking

PWSAC established a thermal-marking system at MBH in 1999. During the fall incubation period (October–December 2024), 100% of sockeye salmon production will be marked at the eyed-egg

stage. The table below summarizes the 2024 thermal otolith mark assignment by the ADF&G Mark, Tag, and Age Lab (MTAL). Voucher samples are collected and submitted along with data, per the ADF&G MTAL sampling protocol. Planned otolith marks may change with confirmation from the North Pacific Anadromous Fish Commission Mark Coordinator for Alaska.

Species	Number of Eyed Eggs	Thermal Otolith Mark	Intended Release Location
Sockeye Salmon	2,380,000	2,2H3	MBH, Main Bay
Sockeye Salmon	2,380,000	2,2H2,2	MBH, Main Bay
Sockeye Salmon	2,380,000	2,2H5	MBH, Main Bay
Sockeye Salmon	2,380,000	2,2H3,2	MBH, Main Bay
Sockeye Salmon	2,380,000	2,2H	MBH, Main Bay

4.2 Otolith Recovery in Returning Adults

Returning adult sockeye salmon will be sampled for otolith mark recoveries. Recovery efforts will be directed at the CPF and cost recovery, and will be performed by field personnel at processing locations.

Otolith mark data will be used by ADF&G and PWSAC to measure fishery contribution and marine survival of salmon. ADF&G will provide PWSAC the preliminary otolith mark-recovery data from fishery samples by December 1 each year, and any additional otolith data from straying studies and other projects by April 1 each year. Similarly, PWSAC will provide ADF&G the independently-collected otolith mark-recovery data by April 1 each year. These data are to be the individual specimen otolith mark results.

V. ATTACHMENTS

FIGURE 1. Main Bay Hatchery Fishery Management Areas

TABLE 1. 2024 PWSAC Hatchery Return Forecast Summary

TABLE 2. 2024 Planned Egg Takes

TABLE 3. 2024 MBH/Coghill Stock Adult Return Summary

TABLE 4. 2024 PWSAC Egg-Take Schedules

TABLE 5. 2024 PWSAC Estimated Salmon Releases

TABLE 6. 2025 PWSAC Estimated Salmon Releases

TABLE 7. Egg-take Data Template for Each Species at Each Hatchery

VI. APPROVAL

Recommendation for Approval: Main Bay Hatchery Annual Management Plan, 2024

Geoff Clark, PWSAC, General Manager 4/25/2024

Brittany Blain-Roth, Area Management Biologist, Division of Sport Fish 4/29/2024

Jeremy Botz, Area Management Biologist, Division of Commercial Fisheries 4/25/2024

Jason Dye, Regional Supervisor, Division of Sport Fish 4/9/2024

Bert Lewis, Regional Supervisor, Division of Commercial Fisheries 4/29/2024

Ethan Ford, Regional Resource Development Biologist, Div. of Commercial Fisheries 4/29/2024

Lorraine Vercessi, PNP Hatchery Program Coordinator, Div. of Commercial Fisheries 4/30/2024

The 2024 Main Bay Hatchery Annual Management Plan is hereby approved:

Tom Taube, Deputy Director, Division of Sport Fish 5/1/2024

Forrest Bowers, Operations Manager, Division of Commercial Fisheries 5/1/2024

Figure 1. Main Bay Hatchery fishery management areas.

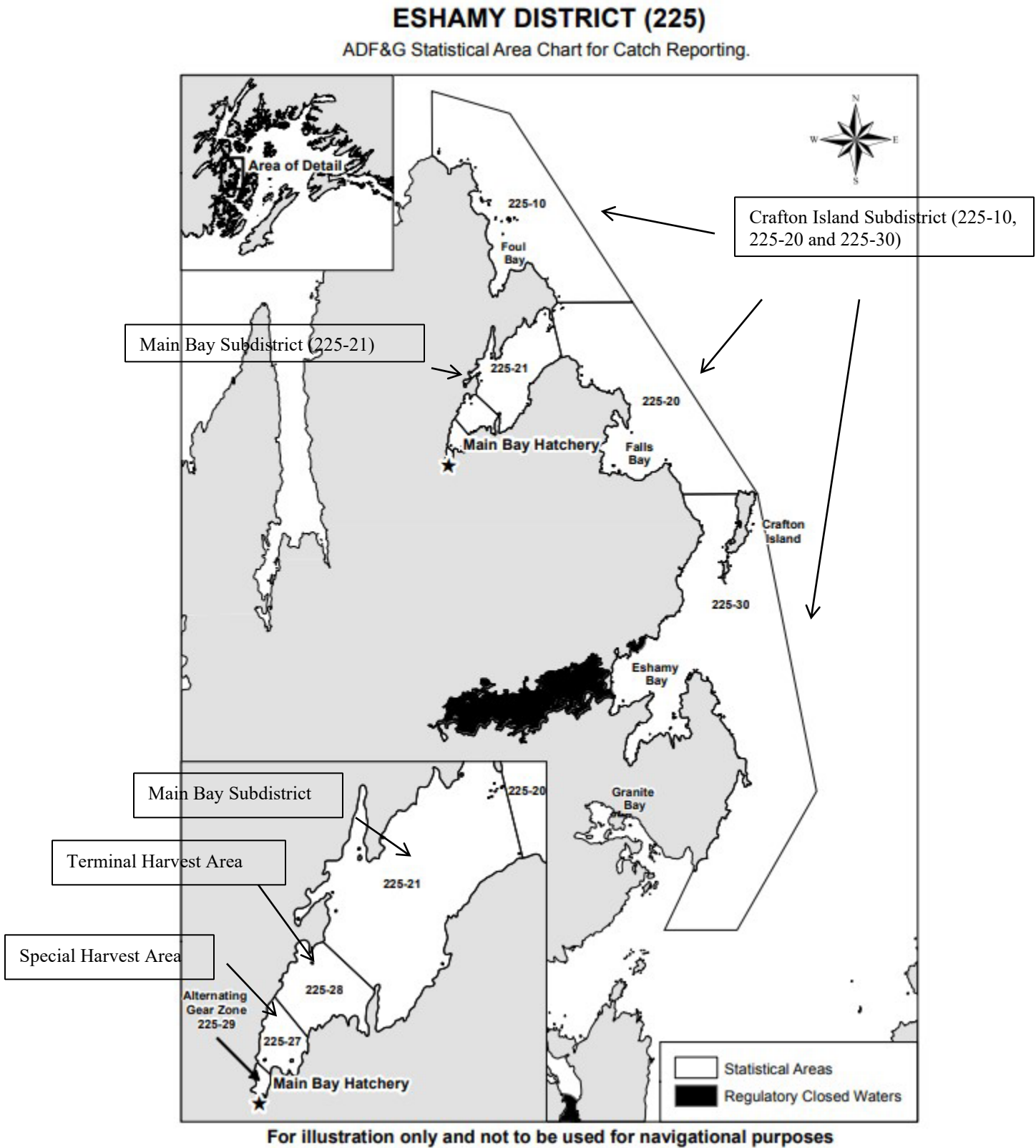


TABLE 1. 2024 PWSAC Hatchery Return Forecast Summary

**PRINCE WILLIAM SOUND AQUACULTURE CORPORATION
2024 HATCHERY RETURN FORECAST**

SITE/ LOCATION	SPECIES	RUN TIME	ADULT ESTIMATE RETURN			EST. MARINE SURVIVAL
			LOW	POINT	HIGH	

RETURNS TO THE HATCHERIES

AFK	PINK	JUL 19 - SEP 05	1,300,000	2,800,000	4,300,000	1.61%
	CHUM	JUN 1 - JUL 27	200,000	240,000	270,000	1.27%

CCH	PINK	JUL 23 - SEP 07	1,500,000	4,100,000	6,700,000	2.42%

WNH	PINK	JUL 19 - SEP 05	900,000	3,300,000	5,700,000	2.44%
	CHUM	JUN 1 - JUL 27	2,490,000	2,820,000	3,160,000	3.77%
	COHO	AUG 01 - SEP 20	32,000	62,000	157,000	3.70%

MBH	COGHILL SOCKEYE	JUN 15 - AUG 01	765,000	864,000	961,000	8.27%

GH	CROSSWIND LAKE SOCKEYE		39,000	45,000	51,000	0.54%
	PAXSON LAKE - GI SOCKEYE		15,200	17,800	20,500	0.33%
PAXSON LAKE - GII SOCKEYE		4,400	5,000	5,700	0.92%	
SUMMIT LAKE SOCKEYE			0	0	0	0.00%

RETURNS TO REMOTE RELEASE LOCATIONS

PORT CHALMERS	CHUM	JUN 1 - JUL 27	790,000	920,000	1,050,000	2.59%
CORDOVA	COHO	AUG 01 - SEP 20	100	1,400	2,800	1.39%
WHITTIER	COHO	AUG 01 - SEP 20	100	1,400	2,800	1.39%
CHENEGA	COHO	AUG 01 - SEP 20	1,000	1,900	4,700	3.70%
CHENEGA	CHINOOK	MAY 25 - JULY 10	520	650	780	1.49%

TOTAL PWSAC RETURNS

	PINK	3,700,000	10,200,000	16,700,000	2.16%
	CHUM	3,480,000	3,980,000	4,480,000	2.54%
	COHO	33,200	66,700	167,300	3.70%
	CHINOOK	520	650	780	1.49%
	SOCKEYE -SOUND, MBH	765,000	864,000	961,000	8.27%
	SOCKEYE - GH,COPPER RIVER	58,600	67,800	77,200	0.60%

TABLE 2. 2024 Planned Egg Takes

PRINCE WILLIAM SOUND AQUACULTURE CORPORATION

2024 EGG-TAKE GOALS

SPECIES	HATCHERY	ORIGINAL DONOR STOCK	EGG-TAKE LOCATION	EGG-TAKE GOAL
CHUM	WALLY NOERENBERG	WELLS RIVER	WNH	153,000,000
SOCKEYE	MAIN BAY	COGHILL LAKE	MBH	12,400,000
	GULKANA I	GULKANA RIVER	GHI	35,000,000
	GULKANA II	GULKANA RIVER	GHII	1,750,000
			TOTAL	49,150,000
PINK	ARMIN F. KOERNIG	LARSEN, EWAN, GALENA	AFK	190,000,000
	CANNERY CREEK	CANNERY CREEK	CCH	187,000,000
	WALLY NOERENBERG	LARSEN, EWAN, GALENA	WNH	148,000,000
			TOTAL	525,000,000
COHO	WALLY NOERENBERG	CORBIN CREEK	WNH	3,750,000
		POWER CREEK	CDV	250,000
			TOTAL	4,000,000
CHINOOK	WALLY NOERENBERG	WJHSFH	WNH	50,000
			TOTAL PWSAC	731,200,000

TABLE 3. 2024 MBH/Coghill Stock Adult Return Summary.

Preliminary															TABLE 3: ADULT RETURN SUMMARY														
RETURN: 864,000 BROODSTK: 9,250 FISH SALES: 250,000 HAT. TOTAL: 259,250 CPF TOTAL: 604,750 % EXPLOIT.: 70.0% CPF 30.0% PWSAC															HATCHERY: MBH / Coghill Stock SPECIES: Sockeye YEAR: 2024														
RUN-TIMING PERCENTAGES					SHA HATCHERY ESCAPEMENT ESTIMATES				HATCHERY ESCAPEMENT SCHEDULE							C.P.F. HARVEST				TOTAL RETURN									
Date	Projected % Cum.	Projected % Female	Actual % Cum.	Actual % Female	Fishway Estimate	INSIDE Barrier Seine Estimate	HEEZ Estimate	OUTSIDE HEEZ Estimate	Proj. Cum.	Proj. Daily	Act. Cum.	Act. Daily	Proj. Cum.	Proj. Daily	Act. Cum.	Act. Daily	Proj. Cum.	Proj. Daily	Act. Cum.	Act. Daily	Proj. Cum.	Proj. Daily	Act. Cum.	Act. Daily					
5-Jun	0.0%								2	2	0		67	67	0		162	162	0		231	231	0	0					
6-Jun	0.1%								5	2	0		134	67	0		324	162	0		462	231	0	0					
7-Jun	0.2%								16	11	0		431	297	0		1,043	719	0		1,490	1,027	0	0					
8-Jun	0.3%								32	16	0		857	426	0		2,074	1,031	0		2,963	1,473	0	0					
9-Jun	0.5%								47	16	0		1,284	426	0		3,105	1,031	0		4,436	1,473	0	0					
10-Jun	0.8%								73	26	0		1,981	697	0		4,792	1,687	0		6,846	2,410	0	0					
11-Jun	1.3%								117	44	0		3,174	1,193	0		7,678	2,886	0		10,969	4,123	0	0					
12-Jun	1.7%								162	44	0		4,367	1,193	0		10,564	2,886	0		15,093	4,123	0	0					
13-Jun	2.2%								207	45	0		5,593	1,225	0		13,528	2,964	0		19,328	4,235	0	0					
14-Jun	2.8%								263	56	0		7,117	1,525	0		17,217	3,688	0		24,597	5,270	0	0					
15-Jun	3.9%								358	94	0		9,664	2,547	0		23,378	6,161	0		33,399	8,802	0	0					
16-Jun	4.9%								451	93	0		12,179	2,514	0		29,460	6,083	0		42,089	8,690	0	0					
17-Jun	6.3%								580	129	0		15,670	3,491	0		37,905	8,445	0		54,155	12,066	0	0					
18-Jun	8.1%								748	169	0		20,226	4,556	0		48,925	11,020	0		69,899	15,744	0	0					
19-Jun	9.9%								912	164	0		24,658	4,433	0		59,648	10,722	0		85,218	15,319	0	0					
20-Jun	11.8%								1,092	180	0		29,518	4,860	0		71,403	11,756	0		102,013	16,795	0	0					
21-Jun	13.1%								1,208	116	0		32,656	3,138	0		78,994	7,591	0		112,858	10,845	0	0					
22-Jun	15.4%								1,424	216	0		38,485	5,829	0		93,095	14,101	0		133,004	20,146	0	0					
23-Jun	17.6%								1,624	200	0		43,897	5,402	0		106,163	13,068	0		151,674	18,670	0	0					
24-Jun	20.5%								1,895	271	0		51,215	7,328	0		123,888	17,725	0		176,998	25,324	0	0					
25-Jun	25.0%								2,308	414	0		62,391	11,176	0		150,923	27,035	0		215,622	38,624	0	0					
26-Jun	29.0%								2,652	373	0		72,483	10,092	0		175,335	24,412	0		250,500	34,878	0	0					
27-Jun	33.6%								3,110	429	0		84,065	11,582	0		203,352	28,017	0		290,527	40,027	0	0					
28-Jun	35.7%								3,302	192	0		89,245	5,181	0		215,884	12,532	0		308,431	17,904	0	0					
29-Jun	40.1%								3,706	403	0		100,149	10,904	0		242,261	26,377	0		346,116	37,685	0	0					
30-Jun	41.5%								3,842	137	0		103,840	3,691	0		251,189	8,928	0		358,871	12,755	0	0					
1-Jul	44.7%								4,134	292	0		111,736	7,896	0		270,290	19,101	0		386,160	27,289	0	0					
2-Jul	49.9%								4,616	481	0		124,746	13,010	0		301,761	31,471	0		431,123	44,963	0	0					
3-Jul	52.3%								4,835	220	0		130,683	5,937	0		316,122	14,361	0		451,641	20,518	0	0					
4-Jul	56.3%								5,203	368	0		140,634	9,950	0		340,193	24,070	0		486,030	34,389	0	0					
5-Jul	59.4%								5,495	292	0		148,519	7,886	0		359,268	19,075	0		513,282	27,253	0	0					
6-Jul	64.1%								5,925	430	0		160,129	11,610	0		387,353	28,085	0		553,407	40,125	0	0					
7-Jul	65.5%								6,056	131	0		163,675	3,546	0		395,931	8,578	0		565,662	12,255	0	0					
8-Jul	68.7%								6,352	296	0		171,677	8,002	0		415,288	19,357	0		593,317	27,655	0	0					
9-Jul	72.3%								6,688	336	0		180,748	9,070	0		437,229	21,941	0		624,665	31,348	0	0					
10-Jul	73.2%								6,767	79	0		182,891	2,143	0		442,412	5,183	0		632,070	7,405	0	0					
11-Jul	76.0%								7,026	259	0		189,901	7,010	0		459,370	16,957	0		656,296	24,227	0	0					
12-Jul	78.7%								7,279	253	0		196,741	6,840	0		475,916	16,547	0		679,937	23,640	0	0					
13-Jul	82.0%								7,589	310	0		205,113	8,372	0		496,169	20,253	0		708,871	28,935	0	0					
14-Jul	83.4%								7,713	123	0		208,448	3,335	0		504,235	8,067	0		720,396	11,525	0	0					
15-Jul	86.7%								8,020	307	0		216,748	8,300	0		524,312	20,077	0		749,079	28,684	0	0					
16-Jul	89.5%								8,279	260	0		223,762	7,015	0		541,281	16,969	0		773,323	24,243	0	0					
17-Jul	90.1%								8,331	52	0		225,166	1,403	0		544,675	3,394	0		778,172	4,849	0	0					
18-Jul	91.7%								8,485	154	0		229,321	4,155	0		554,727	10,051	0		792,532	14,360	0	0					
19-Jul	93.4%								8,638	153	0		233,454	4,134	0		564,726	9,999	0		806,819	14,286	0	0					
20-Jul	95.0%								8,789	151	0		237,546	4,091	0		574,623	9,897	0		820,958	14,140	0	0					
21-Jul	95.6%								8,839	50	0		238,885	1,339	0		577,863	3,240	0		825,587	4,628	0	0					
22-Jul	96.7%								8,943	104	0		241,707	2,822	0		584,690	6,827	0		835,340	9,753	0	0					
23-Jul	97.6%								9,026	83	0		243,943	2,235	0		590,097	5,407	0		843,065	7,725	0	0					
24-Jul	97.7%								9,034	8	0		244,158	215	0		590,618	520	0		843,809	744	0	0					
25-Jul	98.0%								9,064	30	0		244,975	817	0		592,595	1,977	0		846,634	2,825	0	0					
26-Jul	98.3%								9,094	30	0		245,792	817	0		594,572	1,977	0		849,459	2,825	0	0					
27-Jul	98.8%								9,137	43	0		246,953	1,161	0		597,380	2,809	0		853,471	4,013	0	0					
28-Jul	98.9%								9,150	13	0		247,297	344	0		598,212	831	0		854,659	1,188	0	0					
29-Jul	99.2%								9,175	25	0		247,972	675	0		599,844	1,633	0		856,992	2,332	0	0					
30-Jul	99.5%								9,206	31	0		248,810	838	0		601,872	2,027	0		859,888	2,897	0	0					
31-Jul	99.6%								9,212	6	0		248,974	163	0		602,267	395	0		860,452	564	0	0					
1-Aug	99.7%								9,224	12	0		249,286	312	0		603,023	756	0		861,532	1,080	0	0					
2-Aug	99.8%								9,235	12	0		249,598	312	0		603,778	756	0		862,612	1,080	0	0					
3-Aug	99.8%								9,235	0	0		249,598	0	0		603,778	0	0		862,612	0	0	0					
4-Aug	99.8%								9,235	0	0		249,598	0	0		603,778	0	0		862,612	0	0	0					
5-Aug	99.9%								9,243	7	0		249,799	201	0		604,264	486	0		863,306	694	0	0					
6-Aug	100.0%								9,250	7	0		250,000	201	0		604,750	486	0		864,000	694	0	0					
7-Aug	100.0%								9,250	0	0		250,000	0	0		604,750	0	0		864,000	0	0	0					

TABLE 4. 2024 PWSAC Hatchery Egg-Take Schedules

PRINCE WILLIAM SOUND AQUACULTURE CORPORATION

2024 EGG-TAKE SCHEDULE

		DATE																			
SITE	SPECIES	30-Jun	07-Jul	14-Jul	21-Jul	28-Jul	04-Aug	11-Aug	18-Aug	25-Aug	01-Sep	08-Sep	15-Sep	22-Sep	29-Sep	06-Oct	13-Oct	20-Oct	27-Oct	03-Nov	
AFK	PINK									24-Aug			15-Sep								
CCH	PINK									24-Aug			17-Sep								
GH I	SOCKEYE								15-Aug											15-Oct	
GH II	SOCKEYE						25-Jul			10-Aug											
MBH	SOCKEYE MBH-COGHILL						01-Aug			20-Aug											
WNH	CHUM	01-Jul					01-Aug														
	PINK									24-Aug			15-Sep								
	COHO																		19-Oct		11-Nov

TABLE 5. 2024 PWSAC Estimated Salmon Releases

2024 ANTICIPATED SALMON RELEASES

SPECIES	HATCHERY	ORIGINAL DONOR STOCK	BROOD YEAR	RELEASE LOCATION	ESTIMATED FRY/ SMOLT RELEASE
CHUM	WALLY NOERENBERG	WELLS RIVER	2023	WNH	73,600,000
			2023	PORT CHALMERS	41,100,000
			2023	AFK	19,400,000
SOCKEYE	MAIN BAY	COGHILL LAKE	2022	MBH	5,500,000
		GULKANA I	GULKANA RIVER	2023	PAXSON LAKE
	GULKANA RIVER		2023	SUMMIT LAKE	0
	GULKANA RIVER		2023	CROSSWIND LAKE	3,700,000
	GULKANA II	GULKANA RIVER	2023	PAXSON LAKE	1,100,000
PINK	ARMIN F. KOERNIG	LARSEN, EWAN, GALENA	2023	AFK	173,700,000
	CANNERY CREEK	CANNERY CREEK	2023	CCH	171,000,000
	WALLY NOERENBERG	LARSEN, EWAN, GALENA	2023	WNH	135,600,000
				TOTAL	480,300,000
COHO	WALLY NOERENBERG	CORBIN CREEK	2022	WNH	1,000,000
		MILE 18	2022	CORDOVA	97,000
		MILE 18	2022	WHITTIER	100,000
		CORBIN CREEK	2022	CHENEGA	50,000
					TOTAL
CHINOOK	WALLY NOERENBERG	SHIP CREEK	2022	CHENEGA	45,900
				GRAND TOTAL	630,892,900

TABLE 6. 2025 PWSAC Estimated Salmon Releases

2025 ANTICIPATED SALMON RELEASES

SPECIES	HATCHERY	ORIGINAL DONOR STOCK	BROOD YEAR	RELEASE LOCATION	ESTIMATED FRY/ SMOLT RELEASE
CHUM	WALLY NOERENBERG	WELLS RIVER	2024	WNH	73,200,000
			2024	PORT CHALMERS	40,800,000
			2024	AFK	19,400,000
SOCKEYE	MAIN BAY	COGHILL LAKE	2023	MBH	11,080,000
	GULKANA I	GULKANA RIVER	2024	PAXSON LAKE	6,000,000
		GULKANA RIVER	2024	SUMMIT LAKE	4,700,000
		GULKANA RIVER	2024	CROSSWIND LAKE	10,000,000
	GULKANA II	GULKANA RIVER	2024	PAXSON LAKE	1,300,000
			TOTAL	33,080,000	
PINK	ARMIN F. KOERNIG	LARSEN, EWAN, GALENA	2024	AFK	171,600,000
	CANNERY CREEK	CANNERY CREEK	2024	CCH	168,800,000
	WALLY NOERENBERG	LARSEN, EWAN, GALENA	2024	WNH	133,600,000
			TOTAL	474,000,000	
COHO	WALLY NOERENBERG	CORBIN CREEK	2023	WNH	3,100,000
		POWER CREEK	2023	CORDOVA	100,000
		CORBIN CREEK	2023	WHITTIER	100,000
		CORBIN CREEK	2023	CHENEGA	50,000
			TOTAL	3,350,000	
CHINOOK	WALLY NOERENBERG	SHIP CREEK	2023	CHENEGA	45,900
			GRAND TOTAL	643,875,900	

