

2024 ANNUAL MANAGEMENT PLAN

CANNERY CREEK 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

Pink Salmon: The pink salmon egg-take goal is 187 million. Anticipated broodstock requirements to achieve the egg-take goal are approximately 164,000 females and 212,000 males, and 41,800 additional fish (to account for an assumed 10% loss to sea lion predation) for a total of 418,000 fish, assuming:

- (a) Average fecundity of 1,605 eggs/female
- (b) 44% historic 5 even-year average female %
- (c) 15% holding mortality
- (d) 15% green/over-mature spawners

1.2 Broodstock

The expected broodstock collection schedule is derived from the historic run curve for Cannery Creek Hatchery (CCH) pink salmon. The run curve is an aggregate of all even years (2008-2022) SHA hatchery harvests and the Cannery Creek Subdistrict commercial fishery catch data from the ADF&G annual management reports and preliminary in-season estimates. 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 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. These goals will be measured according to the total number of fish estimated in the hatchery SHAs.

If in-season catch data indicate the return is earlier or later than the historic run curve would suggest, PWSAC will consult with the department prior to altering the hatchery escapement schedule, accordingly, to match the actual return. The hatchery escapement exclusion zone (HEEZ), outlined in section 3.4, protects potential broodstock fish staging directly in front of the hatchery from being harvested in the common property fisheries. These fish include those that will eventually become broodstock along with those needed to ensure a high quality, efficient, and successful egg collection process.

Any fish collected beyond those utilized as broodstock will be sold for cost recovery to fund PWSAC’s salmon fisheries enhancement program. Historically, PWSAC has carried forward revenues from the hatchery raceway fish sales and full-utilization programs to the following year as a reduction in the cost-recovery revenue goal calculation. This provides benefits to the commercial common property fisheries (CCPF) with a decreased PWSAC salmon harvest and potentially an earlier timed CCPF.

Broodstock fish will be collected by volitional entry through the fishway leading to the brood holding pond and raceways located just above the tidal influence at the hatchery.

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. Data will be provided in electronic format (Excel file) and include all the categories presented in the template attached as Table 7. Data to be collected specifically includes the numbers of green and over-ripe females from the broodstock and associated cost recovery.

Anticipated Egg-take Schedule

Percent Complete	Pink Salmon
25%	September 3
50%	September 7
75%	September 11
100%	September 17

For a complete listing of all PWSAC hatchery egg-take schedules see Table 4. PWSAC’s planned egg takes are shown in Table 2.

1.4 Egg-Take Transport and 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

Hatchery Production Summary

Species	Green Eggs	Eyed Eggs	Fry Released
Pink Salmon	187,000,000	176,700,000	168,800,000

The above table was generated with the following assumptions:

- 1) 94.5% survival from green to eyed stage;
- 2) 96.0% survival from eyed stage to emergent; and
- 3) 99.5% survival from emergence to release.

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

1.6 Rearing and Release Plans

Pink salmon fry will emerge volitionally from incubators, pass via floor troughs through electronic counters, and then move into a collection box. A fry pump attached to the collection box will pump the fry through a six-inch pipeline to net pens anchored in Unakwik Inlet. The saltwater net pen rearing complex consists of 18 12.2 m x 12.2 m x 3.0 m rearing pens. Maximum loading densities will be 11 kg/m³.

Approximately 171.0 million pink salmon fry will be released in 2024. Based on predicted outmigration curve and zooplankton bloom timing, all pink salmon fry will be reared for an average of 28 days and released in three groups into the zooplankton bloom. PWSAC's anticipated salmon releases are shown in Table 5.

1.7 Fry Transport Methods

No CCH pink salmon fry will be transported off station for release.

1.8 Permitted Capacity

CCH was issued PNP Hatchery Permit #26 in 1988 after assuming operations from the State of Alaska. It is permitted to incubate 187 million pink salmon eggs. All permitted releases are from the CCH facility.

Fish Transport Permit Summary

FTP Number	Expiration Date	Purpose
PINK SALMON		
96A-0040	4/30/26	Allows the egg take, incubation, and resultant release of 187 million Cannery Creek stock pink salmon eggs.

II. DONOR STOCK MANAGEMENT – N/A

III. HATCHERY RETURN MANAGEMENT

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

In 1997, the PWSAC Board of Directors (BOD) elected to have hatchery 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 the 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 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, are to be used to pay for the hatchery’s reasonable operating and capital costs (5 AAC 40.990(6)).

Pink Salmon Returns: AFK, CCH, and WNH pink salmon runs will be managed collectively through openings and closures of nearby hatchery subdistricts or hatchery management areas. 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 38% CPF pink salmon harvest.

WNH Chum and MBH Sockeye Salmon Runs: The WNH chum salmon and MBH sockeye salmon returns will be managed collectively through openings and closures of nearby hatchery

subdistricts or hatchery management areas. The collective management will be managed concurrently for the WNH chum and MBH sockeye salmon revenue goal. Managing the returns 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.

Reductions 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

Data indicate that CCH pink salmon enter Prince William Sound through island passes of southwest PWS and follow a complex path predominantly through the eastern side of Knight Island and other sections of the northwestern part of the sound. Hatchery stocks pass through both purse seine and gillnet fisheries in the Southwestern, Eshamy, Northwestern, Coghill, Northern, and Unakwik districts at about the same time as wild stocks in these districts and should be exploited at approximately the same rate. The CCH pink salmon run peaks about August 11 (Table 3).

3.2 Special Harvest Area

The boundaries of the CCH SHA and terminal harvest area (THA) are illustrated in Figure 1. The SHA is used to harvest hatchery fish for cost recovery. The THA is normally closed to commercial and subsistence fishing and provides a buffer between the hatchery SHA and open waters of the Cannery Creek Subdistrict except during subsistence only openers. The SHA may be expanded for cost recovery by emergency order (EO). After reaching broodstock and sales fish goals, the SHA may be opened to the CPF until the end of the run. All latitude and longitude coordinates are based on the North American Datum of 1983.

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 consists of waters of Unakwik Inlet in the Northern District north and east of a line from 61°00.97'N lat., 147°32.62'W long., southward to a point on the shore at 60°59.96'N lat., 147°31.48'W long.

The THA consists of water of Unakwik Inlet in the Northern District north and east of a line from 61°00.97'N lat., 147°33.12'W long., southward to a point on the shore at 60°59.79'N lat., 147°32.40'W long., excluding the CCH SHA.

Special harvest area boundaries may be altered by emergency order if necessary for proper management of natural or hatchery stock (5 AAC 40.005(e)). The department is willing to permit cost-recovery operations in waters outside of the SHA/THA boundaries to maintain fish quality. The department views PWSAC achieving its revenue goals in a timely and efficient manner as being beneficial for maintaining fish quality and providing for increased CPF opportunity.

There is concern over the harvest of wild stock salmon outside of the prescribed cost-recovery SHAs and THAs. The following requirements must be adhered to for cost-recovery operations to be conducted outside the SHA/THA:

- PWSAC will agree to pay all costs associated with sampling, otolith preparation, and reading of otoliths from permitted cost-recovery harvest(s).
- PWSAC will notify the department, with reasonable time, prior to any cost-recovery operation(s) to request an EO permitting the activity and to provide notice for scheduling of sampling personnel.
- All EOs issued permitting cost-recovery operations will be for discrete dates.
- Cost-recovery harvest(s) from these areas will not be mixed with any other harvest at any time until after sampling. No sorting of cost-recovery harvest(s) is permitted until after sampling.
- EOs permitting cost-recovery operations outside the SHA may not be issued until the previous harvest has been evaluated for wild stock interception.
- The department may discontinue permitted cost-recovery operations outside the SHA at any time.

3.3 Hatchery Returns to the Special Harvest Area

Pink Salmon: PWSAC’s anticipated 2024 adult return of pink salmon to CCH is 4,100,000 fish, assuming a 2.42% marine survival (5 even-year average), from the BY22 fry release of 169.5 million (Table 1). Assuming a hatchery broodstock goal of 418,000 fish and approximately 2,141,000 pink salmon sold for cost recovery, the hatchery escapement will be 62%.

Pink Salmon Projected Return Summary

Total Return	Hatchery Escapement			CPF Harvest¹
	Broodstock	Cost Recovery	Total	
4,100,000	418,000	2,141,000	2,559,000	1,541,000
% of Total	10%	52%	62%	38%

¹Terminal and non-terminal.

3.4 Separation of Hatchery Escapement

The hatchery escapement goal of 2,559,000 pink salmon is the midpoint of the special harvest area (SHA) escapement goal range 2,231,000–3,015,000 to provide for the broodstock and cost-recovery requirements based on these variables; sex ratio of fish available for broodstock, fecundity, holding mortality percentage, immature and over-mature spawner percentage, average fish size, and price per pound.

In 2006, PWSAC designated a HEEZ within the SHA as an alternative to using a barrier net (Figure 2). The HEEZ consists of the waters of the CCH SHA north and east of a line from 61.00.97N lat, 147.32.62W long southward to a point on the shore at 61.00.444N lat, 147.31.497W long.

3.5 Special Management Strategies

The CCH is located in Unakwik Inlet in the Northern District. Returning hatchery pink salmon will influence management of traditional fisheries, particularly in the Northern District. Present management strategies for the remaining seine districts are based on escapement observations of wild stocks of pink and chum salmon throughout the Sound. Poor wild stock escapement will require closures or reduced fishing time in the remaining districts, which, in turn, may shift harvest of hatchery returns to the terminal areas of Unakwik Inlet (including the CCH THA and SHA).

Conversely, a strong wild-stock return could result in a heavy interception of the hatchery return in other fishing districts and result in an insufficient return to meet broodstock and cost-recovery goals. Selected closures of the waters of the Cannery Creek Subdistrict may be necessary to permit sufficient escapement to meet cost-recovery and broodstock needs. The principal tool available to manage the hatchery fishery is EO manipulation.

Fishing in the SHA is expected to be limited to cost-recovery operations from the start of the pink salmon return in the Northern District, and is expected to remain so throughout the completion of the cost-recovery harvest. However, if significant numbers of fish build up in excess of hatchery needs, then these areas, or portions of them, could be opened to the commercial fleet. If the hatchery return requires additional protection to meet broodstock or cost-recovery goals, the Cannery Creek Subdistrict may be closed. During periods when the Cannery Creek Subdistrict closure is in effect to provide protection to cost-recovery fish, ADF&G may allow the hatchery operator to harvest fish in in the Subdistrict outside the SHA boundaries (Figure 2) to maintain fish quality. This will occur only if escapement of local wild stocks is adequate.

Performance of the hatchery return is evaluated by comparison of daily harvest to the predicted run entry (Table 3). In addition, daily sex ratios in the hatchery harvest predict, by a regression equation, what percentage of the total run has accumulated to date. PWSAC will provide these two types of data from the cost-recovery harvest to ADF&G management staff on a daily basis during the season so the area management biologist can make estimates of the number of salmon left in the fish run. Once egg-take operations commence at the hatchery, progress towards the hatchery's final goal could determine future SHA openings, dependent upon SHA fish abundance estimates. PWSAC will provide daily estimates of fish abundance inside the barrier seine (if applicable), within the HEEZ, and in the SHA outside of the HEEZ, along with egg take progress

updates to ADF&G management staff. If hatchery escapement problems occur at the hatchery, hatchery subdistrict closures will be made based upon the magnitude of the shortfall and the stage of the run.

The 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 assessments of both wild and hatchery run strengths. Depending upon the precision of in-season run assessments, actual percentages of PWSAC total returns by species, which provide 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 the fisheries in season for an allocation of PWSAC-produced pink, chum, and sockeye salmon between the CPF and PWSAC. PWSAC pink salmon will be managed for hatchery escapement after July 20.

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, HEEZ and outer 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 HEEZ and outer SHA; fish in the raceways or brood holding ponds will be defined as broodstock.

To ensure accurate and clear reporting, an updated AMP Adult Return Summary table for each hatchery and species will be submitted to the department, in association 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 preseason forecasts and in-season assessment of wild stock and hatchery contribution estimates, ADF&G will assess PWSAC's requested changes based upon the best available information. If, based on the assessment of ADF&G, the total hatchery return will be less than or greater than the original PWSAC forecasted return, then ADF&G will adjust openings, as necessary, to best provide for wild stock, hatchery escapement, and CPF harvests. 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.

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. Due to the remote location of CCH and the species involved, no significant sport fishery has developed to date, nor is anticipated.

3.7 Subsistence Harvest

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

3.8 Avoidance of Nontarget Species

No particular problem is anticipated at CCH. By mid-July, when harvest and brood collection begins, the Cowpen Lake sockeye salmon run is over. The Miners Lake sockeye salmon run is later, but adults do not appear to migrate through the hatchery SHA. There is also no evidence suggesting chum salmon from the Siwash and Jonah systems migrate through the SHA. When surplus hatchery production warrants CPF openings beyond those permitted by wild-stock strength, fishing will be restricted to portions of Unakwik Inlet that will minimize interception of Jonah and Siwash wild-stock pink and chum salmon. Exact areas to be opened will be determined in season and detailed in EOs.

IV. EVALUATION STUDIES

4.1 Otolith Marking

During the fall incubation period (October–December 2024), 100% of pink 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 as 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
Pink Salmon	176,700,000	3,3H	CCH (Unakwik Inlet)

4.2 Otolith Recovery in Returning Adults and Data Reporting

Returning adult pink salmon will be sampled for otolith mark recoveries. Recovery efforts will be directed at the commercial CPF and cost recovery fisheries 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 preliminary otolith mark–recovery data from

fishery samples by December 1 each year and any additional otolith data from other projects by April 1 each year. Similarly, PWSAC will provide ADF&G 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. CCH Fishery Management Areas

FIGURE 2. CCH Hatchery Escapement Exclusion Zone

TABLE 1. 2024 PWSAC Hatchery Return Forecast

TABLE 2. 2024 Planned Egg Takes

TABLE 3. 2024 CCH Adult Return Summary

TABLE 4. 2024 PWSAC Hatchery Egg-Take Schedules

TABLE 5. 2024 PWSAC Estimated Salmon Releases

TABLE 6. 2024 PWSAC Estimated Salmon Releases

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

VI. APPROVAL

Recommendation for Approval: Cannery Creek 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

Heather Scannell, Area Management Biologist, Division of Commercial Fisheries 4/8/2024

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 4/30/3034

The 2024 Cannery Creek 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. CCH Fishery Management Areas

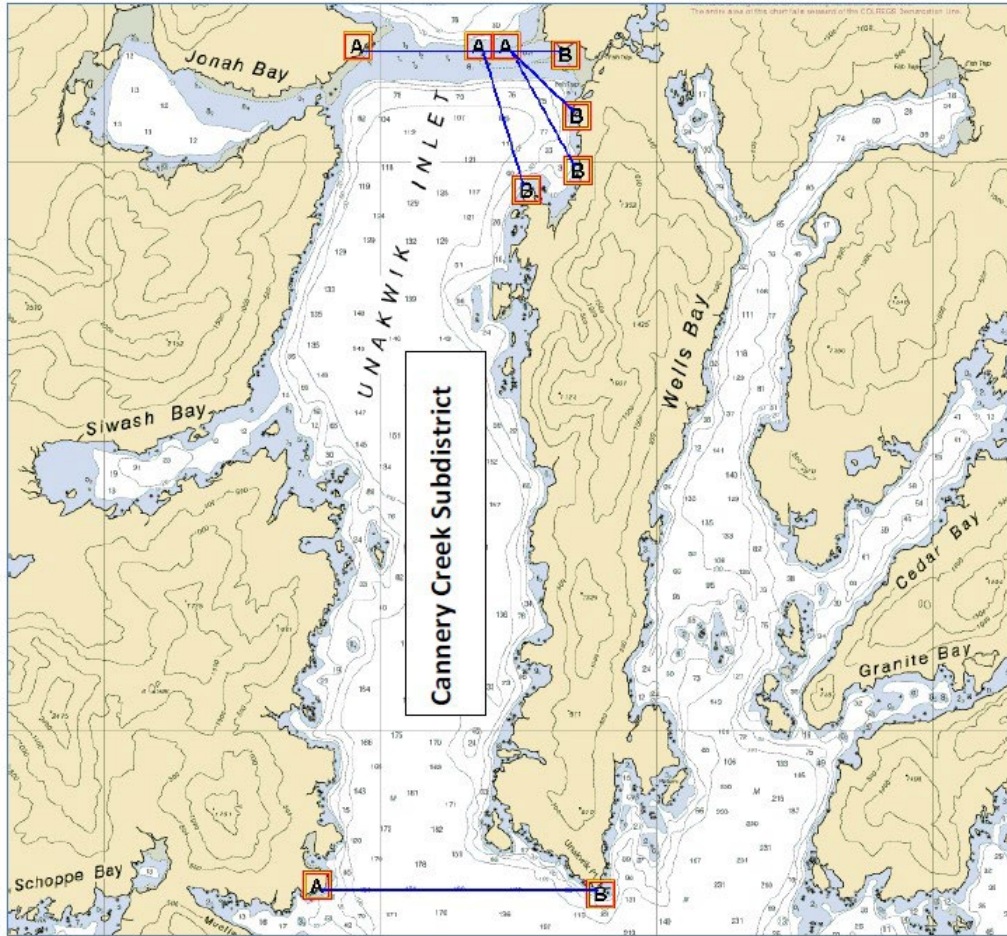


Figure 2. CCH Escapement Exclusion Zone, Special Harvest Area, Terminal Harvest Area

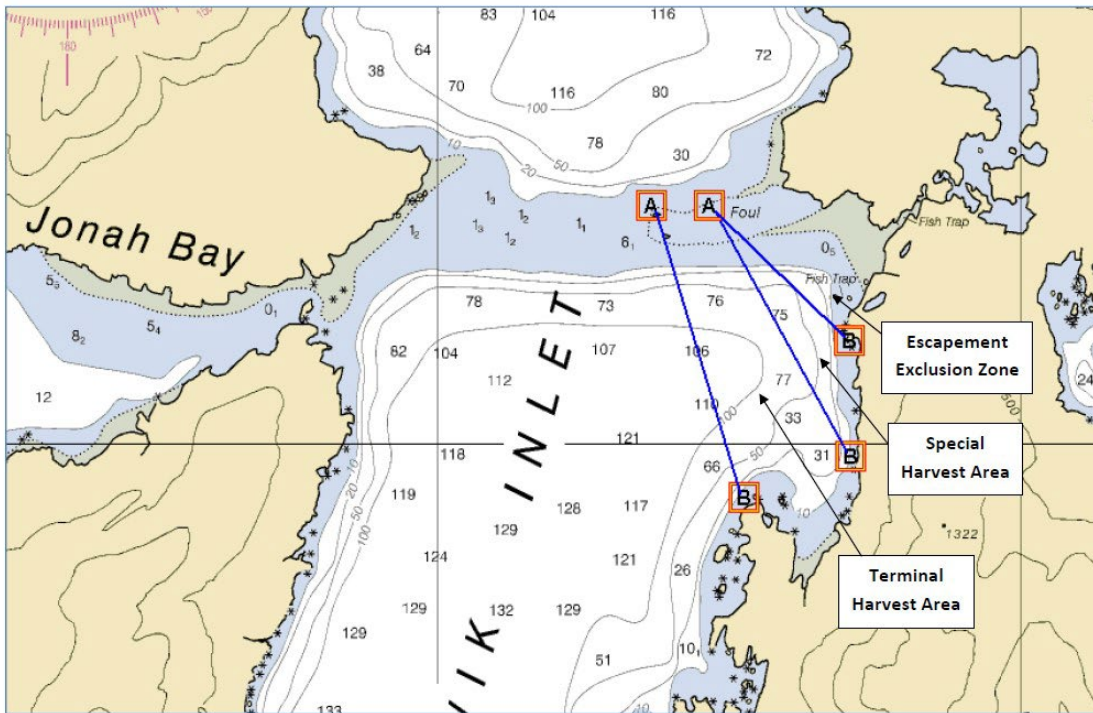


TABLE 1. 2024 PWSAC Hatchery Return Forecast

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

SITE/ LOCATION	SPECIES	RUN TIME	ADULT RETURN ESTIMATE			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%
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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%
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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	GHI	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 CCH Adult Return Summary.

Preliminary										TABLE 3: ADULT RETURN SUMMARY														
RETURN:	4,100,000									HATCHERY: CCH														
BROODSTK:	418,000									SPECIES: PINK														
FISH SALES:	2,141,000									YEAR: 2024														
HAT. TOTAL:	2,559,000																							
CPF TOTAL:	1,541,000																							
% EXPLOIT.:	37.6% CPF																							
	62.4% PWSAC																							
RUN-TIMING PERCENTAGES					SHA HATCHERY ESCAPEMENT ESTIMATES				HATCHERY ESCAPEMENT SCHEDULE															
Date	Projected % Cum.	Projected % Female	Actual % Cum.	Actual % Female	Fishway Estimate	INSIDE Barrier Seine Estimate	HEEZ Estimate	OUTSIDE HEEZ Estimate	BROODSTOCK				FISH SALES				C.P.F. HARVEST				TOTAL RETURN			
									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
7-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jul	0.0%								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	0.0%								66	66	0	0	0	0	0	0	586	586	0	0	652	652	0	0
14-Jul	0.2%								1,018	952	0	0	0	0	0	0	8,970	8,384	0	0	9,987	9,335	0	0
15-Jul	0.2%								1,018	0	0	0	0	0	0	0	8,970	0	0	0	9,987	0	0	0
16-Jul	0.3%								1,351	333	0	0	0	0	0	0	11,902	2,932	0	0	13,252	3,265	0	0
17-Jul	0.3%								1,351	0	0	0	0	0	0	0	11,902	0	0	0	13,252	0	0	0
18-Jul	0.5%								1,937	586	0	0	0	0	0	0	17,964	5,162	0	0	19,000	5,748	0	0
19-Jul	0.5%								2,189	252	0	0	0	0	0	0	19,279	2,215	0	0	21,467	2,467	0	0
20-Jul	0.6%								2,631	442	0	0	0	0	0	0	23,173	3,894	0	0	25,803	4,336	0	0
21-Jul	1.2%								5,117	2,486	0	0	21,900	21,900	0	0	23,173	0	0	0	50,189	24,386	0	0
22-Jul	1.2%								5,117	0	0	0	21,900	0	0	0	23,173	0	0	0	50,189	0	0	0
23-Jul	1.5%								6,179	1,062	0	0	31,258	9,358	0	0	23,173	0	0	0	60,610	10,421	0	0
24-Jul	1.5%								6,303	123	0	0	32,345	1,087	0	0	23,173	0	0	0	61,820	1,211	0	0
25-Jul	2.5%	15.9%							10,657	4,355	0	0	70,704	38,359	0	0	23,173	0	0	0	104,534	42,713	0	0
26-Jul	2.8%	15.9%							11,687	1,030	0	0	79,777	9,073	0	0	23,173	0	0	0	114,637	10,103	0	0
27-Jul	4.1%	18.9%							17,250	5,562	0	0	128,773	48,996	0	0	23,173	0	0	0	169,196	54,558	0	0
28-Jul	4.4%	26.5%							18,462	1,213	0	0	139,454	10,681	0	0	23,173	0	0	0	181,089	11,894	0	0
29-Jul	5.4%	25.9%							22,692	4,230	0	0	176,713	37,259	0	0	23,173	0	0	0	222,578	41,489	0	0
30-Jul	6.2%	22.1%							26,106	3,413	0	0	206,781	30,968	0	0	23,173	0	0	0	256,059	33,481	0	0
31-Jul	7.9%	23.2%							33,065	6,959	0	0	268,084	61,303	0	0	23,173	0	0	0	324,321	68,263	0	0
1-Aug	9.0%	24.3%							37,734	4,669	0	0	309,210	41,126	0	0	23,173	0	0	0	370,116	45,795	0	0
2-Aug	10.6%	27.7%							44,297	6,564	0	0	367,027	57,817	0	0	23,173	0	0	0	434,497	64,380	0	0
3-Aug	12.7%	26.7%							53,206	8,908	0	0	445,494	78,467	0	0	23,173	0	0	0	521,872	87,375	0	0
4-Aug	14.6%	25.6%							60,838	7,632	0	0	512,723	67,229	0	0	23,173	0	0	0	596,733	74,861	0	0
5-Aug	17.4%	25.9%							72,687	11,849	0	0	617,100	104,377	0	0	23,173	0	0	0	712,960	116,227	0	0
6-Aug	20.0%	28.1%							83,570	10,882	0	0	712,959	95,859	0	0	23,173	0	0	0	819,701	106,742	0	0
7-Aug	23.0%	32.8%							96,230	12,661	0	0	716,111	3,152	0	0	131,546	108,373	0	0	943,887	124,186	0	0
8-Aug	26.3%	34.4%							109,730	13,500	0	0	716,111	0	0	0	250,480	118,914	0	0	1,076,301	132,414	0	0
9-Aug	29.3%	34.6%							122,478	12,747	0	0	716,111	0	0	0	362,747	112,287	0	0	1,201,336	125,035	0	0
10-Aug	33.0%	32.7%							137,863	15,365	0	0	716,111	0	0	0	498,271	135,524	0	0	1,352,245	150,909	0	0
11-Aug	36.2%	34.3%							151,507	13,644	0	0	716,111	0	0	0	618,459	120,188	0	0	1,486,078	133,833	0	0
12-Aug	40.0%	35.7%							167,104	15,597	0	0	716,111	0	0	0	755,845	137,385	0	0	1,639,060	152,982	0	0
13-Aug	43.1%	39.7%							180,169	13,065	0	0	716,111	0	0	0	870,931	115,087	0	0	1,767,211	128,152	0	0
14-Aug	46.9%	40.8%							196,118	15,949	0	0	716,111	0	0	0	1,011,418	140,487	0	0	1,923,647	156,435	0	0
15-Aug	50.5%	43.2%							210,900	14,781	0	0	716,111	0	0	0	1,141,622	130,204	0	0	2,068,633	144,986	0	0
16-Aug	54.2%	42.8%							226,419	15,519	0	0	716,111	0	0	0	1,278,324	136,702	0	0	2,220,854	152,221	0	0
17-Aug	57.3%	44.3%							239,368	12,949	0	0	716,111	0	0	0	1,392,385	114,061	0	0	2,347,864	127,010	0	0
18-Aug	61.7%	45.2%							258,074	18,707	0	0	716,111	0	0	0	1,557,165	164,780	0	0	2,531,351	183,487	0	0
19-Aug	65.2%	46.4%							272,606	14,531	0	0	716,111	0	0	0	1,685,167	128,002	0	0	2,673,884	142,533	0	0
20-Aug	69.0%	50.5%							288,424	15,818	0	0	716,111	0	0	0	1,824,500	139,333	0	0	2,829,035	155,151	0	0
21-Aug	71.7%	49.3%							299,574	11,150	0	0	716,111	0	0	0	1,922,720	98,220	0	0	2,938,405	109,370	0	0
22-Aug	74.1%	49.7%							309,542	9,968	0	0	716,111	0	0	0	2,010,526	87,806	0	0	3,036,179	97,774	0	0
23-Aug	76.8%	45.6%							321,013	11,471	0	0	716,111	0	0	0	2,111,572	101,046	0	0	3,148,696	112,517	0	0
24-Aug	78.9%	53.2%							329,846	8,833	0	0	716,111	0	0	0	2,189,377	77,806	0	0	3,235,335	86,639	0	0
25-Aug	79.9%	57.3%							334,078	4,232	0	0	716,111	0	0	0	2,226,651	37,274	0	0	3,276,840	41,505	0	0
26-Aug	81.3%	60.8%							339,797	5,719	0	0	716,111	0	0	0	2,277,032	50,380	0	0	3,332,940	56,100	0	0
27-Aug	82.6%	60.6%							345,232	5,434	0	0	716,111	0	0	0	2,324,900	47,869	0	0	3,386,243	53,303	0	0
28-Aug	85.0%	60.6%							355,310	10,079	0	0	716,111	0	0	0	2,413,680	88,780	0	0	3,485,101	98,858	0	0
29-Aug	86.4%	60.6%							361,228	5,918	0	0	716,111	0	0	0	2,465,809	52,129	0	0	3,543,148	58,047	0	0
30-Aug	90.5%	60.6%							378,260	17,032	0	0	716,111	0	0	0	2,615,838	150,029	0	0	3,710,210	167,061	0	0
31-Aug	92.6%								386,896	8,635	0	0	716,111	0	0	0	2,691,903	76,065	0	0	3,794,910	84,700	0	0
1-Sep	93.9%								392,377	5,482	0	0	716,111	0	0	0	2,740,187	45,284	0	0	3,848,676	53,765	0	0
2-Sep	95.2%								398,135	5,758	0	0	716,111	0	0	0	2,790,907	50,719	0	0	3,905,153	56,477	0	0
3-Sep	96.3%								402,537	4,402	0	0	716,111	0	0	0	2,829,684	38,777	0	0	3,948,332	43,180	0	0
4-Sep	96.9%								404,895	2,357	0	0	716,111	0	0	0	2,850,450	20,766	0	0	3,971,456	23,124	0	0
5-Sep	97.2%								406,254	1,359	0	0	716,111	0	0	0	2,862,419	11,969	0	0	3,984,783	13,327	0	0
6-Sep	97.4%								407,041	788	0	0	716,111	0	0	0	2,869,357	6,938	0	0	3,992,590	7,726	0	0
7-Sep	97.5%								407,707	666	0	0	716,111	0	0	0	2,875,225	5,868	0	0	3,999,043	6,534	0	0
8-Sep	97.9%								409,369	1,662	0	0	716,111											

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																				
CCH	PINK																				
GH I	SOCKEYE																				
GH II	SOCKEYE																				
MBH	SOCKEYE MBH-COGHILL																				
WNH	CHUM																				
	PINK																				
	COHO																				

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	4,900,000
		GULKANA RIVER	2023	SUMMIT LAKE	0
		GULKANA RIVER	2023	CROSSWIND LAKE	3,700,000
	GULKANA II	GULKANA RIVER	2023	PAXSON LAKE	1,100,000
			TOTAL	15,200,000	
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	1,247,000	
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
CHINOOK	WALLY NOERENBERG	SHIP CREEK	2023	CHENEGA	45,900
				GRAND TOTAL	643,875,900

