2024 ANNUAL MANAGEMENT PLAN Medvejie Creek Hatchery and Sawmill Creek Hatchery

Northern Southeast Regional Aquaculture Association

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. Inseason assessments and project alterations by Northern Southeast Regional Aquaculture Association (NSRAA) or Alaska Department of Fish and Game (ADF&G) may result in changes to this AMP in order to reach or maintain program objectives. NSRAA 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 NSRAA. This policy applies to all hatchery operations covered under the AMP.

1.0 Executive Summary

1.1 Introduction

Medvejie Creek Hatchery (MCH) is owned and operated by Northern Southeast Regional Aquaculture Association (NSRAA). The hatchery is in Bear Cove, Silver Bay, near Sitka. The hatchery is designed as a central incubation facility, with isolation capability for one major and one minor stock of fish. Additional stocks to be released in the local area can be cultured using conventional incubation methods. NSRAA is permitted to take 77 million chum salmon green eggs for MCH chum salmon programs; up to 63 million fall chum salmon green eggs from returns to MCH, and up to 44 million summer chum salmon eggs shipped to MCH from Hidden Falls Hatchery (HFH), but no more than 77 million green eggs (2.89 million eggs for HFH Coho Lake Rearing (CLR) program, plus 410,000 for release at MCH); 5.2 million green Chinook salmon eggs; and 300,000 green pink salmon eggs. In addition to MCH permitted production, MCH may conditionally collect up to 12 million fall chum salmon green eggs for Sheldon Jackson Hatchery (SJH) of which 9 million may be incubated and hatched at MCH and released on behalf of SJH; and collect up to 50 million fall chum salmon green eggs and 4.332 million coho salmon green eggs for Sawmill Creek Hatchery (SCH).

Sawmill Creek Hatchery is owned and operated by NSRAA. SCH is in Sawmill Cove Industrial Park in Sitka (Figure 1). Constructed in 2007–2008, SCH was designed primarily as an incubation and rearing facility for coho salmon. Chum salmon production was added in 2014 and Chinook salmon production was added in 2019. The hatchery is currently permitted to incubate up to 4.332 million coho salmon green eggs; 2 million Chinook salmon green eggs; 30 million chum salmon green eggs for SCH and 20 million chum salmon green eggs on site. The hatchery is a satellite

facility of MCH as no egg takes or releases occur at SCH. Gametes are collected at MCH and transported to SCH for fertilization and incubation. Coho salmon incubated and reared at SCH are released in Deep Inlet, Chinook salmon incubated and reared at SCH are released at Crawfish Inlet, and chum salmon incubated at SCH are released at Crawfish Inlet.

1.2 New this year (production, harvest management, culture techniques, etc.)

In June 2019, a PAR for SCH adding 2 million Andrew Creek Chinook salmon to be released at Crawfish Inlet was approved. The MCH permit was amended to match in 2020, increasing its maximum transport and release at Crawfish Inlet. The full SCH Chinook salmon production will likely be realized as releases in 2026. The new facility is currently under final design and approximately 95% of the total estimated project cost has been funded to date through the Pacific Salmon Treaty Mitigation Program. Due to a broodstock shortage, no Chinook salmon green eggs were collected at MCH in 2023. Eggs collected in 2020 and 2021 were raised as zero check smolts to maximize release numbers with available rearing space. Rearing of zero check Chinook salmon in the ambient temperature water supply from Blue Lake was not conducive to the required early growth for success of that program. The eggs collected in 2022 were reared as yearling smolt and will be released in 2024. Thus, there are no planned Chinook salmon releases from SCH in 2025.

The zero check Chinook salmon production at MCH was again scaled back in 2023 due to a significant broodstock shortage. As a result, the broodstock hormone trial detailed in section 4.1.1 was postponed for 2023. The return forecast for 2024 is lower than 2023, and as such, the egg-take goal will be reduced for brood year (BY) 2024 which will delay the hormone trial initiation until 2025 at the earliest. A portion of the BY22 zero check Chinook salmon were trialed as a fall 2023 release to test out the feasibility of producing a larger smolt for release at a time when some wild stock system sub yearling Chinook salmon have been known to leave the estuary environment and migrate to sea. Recent sub-yearling releases traditionally conducted in June-July have produced minimal marine survival. Approximately 25,000 pre smolt were introduced to salt water in early May at 3.5 g. The group experienced mortality during saltwater rearing of less than 10% and were released at 65 g in early October. Medvejie will duplicate this rearing and release strategy on a larger cohort, approximately 100,000 fry, from the BY23 egg take. This modified sub-yearling strategy could provide a significant cost to benefit increase due to the favorable feed conversion rates that are achievable during the summer rearing period. Additionally, the fall release allows for avoidance of the typically challenging overwinter conditions that can lead to increased mortality.

The 2023 return of Salmon Lake stock coho to Bear Cove was both under forecast and intercepted by common property fisheries at a traditionally high rate of over 70%. This created a broodstock shortage, exacerbated further by relatively high positivity rates of the causative pathogen of BKD detected during routine broodstock screening. The Deep Inlet production, reared at SCH, for BY23 is well below full production levels. The marine survival from Deep Inlet coho releases have been low for the last 5 years. With the reduction of available fry for the Deep Inlet program, NSRAA is initiating a rearing study to evaluate the effect of freshwater rearing density on marine survival. Three cohorts, with varying final densities, will be uniquely coded wire tagged. All other rearing metrics will attempt to be duplicated across groups. In addition to evaluating marine survival at return, NSRAA will also attempt to investigate size of adult at return. This trial will be duplicated

for approximately 3 consecutive brood years, with potential integration of results from the initial BY23 trial in BY26.

1.3 New permits or permit amendments

23J-1006: A ten-year FTP was approved to allow the transport of adult Chinook salmon from the Sheldon Jackson SHA to MCH for backup broodstock.

23J-1007: A ten-year FTP was approved to allow the transport of adult Chinook salmon from the Crawfish Inlet SHA to MCH for backup broodstock.

23J-1011: A ten-year FTP was approved to allow the collection and transport of Chinook eggs from Gunnuk Creek Hatchery returns to MCH, with option for initial incubation at HFH.

23J-1004: This FTP was approved to cover the egg take of Salmon Lake stock coho salmon at MCH with resultant release at Bear Cove. This was a housekeeping FTP to allow for proper release reporting of the SCH Salmon Lake stock coho.

1.4 Expected Returns

The chum salmon forecast for Bear Cove and Deep Inlet is a combined return of NSRAA and SJH fish. The age-3 chum salmon forecast is calculated by multiplying the release number by the 5-year average marine survival and by the average percentage of a brood class that return as age-3 fish. The age-4 through age-6 forecasts are calculated by linear regression to the returns of the previous age class (sibling-based models).

The Chinook salmon forecast is calculated similar to the chum salmon forecast. Ocean age-2 returns are calculated by multiplying the release number by the 5-year average marine survival and then by the percentage of a brood class that return as ocean-age 2. The ocean-age 3 through ocean-age 5 forecasts are calculated by linear regression to the returns of previous age class (sibling-based models).

The coho salmon forecast is calculated using the previous 5 years' average marine survival by release site.

A detailed table of return estimates (Table 1) and production summary (Appendix D) can be found in the attachments.

Program Name (permitted hatchery, species)	Ancestral Stock(s)	Egg-take Site	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH Chinook salmon	Andrew Creek	МСН	Primary	5,200,000	5,200,000
MCH Chinook salmon	Andrew Creek	HFH	Alternate	0	5,200,000 ¹
MCH Chinook salmon	Andrew Creek	CLH	Alternate	0	5,200,000 ¹

1.6 *Egg-take goals*

Program Name (permitted hatchery, species)	Ancestral Stock(s)	Egg-take Site	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH Chinook salmon	Andrew Creek	MSH	Alternate	0	5,200,0001
MCH Chinook salmon	Andrew Creek	GCH	Alternate	0	2,000,000
SCH Chinook salmon	Andrew Creek	МСН	Primary	0	2,000,000
MCH chum salmon	Nakwasina River	MCH	Primary	53,000,000	63,000,000 ²
MCH chum salmon	Nakwasina River	SJH	Alternate	0	9,000,000 ³
MCH DI chum salmon	Nakwasina River	Deep Inlet	Alternate	0	63,000,000
MCH chum salmon	Nakwasina River	Crawfish Inlet	Alternate	0	63,000,000
MCH chum salmon	Kadashan River	HFH	Primary	20,000,000	44,000,000 ⁴
MCH chum salmon	Kadashan River	MCH	Primary	24,000,000	44,000,000
MCH chum salmon	Kadashan River	Deep Inlet	Alternate	0	24,000,000
HFH chum salmon	Kadashan River	MCH	Alternate	0	101,000,000
SJH chum salmon	Nakwasina River	MCH	Primary	9,000,000	12,000,0005
SCH chum salmon	Nakwasina River	MCH	Primary	30,000,000	30,000,000
SCH chum salmon	Nakwasina River	Crawfish Inlet	Alternate	0	30,000,000
SCH coho salmon	Salmon Lake	MCH	Primary	3,000,000	4,332,000
MCH pink salmon	Medvejie Creek	MCH	Primary	300,000	300,000

MCH is permitted for 5.2 million Chinook salmon eggs. The eggs may be collected at either site up to the permitted level.
 MCH is permitted for up to 63 million Nakwasina stock fall chum salmon eggs where the additional 10 million would be a substitute for Kadashan stock summer chum salmon green eggs (for release at Deep Inlet). Cannot exceed 77 million chum salmon eggs in combination of the two stocks.

³ Up to 9 million backup eggs may be collected at SJH for MCH.

⁴ The chum salmon transport limit from HFH to MCH is 44 million green eggs. Fry from up to 24 million green eggs may be released only in Deep Inlet and fry from up to 20 million eggs may be released at Bear Cove.

⁵ SJH is permitted for 12 million chum salmon eggs and may utilize MCH as a backup broodstock. Fry of 9 million eggs may be released at Deep Inlet and fry of 3 million eggs may be released at SJH.

2.0 Chum Salmon Production

2.1 Program details

NSRAA has chum salmon production at all three hatchery sites. MCH acts as a central incubation facility by collecting all of NSRAA's fall (Nakwasina River) chum salmon eggs, including the 50 million eggs for SCH. In addition, MCH may also take up to 12 million green fall chum salmon eggs for SJH. In addition to fall chum salmon, MCH receives 24 million summer chum (Kadashan River) salmon eggs from HFH for release in Deep Inlet and an additional 20 million summer chum salmon for release at Bear Cove. Starting in 2020, MCH began collecting summer stock eggs for incubation at MCH or transfer to HFH. For mitigation purposes to maintain a naturally spawning population, 300 fall chum salmon will be placed in the north and south forks of Medvejie Creek.

Project Name	Ancestral Stock(s)	Egg-Take Site	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH chum salmon	Nakwasina River	MCH	Primary	53,000,000	63,000,000 ¹
MCH chum salmon	Nakwasina River	SJH	Alternate	0	9,000,000
MCH chum salmon	Nakwasina River	Crawfish Inlet	Alternate	0	63,000,000
MCH/HFH chum salmon	Kadashan River	HFH	Primary	20,000,000	$44,000,000^2$
MCH/HFH chum salmon	Kadashan River	MCH	Alternate	24,000,000	44,000,000
HFH chum salmon	Kadashan River	MCH	Alternate	0	101,000,000
MCH/HFH chum salmon	Kadashan River	DI	Alternate	0	$24,000,000^3$
DI/MCH chum salmon	Nakwasina River	DI/MCH ²	Alternate	0	24,000,000
SJH chum salmon	Nakwasina River	MCH	Primary	9,000,000	$12,000,000^4$
SCH chum salmon	Nakwasina River	MCH	Primary	30,000,000	30,000,000
SCH chum salmon	Nakwasina River	Crawfish Inlet	Alternate	0	30,000,000

2.2 This Year's Planned Egg Takes

¹ MCH is permitted for up to 63 million Nakwasina stock fall chum salmon eggs where 10 million would be a substitute for Kadashan stock summer chum salmon green eggs (for release at Deep Inlet). Cannot exceed 77 million chum salmon eggs in combination of the two stocks.

² The chum salmon transport limit from HFH to MCH is 44 million green eggs. Fry from up to 24 million eggs may be released only in Deep Inlet and fry from up to 20 million eggs may be released in Bear Cove.

³ These are fish that are collected in DI, transferred to MCH, and the eggs taken at MCH.

⁴ SJH is permitted for 12 million chum salmon green eggs and may utilize MCH returns as backup broodstock; fry of 9 million chum salmon green eggs are designated for release in Deep Inlet and fry of 3 million chum salmon are designated for release at SJH for future broodstock.

2.3 Broodstock capture method

Chum salmon returning to MCH are directed to a fish ladder by a barrier net blocking access to the north and south forks of Medvejie Creek. Broodstock will be taken from holding ponds above the fish ladder. Three hundred chum salmon (150 females/150 males) will be transported to the north and south fork of Medvejie Creek and released there to spawn naturally. Permanent weirs are in place in the north and south forks of Medvejie Creek (113-41-028) to prevent migration of fish above the hatchery water intakes.

NSRAA is anticipating adequate returns of chum salmon to Bear Cove for broodstock. If broodstock needs are not being met at Bear Cove, the Alaska Board of Fisheries (BOF) has adopted a regulation (5 AAC 33.375) directing the department to manage the waters of Silver Bay, east of a line from Entry Point to Silver Point, to ensure chum salmon broodstock needs at MCH (Figure 1).

Primarily Medvejie/Nakwasina stock chum salmon returning to Deep Inlet, or starting in 2020 to Crawfish Inlet, are used as a backup broodstock source for either MCH, SCH, or up to 10 million eggs of the HFH portion of the Deep Inlet release. In the event that chum salmon returning to Deep Inlet or Crawfish Inlet are needed for broodstock, a vessel operating purse seine gear will either capture and transfer live fish into 40-ft x 40-ft x 20-ft deep adult holding pens or fish will be pumped directly to the hold of a vessel. Each pen can hold up to 10,000 adults. Either a skiff will tow the pens 12 miles to Bear Cove (from Deep Inlet), or fish will be loaded from the pens to the hold of a vessel for transport to Bear Cove. Chum salmon are held for several days and then released to migrate up the fish ladder and into the adult raceways for spawning. This system was used successfully each year from 2008 through 2011, and, more recently, vessels were used successfully in 2020 and 2023. Alternately, if eggs are to be collected on-site and transported green to MCH, broodstock will either be placed in pens as above and allowed to mature prior to egg take, or collected directly from ripe

females at the time of harvest. NSRAA experimented with the later strategy in 2023 on returns to Crawfish Inlet from a tender platform. Fish were sorted for ripeness while being pumped from a seine net. Green eggs were transported to the hatchery the following day and the carcasses were delivered to a local processor. In order to avoid using stray Deep Inlet-released HFH stock for broodstock, no Nakwasina stock chum salmon egg takes will be conducted at either MCH or Deep Inlet prior to August 21. NSRAA may consult with department area biologists and obtain a waiver of this requirement if information indicates that an earlier egg take would not include HFH-origin chum salmon. In 2020 Bear Cove received its first return of 3-year old Kadashan River stock chum salmon; 8 million eggs were collected for HFH programs. In 2021, due to a missed release year from a HFH broodstock shortfall, a 4 year old only return produced 17.5 million Kadashan River stock chum eggs for HFH. The 3 and 5 year old return in 2022 came in under forecast and only produced 6 million green eggs. The 2023 return of 3, 4, and 6 year old chum to Bear Cove came in well above forecast, however only 12 million eggs were collected due to adequate brood availability at Hidden Falls and no harvest interest due to market conditions. The eggs were transferred green to SCH for initial incubation to the eyed stage prior to transport back to MCH. The 2024 return of Kadashan stock chum salmon to Bear Cove is forecast at a record high 694,000 fish. Half of those are expected to be intercepted in the Deep Inlet THA fisheries, which still leaves a large surplus to broodstock needs or ability of the Medvejie facility to process. A significant cost recovery harvest is planned on fish returning to Bear Cove to manage the volume, with egg take occurring on those that escape to the rack. Otolith sampling will occur at the rack during the course of the Kadashan stock egg take to limit potential for stock mixing.

2.4 Spawning, incubation, and rearing

If summer stock egg takes occur at MCH either proactively or as a result of an anticipated shortfall at HFH or GCH, they will begin in mid to late July and will be completed by early August. Eggs will either be taken at MCH and transferred to SCH for initial incubation or will be eyed at MCH for transfer to HFH or GCH in early September.

Fall stock egg takes usually start in late-August and are completed by the end of September. Fertilization, water hardening, and egg surface disinfection will occur at the hatchery. Chum salmon eggs will be eyed in R-48-style incubators and transferred to NOPAD-style incubators for hatching and fry development. Eggs for the Crawfish Inlet release will be transferred to SCH once eyed. Eggs may be otolith marked at either facility. Fungal growth in incubators will be controlled by hatching screens, egg sorting, salt water and chemical treatments.

Chum salmon fry are ponded into freshwater holding ponds. Chum salmon to be released at the hatchery are transferred directly to net pens in Bear Cove. Chum salmon to be released at Deep Inlet or Crawfish Inlet are transferred via boat to the net pen sites. Fry are normally released from mid- to late-April when estuarine conditions are optimal for plankton abundance. The target release size of fry is two and four grams with a roughly fifty-fifty split by group.

Carcasses will be taken offsite by a local fish processor for disposal or sale or discharged into the facility's DEC authorized discharge location in Bear Cove.

Program Name	Brood Year	Release Date	Number to Release ¹	Life Stage	Type of Mark, % Marked
HFH Deep Inlet	2023	April 2024	24,000,000	Fed fry	100% Otolith
MCH Deep Inlet	2023	April 2024	33,000,000	Fed fry	100% Otolith
SJH Deep Inlet	2023	April 2024	9,000,000	Fed fry	100% Otolith
MCH Bear Cove	2023	April 2024	20,000,000	Fed fry	100% Otolith
HFH Bear Cove	2023	April 2024	20,000,000	Fed fry	100% Otolith
SCH Crawfish Inlet	2023	May 2024	30,000,000	Fed fry	100% Otolith

2.5 Planned releases this calendar year

¹Numbers in permitted capacity and not inventory on hand.

No previous brood year chum salmon are held over for additional rearing.

2.6 *Operational diagram*



3.0 Coho Salmon Production

3.1 *Program details*

NSRAA has coho salmon production at three of their four hatchery sites. Sashin Creek and Deep Cove stock coho salmon eggs are collected at HFH and used in NSRAA's Coho Lake Rearing (CLR) program. Prior to 2005, eyed eggs were moved from HFH to MCH for incubation and initial rearing before being transferred to release sites. MCH remains a backup incubation facility for the CLR program.

MCH acts as a central incubation facility by collecting all of NSRAA's Salmon Lake stock coho salmon eggs, including the 4.332 million eggs permitted for SCH. Coho salmon incubated and reared at SCH are released in Deep Inlet. Coho salmon incubated and reared at MCH are released at Bear Cove, which provides returns of adult coho salmon for broodstock.

Since 2014, the egg-take goal has been 3 million Salmon Lake stock coho salmon eggs, with the plan of releasing 1.8 million smolt at Deep Inlet and 200,000 smolt at Bear Cove.

In 2024, the egg-take goal will remain at 3 million eggs as the facility transitions to 100% family tracking and executes a rearing density trial, which will still allow the release of 200,000 Salmon Lake stock coho salmon at MCH. All 200,000 hatchery-produced coho salmon released at Bear

Cove will be otolith marked with a MCH code and 20,000 will be marked with a coded wire tag (CWT).

Full production goals for SCH, as stated in the Basic Management Plan (BMP), are production of 2.2 million Salmon Lake stock coho salmon smolt, with 2.0 million smolt released at Deep Inlet and 200,000 smolt released at Bear Cove. The number of eggs necessary to obtain these smolt production levels is 4.3 million due to the potential high incidence of bacterial kidney disease. The goal for smolt releases at Bear Cove is to provide sufficient adult returns to achieve egg-take targets necessary for smolt production goals. The BMP allows Bear Cove release numbers to increase to levels necessary to provide adequate broodstock, provided stray rates are demonstrated to be within levels that will not impact wild stocks. Salmon Lake stock coho salmon were chosen as the donor source for MCH and SCH production to minimize genetic impacts if straying occurs to Salmon Lake.

3.2 *Egg takes*

Program Name	Ancestral Stock(s)	Egg-Take Site, Stat Area	Primary (P) or (A) Alternate Source?	Current Year Egg Goal	Permitted Maximum
SCH coho salmon	Salmon Lake	MCH	Primary	3,000,000 ¹	4,332,000
SCH coho salmon	Salmon Lake	Deep Inlet	Alternate	0	4,330,000
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¹ Includes 300,000 eggs for SCH/MCH release of 200,000 smolt.

3.3 Broodstock capture method

Coho salmon returning to MCH are led to a fish ladder by a barrier net blocking access to the north and south forks of Medvejie Creek. Broodstock will be taken directly from holding ponds above the fish ladder. An additional net may be placed downstream of the access canal leading to the fish ladder to prevent coho salmon broodstock from backing out. Some broodstock may be held in a marine enclosure pen to segregate those fish from cost-recovery harvesting activities. Some broodstock may be collected in Bear Cove by beach/purse seine and transferred to holding raceways to minimize sea lion predation.

If coho salmon returning to Deep Inlet are needed for broodstock, a beach seine or purse seine will be used to capture and transfer live fish into 40-ft x 40-ft x 20-ft deep holding pens. Each pen can hold up to 10,000 adults. A skiff will tow the pens 12 miles to Bear Cove. Coho salmon will be transferred to the adult freshwater raceways for maturation. Small numbers of captured broodstock will be transported by skiff and transfer tote with oxygen supplementation to MCH and placed into the freshwater raceways for maturation.

In 2024, MCH will require approximately 2,250 adult Salmon Lake stock coho salmon to reach the egg-take goal. MCH returns for the first twelve years of the Salmon Lake stock coho salmon program have had an average marine survival of 6.5%, with an average common property contribution rate of 73%. If a similar marine survival and contribution rate occur this year, the estimated coho salmon return to the MCH rack will be 3,500 adults. A closure of Bear Cove may be needed to protect broodstock, if NSRAA is in jeopardy of not achieving broodstock needs.

There are no current plans for excess broodstock management. If a larger than anticipated return occurs, and excess fish are available at Bear Cove, a cost-recovery cleanup harvest may be necessary (see section 6.3 below, Cost recovery harvest in the special harvest area).

3.4 Spawning, incubation and rearing

Coho salmon egg takes at MCH begin around the last week of October and are completed by late November. Water hardened eggs and/or separate gametes may be taken to SCH for egg-surface disinfection with Iodophor. Separate gametes will also include fertilization and water hardening. Eggs are incubated in Heath trays. Fry are ponded into linear raceways for initial swim-up and feeding. Fry are then split out to round ponds until transfer to Deep Inlet for short-term rearing and release.

Coho salmon eggs for the MCH broodstock program will be fertilized, water hardened, and disinfected with Iodophor at MCH. Each family will be kept separate to enable BKD screening. Eggs from high-titer BKD-positive parents will be discarded. Fungal growth in incubators will be controlled by egg sorting and chemical means.

The developing fish from up to 300,000 eggs will be ponded into raceways at MCH for initial swimup and rearing. In May, these fish are transferred to salt water in Bear Cove for short-term rearing (3 weeks) and released at MCH to provide future broodstock. The goal is to produce 200,000 smolt.

All carcasses will be taken offsite by a local fish processor for disposal or sale. If the processor is closed for the season, the carcasses will be offered for human or animal consumption. Remaining carcasses will be disposed of in the Medvejie, Bear Cove, DEC disposal area.

Program Name	Brood Year	Release Date	Number to Release	Life Stage	Type of Mark, % Marked
SCH coho salmon- Deep Inlet	2022	May 2024	1,800,000	smolt	120,000 CWT and 100% otolith
SCH coho salmon- Bear Cove	2022	May 2024	200,000	smolt	20,000 CWT and 100% otolith
Total			2,000,000		

3.5 Planned releases this calendar year

3.6 *Previous brood years that will remain in culture during the entire calendar year*

Program Name	Brood Year	Number Live (April 1 st)	Life Stage	Type of Mark, % to Mark	Number to Release, Date
SCH coho salmon- Deep Inlet	2023	1,375,000	alevin	80,000 CWT and 100% otolith	1,300,000 May 2025
SCH coho salmon- Bear Cove	2023	231,000	alevin	20,000 CWT and 100% otolith	200,000 May 2025
Total					1,500,000

3.7 *Operational diagram*



4.0 Chinook salmon production

4.1 *Program details*

NSRAA produces Andrew Creek stock Chinook salmon at MCH. Crystal Lake Hatchery and Macaulay Hatchery can be used as backup egg sources.

There are three yearling Chinook salmon programs at MCH, one zero-check program at MCH, and one yearling program at SCH. The annual production goal is to release approximately 3.5 million Andrew Creek stock Chinook salmon. Fry for all MCH programs are ponded into raceways at MCH for initial swim-up and rearing. Approximately 400,000 are released as zero-check smolt, 1.7 million are short-term reared at Green Lake, 800,000 are reared in raceways as the traditional MCH program, and 600,000 are reared in raceways as the fresh water overwinter (FWOW) MCH program. The SCH Chinook salmon production is collected as eggs at MCH and transferred as gametes to SCH. Ponding occurs in outside aluminum raceways, with transfer to Crawfish Inlet in April or May.

The MCH zero-check program: approximately 400,000 Chinook salmon eggs/fry are reared in raceways at MCH. In March–May, fish will be transferred to saltwater net pens at SJH, Bear Cove, or Crawfish Inlet for short-term rearing. In late May or early June they will be released.

Green Lake yearling program: approximately 1.7 million Chinook salmon will be moved to Green Lake to rear in net pens, traditionally from late June to early October. In fall, these fish return to MCH and are transferred to saltwater net pens. In the following spring, the smolt will be released at Bear Cove. The target release size is 55 to 75 grams.

The MCH traditional yearling program: approximately 800,000 Chinook salmon eggs/fry are reared in raceways at MCH. In early October, these fish will be transferred to saltwater net pens at Bear Cove for saltwater overwinter rearing. In the following spring, the smolt will be released at Bear Cove. The target release size is 55 to 75 grams.

The MCH FWOW yearling program: approximately 600,000 Chinook salmon eggs/fry are reared in raceways at MCH. In late April, fish will be transferred to saltwater net pens at SJH and Bear Cove or Crawfish Inlet, for short-term rearing. In May, after a three-week imprinting period, approximately 400,000 will be released at SJH and 200,000 will be released at Bear Cove or Crawfish Inlet.

All hatchery-produced Chinook salmon will be otolith marked with a MCH code. See Appendix D for detailed summaries on coded wire tagging.

4.1.1 Zero check trials

The zero-check program has shifted from a production approach to more developmental due to minimal marine survival of recent brood years and the ability to allow for additional rearing trials at the reduced level. In addition to photomanipulation and salinity exposure, MCH intends to trial broodstock in 2025. Incubation and rearing of zero check Chinook are inherently accelerated as much as possible to allow for optimal release size and timing as an age-0 smolt. Without the ability to manipulate raceway rearing temperature at MCH, acceleration during incubation is the most viable option. MCH has the ability to recirculate and heat the incubation water, which has been historically utilized to varying degrees. To accelerate further, egg take must be advanced. Early Chinook returns will be captured by beach or small purse seine in the vicinity of the hatchery fish ladder. The fish will be collected over approximately 2 weeks in mid-June and transported to freshwater holding raceways at the time of capture. Once sufficient broodstock are captured (~280 fish), they will be anesthetized and 3 experimental groups will receive discrete floy tags. Group 1 (~40 female, ~40 male) will be injected with the spawning inducer hormone Ovaplant. Group 2 (~40 female, ~40 male) will be injected with an alternate inducer, GnRH IIa. Group 3 (~40 female, ~40 male) will be injected with an additional alternate inducer, Chorulon. Group 4 (~20 female, ~20 male) will be a control group. NSRAA has experience with Ovaplant, an INAD drug, which was used on Salmon Lake stock coho salmon during the broodstock development phase. GnRH IIa is derived from chicken gonadotropin and is approved through an INAD for use on catfish. NSRAA would utilize the hormone via veterinary prescribed research use. The manufacturer of GnRH IIa is interested in expanding the INAD use to include salmonids. Chorulon is the only FDA approved spawning hormone on the market and is a freeze dried preparation of human Chorionic Gonadotropin. The goal is to advance the egg take of the zero-check Chinook program by approximately 1 month. Prior use of Ovaplant with coho salmon resulted in ripe broodstock approximately 14 days post injection. The Chinook salmon will likely be injected ~June 26th with first evaluation of ripeness ~ July 10th. Traditional first egg take timing for Chinook salmon at MCH is mid-August. Some of the proposed hormones have a wide range of approved doses. This first year is a pilot project to investigate potential differences in effectiveness of the various compounds. Subsequent years will likely expand on a single product and aim to identify the ideal dosing to achieve maturation of Chinook salmon broodstock. The results of these trials will likely be used to facilitate the success of future zero-check Chinook salmon programs with the Keta River stock of Chinook being cooperatively developed at Little Port Walter.

4.2 *Egg takes*

The primary Chinook salmon egg source is intended to be MCH with a goal to produce 5.2 million eyed eggs for MCH programs. It is not expected that eggs for the SCH Chinook salmon program will be collected in 2024. HFH has been unable to be the primary egg source for the last six years due to the poor Chinook salmon marine survival. With a low forecast, MCH is not expected to be the primary egg take location for the HFH program in 2024. Attempts will be made to source eggs from HFH and GCH returns in combination.

Program Name	Ancestral Stock(s)	Egg-Take Site, Stat Area	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH-Chinook salmon	Andrew Creek	MCH	Primary	5,200,000	5,200,000 ¹

Program Name	Ancestral Stock(s)	Egg-Take Site, Stat Area	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH-Chinook salmon	Andrew Creek	HFH	Alternate	0	5,200,000
MCH-Chinook salmon	Andrew Creek	CLH	Alternate	0	5,200,000
MCH-Chinook salmon	Andrew Creek	MSH	Alternate	0	5,200,000
MCH-Chinook salmon	Andrew Creek	GCH	Alternate	0	2,000,000
SCH-Chinook salmon	Andrew Creek	MCH	Primary	0	2,000,000
HFH-Chinook salmon	Andrew Creek	MCH	Alternate	0	1,000,000

¹MCH is permitted for 5.2 million Chinook salmon eggs. The eggs may be collected at either site up to the permitted level.

4.3 *Broodstock capture method*

Chinook salmon are led to a fish ladder by a barrier net blocking access to the north and south forks of Medvejie Creek. Broodstock will be taken directly from holding ponds above the fish ladder. An additional net may be placed downstream of the access canal leading to the fish ladder to prevent Chinook salmon broodstock from backing out. Some broodstock may be held in a marine enclosure pen to segregate those fish from cost-recovery harvesting activities. Some broodstock may be collected by beach or purse seine and transported to holding raceways.

4.4 Spawning, incubation, and rearing

Egg takes at MCH begin around the middle of August and stop by the first week of September. Adult Chinook salmon will be collected from the adult holding raceways at the hatchery above the fish ladder. All eggs will be disinfected with Iodophor. Each family will be separated in Heath trays to enable BKD screening. Eggs from high-titer BKD-positive parents will be discarded. Lowering the water temperature may be used to reduce the development rate of Chinook salmon for the Green Lake and FWOW rearing program. The zero-check program may receive heated water to accelerate development in incubation. Recycled water will be treated with ultraviolet light to eliminate fungal and bacterial buildup. Fungal growth in incubators will be controlled by egg sorting and chemical means. Carcasses will be disposed of in the Medvejie Bear Cove, DEC disposal area or will be taken offsite by a local fish processor for disposal or sale.

Program Name	Brood Year	Release Date	Number to Release	Life Stage	Type of Mark, % Marked
SWOW Bear Cove	2022	May 2024	2,400,000	Smolt	7% CWT and 100% otolith
FWOW Crawfish Inlet	2022	May 2024	250,000	Smolt	14% CWT and 100% otolith
FWOW Crescent Bay	2022	May 2024	375,000	Smolt	9% CWT and 100% otolith
Zero check Bear Cove	2023	October 2024	100,000	Smolt	20% CWT and 100% otolith
Total			3,125,000		

4.5 Planned releases this calendar year

Program Name	Brood Year	Number Live (April 1)	Life Stage	Type of Mark, % Marked	Number to Release, Date
SWOW Bear Cove	2023	1,960,000	Fry	10% CWT and 100% otolith	1,750,000 May 2025
FWOW Crescent Bay	2023	360,000	Fry	10% CWT and 100% otolith	350,000 May 2025
Total		2,320,000			2,100,000

4.6 *Previous brood years that will remain in culture during the entire calendar year.*

4.7 *Operational diagram*



5.0 Pink salmon production

5.1 Program details

For mitigation purposes, 300,000 pink salmon eggs will be collected from adults entering the MCH raceways. The progeny may be released directly into the north fork of Medvejie Creek as unfed fry or held for short term rearing prior to release. Additionally, up to 800 pink salmon adults (400 females/400 males) will be placed in the north and south forks of Medvejie Creek above the barrier net and below the weirs.

5.2 *Egg takes*

Program Name	Ancestral Stock(s)	Egg-Take Site	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
MCH-pink salmon	Medvejie Creek	МСН	Primary	300,000	300,000

5.3 Broodstock capture method

Pink salmon eggs will be collected from fish that volitionally enter the raceways at MCH. Measures used to protect returning chum salmon will also serve to protect returning Medvejie Creek pink salmon. Up to 800 pink salmon adults (400 females/400 males) will be placed in the north and south forks of Medvejie Creek above the barrier net and below the weirs. Surplus carcasses will be disposed of in the Medvejie, Bear Cove, DEC disposal area or will be taken offsite by a local fish processor for disposal or sale.

5.4 *Spawning, incubation, and rearing*

Pink salmon egg takes occur concurrently with chum salmon egg takes and are completed by mid-September. Adult pink salmon will be collected from adult raceways at the hatchery above the fish ladder. Pink salmon will be removed concurrently with Chinook and chum salmon. Fertilization, water hardening, and egg surface disinfection will occur at the hatchery. Pink salmon will be incubated in Heath-style incubators. Fungal growth in incubators will be controlled by egg sorting and chemical means.

Carcasses will be disposed of in the Medvejie, Bear Cove, DEC disposal area or will be taken offsite by a local fish processor for disposal or sale.

5.5 *Planned releases this calendar year*

Program Name	Brood Year	Release Date	Number to Release	Life Stage	Type of Mark, % Marked
MCH-pink salmon	2023	April 2024	270,000	Fed fry	No Mark

No previous brood years of pink salmon are held over for additional rearing.

5.6 *Operational diagram*



6.0 HARVEST MANAGEMENT

6.1 *Projected return this year*

Species	Program Name	Projected Common Property Harvest	Other ¹	Total Projected Return, Current Year
Chum salmon	Deep Inlet	909,000	500,000	1,409,000
Chum salmon	Bear Cove	425,000	620,000	1,045,000
Chum salmon	Crawfish Inlet	186,000	1,150,000	1,336,000
Coho salmon	Deep Inlet	17,000		17,000
Coho salmon	Bear Cove	7,500	3,500	11,000
Chinook salmon	Bear Cove	6,000	4,000	10,000
Chinook salmon	Crescent Bay	1,400	400	1,800
Chinook salmon	Crawfish Inlet	500		500

¹ Other includes broodstock, cost recovery, escapement, etc. Total of Projected Common Property Harvest and Other may exceed Total Projected Return as Other includes Broodstock and cost recovery goals which may not be met.

6.2 *Common property fisheries management*

6.2.1 Deep Inlet THA Chinook and chum salmon

6.2.1.1 Commercial fisheries

The Deep Inlet THA is defined in 5 AAC 33.376(b) Deep Inlet THA and will be modified by emergency order (1E0823) for the 2024 season as follows: Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirate Cove at 56°59.35' N lat, 135°22.63' W long to the westernmost tip of Long Island at 56°59.98' N lat, 135°21.93' W long to the easternmost tip of Long Island at 56°59.95' N lat, 135°20.37' W long to the westernmost tip of Emgeten Island at 57°00.08' N lat, 135°20.01' W long to the westernmost tip of Error Island at 57°00.54' N lat, 135°19.50' W long to the westernmost tip of Berry Island at 57°00.28' N lat, 135°18.68' W long to the southernmost tip of Berry Island at 57°00.28' N lat, 135°18.68' W long to the southernmost island in the Kutchuma Island group at 57°00.14' N lat, 135°18.27' W long to the easternmost tip of the southernmost tip of an unnamed island at 57°00.29' N lat, 135°17.66' W long to a point on the southern side of the unnamed island at 57°00.07' N lat, 135°16.80' W long to a point on the Southern at 56°59.93' N lat, 135°16.53' W long. with the following restrictions:

Sandy Cove: all waters south of 56°59.05' N lat will be closed to purse seine and drift gillnet gear.

<u>Deep Inlet THA:</u> will be closed west of 135°20.75' W long to purse seine and drift gillnet gear from June 1 through June 15.

<u>Deep Inlet</u>: will be closed south and east of a line from 56°59.09' N lat, 135°18.35 W long to 56°59.23' N lat, 135°18.25 W long to purse seine, drift gillnet, and troll gear.

<u>Deep Inlet THA salmon streams</u>: no restrictions will be in effect for Deep Inlet THA salmon streams (all freshwaters and stream channels remain closed).

In 2012, the BOF increased troll fishery access to hatchery-produced Chinook salmon by revising the western Deep Inlet THA boundary as follows: West of 135°20.75'W long will be closed to purse seine and drift gillnet gear beginning with the first EO of the season through the third Saturday in June (Figure 3).

Most of the common property harvest of Chinook and chum salmon can be expected to take place in the Deep Inlet THA by drift gillnet and purse seine gear, but some harvest is likely to occur outside the THA by troll and purse seine gear as well. In recent years the troll harvest outside of the THA has been increasing substantially.

During the past five seasons, significant harvests of hatchery Chinook salmon by net gear have generally occurred after the first week of June. The BOF adopted regulatory language during its February 2018 meeting requiring the time ratio for gillnet opening to seine openings as 1:1 for the 2019–2020 seasons. The sunset date for this regulation was extended in 2021, maintaining the 1:1 ratio for the 2021 season. The BOF, during its rescheduled SE meeting in March 2022, adopted regulatory language requiring the time ratio for gillnet openings to seine openings as 1:1, with no sunset provisions and no alternate ratios.

The rotational net fishery in the Deep Inlet THA during Chinook and chum salmon management will begin on June 1 with a 1:1 gillnet to seine ratio. Troll to be allowed on days when no net group is open. The following rotational fishing schedule will be in effect during the 2024 season from June 1 through September 20, 2024, unless changed by a subsequent announcement:

Seine:

- From June 1 through August 17, the purse seine fishery will be open from 5:00 a.m. to 8:00 p.m., Sunday, Thursday, and Friday of each week.
- From August 18 through September 20, the purse seine fishery will be open from 6:00 a.m. to 9:00 p.m., Sunday, Thursday, and Friday of each week.

Gillnet:

- From June 1 through August 17, the drift gillnet fishery will be open from 5:00 a.m. to 8:00 p.m., Monday, Tuesday, and Wednesday of each week.
- From August 18 through September 20, the drift gillnet fishery will be open from 6:00 a.m. to 9:00 p.m., Monday, Tuesday, and Wednesday of each week.

Troll:

- From June 1 through September 20, the troll fishery will be open from 12:01 a.m. to 11:59 p.m., Saturday of each week and during those periods the net fisheries are closed.
- Additionally, From June 1 through June 15 only, the troll fishery will be open continuously within the boundaries of the Deep Inlet THA west of 135°20.75' W long.

If a closure of the Deep Inlet THA becomes necessary, it is expected to occur after a gillnet day. While every effort will be made to provide longer notice, the closure announcement may have to be made on less than 24-hour notice, followed by a single troll day. The rotational schedule of seine, gillnet and troll days in effect at the time will follow.

In 2024, cost-recovery harvest is expected to occur, the majority of which will target the summer run. To accommodate cost recovery operations, a portion of the Deep Inlet THA will be closed to all common property harvest beginning June 1. This area may reopen during the season based on the progression of the cost recovery harvest. Additionally, a portion of the Deep Inlet THA may be closed in late August to facilitate broodstock collection at Medvejie Hatchery.

6.2.1.1.2 Coho salmon

It is anticipated that a majority of the coho salmon returning to Deep Inlet will be caught in the Deep Inlet THA. No changes to the existing Chinook and chum salmon management strategies are anticipated for coho salmon returning to Deep Inlet. If insufficient numbers of broodstock are returning to MCH, commercial and sport fishing in Bear Cove and Deep Inlet may be restricted in consultation with ADF&G if necessary to ensure broodstock goals are met.

6.2.1.2 Sport fisheries

Sport fisheries will be open in the Deep Inlet THA/SHA and managed according to regional sport fishing regulations. If necessary to protect broodstock, sport fishing may be closed by EO. If the number of Chinook salmon returning to MCH is expected to exceed broodstock needs, the sport fish bag and possession limit may be increased. This increase of the sport fish Chinook salmon bag and possession limit will be limited to the waters of Silver Bay east of a line from Entry Point to Silver Point.

6.2.3 Sitka area Chinook salmon troll

MCH Chinook salmon will be captured in outer coastal waters during the traditional summer troll season beginning July 1. Additionally, these Chinook salmon will be caught in spring troll fisheries from May 1 through June. Details of the spring troll fisheries are provided in a department advisory announcement dated April 11, 2024. ADF&G will not publish a management plan for the 2024 spring troll season; however, a general overview of the management approach and objectives for spring troll fisheries may be referenced in the 2022 Spring Troll Fishery Management Plan available in area offices and on the spring troll webpage. Maps and areas descriptions for 2024 spring troll and Terminal Harvest Areas are also available on the spring troll webpage.

To protect broodstock and ensure cost-recovery opportunity, the waters east of a line extending south from a point along the south shore of Bear Cove at 57°00.767'N lat, 135°09.085'W long, to a point along the south shore of Bear Cove at 57°00.940'N lat, 135°09.232'W long will be closed to commercial fishing (Figure C2). When Chinook salmon begin returning to Silver Bay, the Bear Cove SHA may be closed by emergency order (EO), if necessary, to secure adequate broodstock. Cost-recovery harvests are expected to begin mid-May.

6.2.3 Sitka area chum salmon troll

Troll gear harvest of returning chum salmon typically takes place in Eastern Channel and in Sitka Sound from the last week of July through the mid-August troll closure. Beginning in 2000, regulation allows ADF&G, through EO authority, to open waters of Eastern Channel and Sitka Sound, specified in 5 AAC 29.112 to troll gear for chum salmon harvest during the August region-wide troll closure for coho salmon. These waters include an area north and east of a line from Cape Burunof to Kulichkof Rock to Vitskari Rocks to the south shore of Kruzof Island near Inner Point and then along a line from Inner Point to Black Rock to Signal Island light (Figure 4). Opening chum salmon trolling in Sitka Sound during the August coho salmon closure occurs in consultation with NSRAA and is contingent upon adequate chum salmon returns for broodstock.

6.2.4 Chum salmon in Sitka area seine fisheries

In season monitoring of seine catches in the traditional seine fishery in Eastern Channel may be used to adjust fishing area boundaries to focus the harvest on pink salmon, if NSRAA is in jeopardy of not achieving broodstock needs. Areas where catch is shown to be almost entirely chum salmon may be closed. Line changes will not be made to alleviate the harvest of hatchery chum salmon in areas where pink salmon surpluses are available. To ensure adequate chum salmon broodstock to MCH, the department will generally not open the waters of Silver Bay east of a line from Entry Point to Silver Point to the traditional seine fishery (5 AAC 33.375). However, if openings are desired in Silver Bay due to substantial surpluses of wild stock pink salmon or hatchery chum salmon observed in the terminal areas in front of Sawmill Creek or Salmon Lake, the department may consult with NSRAA to ensure hatchery broodstock requirements are not jeopardized.

In 2021, an unexpected large return of Bear Cove chum salmon (3 year old primarily) had an effect on the migration of all MCH chum from the deep waters of Eastern Channel into the Deep Inlet THA and Silver Bay SHA. A large body of fish (mixed release origin) staged in the Sawmill Creek area, and in consultation with ADF&G, NSRAA conducted one day of targeted cost recovery harvest in front of Sawmill Creek. When determined that the body of fish was significantly larger than expected, a commercial seine opening was executed in a larger but confined area to target those fish. Bear Cove origin summer chum returns are projected to be 694,000 fish in 2024. Using historical interception rates, there is expected to be a significant surplus of chum bound for Bear Cove. Targeted cost recovery is expected to occur in the Silver Bay SHA. It is not expected to produce additional common property harvest opportunity.

6.2.5 Crawfish Inlet

The NSRAA Board has given the Crawfish Inlet THA a troll preference. NSRAA plans to cost recovery harvest \$3,746,000 worth of returning chum salmon to Crawfish Inlet in 2024. After the cost recovery goal is met, purse seine openings will begin as needed to keep up with the return. Limited commercial purse seine openings may occur around the peak of the return concurrent with cost recovery harvest operations to maintain fish quality. If seine openings occur, they are planned only within the SHA, but ADF&G may direct either cost recovery or commercial common property seine openings to occur in West Crawfish Inlet if a significant build up of chum salmon occurs. It is NSRAA's priority that if West Crawfish must be opened it is performed as cost

recovery to minimize impacts to the troll fishery. The current harvest plan is to allow continuous chum salmon troll opportunity in the Crawfish Inlet THA (Figure 7) from July 16 until September 1. An estimated 1,336,000 returning age 3-6 chum salmon are expected to return in 2024. Of these, a common property harvest of approximately 186,000 is anticipated.

6.3 *Cost-recovery harvest*

The Bear Cove, Silver Bay, and Deep Inlet SHAs for Chinook, coho, and chum salmon are described in 5 AAC 40.042(a)(4)(6)(7) (Figures C2 and C5). The Crawfish Inlet SHA for chum salmon is described as all waters within Crawfish Inlet east of $135^{\circ}11.05'$ W. longitude (Figure C6). If a broodstock closure is in place and cost recovery harvest is necessary, every effort will be made to minimize cost recovery harvest of the species closed to common property harvest.

Chinook Salmon

Minimal cost recovery on Chinook salmon is anticipated in 2024 due to the recent low marine survivals and due to needing brood to achieve egg take goals. Chinook salmon may be harvested in a cost recovery fishery with beach seine, purse seine, dip net, or gillnet gear.

Chum Salmon

Cost recovery is planned for Silver Bay, Deep Inlet, and Crawfish Inlet. NSRAA plans to take \$6,630,000 worth of chum salmon from all harvest areas combined in 2024. It is expected that approximately \$2,560,000 will be generated from Silver Bay/Deep Inlet on summer stock chum, \$325,000 from both areas on fall stock chum, and \$3,746,000 from Crawfish Inlet.

Beginning in 2020, regulation allows ADF&G, through EO authority, to open waters of West Crawfish Inlet and the Crawfish Inlet THA, specified in 5 AAC 29.112(b)(3) and (4) to troll gear for chum salmon harvest during the August region-wide troll closure for coho salmon (Figure C8).

Notwithstanding 5 AAC 33.330, legal gear type for the hatchery permit holder in the SHA is purse seine, beach seine, gillnet, troll gear, and dip net. NSRAA may be required to remove unharvested chum salmon remaining in the terminal harvest area should a significant number remain after common property fisheries have ceased. Additionally, NSRAA may be required to remove unharvested chum salmon remaining in the terminal harvest area should a significant number remain after remain after common property fisheries have ceased. Additionally, NSRAA may be required to remove unharvested chum salmon remaining in the terminal harvest area should a significant number remain after common property fisheries have ceased to diminish straying potential to West Crawfish Inlet systems.

Bear Cove and Deep Inlet coho salmon

Hatchery-reared Salmon Lake stock coho salmon return to Bear Cove and Deep Inlet. There are no current cost-recovery needs. NSRAA will prevent buildups of fish at the head of Deep Inlet through common property rotational fisheries. After the chum salmon closure, any surplus fish may be harvested by a cost-recovery fishery, with efforts at MCH being limited to the Bear Cove coho SHA.

The department will be given 48-hour advance notice if coho-directed cost recovery will occur at the Bear Cove SHA. Contacts for this are Sitka Sport Fish Area Manager and Commercial Fisheries Area Management Biologist.

7.0 EVALUATION

7.1 Mark/Tag Recovery Program

NSRAA has an extensive mark/tag recovery program and obtains CWT and otolith samples through three primary means: commercial harvests, cost recovery, rack recoveries. Sampling is performed weekly throughout the adult return season.

NSRAA will sample CWTs and otoliths in commercial harvests in the Bear Cove, Silver Bay, Deep Inlet, and Crawfish Inlet SHAs to estimate contribution to common property fisheries, especially with regard to chum salmon. NSRAA will sample CWTs and otoliths from cost recovery harvests to estimate the number, species, and origin of salmon harvested in the SHAs. NSRAA will sample CWTs and otoliths at the hatchery rack to estimate stock proportions and origin.

All NSRAA CWT and otolith sampling information collected at the rack and in the commercial and cost recovery fisheries will be utilized to estimate marine survival by species, stock, and brood year. NSRAA also utilizes the ADF&G CWT database of recoveries of mixed stock fisheries to provide additional contribution and marine survival information on NSRAA produced salmon.

For individual species mark rates and types, see relevant species production sections.

8.0 APPROVAL

Recommendation for Approval: Medvejie Creek Hatchery and Sawmill Creek Hatchery Annual Management Plan, 2024

Adam Olson, Operations Manager, NSRAA	5/21/2024
Troy Tydingco, Area Management Biologist, Division of Sport Fish	5/28/2024
Aaron Dupuis, Area Management Biologist, Division of Commercial Fisheries	5/29/2024
Judy Lum, Regional Supervisor, Division of Sport Fish	5/31/2024
Anne Reynolds-Manney, Regional Supervisor, Division of Commercial Fisheries	5/29/2024
Lorraine Vercessi, PNP Hatchery Program Coordinator, Division of Comm. Fisheries	6/3/2024
Approval:	
The 2024 Medvejie Creek Hatchery and Sawmill Creek Hatchery Annual Manage hereby approved:	ement Plan is
Tom Taube, Deputy Director, Division of Sport Fish	6/3/2024
Forrest Bowers, Operations Manager, Division of Commercial Fisheries	6/3/2024

APPENDICES

Appendix A: Medvejie Creek Hatchery Tables

- Table A1– Projected Returns
- Table A2,a,b,c– Chum salmon release and return data
- Table A3a,b– Chinook salmon release and return data
- Table A4– Coho salmon release and return data

Appendix B: Sawmill Creek Hatchery Tables

- Table B1– Projected Returns
- Table B2– Coho salmon egg take, release and return data
- Table B3– Chum salmon egg take, release and return data

Appendix C: Figures

- Figure C1– Coho salmon project locations
- Figure C2– Bear Cove and Silver Bay SHA
- Figure C3– Deep Inlet THA
- Figure C4– August terminal chum salmon trolling area
- Figure C5– Silver Bay and Deep Inlet THA
- Figure C6– Crawfish Inlet SHA
- Figure C7– Crawfish Inlet Troll/Net THA
- Figure C8–Waters open to chum trolling in Crawfish Inlet THA and West Crawfish Inlet during coho closure.

Appendix D: Timelines

• Timelines

Appendix E: Fish Transport Permits

• Fish Transport Permits

Appendix A: Medvejie Creek Hatchery Tables

Table A1. Projected 2024 Returns to Medvejie Hatchery Projects

Run	Species	First Brood year	Last Brood Year	Release Site	Forecast	Forecast Min	Forecast Max
Summer	Chinook	2018	2020	Bear Cove 113-41	10,000	3,000	20,000
Summer	Chinook	2018	2020	Crawfish Inlet 113-33	400	200	600
Summer	Chinook	2018	2020	Crescent Bay 113-41	1,800	900	2,600
Summer (Kadashan)	Chum	2018	2021	Bear Cove 113-41	695,000	317,000	1,173,000
Summer (Kadashan)	Chum	2018	2021	Deep Inlet 113-41	732,000	370,000	1,213,000
Summer (Nakwasina)	Chum	2018	2021	Bear Cove 113-41	352,000	176,000	427,000
Summer (Nakwasina)	Chum	2018	2021	Deep Inlet 113-41	675,000	504,000	785,000
Fall	Pink	2022	2022	Bear Cove 113-41	3,000	1,500	5,700

Brood	Percent	Stocks	Number	Number	Average	Release	Hatchery	Number	Marine
Year		Used	Eggs	Released	Weight	Date	Survival	Return	Survival
1981	100	Medvejie	255,855	223,697	1.68	05/16/82	87.4%	36,437	16.29%
1982	28	Medveije	820 800	706 713	2 30	04/26/83	86 1%		
1982	27	Nakwasina	812.000	656.586	1.57	04/26/83	80.9%		
1982	45	Salmon Lake	1,330,000	1,097,414	2.30	04/26/83	82.5%		
1982			2,962,800	2,460,713	2.11			216,153	8.78%
1983	31	Medvejie	822,483	794,282	1.54	04/18/84	96.6%		
1983	26	Nakwasina	696,100	668,000	0.83	04/18/84	96.0%		
1983	43	Salmon Lake	1,124,982	1,096,000	1.73	04/18/84	97.4%		
1983			2,643,565	2,558,282	1			111,821	4.37%
1984	15	Medveije	1 033 500	912 400	1 10	05/03/85	88.3%		
1984	60	Nakwasina	4.066.000	3.802.398	1.25	05/03/85	93.5%		
1984	25	Salmon Lake	1,623,800	1,517,602	1.25	05/03/85	93.5%		
1984			6,723,300	6,232,400	1			35,396	0.57%
						_ / /			
1985	70	Medvejie	18,721,000	17,662,005	0.85	5/5,7/86	94.3%		
1985	28	Deep Inlet	7,579,400	7,085,500	0.83	5/5,7/86	93.5%		
1985	Ζ	Saimon Lake	26 796 800	475,900	1.24	05/05/80	95.9%	130 /02	0.55%
1903			20,790,000	23,223,403	I			155,402	0.0070
1986	100	Medvejie	31,013,000	27,516,200	1.88	5/2,4/87	88.7%	137,228	0.50%
1987	100	Medvejie	29,298,700	28,140,700	1.95	05/05/88	96.0%	42,677	0.15%
1988	48	Medvejie	8,568,000	8,052,363	1.75	05/05/89	94.0%		
1988	52	Deep Inlet	9,184,000	8,321,937	1.50	05/05/89	90.6%		
1988			17,752,000	16,374,300	2			287,149	1.75%
1989	37	Medvejie	14,199,100	13,143,500	2.22	4/9,16,18,26,27	92.6%		
1989	44	Deep Inlet	16,970,000	14,913,600	1.70	4/18,26	87.9%		
1989	19	Hidden Falls	7,100,000	6,348,000	1.51	4/26	89.4%		
1989			38,269,100	34,405,100	2			1,933,343	5.62%
1990	59	Medvejie	19,974,000	17,073,500	2.62	4/5,22,27,5/4	85.5%		
1990	41	, Hidden Falls	13,820,000	12,574,500	1.82	5/4	91.0%		
1990			33,794,000	29,648,000	2.28			1,370,617	4.62%
1991	37.5	Medveije	9 664 000	8 745 400	1 77	4/24 25 27 5/4	90.5%		
1991	11	Deep Inlet	2 836 000	2.598 000	1.87	4/25	91.6%		
1991	51.5	Hidden Falls	13.473.000	12.011.000	1.46	4/25.5/4	89.1%		
1991			25,973,000	23,354,400	1.62		89.9%	488,368	2.09%
1992	56	Medvejie	17,689,900	16,570,500	1.95	4/28,30&5/3/93	93.7%		
1992	44	Hidden Falls	14,010,000	13,160,000	1.84	4/26&5/3/93	93.9%	0 =00 000	0.4494
1992			31,699,900	29,730,500	1.90		93.8%	2,708,660	9.11%
1993	61	Medveiie	19.439.300	18,034,800	2.00	4/18.19.22.26/94	92.8%		
1993	39	Hidden Falls	12,480,000	11,230,000	1.72	04/26/94	90.0%		
1993			31,919,300	29,264,800	1.89		91.7%	3,258,597	11.13%
1004	62	Maduciia	01 440 500	20 476 000	1 71	AUDE DOIDE	OE E0/		
1994	03 37	ivieuvejie Hidden Falls	∠ 1,448,500 12 360 000	∠∪,470,800 11 567 000	1./1	4/20,29/90 1/20,20/05	90.0% 03.6%		
1994	51	niuuch Falls	33 808 500	32 043 800	1.51	4 120,23130	33.070	2 734 032	8 53%
1004			00,000,000	52,040,000	1.01			2,107,002	0.0070

(Cont.)

Brood	Percent	Stocks	Number	Number	Average	Release	Hatcherv	Number	Marine
Year		Used	Eggs	Released	Weight	Date	Survival	Return	Survival
1995	66	Medvejie	27,600,000	26,312,000	1.59	4/27,5/3/96	95.3%		
1995	34	, Hidden Falls	14,000,000	13,266,000	1.4996849	4/27,5/2&3/96	94.8%		
1995			41,600,000	39,578,000	1.56			2,637,691	6.66%
1996	66	Medvejie	27,600,000	25,815,000	1.82	4/25&30,5/2/97	93.5%		
1996	34	Hidden Falls	14,000,000	12,760,000	1.72	4/29,5/2/97	91.1%		
1996			41,600,000	38,575,000	1.79			5,132,505	13.31%
1007				00.074.000	2 2 4		25.00/		
1997	66		27,544,000	26,374,000	2.34	4/17,18,23,24/98	95.8%		
1997	34	Hidden Falls	14,000,000	12,940,000	2.30	35903.00	92.3%	750 120	1 010/
1997			41,044,000	39,320,000	2.34			/00,129	1.9170
1998	66	Medveiie	27 550.000	26 487.000	2 11	4/18 23 29,30/99	96.1%		
1998	34	Hidden Falls	14.000.000	13.353.000	2.10	4/18.23.29/99	95.4%		
1998	c .		41,550,000	39,840,000	2.11			602,766	1.51%
-									
1999	66	Medvejie	27,330,000	26,014,000	1.80	4/24,5/2,4/00	95.2%		
1999	34	Hidden Falls	14,000,000	13,057,000	1.68	04/24/00	93.3%		
1999			41,330,000	39,071,000	1.76			1,171,444	3.00%
2000	68	Medvejie	29,484,000	27,751,600	1.98	4/23,24,29,5/3,4/01	94.1%		
2000	32	Hidden Falls	14,000,000	13,174,000	1.88	4/23,29/01	94.1%	1 000 110	1 2 2 0 /
2000			43,484,000	40,925,600	1.95			1,963,110	4.80%
2001	55	Madvalia	27 750 000	26 283 800	2 13	1125 20 30 5/5 5/7/02	94.7%		
2001	55 45	Weuvejie Hidden Falls	27,750,000	20,203,000	2.15	4/20,28,00,010,011/02	94.770		
2001	40		50 750 000	47 741 800	2.00	4123,23,010102	30.070	2 017 267	4 23%
2001					£				1.20.0
2002	76	Medvejie	39.000,000	36.817,000	2.11	4/15,17,24,26,29	94.4%		
2002	24	Hidden Falls	12,000,000	11,391,000	2.06	4/15,24/03	94.9%		
2002			51,000,000	48,208,000	2.10			2,082,882	4.32%
2003	50	Medvejie	27,370,000	25,084,100	2.11	4/26,28,29,30,5/17,18	91.6%		
2003	44	Hidden Falls	24,080,400	22,454,550	2.45	4/26,29,5/17/04	93.2%		
2003		NSRAA Totals:	51,450,400	47,538,650	0.00			946,254	1.99%
	SJC co-o	p fry (Medvejie stock):	3,540,000	3,257,000	2.20	04/26/04	92.0%	79,741	2.45%
	10	otal incl SJC co-op try:	54,990,400	50,795,650	2.27			1,025,995	2.02%
2004	40	Madualia	27 710 000	25 076 000	2 52	1/21 25 20 5/5 12/05	00.5%		
2004	49 11	Meuvejie Hidden Falls	21,110,000	23,070,900	2.52	4/21,23,25,3/3,12/03 1/21 21 25 27 5/21/05	90.5%		
2004	44	NSRAA Totals	52 700 000	48 627 900	2.50	4/21,24,20,21,0121/00	JT.2 /0	870 014	1 79%
2004	SJC co-c	no frv (Medveije stock):	3.590.000	3.249.000	2.02	04/21/05	90.5%	63.016	1.94%
	T	otal incl SJC co-op fry:	56.290,000	51.876,900	2.48	0 112 11 00		933,030	1.80%
			,,,	,,				,	
2005	53	Medvejie	33,986,000	31,623,323	2.58	4/14,22,23,26,5/5,5/7/06	93.0%		
2005	38	Hidden Falls	24,541,840	23,246,064	2.45	4/18,20,5/17/06	94.7%		
2005	_	NSRAA Totals:	58,527,840	54,869,387	2.52			614,767	1.12%
	SJC co-o	op fry (Medvejie stock):	5,478,367	5,098,000	2.08	4/14,26/06	93.1%	57,118	1.12%
	Тс	otal incl SJC co-op fry:	64,006,207	59,967,387	2.49			671,885	1.12%
			~~ ~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	<u></u>	2 40		22.0%		
2006	49	Medvejie	32,261,000	31,170,401	2.46	4/29,5/9,10,17,19,20,23/07	96.6%		
2000	31		24,700,020	21,888,010	2.29	5/3,10,28/07	80.0%	1 500 525	2 020/
2000	SIC co.c	INSKAA I Ulais.	0 126 120	0018 000	2.39	1/20 5/10 17 20/07	06.6%	240 376	2.0370
	500 00-0 Tr	p If y (intervence stock).	9,120,429 66 087 449	61 877 019	2.01	4/29,0/10,17,20/07	90.076	1 749,370	2.03 /0
			00,007,443	01,077,013	2.04			1,743,301	2.0070

(Cont.)

Brood	Percent	Stocks	Number	Number	Average	Release	Hatchery	Number	Marine
Year		Used	Eggs	Released	Weight	Date	Survival	Return	Survival
2007	49	Medvejie	32,183,778	28,933,505	2.66	5/15,20,25,6/1/08	89.9%		
2007	38		25,245,800	23,701,769	2.41	5/15,20,6/6/08	93.9%	250 162	0.49%
2007	SICco	nortex (Medveije stock):	8 450 272	8 083 000	2.00	5/15 20 25/08	95.7%	230,103	0.48%
	000 00	Total incl SJC co-op frv:	65 879 850	60 718 274	2.00		33.170	288 580	0.48%
			00,070,000	00,110,211	2.10			200,000	0.1070
2008	50	Medvejie	27,757,612	26,286,868	2.31	5/17,22,27,6/1/09	94.7%		
2008	36	Hidden Falls	19,635,759	18,600,504	2.22	05/22/09	94.7%		
2008		NSRAA Totals:	47,393,371	44,887,372	2.27			391,097	0.87%
	SJC co	o-op fry (Medvejie stock):	7,806,637	7,393,000	2.25	5/17,22,6/1/09	94.7%	64,414	0.87%
		Total incl SJC co-op fry:	55,200,008	52,280,372	2.27			455,511	0.87%
2000	40	Maducija	20 047 449	20 717 225	2.00	4/20 5/6 7 14/10	06.0%		
2009	40 38	Neuvejie Hidden Falls	30,947,440 24 255 000	29,717,233	2.09	4/29,5/6,7,14/10	90.0%		
2009	50	NSRAA Totals	55 202 448	52 436 478	2.13	4/23;5/0/10	93.170	2 382 624	4 54%
2000	SJC co	o-op frv (Medveije stock):	8,703,999	8.358.000	2.06	4/29.5/6/10	96.0%	379.774	4.54%
		Total incl SJC co-op fry:	63,906,447	60,794,478	2.10			2,762,398	4.54%
				, - , -				, - ,	
2010	49	Medvejie	31,972,238	30,350,052	2.17	4/28,5/2,3,9,10,12/2011	94.9%		
2010	37	Hidden Falls	23,857,144	21,804,394	2.15	5/2,9/2011	91.4%		
2010		NSRAA Totals:	55,829,382	52,154,446	2.16			774,926	1.49%
	SJC co	o-op fry (Medvejie stock):	8,992,243	8,536,000	2.19	_	94.9%	126,830	1.49%
		Total incl SJC co-op fry:	64,821,625	60,690,446	2.16			901,756	1.49%
2014	F 4		20 524 020	25 007 400	4 07		02.40/		
2011	21 22	Wedvejie Hiddon Follo	38,521,920	30,007,422	1.87	4/30,5/1,2,5,6,7,8,9/2012	92.4%		
2011	32	Port Armstrong (HE)	24,345,075 1 107 502	23,930,742	1.00	4/30,3/2,3,4,0,7/2012	03.970		
2011		NSRAA Totals	67 064 593	59 544 164	1 78			2 198 809	3 69%
2011	SJC co	o-op frv (Medveije stock):	8.254.523	7.630.000	1.55		92.4%	281.756	3.69%
		Total incl SJC co-op fry:	75,319,116	67,174,164	1.76	—	_	2,480,565	3.69%
2012	57	Medvejie	42,206,625	39,743,004	2.42	5/11,15,20,21,24,30,31/ 2013	94.2%		
2012	30	Hidden Falls	22,269,000	21,135,908	1.86	5/7,8,9,10,23/2013	94.9%	1 212 700	1 009/
2012	SICco	norran Tulais.	04,475,025	8 516 000	2.23		04 2%	1,213,700	1.99%
	00000	Total incl SIC co-on frv:	73 519 521	69 394 912	2 15	—	54.270	1 383 478	1.99%
			10,010,021	00,001,012	2.10			1,000,110	1.0070
						4/22,23,24,27,28,29,5/1,8,9,10,1			
2013	58	Medvejie	43,380,397	40,903,661	2.64	2,13/2014	94.3%		
2013	30	Hidden Falls	22,526,235	21,348,596	1.96	5/5,6,7,8/2014	94.8%		
2013		NSRAA Totals:	65,906,632	62,252,257	2.41		.	1,557,560	2.50%
	SJC co	o-op try (Medvejle stock):	9,295,799	8,765,000	2.02	_	94.3%	219,301	2.50%
		rotarinci SJC co-op iry:	75,202,431	/1,01/,25/	2.30			1,770,801	2.50%
2014	74	Medveije	63,531 914	57,215 334	2 46	4/12.13.14.17.19 20 21 22 23 24			
2017			22,001,017	0.,210,004	2.70	,29,30/2015	90.1%		
2014	16	Hidden Falls	13,467,577	11,183,247	1.99	4/28,29/2015	83.0%		
2014		NSRAA Totals:	76,999,491	68,398,581	2.38			516,363	0.75%
	SJC co	o-op fry (Medvejie stock):	9,075,988	8,174,000	2.00		90.1%	61,708	0.75%
		Total incl SJC co-op fry:	86,075,479	76,572,581	2.34			578,071	0.75%
ac :=						4/10,11,12,13,16,21,25,28,			
2015	62	Medvejie	53,084,084	41,607,546	2.68	5/10/2016	78.4%		
2015	28	Hidden Falls	23,991,200	20,373,245	2.02	4/10,12,13/16	84.9%	4 044 054	0.000/
2015	0.10	NSRAA Lotals:	//,0/5,284	61,980,791	2.46		70 40/	1,911,254	3.08%
	SIC CC	Total incl S IC as an firm	9,014,278	60.045.704	2.47	_	/8.4%	217,858	3.00%
		rotarinor SJC co-op iry:	00,009,002	09,040,791	2.40	1/11 15 16 21 25 26 20		2,129,112	3.00%
						4/14,10,10,21,20,20,30			
L									

(Cont.)

Brood	Percent Stocks	Number	Number	Average	Release	Hatchery	Number	Marine
Year	Used	Eggs	Released	Weight	Date	Survival	Return	Survival
2016	62 Medvejie	53,180,614	32,427,754	2.81	5/1,2,11,20,24/2017	61.0%		
2016	28 Hidden Falls	24,180,464	19,615,191	2.03	4/19,20,23,24/2017	81.1%		
2016	NSRAA Totals:	77,361,078	52,042,945	2.53			438,538	0.84%
	SJC co-op fry (Medvejie stock):	9,092,112	5,507,000	2.63	_	60.6%	46,405	0.84%
	Total incl SJC co-op fry:	86,453,190	57,549,945	2.53			484,943	0.84%
2017	50 Medvejie	53,241,943	45,802,424	2.99	5/3,4,5,6,7,10,20,23/2018	86.0%		
2017	41 Hidden Falls	44,115,480	32,371,252	2.64	4/24,25,27,28,29,5/18,19,22/201			
					8	73.4%		
2017	NSRAA Totals:	97,357,423	78,173,676	2.74			1,146,451	1.47% *
	SJC co-op fry (Medvejie stock):	9,003,480	7,780,000	1.72		86.4%	114,097	1.47%
	Total incl SJC co-op fry:	106,360,903	85,953,676	2.74			1,118,988	1.30%
2018	91 Medveije	88 327 795	58 919 776	3 13	4/1 2 6 12 14 15 16 18 23 28 29	66 7%		
2010		00,021,100	00,010,770	0.10	30.5/1.2.3.5.12/19	00.170		
2018	0 Hidden Falls	0	0					
2018	NSRAA Totals:	88,327,795	58,919,776	3.24			2,999,005	5.09% *
	SJC co-op fry (Medvejie stock):	9,000,000	7,522,000	4.06		83.6%	382,868	5.09%
	Total incl SJC co-op fry:	97,327,795	66,441,776	3.24			3,381,873	5.09%
2019	55 Medvejie	62,033,202	44,794,197	3.41	4/16,22,28,30, 5/4,13,14/20	72.2%		
2019	38 Hidden Falls	42,698,439	33,796,460	3.03	4/22/2020, 5/13,14/2020	79.2%		
2019	NSRAA Totals:	104,731,641	78,590,657	3.14			593,224	0.75% *
	SJC co-op fry (Medvejie stock):	9,000,000	7,607,000	2.01	_	84.5%	57,250	0.75%
	Total incl SJC co-op fry:	113,731,641	86,197,657	3.14	_		650,474	0.75%
2020	58 Medvejie	66,350,088	49,440,353	2.94	4/24,5/15,5/24,5/11/21	74.5%		
2020	34 Hidden Falls	39,285,293	35,692,961	3.38	4/17/2021, 5/11/2021	90.9%		
2020	NSRAA Totals:	105,635,381	85,133,314	3.20			939,112	1.10% *
	SJC co-op fry (Medvejie stock):	9,000,000	8,396,000	3.94		93.3%	92,617	1.10%
	Total incl SJC co-op fry	114,635,381	93,529,314	3.20			1,031,729	1.10%
0004	N 4	00 000 040	40 745 405	0.07		70.00/		
2021		62,229,010	43,715,135	3.07	4/27/2022, 5/12,13,23/2022	70.2%		
2021	Hidden Falls	24,947,880	37,400,845	3.01	4/20/2022, 5/23/2022	08.1%		
2021	NORAA TUtals.	0,000,000	7 422 000	1.06				
	Total incl S IC co on frv:	9,000,000	88 544 080	3.04	-			
	rotar incli SJC co-op iry:	120,170,090	00,044,900	3.04				
2022	Medveiie	62,208,000	49,266 942	3.08	4/27/2022, 5/12 13 23/2022	79.2%		
2022	Hidden Falls	42,859,260	37,413,883	2.98	4/26/2022, 5/23/2022	87.3%		
2022	NSRAA Totals:	105,067,260	86,680,825	3.04	·, •· 			
	SJC co-op fry (Medvejie stock):	9,000,000	8,366,000	3.95				
	Total incl SJC co-op fry:	114,067,260	95,046,825	3.04	_			

* = Incomplete Returns

Beginning with BY 2017 - a portion of Medvejie chum eggs were incubated at Sawmill Cr Hatchery. These are included in the above totals and are also itemized in table B3 of the SCH section for this AMP

Table A2a. Medvejie/ Deep Inlet Chum Release History By Stock

Brood	Release	STC	OCK	Total
Year	Year	Medvejie	Hidden Falls	Release
1981	1982	223,697		223,697
1982	1983	2,460,713		2,460,713
1983	1984	2,558,282		2,558,282
1984	1985	6,232,400		6,232,400
1985	1986	25,223,405		25,223,405
1986	1987	27,516,200		27,516,200
1987	1988	28,140,700		28,140,700
1988	1989	16,374,300		16,374,300
1989	1990	28,057,100	6,348,000	34,405,100
1990	1991	17,073,500	12,574,500	29,648,000
1991	1992	11,343,400	12,011,000	23,354,400
1992	1993	16,570,500	13,160,000	29,730,500
1993	1994	18,034,800	11,230,000	29,264,800
1994	1995	20,476,800	11,567,000	32,043,800
1995	1996	26,312,000	13,266,000	39,578,000
1996	1997	25,815,000	12,760,000	38,575,000
1997	1998	26,374,000	12,946,000	39,320,000
1998	1999	26,487,000	13,353,000	39,840,000
1999	2000	26,014,000	13,057,000	39,071,000
2000	2001	27,751,600	13,174,000	40,925,600
2001	2002	26,283,800	21,458,000	47,741,800
2002	2003	36,817,000	11,391,000	48,208,000
2003	2004	25,084,100	22,454,550	47,538,650
2004	2005	25,076,900	23,551,000	48,627,900
2005	2006	31,623,323	23,246,064	54,869,387
2006	2007	31,170,401	21,888,618	53,059,019
2007	2008	28,933,505	23,701,769	52,635,274
2008	2009	26,286,868	18,600,504	44,887,372
2009	2010	29,717,235	22,719,243	52,436,478
2010	2011	30,350,052	21,804,394	52,154,446
2011	2012	35,607,422	23,936,742	59,544,164
2012	2013	39,743,004	21,135,908	60,878,912
2013	2014	40,903,661	21,348,596	62,252,257
2014	2015	57,215,334	11,183,247	68,398,581
2015	2016	41,607,546	20,373,245	61,980,791
2016	2017	32,427,754	19,615,191	52,042,945
2017	2018	29,121,705	32,371,252	61,492,957
2018	2019	58,919,776	0	58,919,776
2019	2020	27,137,191	33,796,460	60,933,651
2020	2021	33,442,625	32,092,901	65 252 440
2021	2022	∠1,040,095	37,400,845	69 114 607
2022	2023	30,700,724	37,413,003	00,114,007

Note: SJH Co-op and Sawmill Creek Hatchery fry are not included in this table

	RELEASE SITE										
Brood		Bear	Cove					DEEP INLET		Total	Release
	Medvejie Stock		H. Falls Stock		Medvejie		H. Falls Stock				
Year	Reg.	Medvejie L-L	Reg.	H. Falls L-L	Stock Reg.	Medvejie L-L	Reg.	H. Falls L-L	D.I. Subtotal	Release	Year
1981	223,697								-	223,697	1982
1982	683,083				1,777,630				1,777,630	2,460,713	1983
1983	769,000				1,789,282				1,789,282	2,558,282	1984
1984	884,800				5,347,600				5,347,600	6,232,400	1985
1985	2,142,825				23,080,580				23,080,580	25,223,405	1986
1986	2,895,000				24,621,200				24,621,200	27,516,200	1987
1987	3,137,700				25,003,000				25,003,000	28,140,700	1988
1988	2,950,500				13,423,800				13,423,800	16,374,300	1989
1989	5,006,100				23,051,000		6,348,000		29,399,000	34,405,100	1990
1990	4,802,000				12,271,500		12,574,500		24,846,000	29,648,000	1991
1991	4,039,400				7.304.000		12.011.000		19.315.000	23,354,400	1992
1992	4,859,500				11.711.000		13,160,000		24.871.000	29,730,500	1993
1993	4 865 000				13 169 800		11 230 000		24 399 800	29 264 800	1994
1994	5 330 800				15 146 000		11,567,000		26 713 000	32 043 800	1995
1995	4 842 000				21 470 000		13 266 000		34 736 000	39 578 000	1996
1996	4 992 000				20,823,000		12,760,000		33 583 000	38 575 000	1997
1007	4,552,000				21,811,000		12,700,000		34 757 000	39,320,000	1998
1008	5 298 000				21,011,000		13 353 000		34,737,000	39,320,000	1990
1000	4,026,000				21,109,000		13,057,000		24,145,000	20.071.000	2000
2000	4,920,000				21,000,000		13,037,000		33,000,000	40.025.600	2000
2000	7,000,200				20,800,000		13, 174,000		40,722,500	40,923,000	2001
2001	7,009,300				19,274,500		21,456,000		40,732,500	47,741,600	2002
2002	6,803,000				30,014,000	7 400 005	11,391,000	5 242 452	41,405,000	48,208,000	2003
2003	7,172,500				10,773,375	7,138,225	17,111,400	5,343,150	40,300,150	47,538,650	2004
2004	7,205,900				12,861,000	5,010,000	17,727,000	5,824,000	41,422,000	48,627,900	2005
2005	9,193,982				17,172,315	5,257,026	17,149,064	6,097,000	45,675,405	54,869,387	2006
2006	9,613,942				15,930,788	5,625,671	16,122,495	5,766,123	43,445,077	53,059,019	2007
2007	9,174,619				14,033,225	5,725,661	18,337,962	5,363,807	43,460,655	52,635,274	2008
2008	9,844,371				16,442,497	-	18,600,504		35,043,001	44,887,372	2009
2009	9,851,926				19,865,309	-	22,719,243		42,584,552	52,436,478	2010
2010	9,948,913				20,401,139	-	21,804,394	-	42,205,533	52,154,446	2011
2011	14,420,675	4,614,805			16,571,942	-	23,936,742	-	40,508,684	59,544,164	2012
2012	13,532,537	4,635,140			13,546,876	8,028,451	21,135,908	-	42,711,235	60,878,912	2013
2013	15,218,379	3,563,709			13,638,743	8,482,830	21,348,596	-	43,470,169	62,252,257	2014
2014	14,752,476	3,444,433			31,138,791	7,879,634	11,183,247	-	50,201,672	68,398,581	2015
2015	13,444,189	5,446,840			18,981,306	3,735,211	20,373,245		43,089,762	61,980,791	2016
2016	12,806,032	4,725,422			11,332,481	3,563,819	19,615,191	-	34,511,491	52,042,945	2017
2017	9,008,039	8,010,085	7,467,358	5,201,705	11,789,137	16,995,163	14,700,151	5,002,038	48,486,489	78,173,676	2018
2018	-	18,557,642	-	-	25,430,695	-	14,931,439	-	40,362,134	58,919,776	2019
2019	7,262,971	11,290,971	8,151,301	7,966,516	8,583,249	17,657,006	8,775,915	8,902,728	43,918,898	78,590,657	2020
2020	9,145,220	9,310,515	8,920,699	9,990,772	19,325,739	11,658,879	4,239,911	12,541,579	47,766,108	85,133,314	2021
2021	8,259,901	8,778,928	8,185,461	8,503,275	15,869,540	10,806,766	10,325,209	10,392,900	47,394,415	81,121,980	2022
2022	9,315,633	9,395,702	7,330,698	8,842,411	18,566,218	11,989,389	10,970,005	10,270,769	51,796,381	86,680,825	2023

Note: SJH Co-op fry are not included in this table

This color represents fish incubated at MED and/or SCH

Table A2c. Medvejie/ Deep Inlet Chum Release History

By Stock & Release Site with Sheldon Jackson Hatchery Cooperative Chum

	RELEASE SITE													
Brood			BEAR COVE						DEEP INLEI					
	Medveije Stock		H. Falls Stock		Bear Cove	Medveije	Medveije Stock					Total NSRAA	Total NSRAA +	
Year	Reg.	Medvejie L-L	Reg.	H. Falls L-L	Subtotal	Stock Reg.	Reg. SJH co-op	Medvejie L-L	H. Falls Stock Reg.	H. Falls L-L	D.I. Subtotal	Release	SJH Release	Release Year
1981	223,697				223,697						-	223,697	223,697	1982
1982	683,083				683,083	1,777,630					1,777,630	2,460,713	2,460,713	1983
1983	769,000				769,000	1,789,282					1,789,282	2,558,282	2,558,282	1984
1984	884,800				884,800	5,347,600					5,347,600	6,232,400	6,232,400	1985
1985	2,142,825				2,142,825	23,080,580					23,080,580	25,223,405	25,223,405	1986
1986	2,895,000				2,895,000	24,621,200					24,621,200	27,516,200	27,516,200	1987
1987	3,137,700				3,137,700	25,003,000					25,003,000	28,140,700	28,140,700	1988
1988	2,950,500				2,950,500	13,423,800					13,423,800	16,374,300	16,374,300	1989
1989	5,006,100				5,006,100	23,051,000			6,348,000		29,399,000	34,405,100	34,405,100	1990
1990	4,802,000				4,802,000	12,271,500			12,574,500		24,846,000	29,648,000	29,648,000	1991
1991	4,039,400				4,039,400	7,304,000			12,011,000		19,315,000	23,354,400	23,354,400	1992
1992	4,859,500				4,859,500	11,711,000			13,160,000		24,871,000	29,730,500	29,730,500	1993
1993	4,865,000				4,865,000	13,169,800			11,230,000		24,399,800	29,264,800	29,264,800	1994
1994	5,330,800				5,330,800	15,146,000			11,567,000		26,713,000	32,043,800	32,043,800	1995
1995	4,842,000				4,842,000	21,470,000			13,266,000		34,736,000	39,578,000	39,578,000	1996
1996	4,992,000				4,992,000	20,823,000			12,760,000		33,583,000	38,575,000	38,575,000	1997
1997	4,563,000				4,563,000	21,811,000			12,946,000		34,757,000	39,320,000	39,320,000	1998
1998	5,298,000				5,298,000	21,189,000			13,353,000		34,542,000	39,840,000	39,840,000	1999
1999	4,926,000				4,926,000	21,088,000			13,057,000		34,145,000	39,071,000	39,071,000	2000
2000	6,945,600				6,945,600	20,806,000			13,174,000		33,980,000	40,925,600	40,925,600	2001
2001	7,009,300				7,009,300	19,274,500			21,458,000		40,732,500	47,741,800	47,741,800	2002
2002	6,803,000				6,803,000	30,014,000			11,391,000		41,405,000	48,208,000	48,208,000	2003
2003	7,172,500				7,172,500	10,773,375	3,257,000	7,138,225	17,111,400	5,343,150	43,623,150	47,538,650	50,795,650	2004
2004	7,205,900				7,205,900	12,861,000	3,249,000	5,010,000	17,727,000	5,824,000	44,671,000	48,627,900	51,876,900	2005
2005	9,193,982				9,193,982	17,172,315	5,098,000	5,257,026	17,149,064	6,097,000	50,773,405	54,869,387	59,967,387	2006
2006	9,613,942				9,613,942	15,930,788	8,818,000	5,625,671	16,122,495	5,766,123	52,263,077	53,059,019	61,877,019	2007
2007	9,174,619				9,174,619	14,033,225	8,083,000	5,725,661	18,337,962	5,363,807	51,543,655	52,635,274	60,718,274	2008
2008	9,844,371				9,844,371	16,442,497	7,393,000	-	18,600,504	-	42,436,001	44,887,372	52,280,372	2009
2009	9,851,926				9,851,926	19,865,309	8,358,000	-	22,719,243	-	50,942,552	52,436,478	60,794,478	2010
2010	9,948,913				9,948,913	20,401,139	8,536,000	-	21,804,394	-	50,741,533	52,154,446	60,690,446	2011
2011	14,420,675	4,614,805			19,035,480	16,571,942	7,630,000	-	23,936,742	-	48,138,684	59,544,164	67,174,164	2012
2012	13,532,537	4,635,140			18,167,677	13,546,876	8,516,000	8,028,451	21,135,908	-	51,227,235	60,878,912	69,394,912	2013
2013	15,218,379	3,563,709			18,782,088	13,638,743	8,765,000	8,482,830	21,348,596	-	52,235,169	62,252,257	71,017,257	2014
2014	14,752,476	3,444,433			18,196,909	31,138,791	8,174,000	7,879,634	11,183,247	-	58,375,672	68,398,581	76,572,581	2015
2015	13,444,189	5,446,840			18,891,029	18,981,306	7,065,000	3,735,211	20,373,245	-	50,154,762	61,980,791	69,045,791	2016
2016	12,806,032	4,725,422			17,531,454	11,332,481	5,507,000	3,563,819	19,615,191	-	40,018,491	52,042,945	57,549,945	2017
2017	9,008,039	8,010,085	7,467,358	5,201,705	29,687,187	11,789,137	7,780,000	16,995,163	14,700,151	5,002,038	56,266,489	78,173,676	85,953,676	2018
2018	-	18,557,642	-	-	18,557,642	25,430,695	7,522,000	-	14,931,439	-	47,884,134	58,919,776	66,441,776	2019
2019	7,262,971	11,290,971	8,151,301	7,966,516	34,671,759	8,583,249	7,607,000	17,657,006	8,775,915	8,902,728	51,525,898	78,590,657	86,197,657	2020
2020	9,145,220	9,310,515	8,920,699	9,990,772	37,367,206	19,325,739	8,396,000	11,658,879	4,239,911	12,541,579	56,162,108	85,133,314	93,529,314	2021
2021	8,259,901	8,778,928	8,185,461	8,503,275	33,727,565	15,869,540	7,423,000	10,806,766	10,325,209	10,392,900	54,817,415	81,121,980	88,544,980	2022
2022	9,315,633	9,395,702	7,330,698	8,842,411	34,884,444	18,566,218	8,366,000	11,989,389	10,970,005	10,270,769	60,162,381	86,680,825	95,046,825	2023

Note:

This color represents fish incubated at MED and/or SCH

Table A3a. Chinook salmon egg take, release, and return data for the Medvejie Creek Hatchery , BY 1982-2021.

Brood Year	Broodstock Source	Number Eggs	Number Released	Release Date	Avg Wat (a)		Hatchery Survival %	, 0	Adult Return	Marine Survival %
1982	Andrew Creek	46,500	26,572	05/23/84	26.7		57.1	•	277	1.04
1983	Andrew Creek	36,509	21,883	05/20/85	55.7		47.1		568	2.60
1984	Crystal Lake	163,500	108,041	05/23/86	16.7		66.1		112	0.10
1985	Crystal Lake	291,600	227,536	05/16/87	18.9		78		1,490	0.65
1986	Crystal Lake Medvejie	223,850 4,209	174,577	05/13/88	33.3		78		5,991	3.43
1987	Crystal Lake Medvejie	1,041,450 303,200	743,511	05/19/89 06/02/89	72.2 23.3	/1 /2	55.3		18,998	2.56
1988	Crystal Lake Medvejie Little Port W. ^{/12}	772,000 636,300 15,080	920,995	05/19/90 05/19/90 05/23/90	47.8 21.0 23.7	/1 /2	64.7		17,022	1.85
1989	Medvejie Ohmer Creek Little Port W. ^{/13} Whitman Lake ^{/12}	611,300 56,400 475,800 425,000 /3	866,839	5/18&23/91	53.2 23.7	/1 /2	79.3	/5	21,879	2.52
1990	Medvejie Whitman Lake ^{/12}	1,200,000 /3 1,561,030 /3	to HFH 1,144,688	5/15,21&6/5/92	31.0 20.4	/1 /2	73.3		39,410	3.44
1991	Medvejie Medvejie	1,803,354 882,000	to HFH 762,369	5/14,21&6/1,2/93	38.1 20.4	/1 /2	86.4		30,982	4.06
1992	Medvejie Medvejie	272,724 /3 1,208,000	to HFH 1,083,432	5/23,25&6/9/94	47.5 25.5	/1 /2	89.7		37,039	3.42
1993	Medvejie	1,308,900 /6	5 1,130,236	5/18,19,22,23/95 3/23/95 (accidental release)	72.2 21.7	/1 /2	86.4		20,344	1.80
1994	Medvejie Gastineau Crystal Lake Hidden Falls Medvejie	585,500 390,400 378,400 177,000 225,890 /7	1,004,878 ' to WLH	5/16,22/96	50.0 22.3	/1 /2	65.6		16,217	1.61
1995	Hidden Falls	1,384,500	1,052,995	5/21/1997	40.9 23 0	/1 /2	76.1		15,253	1.45
1996	Medvejie Hidden Falls	275,600 1,170,000	1,119,512	5/26/1998	34.0,56.0, 92.0	/8	77.4		37,409	3.34
1997	Medvejie	1,957,000	1,596,867	4/21,5/19/99	30.5,49.3,86.4 53,71	/9	81.6		42,948	2.69
1998	Medvejie	2,617,200	2,043,105	5/24,30/2000	32.0,49.6,92.5 34.3	/9	78.1		52,261	2.56
1999	Medvejie	2,781,000	1,872,609	5/7,21,23/2001	36.5,51.3 56.0,59.3	/9	74.7		38,087	2.03
			205,623	//1//2000	21.1	/10			6,102	2.97
2000	Medvejie	2,845,700	1,953,356	4/15,5/23/2002	38.8 49.0,54.8	/9	79.5		52,514	2.69
			309,500	7/16/2001	8.5,15.6	/10			204	0.07
2001	Medvejie	2,845,500	1,502,186	5/27,29/2003	31.6 54.0	/9	52.8	/11	7,965	0.53
			-	(no 0-check smolts)	-	/10				

Table A3a. Chinook salmon egg take, release, and return data for the Medvejie Creek Hatchery, BY 1982-2022.

Brood Year	Broodstock Source	Number Eaas	Number Released	Release Date	Avg Wat (a)		Hatchery Survival %	Adult Return	Marine Survival %
2002	Medvejie	3,200,000	1,929,602	3/26,5/19,20,25,27/04	36.0,75.1 47.5	/9	68.5	14,661	0.76
			261,663	7/17/2003	20.8	/10		46	0.02
2003	Medvejie	2,793,000	1,538,388	5/10,13,16,19,20/05	57.3,88.9 77.6	/9	80.5	41,067	2.67
			709,368	6/23,7/2,7/19/04	10.1,10.2,22.8	/10		2,594	0.37
2004	Medvejie	3,481,000	1,790,477	4/1,20,5/10,12,22,23/06	41.0,65.1,76.1 68.4,71.7	/9	77.0	26,877	1.50
			891,070	7/1,9/15/05	12.7,19.7,25.3	/10		9,130	1.02
2005	Medvejie	4,801,269	1,491,455	3/14,5/14,16,22,24/07	53.1,59.0,62.0,63.0 40.3	/9	67.9	6,912	0.46
			933,874 836,929	7/10,15,17/06 7/15/2006	19.9,22.3,12.5 21.7	/10 /14		601 2,044	0.06 0.24
2006	Medvejie Hidden Falls	3,819,458 1,771,958	2,103,213	5/15,19/2008	42.5,43.1 57.0	/9	74.9	46,187	2.20
		5,591,416	1,084,641 1,002,211	7/10,19/07 7/11/2007	13.6,18.8 12.8	/10 /14		238 510	0.02 0.05
2007	Medvejie	4,644,862	2,128,272	6/3/2009	58.8 46 9 49 3	/9	84.4	19,671	0.92
			873,011 919,043	7/13,14,21/08 7/20/2008	10.5,13.1,17.3 20.2	/10 /14		64 405	0.01 0.04
2008	Medvejie	4,789,294	1,837,901	5/25,27,28,6/1/10	69.4 75.5	/9	77.1	49,063	2.67
			1,852,661	7/11/2009	10.5	/10		106	0.01
2009	Medvejie Hidden Falls	3,967,390 964,701	1,696,344	4/6,13-21/2011 4/20-5/15/2011	53.2,69.5 43.8,54.5	/9	50.7	15,582	0.92
		4,932,091	802,790	7/18/2010	20.1	/10		1,872	0.23
2010	Medvejie Hidden Falls	4,448,922 724,000	2,557,136	5/20/2012 4/24-5/14/2012	52.0 60.9	/9	56.2	18,294	0.72
		5,172,922	349,003	5/25/2012	26.5	/15		3,118	0.89
2011	Medvejie	3,212,420	2,196,152	4/23-5/3/2013 5/28/2013	58.6 24.2	/16	81.0	23,198	1.06
			406,301	6/4/2013	25.2	/15		428	0.11
2012	Medvejie Hidden Falls	2,931,055 1.010.410	1,780,952	4/7-5/15/14 5/3/2014	63.0 25.2	/16	54.8	8,071	0.45
		3,941,465	377,549	5/20/2014	28.9	/15		1,978	0.52
2013	Medvejie	1,761,366	937,711	1/16,3/26,274/20/15	61.4	/16	38.0	1,852	0.20
	Hidden Falls	<u>1,845,231</u> 3,606,597	431,295	5/18/2015 5/15/2015	31.7 27.3	/15		1,728 ' 1,768	0.18 0.41
2014	Medvejie	3,876,041	1,107,049	4/9,10,22,5/3/16	59.7	/16	73.1	17,435	1.57
			735,241 148 568	5/7-8,21-22/16 5/14/2016	53.8 26 7			13,624 1 113	1.85 0.75
			392,677	5/17/2016	27.7	/15		2,406	0.61
			447,918	6/15/2015	6.0	/10		0	0.00

Table A3a. Chinook salmon egg take, release, and return data for the Medvejie Creek Hatchery, BY 1982-2022.

Brood Year	Broodstock Source	Number Eggs	Number Released	Release Date	Avg Wgt (g)		Hatchery Survival %	Adult Return	Marine Survival %	b
2015	Medvejie	4,266,764	837,220 554,198 187,115 346,799 72,714 329,161 129,250	4/4,5,11,12,5/9/17 4/5,6,11,5/15/17 4/28/2017 5/16/2017 5/19/2017 5/25-26/16 5/31/2016	60.6 51.4 22.5 25.5 25.5 7.4 9.6	/16 /15 /18 /10 /17	57.6	7,571 3,213 149 255 343 0 297	0.90 0.58 0.08 0.07 0.47 0.00 0.23	
2016	Medvejie	2,882,940	408,748 599,411 191,934 294,819 104,498 356,708 155,854	4/12,13,25/2018 4/13,25,5/14/2018 5/17/2018 5/20/2018 5/21/2018 6/14/2017 6/3/2017	56.8 51.1 26.3 24.2 21.4 10.1 10.0	/16 /15 /18 /10 /17	73.3	2,697 8,276 2,872 2,865 1,222 0 172	0.66 1.38 1.50 0.97 1.17 0.00 0.11	/4 /4 /4 /4 /4 /4
2017	Medvejie	4,432,240	764,565 506,295 395,447 231,408 342,685 198,924	3/20,27,4/2,20,22/2019 4/3,4,26,5/1,2/2019 4/26/2019 4/24/2019 5/25/2018 5/22/2018	60.3 69.5 17.3 18.1 5.9 5.8	/16 /19 /18 /10 /17	55.0	16,514 3,700 996 490 0 349	2.16 0.73 0.25 0.21 0.00 0.18	/4 /4 /4 /4 /4
2018	Medvejie	5,206,400	623,144 458,541 388,556 208,240 571,549 341,842	4/7/2020 4/20/2020 4/30/2020 4/28/2020 5/18,24,31,6/3/2019 5/20/2019	41.6,62.5 41.6 19.8 17.4 11.5 10.3	/16 /19 /18 /10 /17	49.8	3,632 1,026 3,747 523 141 327	0.58 0.22 0.96 0.25 0.02 0.10	/4 /4 /4 /4 /4
2019	Medvejie	5,565,000	943,412 674,168 224,379 399,607 427,524 637,838	4/15-16/21 4/30/2021 5/8/2021 4/29/2021 5/19/2020 4/28/2020	48.6, 58.8 48.6 20.3 16.7 9.6 13.5	/16 /18 /19 /17 /10	59.4	890 743 77 227 291 63	0.09 0.11 0.03 0.06 0.07 0.01	/4 /4 /4 /4 /4
2020	Medvejie	6,087,300	1,156,853 839,455 354,164 199,158 175,197 570,773	4/14/2022 5/31/2022 5/4/2022 5/17/2022 6/17/2021 5/22/2021	41.4 44.0 13.9 21.5 8.2 4.3	/16 /19 /18 /10 /17	54.1			/4 /4 /4 /4 /4
2021	Medvejie Hidden Falls Crystal Lake Macauley	5,193,000 697,500 270,000 576,000 6,736,500	1,199,079 868,538 298,222 160,633 58,623 319,880	4/13,14,15,16/2023 4/17,5/13,14,15,17/2023 4/28/2023 4/30/2023 7/1/2022 5/19/2022	13.4 27.5 14.7 16.0 20.9 3.4	/16 /19 /18 /10 /17	43.1			/4 /4 /4 /4 /4
2022	Medvejie	6,079,500	329,793	5/23, 10/2/2023	9.5	/20				

/1 Average weight of fish over-wintered in sea water

/2 Average weight of fish over-wintered in fresh water

/3 Eyed eggs transported

/4 Incomplete returns

/5 Excluding LPW Unuk stock

/6 An estimated 69,000 fish were accidentally released on 3/23/95 @ 14g. Average weight of fresh water group excluding this accidental release was 23.7g.

/7 Chickamin stock eggs to Whitman Lake Hatchery

/8 All fish over-wintered in sea water. Average weights of small, medium and large release groups are show.

/9 All fish over-wintered in sea water. Average weights of small, medium and large release groups reared at Medvejie during the summer are shown in the first line. Avg. weights of release groups reared at Green Lake during the summer are shown in the second line.

/10 Zero-check release

/11 A bear tore holes in net pens, releasing an estimated 527,680 pre-smolt in late October, 2002. These are counted as mortality; thus the low hatchery survival. Survival would be about 71% without this loss.

/12 Chickamin River stock

/13 Unuk River stock - none were released

/14 Zero-check release @ Deep Inlet

/15 Halibut Point release site (FW overwinter at Medvejie)

/16 Line 1 Green lake rearing (SW overwinter Bear Cove), line 3 Medvejie raceway rearing (SW overwinter at Bear Cove), Line 3 Medvejie raceway rearing (FW overwinter at Medvejie)

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Table A3b. Chinook release totals by stock origin for yearling and zero check releases for the Medvejie Creek Hatchery, BY 1982-2021

Groups:

MED = reared in hatchery raceways, overwinter FW or SW, release at Bear Cove

GL = reared in Green Lake, overwinter SW, release at Bear Cove

HPM = reared in hatchery raceways, overwinter FW, release at Halibut Point

CI = reared in hatchery raceways, overwinter FW, release at Crawfish Inlet

Stock Group ANDREW CR

Smolt Yearling

			Group			
Year Brood	Release Site	MED	GL	HPM	CI	Grand Total
1982	BEAR COVE 113-41	26,572				26,572
1983	BEAR COVE 113-41	21,883				21,883
1984	BEAR COVE 113-41	108,041				108,041
1985	BEAR COVE 113-41	227,536				227,536
1986	BEAR COVE 113-41	174,577				174,577
1987	BEAR COVE 113-41	743,511				743,511
1988	BEAR COVE 113-41	911,314				911,314
1989	BEAR COVE 113-41	529,831				529,831
1991	BEAR COVE 113-41	762,369				762,369
1992	BEAR COVE 113-41	1,083,432				1,083,432
1993	BEAR COVE 113-41	1,130,236				1,130,236
1994	BEAR COVE 113-41	793,588				793,588
1995	BEAR COVE 113-41	1,052,995				1,052,995
1996	BEAR COVE 113-41	1,119,512				1,119,512
1997	BEAR COVE 113-41	1,295,948	300,919			1,596,867
1998	BEAR COVE 113-41	1,079,504	963,601			2,043,105
1999	BEAR COVE 113-41	950,503	922,106			1,872,609
2000	BEAR COVE 113-41	1,148,176	805,180			1,953,356
2001	BEAR COVE 113-41	1,029,276	472,910			1,502,186
2002	BEAR COVE 113-41	1,020,518	909,084			1,929,602
2003	BEAR COVE 113-41	672,134	866,254			1,538,388
2004	BEAR COVE 113-41	978,811	811,666			1,790,477
2005	BEAR COVE 113-41	787,482	703,973			1,491,455
2006	BEAR COVE 113-41	1,100,364	1,002,849			2,103,213
2007	BEAR COVE 113-41	1,147,641	980,631			2,128,272
2008	BEAR COVE 113-41	897,996	939,905			1,837,901
2009	BEAR COVE 113-41	846,548	849,796			1,696,344
2010	BEAR COVE 113-41		2,281,630			2,281,630
2010	BEAR COVE+HALIBUT PT113 (note 1)				-
2010	BEAR COVE 113-41	275,506				275,506
2010	HALIBUT PT 113-40			167,790		167,790
2010	HALIBUT PT 113-40			181,213		181,213
2011	BEAR COVE 113-41	158,003	2,038,149			2,196,152
2011	HALIBUT PT 113-40			406,301		406,301
2012	BEAR COVE 113-41	138,600	1,642,352			1,780,952
2012	HALIBUT PT 113-40			377,549		377,549

Table A3b. Chinook release totals by stock origin for yearling and zero check releases for the Medvejie Creek Hatchery, BY 1982-2021

Groups:

MED = reared in hatchery raceways, overwinter FW or SW

GL = reared in Green Lake, overwinter SW, release at Bear Cove

HPM = reared in hatchery raceways, overwinter FW, release at Halibut Point

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CI = reared in hatchery raceways, overwinter FW, release at Crawfish Inlet

Stock Group ANI	DREW CR
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Yearling

Smolt	
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Year Brood	Release Site	MED	GL	HPM	CI	Grand Total
2013	BEAR COVE 113-41	152,158	785,553			937,711
2013	HALIBUT PT 113-40			431,295		431,295
2014	BEAR COVE 113-41	883,809	1,107,049			1,990,858
2014	HALIBUT PT 113-40			392,677		392,677
2015	BEAR COVE 113-41	741,309	837,220			1,578,529
2015	CRAWFISH INLET+HALIBUT PT	113 (note 1)				-
2015	CRAWFISH INLET 113-33				72,714	72,714
2015	HALIBUT PT 113-40			346,799		346,799
2016	BEAR COVE 113-41	791,345	408,748			1,200,093
2016	HALIBUT PT 113-40			190,639		190,639
2016	CRAWFISH INLET+HALIBUT PT	113 (note 1)				-
2016	CRAWFISH INLET 113-33				104,498	104,498
2016	HALIBUT PT 113-40			104,180		104,180
2017	BEAR COVE 113-41	506,295	751,000			1,257,295
2017	CRESCENT BAY 113-41			395,447		395,447
2017	CRAWFISH INLET 113-33				231,408	231,408
2018	BEAR COVE 113-41	1,168,345	623,144			1,791,489
2018	CRAWFISH INLET 113-33				341,842	341,842
2018	CRESCENT BAY 113-41	458,541				458,541
2019	BEAR COVE 113-41	674,168	943,412			1,617,580
2019	CRAWFISH INLET 113-33				224,379	224,379
2019	CRESCENT BAY 113-41	399,607				399,607
2020	BEAR COVE 113-41	839,455	1,156,853			1,996,308
2020	CRAWFISH INLET 113-33				199,158	199,158
2020	CRESCENT BAY 113-41	354,164				354,164
2021	BEAR COVE 113-41	868,538	1,199,079			2,067,617
2021	CRAWFISH INLET 113-33				160,633	160,633
2021	CRESCENT BAY 113-41	298,222				298,222
Grand Total		29,181,603	23,103,984	2,993,890	1,173,999	56,453,476

Note: 1. Shared tag code(s) split at the two sites shown.

Table A3b. Chinook release totals by stock origin for yearling and zero check releases for the Medvejie Creek Hatchery, BY 1982-2021

Stock Group Smolt	CHICKAMIN R Yearling		
		Group	
Year Brood	Release Site	MED	Grand Total
1988	BEAR COVE 113-41	9,681	9,681
1989	BEAR COVE 113-41	337,008	337,008
1990	BEAR COVE 113-41	1,144,688	1,144,688
Grand Total		1,491,377	1,491,377

Stock Group	ANDREW CR
Smolt	ZERO

	Release Site				
Year Brood	BEAR COVE 113-41	DEEP INLET 113-41	CRAWFISH INLET 113-33	SILVER BAY	Grand Total
1999	205,623				205,623
2000	309,500				309,500
2002	261,633				261,633
2003	709,368				709,368
2004	891,070				891,070
2005	933,874	836,929			1,770,803
2006	1,084,641	1,002,211			2,086,852
2007	873,011	919,043			1,792,054
2008	1,852,661				1,852,661
2009	802,790				802,790
2014	447,918				447,918
2015	329,161		129,250		458,411
2016	356,708		155,854		512,562
2017	342,685		198,924		541,609
2018	571,549		341,842		913,391
2019			427,524	637,868	1,065,392
2020	175,197		570,773		745,970
2021	58,623		319,880		378,503
2022	329,793				329,793
Grand Total	10,535,805	2,758,183	2,144,047	637,868	16,075,903

Table A4. Coho salmon egg take, release and return data for Medvejie Creek Hatchery BY 1988-2008.

Brood	Broodstock	Number	Release	Number	Number	Number	Release	Avg	Number	Marine
Year	Source	Eggs	Location	Fry Rel	Egg/Fry Transfer	Smolts	Date	Wgt	Adults	Survival
					to SMC					
1988	Indian River	145,600	Deep Inlet			119,870	05/17/90	21.2	11,811	9.9%
1989	Indian River	115,600	Deep Inlet			100,992	06/03/91	15.6	8,646	8.6%
1990	Indian River	162,000	Deep Inlet			135,726	05/18/92	24.5	21,390	15.8%
			Medvejie			2,783	05/15/92	22.0	546	19.6%
1991	Indian River	504,400	Shamrock Bay			280,476	05/24/93	24.3	41,145	14.7%
			Deep Inlet			135,974	05/24/93	20.5	19,059	14.0%
			Medvejie			2,969	05/14/93	18.1	427	14.4%
			Wrinkleneck	5,400		ND			154	ND
1992	Indian River	241,000	Shamrock Bay			156,442	05/19/94	21.6	21,246	13.6%
			Deep Inlet			49,970	05/16/94	16.7	8,003	16.0%
			Medvejie			4,988	5/8&5/20/94	18.2	578	11.6%
			Wrinkleneck	1,830		ND			18	ND
1993	Indian River	235,700	Shamrock Bay			170,297	05/17/95	40.3	9,142	5.4%
			Deep Inlet			41,896	05/15/95	34.6	3,171	7.6%
			Medvejie			4,990	05/18/95	31.0	440	8.8%
			Wrinkleneck	2,176		ND			21	ND
1994	Indian River	268,000	Shamrock Bay			230,511	05/22/96	24.6	2,173	0.9%
			Medvejie			4,860	05/22/96	24.2	132	2.7%
			Wrinkleneck	2,170		ND				ND
1995	Indian River	297,000	Shamrock Bay			226,300	05/23/97	17.5	18,406	8.1%
			Medvejie			6,900	05/22/97	17.5	1,004	14.6%
			Wrinkleneck	2,186		ND	10/03/96			
1996	Indian River	324,800	Shamrock Bay			238,024	05/22/98	29.6	16,489	6.9%
			Medvejie			7,039	05/22/98	29.6	1,061	15.1%
			Wrinkleneck	2,013		ND	10/10/97			ND
1997	Indian River	31,445	Shamrock Bay			0				
			Medvejie			7,045	05/26/99	16.4	1,172	16.6%
			Wrinkleneck			0				
			SJC Hatchery ¹			16,856				ND
1998	Indian River	231,900	Shamrock Bay			198,949	05/23/00	17.6	3,346	1.7%
			Medvejie			10,083	05/23/00	17.6	691	6.9%
			Wrinkleneck	2,034		ND	10/07/99			ND
1999	Indian River	266,200	Shamrock Bay			226,600	05/17/01	19.8	5,962	2.6%
			Medvejie			10,045	05/24/01	19.4	1,000	10.0%
			SJC Hatchery ²			9,985				

Table A4. Coho salmon egg take, release and return data for Medvejie Creek Hatchery BY 1988-2008.

Brood	Broodstock	Number	Release	Number	Number	Number	Release	Avg	Number	Marine
Year	Source	Eggs	Location	Fry Rel	Egg/Fry Transfer	Smolts	Date	Wgt	Adults	Survival
					to SMC					
2000	Indian River	402,900	Shamrock Bay			348,799	05/22/02	14.8	7,339	2.1%
			Medvejie			10,040	05/22/02	17.7	1,324	13.2%
			SJC Hatchery ³			10,000				
2001	Indian River	268,300	Shamrock Bay			220,300	05/24/03	18	11,106	5.0%
			Medvejie			9,952	05/23/03	18.1	571	5.7%
			SJC Hatchery ⁴			10,065				
2002	Indian River	400,000	Shamrock Bay			362,961	05/21/04	20	19,908	5.5%
			Medvejie			11,348	05/20/04	16.1	679	6.0%
	Plotnikof Lake	42,300	Deep Inlet			39,398	05/20/04	12	960	2.4%
2003	Indian River	324,855	Shamrock Bay ⁵			286,682	4/29,5/26/05	13.8,21.2	6,438	2.2%
			Medvejie			20,472	05/26/05	15.4	618	3.0%
2004	Indian River	24,150	smolt transfer to	SJH ⁶						
	Plotnikof Lake	153,500	Bear Cove			9,895	05/23/06	17.3	258	2.6%
			Deep Inlet			118,772	05/18/06	16.5	5,181	4.4%
2005	Indian River	166,671	fry transfer to SJI	н ⁶						
	Plotnikof Lake	245,455	Bear Cove			9,992	06/14/07	15.1	117	1.2%
			Deep Inlet			201,859	06/14/07	18.4	3,128	1.5%
2006	Indian River	108,000	egg transfer to SJ	H ⁶						
	Plotnikof Lake	223,651	Bear Cove			20,181	06/13/08	16.1	30	0.1%
			Deep Inlet			193,459	06/14/08	17.7	810	0.4%
2007	Plotnikof Lake	443,296	Bear Cove			0				
			Deep Inlet			245,455	06/08/09	12.5	1,057	0.4%
2008	Plotnikof Lake	20,400	Bear Cove			no release - fr	ry destroyed; swi	itching broods	tock source	
			Deep Inlet							

(cont.)

Beginning with BY 2009 (Salmon Lake stock), all coho are reported under the Sawmill Creek permit, even though eggtakes and incubation/rearing of Bear Cove released coho occurs at Medvejie. See the Sawmill Creek AMP for these fish.

¹ transferred to Sheldon Jackson Hatchery as smolts on 4/15/99

² transferred to Sheldon Jackson Hatchery as smolts spring 2001.

³ transferred to Sheldon Jackson Hatchery as smolts spring 2002

⁴ transferred to Sheldon Jackson Hatchery as smolts spring 2003

 5 96,900 of number shown were released early - transfer boat accident on 4/29/05, 13.8g smolt

⁶ transferred to Sheldon Jackson Hatchery to allow for Plotnikof stock release at Bear Cove

Appendix B: Sawmill Creek Hatchery Tables

Table B1. Projected 2024 Returns to Sawmill Creek Hatchery Projects									
Run	Species	First Brood year	Last Brood Year	Release Site	Forecast	Forecast Min	Forecast Max		
Summer	mmer Chum 2018 2021		Crawfish Inlet 113-33	1,336,000	756,000	2,113,000			
Fall	Coho	2021	2021	Bear Cove 113-41	11,000	6,000	22,000		
Fall	Coho	2021	2021	Deep Inlet 113-41	17,000	8,000	33,000		

Table B2. Coho salmon egg take, release and return data for Salmon Lake stock at Medvejie Creek & Sawmill Creek Hatcheries, BY 2009-2023.

Brood Year	Broodstock Source	Number Eggs	Release Location	Transfer Stage to SMC	Number Egg/Fry Transfer to SMC	Number Smolts	Rel ease Date	Avg Wgt	Number Adults	Marine Survival
2009	Salmon Lake	265,991	Bear Cove Deep Inlet			54,720 162,826	05/26/11 05/20/11	28.1 26.9	1,279 4,911	2.3% 3.0%
2010	Salmon Lake	174,903	Bear Cove Deep Inlet			50,421 116.130	05/27/12 05/27/12	26.1 30.0	5,951 13,103	11.8% 11.3%
2011	Salmon Lake	222,015	Bear Cove	fry	160,443	53,026 158,968	05/17/13 05/24/13	25.9 26.3	5,182 12,671	9.8% 8.0%
2012	Medvejie	405,390	Bear Cove			72,114	05/19/14	25.1	4,124	5.7%
	Salmon Lake	65,490	Deep Inlet ¹	eyed eggs	416,537	296,449	05/18/14	24.5	10,682	3.6%
2013	Medvejie	1,582,893	Bear Cove Deep Inlet ¹	green eggs	1,506,768	77,769 949,412	05/13/15 5/12,13/15	23.1 24.7	4,858 16,158	6.2% 1.7%
2014	Medvejie	941,876	Bear Cove			205,176	05/24/16	25.3	21,228	10.3%
			Deep Inlet ¹	eyed eggs	831,105	673,516	5/15,16/2016	26.6	50,937	7.6%
2015	Medvejie Sawmill Creek ²	1,175,300 317,550	Bear Cove Deep Inlet ¹	green eggs	1,219,100	201,398 907,708	05/09/17 05/17/17	25.69 25.34	14,664 88,080	7.3% 9.7%
2016	Medvejie	1,679,136	Bear Cove			205,346	05/07/19	23.6	11,603	5.7%
2017	Medvejie	3,082,979	Deep Inlet ¹ Bear Cove Deep Inlet ¹	green eggs	1,372,400 2,564,572	1,096,961 204,243 1,828,650	5/21,22/18 05/09/19 5/6-10/19	22.0 25.2 23.0	39,436 12,781 22,175	3.6% 6.3% 1.3%
2018	Medvejie	4,325,396	Bear Cove			214,017	05/12/20	25.0	12,395	7.02%
			Deep Inlet ¹	green eggs	2,120,279	1,660,849	5/20,21/20	22.0	14,880	0.9%
2019	Medvejie	3,722,394	Bear Cove Deep Inlet ¹	green eggs	3,428,714	207,475 1,766,291	05/19/21 5/16-19/21	24.0 18.8	12,405 11,078	6.0% 0.6%
2020	Medvejie	4,178,223	Bear Cove Deep Inlet ¹	green eggs	3,176,970	199,977 1,649,843	05/16/22 05/26/22	19.7 16.9	8,718 8,837	4.4% 0.5%
2021	Medvejie	2,412,000	Bear Cove Deep Inlet ¹	green eggs	1,810,654	199,477 1,568,497	05/15/23 5/25-28/2024	20.5 16.9		
2022	Medvejie	3,832,500	Bear Cove Deep Inlet ¹	green eggs	2,167,125					
2023	Medvejie	2,293,500	Bear Cove Deep Inlet ¹	green eggs	1,650,106					

¹ Green color indicates Sawmill Creek Hatchery

² Broodstock adults collected from tailrace of hydro plant in Sawmill Creek

Table B3. Chum salmon egg take, release and survival data for the Sawmill Creek Hatchery BY 2014-2022. Release site = Crawfish Inlet

Brood	Stocks	Green	Release	Eyed	Number	Average	Release	Hatchery	Number	Marine
Year	Used	Eggs	Site	Eggs	Released	Weight	Date	Survival (all)	Return (CI)	Survival (CI)
2014	Medvejie	15,037,740	Crawfish Inlet	14,582,802	13,370,294	4.10	5/2,3,4,5,6/2015	88.9%	727,171	5.44%
2015	Maduaija	20 049 422	Crowfich Inlat	1/ 102 020	14 019 140	2.00	4/15 16 17 18/2016	02.5%	4 614 496	16 60%
2015	weuvejie	50,046,452	Crawfish Inlet	13 866 315	14,018,140	2.09 4.10	4/15,16,17,18/2016	92.3%	4,014,490	10.00%
			CI Subtotal	28,049,353	27,794,243		1/21/20/20/20/20/20/20			
2016	Medvejie	30,013,836	Crawfish Inlet	13,146,523	9,711,464	2.13	5/7,14/2017	76.8%	1,174,924	5.10%
			Crawfish Inlet	13,600,453	13,330,768	4.37	5/21,22,23, 24,25/2017			
			CI Subtotal	26,746,975	23,042,232					
2017	Medvejie	50,029,920	Crawfish Inlet	15,000,404	14,037,446	2.00	5/10,11,12/2018	89.0%	2,072,097	7.58%
			Crawfish Inlet	14,978,691	13,282,071	4.32	5/15,16,17,18/2018			
			CI Subtotal	29,979,095	27,319,517					
			Deep Inlet	20,000,961	17,226,110	2.14	5/7,8,9,23/2018			
			SCH Total	49,980,056	44,545,627					
2018	Medveije	50.088.360	Crawfish Inlet	15.424.051	15.205.614	4.30	05/07/19	77.0%	484.051	3.18% *
	100000,00	50,000,000	Crambin	10, 12 1, 12	10,200,00		00,0.,==			0
			Deep Inlet	24,309,907	23,360,666	2.06	4/1,2,6,12,18,23,29/2019			
			SCH Total	39,733,958	38,566,280					
2019	Medvejie	50,018,214	Crawfish Inlet	13,516,103	12,704,656	2.05	04/24/20	88.3%	1,589,936	6.00% *
			Crawfish Inlet	14,151,364	13,801,389	3.98	05/14/20			
			CI Subtotal	27,007,400	20,500,045					
			Deep Inlet	17,918,000	17,657,006	4.26	4/26,5/4/2020			
			SCH Total	45,585,466	44,163,051					
2020	Medvejie	50,101,942	Crawfish Inlet	12,228,897	12,111,643	2.21	05/22/21	83.5%	354,870	2.58% *
			Crawfish Inlet	13,879,772	13,744,360	2.78	05/19/21			
			CI Subtotal	26,108,669	25,856,003					
			Deep Inlet	18,582,501	15,997,728	2.03	04/25/21			
			SCH Total	44,691,170	41,853,731					
2021	Medvejie	49,996,296	Crawfish Inlet	12,173,635	11,970,472	1.93	05/21/22	79.5%		
			Crawfish Inlet	12,218,787	11,888,255	2.60	05/22/22			
			CI Subtotal	24,392,422	23,858,727					
			Deep Inlet	16,773,949	15,869,540	1.96	05/04/22			
			SCH Total	41,166,371	39,728,267					
2022	Medvejie	50,193,000	Crawfish Inlet	12,669,051	12,597,552	2.19	05/21/23	91.2%		
			Crawfish Inlet	15,078,354	14,614,905	3.22	05/23/23			
			CI Subtotal	27,747,405	27,212,457					
			Deep Inlet	18,779,047	18,566,218	1.98	05/01/23			
			SCH Total	46,526,452	45,778,675					
2023	Medvejie	50,186,994	Crawfish Inlet	11,212,559						
			Crawfish Inlet	12,503,371						
			CI Subtotal	23,715,931						
			Deep Inlet	17,279,401						
			SCH Total	40,995,331						

* Incomplete Returns

Deep Inlet returns tracked in Medvejie tables

Eggtakes occur at Medvejie; eyed eggs are transferred to Sawmill Creek for hatch.

Medvejie stock eggs for Deep Inlet release began incubating partially at Sawmill Creek Hatchery in BY 2017.

Appendix C: Figures



Figure C1. – NSRAA Coho Salmon Project Locations.



Figure C2. – Bear Cove SHA for Chinook and coho salmon (5 AAC 40.042(a)(4)) and Silver Bay SHA (5 AAC 33.375).



Figure C3. – Deep Inlet Terminal Harvest Area

5 AAC 33.376. District 13: Deep Inlet Terminal Harvest Area Management Plan.



Figure C4. – August terminal chum salmon trolling area (5 AAC 29.112(b)).



Figure C5. – Silver Bay/Eastern Channel SHA and Deep Inlet SHA/THA for chum salmon (5 AAC 40.042(6) and (7), and 5 AAC 33.376(b)).



Figure C6. – Crawfish Inlet Special Harvest Area.



Figure C7. – Crawfish Inlet Troll/Net Terminal Harvest Area.



Figure C8.- Waters open to chum trolling in Crawfish Inlet THA and West Crawfish Inlet during coho closure.

Appendix D: Timelines



PRODUCTION SUMMARY

Organization or Hatchery

NSRAA: Sawmill Creek

current year

	2023											2024										2025		
	J	A	S	0	N	D	J	F	М	А	м	J	J	А	S	0	N	D	J	F	М	А	М	J
SPECIES	BY 24																BY 24 Eggtake	BY 24 Otolith - 100%	TRX Eggs to SMC		BY 24 Pond fry			
Coho																	Eggtake	/ Incubatio	'n		Me	edvejie FW R	aceway	
	BEAR COVE (Brood)																300	ОТ)		240	1		
	BLAR COVE (BIOOD)																300				240			
																	Sawmil	l Creek Hate	chery			Sawmill RW/	Ponds	
	SAWMILL CREEK																2,700	ОТ)		1,450			
	Total																3,000				1,690			
		D DV 24															Codes:							
	Thousands	J BY 24															Faatake			FT	number & s	ite		
	mousunus			GRFFN		FYFD		OCT	RFI	REI							Tagging			т	number			
	BS SOURCE	Δ	AGENCY	FGGS	GROUP	FGGS	FRY	POP	SITE	EST							Release			R	number & s	ite		
	MEDVEJIE	NSR	A														transfers			"to "				
	SAWMILL	NSR	A	3,000													Otolith			от				
	Total			3,000													SMC			Sawmill Cr	eek Hatchery			
				300	Brood		240	228	BC	200														
				2,700	SMC		1,450	1,378	DI	1,350														
	3,000						1 600	1 606		1 550														

	2,700 SMC		1,450	1,378	DI	1,350
	3,000	-	1,690	1,606		1,550
survival from green egg:	100%		56%	54%		52%
incremental survival (for planning)	90%		80%	95%		98%



PR(Orga	DUCTION	SUMMARY		NSRAA:	: Sawmill	Creek																	
0		,									current	year	-										
		20	23								2024	4								1	2025		
	J	A S	0	N	D	J	F	М	А	М	J	J	А	S	0	N	D	J	F	М	Α	М	J
SPECIES	BY 22								BY 22 to CI	BY 22 Release													
			T30 K																				
Chinook		Sawmill Creek Ra	ceway			_				Crawfish													
	SAWMILL CREEK				0.23					0.23	CI												
	Total				0.23					0.23													
	SAWMILL CHIN Thousands	OOK BY 22														Codes: Egg take			ET	number &	site		
			GREEN		EYED		DEC	REL	REL							Tagging			т	number			
	BS SOURCE	AGENC	EGGS	GROUP	EGGS	FRY	POP	SITE	EST							Release			R	number &	site		

BS SOURCE AGENCY EGGS GROUP EGGS FRY POP SITE EST MEDVEJIE NSRA 0.36 0.29 0.29 0.23 CRAWFISH 0.			GREEN		EYED		DEC	REL	REL
MEDVEJIE NSRA 0.36 0.29 0.29 0.23 CRAWFISH 0.	BS SOURCE	AGENCY	EGGS	GROUP	EGGS	FRY	POP	SITE	EST
	MEDVEJIE	NSRA	0.36		0.29	0.29	0.23	CRAWFISH	0.23

94% 95% 90% incremental survival (f 90%

Egg take	ET	number & site
Tagging	т	number
Release	R	number & site
transfers	"to"	
Otolith	ОТ	
SMC	Sawmill Cro	eek Hatchery
MCH	Medvejie C	reek Hatchery



PI Or	RODUCTION ganization or Ha	SUMMA	RY		NSRAA: I	MEDVEJ	I <u>E CIF</u>													_					
												С	current year												
	J	A	2023 S	0	N	D	J	F	М	А	М	J	2024	J	А	S	0	N	D	J	F	M	2025 A	М	J
SPECIES	BY 22			BY 22 From GL To SW				BY 22 Feb Inventory			BY 22 May Release														
CHINOOF	swow	Green Lake	<mark>e/Medvejie</mark>	GL/MED	O SW Pens		1 	2.75			2.61	Bear Cove			100% otolith m	arked; repre	sented by CW	т							
	FWOW	Medvejie	FWOW(Bea	ar Cove & Re	emote grou	ps)		0.65		-	0.00	Bear Cove			100% otolith m	arked; repre	sented by CW	т							
	BY22 Zero-ck released in May 2023 ZERO-CHECK																								
	Remote release									-	Crawfish 0.40	Crawfish I			100% otolith m	arked; repre	sented by CW	т							
	Remote release									Ļ	SJH Cres	cent SJH Crescent	Bay		100% otolith m	arked; repre	sented by CW	т							
	Total				0.00	1					3.26														
	MEDVEJIE CHINO(Millions BS SOURCE AC-MED to SCH (yrIng)	AGENCY NSRA NSRAA	GREEN EGGS 4.91 0.36	EYED EGGS 4.64 0.29	FRY 4.22 0.29	GROUP	FEB POP	REL SITE	2024 REL EST	2023 REL EST	3							Codes: Egg take Tagging Release transfers			ET T R	number & number number &	site site		
	Total		5.27	4.93	4.51 0.43 3.08	Zero-ck GL/MED	2.75	BC	2.61	0.33 0.33 <swow< td=""><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Otolith MED HF HP SJH</td><td></td><td></td><td>OT Medvejie Hidden Fal Halibut Po Sheldon Ja</td><td>ls int release s ckson Hatch</td><td>ite iery Crescent</td><td>: Bay release</td><td>site</td></swow<>	3							Otolith MED HF HP SJH			OT Medvejie Hidden Fal Halibut Po Sheldon Ja	ls int release s ckson Hatch	ite iery Crescent	: Bay release	site

3.08 GL/MED

0.71 MED

0.29 CRAW

86%

94%

gr egg>fry

100%

Incremental for planning

94%

2.75

0.65

3.63

95%

fry>fall

BC

BC

SJH

CRAW

0.23 CRAW

2.61 <SWOW

0.25 <FWOW

0.40 <FWOW

0.23 <FWOW

98% (FW)

3.49

fall>rel

<FWOW

fall>rel

95% (SW)

Sheldon Jackson Hatchery Crescent Bay release site

Crawfish Inlet release site Saltwater over-winter

Freshwater over-winter Andrew Creek stock

CRAW

SWOW

FWOW

AC



1.98 GL/MED

0.3

0.00

91%

gr egg>fry 94%

0%

100%

Incremental for planning

MED

SCH

1.88 BC

0.35 CRAW

2.23

95%

fry>fall

BC

SSSC

CRAW



Medvejie-GL&MCIF reg Bear Cove

Medvejie-FWOW Bear Cove

SJH

CRAW

swow

FWOW

AC

3.57

0.75

5.02

71.1%

14.9%

0.12

fall>rel

90% (SW)

1.69 <SWOW

0.00 <FWOW

0.35 <FWOW

0.00 <FWOW

0.00

2.04

98% (FW)

fall>rel

FWOW

Sheldon Jackson Hatchery Crescent Bay release site

Crawfish Inlet release site

Saltwater over-winter

Andrew Creek stock

Freshwater over-winter

PRODUCTION SUMMARY Organization or Hatchery

NSRAA: MEDVEJIE CIF

current year

			2023										2024								2	025		
	J	A	S	0	N	D	J	F	м	А	м	J	J	А	S	Ō	N	D	J	F	М	А	М	1
SPECIES	BY 24													BY 24 Eggtake	BY 24 Otolith - 100%					BY 24 Pond fry				
CHINOOK	((OT)	Eggtake /	Incubation							
														5.00										
																								T 175 k
																				-> Me	dvejie SW0	W(Med &	Green Lake	groups)
	swow	/																		3.40				
																							T 30K CI, 30	JK SJH
																				-> Med	vejie FWO	W(Bear Co	ve & Remot	te groups)
	FWOW	ı																		0.65				
																				Mod		2001/21/	ı	т зок
																			l		lvejie rvv n	aceway	SW Pens	
	Zero Check	k																		0.45				
	Remote Release	e																						
	Total													5.00					1	4.50				



61

ET

Т

R

"to ____

Medvejie

Hidden Falls

Halibut Point release site

Crawfish Inlet release site

Saltwater over-winter

Andrew Creek stock

Freshwater over-winter

OT

number & site

number & site

Sheldon Jackson Hatchery Crescent Bay release site

number

	PRODUCT	ON SUMM	ARY			NSRAA: I	MEDVEJI	ECIF																	
		,											current	year											
				2023									202	24								202	5		
		J	A	S	0	N	D	J	F	М	А	М	J	J	А	S	0	N	D	J	F	М	А	М	J
SPECIES	Stock	Lot BY 23 Eggtake							Release						BY 24 I	ggtake					Release				
	Stock Lot BY 23 Eggtake																								
		Eggtake / Incubation													Egg	take / Incu	bation								
PINK	Medvejie	Bear Cove	299.9						264.5						300.0						264.6				
	TOTAL 299.9							264.5						300.0						264.6					

MEDVEJIE PINK BY 23

Thousands								
	REL			GREEN	EYED	FRY	RE	EL.
STOCK	SITE	AGENCY	GROUP	EGGS	EGGS		GC	DAL
Medvejie	BC	NSRA	REG	299	9.9		269.9	264.5
		survival f	rom green eg	g: 100	0%		90%	88%
	incren	nental survival	(for plannin	g)			90%	98%

MEDVEJIE PINK BY 24

Thousand	ls							
	REL			GREEN	EYED	FRY	RE	Ľ.
STOCK	SITE	AGENCY	GROUP	EGGS	EGGS		G	DAL
Medvejie	BC	NSRA	REG	3	00		270	264.6
	incrementa	survival fro	om green egg: for planning)	10	0%		90% 90%	88% 98%

Codes: Egg take ET number & site Tagging T number Release R number & site transfers "to __" Otolith OT BC Bear Cove

Appendix E: Fish Transport Permits

Fish	Trans	port P	Permits
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Species	Ancestral Stock	Hatchery	FTP	ET, trans, or release?	Transfer from To	Maximum Number, Life Stage	Expires
Chum salmon	Kadashan River	MCH	09J-1021	All	HFH to MCH to Deep Inlet	24,000,000 eggs	12/31/2030
Chum salmon	Kadashan River	МСН	16J-1015	All	Deep Inlet to SCH to MCH to Deep Inlet	24,000,000 eggs	12/31/2026
Chum salmon	Kadashan River	МСН	16J-1016	All	Deep Inlet to MCH to SCH to MCH to Deep Inlet	adults for 24,000,000 eggs	12/31/2026
Chum salmon	Kadashan River	MCH	17J-1016	All	HFH to MCH to Bear Cove	20,000,000 eggs	12/31/2032
Chum salmon	Kadashan River	MCH	20J-1014	All	MCH to Bear Cove	20,000,000 eggs	3/31/2030
Chum salmon	Kadashan River	MCH	20J-1015	All	MCH to Deep Inlet	24,000,000 eggs	3/31/2030
Chum salmon	Kadashan River	MCH	20J-1035	Egg take, transfer	MCH to SCH to MCH	44,000,000 eggs	12/31/2030
Chum salmon	Nakwasina River	MCH	12J-1004	All	MCH to Bear Cove	53,000,000 egg take, release 20,000,000	12/31/2032
Chum salmon	Nakwasina River	MCH	12J-1005	All	MCH to Deep Inlet	33,000,000 eggs	12/31/2032
Chum salmon	Nakwasina River	MCH	11J-1016	Egg take, Transfer	SJH to MCH	9,000,000 eggs	12/31/2031
Chum salmon	Nakwasina River	MCH	92J-1015	All	Deep Inlet to MCH to Deep Inlet	20,000,000 eggs	8/15/2032
Chum salmon	Nakwasina River	SJH*	11J-1009	Transfer, Release	MCH to Deep Inlet	fry from 9,000,000 eggs	12/31/2031
Chum salmon	Nakwasina River	SJH*	11J-1010	All	MCH to SJH to Crescent Bay	3,000,000 eggs	12/31/2031
Chum salmon	Nakwasina River	SJH*	11J-1011	Egg take	MCH to MCH	9,000,000 eggs	12/31/2031
Chum salmon	Nakwasina River	MCH	15J-1007	Transfer	Deep Inlet to MCH	70,000 adults	12/31/2025
Chum salmon	Nakwasina River	SCH	14J-1017	All	MCH to SCH to Crawfish Inlet	30,000,000 eggs	12/31/2024
Chum salmon	Nakwasina River	SCH	17J-1017	All	MCH to SCH to Deep Inlet	20,000,000 eggs	12/31/2032
Chum salmon	Nakwasina River	MCH	20J-1009	Egg take, Transfer	MCH to SCH to MCH	42,000,000 eggs	3/31/2030
Chum salmon	Nakwasina River	MCH	20J-1029	Transfer	Deep Inlet to MCH	60,000 adults	12/31/2030
Chum salmon	Nakwasina River	MCH	20J-1030	Transfer	Crawfish Inlet to MCH	60,000 adults	12/31/2030
Chum salmon	Nakwasina River	MCH	21J-1019	Egg take, transfer	Crawfish Inlet to MCH	63,000,000 eggs	12/31/2031
Chum salmon	Nakwasina River	SCH	21J-1020	Egg take, transfer	Crawfish Inlet to MCH to SCH	30,000,000 eggs	12/31/2031
Coho salmon	Salmon Lk	SCH	12J-1008	All	MCH to SCH to Deep Inlet	4,332,000 eggs	12/31/2032
Coho salmon	Salmon Lk	SCH	12J-1009	All	MCH to Bear Cove	410,000 eggs	12/31/2032
Coho salmon	Salmon Lk	SCH	12J-1010	All	MCH to Deep Inlet	410,000 eggs	12/31/2032
Coho salmon	Salmon Lk	SCH	12J-1023	Transfer	Deep Inlet to MCH	4,000 adults for 4,330,000 eggs	12/31/2032
Coho salmon	Salmon Lk	SCH	14J-1006	Transfer	SCH to MCH to SCH	fry from 4,332,000 eggs	12/31/2033
Coho salmon	Salmon Lk	SCH	23J-1004	All	MCH to Bear Cove	200,000 smolt	12/31/2032
Coho salmon	Sashin Creek	MCH	14J-1001	Transfer, Release	HFH to MCH to Deer Lake	3,200,000 eggs	12/31/2031
Coho salmon	Deep Cove	MCH	14J-1002	Transfer, Release	HFH to MCH to Deer Lake	3,200,000 eggs	12/31/2031
Chinook salmon	Andrew Creek	МСН	09J-1020	All	HFH to MCH	5,200,000 eggs	12/31/2030
Chinook salmon	Andrew Creek	MCH	12J-1001	Transfer, Release	MCH to Crescent Bay	400,000 smolt	6/30/2025

Species	Ancestral Stock	Hatchery	FTP	ET, trans, or release?	Transfer from To	Maximum Number, Life Stage	Expires
Chinook salmon	Andrew Creek	МСН	12J-1006	All	MCH zero check and yearling to Bear Cove	5,200,000 eggs	12/31/2032
Chinook salmon	Andrew Creek	MCH	14J-1018	Transfer, Release	MCH to Crawfish Inlet	2,000,000 smolt	12/31/2030
Chinook salmon	Andrew Creek	MCH	16J-1017	Egg take, Transfer	CLH to MCH	5,200,000 eggs	12/31/2026
Chinook salmon	Andrew Creek	MCH	16J-1019	Egg take, Transfer	MSH to MCH	5,200,000 eggs	12/31/2026
Chinook salmon	Andrew Creek	MCH	19J-1011	Transfer, release	MCH zero check and yearling fry to Green Lake to Bear Cove	4,400,000 juveniles	12/31/2029
Chinook salmon	Andrew Creek	SCH	20J-1010	All	MCH to SCH to Crawfish Inlet	2,000,000 eggs	3/31/2030
Chinook salmon	Andrew Creek	MCH	20J-1011	Transfer, Release	MCH to SCH yearlings and zero checks to Crawfish Inlet	2,000,000 fish	3/31/2030
Chinook salmon	Andrew Creek	SCH	22J-1011	Transfer	SCH to MCH to SCH	2,000,000 fish	12/31/2025
Chinook salmon	Andrew Creek	МСН	23J-1006	Transfer	Crescent Bay to MCH	5,000 adults	12/31/2032
Chinook salmon	Andrew Creek	МСН	23J-1007	Transfer	Crawfish Inlet to MCH	5,000 adults	12/31/2032
Chinook salmon	Andrew Creek	МСН	23J-1011	Egg take, transfer	GCH to HFH to MCH (option via HFH)	2,000,000 eggs	12/31/2032
Pink salmon	Medvejie Creek	MCH	87J-1036	All	MCH to Bear Cove	300,000 eggs	12/31/2032

*Sheldon Jackson Hatchery (SJH) is operated by Sitka Sound Science Center (SSSC).