

**2019 ANNUAL MANAGEMENT PLAN**  
**Haines Projects**  
Northern Southeast Regional Aquaculture Association

This Annual Management Plan (AMP) plan is prepared to fulfill the requirements of 5 AAC 40.840. This plan must organize and guide the hatchery's operations, for each calendar year, regarding production goals, broodstock development, and harvest management of hatchery returns. Egg take through release details are included in planning for succeeding calendar years. Inseason assessments and project alterations by the 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*

From 1984 until 2015, Northern Southeast Regional Aquaculture Association (NSRAA) successfully used streamside incubators to increase egg-to-fry survival of wild chum salmon in the Klehini and Chilkat rivers. Green eggs were collected from adult chum salmon returning to areas close to release locations. Broodstock were captured with beach seines and dip nets. Carcasses from broodstock were returned to the location from which they were collected. NSRAA does not currently have operational funding for egg take or weir operations this year.

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

NSRAA is actively exploring options for partnering with a Haines area organization in 2019. The goal would be to partner with a local organization to assist with spawning channel monitoring during returns and incubation box egg takes. In 2019 NSRAA is currently only looking at our Herman Creek location.

1.3 *New permits or permit amendments*

No permit alterations, fish transport permits (FTP), or amendments are needed this year.

1.4 *Expected returns*

Species, run	Program Name	Projected Common Property Harvest	Other <sup>1</sup>	Total Projected Return, Current Year
Chum salmon, fall	31-Mile	3,000	0	3,000
Chum salmon, fall	Herman Creek	5,000	800	5,800
Chum salmon, fall	17-Mile	4,700	0	4,700
<b>Total</b>		<b>12,700</b>	<b>800</b>	<b>13,500</b>

<sup>1</sup>Other includes broodstock, cost recovery, escapement, etc.

1.5 *Production summary*

Brood year 2019 Egg-take Goals

Program Name	Ancestral Stock(s)	Egg-Take Site, Stat Area	Primary or Alternate Source?	Current Year Egg Goal	Permitted Maximum
31-mile chum salmon incubation	Klehini River	Herman Creek spawning channel #115-32-10250-2077-048E	Primary	0	800,000
Herman Creek spawning channel chum salmon incubation	Klehini River	Herman Creek spawning channel #115-32-10250-2077-048E	Primary	800,000	1,600,000
17-mile chum salmon incubation	Chilkat River	24-Mile spawning channel #115-32-10250-3002	Primary	0	2,400,000
<b>Totals</b>				<b>800,000</b>	<b>4,800,000</b>

1.6 *Current permitting*

In 1992, NSRAA was issued PNP Hatchery Permit #34 to operate the Haines projects. Permitted capacity is 2.4 million green chum salmon eggs for 17-Mile, 1.6 million green chum salmon eggs for Herman Creek, and 800,000 green chum salmon eggs for 31-Mile incubation projects. Permitted capacity for sockeye salmon is 2.0 million green eggs.

## 2.0 Herman Creek Spawning Channel Fall Chum Salmon Production

### 2.1 Program details

In 1996, construction of an infiltration gallery and pipeline to supply incubation boxes with water was completed at Herman Creek spawning channel. In 2004, permitted capacity at this site was increased to 1.6 million chum salmon eggs.

Broodstock collection follows guidelines in previous FTPs for collecting adult chum salmon from this system. The primary broodstock collection site will be from the Herman Creek enhanced spawning channel downstream to the confluence of Herman Creek and in the enhanced spawning channel adjacent to Herman Creek downstream to the confluence of this channel. Approximately 20% of the first 150 adults are collected and 70% of the remaining escapement thereafter, until the egg-take goal is reached. To assist broodstock collection, a movable weir with a coned entry that allows fish to migrate upstream, but not downstream, may be installed near the lower end of Herman Creek spawning channel. A second movable weir will be installed some distance upstream of the coned entry to hold fish in a defined area. Egg takes will occur daily on fish captured between the weirs until permitted egg numbers are reached. After permitted egg numbers are reached, movable weirs may be installed in the spawning channel beginning at the upstream end. When redds occupy approximately 90% of the spawning area, the movable weir will be installed immediately downstream and moved successively downstream as spawning gravels are utilized. Movable weirs protect redds from damage by other spawning salmon. Movable weirs will be removed from the channels by the end of the year they are installed.

### 2.2 Egg takes

<b>Program Name</b>	<b>Ancestral Stock(s)</b>	<b>Egg-Take Site</b>	<b>Primary or Alternate Source?</b>	<b>Current Year Egg Goal</b>	<b>Permitted Maximum</b>
Herman Creek spawning channel chum salmon incubation	Klehini River	Herman Creek spawning channel	Primary	800,000	1,600,000
Herman Creek spawning channel chum salmon incubation	Klehini River	New channel adjacent to Herman Creek	Alternate	0	1,600,000
Herman Creek spawning channel chum salmon incubation	Klehini River	Herman Creek	Secondary	0	1,600,000

2.3 *Broodstock capture method*

Escapement to Herman Creek spawning channel and the new channel adjacent to Herman Creek is the primary source of eggs for the incubators. The secondary egg source is Herman Creek downstream from the confluence of the spawning channel. Escapement to the spawning channel averages 4,976 adult chum salmon. Broodstock totals 2,400 adult chum salmon, which includes 800 adult chum salmon for 31-Mile incubation boxes. Broodstock will be captured with seine and dip nets.

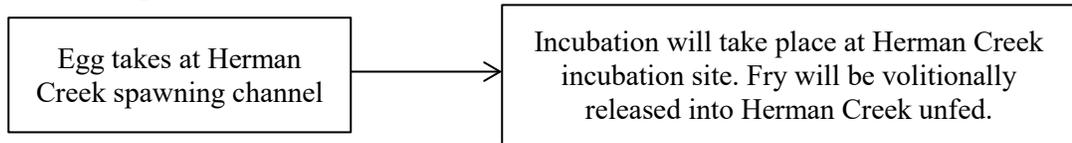
2.4 *Planned releases this calendar year of previous brood year's production*

None.

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

Program Name	Brood Year	Number Live (Jan. 1)	Life Stage	Type of Mark, % to Mark	Number to Release, Date
None					

2.6 *Operational diagram*



2.7 *Fish transport permits*

FTP #	Egg take, transport, or release	Transport from to	Maximal #, life stage	Expires
11J-1017	Egg take, release	Herman Creek	1,600,000 green eggs	8/01/2021

**3.0 17-Mile Fall Chum Salmon Incubation Boxes**

3.1 *Program details*

The 17-Mile chum salmon incubation site was developed as mitigation for loss of spawning habitat upstream of an improperly placed culvert. The broodstock collection sites for this project were 17-Mile slough, 24-Mile spawning channel, and 3 miles south of latitude 59°21.680'. In 2004, a new infiltration gallery was installed, and the number of incubation boxes was increased from two to four boxes. No production is planned for this year.

3.2 *Egg takes*

<b>Program Name</b>	<b>Ancestral Stock(s)</b>	<b>Egg-Take Site</b>	<b>Primary or Alternate Source?</b>	<b>Current Year Egg Goal</b>	<b>Permitted Maximum</b>
17-Mile chum salmon incubation	Chilkat River	24-Mile spawning channel	Primary	0	2,400,000
17-Mile chum salmon incubation	Chilkat River	17-Mile spawning channel	Primary	0	2,400,000
17-Mile chum salmon incubation	Chilkat River	Chilkat River	Secondary	0	2,400,000

3.3 *Broodstock capture method*

No broodstock collection is planned for this year.

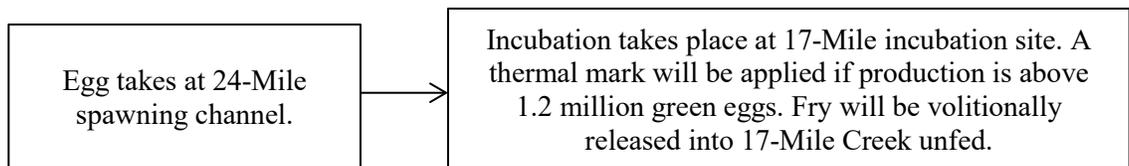
3.4 *Planned releases this calendar year of previous brood years' production*

None

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

None

*Operational diagram*



3.6 *Fish transport permits*

<b>FTP #</b>	<b>Egg take, transport, or release</b>	<b>Transport from To</b>	<b>Maximal #, life stage</b>	<b>Expires</b>
95J-1019	Egg take, transport, release	24-Mile spawning channel to 17-Mile chum salmon incubation	2,400,000 green eggs	12/31/2021

#### 4.0 31-Mile Fall Chum Salmon Incubation

##### 4.1 Program details

The 31-Mile chum salmon incubation area has been adversely affected by both the incursion of Klehini River and rebuilding of Haines Highway. To improve fish access to upstream spawning and rearing habitat, ADF&G removed an impoundment supplying water to incubators and installed an off-channel water intake system that now supplies water to the incubators. No production is planned this year.

##### 4.2 Egg takes

None

##### 4.3 Broodstock capture method

No broodstock collection planned for this year.

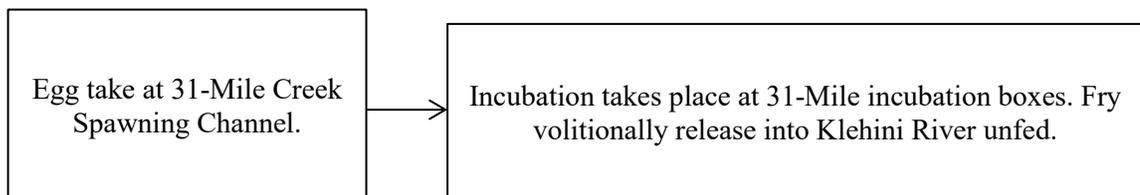
##### 4.4 Planned releases this calendar year of previous brood years' production.

None.

##### 4.5 Previous brood years that will remain in culture during the entire calendar year.

Program Name	Brood Year	Number Live	Life Stage	Type of Mark, % to Mark	Number to Release, Date
None					

##### 4.6 Operational diagram



##### 4.7 Fish transport permits

FTP #	Egg take, transport, or release	Transport from To	Maximal #, life stage	Expires
11J-1019	Egg take, transport, release	Herman Creek spawning channel to 31-Mile chum salmon incubation	800,000 green eggs	8/15/2021

## 5.0 Harvest Management

### 5.1 *Special harvest area*

There is no special harvest area associated with these releases.

### 5.2 *Projected return this year*

Species, run	Program Name	Projected Common Property Harvest	Other <sup>1</sup>	Total Projected Return, Current Year
Chum salmon, fall	31-Mile	3,000	0	3,000
Chum salmon, fall	Herman Creek	5,000	800	5,800
Chum salmon, fall	17-Mile	4,700	0	4,700
<b>Total</b>		<b>12,700</b>	<b>800</b>	<b>13,500</b>

<sup>1</sup>Other includes broodstock, cost recovery, escapement, etc.

### 5.3 *Common property fisheries management*

#### Commercial fisheries

The return of chum salmon from 31-Mile and Herman Creek spawning channel is managed in conjunction with the natural return of chum salmon to Klehini River. The size of this project warrants no special fishery management.

The return of chum salmon from the 17-Mile incubation site is managed in conjunction with the natural return of chum salmon to Chilkat River. The size of this project warrants no special fishery management.

#### Sport fisheries

The sport fisheries harvest of chum salmon is insignificant for all three releases. Sport fisheries will be managed as described in codified regulations for these waters. The department may use emergency order authority to address issues as they arise in season.

### 5.4 *Cost-recovery harvest management*

Species	Cost-Recovery Goal
Chum salmon	None

## 6.0 Additional Information

None

## 7.0 APPROVAL

Recommendations for Approval Haines Annual Management Plan 2019:

Scott Wagner, NSRAA Operations Manager 5/17/2019

Nicole Zeiser, Area Management Biologist, Division of Commercial Fisheries 4/22/2019

Rich Chapell, Area Management Biologist, Division of Sport Fish 4/22/2019

Lowell Fair, Regional Supervisor, Division of Commercial Fisheries 5/16/2019

Judy Lum, Regional Supervisor – Division of Sport Fish 5/16/2019

Lorraine Vercessi, PNP Hatchery Program Coordinator, Div. of Commercial Fisheries 5/16/2019

### **Approval:**

The 2019 Haines Annual Management Plan is hereby approved:

Tom Taube, Deputy Director, Division of Sport Fish 5/20/2019

Peter Bangs, Assistant Director, Division of Commercial Fisheries 5/20/2019

## APPENDICES

- Maps:  
Figure 1.—Haines Project Locations.

Figure 1. – Haines Project Locations

