

**2019 ANNUAL MANAGEMENT PLAN**  
**Eklutna Salmon Hatchery**  
**Cook Inlet Aquaculture Association**

**1.0 Executive Summary**

1.1 Introduction

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 Cook Inlet Aquaculture Association (CIAA) or Alaska Department of Fish and Game (ADF&G) may result in changes to this AMP in order to reach or maintain program objectives. CIAA 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 CIAA. This policy applies to all hatchery operations covered under the AMP.

1.2 New This Year: (production, harvest management, culture techniques, etc.)

*1.2.1 Facility Changes*

As part of the renewal of the land lease from the Department of Natural Resources (DNR), CIAA has performed a land survey and will perform an appraisal. The deadline for completing these tasks has been extended to June 30, 2019 due to circumstances beyond CIAA's control.

CIAA will continue to investigate options for restoring fish production at this facility.

Significant structural damage occurred from the November 30, 2018 earthquake. The damage is currently under review by state and federal agencies.

*1.2.2 Production Changes*

No changes to production at this facility anticipated for 2019.

*1.2.3 Fish Culture Changes*

No changes to production at this facility anticipated for 2019.

*1.2.4 Projected Return and Cost-recovery Changes*

CIAA fish production at this facility has been suspended since 1998. No fish produced by CIAA operations are expected to return. ADF&G does use the Eklutna tailrace for acclimation and release of coho and king salmon as described in the William Jack Hernandez Sport Fish Hatchery annual management plan.

1.3 Fish Transport Permits or Amendments Needed This Year

CIAA fish production at this facility is not anticipated for 2019. No amended or new fish transport permits (FTP) are necessary.

1.4 Expected Return

CIAA fish production at this facility has been suspended since 1998. No fish produced by ESH are expected in 2018.

1.5 Production Summary

*Eklutna Salmon Hatchery*

		<i>current year</i>																																			
Stock & Permit No.	2018						2019						2020						2021																		
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Eklutna Tailrace																																					

*Coho*

		<i>current year</i>																																			
Stock & Permit No.	2018						2019						2020						2021																		
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Eklutna Tailrace																																					

1.6 Permitted Capacity

ESH operates under Private Nonprofit Permit #17 issued in 1982 and has a permitted capacity of 18,000,000 sockeye salmon eggs and 160,000 coho salmon eggs.

1.7 Project Evaluation

CIAA fish production at ESH has been suspended since 1998. No CIAA fish evaluation projects are planned in 2019.

## **2.0 Resurrection Bay Sockeye Salmon**

### 2.1 Purpose and History

The purpose of this program to provide emergency rearing space if water conditions at TLH are determined to be insufficient for rearing of the Resurrection Bay sockeye salmon smolt program as defined in TLH Basic Management Plan.

### 2.2 Operational Plan

#### *2.2.1 Egg-take Goal/Brood Sources*

Not applicable. Will take place under TLH Basic Management Plan.

#### *2.2.2 Egg Take; Transport of Eggs*

Not applicable. Will take place under TLH Basic Management Plan.

#### *2.2.3 Incubation Plans*

Not applicable. Will take place under TLH Basic Management Plan.

#### *2.2.4 Rearing and Release Plans*

CIAA does not anticipate having to use ESH to rear Resurrection Bay sockeye salmon in 2019. However, if water availability becomes critical at TLH, an amendment to this AMP may be made.

### 2.3 Donor Stock Management

#### *2.3.1 Management Strategies*

Not applicable. Will take place under TLH Basic Management Plan.

#### *2.3.2 Escapement Requirements*

Not applicable. Will take place under TLH Basic Management Plan.

### 2.4 Evaluation Plans

Not applicable. Will take place under TLH Basic Management Plan.

### **3.0 Big Lake Sockeye Salmon**

#### 3.1 Purpose and History

The purpose of this program to provide emergency rearing space if water conditions at TLH are determined to be insufficient for the rearing of the Big Lake sockeye salmon smolt program as defined in TLH Basic Management Plan.

#### 3.2 Operational Plan

##### *3.2.1 Egg-take Goal/Brood Sources*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

##### *3.2.2 Egg Take; Transport of Eggs*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

##### *3.2.3 Incubation Plans*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

##### *3.2.4 Rearing and Release Plans*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

#### 3.3 Donor Stock Management

##### *3.3.1 Management Strategies*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

##### *3.3.2 Escapement Requirements*

Not applicable. This program has been suspended in the TLH Basic Management Plan.

#### 3.4 Evaluation Plans

Not applicable. This program has been suspended in the TLH Basic Management Plan.

## **4.0 Eklutna Tailrace Sockeye Salmon**

### 4.1 Purpose and History

CIAA initiated this project in 1992 when fry were transferred from Big Lake Hatchery for rearing to smolt and released to the Eklutna tailrace in 1993.

The purpose of the project was to provide sockeye salmon to the Upper Cook Inlet (UCI) drift and set gillnet commercial fisheries, and to provide for a cost-recovery harvest at the ESH. Returns of adult fish from smolt releases were generally less than expected. Fish returning to the hatchery were available for cost-recovery harvest, but were of poor quality.

The Eklutna tailrace sockeye salmon smolt release project was suspended after the 1998 smolt release. No egg takes, smolt releases, or adult returns are projected in 2019.

### 4.2 Operational Plan

#### *4.2.1 Egg-take Goal/Brood Sources*

Not applicable. This program has been suspended.

#### *4.2.2 Egg take; Transport of Eggs*

Not applicable. This program has been suspended.

#### *4.2.3 Incubation Plans*

Not applicable. This program has been suspended.

#### *4.2.4 Rearing and Release Plans*

Not applicable. This program has been suspended.

### 4.3 Donor Stock Management

#### *4.3.1 Management Strategies*

Not applicable. This program has been suspended.

#### *4.3.2 Escapement Requirements*

Not applicable. This program has been suspended.

### 4.4 Evaluation Plans

Not applicable. This program has been suspended.

## **5.0 Eklutna Tailrace Coho Salmon**

### 5.1 Purpose and History

CIAA initiated this project in 1984 with a small coho salmon smolt release to Cottonwood Creek. The project was moved to the Eklutna tailrace in 1985.

The purpose of the project was to provide coho salmon to the Knik River recreational fishery. Returning coho salmon were also caught in the UCI commercial set and drift gillnet fisheries and harvested by CIAA for cost recovery.

The Eklutna tailrace coho salmon smolt release project was suspended after the 1998 smolt release. No egg takes, smolt releases, or adult returns are projected in 2019.

### 5.2 Operational Plan

#### *5.2.1 Egg-take Goal/Brood Sources*

Not applicable. This program has been suspended.

#### *5.2.2 Egg take; Transport of Eggs*

Not applicable. This program has been suspended.

#### *5.2.3 Incubation Plans*

Not applicable. This program has been suspended.

#### *5.2.4 Rearing and Release Plans*

Not applicable. This program has been suspended.

### 5.3 Donor Stock Management

#### *5.3.1 Management Strategies*

Not applicable. This program has been suspended.

#### *5.3.2 Escapement Requirements*

Not applicable. This program has been suspended.

### 5.4 Evaluation Plans

Not applicable. This program has been suspended.

## 6.0 Attachments

### 6.1 Eklutna Salmon Hatchery Historic Production

Sockeye Salmon							
Brood Year	Egg Take Number	Brood Stock	Number Released	Life Stage	Release Year	Release Site	Comments
1991	Fry transfer	Big Lk.	869,000	Smolt	1993	Eklutna Tail.	From Big Lake Hatchery
1992	Fry transfer	Big Lk.	0	Smolt	1994	Eklutna Tail.	IHNV detected - Fish destroyed
1993	9,000,000	Big Lk.	2,000,000	Fry	1994	Blodgett Lk.	
			3,000,000	Fry	1994	Meadow Cr.	
			1,000,000	Smolt	1995	Eklutna Tail.	
			200,000	Smolt	1995	Grouse Lk.	
1994	7,700,000	Big Lk.	2,000,000	Fry	1995	Blodgett Lk.	
			3,000,000	Fry	1995	Meadow Cr.	
			0	Smolt	1996	Eklutna Tail.	IHNV detected - Fish destroyed
1995	8,000,000	Big Lk.	2,000,000	Fry	1996	Blodgett Lk.	
			3,000,000	Fry	1996	Meadow Cr.	
			1,000,000	Smolt	1997	Eklutna Tail.	
			500,000	Smolt	1997	Grouse Lk.	
1996	8,000,000	Big Lk.	1,100,000	Fry	1997	Blodgett Lk.	
			2,900,000	Fry	1997	Meadow Cr.	
			1,009,000	Smolt	1998	Eklutna Tail.	
			226,000	Smolt	1998	Grouse Lk.	
	Egg Transfer	Tustumena Lk.	2,000,000	Fry	1997	Leisure Lk.	From Crooked Creek Hatchery
			1,000,000	Fry	1997	Hazel Lk.	
			250,000	Fry	1997	Kirschner Lk.	
1997	8,000,000	Big Lk.	2,000,000	Fry	1998	Blodgett Lk.	
			3,000,000	Fry	1998	Meadow Cr.	
			0	Smolt	1999	Eklutna Tail.	Proj. Suspended - Fish Destroyed
	4,041,000	Tustumena Lk.	1,877,000	Fry	1998	Leisure Lk.	
			1,218,000	Fry	1998	Hazel Lk.	
			234,000	Fry	1998	Kirschner Lk.	
2003	Fingerling Transfer	Bear Lk.	402,000	Smolt	2005	Bear Lk.	Temporary rearing - TLH water shortage
2004	Fingerling Transfer	Bear Lk.	979,000	Smolt	2006	Bear Lk.	Temporary rearing - TLH water shortage
2005	Fingerling Transfer	Bear Lk.	619,000	Smolt	2007	Bear Lk.	Temporary rearing - TLH water shortage
	Fingerling Transfer	Big Lk.	316,000	Smolt	2007	Meadow Cr.	Temporary rearing - TLH water shortage
2006	Fingerling Transfer	Bear Lk.	1,600,000	Smolt	2008	Resurrection Bay	Temporary rearing - TLH water shortage
	Fingerling Transfer	Big Lk.	433,000	Smolt	2008	Meadow Cr.	Temporary rearing - TLH water shortage

Chum Salmon							
Brood Year	Egg Take Number	Brood Stock	Number Released	Life Stage	Release Year	Release Site	Comments
1982	1,192,000	Mat./Skw./Chulitna	902,000		1983	Eklutna Tail.	
1983	1,537,000	Mat./Su./Skw./Chulitna	914,000		1984	Eklutna Tail.	
1984	2,352,000	Mat./Eklutna/Skw.	0				IHNV epizootic
1985	3,784,000	Mat./Eklutna/Skw.	1,646,000		1986	Eklutna Tail.	1,715,000 eggs IHNV
1986	3,156,000	Matanuska R.	2,741,000		1987	Eklutna Tail.	
1987	3,019,000	Matanuska R.	2,698,000		1988	Eklutna Tail.	
1988	6,780,000	Eklutna Tail.	6,120,000		1989	Eklutna Tail.	
1989	4,259,000	Eklutna Tail.	3,210,000		1990	Eklutna Tail.	
1990	3,050,000	Eklutna Tail.	2,540,000		1991	Eklutna Tail.	
1991	3,965,000	Eklutna Tail.	3,110,000		1992	Eklutna Tail.	

## 6.1 Eklutna Salmon Hatchery Production - continued.

Coho Salmon							
Brood Year	Egg Take Number	Brood Stock	Number Released	Life Stage	Release Year	Release Site	Comments
1981	19,000	Fish Cr.	15,000	Presmolt	1983/4	Eklutna Tail.	Early release Mechanical problem.
			600	Smolt	1984	Eklutna Tail.	
1982	105,000	Fish Cr.	16,000	Smolt	1984	Cottonwood Cr.	
			28,000	Smolt	1984	Eklutna Tail.	
1983	82,000	Fish Cr.	43,000	Smolt	1985	Eklutna Tail.	
1984	150,000	Fish Cr.	101,000	Smolt	1986	Eklutna Tail.	
1985	187,000	Fish Cr./Eklutna	148,000	Smolt	1987	Eklutna Tail.	
1986	75,000	Fish Cr./Eklutna	73,000	Smolt	1988	Eklutna Tail.	
1987	125,000	Fish Cr./Eklutna	68,000	Fry	1988	McRoberts Cr.	
		Fish Cr./Eklutna	51,000	Smolt	1989	Eklutna Tail.	
1988	112,000	Fish Cr./Eklutna	54,000	Smolt	1990	Eklutna Tail.	
1989	104,000	Fish Cr./Eklutna	21,000	Smolt	1991	Eklutna Tail.	
1990	136,000	Fish Cr./Eklutna	132,000	Smolt	1992	Eklutna Tail.	
1991	149,000	Fish Cr./Eklutna	108,000	Smolt	1993	Eklutna Tail.	
1992	72,000	Fish Cr./Eklutna	61,000	Smolt	1994	Eklutna Tail.	
1993	100,000	Fish Cr./Eklutna	61,000	Smolt	1995	Eklutna Tail.	
1994	100,000	Fish Cr./Eklutna	69,000	Smolt	1996	Eklutna Tail.	
1995	98,000	Fish Cr./Eklutna	69,000	Smolt	1997	Eklutna Tail.	
1996	126,000	Fish Cr./Eklutna	108,000	Smolt	1998	Eklutna Tail.	
2003	Fingerling Transfer	Bear Lk.	488,000	Smolt	2005	Bear Ck.	Temporary rearing - TLH water shortage
2004	Fingerling Transfer	Bear Lk.	324,000	Smolt	2006	Homer Spit	Temporary rearing - TLH water shortage - Treated for BKD
	Fingerling Transfer	Bear Lk.	146,000	Smolt	2006	Lowell Falls	Temporary rearing - TLH water shortage - Treated for BKD

Pink Salmon							
Brood Year	Egg Take Number	Brood Stock	Number Released	Life Stage	Release Year	Release Site	Comments
1984	445,000	Skwentna R.	282,000		1985	Eklutna Tail.	
1985	84,000	Skwentna R.	31,000		1986	Eklutna Tail.	
1986	53,000	Skwentan R.	38,000		1987	Eklutna Tail.	

Chinook Salmon							
Brood Year	Egg Take Number	Brood Stock	Number Released	Life Stage	Release Year	Release Site	Comments
1984	96,000	Moose Cr.	0				IHNV epizootic



Alaska Department of Fish and Game. Production Summary Using Eklutna Salmon Hatchery.

BY	Stock	Species	Stage	Release Year	Release Location	# Released
2001	Ship Creek	Chinook	Smolt	2002	Eklutna Tailrace	106,991
2002	Ship Creek	Chinook	Smolt	2003	Eklutna Tailrace	218,492
2004	Ship Creek	Chinook	Smolt	2006	Eklutna Tailrace	213,250
2005	Ship Creek	Chinook	Smolt	2007	Eklutna Tailrace	110,978
2006	Ship Creek	Chinook	Smolt	2008	Eklutna Tailrace	114,136
2007	Ship Creek	Chinook	Smolt	2009	Eklutna Tailrace	77,785
2008	Ship Creek	Chinook	Smolt	2010	Eklutna Tailrace	152,014
2009	Ship Creek	Chinook	Smolt	2011	Eklutna Tailrace	122,962
2011	Ship Creek	Chinook	Smolt	2012	Eklutna Tailrace	160,347
2012	Ship Creek	Chinook	Smolt	2013	Eklutna Tailrace	94,604
2013	Deception Creek	Chinook	Smolt	2014	Eklutna Tailrace	395,732
2014	Deception Creek	Chinook	Smolt	2015	Eklutna Tailrace	278,768
2014	Deception Creek	Chinook	Smolt	2015	Eklutna Tailrace	146,155
2015	Deception Creek	Chinook	Smolt	2016	Eklutna Tailrace	425,097
2016	Deception Creek	Chinook	Smolt	2017	Eklutna Tailrace	422,835
2017	Deception Creek	Chinook	Smolt	2018	Eklutna Tailrace	450,214
<b>Total</b>						<b>3,490,360</b>
1996	Jim Creek	Coho	Smolt	1998	Eklutna Tailrace	45,649
1996	Jim Creek	Coho	Smolt	1998	Eklutna Tailrace	20,652
1996	Jim Creek	Coho	Smolt	1998	Eklutna Tailrace	23,067
1996	Jim Creek	Coho	Smolt	1998	Eklutna Tailrace	22,851
1997	Jim Creek	Coho	Smolt	1999	Eklutna Tailrace	126,602
1998	Jim Creek	Coho	Smolt	2000	Eklutna Tailrace	76,851
1999	Eklutna Tailrace	Coho	Smolt	2001	Eklutna Tailrace	124,838
2000	Eklutna Tailrace	Coho	Smolt	2002	Eklutna Tailrace	120,629
2001	Eklutna Tailrace	Coho	Smolt	2003	Eklutna Tailrace	120,736
2003	Eklutna Tailrace	Coho	Smolt	2005	Eklutna Tailrace	132,149
2004	Eklutna Tailrace	Coho	Smolt	2006	Eklutna Tailrace	132,212
2005	Eklutna Tailrace	Coho	Smolt	2007	Eklutna Tailrace	118,054
2006	Eklutna Tailrace	Coho	Smolt	2008	Eklutna Tailrace	118,139
2007	Jim Creek	Coho	Smolt	2009	Eklutna Tailrace	120,200
2008	Jim Creek	Coho	Smolt	2010	Eklutna Tailrace	131,123
2009	Jim Creek	Coho	Smolt	2011	Eklutna Tailrace	97,087
2010	Jim Creek	Coho	Smolt	2012	Eklutna Tailrace	40,921
2011	Ship Creek	Coho	Smolt	2013	Eklutna Tailrace	132,661
2012	Ship Creek	Coho	Smolt	2014	Eklutna Tailrace	81,760
2013	Ship Creek	Coho	Smolt	2015	Eklutna Tailrace	135,835
2014	Ship Creek	Coho	Smolt	2016	Eklutna Tailrace	138,263
2016	Ship Creek	Coho	Smolt	2017	Eklutna Tailrace	126,736
2017	N/A	Coho	N/A	N/A	N/A	N/A
<b>Total</b>						<b>2,187,015</b>

## 7.0 Approval

### **Recommendation for Approval: Eklutna Salmon Hatchery Annual Management Plan, 2019**

Dean Day, Executive Director, Cook Inlet Aquaculture Association 7/2/2019

Matt Miller, Fish and Game Coordinator, Division of Sport Fish 7/2/2019

Glenn Hollowell, Area Management Biologist, Division of Commercial Fisheries 6/12/2019

Tom Vania, Regional Supervisor, Division of Sport Fish 6/13/2019

Bert Lewis, Regional Supervisor, Division of Commercial Fisheries 6/13/2019

Ethan Ford, Regional Resource Development Biologist, Division of Commercial Fisheries 6/14/2019

### **The 2019 Eklutna Salmon Hatchery Annual Management Plan is hereby recommended for approval by the Cook Inlet Regional Planning Team (RPT):**

Ethan Ford, Cook Inlet RPT Chair 6/14/2019

Lorraine Vercessi, PNP Hatchery Program Coordinator, Division of Commercial Fisheries 6/12/2019

### **The 2019 Eklutna Salmon Hatchery Management Plan is hereby approved:**

Tom Taube, Deputy Director, Division of Sport Fish 7/3/2019

Peter Bangs, Assistant Director, Division of Commercial Fisheries 7/3/2019