

**TRAIL LAKES HATCHERY  
ANNUAL REPORT  
2008**

Cook Inlet Aquaculture Association  
Gary Fandrei, Executive Director  
December 2008

This year's operation of the Trail Lakes Hatchery was made possible through enhancement taxes paid by commercial salmon fishermen in Area H, Cook Inlet and associated waters, the harvest and sale of surplus fish and a grant provided by Senator Ted Stevens administered through the National Oceanic and Atmospheric Administration and the Alaska Department of Fish and Game.



## ABSTRACT

Reports such as this one covering the operations of the Trail Lakes Hatchery are prepared annually for each hatchery the Cook Inlet Aquaculture Association (CIAA) operates and are submitted to the Alaska Department of Fish and Game.

Such reports cover a calendar year (report year) and, thus, address overlapping fish brood years.

This report covers events during calendar year 2008. During 2007, the Trail Lakes Hatchery Basic Management Plan was amended and redrafted. This report reflects the changes that were made in 2007.

Schedule A data deal with eggs collected during the report year – 2008.

**Sockeye salmon and coho salmon egg collections were conducted for Trail Lakes Hatchery programs following procedures for delayed fertilization. Numeric egg collections were attained or nearly attained for all sockeye and coho salmon programs.**

**Additional fish rearing resources for Resurrection Bay and Big Lake sockeye smolt are provided by the Eklutna Salmon Hatchery when water supplies are limited at Trail Lakes Hatchery.**

Schedule B data deal with fish released during the report year – 2008.

**Sockeye salmon fry were released into Bear Lake, Hidden Lake, Leisure Lake, Hazel Lake, Kirschner Lake and Meadow Creek (Big Lake). All numeric sockeye fry release goals were met.**

**Sockeye salmon smolt were released into Bear Lake, Tutka Bay Lagoon and Meadow Creek (Big Lake). All numeric sockeye smolt release goals were met or nearly met. Sockeye salmon smolt temporarily reared at the Eklutna Salmon Hatchery in 2008 are included in this report.**

**Coho salmon fry were released into Bear Lake. The numeric fry release goal was met.**

**Coho salmon smolt were released into Bear Creek (Seward), Fish Creek Reservoir (Seldovia) and Kachemak Bay (Homer Spit). All numeric coho salmon smolt release goals were met or nearly met.**

Schedule C data deal with fish harvested in the common property fisheries; fish used for brood stock and fish harvested for cost recovery revenues during the report year – 2008.

**Sockeye salmon and coho salmon returning to the Bear Creek weir complex were harvested and sold when the flesh quality was acceptable for human consumption or harvested and donated for other uses when the flesh quality was unacceptable for human consumption. Cost recovery harvest for sockeye salmon returning to Bear Lake also occurred in Resurrection Bay. Cost Recovery goals at Bear Lake were not met.**

**Sockeye salmon cost recovery harvests were also completed at Leisure, Hazel, and Kirschner Lakes. Revenue goals for harvests at Leisure, Hazel and Kirschner Lakes were not met.**

**Sockeye salmon and coho salmon broodstock were collected at Bear, and Hidden Lakes and at Tutka Bay Lagoon to support Trail Lakes Hatchery projects. These projects contribute to all common property fisheries with one exception. The commercial harvest of the return of coho salmon to Resurrection Bay is precluded by regulation.**

Schedule D data project the total adult return for the coming year – 2009.

**Returns were projected for 2009 based on the number of fish released in the stocking year or smolt migration (when available) and estimated survival rates.**

Schedule F data are presented only when information reported in the prior year's annual report needs to be corrected or updated.

**There were additions to the 2007 data. Schedules Fs are provided with updated information for all 2007 returns.**

## INTRODUCTION

The Trail Lakes Hatchery is owned by the State of Alaska, operated by CIAA and is located on the Seward Highway near Moose Pass. No fish releases are made at the facility. Releases are made at ten locations for the primary purpose of contributing to the common property fisheries of Cook Inlet.

The Trail Lakes Hatchery sockeye salmon releases return to the stocking sites as adults through the recreational and commercial fisheries of the Central District, the Northern District and Lower Cook Inlet including Resurrection Bay. Coho salmon releases return to the stocking sites as adults through the recreational fisheries of Lower Cook Inlet (Resurrection Bay and Kachemak Bay).

The Trail Lakes Hatchery operates under Private Non-Profit Permit #27 issued in 1988 and has a permitted capacity of 30.0 million sockeye salmon eggs, 6.0 million coho salmon eggs and 4.0 million Chinook salmon eggs. The Fish Transport Permits (FTP's) under which CIAA operates the programs of the Trail Lakes Hatchery are as follows:

FTP Number	Expiration Date	Purpose
Coho		
08A-0112	06/30/10	Allows the egg take at Bear Lk. of up to 1,125,000 eggs and incubation at TLH for fry and smolt releases to Bear Lk, Bear Ck, Homer Spit and Seldovia.
08A-0113	06/30/11	Allows the release of an average of 450,000 coho fry into Bear Lk. from eggs collected under FTP 08A-0112 and incubated at TLH.
08A-0114	06/30/12	Allows the release of an average of 150,000 coho smolt into Bear Ck. from eggs collected under FTP 08A-0112, incubated, and reared at TLH.
04A-0053	06/30/11	Allows the release of an average of 150,000 coho smolt into Homer Spit Enhancement Lagoon from eggs collected under FTP 08A-0112, incubated, and reared at TLH.
06A-0059	06/30/11	Allows the release of an average of 150,000 coho smolt into Fish Creek Reservoir in Seldovia from eggs collected under FTP 08A-0112, incubated, and reared at TLH.

FTP Number	Expiration Date	Purpose
Sockeye		
08A-0024	06/30/10	Allows the release of up to 1,000,000 sockeye smolt into Big Lk. from eggs incubated at TLH and reared at TLH and the ESH. <i>CIAA has suspended this project and does not hold a current FTP for the collection of eggs for the release of fish to the Big Lake system. CIAA will allow this FTP to expire in 2010.</i>
08A-0091	06/30/11	Allows the egg take at Hidden Lk. of up to 2,200,000 eggs and incubation at TLH for fry releases to Hidden Lk.
08A-0089	06/30/11	Allows the release of sockeye fry into Hidden Lk. from eggs collected under FTP 08A-0091 and incubated at TLH. Fry release set annually in the KNWR Special Use Permit.
04A-0064	10/15/09	Allows the egg take of 1,560,000 eggs at Hidden Lk., incubation at TLH, and release of 1,250,000 fry into Hazel Lk.
04A-0065	10/15/09	Allows the egg take of 310,000 eggs at Hidden Lk. , incubation at TLH, and release of 250,000 fry into Kirschner Lk.
04A-0066	10/15/09	Allows the egg take of 2,500,000 eggs at Hidden Lk. , incubation at TLH, and release of 2,000,000 fry into Leisure Lk.
05A-0095	06/30/10	Allows for the egg take of 762,000 eggs at Hidden Lake, incubation at TLH, and release of 500,000 smolt into Tutka Bay Lagoon.

FTP Number	Expiration Date	Purpose
Sockeye (cont'd)		
08A-0095	06/30/10	Allows the egg take at Tutka Bay Lagoon of up to 5,072,000 eggs and incubation at TLH for fry and smolt releases to Leisure Lk, Hazel Lk, Kirschner Lk and Tutka Bay Lagoon.
08A-0096	06/30/11	Allows the release of an average of 2,000,000 sockeye fry into Leisure Lk. from eggs collected under FTP 08A-0095, incubated, and reared at TLH.
08A-0098	06/30/12	Allows the release of an average of 500,000 sockeye smolt into Tutka Bay Lagoon from eggs collected under FTP 08A-0095, incubated, and reared at TLH.
08A-0100	06/30/11	Allows the release of an average of 1,250,000 sockeye fry into Hazel Lk. from eggs collected under FTP 08A-0095, incubated, and reared at TLH.
08A-0???	06/30/11	Allows the release of an average of 250,000 sockeye fry into Kirschner Lk. from eggs collected under FTP 08A-0095, incubated, and reared at TLH.
08A-0090	06/30/11	Allows the egg take at Bear Lk of up to 2,825,000 eggs and incubation at TLH for fry releases to Bear Lk.
08A-0069	06/30/11	Allows the release of an average of 2,400,000 sockeye fry into Bear Lk. from eggs collected under FTP 08A-0090, incubated, and reared at TLH.
07A-0061	06/30/11	Allows for the egg collection, incubation and release of up to 1,536,000 smolt to Resurrection Bay and the temporary rearing at the ESH during periods of water shortages. This permit replaces FTPs 01A-0111 and 01A-0112.
06A-0084	12/31/09	Allows transport and rearing of English Bay Lakes sockeye eggs (1,150,000) at TLH and release of up to 1,150,000 at Port Graham. <i>This permit was issued to Port Graham Hatchery.</i>

# ANNUAL REPORT SALMON HATCHERY

Year Ended December 1, 2008

Hatchery name/Location  
Permit holder name/Address

<b>Trail Lakes Hatchery</b>
Cook Inlet Aquaculture Association
40610 Kalifornsky Beach Road
Kenai, AK 99611-6445

Person to contact  
regarding this report

Gary Fandrei
(907) 283-5761

name  
phone

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## DECLARATION AND SIGNATURE

I declare that the information given in this annual report is, to my knowledge, true, correct and complete.

Gary Fandrei
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Name of Legal Representative

12/31/2008
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Date

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Signature of Representative

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### Part 1. REPORT OF THIS YEAR'S PERFORMANCE

A. Complete the following schedules of production statistics for this year. Use the metric system for length and weight measurements.

Schedule A- Annual Broodstock Report

Schedule B- Fish Culture Report

Schedule C- Harvest Management and Hatchery Returns

If this site is a central incubation Facility, complete a separate schedule for each remote release site.

### Part 2. PROJECTED RETURNS FOR NEXT YEAR

A. Complete Schedule D for each species and each release site.

### Part 3. UPDATED SCHEDULES FOR PRIOR YEAR ANNUAL REPORT ARE MANDATORY

A. Updated schedule C (called F) is attached. Please update the information we have on file, if changes have occurred or numbers have been finalized.

# SCHEDULE A-1

## ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

**Trail Lakes  
Hatchery**

Complete this schedule for each species/ stock of eggs taken this year.

1. Species	Sockeye salmon					
2. Stock (donor stream name/number)	Bear Lake (Seward) 231-30-10080-3065-4010-0010					
3. Viable broodstock (spawned, eggs in incubators)	2,086	females	2,086	males	4,172	total
4. Inviabile broodstock (green/over-ripe/bad)	132	females	16	males	148	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)	124					
7. Adults captured for broodstock (sum 3 thru 6)	4,444					
8. Average length and weight of adults used for broodstock						
	females>	cm		kg		
	males>	cm		kg		
9. Average fecundity (eggs/female)	2,892					
10. Eggtake dates:	8/2 - 8/26/08					
11. Number of green eggs taken	6,033,000					
12. Number of eggs transferred (annotate below)						
13. Number placed in hatchery <sup>1</sup>	6,033,000					
14. Number surviving to eyed	5,531,000		91.68%	% survival <sup>2</sup>		
15. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

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All eggs and milt transferred directly to Trail Lakes Hatchery. Delayed fertilization technique used following ADF&G sockeye salmon protocol. Survival estimates based on average egg weights.

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After eggs eyed and were picked, 263,000 eggs were destroyed due to high prevalence of Renibacterium salmoninarium.

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1. Provide explanation if greater than number of green eggs taken.

2. Provide explanation for survivals less than 90%.



# SCHEDULE A-2

## ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

**Trail Lakes  
Hatchery**

Complete this schedule for each species/ stock of eggs taken this year.

1. Species	Sockeye salmon					
2. Stock (donor stream name/number)	Hidden Lake (KP) 244-30-10010-2137-0010					
3. Viable broodstock (spawned, eggs in incubators)	1,543	females	1,454	males	2,997	total
4. Inviabile broodstock (green/over-ripe/bad)	11	females	4	males	15	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)	52					
7. Adults captured for broodstock (sum 3 thru 6)	3,064					
8. Average length and weight of adults used for broodstock						
	females>		cm		kg	
	males>		cm		kg	
9. Average fecundity (eggs/female):	2,595					
10. Eggtake dates:	9/17 - 10/12/08					
11. Number of green eggs taken	4,004,000					
12. Number of eggs transferred (annotate below)	-					
13. Number placed in hatchery <sup>1</sup>	4,004,000					
14. Number surviving to eyed	3,648,000		91.11%		% survival <sup>2</sup>	
15. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

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All eggs and milt transferred directly to Trail Lakes Hatchery. Delayed fertilization technique used following ADF&G sockeye salmon protocol. Survival estimates based on average egg weights.

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1. Provide explanation if greater than number of green eggs taken.

2. Provide explanation for survivals less than 90%.

# SCHEDULE A-3

## ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

**Trail Lakes Hatchery**

Complete this schedule for each species/ stock of eggs taken this year.

1. Species	Sockeye salmon					
2. Stock (donor stream name/number)	Tutka Bay Lagoon					
3. Viable broodstock (spawned, eggs in incubators)	75	females	26	males	101	total
4. Inviable broodstock (green/over-ripe/bad)	49	females	-	males	49	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)						
7. Adults captured for broodstock (sum 3 thru 6)	150					
8. Average length and weight of adults used for broodstock						
	females>	cm	kg			
	males>	cm	kg			
9. Average fecundity (eggs/female):	1,373					
10. Eggtake dates:	10/4/08					
11. Number of green eggs taken	103,000					
12. Number of eggs transferred (annotate below)	-					
13. Number placed in hatchery <sup>1</sup>	103,000					
14. Number surviving to eyed	18,000		17.48%		% survival <sup>2</sup>	
15. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

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All eggs and milt transferred directly to Trail Lakes Hatchery. Delayed fertilization technique used following ADF&G sockeye salmon protocol. Survival estimates based on average egg weights.

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CIAA is attempting to develop a broodstock from returning adults imprinted and released as smolts at Tutka Bay Lagoon. Adult broodstock holding pens in the lagoon were supplied with freshwater by an 8" line during reproductive maturation. During broodstock maturation, the freshwater line failed and freshwater flow to the pens was interrupted for up to 3 weeks. Due to permitting issues, egg collection was also delayed. As a result the survival of eggs from these adults was very poor.

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1. Provide explanation if greater than number of green eggs taken.

2. Provide explanation for survivals less than 90%.

# SCHEDULE A-4

## ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

**Trail Lakes  
Hatchery**

Complete this schedule for each species/ stock of eggs taken this year.

1. Species	Coho salmon					
2. Stock (donor stream name/number)	Bear Lake (Seward) 231-30-10080-2010-3065-4010-0010					
3. Viable broodstock (spawned, eggs in incubators)	132	females	88	males	220	total
4. Inviable broodstock (green/over-ripe/bad)	2	females	-	males	2	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)	63					
7. Adults captured for broodstock (sum 3 thru 6)	285					
8. Average length and weight of adults used for broodstock						
	females>	cm	kg			
	males>	cm	kg			
9. Average fecundity (eggs/female):	5,000					
10. Eggtake dates:	10/07-13/08					
11. Number of green eggs taken	574,000					
12. Number of eggs transferred (annotate below)	-					
13. Number placed in hatchery <sup>1</sup>	574,000					
14. Number surviving to eyed	283,000		49.30%	% survival <sup>2</sup>		
15. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

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All eggs and milt fertilized at Bear Creek weir, water hardened and transferred directly to Trail Lakes Hatchery. In-hatchery survivals calculated at eyed-egg stage after picking.

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Low survival due to suffocation of the eggs of the lower trays of the Marisource Incubators because of increased biomass and poor fertilization. One tray (three females--13,000 eggs) destroyed because one fish was positive for Renibacterium salmoninarium.

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1. Provide explanation if greater than number of green eggs taken.

2. Provide explanation for survivals less than 90%.

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# SCHEDULE B-1

## ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

### FISH CULTURE REPORT

Species: **Sockeye** Stock: **Bear Lake(Seward)** Brood year: **2006**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	6,087,000	100.0%	
2. Eyed eggs	5,444,000	89.4%	
3. Emergent fry	5,281,000	86.8%	
4. Fed fry	4,756,000	78.1%	fry released in 2007
5. Smolts	2,012,000	33.1%	Smolt transferred from TLH to ESH Jan. 31, Feb. 3,6,7,8 & 9 2008

#### B. Release Information

Site	Number	date	Release lifestage	Size		Expected adult return	Year(s) of return
				gm/fi sh	mm/fi sh		
Bear Lake (Seward)	2,437,000	6/3/2007	fry	0.65		79,000	2010 & 2011
Bear Lake (Seward)	1,600,000	6/12/2008	smolts	10.4		160,000	2010 & 2011

Total: 4,037,000

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

Fry Hatch Code: 4,2H Rbr: 1: 1.4, 2.2

Smolt Hatch Code 1,3H Rbr: 1: 1.1, 2.3

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession Nos. 2007-0059, 2007-0065, 2008-0019

# SCHEDULE B-2

## ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

### FISH CULTURE REPORT

Species: **Sockeye** Stock: **Bear Lake (Seward)** Brood year: **2007**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	6,090,000	100.0%	
2. Eyed eggs	5,398,000	88.6%	
3. Emergent fry	5,236,000	86.0%	
4. Fed fry	4,712,000	77.4%	fry released in 2008
5. Smolts	1,712,000	28.1%	for smolts to be released in 2009

#### B. Release Information

Site	Number	Release		Size		Expected adult return	Year(s) of return
		date	lifestage	gm/fi sh	mm/fi sh		
Bear Lake (Seward)	2,400,000	6/3-4/2008	fry	0.6		78,000	2011 & 2012

Total: 2,400,000

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

Fry Hatch Code	1,4H	Rbr: 1:1.1, 2,4
Smolt Hatch Code	2,4H	Rbr: 1:1.2, 2,4

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

303,000 fry marked for release as smolts in 2009, were released as fry with ~ 2,100,000
BY 2007 Bear Lake sockeye fry in 2008 because ~ 500,000 of the released fry outmigrated prematurely in 2008.
Please see ADF&G Fish Pathology Section Accession No. 2008-0022

# SCHEDULE B-3

## ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

### FISH CULTURE REPORT

Species: **Sockeye** Stock: **Hidden Lake (Kenai)** Brood year: **2006**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	5,640,000	100.0%	
2. Eyed eggs	5,232,000	92.8%	
3. Emergent fry	5,075,000	90.0%	
4. Fed fry	5,072,000	89.9%	
5. Smolts	500,000	8.9%	Smolts transferred from TLH to TBLH April 8, 2008

#### B. Release Information

Site	Number	date	Release lifestage	Size		Expected adult return	Year(s) of return
				gm/fi sh	mm/fi sh		
Hidden Lake	658,000	5/20/2007	unfed fry	0.08 6		31,000	2010 & 2011
Leisure Lake	2,315,000	6/27-28/2007	fry	0.19		93,000	2010 & 2011
Hazel Lakes	1,411,000	6/28/2007	fry	0.18 3		56,000	2010 & 2011
Kirschner Lake	254,000	6/27/2007	fry	0.22 5		25,000	2010 & 2011
Tutka Bay	483,000	6/12/2008	smolts	14.5		48,000	2010 & 2011
Total:							

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

Hidden Lake fry Hatch Code	2,2,2H	Rbr: 1:1.2, 2.2, 3.2
Leisure Lake fry Hatch Code	2,2H	Rbr: 1:1.2, 2.2
Hazel Lake fry Hatch Code	2,2H	Rbr: 1:1.2, 2.2
Kirschner Lake fry Hatch Code	2,2H	Rbr: 1:1.2, 2.2
Tutka Bay smolts Hatch Code	2,5H	Rbr: 1:1.2, 2.5

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession Nos. 2007-0039, 2007-0077, 2008-0044

# SCHEDULE B-4

## ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

### FISH CULTURE REPORT

Species: **Sockeye** Stock: **Hidden Lake (Kenai)** Brood year: **2007**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	5,686,000	100.0%	
2. Eyed eggs	5,083,000	89.4%	
3. Emergent fry	4,931,000	86.7%	
4. Fed fry	4,832,000	85.0%	includes 917,000 Hidden Lake fry stocked as unfed fry
5. Smolts	317,000	5.6%	to be released in 2009

#### B. Release Information

Site	Number	Release date	Release lifestage	Size		Expected adult return	Year(s) of return
				gm/fi sh	mm/fi sh		
Hidden Lake	917,000	5/27/2008	unfed fry	0.09 5		56,000	2011 & 2012
Leisure Lake	2,053,000	6/28/2008	fry	0.16		46,000	2011 & 2012
Hazel Lake	1,161,000	6/25/2008	fry	0.15		36,000	2011 & 2012
Kirschner Lake	300,000	6/27/2008	fry	0.18		16,000	2011 & 2012

Total: 4,431,000

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

Hidden Lake fry Hatch Code	4,2H	Rbr:1:1.4, 2.2
Leisure Lake fry Hatch Code	1,3H	Rbr:1:1.1, 2.3
Hazel Lake fry Hatch Code	1,3H	Rbr:1:1.1, 2.3
Kirschner Lake fry Hatch Code	1,3H	Rbr:1:1.1, 2.3
Tutka Bay smolts Hatch Code	1,3,1H	Rbr:1:1.1, 2.3, 3.1

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession Nos. 2008-0067

**SCHEDULE B-5  
ANNUAL FISH CULTURE PRODUCTION REPORT**

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

**FISH CULTURE REPORT**

Species: **Sockeye** Stock: **Meadow Ck (Big Lake)** Brood year: **2006**

**A. Lifestage Information**

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	6,483,000	100.0%	
2. Eyed eggs	5,895,000	90.9%	
3. Emergent fry	5,718,000	88.2%	
4. Fed fry	5,546,000	85.5%	
5. Smolts	523,000	8.1%	Smolts transferred from TLH to ESH Feb. 12, 13, 14, 16 & 19 2008

**B. Release Information**

Release				Size		Expected adult return	Year(s) of return
Site	Number	date	lifestage	gm/fi sh	mm/fi sh		
Meadow Ck.	3,812,000	5/28-30/2007	fry	0.61 6		31,000	2010 & 2011
Meadow Ck.	703,000	10/16-18/2007	presmolt	3.0		No estimate	2010 & 2011
Meadow Ck.	433,000	5/28-29/2008	smolt	10.1		43,000	2010 & 2011

Total: 4,948,000

**C. Tagging/Marking**

6. Number of fish marked or tagged (by release group and method of marking)

Meadow Ck. Fry Hatch Code	2,3H	Rbr: 1:1.2, 2.3
Meadow Ck. Presmolt Hatch Code	6,1H	Rbr: 1:1.6, 2.1
Meadow Ck. Smolt Hatch Code	1,5H	Rbr: 1:1.1, 2.5

**D. Other**

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession Nos. 2007-0068, 2008-0018



**SCHEDULE B-6  
ANNUAL FISH CULTURE PRODUCTION REPORT**

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

**FISH CULTURE REPORT**

Species: **Socketeye** Stock: **Meadow Ck (Big Lake)** Brood year: **2007**

**A. Lifestage Information**

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	4,931,000	100.0%	
2. Eyed eggs	3,955,000	80.2%	
3. Emergent fry	3,836,000	77.8%	
4. Fed fry	3,721,000	75.5%	
5. Smolts	-	0.0%	

**B. Release Information**

Release				Size		Expected adult return	Year(s) of return
Site	Number	date	lifestage	gm/fi sh	mm/fi sh		
Meadow Ck.	3,610,000	5/28-6/1/2008	fry	0.7		30,000	2011 & 2012

Total: 3,610,000

**C. Tagging/Marking**

6. Number of fish marked or tagged (by release group and method of marking)

Meadow Ck. Fry Hatch Code	H5	Rbr: 2:1.5
Meadow Ck. Fry Hatch Code	1,2,1H	Rbr: 1:1.1, 2.2, 3.1
Meadow Ck. Fry Hatch Code	3,3H	Rbr: 1:1.3, 2.3

The second and third fry hatch codes originally were to be presmolt and smolt marks, but the program was discontinued and they were stocked as fry.

**D. Other**

7. Report any diseases, rearing problems, or significant mortalities among these fish.

none

## SCHEDULE B-7

### ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

#### FISH CULTURE REPORT

Species: **Sockeye**      Stock: **English Bay Lakes**      Brood year: **2007**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	510,000	100.0%	
2. Eyed eggs	409,000	80.2%	
3. Emergent fry	390,000	76.5%	
4. Fed fry	378,000	74.1%	
5. Smolts	130,000	25.5%	to be released in 2009

#### B. Release Information

Site	Number	date	Release lifestage	Size		Expected adult return	Year(s) of return
				gm/fi sh	mm/fi sh		
English Bay Lakes	246,000	10/30/2008	presmolt	2.83		No estimate	2011 & 2012

Total: 246,000

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

English Bay Lakes presmolt Hatch Code	5H	Rbr: 1:1.5
English Bay Lakes presmolt Hatch Code	4,1H	Rbr: 1:1.4, 2.1

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession No. 2008-0033



# SCHEDULE B-9

## ANNUAL FISH CULTURE PRODUCTION REPORT

Complete this schedule for each species and stock of eggs (or fish) cultured this year from prior broodyears. Please provide explanations for any differences in reported numbers of green eggs and eyed eggs from those reported last year by species and stock.

### FISH CULTURE REPORT

Species: **Coho**

Stock: **Bear Creek (Seward)**

Brood year: **2007**

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	724,000	100.0%	
2. Eyed eggs	581,000	80.2%	
3. Emergent fry	570,000	78.7%	
4. Fed fry	560,000	77.3%	
5. Smolts	200,000	27.6%	for release in 2009

#### B. Release Information

Site	Number	date	Release lifestage	Size		Expected adult return	Year(s) of return
				gm/fi sh	mm/fi sh		
Bear Lake (Seward)	360,000	6/10/2008	fry	1.4		3,400	2010

Total: 360,000

#### C. Tagging/Marking

6. Number of fish marked or tagged (by release group and method of marking)

Bear Lake fry Hatch Code	H6	Rbr: 2:1.6
Smolts Hatch Code	H4	Rbr: 2:1.4

#### D. Other

7. Report any diseases, rearing problems, or significant mortalities among these fish.

Please see ADF&G Fish Pathology Section Accession No. 2008-0041

# SCHEDULE C-1

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail  
Lakes  
Hatchery**

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Leisure/Hazel Lakes (Kachemak Bay)

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

1,90 7
-
-
103
2,01 0

### 8. Total return to hatchery

### Common Property Harvest

#### 9. Commercial <sup>2</sup>

A. Troll	-
B. Gillnet	-
C. Seine	62,7 61
D. Other (annotate in comments section)	
<b>Total commercial</b>	62,7 61

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

650
4,900
5,550

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**70,321**

	BY	Total # returning in 2008	Cumulat ive Survival	
12. Estimated ocean survival by BY 2	2004	56,000	1.5	%
	2003	14,000	4.4	%
	2002	0	2.8	%
				%
				%
				%

13. Average size of fish sold	<length- cm	2.3	wt- kg
14. Date(s) of harvest	7/15/08 to 8/6/08		
15. Gear type or method used	Commercial purse seine		

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold		
adults	1,907	9,670
jacks		
total	1,907	9,670

	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 2, 3, 5, 8, 9, 10, 11, 12 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The allocation of returning**

**fish between broodyears is based on historic observations and should not be used or cited.**

#5 - When harvest operations were terminated, ADF&G estimated 100 fish remained below the falls. These fish were not expected to spawn successfully.

#10 - ADF&G estimated sport, personal use and subsistence. Estimate may be low.

#12 - Age composition of the returning fish was not determined. However, based on historic age composition of the broodstock, 80% of the return is typically 2-ocean fish and 20% 3-ocean. To estimate survival rate, CIAA assumed these percentages. Survival is based on the number of fry stocked.

BY 2002 and 2003 are complete. BY 2004 is from a new broodstock.

<sup>1</sup>. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-2

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

Trail Lakes  
Hatchery

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Kirschner Lake (Kamishak Bay)

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

11,588	
-	
-	
2,000	
	13,588

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

1,174	
	1,174

### Total commercial



10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

-

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**14,762**

	BY	Total # returning in 2008	Cumulative Survival	
12. Estimated ocean survival by BY 2	2004	12,000	3.8	%
	2003	3,000	13.1	%
	2002	0	15.8	%
				%
				%
				%

13. Average size of fish sold	<length- cm	1.8	wt- kg
14. Date(s) of harvest	7/20/08 to 7/29/08		
15. Gear type or method used	Commercial purse seine		

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold		
adults	11,588	47,259
jacks		
total	11,588	47,259

	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 2, 3, 5, 8, 9, 10, 11, 12 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The allocation of returning**

**fish between broodyears is based on historic observations and should not be used or cited.**

#5 - When harvest operations were terminated, ADF&G estimated 2,000 fish remained below the falls. These fish were not expected to spawn successfully.

#10 - ADF&G estimated sport, personal use and subsistence. Estimate may be low.

#12 - Age composition of the returning fish was not determined. However, based on historic age composition of the broodstock, 80% of the return is

typically 2-ocean fish and 20% 3-ocean. To estimate survival rate, CIAA assumed these percentages. Survival is based on the number of fry stocked.

BY 2002 and 2003 are complete.

<sup>1</sup>. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-3

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail Lakes  
Hatchery**

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Tutka Bay Lagoon (Kachemak Bay)

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

14,604	
150	
5,350	
	20,104

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

	-

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

-

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**20,104**

	BY	Total # returning in 2008	Cumulati ve Survival	
12. Estimated ocean survival by BY 2	2004	20,000	7.7	%
	2003	0	0	%
				%
				%
				%
				%

13. Average size of fish sold	<length- cm	1.8	wt- kg
14. Date(s) of harvest	7/11/08 to 7/25/08		
15. Gear type or method used	Commercial purse seine		

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold		
. adults	14,604	57,294
jacks		
total	14,604	57,294

	# fish	lbs. roe/milt
B . Roe recovery	-	
C . Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners	150		
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	150	-	-
total pounds	588		

**Comments:**

**#1, 2, 3, 5, 8, 9, 10, 11, 12 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The allocation of returning**

**fish between broodyears is based on historic observations and should not be used or cited.**

#5 - When harvest operations were terminated, CIAA estimated 5,500 fish remained in the Lagoon. CIAA expected to use these fish as broodstock, but most of

the fish became stranded on the tidal flats and were lost before egg take operations began.

#10 - This is the first return to Tutka Bay Lagoon. No sport or personal use estimate is available.

#12 - Age composition of the returning fish was not determined. Because no BY 2003 fish returned in 2007, CIAA assumed no BY 2003 fish returned in 2008.

Survival is based on the number of smolt stocked.

<sup>1</sup> "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup> Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-4

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail Lakes  
Hatchery**

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Bear Lake (Resurrection Bay)

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

31,384
4,444
8,550
(222)
44,156

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

54,191
54,191

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

5,400
900
<b>6,300</b>

**Total non-commercial**

**104,647**

11. Total Return (sum 8,9,10)

	BY	Total # returning in 2008	Cumulative Survival	
12. Estimated ocean survival by BY 2	2004	52,000		%
	2003	52,000		%
	2002	0		%
				%
				%
				%

13. Average size of fish sold

	<length-cm	2.4	wt-kg
14. Date(s) of harvest	6/9/08 to 7/29/08		
15. Gear type or method used	Commercial purse seine and weir		

16. Disposition of Hatchery Escapement

	# fish	lbs. fish
A Fish harvested/sold		
adults	31,384	165,312
jacks		
total	<b>31,384</b>	<b>165,312</b>
	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners	4,222	955	
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	4,222	955	-
total pounds	23,447	5,039	

**Comments:**

**#1, 2, 3, 4, 5, 8, 9, 10, 11, 12 & 16 - CIAA estimates 95% of the returning fish are of hatchery origin. Reported values have been**

**adjusted accordingly. The allocation of fish between broodyears and source are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2

#10 - Estimated sport, personal use and subsistence. Estimate may be low. 10D - Estimated illegal harvest.

#12 - Based on historic age composition, 50% of the return is 2-ocean fish and 50% 3-ocean. To estimate number returning, CIAA assumed these percentages

Returning fish are from three stocking strategies - fry, fall fry and smolt. Otolith sample analysis and survival estimates are currently not available.

#16D - 955 of the fish harvested for cost recovery were donated. These fish are included on Line 1 and 16A

<sup>1</sup> **"Other" use one line per category.** (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup> **Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.**





10. Non-commercial <sup>2</sup>

A. Sport

B. Personal Use

C. Subsistence

D. Other (annotate in comments section)

17	
17	
145	
	179

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**18,079**

	BY	Total # returning in 2008	Cumulati ve Survival	
12. Estimated ocean survival by BY 2	2004	13,000	0.7	%
	2003	30,000	0.6	%
	2002	11,000	0.8	%
				%
				%
				%

13. Average size of fish sold

14. Date(s) of harvest

15. Gear type or method used

	<length- cm		wt- kg

**16. Disposition of Hatchery Escapement**

A Fish harvested/sold  
adults

	# fish	lbs. fish
jacks		
total	-	-

B Roe recovery

C Milt recovery

	# fish	lbs. roe/milt
B	-	
C	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 2, 3, 8, 9, 10, 11, & 12 - CIAA estimates 67% of the returning fish are of hatchery origin. Reported values have been adjusted**

**accordingly. The allocation of fish between broodyears and source are preliminary and should not be used or cited.**

#10D - There is an ADF&G permitted educational fishery at the mouth of Fish Creek. CIAA was never informed of this fishery and has no knowledge of the

harvest in 2008 or any previous years.

#10D - Fish collected by ADF&G for otolith sampling and test fish.

#12 - Based on historic age composition of this stock, 70% of the return is typically 2-ocean fish and 30% 3-ocean. To estimate number returning in 2008, CIAA

assumed these percentages. Survival estimates are based on the number of fry stocked. Broodyears 2002 and 2003 are complete

<sup>1</sup>. **"Other" use one line per category.** (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. **Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.**

# SCHEDULE C-6

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

Trail Lakes  
Hatchery

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Hidden Lake

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
  
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
3,064	
7,500	
(1,164)	
	9,400

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

11,100	
	11,100

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

1,700
1,800
3,500

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

24,000
--------

	BY	Total # returning in 2008	Cumulati ve Survival	
12. Estimated ocean survival by BY 2	2004	NA		%
	2003	NA		%
	2002	0	7.6	%
				%
				%
				%

13. Average size of fish sold		<length- cm		wt- kg
14. Date(s) of harvest				
15. Gear type or method used				

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold adults		
jacks		
total	-	-

	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners	1,900		
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)	155	88	
total number of fish	2,055	88	-
total pounds			

**Comments:**

**#2, 3, 5, 8, 9, 10, 11, 12 & 16 - CIAA estimates 62% of the returning fish are of hatchery origin. Reported values have been adjusted**

**accordingly. The allocation of fish between broodyears and source are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2

#9 & 10 - Estimates provided by ADF&G

#12 - Based on age composition, 85% of the return is typically 2-ocean fish and 15% 3-ocean. To estimate number returning in 2008, CIAA assumed these percentages. Survival estimate is based on the number of fry stocked.

Broodyear 2002 is complete.

#16D - Fish weight information is no longer collected and is not available. Fish sacrificed for otolith collection donated (88) or placed back into Hidden lake (155)

<sup>1</sup>. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-7

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail Lakes  
Hatchery**

<b>Species:</b>	Sockeye Salmon
<b>Location of harvest/return:</b>	Tustumena Lake

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-
-

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

-

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY 2

BY	Total # returning in 2008	Cumulativ e Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

B Roe recovery

C Milt recovery

	# fish	lbs. roe/milt
-		
-		



D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

The Tustumena Lake enhancement project was terminated after the 2004 fry stocking. Because the number of hatchery fish returning in 2008 was expected to be small (less than 10% of the total return), no attempt was made to monitor the hatchery return. No hatchery fish are expected to return in 2009 or later.

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<sup>1</sup>. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-8

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

Trail Lakes  
Hatchery

<b>Species:</b>	Coho Salmon
<b>Location of harvest/return:</b>	Bear Lake (Resurrection Bay)

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

350	
285	
320	
(37)	
358	
	1,276

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

	-

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

NA
NA

**Total non-commercial**

-
---

**11. Total Return (sum 8,9,10)**

<b>1,276</b>
--------------

12. Estimated ocean survival by BY 2	BY	Total # returning in 2008	Cumulative Survival	
				%
				%
				%
				%
				%
				%
				%

13. Average size of fish sold		<length-cm		wt-kg
14. Date(s) of harvest	9/18/2008 to 9/24/2008			
15. Gear type or method used	Weir			

**16. Disposition of Hatchery Escapement**

		# fish	lbs. fish
A	Fish harvested/sold adults	350	
	jacks		
	total	350	-

		# fish	lbs. roe/milt
B	Roe recovery	-	
C	Milt recovery	-	

D

. Carcasses

	# Disposed	# Donated	# Sold
Spawners		248	
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)		350	
total number of fish	-	598	-
total pounds			

**Comments:**

**#1, 2, 3, 4, 5, 6, 7, 8, 10, 11 & 16 - CIAA estimates 87% of the returning fish are of hatchery origin. Reported values have been adjusted**

**accordingly. The allocation of fish between broodyears and source are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2. #6 - ADF&G broodstock not included in line 2. #10 - Estimates provided by ADF&G not available.

#12 - Allocated return based on age composition and hatchery contribution. Returning fish are from two stocking strategies - fry and smolt.

Detailed age composition data and hatchery contribution data by broodyear has not been analyzed. Survival estimates are not available.

#16D - 350 fish harvested for cost recovery were donated. These fish are included on Line 1 and 16A

<sup>1</sup>. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

<sup>2</sup>. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-9

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail Lakes  
Hatchery**

**Species:**

Coho Salmon
----------------

**Location of**

**harvest/return:**

Homer Spit (Kachemak Bay)
------------------------------

**Hatchery Escapement**

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
	-

**8. Total return to hatchery**

**Common Property Harvest**

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

	-

**Total commercial**

-

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

-

**Total non-commercial**

-
---

**11. Total Return (sum 8,9,10)**

	BY	Total # returning in 2008	Cumulativ e Survival	
12. Estimated ocean survival by BY 2				%
				%
				%
				%
				%
				%

13. Average size of fish sold

	<length-cm		wt-kg
14. Date(s) of harvest			
15. Gear type or method used			

**16. Disposition of Hatchery Escapement**

- A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

- B Roe recovery
- C Milt recovery

	# fish	lbs. roe/milt
B	-	
C	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The allocation of returning

fish between broodyears are preliminary and should not be used or cited. Return information provided by ADF&G, not yet available.

#10 - Estimated sport, personal use and subsistence. Estimate provided by ADF&G not available.

#12 - Allocated return based on assumed 1.1 age composition and 100% hatchery. Survival estimates are not available.

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE C-10

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Trail Lakes  
Hatchery**

**Species:**

Coho  
Salmon

**Location of**

**harvest/return:**

Seldovia

### Hatchery Escapement

1. Cost recovery fish (Sch. C sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. C lines 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-
-

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-

**Total commercial**



10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

-

**Total non-commercial**

-
---

**11. Total Return (sum 8,9,10)**

	BY	Total # returning in 2008	Cumulativ e Survival	
12. Estimated ocean survival by BY 2				%
				%
				%
				%
				%
				%

13. Average size of fish sold

	<length-cm		wt-kg
14. Date(s) of harvest			
15. Gear type or method used			

**16. Disposition of Hatchery Escapement**

- A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

- B Roe recovery
- C Milt recovery

	# fish	lbs. roe/milt
B	-	
C	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The allocation of returning

fish between broodyears are preliminary and should not be used or cited. Return information provided by ADF&G, not yet available.

#10 - Estimated sport, personal use and subsistence. Estimate provided by ADF&G not available.

#12 - Allocated return based on assumed 1.1 age composition and 100% hatchery. Survival estimates are not available.

**SCHEDULE D**  
**PROJECTED RETURNS FOR 2009**

Species	Release Site	Total number of fish expected	Range in Expected Return		Hatchery Contribution	
			minimum	maximum	Estimated percent	Estimated Number
Sockeye	Bear Lk.	192,500	No estimate	No estimate	95%	182,900
	Big Lk.	57,800	No estimate	No estimate	67%	38,700
	English Bay Lks.	No estimate - see PGH Annual Report				
	Hidden Lake	43,900	No estimate	No estimate	62%	27,200
	Tutka Bay Lagoon	16,100	No estimate	No estimate	100%	16,100
	Leisure/Hazel	25,900	No estimate	No estimate	100%	25,900
	Kirschner	2,500	No estimate	No estimate	100%	2,500
Coho	Bear Lk.(Fry)	4,500	No estimate	No estimate	87%	3,900
	Bear Ck. (Smolt)	5,000	No estimate	No estimate	100%	5,000
	Homer Spit	3,300	No estimate	No estimate	100%	3,300
	Seldovia	3,100	No estimate	No estimate	100%	3,100

# SCHEDULE F-1

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Leisure/Hazel Lakes (Kachemak Bay)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

22,586
-
-
<b>501</b>
23,0 87

### 8. Total return to hatchery

### Common Property Harvest

#### 9. Commercial <sup>2</sup>

- A. Troll
- B. Gillnet
- C. Seine
- D. Other (annotate in comments section)

83,802
83,8 02

**Total  
commercial**

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

650
4,900
5,550

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

<b>112,439</b>
----------------

12. Estimated ocean survival by BY <sup>2</sup>	BY	Total # returning in 2007	Cumulative Survival	
	2003	90,000	3.82	%
2002	22,000	2.80	%	
			%	
			%	
			%	
			%	

13. Average size of fish sold	<length-cm	2.1	wt-kg
14. Date(s) of harvest	7/20/07 thru 7/23/07		
15. Gear type or method used	Commercial Seine Boat		

**16. Disposition of Hatchery Escapement**

A	Fish harvested/sold	# fish	lbs. fish
.	adults	22,586	103,317
	jacks		
	total	22,586	103,317

B	Roe recovery	# fish	lbs. roe/milt
.		-	
C	Milt recovery	-	

D. Carcasses

	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The**

**allocation of returning fish between broodyears are preliminary and should not be used or cited.**

**#5 - When harvest operations were terminated, ADF&G estimated 501 fish remained below the falls. These fish were not expected to spawn successfully.**

#10 - Estimated sport, personal use and subsistence. Estimate may be low.

#12 - Age composition of the returning fish was not determined. However, based on historic age composition of the broodstock, 80% of the

return is typically 2-ocean fish and 20% 3-ocean. To estimate survival rate, CIAA assumed these percentages.

Broodyear 2002 is complete

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-2

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Kirschner Lake (Kamishak Bay)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

27,719
2,000
29,719

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

7,725
7,725

### Total commercial

10. Non-commercial <sup>2</sup>

A. Sport

B. Personal Use

C. Subsistence

D. Other (annotate in comments section)

-
-
-
-

**Total non-commercial**

-
---

**11. Total Return (sum 8,9,10)**

<b>37,444</b>
---------------

	BY	Total # returning in 2007	Cumulative Survival	
12. Estimated ocean survival by BY <sup>2</sup>	2003	<b>30,000</b>	<b>11.95</b>	%
	2002	7,000	15.77	%
				%
				%
				%
				%

13. Average size of fish sold	<length-cm	1.8	wt-kg
14. Date(s) of harvest	7/9/07 thru 7/30/07		
15. Gear type or method used	Commercial Seine Boat		

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold adults	27,719	110,636
jacks		
total	27,719	110,636

  

	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	



D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 100% of the returning fish are of hatchery origin. The**

**allocation of returning fish between broodyears are preliminary and should not be used or cited.**

**#5 - When harvest operations were terminated, ADF&G estimated 2,000 fish remained below the falls. These fish were not expected to**

**spawn successfully.**

**#12 - Age composition of the returning fish was not determined. However, based on historic age composition of the broodstock, 80% of the**

**return is typically 2-ocean fish and 20% 3-ocean. To estimate survival rate, CIAA assumed these percentages.**

**Broodyear 2002 is complete**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-3

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon		<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Tutka Bay Lagoon (Kachemak Bay)		

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
	-

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

	-

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

**Total non-commercial**

-

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg
--	------------	--	-------

14. Date(s) of harvest

15. Gear type or method used


**16. Disposition of Hatchery Escapement**

A. Fish harvested/sold

	# fish	lbs. fish
adults		
jacks		
total	-	-

B. Roe recovery

C. Milt recovery

	# fish	lbs. roe/milt
	-	
	-	

D

Carcasses		# Disposed	# Donated	# Sold
Spawners				
Roe recovery (during eggtake)				
Roe recovery (non-eggtake)				
Milt recovery (during eggtake)				
Milt recovery (non eggtake)				
Other (annotate in comments)				
total number of fish		-	-	-
total pounds				

**Comments:**

**No changes in 2007 AR**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-4

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon		<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Bear Lake (Resurrection Bay)		

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish	7,000	
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)	4,420	
3. Escapement for hatchery watershed (as required in permit)	7,000	
4. Jacks		
5. Other <sup>1</sup> (annotate in comments section)	(900)	
6. Other <sup>1</sup> (annotate in comments section)		
7. Other <sup>1</sup> (annotate in comments section)		
<b>8. Total return to hatchery</b>		17,520

### Common Property Harvest

9. Commercial <sup>2</sup>		
A. Troll		
B. Gillnet		
C. Seine	12,000	
D. Other (annotate in comments section)		
<b>Total commercial</b>		12,000

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

<b>3,300</b>
<b>3,300</b>

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

<b>32,820</b>
---------------

	BY	Total # returning in 2007	Cumulative Survival	
12. Estimated ocean survival by BY <sup>2</sup>	2003	17,000		%
	2002	17,000		%
				%
				%
				%
				%

13. Average size of fish sold		<length-cm	2.1	wt-kg
14. Date(s) of harvest	6/21/07 thru 7/27/07			
15. Gear type or method used	Commercial Seine Boat and Weir			

**16. Disposition of Hatchery Escapement**

	# fish	lbs. fish
A Fish harvested/sold adults	7,000	33,000
jacks		
total	7,000	33,000

	# fish	lbs. roe/milt
B Roe recovery	-	
C Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners	3,500	300	
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	3,500	300	-
total pounds	16,400	1,400	

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 80% of the returning fish are of hatchery origin. Reported**

**values have been adjusted accordingly. The allocation of returning fish between broodyears and source**

**(hatchery vs. wild) are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2

#10 - Estimated sport, personal use and subsistence from ADF&G. CIAA believes estimate may be low.

#12 - Based on historic age composition of this stock, 50% of the return is typically 2-ocean fish and 50% 3-ocean. To estimate number

returning in 2007, CIAA assumed these percentages. Returning fish are from three stocking strategies - fry, fall fry and smolt. Otolith

samples from each stocking group have not been analyzed. Survival estimates are currently not available.

#16C - 300 of the fish harvested for cost recovery were donated. These fish are included on Line 1 and 16A

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-5

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Big Lake (Meadow Creek)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish	-	
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)	3,814	
3. Escapement for hatchery watershed (as required in permit)	19,000	
4. Jacks		
5. Other <sup>1</sup> (annotate in comments section)	(1,300)	
6. Other <sup>1</sup> (annotate in comments section)		
7. Other <sup>1</sup> (annotate in comments section)		
<b>8. Total return to hatchery</b>		<b>21,514</b>

### Common Property Harvest

9. Commercial <sup>2</sup>		
A. Troll		
B. Gillnet	14,000	
C. Seine		
D. Other (annotate in comments section)		
<b>Total commercial</b>		<b>14,000</b>



10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

<b>100</b>	
<b>400</b>	
-	
	<b>500</b>

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**36,014**

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
2003	25,000	0.05	%
2002	11,000	0.08	%
			%
			%
			%
			%

- 13. Average size of fish sold
- 14. Date(s) of harvest
- 15. Gear type or method used

	<length- cm		wt-kg

**16. Disposition of Hatchery Escapement**

- A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

- B Roe recovery

	# fish	lbs. roe/milt
	-	
	-	

- C. Milt recovery

D

Carcasses	# Disposed	# Donated	# Sold
Spawners		2,600	
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	2,600	-
total pounds		NA	

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 67% of the returning fish are of hatchery origin. Reported**

**values have been adjusted accordingly. The allocation of returning fish between broodyears and source**

**(hatchery vs. wild) are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2

#10 - Estimated sport, personal use and subsistence from ADF&G. CIAA believes estimate may be low.

#12 - Based on historic age composition of this stock, 70% of the return is typically 2-ocean fish and 30% 3-ocean. To estimate number

returning in 2007, CIAA assumed these percentages.

Broodyear 2002 is complete

#16C - Fish size information collected by ADF&G. Information currently not available. All broodstock were donated to dog mushers

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-6

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Hidden Lake	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish	-	
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)	4,520	
3. Escapement for hatchery watershed (as required in permit)	10,000	
4. Jacks		
5. Other <sup>1</sup> (annotate in comments section)	(1,900)	
6. Other <sup>1</sup> (annotate in comments section)		
7. Other <sup>1</sup> (annotate in comments section)		
<b>8. Total return to hatchery</b>		12,620

### Common Property Harvest

9. Commercial <sup>2</sup>		
A. Troll		
B. Gillnet	<b>15,500</b>	
C. Seine		
D. Other (annotate in comments section)		
<b>Total commercial</b>		15,500

10. Non-commercial <sup>2</sup>

A. Sport

2,500

B. Personal Use

2,000

C. Subsistence

D. Other (annotate in comments section)

100

**Total non-commercial**

4,600

**11. Total Return (sum 8,9,10)**

32,720

12. Estimated ocean survival by BY <sup>2</sup>	BY	Total # returning in 2007	Cumulative Survival	
	2003	28,000		%
2002	5,000		%	
			%	
			%	
			%	
			%	

13. Average size of fish sold

<length-cm

wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

B Roe recovery

	# fish	lbs. roe/milt
	-	
C. Milt recovery	-	

D

Carcasses	# Disposed	# Donated	# Sold
Spawners	2,600		
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)		100	
total number of fish	2,600	100	-
total pounds			

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 57% of the returning fish are of hatchery origin. Reported**

**values have been adjusted accordingly. The allocation of returning fish between broodyears and source**

**(hatchery vs. wild) are preliminary and should not be used or cited.**

#5 - Nonhatchery fish included in line 2

#9B & 10A, B & D - Estimates provided by ADF&G.

#10D - Fish harvested for otolith sampling

#12 - Based on historic age composition of this stock, 85% of the return is typically 2-ocean fish and 15% 3-ocean. To estimate number

returning in 2007, CIAA assumed these percentages.

#16C - Fish weight information is no longer collected and is not available. Fish harvested for otolith collection donated

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-7

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Tustumena Lake	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-
101,000
101,000
0

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

212,000
212,000
0

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

<b>4,200</b>
<b>17,000</b>
21,200

**Total non-commercial**

**11. Total Return (sum 8,9,10)**

**334,200**

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

- 13. Average size of fish sold
- 14. Date(s) of harvest
- 15. Gear type or method used

	<length-cm		wt-kg

**16. Disposition of Hatchery Escapement**

- A Fish harvested/sold adults

	# fish	lbs. fish
jacks		
total	-	-

- B Roe recovery

	# fish	lbs. roe/milt
	-	
	-	

- C. Milt recovery

D

Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non-eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**#1, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 16 - CIAA estimates 30% of the returning fish are of hatchery origin. Reported**

**values have been adjusted accordingly. The allocation of returning fish between broodyears and source**

**(hatchery vs. wild) are preliminary and should not be used or cited.**

#10D - Estimated sport, personal use and subsistence. Estimate provided by ADF&G.

#12 - Allocated return based on age composition and hatchery contribution. Detailed age composition data and hatchery contribution

data by broodyear has not been analyzed. Survival estimates are currently not available.

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.



# SCHEDULE F-8

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Coho Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Bear Lake (Resurrection Bay)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
-	

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-	

### Total commercial

-	
---	--

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

**Total non-commercial**

-

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A. Fish harvested/sold

	# fish	lbs. fish
adults		
jacks		
total	-	-

B. Roe recovery

C. Milt recovery

	# fish	lbs. roe/milt
	-	
	-	

D

. Carcasses

	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**No changes in 2007 AR**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-9

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Coho Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Homer Spit (Kachemak Bay)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
-	

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-	

### Total commercial

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

**Total non-commercial**

-

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A. Fish harvested/sold

	# fish	lbs. fish
adults		
jacks		
total	-	-

B. Roe recovery

C. Milt recovery

	# fish	lbs. roe/milt
	-	
	-	

D

. Carcasses

	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**No changes in 2007 AR**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-10

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Coho Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Lowell Falls (Resurrection Bay)	

### Hatchery Escapement

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-
-

### 8. Total return to hatchery

### Common Property Harvest

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-

### Total commercial

-
---

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

**Total non-commercial**

-

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A. Fish harvested/sold

	# fish	lbs. fish
adults		
jacks		
total	-	-

B. Roe recovery

C. Milt recovery

	# fish	lbs. roe/milt
	-	
	-	



D

. Carcasses

	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**No changes in 2007 AR**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.

# SCHEDULE F-11

## UPDATED 2007 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.



<b>Species:</b>	Coho Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return:</b>	Seldovia	

**Hatchery Escapement**

1. Cost recovery fish (Sch. F sum of lines 16A,16B,16C) traditional harvest plus roe and milt recovery fish
2. Adults captured for broodstock (Sch. A line 7) minus roe and milt recovery fish (Sch. F line 16B and 16C)
3. Escapement for hatchery watershed (as required in permit)
4. Jacks
5. Other <sup>1</sup> (annotate in comments section)
6. Other <sup>1</sup> (annotate in comments section)
7. Other <sup>1</sup> (annotate in comments section)

-	
-	

**8. Total return to hatchery**

**Common Property Harvest**

9. Commercial <sup>2</sup>
  - A. Troll
  - B. Gillnet
  - C. Seine
  - D. Other (annotate in comments section)

-	

**Total commercial**

10. Non-commercial <sup>2</sup>

- A. Sport
- B. Personal Use
- C. Subsistence
- D. Other (annotate in comments section)

**Total non-commercial**

-

**11. Total Return (sum 8,9,10)**

-
---

12. Estimated ocean survival by BY <sup>2</sup>

BY	Total # returning in 2007	Cumulative Survival	
			%
			%
			%
			%
			%
			%

13. Average size of fish sold

	<length-cm		wt-kg

14. Date(s) of harvest

15. Gear type or method used

**16. Disposition of Hatchery Escapement**

A. Fish harvested/sold

	# fish	lbs. fish
adults		
jacks		
total	-	-

B. Roe recovery

C. Milt recovery

	# fish	lbs. roe/milt
	-	
	-	

D

. Carcasses

	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during eggtake)			
Roe recovery (non-eggtake)			
Milt recovery (during eggtake)			
Milt recovery (non eggtake)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

**Comments:**

**No changes in 2007 AR**

1. "Other" use one line per category. (e.g. fish remaining in saltwater, sea lion predation, etc.).

2. Commercial harvest, non-commercial harvest, and estimated ocean survival. Provide method used in estimation.