

**TRAIL LAKES HATCHERY  
ANNUAL REPORT  
2005**

Cook Inlet Aquaculture Association  
Trenten T. Dodson, CIAA Biologist  
December 2005

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, through the harvest and sale of surplus fish, and a grant administered through the National Oceanic and Atmospheric Administration and the Alaska Department of Fish and Game provided by Senator Ted Stevens.

## 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 2005.

Schedule A data deal with eggs collected during the report year – 2005.

**Sockeye salmon and coho salmon egg collections were conducted for Trail Lakes Hatchery programs following procedures for delayed fertilization. Numeric egg collections were attained only for the Hidden Lake sockeye salmon program.**

Schedule B data deal with fish released during the report year – 2005.

**Sockeye salmon were released into Bear Lake, Hidden Lake, Hazel Lake, Kirschner Lake, Leisure Lake, Tutka Bay Lagoon, and Meadow Creek (Big Lake). Numeric sockeye release goals were not met at Meadow Creek (Big Lake), since the 2004 egg take goal was not met.**

**Coho salmon were released into Bear Lake (Seward), Bear Creek (Seward), and the Homer spit. All numeric coho salmon release goals were met, except for the Homer spit release project.**

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 – 2005.

**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 to dog mushers 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, Hidden, and Big Lakes 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 – 2006.

**Returns were projected for 2006 based on the number of fish released in the stocking year or smolt migration (when available) and assumed survival rates.**

Schedule F data are presented only when information reported in the prior year's annual report needs to be corrected or updated, and Schedule F is used infrequently by CIAA.

**There were no alterations to the 2004 data; schedule F is identical to the 2004 Schedule C.**

## 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. With the programs transferred from the Eklutna Salmon Hatchery, 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).

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:

Permit Number	Expiration Date	Activity
<b>01A-0111</b>	06/30/06	Collection of up to 1.25 million sockeye salmon eggs from Bear Lake and the rearing and release of the subsequent presmolt into Bear Lake.
<b>01A-0112</b>	06/30/06	Collection of up to 1.75 million sockeye salmon eggs from Bear Lake and the rearing and release of the subsequent smolt into Bear Lake.
<b>02A-0049</b>	07/31/07	Collection of up to 6.25 million sockeye salmon eggs from Meadow Creek and the rearing and release of the subsequent fry. Up to 3.0 million fry may be released into Big Lake and 2.0 million into Blodgett Lake. (This replaces FTP 93A-0193 for Eklutna Salmon Hatchery, which expired on 06/30/98.)
<b>02A-0050</b>	07/31/07	Transport and release of up to 1.25 million sockeye salmon fry at Hazel Lake. (This replaces FTP 96A-0080 for Eklutna Salmon Hatchery, which had an expiration date of 12/31/07.)
<b>02A-0051</b>	07/31/07	Transport and release of up to 0.25 million sockeye salmon fry at Kirschner Lake. (This replaces FTP 96A-0081 for Eklutna Salmon Hatchery, which had an expiration date of 12/31/07.)
<b>02A-0052</b>	07/31/07	Transport and release of up to 2.00 million sockeye salmon fry at Leisure Lake. (This replaces FTP 96A-0082 for Eklutna Salmon Hatchery, which had an expiration date of 12/31/07.)
<b>93A-0030</b>	06/30/08	Collection of coho salmon eggs from Bear Lake and the rearing and release of no more than 0.450 million of the subsequent fry into Bear Lake.

<b>93A-0031</b>	06/30/08	Collection of coho salmon eggs from Bear Lake and the rearing and release of no more than 0.250 million of the subsequent smolts into Bear Lake.
<b>93A-0032</b>	06/30/08	Collection of up to 4.1 million sockeye salmon eggs from Bear Lake and the rearing and release of the subsequent fry into Bear Lake.
<b>05A-0068</b>	06/15/05	Transfer 0.40 million Bear Lake sockeye salmon smolt to Eklutna Salmon Hatchery
<b>05A-0069</b>	06/15/05	Transfer 0.45 million Bear Lake coho salmon smolt to Eklutna Salmon Hatchery
<b>04A-0016</b>	12/31/05	Release up to 0.20 million coho smolt to Resurrection Bay from the Alaska SeaLife Center. Permit held by ACLS.
<b>04A-0053</b>	06/30/05	Collection of up to 0.235 million coho salmon eggs from Bear Lake and the rearing and release of no more than 0.150 million of the subsequent smolts into Homer Spit.
<b>93A-0036</b>	06/30/08	Collection of up to 2.2 million sockeye salmon eggs from Hidden Lake and the rearing and release of the subsequent fry into Hidden lake.
<b>96A-0086</b>	06/30/07	Transport and release of up to 6.0 million sockeye salmon fry at Tustumena Lake
<b>04A-0064</b>	10/15/09	Collection of up to 1.56 million sockeye salmon eggs from Hidden Lake and the rearing and release of the subsequent of up to 1.25 million fry into Hazel Lake.
<b>04A-0065</b>	10/15/09	Collection of up to 0.31 million sockeye salmon eggs from Hidden Lake and the rearing and release of the subsequent of up to 0.25 million fry into Kirschner Lake.
<b>04A-0066</b>	10/15/09	Collection of up to 2.5 million sockeye salmon eggs from Hidden Lake and the rearing and release of the subsequent of up to 2.0 million fry into Leisure Lake.
<b>05-0093</b>	06/30/06	Transport of up to 0.5 million sockeye salmon presmolt to Tutka Bay Lagoon. Reared and released as smolt.

# ANNUAL REPORT SALMON HATCHERY

Year Ended December 15, 2005

Hatchery name/Location  
Permit holder name/Address

Trail Lakes Hatchery
Cook Inlet Aquaculture Association
40610 Kalifornsky Beach
Kenai, Alaska 99611

Person to contact  
regarding this report

Trenten T. Dodson	name
907-283-5761	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.

Name of Legal Representative

Date

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 with each species and each release site.

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

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

1. Species	Sockeye Salmon	Trail Lakes Hatchery
2. Donor stream (name/number):	Bear Lake(Seward)231-30-10080-2010-3065-4010-0010	
3. Adults used for broodstock	1,529 females	1,593 males
4. Average length and weight of adults used for broodstock		jacks 3,122 total
females->	cm	kg
males->	cm	kg
5. Average fecundity (eggs/female):	2,713	
6. Eggtake dates:	7/28-9/8	
7. Number of green eggs taken:	4,002,000	
8. Number placed in hatchery <sup>1</sup>	4,002,000	
9. Number surviving to eyed	3,618,000	90.40% survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		

#10. 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.

## SCHEDULE A-2

### ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

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

1. Species	Sockeye Salmon	Trail Lakes Hatchery
2. Donor stream (name/number):	Meadow Creek (Big Lake) 247-50-10330-2050	
3. Adults used for broodstock	1,088 females	1,076 males
4. Average length and weight of adults used for broodstock		jacks 2,164 total
females->	cm	kg
males->	cm	kg
5. Average fecundity (eggs/female):	2,127	
6. Eggtake dates:	8/13-8/26	
7. Number of green eggs taken:	2,185,000	
8. Number placed in hatchery <sup>1</sup>	2,185,000	
9. Number surviving to eyed	1,662,000	76.06% survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		

#9. Extremely high temperatures and poor egg quality attributed to low eyed survival

#10. 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.

## SCHEDULE A-3

### ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

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

1. Species	Sockeye Salmon	Trail Lakes Hatchery
2. Donor stream (name/number):	Hidden Lake(Kenai Peninsula)244-30-10010-2137-0010	
3. Adults used for broodstock	1,045 females	1,048 males
4. Average length and weight of adults used for broodstock		jacks 2,093 total
females->	cm	kg
males->	cm	kg
5. Average fecundity (eggs/female):	1,940	
6. Eggtake dates:	9/21-10/11	
7. Number of green eggs taken:	2,027,441	
8. Number placed in hatchery <sup>1</sup>	2,027,441	
9. Number surviving to eyed	1,642,256	81.00% survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		

#9. Poor quality broodstock and poor egg quality resulted in low eyed egg survival

#10. 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.

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

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

1. Species	Coho Salmon	<b>Trail Lakes Hatchery</b>
2. Donor stream (name/number):	Bear Lake(Seward) 231-30-10080-2010-3065-4010-0010	
3. Adults used for broodstock	395 females	268 males
		jacks <b>663</b> total
4. Average length and weight of adults used for broodstock		
females>	cm	kg
males>	cm	kg
5. Average fecundity (eggs/female):	3,582	
6. Eggtake dates:	9/30-10/27	
7. Number of green eggs taken:	1,414,791	
8. Number placed in hatchery <sup>1</sup>	1,414,791	
9. Number surviving to eyed	1,252,814	<b>88.55%</b> % survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		
#9. Improper fish handling techniques by a new crew member caused poor egg quality resulting in low eyed egg survival.		
#10. All eggs and milt transferred directly to Trail Lakes Hatchery. Delayed fertilization technique used.		
Survival estimates based on average egg weights.		

## SCHEDULE A-5

### ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

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

1. Species		<b>Trail Lakes Hatchery</b>
2. Donor stream (name/number):		
3. Adults used for broodstock	females	males
		jacks <b>-</b> total
4. Average length and weight of adults used for broodstock		
females>	cm	kg
males>	cm	kg
5. Average fecundity (eggs/female):		
6. Eggtake dates:		
7. Number of green eggs taken:		
8. Number placed in hatchery <sup>1</sup>		
9. Number surviving to eyed		<b>#DIV/0!</b> % survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		

## SCHEDULE A-6

### ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

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

1. Species		<b>Trail Lakes Hatchery</b>
2. Donor stream (name/number):		
3. Adults used for broodstock	females	males
		jacks <b>-</b> total
4. Average length and weight of adults used for broodstock		
females>	cm	kg
males>	cm	kg
5. Average fecundity (eggs/female):		
6. Eggtake dates:		
7. Number of green eggs taken:		
8. Number placed in hatchery <sup>1</sup>		
9. Number surviving to eyed		<b>#DIV/0!</b> % survival <sup>2</sup>
10. Describe procedures used for egg takes and evaluation of in-hatchery survivals:		

1. Provide explanation if greater than number of green eggs taken.  
 2. Provide explanation for survivals less than 90%.



## 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

Trail Lakes Hatchery

Species: Sockeye      Stock: Bear Lake (Seward)      Brood year: 2003

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	5,000,000	100%	
2. Eyed eggs	4,398,000	88%	
3. Emergent fry	3,480,000	70%	
4. Fed fry	3,410,000	68%	
5. Smolts	402,000	8%	Transferred to Eklutna Salmon Hatchery (FTP 05A-0068) in March 2005

#### B. Release Information

Site	Release		lifestage	Size		Expected adult return	Year(s) of return
	Number	date		gm/fish	mm/fish		
Bear Lake (Seward)	2,409,000	6/13-6/14/2004	fry	0.63		107,800	2007, 2008
Bear Lake (Seward)	603,000	11/15-11/18/04	presmolt	4.54		24,000	2007, 2008
Bear Lake (Seward)	402,000	6/1-6/3/2005	smolt	11.42		16,100	2007, 2008
Total:	3,414,000						

#### C. Tagging/Marking

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

Smolt: Hatch Code: 3H  
Rbr: 1:1.3

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#### D. Other

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

Please see ADF&G Fish Pathology Section Accession Nos. 2005-2003, 2004-0067, 2004-0058

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## 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

Trail Lakes Hatchery

Species: Sockeye      Stock: Bear Lake (Seward)      Brood year: 2004

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	5,661,000	100%	
2. Eyed eggs	4,989,000	88%	
3. Emergent fry	4,839,000	85%	
4. Fed fry	4,742,000	84%	fry and presmolts released in 2005 (see section B)
5. Smolts	1,065,000	19%	for release in 2006

#### B. Release Information

Site	Release		lifestage	Size		Expected adult return	Year(s) of return
	Number	date		gm/fish	mm/fish		
Bear Lake (Seward)	2,416,000	6/27-6/28	fry	0.74		107,000	2008, 2009
Bear Lake (Seward)	604,000	11/8-11/10	presmolt	2.87		24,000	2008, 2009
Total:	3,020,000						

#### C. Tagging/Marking

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

Fry: Hatch Code: H4
Rbr: 2: 1.4
Presmolt: Hatch Code: 2, 4H
Rbr: 1: 1.2, 2.4

#### D. Other

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

Please see ADF&G Fish Pathology Section Accession Nos. 2006-0048, 2006-0004









## 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

Trail Lakes Hatchery

Species:

Stock:

Brood year:

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	1,193,000	100%	
2. Eyed eggs	1,094,000	92%	
3. Emergent fry	1,061,000	89%	
4. Fed fry	1,050,000	88%	
5. Smolts	583,000	49%	Transferred to Eklutna Salmon Hatchery (FTP 05A-0069) in March 2005

#### B. Release Information

Site	Release		lifestage	Size		Expected adult return	Year(s) of return
	Number	date		gm/fish	mm/fish		
Bear Lake (Seward)	406,000	6/23/2004	fry	1.07		3,800	2007, 2008
Homer Lagoon	95,000	5/16/2005	smolt	11.3		6,700	2008, 2009
Bear Lake (Seward)	488,000	5/24-5/28/2005	smolt	12.2		34,200	2008, 2009
Total:	989,000						

#### C. Tagging/Marking

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

All released fish were thermally marked at the eyed-egg stage.

Hatch Code: 3, 3H

Rbr: 1: 1.3, 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. 2004-0080, 2005-0003, 2005-0050, 2005-0061.

## SCHEDULE B-8 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

Trail Lakes Hatchery

Species:

Stock:

Brood year:

#### A. Lifestage Information

	Actual number	% cum survival	Transfers- between hatcheries (annotate)
1. Green eggs	1,673,000	100%	
2. Eyed eggs	1,557,000	93%	
3. Emergent fry	1,510,000	90%	
4. Fed fry	1,480,000	88%	
5. Smolts	700,000	0	for release in 2006

#### B. Release Information

Site	Release		lifestage	Size		Expected adult return	Year(s) of return
	Number	date		gm/fish	mm/fish		
Bear Lake (Seward)	405,000	7/3/2005	fry	1.3		3,800	2008, 2009

Total:

#### C. Tagging/Marking

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

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#### D. Other

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

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# SCHEDULE C-1

## HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return</b>	Leisure/Hazel	
1. Number of fish harvested under Hatchery Harvest Permit	adults	22,050
2. Hatchery broodstock	jacks	
3. Broodstock for hatchery watershed		
4. Jacks		
5. Excess fish (surplus to all other requirements) <sup>1</sup>		
6. Other: <sup>2</sup>	explain> <span style="border: 1px solid black; padding: 2px;">Below Barrior</span>	number <span style="border: 1px solid black; padding: 2px;">1</span>
<b>7. Total return to hatchery</b>		<b>22,051</b>
8. Estimated contribution to common property fisheries		
A. Commercial		
1. Troll		
2. Gillnet		
3. Seine		40,333
<b>TOTAL</b>		<b>40,333</b>
B. Sport		650
C. Other:	explain> <span style="border: 1px solid black; padding: 2px;">Personal Use</span>	4,900
<b>9. Total return(sum 7+8A, B, C)</b>		<b>67,934</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>				%
				%
				%
				%
				%
11. Average size of fish sold		ND	<length-cm	2.6 wt-kg
12. Date(s) of harvest	6/26/2005 to 7/15/2005			
13. Gear type or method used	Purse Seine			
	A. # fish	B. Lbs (fish/roe)	C. \$/lb received	D. Total \$ received
14. Whole fish harvested/sold	22,050	127,828	0.72	92,036.16
15. Fish donated				
16. Carcasses sold			\$	-
17. Roe processed/sold			\$	-
18. Broodstock disposed				
19. Total dollars received (sum lines 14,16,17)				<b>\$ 92,036</b>
20. Total corporate revenue <sup>4</sup>	sources	all sources	\$	2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				<b>\$ 188,722</b>

#6. These fish were left below the barrier falls and were unharvested by all user groups.

#8 B. Sport Harvest figures provided by ADF&G are based on estimated 10 year average prior to 1997

#8 C. Personal Use Harvest figures provided by ADF&G are based on state wide survey average from 1990-1995

#10. Age composition and/or smolt migration data is unavailable, cannot estimate survival rates.

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ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).

<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).

<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.

<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory.  
Period covered is January 1 – December 31.

## SCHEDULE C-2

### HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

<b>Species:</b>	Sockeye Salmon	<b>Trail Lakes Hatchery</b>
<b>Location of harvest/return</b>	Kirschner Lake	
1. Number of fish harvested under Hatchery Harvest Permit	adults	14,969
2. Hatchery broodstock	jacks	
3. Broodstock for hatchery watershed		
4. Jacks		
5. Excess fish (surplus to all other requirements) <sup>1</sup>		
6. Other: <sup>2</sup> explain> <span style="border: 1px solid black; padding: 2px;">Below Barrier</span>	number	ND
<b>7. Total return to hatchery</b>		<b>14,969</b>
8. Estimated contribution to common property fisheries		
A. Commercial		
1. Troll		
2. Gillnet		
3. Seine		
<b>TOTAL</b>		<b>-</b>
B. Sport		
C. Other: explain> <span style="border: 1px solid black; padding: 2px;"></span>		
<b>9. Total return(sum 7+8A, B, C)</b>		<b>14,969</b>
	<b>Total #</b>	<b>cumulative</b>
	<b>BY</b>	<b>returning in 2005</b>
10. Estimated ocean survival by BY <sup>3</sup>		<b>% survival</b>
		%
		%
		%
		%
		%
11. Average size of fish sold	ND	<length-cm
12. Date(s) of harvest	7/9/2005 to 7/15/2005	
13. Gear type or method used	Purse Seine	
	A. # fish	B. Lbs (fish/roe)
14. Whole fish harvested/sold	14,969	54,913
15. Fish donated		
16. Carcasses sold		\$ -
17. Roe processed/sold		\$ -
18. Broodstock disposed		
19. Total dollars received (sum lines 14,16,17)		<b>\$ 22,102</b>
20. Total corporate revenue <sup>4</sup> sources	all sources	\$ 2,181,361.16
21. Amount required to recover corporate costs		\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)		<b>\$ 188,722</b>

#10. Data not available

ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).

<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).

<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.

<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory. Period covered is January 1 – December 31.

## SCHEDULE C-3

### HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Species:** Sockeye Salmon Trail Lakes Hatchery  
**Location of harvest/return** Bear Lake

1. Number of fish harvested under Hatchery Harvest Permit	adults	37,654	
	jacks		
2. Hatchery broodstock		3,122	
3. Broodstock for hatchery watershed		10,285	
4. Jacks			
5. Excess fish (surplus to all other requirements) <sup>1</sup>			
6. Other: <sup>2</sup> explain> <span style="border: 1px solid black; padding: 2px;">Fish in Creek</span>	number	10	
<b>7. Total return to hatchery</b>			<b>51,071</b>
8. Estimated contribution to common property fisheries			
A. Commercial			
1. Troll			
2. Gillnet			
3. Seine		19,018	
<b>TOTAL</b>			<b>19,018</b>
B. Sport			
C. Other: explain> <span style="border: 1px solid black; padding: 2px;"></span>		500	
<b>9. Total return(sum 7+8A, B, C)</b>			<b>70,589</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>				%
				%
				%
				%

11. Average size of fish sold ND <length-cm 1.9 wt-kg  
 12. Date(s) of harvest 6/2/2005 to 7/15/2005  
 13. Gear type or method used Purse Seine and Weir

	A. # fish	B. Lbs (fish/roe)	C.\$/lb received	D. Total \$ received
14. Whole fish harvested/sold	36,352	148,848	0.78	\$ 115,361.4
15. Fish donated	1,302	5,339		
16. Carcasses sold				\$ -
17. Roe processed/sold				\$ -
18. Broodstock disposed	3,122	12,800		
19. Total dollars received (sum lines 14,16,17)				<b>\$ 115,361</b>
20. Total corporate revenue <sup>4</sup> sources <span style="margin-left: 20px;">all sources</span>				\$ 2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				<b>\$ 188,722</b>

#8B. This is an estimate by CIAA, the actual figure is expected to be greater.

#10. Data not available

ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).

<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).

<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.

<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory. Period covered is January 1 – December 31.

## SCHEDULE C-4 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Species:** Coho Salmon **Trail Lakes Hatchery**  
**Location of harvest/return:** Bear Lake

1. Number of fish harvested under Hatchery Harvest Permit	adults	1,536	
2. Hatchery broodstock	jacks	808	
3. Broodstock for hatchery watershed		546	
4. Jacks			
5. Excess fish (surplus to all other requirements) <sup>1</sup>			
6. Other: <sup>2</sup> explain> Morts	number	57	
<b>7. Total return to hatchery</b>			<b>2,947</b>
8. Estimated contribution to common property fisheries			
A. Commercial			
1. Troll			
2. Gillnet			
3. Seine			
<b>TOTAL</b>			<b>-</b>
B. Sport		4,788	
C. Other: explain>			
<b>9. Total return(sum 7+8A, B, C)</b>			<b>7,735</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>				%
				%
				%
				%
				%

11. Average size of fish sold	ND	<length-cm	ND	wt-kg
12. Date(s) of harvest	9/1/2005 - 10/23/2005			
13. Gear type or method used	Weir			

	A. # fish	B. Lbs (fish/roe)	C.\$/lb received	D. Total \$ received
14. Whole fish harvested/sold				\$ -
15. Fish donated	2,344	ND		
16. Carcasses sold				\$ -
17. Roe processed/sold				\$ -
18. Broodstock disposed				
19. Total dollars received (sum lines 14,16,17)				<b>\$ -</b>
20. Total corporate revenue <sup>4</sup> sources	all sources			\$ 2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				<b>\$ 188,722</b>

#2. 145 (87 females and 58 males) coho salmon were used by ADF&G for broodstock

#10. Data not available

#18. All broodstock were donated and included in #15.

ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).

<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).

<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.

<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory. Period covered is January 1 – December 31.

## SCHEDULE C-5 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Species:** Coho Salmon **Trail Lakes Hatchery**  
**Location of harvest/return** Bear Lake

1. Number of fish harvested under Hatchery Harvest Permit	adults		1,536	
2. Hatchery broodstock	jacks		808	
3. Broodstock for hatchery watershed			546	
4. Jacks				
5. Excess fish (surplus to all other requirements) <sup>1</sup>				
6. Other: <sup>2</sup> explain> Morts	number		57	
<b>7. Total return to hatchery</b>				<b>2,947</b>
8. Estimated contribution to common property fisheries				
A. Commercial				
1. Troll				
2. Gillnet				
3. Seine				
<b>TOTAL</b>				<b>-</b>
B. Sport				
C. Other: explain>			4,788	
<b>9. Total return(sum 7+8A, B, C)</b>				<b>7,735</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>			%	
			%	
			%	
			%	
			%	

11. Average size of fish sold	ND	<length-cm	ND		wt-kg
12. Date(s) of harvest	9/1/2005 - 10/23/2005				
13. Gear type or method used	Weir				

	A. # fish	B. Lbs (fish/roe)	C.\$/lb received	D. Total \$ received
14. Whole fish harvested/sold				\$ -
15. Fish donated	2,344	ND		
16. Carcasses sold				\$ -
17. Roe processed/sold				\$ -
18. Broodstock disposed				
19. Total dollars received (sum lines 14,16,17)				<b>\$ -</b>
20. Total corporate revenue <sup>4</sup> sources	all sources			\$ 2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				<b>\$ 188,722</b>

#2. 145 (87 females and 58 males) coho salmon were used by ADF&G for broodstock  
#10. Data not available  
#18. All broodstock were donated and included in #15.

ND = No Data

1. **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).  
2. **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).  
3. **Estimated ocean survival.** Provide method used in estimation.  
4. **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory. Period covered is January 1 – December 31.

## SCHEDULE C-6 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

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

1. Number of fish harvested under Hatchery Harvest Permit	adults		
2. Hatchery broodstock	jacks		2,164
3. Broodstock for hatchery watershed			12,221
4. Jacks			
5. Excess fish (surplus to all other requirements) <sup>1</sup>			
6. Other: <sup>2</sup> <span style="float: right;">explain&gt; <span style="border: 1px solid black; padding: 2px;"> </span></span>	number		
<b>7. Total return to hatchery</b>			<b>14,385</b>
8. Estimated contribution to common property fisheries			
A. Commercial			
1. Troll			
2. Gillnet			
3. Seine			8,208
<b>TOTAL</b>			<b>8,208</b>
B. Sport			
C. Other: <span style="float: right;">explain&gt; <span style="border: 1px solid black; padding: 2px;">Sport and PU</span></span>			
			-
<b>9. Total return(sum 7+8A, B, C)</b>			<b>22,593</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>				%
				%
				%
				%
				%

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

	A. # fish	B. Lbs (fish/roe)	C. \$/lb received	D. Total \$ received
14. Whole fish harvested/sold				\$ -
15. Fish donated	2,164	ND		
16. Carcasses sold				\$ -
17. Roe processed/sold				\$ -
18. Broodstock disposed				
19. Total dollars received (sum lines 14,16,17)				<b>\$ -</b>
20. Total corporate revenue <sup>4</sup> <span style="float: right;">sources <span style="border: 1px solid black; padding: 2px;">all sources</span></span>				\$ 2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				<b>\$ 188,722</b>

#10. Age composition and/or smolt migration data is unavailable, cannot estimate survival rates.  
 #18. Broodstock were donated

ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).

<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).

<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.

<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory. Period covered is January 1 – December 31.

## SCHEDULE C-7 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project and species.

**Species:** Sockeye Salmon Trail Lakes Hatchery  
**Location of harvest/return** Tustumena Lake

1. Number of fish harvested under Hatchery Harvest Permit	adults		
2. Hatchery broodstock	jacks		
3. Broodstock for hatchery watershed		348,012	
4. Jacks			
5. Excess fish (surplus to all other requirements) <sup>1</sup>			
6. Other: <sup>2</sup> explain> <span style="border: 1px solid black; padding: 2px;"></span>	number		
<b>7. Total return to hatchery</b>			<b>348,012</b>
8. Estimated contribution to common property fisheries			
A. Commercial			
1. Troll			
2. Gillnet			
3. Seine			
<b>TOTAL</b>			<b>751,147</b>
B. Sport			
C. Other: explain> <span style="border: 1px solid black; padding: 2px;">Person Use</span>			
		56,000	
<b>9. Total return(sum 7+8A, B, C)</b>			<b>1,155,159</b>

	BY	Total # returning in 2005	cumulative % survival	
10. Estimated ocean survival by BY <sup>3</sup>	1998	102,609	24.60	%
	1999	601,848	31.90	%
	2000	456,885	NC	%
	2001	7,722	NC	%
				%

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

	A. # fish	B. Lbs (fish/roe)	C. \$/lb received	D. Total \$ received
14. Whole fish harvested/sold				\$ -
15. Fish donated				
16. Carcasses sold				\$ -
17. Roe processed/sold				\$ -
18. Broodstock disposed				
19. Total dollars received (sum lines 14,16,17)				\$ -
20. Total corporate revenue <sup>4</sup> sources <span style="border: 1px solid black; padding: 2px;">all sources</span>				\$ 2,181,361.16
21. Amount required to recover corporate costs				\$ 1,992,638.82
22. Total surplus or deficit at corporation(line 20-line 21)				\$ 188,722

#8A. Data from ADF&G = total commercial catch and not seperated into catagories  
 #10. Data not complete

NC = Broodyear not complete  
 ND = No Data

<sup>1</sup> **Excess fish.** (e.g. extra or green males, extra or unviable females whose roe was not sold).  
<sup>2</sup> **Other fish.** (e.g. fish remaining in saltwater after egg take is complete).  
<sup>3</sup> **Estimated ocean survival.** Provide method used in estimation.  
<sup>4</sup> **Total corporate revenue.** Defined as all income to the corporation including but not limited to: cost recovery, carcass and egg sales, donations, grants, loan proceeds, interest income, rental and/or lease income, revenues from sales proceeds of assets and inventory.  
 Period covered is January 1 – December 31.

**SCHEDULE D**  
**PROJECTED RETURNS FOR 2006**

Species	Release Site	Total number of fish expected	Range in expected return	
			minimum	maximum
Sockeye (LCI)	Leisure/Hazel Lakes	148,900	No Estimate	No Estimate
Sockeye (LCI)	Kirschner Lake	24,200	No Estimate	No Estimate
Sockeye (LCI)	Bear Lake (Seward)	87,000	No Estimate	No Estimate
Sockeye (UCI)	Big Lake	No Estimate	No Estimate	No Estimate
Sockeye (UCI)	Hidden lake	61,000	No Estimate	No Estimate
Sockeye (UCI)	Tustumena Lake	1,730,000	1,350,000	2,100,000
Coho (LCI)	Bear Lake (Seward)	37,000	No Estimate	No Estimate
Leisure/Hazel and Kirschner Lakes estimates based on fry stocking				
All other estimates based on smolt migrations				
CIAA estimates are derived from observed average survival rates and include <b>all</b> returning fish				