

2016 ANNUAL REPORT ALASKA SALMON HATCHERY

Year Ending December 15, 2016

Hatchery name/Location
Permit holder name/Address

TRAIL LAKES HATCHERY
Cook Inlet Aquaculture Association
40610 Kalifornsky Beach Road
Kenai, AK 99611

Person to contact
regarding this report

Caroline Cherry	name
907-283-5761	phone

DECLARATION AND SIGNATURE

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

Gary Fandrei
Name of Legal Representative

12-19-16
Date


Signature of Representative

THE FOLLOWING PARTS ARE INCLUDED IN THIS REPORTING FORM.

Part 1. REPORT OF THIS YEAR'S PERFORMANCE

Complete the following schedules of production statistics for this year, for each species/stock/brood year combination:

Schedule A: Annual Broodstock and Initial Survival Report

Schedule B: Annual Fish Culture Production Report

Schedule C: Harvest Management and Hatchery Adult Returns

Note: One Schedule C for each species/stock/project location (release site).

Part 2. PROJECTED RETURNS FOR NEXT YEAR

Complete Schedule D, to provide projections for each species and each release site.

Part 3. UPDATED SCHEDULES FOR PRIOR YEAR ANNUAL REPORT

Schedule F is used to update last year's Schedule C reported adult return data.

Use this form to update the information that we have on file, if known changes have occurred or numbers have been finalized since last year's report.

**SCHEDULE A-1
ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT**

TRAIL LAKES HATCHERY

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

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species	Sockeye				
2. Stock (donor stock/ancestral stock)	Bear Lake/Russian River/Big River Lakes				
3. Viable broodstock (spawned, eggs in incubators)	1,824	females	1,824	male	3,648 total
4. Inviabile broodstock (green/over-ripe/bad)	40	females	17	male	57 total
5. Unspawned fish (roe recovery, excess males)	-				
6. Holding mortalities (raceway, pen mortalities)	59				
7. Adults sacrificed for broodstock (sum 3 thru 6)	3,764				
8. Average length and weight of adults used for broodstock					
	females>	ND	cm	2.0	kg
	males>	ND	cm	2.1	kg
9. Average fecundity (eggs/female)	2,681				
10. Egg-take dates:	July 24 - August 2				
11. Number of green eggs taken	5,006,997				
12. Number of eggs transferred out (annotate below)	-	eyed eggs			
13. Number of eggs destroyed (annotate below)	-	eyed eggs			
14. Number of green eggs retained in hatchery ¹	5,006,997				
15. Number remaining in hatchery at eyed stage	4,516,650			90.21%	% survival ²
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	Delayed Fertilization. Biomass inventory of live and dead eggs to estimate survival				

Delayed Fertilization. Biomass inventory of live and dead eggs to estimate survival

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.

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species	Sockeye				
2. Stock (donor stock/ancestral stock)	English Bay Lakes (Tutka)				
3. Viable broodstock (spawned, eggs in incubators)	1,896	females	862	male	2,758 total
4. Inviabile broodstock (green/over-ripe/bad)	61	females	16	male	77 total
5. Unspawned fish (roe recovery, excess males)	-				
6. Holding mortalities (raceway, pen mortalities)	126				
7. Adults sacrificed for broodstock (sum 3 thru 6)	2,961				
8. Average length and weight of adults used for broodstock					
	females>	ND	cm	2.2	kg
	males>	ND	cm	2.2	kg
9. Average fecundity (eggs/female)	2,254				
10. Egg-take dates:	Sept 19 - Sept 30				
11. Number of green eggs taken	4,273,494				
12. Number of eggs transferred out (annotate below)	-	eyed eggs			
13. Number of eggs destroyed (annotate below)	-	eyed eggs			
14. Number of green eggs retained in hatchery ¹	4,273,494				
15. Number remaining in hatchery at eyed stage	3,401,741			79.60%	% survival ²
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	3. The broodstock were held in a lensing bag in the lagoon. On August 30 fish escaped the lensing bag due to a rip requiring fish to be recaptured. Males were susceptible to mortality due to jaws being caught in the seine net. This is why the ratio is not 1:1.				

3. The broodstock were held in a lensing bag in the lagoon. On August 30 fish escaped the lensing bag due to a rip requiring fish to be recaptured. Males were susceptible to mortality due to jaws being caught in the seine net. This is why the ratio is not 1:1.

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.

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species	Sockeye					
2. Stock (donor stock/ancestral stock)	Hidden Lake					
3. Viable broodstock (spawned, eggs in incubators)	-	females	-	male	-	total
4. Inviabile broodstock (green/over-ripe/bad)	-	females	-	male	-	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)	-					
7. Adults sacrificed for broodstock (sum 3 thru 6)	-					
8. Average length and weight of adults used for broodstock						
	females>		cm			kg
	males>		cm			kg
9. Average fecundity (eggs/female)						
10. Egg-take dates:						
11. Number of green eggs taken	-					
12. Number of eggs transferred out (annotate below)	-		eyed eggs			
13. Number of eggs destroyed (annotate below)	-		eyed eggs			
14. Number of green eggs retained in hatchery ¹						
15. Number remaining in hatchery at eyed stage				#DIV/0!		% survival ²
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

Only 1,248 adult sockeye salmon returned to Hidden Lake. In order to collect eggs, more than 1,600 adult salmon must return. No eggtake occurred

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.

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species	Coho					
2. Stock (donor stock/ancestral stock)	Bear Lake/Bear Lake					
3. Viable broodstock (spawned, eggs in incubators)	77	females	56	male	133	total
4. Inviabile broodstock (green/over-ripe/bad)	1	females	-	male	1	total
5. Unspawned fish (roe recovery, excess males)	-					
6. Holding mortalities (raceway, pen mortalities)	134					
7. Adults sacrificed for broodstock (sum 3 thru 6)	268					
8. Average length and weight of adults used for broodstock						
	females>	60.1	cm	ND		kg
	males>	55.3	cm	ND		kg
9. Average fecundity (eggs/female)	3,799					
10. Egg-take dates:	Sept 30 - Oct 7					
11. Number of green eggs taken	288,711					
12. Number of eggs transferred out (annotate below)	-		eyed eggs			
13. Number of eggs destroyed (annotate below)	-		eyed eggs			
14. Number of green eggs retained in hatchery ¹	288,711					
15. Number remaining in hatchery at eyed stage	232,187			80.42%		% survival ²
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						

Adult return to Bear Lake was low. There was insufficient adult return to meet escapement and CIAA & ADFG broodstock goals. CIAA with approval from ADFG reduced the number of adults for escapement and took all available eggs. Resulting progeny will be reared at Trail Lakes and be used to partially meet the CIAA fry program at Bear Lake and ADFG smolt program at Seward Lagoon.

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

SCHEDULE A-5 ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

TRAIL LAKES HATCHERY

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

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species	Sockeye					
2. Stock (donor stock/ancestral stock)	Shell Lake/Shell Lake					
3. Viable broodstock (spawned, eggs in incubators)	33	females	33	male	66	total
4. Inviabile broodstock (green/over-ripe/bad)	-	females	-	male	-	total
5. Unspawned fish (roe recovery, excess males)						
6. Holding mortalities (raceway, pen mortalities)	8					
7. Adults sacrificed for broodstock (sum 3 thru 6)	74					
8. Average length and weight of adults used for broodstock						
	females>		cm			kg
	males>		cm			kg
9. Average fecundity (eggs/female)	2,654					
10. Egg-take dates:	sept 15 & 28					
11. Number of green eggs taken	87,595					
12. Number of eggs transferred out (annotate below)	<i>eyed eggs</i>					
13. Number of eggs destroyed (annotate below)	<i>eyed eggs</i>					
14. Number of green eggs retained in hatchery ¹	87,595					
15. Number remaining in hatchery at eyed stage	65,179					
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	74.41% % survival ²					

CIAA worked cooperatively with ADFG to collect eggs from Shell Lake to manage a low adult return to minimize genetic concerns.
Each females eggs was split into smaller lots and incubated with multiple males

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

SCHEDULE A-6 ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT

TRAIL LAKES HATCHERY

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

Use lines 3-6 to report fish captured and sacrificed as broodstock (fish that died during collection of eggs).

Use line 16 to report and describe captured fish that were released alive (for example, at remote egg-take locations).

1. Species						
2. Stock (donor stock/ancestral stock)	<i>Donor stock refers to location of broodstock collection. Ancestral is original stock</i>					
3. Viable broodstock (spawned, eggs in incubators)		females		male	-	total
4. Inviabile broodstock (green/over-ripe/bad)		females		male	-	total
5. Unspawned fish (roe recovery, excess males)						
6. Holding mortalities (raceway, pen mortalities)						
7. Adults sacrificed for broodstock (sum 3 thru 6)	-					
8. Average length and weight of adults used for broodstock						
	females>		cm			kg
	males>		cm			kg
9. Average fecundity (eggs/female)	#DIV/0!					
10. Egg-take dates:						
11. Number of green eggs taken						
12. Number of eggs transferred out (annotate below)	<i>green eggs or eyed eggs</i>					
13. Number of eggs destroyed (annotate below)	<i>green eggs or eyed eggs</i>					
14. Number of green eggs retained in hatchery ¹						
15. Number remaining in hatchery at eyed stage						
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	#DIV/0! % survival ²					

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

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: **Socketeye** Stock: **Bear Lake/Upper Russian/Big Riv** Brood Year: **2014**

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	5,292,800	100.0%	
2. Eyed eggs	4,656,250	87.97%	
3. Emergent fry	4,347,200	82.13%	
4. Fed fry	4,101,400	77.49%	2,415,000 stocked as fry to Bear Lake
5. Smolts	1,692,900	31.98%	1,680,165 stocked as smolt to Res Bay

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Resurrection Bay	1,680,165	5/25/2016	Smolts	15.8		100,810	2018; 2019
Total:	1,680,165						

C. Marking/Tagging

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

Release				Marking/Tagging		
Release Group ¹	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
SW_Net Pen	Resurrection Bay	1,680,165	5/25/2016	1,3H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

B. Expected return is based on marine survival of 6%.

SCHEDULE B-2 ANNUAL FISH CULTURE PRODUCTION REPORT

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: Sockeye Stock: English Bay Lakes (Tutka) Brood Year: 2014

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	3,067,700	100.0%	
2. Eyed eggs	2,494,500	81.31%	26,905 culled as HL cross. 607,110 transferred from EBL Second Lake
3. Emergent fry	2,409,100	78.53%	618,020 culled for IHN
4. Fed fry	2,483,600	80.96%	1,909,000 released as fry to Hazel, Kirschner, Leisure
5. Smolts	574,600	18.73%	531,625 stocked as smolts to Tutka Bay Lagoon

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Tutka Bay Lagoon	531,625	5/22/2016	Smolts	14.7		79,744	2018;2019
Total:	531,625						

C. Marking/Tagging

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

Release				Marking/Tagging		
Release Group ¹	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
SW-Net Pen	Tutka Bay Lagoon	531,625	5/22/2016	4,2H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

All mating crosses were kept separate. All crosses identified as Hidden Lake stock were culled (26,905). 607,110 eyed eggs added from Second Lake program.

Culled 3 incubators for IHN = 618,020

Use a 15% smolt to adult return for estimating adult return.

**SCHEDULE B-3
ANNUAL FISH CULTURE PRODUCTION REPORT**

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: Stock: Brood Year:

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	581,000	100.0%	
2. Eyed eggs	547,500	94.23%	
3. Emergent fry	531,000	91.39%	
4. Fed fry	530,000	91.22%	448,000 released as fry to Bear Lake
5. Smolts	106,000	18.24%	100,000 released as smolt to Bear Creek

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Bear Creek	100,000	5/15/2016	Smolts	16.7		10,000	2017
Total:	100,000						

C. Marking/Tagging

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

Release				Marking/Tagging		
Release Group ¹	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
FW-Accl. Raceway	Bear Creek	100,000	5/15/2016	4,4H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

SCHEDULE B-4
ANNUAL FISH CULTURE PRODUCTION REPORT

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: **Socketeye** Stock: **Bear Lake/Upper Russian/Big Riv** Brood Year: **2015**

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	5,148,399	100.0%	
2. Eyed eggs	4,786,569	92.97%	
3. Emergent fry	4,642,965	90.18%	
4. Fed fry	4,511,831	87.64%	2,374,000 released as fry to Bear Lake
5. Smolts	1,856,807	36.07%	Retained for smolt production

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Bear Lake	2,374,000	6/2/2016	Fed Fry	0.65		71,220	2019;2020
Total:	2,374,000						

C. Marking/Tagging

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

Release				Marking/Tagging		
Release Group ¹	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
FW-Direct to Lake	Bear Lake	2,374,000	6/2/2016	4,2H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

3% fry to adult survival rate used for calculating estimated return

SCHEDULE B-5 ANNUAL FISH CULTURE PRODUCTION REPORT

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: Sockeye Stock: English Bay Lakes (Tutka/Kirsch) Brood Year: 2015

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	1,141,683	100.0%	
2. Eyed eggs	867,069	75.95%	
3. Emergent fry	818,326	71.68%	
4. Fed fry	804,319	70.45%	185,000 were stocked as fry at Kirschner Lake
5. Smolts	621,001	54.39%	retained for smolt program

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Kirschner Lake	185,000	6/15/2016	Fed fry	0.22		37,000	2019;2020
Total:	185,000						

C. Marking/Tagging

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

Release Group ¹	Release			Marking/Tagging		
	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
FW-Direct to Lake	Kirschner Lake	185,000	6/15/2016	H2,2		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

Return is estimated using 20% fry to adult survival.
 No stocking at Leisure or Hazel Lake due to insufficient eggs.

SCHEDULE B-6
ANNUAL FISH CULTURE PRODUCTION REPORT

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: Stock: Brood Year:

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	1,445,598	100.0%	
2. Eyed eggs	1,266,663	87.62%	
3. Emergent fry	1,231,400	85.18%	1,231,000 unfed fry released to Hidden Lake
4. Fed fry		0.00%	
5. Smolts		0.00%	

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Hidden Lake	1,231,000	4/26/2016	Unfed Fry	0.09		18,465	2019; 2020
Total:	1,231,000						

C. Marking/Tagging

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

Release Group ¹	Release			Marking/Tagging		
	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
FW-Direct to Lake	Hidden Lake	1,231,000	4/26/2016	3,2,1H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

Adult return estimated using a 1.5% survival from unfed fry to adult return.

SCHEDULE B-7
ANNUAL FISH CULTURE PRODUCTION REPORT

TRAIL LAKES HATCHERY

Complete this schedule for each species/stock of eggs (or fish) cultured this year from prior brood years. Please provide explanations for any differences in numbers of green and eyed eggs from those reported last year for this species/stock (e.g. reenumeration of inventory at eyed stage, transfers, mortality, etc.).

Species: Stock: Brood Year:

A. Life Stage Information

	Actual number	% cum survival	Annotate transfers between hatcheries, significant mortalities, or provide other descriptive comments.
1. Green eggs	575,260	100.0%	
2. Eyed eggs	522,359	90.80%	Discard for BKD = 10,458
3. Emergent fry	503,738	87.57%	
4. Fed fry	500,006	86.92%	release 446,600 as fry into Bear Lake
5. Smolts	58,008	10.08%	retained for smolt production

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Bear Lake	446,600	6/20/2016	Fry	1		5,359	2018
Total:	446,600						

C. Marking/Tagging

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

Release				Marking/Tagging		
Release Group ¹	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
FW-Direct to Lake	Bear Lake	446,600	6/20/16	4,3H		

¹Report release group as fresh or salt water; from net pen or raceway; or other rearing/release/site group description.

D. Other

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

Expected return based on a 12% survival to smolt and a 10% survival from smolt to adult.

10,458 eggs were discarded for BKD

SCHEDULE C-1 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species: Sockeye
Location of project: Bear Lake/Resurrection Bay

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	74,386	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	3,764	
3. Escapement for hatchery watershed (as required in permit)	9,010	
4. Jacks	-	
5. Other ¹ (annotate in comments section)		
6. Other ¹ (annotate in comments section)		
7. Other ¹ (annotate in comments section)	23	
8. Total hatchery escapement		87,183

B. Common Property Harvest

9. Commercial harvest²		
a. Troll		
b. Gillnet		
c. Seine	2,505	
d. Other (annotate in comments section)		
Total commercial harvest	2,505	
10. Noncommercial harvest²		
a. Sport	10,000	
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	10,000	
11. Total Common Property Harvest (sum 9 and 10)		12,505
12. Total Return (sum 8 and 11)		99,688

	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
13. Estimated ocean survival by brood year ²	BY10 Lake	1,013	13.4%	Y	fry to adult
	BY10 Net Per	0	7.1%	Y	smolt to adult
	BY11 Lake	49,212	10.5%	N	fry to adult
	BY11 Net Per	15,817	2.3%	N	smolt to adult
	BY12 Lake	7,348	1.8%	N	fry to adult
	BY12 Net Per	16,298	0.9%	N	smolt to adult

14. Average size of fish sold		length-cm	2.4	wt-kg
15. Date(s) of harvest				
16. Gear type or method used	Purse Seine - SW Harvest and Weir-FW Harvest			

17. Disposition of Hatchery Escapement

a. Traditional harvest fish			# fish sold	lbs fish		
		adults	74,386			
		jacks				
		total	74,386	-		
b. Roe-recovery fish			# fish	lbs fish	lbs roe	
		Sold				
		Donated				
		Disposed ³				
		total number of fish	-	-	-	
c. Carcasses			# Sold	# Donated	# Disposed ³	
		Spawners			3,764	3,764
		Other (annotate in comments)				-
		total number of fish	-	-	3,764	3,764
		total pounds				-

Comments:

- A1. 41,301 were harvested in SW (Res Bay) and 31591 in FW (Bear Lake Weir) and 1,494 donated at the weir.
A3. 12774 was the escapement - broodstock used (3,764) = 9,010
A6. Mortalities at the weir
A13. Breakdown does not include sportfish. No otoliths collected and the location caught is unknown. Nearly all fish returning are hatchery
A13. BY10 Lake Cum Return = 67,117 with 501,811 smolts out. BY11 Lake Cum Return = 78,201 with 747,088 smolts out. BY12 Lake = 7348 with 414,345 smolts out.
A13. BY10 Net Pen Cum Return = 92,276 with 1,305,000 smolts out. BY11 Net Pen Cum Return = 47,265 with 2,090,000 smolt out.
BY12 Net Pen Cum Return = 18,298 with 1,742,000 smolts out.

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

³ Disposed fish require a carcass disposal log.

SCHEDULE C-2 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species: Sockeye
Location of project: Second Lake

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	-	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	-	
3. Escapement for hatchery watershed (as required in permit)	1,474	
4. Jacks	-	
5. Other ¹ (annotate in comments section)	-	
6. Other ¹ (annotate in comments section)	-	
7. Other ¹ (annotate in comments section)	-	
8. Total hatchery escapement	-	1,474

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet		
c. Seine		
d. Other (annotate in comments section)		
Total commercial harvest	-	
10. Noncommercial harvest ²		
a. Sport		
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	-	
11. Total Common Property Harvest (sum 9 and 10)	-	-
12. Total Return (sum 8 and 11)		1,474

13. Estimated ocean survival by brood year ²	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
	BY11-EBL	351	2.54	N	fry to adult smolt to adult
	BY11- Tutka	71	see Tutka EBL	N	
	BY12-EBL	1052	3.43	N	fry to adult

14. Average size of fish sold		length-cm	2.0	wt-kg
15. Date(s) of harvest				
16. Gear type or method used	No CR harvest			

17. Disposition of Hatchery Escapement

a. Traditional harvest fish		# fish sold	lbs fish		
	adults	0	0		
	jacks	0	0		
	total	-	-		
b. Roe-recovery fish		# fish	lbs fish	lbs roe	
	Sold	-	-	-	
	Donated	-	-	-	
	Disposed ³	-	-	0	
	total number of fish	-	-	-	
c. Carcasses		# Sold	# Donated	# Disposed ³	Total
	Spawners	-	-	-	-
	Other (annotate in comments)	-	-	-	-
	total number of fish	-	-	-	-
	total pounds	-	-	-	-

Comments:

- A1. No cost recovery harvest.
- A2. No eggtake was performed at Second Lake.
- A3. 7637 was the total escapement counted by Nanwalek Council. Otolith analysis from the weir indicated that 19.3% were hatchery fish (1,474)
- A13. Nanwalek council collected the otolith samples and CIAA read the otoliths. BY11 Cum Return = 1054 with 41,534 smolts counted.
- BY12 Cum Return = 1052 with 30689 smolts counted.

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.
³ Disposed fish require a carcass disposal log.

SCHEDULE C-3 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species
TRAIL LAKES HATCHERY

Species: Sockeye (English Bay Lakes)
 Location of project: Tutka Bay Lagoon

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	18,750	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	2,961	
3. Escapement for hatchery watershed (as required in permit)	350	
4. Jacks	-	
5. Other ¹ (annotate in comments section)	3,681	
6. Other ¹ (annotate in comments section)		
7. Other ¹ (annotate in comments section)		
8. Total hatchery escapement		25,742

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet	7,887	
c. Seine	9,775	
d. Other (annotate in comments section)		
Total commercial harvest	17,662	
10. Noncommercial harvest ²		
a. Sport	7,000	
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	7,000	
11. Total Common Property Harvest (sum 9 and 10)		24,662
12. Total Return (sum 8 and 11)		50,404

	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
13. Estimated ocean survival by brood year ²	2011	15,192	14.5	Y	smolt to adult
	2012	35,283	5.9	N	smolt to adult

14. Average size of fish sold		length-cm	2.3	wt-kg
15. Date(s) of harvest	July 5 to July 29			
16. Gear type or method used	Purse Seine			

17. Disposition of Hatchery Escapement

a. Traditional harvest fish		# fish sold	lbs fish		
	adults	18,750			
	jacks				
	total	18,750	-		
b. Roe-recovery fish		# fish	lbs fish	lbs roe	
	Sold				
	Donated				
	Disposed*				
	total number of fish	-	-	-	
c. Carcasses		# Sold	# Donated	# Disposed*	Total
	Spawners			2,961	2,961
	Other (annotate in comments)				-
	total number of fish	-	-	2,961	2,961
	total pounds				-

Comments:

A2, A3, A5. A total of 6,991 sockeye were collected for broodstock. While ripening the lensing bag ripped and fish escaped. Only 2961 were subsequently used for broodstock. This leave 4031 unaccounted. Approx. 350 were counted at the end of the season as escapement. This leaves 3681 unaccounted these are assumed to be mortalities.

A9. Data from ADFG LCI Harvest web page.(In season harvest). Due to delivery size (<3 boats) some #'s may not be reported here.

A.10 is an estimate for sport fish harvest.

A13. All returns are assumed to be 100% hatchery fish, but no otoliths were collected. It is assumed that 70% Age 2 and 30% Age 3.

BY11 Total Cumm Return = 73,859 and smolt stocked Includes the 71 counted in EBL system (C-2) = 511,000. BY12 Total Cumm Return = 35,283 and smolt stocked = 599,500

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

* Disposed fish require a carcass disposal log.

SCHEDULE C-4 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species: Sockeye
 Location of project: Hidden Lake

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	-	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	-	
3. Escapement for hatchery watershed (as required in permit)	774	
4. Jacks	-	
5. Other ¹ (annotate in comments section)		
6. Other ¹ (annotate in comments section)		
7. Other ¹ (annotate in comments section)		
8. Total hatchery escapement		774

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet	TBD	
c. Seine		
d. Other (annotate in comments section)		
Total commercial harvest	-	
10. Noncommercial harvest ²		
a. Sport		
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	-	
11. Total Common Property Harvest (sum 9 and 10)		-
12. Total Return (sum 8 and 11)		774

	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
13. Estimated ocean survival by brood year ²	2010	Need commercial harvest			unfed fry to adult
	2011	Need commercial harvest			unfed fry to adult

14. Average size of fish sold		length-cm	2.2	wt-kg
15. Date(s) of harvest				
16. Gear type or method used				

17. Disposition of Hatchery Escapement

a. Traditional harvest fish		# fish sold	lbs fish		
	adults	0	0		
	jacks	0	0		
	total	-	-		
b. Roe-recovery fish		# fish	lbs fish	lbs roe	
	Sold				
	Donated				
	Disposed ³				
	total number of fish	-	-	-	
c. Carcasses		# Sold	# Donated	# Disposed ³	Total
	Spawners				-
	Other (annotate in comments)				-
	total number of fish	-	-	-	-
	total pounds	-	-	-	-

Comments:

- A2. Due to poor escapement, no broodstock were collected in 2016.
- A3. A total of 1,248 sockeye adults were counted through the weir. No otoliths were collected due to poor returns. It is assumed the hatchery contribution is 82% which is the 4 year average (2012-2015).
- A9. Commercial harvest is not yet known. This will be updated in the 2017 Annual report.
- A13. This will be updated once the total return numbers are finalized. It will be assumed at 85% Age 2 and 15% Age 3.

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.
³ Disposed fish require a carcass disposal log.

SCHEDULE C-5 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species: Sockeye
Location of project: Kirschner Lake

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	44,765	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	-	
3. Escapement for hatchery watershed (as required in permit)	-	
4. Jacks	-	
5. Other ¹ (annotate in comments section)		
6. Other ¹ (annotate in comments section)		
7. Other ¹ (annotate in comments section)		
8. Total hatchery escapement		44,765

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet		
c. Seine	13,038	
d. Other (annotate in comments section)		
Total commercial harvest	13,038	
10. Noncommercial harvest ²		
a. Sport		
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	-	
11. Total Common Property Harvest (sum 9 and 10)		13,038
12. Total Return (sum 8 and 11)		57,803

13. Estimated ocean survival by brood year ²

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
2011	57,803	24.70%	Y	fry to adult
2012	no fish were released		N	

14. Average size of fish sold

	length-cm	2.2 wt-kg
15. Date(s) of harvest		
16. Gear type or method used		

17. Disposition of Hatchery Escapement

a. Traditional harvest fish

	# fish sold	lbs fish
adults	44,765	187,089
jacks		
total	44,765	187,089

b. Roe-recovery fish

	# fish	lbs fish	lbs roe
Sold			
Donated			
Disposed ^a			
total number of fish	-	-	-

c. Carcasses

	# Sold	# Donated	# Disposed ^a	Total
Spawners				-
Other (annotate in comments)				-
total number of fish	-	-	-	-
total pounds				-

Comments:

A1. No otoliths were collected from the cost recovery harvest at Kirschner Lake. It is assumed all fish caught are hatchery fish.
A13. No otolith collection occurred from the cost recovery harvest at Kirschner Lake. It is assumed 100% hatchery. There were no fish stocked from BY2012. BY11 Cumm Total = 74,145 and number of fry stocked = 300,000.

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

^a Disposed fish require a carcass disposal log.

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

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species: Sockeye
Location of project: Leisure/Hazel

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	11,951
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	-
3. Escapement for hatchery watershed (as required in permit)	-
4. Jacks	-
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total hatchery escapement	11,951

B. Common Property Harvest

9. Commercial harvest ²	
a. Troll	
b. Gillnet	
c. Seine	35,567
d. Other (annotate in comments section)	
Total commercial harvest	35,567
10. Noncommercial harvest ²	
a. Sport	
b. Personal Use	500
c. Subsistence	
d. Other (annotate in comments section)	
Total noncommercial harvest	500
11. Total Common Property Harvest (sum 9 and 10)	36,067
12. Total Return (sum 8 and 11)	48,018

13. Estimated ocean survival by brood year ²	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
2012	otolith information not yet available	N	fry to adult		

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

17. Disposition of Hatchery Escapement

a. Traditional harvest fish		# fish sold	lbs fish		
	adults	11,951	66,015		
	jacks				
	total	11,951	66,015		
b. Roe-recovery fish		# fish	lbs fish	lbs roe	
	Sold				
	Donated				
	Disposed ^a				
	total number of fish	-	-	-	
c. Carcasses		# Sold	# Donated	# Disposed ^a	Total
	Spawners				-
	Other (annotate in comments)				-
	total number of fish	-	-	-	-
	total pounds				-

Comments:

A1. Assume 100% hatchery fish
A9. Otolith analysis is not yet available but 100% hatchery is assumed for 314 fish (China Pool SHA) and 686 fish (Hazel Lake SHA). An additional 9,585 were caught in China Pool subdistrict and 24,962 were caught in Neptune Bay subdistrict. % hatchery contribution to be updated once otolith analysis is completed (Annual Report 2017)
A10. Personal use = dip net fishery. Estimate only. Assume 100% hatchery fish.

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

^a Disposed fish require a carcass disposal log.

SCHEDULE C-7 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

Complete a separate schedule for each project (location of release/return), stock (e.g. fall or summer, if applicable), and species.

TRAIL LAKES HATCHERY

Species:
 Location of project:

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	-	
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	257	
3. Escapement for hatchery watershed (as required in permit)	135	
4. Jacks		
5. Other ¹ (annotate in comments section)		
6. Other ¹ (annotate in comments section)		
7. Other ¹ (annotate in comments section)		
8. Total hatchery escapement		393

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet		
c. Seine		
d. Other (annotate in comments section)		
Total commercial harvest		-
10. Noncommercial harvest ²		
a. Sport		648
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest		648
11. Total Common Property Harvest (sum 9 and 10)		648
12. Total Return (sum 8 and 11)		1,041

13. Estimated ocean survival by brood year ²

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)	
BY12 Fry	284	1.02%	Y	fry-adult
BY12 Smolt	0	3.14%	Y	smolt-adult
BY13 Fry	526	0.11%	N	fry-adult
BY13 Smolt	189	0.19%	N	smolt-adult

14. Average size of fish sold

58.4 length-cm wt-kg

15. Date(s) of harvest

no harvest

16. Gear type or method used

Weir

17. Disposition of Hatchery Escapement

a. Traditional harvest fish

	# fish sold	lbs fish
adults		
jacks		
total	-	-

b. Roe-recovery fish

	# fish	lbs fish	lbs roe
Sold			
Donated			
Disposed*			
total number of fish	-	-	-

c. Carcasses

	# Sold	# Donated	# Disposed*	Total
Spawners			263	263
Other (annotate in comments)				-
total number of fish	-	-	263	263
total pounds				-

Comments:

- A2. CIAA performed the eggtake for both CIAA and ADFG due to limited returns. Otolith analysis indicates 96% hatchery
- A3. Due to limited returns, it was agreed with ADFG to reduce the escapement to the lake. Otolith analysis indicates 96% hatchery.
- A10. typical sport fish harvest is usually 5400 fish but with limited return we have estimated a reduced harvest to reflect the return. Estimate 1/4 of usual harvest and 50/50 ADFG/CIAA split. Assume 98% hatchery fish. (harvest # from ADFG sport fish biologist)
- A13. BY12 Fry Cum Total return = 4,126 with 405,000 fry stocking. BY12 Smolt Cum Return = 1730 with 55,000 smolt stocking. BY13 Fry Cum Total return = 526 with 488,000 fry stocking and BY13 Smolt Cum Return = 189 with 98,000 smolt stocking.
- A17. Includes all fish used for spawning not just the hatchery fish.

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

* Disposed fish require a carcass disposal log.

**SCHEDULE D
PROJECTED RETURNS FOR 2016**

TRAIL LAKES HATCHERY

Combine brood years for species with returns of multiple year classes, except Chinook salmon.
Please report projected returns of Chinook salmon by brood year.

Species	Brood Year	Release Site	Total number of fish expected	Range of expected return	
				minimum	maximum
Sockeye	2012	Bear Lake/Res. Bay	21,978	18,000	24,000
	2012	Tutka (EBL)	15,121	13,000	18,000
	2012	Hazel (EBL)	9,416	7,000	11,000
	2012	Leisure (EBL)	9,416	7,000	11,000
	2012	Kirschner (EBL)	0	0	0
	2012	Second Lake (EBL)	2,455	1,500	4,500
	2012	Hidden (HL)	220	0	350
	2012	Shell Lake	134	0	350
Coho	2014	Bear Lake	17,120	15,000	19,000
Sockeye	2013	Bear Lake/Res. Bay	98,605	92,000	104,000
	2013	Tutka (EBL)	47,115	40,000	54,000
	2013	Hazel (EBL)	22,014	15,000	25,000
	2013	Leisure (EBL)	21,965	15,000	25,000
	2013	Kirschner	13,020	10,000	16,000
	2013	Second Lake (EBL)	1,260	900	1,500
	2013	Hidden (HL)	27,534	24,000	30,000

COMMENTS:

Please provide additional information on ocean-survival calculations (i.e. percentages used, etc.)

Location	Stage	Fry-Adult Survival	Smolt to Adult Survival	Age 2	Age 3
Res Bay	Lake		12%	32%	68%
	Net Pen		6%	68%	32%
Tutka	Smolt		15%	60%	40%
Hazel	Fry (EBL)	3.00%		60%	40%
Leisure	Fry (EBL)		8%		
Kirschner	Fry (EBL)	20.00%		30%	70%
Second Lake	Fall Fry(EBL)	3.00%		30%	70%
Hidden Lake			10%	85%	15%
Bear Lake (Coho)			10%	100%	
Note Second Lake and Hidden Lake include natural fish returns as well as enhanced returns.					
For enhanced returns only multiply Second Lake by 25%. For Hidden Lake by 60%.					
BY12 # are based on sib relationship. BY13 use the survivals above.					
BY14 coho based on survival table					

SCHEDULE F-1
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.

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

Species: Sockeye TRAIL LAKES HATCHERY
 Location of harvest/return: Bear Lake/Resurrection Bay

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	92,596
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	3,945
3. Escapement for hatchery watershed (as required in permit)	9,560
4. Jacks	
5. Other ¹ (annotate in comments section)	2,056
6. Other ¹ (annotate in comments section)	69
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	108,226

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	4,633
C. Seine	
D. Other (annotate in comments section)	
Total commercial	4,633
10. Noncommercial ²	
A. Sport	12,000
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	12,000
11. Total Return (sum 8,9,10)	124,859

12. Estimated ocean survival by BY²

BY	Total # return in 2015	Cumulative Survival	
BY09 Lake	654	16.6%	fry to adult
BY10 Lake	36,092	14.5%	fry to adult
BY10 Net Pen	15,655	7.07%	smolt to adult
BY11 Lake	28,989	3.91%	fry to adult
BY11 Net Pen	31,468	1.5%	smolt to adult

13. Average size of fish sold length-cm 2.4 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	92596		
	jacks			
	total	92,596	-	
B. Roe recovery		# fish	lbs roe	
		-		
C. Carcasses		# Disposed	# Donated	# Sold
	Spawners			
	Roe recovery (during egg take)			
	Roe recovery (non-egg take)			
	Other (annotate in comments)			
	total number of fish	-	-	-
	total pounds			

Comments:

Change to A.13 The estimate ocean survival doesn't include sport fish harvest since no otoliths are available for analysis. 100% hatchery fish
BY09 Lake Cum return = 73,015 with 438,484 smolt enumerated. BY10 Lake Cum Return = 73,663 with 505,400 smolt enumerated. BY11 Lake Cum
return = 28,989 with 740,700 smolt enumerated. BY09 Net Pen = 0 with no stocking (IHN). BY10 Net Pen = 92,275 with 1,305,000 smolt
released. BY11 Net Pen = 31,468 with 2,090,000 smolt released.

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

² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-2
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.

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

Species: Sockeye TRAIL LAKES HATCHERY
 Location of harvest/return: Second Lake

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	-
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	-

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	
C. Seine	
D. Other (annotate in comments section)	
Total commercial	-

10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-

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

12. Estimated ocean survival by BY ²	BY	Total # return in 2015	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	# fish	lbs roe
	-	

C. Carcasses	# Disposed	# Donated	# Sold
Spawners			
Roe recovery (during egg take)			
Roe recovery (non-egg take)			
Other (annotate in comments)			
total number of fish	-	-	-
total pounds			

Comments:

No changes in 2015 Annual Report

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-3
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.

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

Species: Sockeye (EBL) TRAIL LAKES HATCHERY
 Location of harvest/return: Tutka Bay Lagoon

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	-

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	
C. Seine	
D. Other (annotate in comments section)	
Total commercial	-

10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-

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

12. Estimated ocean survival by BY ²	BY	Total # return in 2015	Cumulative Survival	
				%
				%
				%
				%
				%
				0

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
B. Roe recovery	-	

		# Disposed	# Donated	# Sold
C. Carcasses	Spawners			
	Roe recovery (during egg take)			
	Roe recovery (non-egg take)			
	Other (annotate in comments)			
total number of fish		-	-	-
total pounds				

Comments:

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-4
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.
 Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.

Species: Sockeye TRAIL LAKES HATCHERY
 Location of harvest/return: Hidden Lake

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	-
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	890
3. Escapement for hatchery watershed (as required in permit)	11,846
4. Jacks	
5. Other ¹ (annotate in comments section)	407
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	13,143

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	7,933
C. Seine	
D. Other (annotate in comments section)	
Total commercial	7,933
10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-
11. Total Return (sum 8,9,10)	21,076

12. Estimated ocean survival by BY ²	BY	Total # return in 2015	Cumulative Survival	
	BY2010	3,161	17.1	% unfed fry to adult
	BY2011	17,914	16.9	% unfed fry to adult
				%
				%
				%
				%

13. Average size of fish sold length-cm 2.2 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		# fish	lbs roe	
		-		
C. Carcasses		# Disposed	# Donated	# Sold
	Spawners			1,313
	Roe recovery (during egg take)			
	Roe recovery (non-egg take)			
	Other (annotate in comments)	400	200	1,313
	total number of fish	400	200	2,626
	total pounds			

Comments:
 A9. ADFG reported 11,700 caught in the commercial fishery * 67.8% = the hatchery component
 A12 Split is based on the 85% Age 2 and 15% Age 3. BY2010 Hatchery Total Cum return = 33,670 with a hatchery smolt out of 196,856. BY 2011 Hatchery Total Cum return = 17914 with 105,847 hatchery smolt out.

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.)
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-5
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.
 Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.

Species: **TRAIL LAKES HATCHERY**
Location of harvest/return:

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	-
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	-

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	
C. Seine	
D. Other (annotate in comments section)	
Total commercial	-

10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-

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

12. Estimated ocean survival by BY ²	BY	Total # return in 2015	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	<input type="text"/>	<input type="text"/>
	jacks	<input type="text"/>	<input type="text"/>
	total	-	-

B. Roe recovery	# fish	lbs roe
	<input type="text"/>	<input type="text"/>

C. Carcasses		# Disposed	# Donated	# Sold
	Spawners	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Roe recovery (during egg take)	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Roe recovery (non-egg take)	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Other (annotate in comments)	<input type="text"/>	<input type="text"/>	<input type="text"/>
	total number of fish	-	-	-
	total pounds	<input type="text"/>	<input type="text"/>	<input type="text"/>

Comments:

No changes necessary

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-6
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.

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

Species: Sockeye TRAIL LAKES HATCHERY
 Location of harvest/return: Leisure/Hazel

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	-
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	-

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	
C. Seine	
D. Other (annotate in comments section)	
Total commercial	-
10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-
11. Total Return (sum 8,9,10)	-

12. Estimated ocean survival by BY ²	BY	Total # return in 2015	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		# fish	lbs roe	
		-		
C. Carcasses		# Disposed	# Donated	# Sold
	Spawners			
	Roe recovery (during egg take)			
	Roe recovery (non-egg take)			
	Other (annotate in comments)			
	total number of fish	-	-	-
	total pounds			

Comments:

 No changes necessary

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.

SCHEDULE F-7
UPDATED 2014 HARVEST MANAGEMENT AND HATCHERY ADULT RETURNS

This form is only required if there are known changes to the previous year's reported Schedule C data.
 Complete a separate schedule for each project and species of fish with updated numbers from last year's annual report.

Species: Coho TRAIL LAKES HATCHERY
 Location of harvest/return: Bear Lake

Hatchery Escapement

1. Cost-recovery fish (line 16A & 16B): traditional harvest and roe recovery fish	-
2. Adults captured for broodstock (Schedule A line 7) minus roe recovery fish (line 16B)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total return to hatchery	-

Common Property Harvest

9. Commercial ²	
A. Troll	
B. Gillnet	
C. Seine	
D. Other (annotate in comments section)	
Total commercial	-

10. Noncommercial ²	
A. Sport	
B. Personal Use	
C. Subsistence	
D. Other (annotate in comments section)	
Total noncommercial	-

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

12. Estimated ocean survival by BY ²	BY	Total # return in 2011	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

		# fish	lbs fish	
A. Fish harvested/sold	adults			
	jacks			
	total	-	-	
B. Roe recovery		# fish	lbs roe	
		-		
C. Carcasses		# Disposed	# Donated	# Sold
	Spawners			
	Roe recovery (during egg take)			
	Roe recovery (non-egg take)			
	Other (annotate in comments)			
total number of fish		-	-	-
total pounds				

Comments:
 No changes necessary.

¹ "Other": use one line per category (e.g. fish remaining in salt water, sea lion predation, etc.).
² Commercial harvest, noncommercial harvest, and estimated ocean survival: Please provide method used in estimation.