

2015 ANNUAL REPORT ALASKA SALMON HATCHERY

Year Ending December 15, 2015

Hatchery name/Location	Pillar Creek Hatchery/Kodiak Alaska	
Permit holder name/Address	Kodiak Regional Aquaculture Association 104 Center Ave, Suite 205 Kodiak, AK 99615	
Person to contact regarding this report	J. Alan Seale/Hatchery Manager	name
	907-486-4730	phone

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

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**

Pillar Creek Hatchery/Kodiak Alaska

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)	Afognak Lake / 252-342				
3. Viable broodstock (spawned, eggs in incubators)	459	females	402	male	861 total
4. Inviabile broodstock (green/over-ripe/bad)	109	females	57	male	166 total
5. Unspawned fish (roe recovery, excess males)					
6. Holding mortalities (raceway, pen mortalities)	344				
7. Adults sacrificed for broodstock (sum 3 thru 6)	1,371				
8. Average length and weight of adults used for broodstock					
	females>	51.3	cm	1.9	kg
	males>	51.3	cm	1.9	kg
9. Average fecundity (eggs/female)	1,969				
10. Egg-take dates:	8/7,10/2015				
11. Number of green eggs taken	1,030,117				
12. Number of eggs transferred out (annotate below)	green eggs or	eyed eggs			
13. Number of eggs destroyed (annotate below)	green eggs or	eyed eggs			
14. Number of green eggs retained in hatchery ¹	1,030,117				
15. Number remaining in hatchery at eyed stage	195,320			0.18960953	% survival ²
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:					

Standard remote sockeye eggtake procedures, as described in ADF&G Special Fisheries Report #6: Alaska Sockeye Salmon Culture Manual, published August 1994, were utilized.

Eyed eggs are picked using a Jentsort Model JM8 Egg Sorter; egg inventory and survival are estimated by weight eyed egg processing.

Broodstock not weighed or measured; average eye-fork length provided by ADF&G, 2015 sampling of escapement at weir, with Age x.1 fish lengths omitted. Weight entry is historical average from Stat Area 252-34 sockeye harvest.

(2a) Line 15. BY2014 Afognak Lake sockeye green-to-eye egg survival is inconsistent with usual remote eggtake expectations.

(2b) Line 15. The conditions at Afognak Lake have been less than ideal for egg takes with the temperature around 20.0 degrees C. PCH crews will transport ice to the egg take to try and improve egg take fertilization rates and survivals.

(119) Brood fish released back to Afognak Lake unused

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

Pillar Creek Hatchery/Kodiak Alaska

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)	Saltery Lake / 259-415					
3. Viable broodstock (spawned, eggs in incubators)	1,220	females	837	male	2,057	total
4. Inviabile broodstock (green/over-ripe/bad)	73	females	193	male	266	total
5. Unspawned fish (roe recovery, excess males)						
6. Holding mortalities (raceway, pen mortalities)	225					
7. Adults sacrificed for broodstock (sum 3 thru 6)	2,548					
8. Average length and weight of adults used for broodstock						
	50.1	females>	cm	2.4	kg	
	50.1	males>	cm	2.4	kg	
9. Average fecundity (eggs/female)	2,635					
10. Egg-take dates:	9/5,11,15/2015					
11. Number of green eggs taken	3,406,641					
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	3,406,641					
15. Number remaining in hatchery at eyed stage	3,110,611					
				0.91310209	% survival ²	
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:						
	Standard remote sockeye eggtake procedures, as described in ADF&G Special Fisheries Report #6: Alaska					
	Sockeye Salmon Culture Manual, published August 1994, were utilized.					
	Eyed eggs are picked using a Jentsort Model JM8 Egg Sorter; egg inventory and survival are estimated by weight					
	eyed egg processing.					
	Broodstock not weighed or measured; average eye-fork length provided by ADF&G, 2014					
	sampling of escapement at weir. Weight entry is historical average from Stat Area 259-41 sockeye harvest.					
	(437) Brood fish released back to Saltery Lake unused .					
	(2)BY2014 Saltery sockeye green-to-eye egg survival is consistent with remote eggtake expectations.					

**SCHEDULE A-3
ANNUAL BROODSTOCK AND INITIAL SURVIVAL REPORT**

Pillar Creek Hatchery/Kodiak Alaska

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)	Buskin Lake / 259-211			
3. Viable broodstock (spawned, eggs in incubators)	75	females	45	male 120 total
4. Inviabile broodstock (green/over-ripe/bad)	1	females	1	male 2 total
5. Unspawned fish (roe recovery, excess males)				
6. Holding mortalities (raceway, pen mortalities)	2			
7. Adults sacrificed for broodstock (sum 3 thru 6)	124			
8. Average length and weight of adults used for broodstock				
	females>	no data	cm	4.5 kg
	males>	no data	cm	4.5 kg
9. Average fecundity (eggs/female)	3,500			
10. Egg-take dates:	11/6/2015			
11. Number of green eggs taken	262,500			
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	262,500			
15. Number remaining in hatchery at eyed stage	0 % survival ²			
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	Dry spawning method used. Eggs water hardened before loading into incubators.			
Lines 9, 11, and 14 entries are estimates based on historical assumed fecundity. Actual egg inventory and survival will be estimated by weight sampling method at eyed egg processing.				
(2)Eggs have not developed to eyed stage.				
Broodstock not weighed or measured; eye-fork length provided in Line 8 above are from 2014				
ADF&G weir sampling. Weight entry is historic average for Buskin Lake coho.				
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

Pillar Creek Hatchery/Kodiak Alaska

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	Chinook					
2. Stock (donor stock/ancestral stock)	<i>Karluk stock / Monashka Creek / 259-10</i>					
3. Viable broodstock (spawned, eggs in incubators)	22	females	22	male	44	total
4. Inviabile broodstock (green/over-ripe/bad)	2	females		male	2	total
5. Unspawned fish (roe recovery, excess males)						
6. Holding mortalities (raceway, pen mortalities)	28					
7. Adults sacrificed for broodstock (sum 3 thru 6)	74					
8. Average length and weight of adults used for broodstock						
	females>	73.0	cm	8.2	kg	
	males>	73.0	cm	8.2	kg	
9. Average fecundity (eggs/female)	5,209					
10. Egg-take dates:	8/13/2015					
11. Number of green eggs taken	114,607					
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	114,607					
15. Number remaining in hatchery at eyed stage	98,022			0.85528807	% survival ²	
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:	Remote eggtake procedures, as described in ADF&G Special Fisheries Report #6: Alaska Sockeye					
	Salmon Culture Manual, published August 1994, were utilized. Eggs were fertilized at a					
	1 male:1 female ratio, and eggs from each pair are incubated in individual trays.					
	Line 13: Ovarian fluid and kidney samples from each brood female were sent to the ADF&G					
	Fish Pathology Lab for disease screening had two culls for this brood year.					
	Broodstock not weighed or measured; Line 8 entries are estimates.					
	Eyed eggs are picked by hand; egg inventory and survival are estimated by weight at eyed egg processing.					
	Line 15 (2) Survival is in line with remote egg take goals. Just a couple of trays brought this below 90%					
	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

Pillar Creek Hatchery/Kodiak Alaska

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: Afognak Lake 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	706,434	100.0%	
2. Eyed eggs	425,767	0.602698907	
3. Emergent fry	379,767	0.537583129	post pick mortality was higher than usual
4. Fed fry		0	
5. Smolts		0	

B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Hidden Lake	178,271	4/28/2015	Fry	0.43		11,230	2018-19
Little Waterfall Lake	44,703	5/26/2015	Fry	0.92		3,575	2018-19
Big Waterfall Lake	54,660	5/26/2015	Fry	0.92		4,370	2018-19
Total:	277,634						

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

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.

These fish suffered from classic symptoms of *Unidentified Fusobacteria Infection* and were treated with Formalin.

Flow through 60 minute treatments were done at a 1:6000 and 1:4500 ratio to treat the fish and stem mortalities.

Hatchery staff found that at lower temperatures the more stringent treatments were more successful.

This infection caused chronic mortality for a good portion of the early rearing time period.

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.

Pillar Creek Hatchery/Kodiak Alaska

Species: Sockeye
Location of project: Foul Bay SHA 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)		
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	-	

B. Common Property Harvest

9. Commercial harvest ²		
a. Troll		
b. Gillnet		
c. Seine	8,237	
d. Other (annotate in comments section)		
Total commercial harvest	8,237	
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)		8,237
12. Total Return (sum 8 and 11)		8,237

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
2009	67	2.4	yes
2010	2,239	4.0	no
2011	5,931	2.1	no
2012	0	0	no

14. Average size of fish sold	47.2	length-cm	1.9	wt-kg
15. Date(s) of harvest	6/2/2015 - 6/7/2015			
16. Gear type or method used	purse seine			

17. Disposition of Hatchery Escapement

	# fish sold	lbs fish		
a. Traditional harvest fish	adults			
	jacks			
	total	-	-	
	# fish	lbs fish	lbs roe	
b. Roe-recovery fish	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:

No brood is collected at this location. The primary donor stock is Afognak Lake;
 The return figures entered above are based on harvest numbers obtained from the ADF&G fish ticket database. It is typically assumed that all sockeye harvested in Foul Bay (Statistical Area 251-41) prior to July 15 are hatchery-stocked early-run sockeye; fish harvested after July 15 are not counted as hatchery contribution to the fishery.
 Age composition is based on scale samples taken from fish harvested in the SHA.
 The BY2009 cumulative survival figure in line 13 represents the complete brood year return.

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.

Pillar Creek Hatchery/Kodiak Alaska

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)	
3. Escapement for hatchery watershed (as required in permit)	
4. Jacks	
5. Other ¹ (annotate in comments section)	500
6. Other ¹ (annotate in comments section)	
7. Other ¹ (annotate in comments section)	
8. Total hatchery escapement	500

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)	500

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year ²			
2009	55	8.0	yes
2010	445	5.0	no
2011	0	0.0	no
2012	0	0.0	no

14. Average size of fish sold	47.2	length-cm	1.9	wt-kg
15. Date(s) of harvest	No harvest			
16. Gear type or method used	purse seine			

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 ³								
	total number of fish		-		-		-		
c. Carcasses		# Sold		# Donated		# Disposed ³		Total	
	Spawners								-
	Other (annotate in comments)								-
	total number of fish		-		-		-		-
	total pounds								-

Comments:

No brood is collected at this location. The primary donor stock is Afognak Lake.
 The return figures entered above are based on harvest numbers obtained from the ADF&G fish ticket database. It is typically assumed that all sockeye harvested in the Waterfall SHA (Statistical Area 251-82) prior to July 15 are hatchery stocked early run sockeye; fish harvested after July 15 are not counted as hatchery contribution to the fishery. This fishery was unopened in 2015 13(2) ~ Age composition for the 2015 return is based on historical scale samples taken from fish harvested in the SHA.
 The BY2009 cumulative survival figure in line 13 represents the complete brood year return.
 5(1) These fish were counted on a creek survey by KRAA staff 2015, this was an unmonitored fishery by KRAA in 2015

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.

Pillar Creek Hatchery/Kodiak Alaska

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)	
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	-

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)	-

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year ²			
2009	See below		
2010			
2011			
2012			

14. Average size of fish sold	51.3	length-cm	1.9	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				
	jacks				
	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:
 No brood is collected at this location. The primary donor stock is Afognak Lake.
 Total return estimate is based on harvest numbers obtained from the ADF&G fish ticket database, plus reported subsistence catch.
 A portion of the Crescent Lake-bound sockeye return was likely harvested in the set gillnet fishery outside Settler's Cove and the Kizhuyak Section.
 The local subsistence fishery harvests a significant portion of this run. Subsistence harvest reporting/analysis will not be complete until March 2016. The 2015 subsistence harvest will be reported in Schedule F of the 2016 Annual Report.
 Age composition of this return is unavailable as the data needed for it is not collected by ADF&G or KRAA

Figures in Line 14 are from parent stock weir info for 2015

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-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.

Pillar Creek Hatchery/Kodiak Alaska

Species:
 Location of project:

A. Hatchery Escapement

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	34,223
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	34,223

B. Common Property Harvest

9. Commercial harvest ²	
a. Troll	
b. Gillnet	145,722
c. Seine	57,999
d. Other (annotate in comments section)	
Total commercial harvest	203,721
10. Noncommercial harvest ²	
a. Sport	
b. Personal Use	600
c. Subsistence	
d. Other (annotate in comments section)	700
Total noncommercial harvest	1,300
11. Total Common Property Harvest (sum 9 and 10)	205,021
12. Total Return (sum 8 and 11)	239,244

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year ²			
2009	10,039	12.0	yes
2010	112,620	11.6	no
2011	115,723	4.9	no
2012	912	0.03	no

14. Average size of fish sold	52.7	length-cm	2.0	wt-kg
15. Date(s) of harvest	6/19/2015 - 8/13/2015			
16. Gear type or method used	Purse Seine / Gillnet / Beach Seine / Sportfish gear			

17. Disposition of Hatchery Escapement

a. Traditional harvest fish		# fish sold	lbs fish	
	adults	34,223	152,260	
	jacks			
	total	34,223	152,260	

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:

No brood is collected at this location. The donor stock is Saltery Lake.

The 2015 total return estimate (Line 11 above) is the sum of two figures: the first, for sockeye harvested within the Spiridon SHA, is based on numbers obtained from the ADF&G fish ticket database; the second, for Spiridon-bound sockeye harvested in NW Kodiak and SW Afognak Districts and was estimated by ADF&G.

Estimation of the Spiridon-bound sockeye harvest by gear type outside of the Spiridon Lake SHA is based on the reported catch of all sockeye by each type in the Central Section of the Northwest Kodiak District and the Southwest Afognak Section of the Afognak District between the dates of June 21 and August 15. In 2015, 39.0% of Spiridon-bound sockeye outside the SHA were harvested by purse seine, and 61.0% by set gillnet. All harvest within the SHA is by seine. Percentage rounding causes difference between BY cumulative and total fish number on line 12

Age composition is based on scale samples taken from fish harvested in the SHA.

(10d) This number represents fish that were uncatchable up the creek in Telrod Cove

The BY2009 cumulative survival figure in line 13 represents the complete brood year return.

Return numbers based on percentages from stat runs by KRAA in yearly preliminary run reconstructions for 2015

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.

Pillar Creek Hatchery/Kodiak Alaska

Species: Coho
Location of project: Kodiak road system lakes and streams

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)	
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	-

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	1,765	
b. Personal Use		
c. Subsistence		
d. Other (annotate in comments section)		
Total noncommercial harvest	1,765	
11. Total Common Property Harvest (sum 9 and 10)		1,765
12. Total Return (sum 8 and 11)		1,765

13. Estimated ocean survival by brood year ²	Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
	BY12	Data Incomplete		

14. Average size of fish sold		length-cm		wt-kg
15. Date(s) of harvest	August - October			
16. Gear type or method used	sport tackle and gill net			

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 ³				
	total number of fish	-	-	-	
c. Carcasses		# Sold	# Donated	# Disposed ³	Total
	Spawners				-
	Other (annotate in comments)				-
	total number of fish	-	-	-	-
	total pounds				-

Comments:

Pillar Creek Hatchery produces coho and Chinook juveniles in cooperation with the ADF&G Sportfish Division. These sportfish programs are detailed in, and receive funding through, Co-operative Agreement 14-155 between KRAA and the Division. No brood is collected at this location. The donor stock is Buskin Lake. These coho are released in cooperation with the ADF&G Division of Sport Fish. The goal of the program, stated in the ADF&G Statewide Stocking Plan, is to create 1600 adult fish and 1500 angler days. The estimates entered above are based on these goals. Subsistence catch is included in the overall return estimate, and not specifically enumerated. Additional sportfish harvest estimates are reported in the ADF&G Statewide Sportfish Harvest Survey, which has not been completed for 2015; however, the Survey does not specify effort/harvest of stocked vs. native salmon on the Kodiak Road System. All returning coho are assumed to be 1yr freshwater . 1yr ocean fish.

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-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.

Pillar Creek Hatchery/Kodiak Alaska

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)	74
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	74

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	1,391
b. Personal Use	
c. Subsistence	
d. Other (annotate in comments section)	
Total noncommercial harvest	1,391
11. Total Common Property Harvest (sum 9 and 10)	1,391
12. Total Return (sum 8 and 11)	1,465

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year ²			
2008	Data Incomplete		
2009	All years		
2010			
2011			

14. Average size of fish sold	n/a	length-cm		wt-kg
15. Date(s) of harvest	June - August			
16. Gear type or method used	Sport tackle			

17. Disposition of Hatchery Escapement

	# fish sold	lbs fish
a. Traditional harvest fish		
adults		
jacks		
total	-	-
b. Roe-recovery fish		
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:

Pillar Creek Hatchery produces coho and Chinook juveniles in cooperation with the ADF&G Division of Sport Fish. These sportfish programs are detailed in, and receive funding through, Co-operative Agreement 14-155 between KRAA and the Division. The Kodiak Road System Chinook project includes returns to Monashka Creek and the American and Olds Rivers. 2015 was the eleventh year in which adult (3-, 4-, and 5-ocean) Chinook returned to Monashka Creek, and thus the eleventh year that Monashka Creek Chinook were utilized as broodstock. It was the fifth year of adult Chinook returns to the American and Olds Rivers. The project utilized broodstock from the Karluk River from 2000-2004. These Chinook are released in cooperation with the ADF&G Division of Sport Fish Division. Summary adult return figures are estimated by ADF&G staff, taking into account stream surveys, brood numbers, reported subsistence and estimated sport harvest. Harvest data will also be reported in the ADF&G Statewide Sportfish Harvest Survey, which has not been completed for 2015.

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

³ **Disposed** fish require a carcass disposal log.

SCHEDULE D
PROJECTED RETURNS FOR 2016
Pillar Creek Hatchery/Kodiak Alaska

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	2010-2013	Hidden Lake ¹	19,000	15,000	24,000
Sockeye	2010-2013	Crescent Lake ²	13,000	10,000	16,000
Sockeye	2010-2013	Spiridon Lake ³	117,000	94,000	135,000
Sockeye	2010-2013	Terod Cove ³	147,000	105,000	191,000
Sockeye	2010-2013	Anton-Larsen ⁴	29,000	20,000	38,000
Sockeye	2010-2013	Ouzinkie Village ⁴	11,000	7,000	14,000
Chinook	2011	Kodiak Road System ⁵	400	100	800
	2012	Kodiak Road System ⁵	500	100	900
	2013	Kodiak Road System ⁵	250	100	500

COMMENTS:

1. Based on 7% fry to adult survival with the historical average adult age compositions
2. Due to a lack of freshwater and marine survival, estimate is based on Hidden fry-adult survival (7%) with the historical average adult age composition.
3. The average smolt-adult survival (33%) was used with the BY 98-07 average adult age composition. The lake outmigrants and net-pen releases were forecasted separately, but were both based on BY 98-07 smolt-adult survival to estimate adult returns.
4. Due to a lack of fishery information, an assumed 15% smolt-adult survival estimate was used with the Spiridon historic average adult age composition.
5. Chinook based on 1.3% smolt-adult survival and age classes 1.3 (12%), 1.4 (33%), and 1.5 (55%)

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.

Pillar Creek Hatchery/Kodiak Alaska

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)	
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	-

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	2,685
d. Other (annotate in comments section)	
Total noncommercial harvest	2,685
11. Total Common Property Harvest (sum 9 and 10)	2,685
12. Total Return (sum 8 and 11)	2,685

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year ²			

14. Average size of fish sold	52	length-cm	1.9	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				
	jacks				
	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:

~ No brood is collected at this location. The primary donor stock is Afognak Lake.
 ~ Total return estimate is based on harvest numbers obtained from the ADF&G fish ticket database, plus reported subsistence catch.
 A portion of the Crescent Lake-bound sockeye return was likely harvested in the set gillnet fishery outside Settler's Cove and the Kizhuyak Section.
 ~ The local subsistence fishery harvests a significant portion of this run. Subsistence harvest reporting/analysis will not be complete until March 2016. **The 2014 subsistence harvest will be reported in Schedule F of the 2015 Annual Report.**
 ~Age composition of this return is unavailable as the data needed for it is not collected by ADF&G or KRAA
 Figures in Line 13 are from parent stock weir info for 2014 **This section has been changed from AR2014**

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

³ Disposed fish require a carcass disposal log.