

# 2016 ANNUAL REPORT ALASKA SALMON HATCHERY

Year Ending December 15, 2016

Hatchery name/Location  
Permit holder name/Address

PORT GRAHAM 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

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## DECLARATION AND SIGNATURE

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

Gary Fandrei  
Name of Legal Representative

11/16/16  
Date

  
Signature of Representative

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## 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**

PORT GRAHAM 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	Pink				
2. Stock (donor stock/ancestral stock)	Port Graham/Port Graham				
3. Viable broodstock (spawned, eggs in incubators)	5,106	females	3,020	male	8,126 total
4. Inviabile broodstock (green/over-ripe/bad)	995	females	691	male	1,686 total
5. Unspawned fish (roe recovery, excess males)	-				
6. Holding mortalities (raceway, pen mortalities)	2,971				
7. Adults sacrificed for broodstock (sum 3 thru 6)	12,783				
8. Average length and weight of adults used for broodstock					
	females>	cm	2.1	kg	
	males>	cm	2.1	kg	
9. Average fecundity (eggs/female)	1,570				
10. Egg-take dates:	Aug 22 - Sept 9				
11. Number of green eggs taken	9,085,393				
12. Number of eggs transferred out (annotate below)	-	eyed eggs			
13. Number of eggs destroyed (annotate below)	9,040	eyed eggs			
14. Number of green eggs retained in hatchery <sup>1</sup>	9,076,353				
15. Number remaining in hatchery at eyed stage	6,963,295		76.72%	% survival <sup>2</sup>	
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:					

A5. 2,647 were excess males and were harvested for cost recovery

A13. The first lot of eggs was small # and there was a large gap between the next eggtake. Therefore these eggs were culled.

A15. Delayed fertilization and saltwater eggtake.

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**

PORT GRAHAM 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)	Donor stock refers to location of broodstock collection. Ancestral is original stock.				
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)		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 <sup>1</sup>					
15. Number remaining in hatchery at eyed stage			#DIV/0!	% survival <sup>2</sup>	
16. Describe procedures used for egg takes and evaluation of in-hatchery survivals:					

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

2. Provide explanation for survivals less than 90%.

## SCHEDULE B-1 ANNUAL FISH CULTURE PRODUCTION REPORT

PORT GRAHAM 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	2,247,953	100.0%	
2. Eyed eggs	1,375,295	61.18%	inventory adjusted from 2015 Annual Report
3. Emergent fry	1,329,145	59.13%	
4. Fed fry	1,310,762	58.31%	
5. Smolts		0	

### B. Release Information

Site	Release			Size		Return	
	Number	Date	Life stage	gm/fish	mm/fish	Expected return	Return year(s)
Port Graham	1,310,762	5/27/2016	Fed Fry	1.23		39,323	2017
Total:	1,310,762						

### C. Marking/Tagging

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

Release Group <sup>1</sup>	Release			Marking/Tagging		
	Release Location	Number	Dates	Otolith Mark Pattern	Tag Code	Valid Tags
SW-Net Pen	Port Graham	1,310,762	5/27/2016	5H3		

<sup>1</sup>Report 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.

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**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.  
**PORT GRAHAM HATCHERY**

Species: Pink  
 Location of project: Port Graham Bay

**A. Hatchery Escapement**

1. Cost-recovery fish (line 17a & 17b): traditional harvest and roe-recovery fish	2,647
2. Adults sacrificed as broodstock (Schedule A line 7) minus roe-recovery fish (17b)	12,783
3. Escapement for hatchery watershed (as required in permit)	2,595
4. Jacks	-
5. Other <sup>1</sup> (annotate in comments section)	
6. Other <sup>1</sup> (annotate in comments section)	
7. Other <sup>1</sup> (annotate in comments section)	
<b>8. Total hatchery escapement</b>	<b>18,025</b>

**B. Common Property Harvest**

<b>9. Commercial harvest <sup>2</sup></b>	
a. Troll	-
b. Gillnet	
c. Seine	
d. Other (annotate in comments section)	
<b>Total commercial harvest</b>	-
<b>10. Noncommercial harvest <sup>2</sup></b>	
a. Sport	
b. Personal Use	
c. Subsistence	
d. Other (annotate in comments section)	500
<b>Total noncommercial harvest</b>	<b>500</b>
<b>11. Total Common Property Harvest (sum 9 and 10)</b>	<b>500</b>
<b>12. Total Return (sum 8 and 11)</b>	<b>18,525</b>

Brood Year	Total # in Run, Current Year	Cumulative Ocean Survival (%)	Complete Return (yes or no)
13. Estimated ocean survival by brood year <sup>2</sup>	2014	18,525	0.84% Y

14. Average size of fish sold	length-cm	2.1 wt-kg
15. Date(s) of harvest	8/16/2016	
16. Gear type or method used	Purse Seine	

**17. Disposition of Hatchery Escapement**

a. Traditional harvest fish	# fish sold		lbs fish		
	adults	2,647	lbs fish	13,238	
	jacks				
	<b>total</b>	<b>2,647</b>		<b>13,238</b>	
b. Roe-recovery fish	# fish		lbs fish	lbs roe	
	Sold				
	Donated				
	Disposed <sup>3</sup>				
	<b>total number of fish</b>	-	-	-	
c. Carcasses	# Sold		# Donated	# Disposed <sup>3</sup>	Total
	Spawners			12,783	12,783
	Other (annotate in comments)				-
	<b>total number of fish</b>	-	-	12,783	12,783
	<b>total pounds</b>				-

Comments:

**A1 & A2. Assuming all broodstock used was from hatchery releases.**  
**A3. Escapement was 14,629. Based on ADFG Otolith analysis 17.74% were identified as hatchery returns.**  
**A13. BY2014 release was 2,200,000**  
**A.10 incidental catch from subsistence nets. Estimated number.**

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

**SCHEDULE D**  
**PROJECTED RETURNS FOR 2017**

**PORT GRAHAM 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
Pnk	2015	Port Graham	39,323	26,215	52,430

**COMMENTS:**

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

Based from a 1.3 million fry release. Average =3%, Minimum=2% and Maximum = 4% marine survival.

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**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:  PORT GRAHAM 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 <sup>1</sup> (annotate in comments section)	
6. Other <sup>1</sup> (annotate in comments section)	
7. Other <sup>1</sup> (annotate in comments section)	
8. Total return to hatchery	-

**Common Property Harvest**

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

10. Noncommercial <sup>2</sup>	
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 <sup>2</sup>	BY	Total # return in 2011	Cumulative Survival	
				%
				%
				%
				%
				%
				%

13. Average size of fish sold  length-cm  
 14. Date(s) of harvest  wt-kg  
 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"/>

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