

## Yakutat Chum Hatchery Proforma

Sawmill Cove Chum			
<b>Production &amp; Value</b>			
Eggs	10,000,000		
Egg to fry Survival	92.0%		
Fry	9,200,000		
Survival	2.5%		
Adults	230,000		
Brood	13,000		
Harvest (after brood)	217,000		
Avg Wt	8.0		
Price (CR or COM)	\$ 0.65		
Value (CR or COM)	\$ 1,128,400		
<b>Cost</b>			
# Fry	9,200,000		
Rearing	\$ 0.006	\$ 55,200	
Rest of Operations	\$ 0.027	\$ 250,000	
Total Cost/ fry	\$ 0.033		
Total Operations Cost		\$ 305,200	
Benefit:Cost	3.7		
<i>(Value : Operations Cost)</i>			
Start-up Cost Estimate		\$ 846,000	

Adult Returns	
Brood required	13,000
Females required	4,545
Fecundity	2,200
Adult weight	8.0
<b>Age</b>	
Age Class:	Percent
3	3.0%
4	60.0%
5	36.0%
6	1.0%
First BY	2016

### Startup - Wildstock

BY	Females	Fecundity	Eggs	Fry
2017	4,550	2,200	10,010,000	9,209,200
2018	4,550	2,200	10,010,000	9,209,200
2019	4,550	2,200	10,010,000	9,209,200
2020	4,550	2,200	10,010,000	9,209,200

### YRAA Yakutat Chum Pro forma

Release/ Return Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Brood Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Rearing &amp; Release</b>													
Release Site	Redfield												
Green Eggs (Wildstock)	10,010,000	10,010,000	10,010,000	10,010,000									
Green Eggs (Hatchery)				32,500,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000
<b>Green Eggs (Total)</b>	10,010,000	10,010,000	10,010,000	42,510,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000
# Fry	9,200,000	9,200,000	9,200,000	39,100,000	36,800,000	36,800,000	36,800,000	36,800,000	36,800,000	36,800,000	36,800,000	36,800,000	36,800,000
<b>Adult Returns</b>													
Full Production - fry													
3-year-old			7,000	7,000	7,000	29,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000
4-year-old				138,000	138,000	138,000	587,000	552,000	552,000	552,000	552,000	552,000	552,000
5-year-old					83,000	83,000	83,000	352,000	331,000	331,000	331,000	331,000	331,000
6-year-old						2,000	2,000	2,000	10,000	9,000	9,000	9,000	9,000
<b># Adults</b>			7,000	145,000	228,000	252,000	700,000	934,000	921,000	920,000	920,000	920,000	920,000
Full production - adults													
<b>Broodstock</b>			2,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Females			1,000	4,545	4,545	4,545	4,545	4,545	4,545	4,545	4,545	4,545	4,545
Percent of return			29%	9%	6%	5%	2%	1%	1%	1%	1%	1%	1%
<b>Adult Harvest</b>			5,000	132,000	215,000	239,000	687,000	921,000	908,000	907,000	907,000	907,000	907,000
<b>Harvest Value</b>													
Weight			8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Price			\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65
<b>Value</b>			\$ 26,000	\$ 686,400	\$ 1,118,000	\$ 1,242,800	\$ 3,572,400	\$ 4,789,200	\$ 4,721,600	\$ 4,716,400	\$ 4,716,400	\$ 4,716,400	\$ 4,716,400

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Project Cost - Operations																		
Rearing	\$	55,200	\$	55,200	\$	55,200	\$	234,600	\$	220,800	\$	220,800	\$	220,800	\$	220,800	\$	220,800
Other Operations	\$	50,000	\$	50,000	\$	50,000	\$	100,000	\$	120,000	\$	150,000	\$	250,000	\$	250,000	\$	250,000
<b>Total Operations</b>	\$	<b>105,200</b>	\$	<b>105,200</b>	\$	<b>105,200</b>	\$	<b>334,600</b>	\$	<b>340,800</b>	\$	<b>370,800</b>	\$	<b>470,800</b>	\$	<b>470,800</b>	\$	<b>470,800</b>

Project Cost - Start Up / Capital				
Hatchery Building	\$	285,000		
Fish Culture System	\$	161,000		\$ 880,000
Salwater Rearing	\$	200,000		\$ 180,000
Project Management/Permitting	\$	200,000		
<b>Total Capital</b>	\$	<b>846,000</b>	\$	<b>-</b>

Benefit/Cost Analysis													
Value - Oper-CIP	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual	\$ (951,200)	\$ (105,200)	\$ (79,200)	\$ (708,200)	\$ 777,200	\$ 872,000	\$ 3,101,600	\$ 4,318,400	\$ 4,250,800	\$ 4,245,600	\$ 4,245,600	\$ 4,245,600	\$ 4,245,600
Cumulative	\$ (951,200)	\$ (1,056,400)	\$ (1,135,600)	\$ (1,843,800)	\$ (1,066,600)	\$ (194,600)	\$ 2,907,000	\$ 7,225,400	\$ 11,476,200	\$ 15,721,800	\$ 19,967,400	\$ 24,213,000	\$ 28,458,600
<b>Value - Oper</b>													
Annual	\$ (105,200)	\$ (105,200)	\$ (79,200)	\$ 351,800	\$ 777,200	\$ 872,000	\$ 3,101,600	\$ 4,318,400	\$ 4,250,800	\$ 4,245,600	\$ 4,245,600	\$ 4,245,600	\$ 4,245,600
Cumulative	\$ (105,200)	\$ (210,400)	\$ (289,600)	\$ 62,200	\$ 839,400	\$ 1,711,400	\$ 4,813,000	\$ 9,131,400	\$ 13,382,200	\$ 17,627,800	\$ 21,873,400	\$ 26,119,000	\$ 30,364,600
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