

NSRAA
Sawmill Creek Hatchery
Add 2 million Chinook salmon smolt and 20 million chum salmon eggs for Crawfish Inlet.

PERMIT ALTERATION REQUEST

Page 1

**STATE OF ALASKA
DEPARTMENT OF FISH AND GAME
PRIVATE NONPROFIT PROGRAM**

Rcvd 2/15/2019

I. IDENTIFICATION OF APPLICANT

A. Applicant Information

<u>Scott Wagner</u> Applicant Name	<u>NSRAA</u> Organization
<u>1308 Sawmill Creek Rd</u> Address	<u>907 747-6850</u> Phone Number
<u>Sitka</u> <u>AK</u> City State	<u>99835</u> Zip

B. Hatchery Information

<u>Sawmill Creek Hatchery</u> Hatchery Name	<u>#44</u> PNP Permit Number
--	---------------------------------

II. STATEMENT OF APPLICANT'S GOALS AND OBJECTIVES

- A. Describe the nature of the requested alteration, why you have decided to request it, and what you generally expect to accomplish by the expansion of your program, including answers to the following questions. Will the proposed project affect wild salmon stocks or existing fisheries? How will a significant contribution to common property fisheries be made? How will potential effects and interactions between introduced or enhanced stocks and wild stocks be assessed? What marking and recovery studies are being proposed that will allow the project to be evaluated? What are the potential benefits to fisheries or wild stocks from the proposed project? Has this project been discussed with the department's area or regional management biologists? (Attach additional pages as necessary.)

See attached narrative.

PERMIT ALTERATION REQUEST

Continued-page 2

III. IMPACTS ON EXISTING HATCHERY PROGRAM

A. Present Permitted Capacity
(numbers of green eggs by species)

Pink	_____	Coho	4.332 million Salmon Lake Stock
Chum	<u>30 million</u>	Chinook	_____
Sockeye	_____	Other	_____

B. Capacity After Request
(numbers of green eggs by species)

Pink	_____	Coho	<u>No Change</u>
Chum	<u>30M + 20 million MCH Stock = 50 million</u>	Chinook	<u>2,000,000 Andrew Creek Stock</u>
Sockeye	_____	Other	_____

C. Water Use

1. List the total amount of water available and the source.

10 cfs is currently available by agreement with the City of Sitka. NSRAA has obtained a Letter of Intent from the City of Sitka for an annual average of 14cfs with max continuous flow of 20cfs. Blue Lake penstock or Blue Lake Hydro afterbay the water source.

2. List the amount of water presently being used.

Up to 10cfs.

3. List the additional amount of water needed for this alteration.

Annual average of 4cfs with a maximum continuous flow of 10cfs.

PERMIT ALTERATION REQUEST

Continued-page 3

IV. HATCHERY DESIGN

- A. Please provide a detailed description of new facilities needed with this alteration (e.g., buildings, incubators, rearing space, piping, etc.). This description should represent a solid concept of the proposed hatchery changes/expansion. Drawings showing the layout of new structures should be attached when appropriate.

The proposed facility will be new construction adjacent to existing building. Basic building layout is shown in attachment. Facility will be dual purpose for both incubation and rearing. Both incubation and rearing will be based upon water re-use design. Re-use is being proposed to allow advancement of chinook incubation and rearing to provide a facility for zero check trials as well as traditional yearling chinook. In addition re-use design will provide increased water security if there are supply interruptions due to shut down of the Blue Lake Hydro main penstock for tunnel inspections or emergency situations.

Detailed plans are still in development. Facility will need to enlarge and tap off of its existng connection to the Bulk Water line in the Gary Paxton Industrial Park. A new supply line will run from this tap location into the new facility and its degassing columns. A new discharge line will also be needed as existing is undersized for the proposed flow.

V. DECLARATION AND SIGNATURE

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

Scott Wagner
Name of Applicant

2/15/19
Date Signed

Scott Wagner
Signature of Applicant

SCH-CI 20m chum 2m chinook 2019

II. Statement of Applicant's Goals and Objectives

NSRAA is in the early stages of expanding production at its Sawmill Creek Hatchery. NSRAA has obtained additional leased space at the Gary Paxton Industrial Park and in February of this year obtained a letter of Intent from the City and Borough of Sitka for additional water to support expansion. Expansion at SCH would involve two components. The first would add 2 million green Andrew Creek Chinook eggs to the SCH permit capacity. The second component would add 20 million fall Medvejie stock chum to the permitted capacity. Both of these components would be released at Crawfish Inlet. The site is already permitted for both species but at lower numbers.

The chinook production released at Crawfish Inlet is currently on the Medvejie Creek Hatchery permit with a maximum number of 600k. NSRAA is requesting to permit the Crawfish Inlet release site for up to 2 million Chinook from either facility.

Expanded Chinook production at Sawmill Creek would initially begin with a yearling release program of up to 500k smolts. NSRAA is experimenting with zero check production at Crawfish Inlet produced out of Medvejie. In 2018 the first few 2-ocean zero check chinook returned to Crawfish Inlet. In 2019 we will have the first 3-ocean results for zero check chinook release from Crawfish Inlet. If successful the SCH production will shift to predominately zero check and capable of producing up to 1.5 million zero check smolts.

Chum salmon production at Crawfish Inlet is on the SCH permit and is currently set at 30 million green eggs. NSRAA is requesting to increase the release site total by 20 million to a total of 50 million green eggs. Expanded production would be 50/50 between NSRAA's two release size strategies of 2 and 4 gram fry. NSRAA continues to see higher survival in the 4 gram release strategy.

This expansion is occurring at a critical time for the common property fisheries of SE Alaska. This is due to the ongoing wild stock Chinook common property fishery restrictions and the recent cut to the Chinook Treaty quota as a result of the re-negotiated Pacific Salmon Treaty. Currently the details of the Pacific Salmon Treaty mitigation funding is being finalized and there may be funds available to increased chinook production in SE Alaska. This funding could potentially be available to assist in the development of the facility.

Will the proposed project affect wild salmon stocks or existing fisheries?

Crawfish Inlet does not possess any naturally produced Chinook salmon or any other salmon stocks of significance. Harvest of the returning adults in the SHA would have little interception of other wild stocks of any salmon species and is one of the reasons it was listed by ADFG for potential enhancement opportunities. There is little to no existing Common Property fishing currently in the inlet due to its lack of natural production.

How will a significant contribution to common property fisheries be made?

As this is a remote release site all returning adults will be harvested by Common Property fisheries. Cleanup cost recovery will occur if needed.

How will potential effects and interactions between introduced or enhanced stocks and wild stocks be assessed?

Sampling of the commercial catch in the area will be done during common property openings to determine NSRAA contribution to fisheries. Non-NSRAA fish will be identified in this sampling and that information can be used to determine the degree of interaction with wild stocks. As there is no significant salmon producing streams in the inlet it is anticipated there will be little effect.

What marking and recovery studies are being proposed that will allow the project to be evaluated?

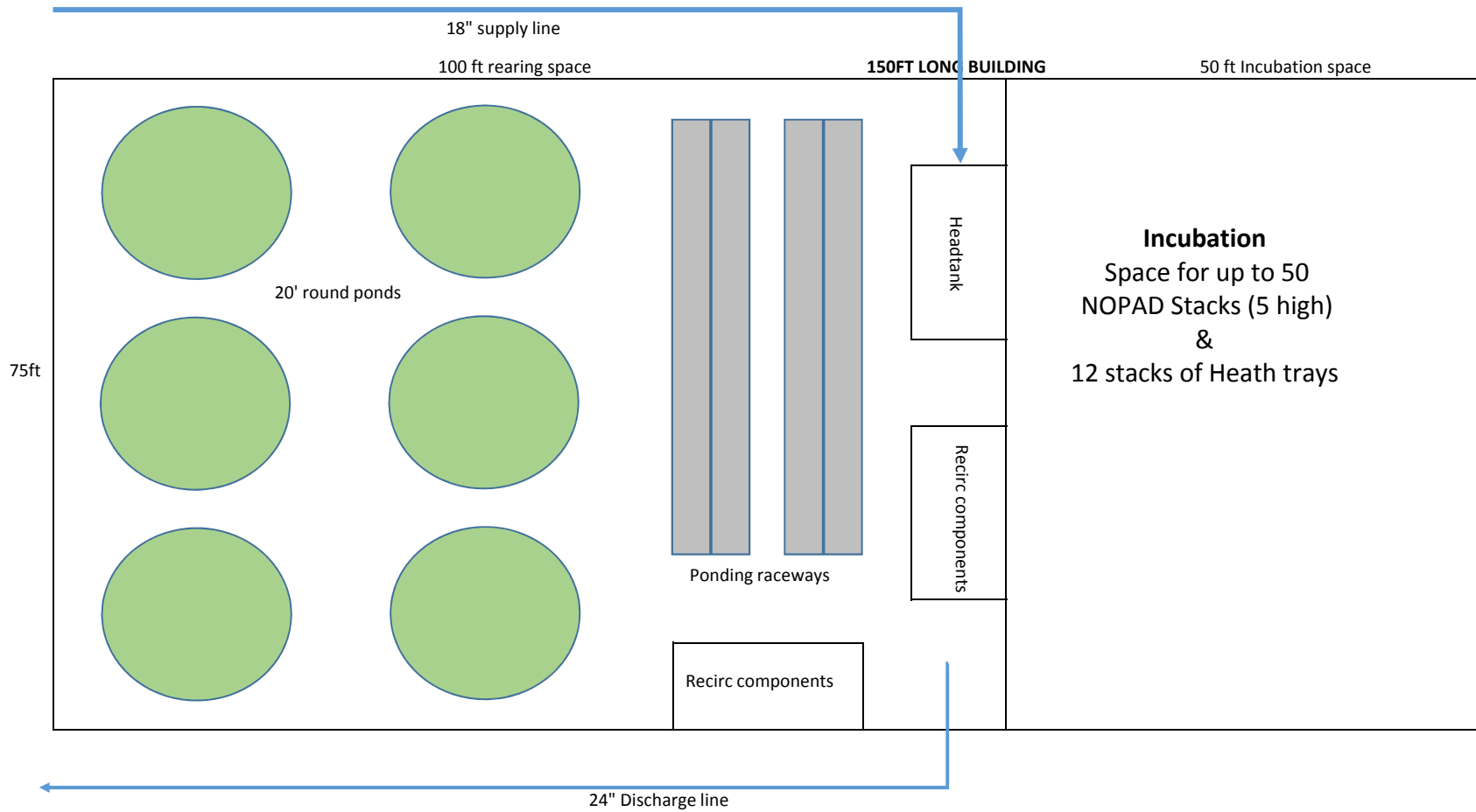
All Chinook salmon will have a unique otolith mark and will be CWT at a rate consistent with the rest of NSRAA's Chinook production. All chum salmon will be 100% otolith marked. These returning fish will be sampled during common property openings or cleanup cost recovery operations.

What are the potential benefits to fisheries or wild stocks from the proposed project?

At full production of 2 million chinook smolts using average survival (1.5%), weight, and price the potential annual benefit is projected to be 24,000 fish returning for a commercial value of \$624k. At current interception rates troll value would be \$330k (52% of the value).

It is anticipated that some of the returning chinook adults may be targeted by sport fishing effort. Recently there has been more charter/sport effort in the vicinity of Crawfish Inlet, especially in the West Crawfish and Whale Bay entrances. Chinook released at Medvejie are currently intercepted by the charter/sport fleet at a rate of approximately 5% of return. Based upon the projected return numbers up to 1,200 chinook would be harvested annually using a sport harvest rate of 5%.

At full production of 50 million green chum eggs using average survival (2.5%), weight, and price the potential annual benefit is projected to be 1,150,000 fish returning for a commercial value of \$4,657,500.



(Scale = 1 cube = 5ft x 5ft)

6 Round ponds - 20ft
270,000 per RP to 5 grams = 1,620,000

4 Start Raceways 50ft x 4ft
500,000 per RW to 1 gram = 2,000,000

