

Yakutat Regional Aquaculture Association, Inc.
PO Box 153
Yakutat, AK 99689

February 13, 2017

Dear Yak-Tat-Kwaan Board of Directors,

As you have been aware, Yakutat Regional Aquaculture Association (YRAA) has been interested in a long term land lease from Yak-Tat-Kwaan (YTK) over the last few years. With your permission we have been conducting some water studies of quantity and quality and believe our best opportunity for a successful fish incubation & rehabilitative center is located on your land. We understand that this original package still has many vague or outdated estimates and information, but we don't wish to spend thousands of dollars if there is no possibility of coming to an agreement. So understanding that as we move forward in the give and take of developing an agreement that many of these issues can be firmed up. In particular, the maps provided are estimates as we would both probably want a land surveyor and full legal descriptions before a lease is finalized and an engineer would need to design and determine where the water collection system would be located at before the final description is developed. We also want to point out that at the end both Board of Directors (YTK & YRAA) will have to look at the final draft and vote to approve the lease.

The land lease was drafted using information from the original lease suggested by Nate Endicott, and the recorded Fisheries Rehabilitation Lease and Option Agreement between the Afognak Native Corporation and Alaska Dept of Fish and Game and another Lease between Douglas Island Pink and Chum, Inc. and the Alaska Dept of Fish and Game for the Snettisham hatchery. I can provide copies of any of these documents if you would like.

Article II of the lease has several blanks. Let me explain the possible thinking. We would like the length of the lease to be a minimum of 30 years but would prefer a 50 year lease with the costs incorporated in developing a hatchery incubation facility. Would YTK be willing to consider a 50 year lease? We have split the payment into three sections, the first during the five years when no income is coming in from the program and there is a lot of capital and operating expenses. The second time period would be an increase and the third time period would tie a base rate to the Consumer price index on a yearly basis. The other reason we are not putting a price on these three time frames as the amount of acreage that goes in the lease. This can be done one of two ways a large circle/oval that includes the kettle ponds, drainage areas and the facility building, this incorporates a larger acreage footprint or a smaller footprint that includes just the facility and where the piping for the water collection system. If we go with the smaller footprint then we would need in the lease assurances that you would protect the water quality and quantity in the kettle ponds and drainage area. Smaller footprint the price per acre could be slightly larger plus the consideration of the property tax, the larger footprint the price would need to be a little less because the total acreage that would be taxed by the city. A possible starting point for the larger footprint might be \$50.00 per acre; to \$100.00 per acre and \$150.00 per acre.

We have provided a copy of the City and Borough of Yakutat Resolution regarding property tax issues that will hopefully clarify what can be expected. As part of the lease, YRAA is agreeing to pay property tax or try for an additional exemption from property tax on the property described in the lease.

In regards to the process, we can't move forward with any of the permitting until an agreement on the land is reached. The process at that point is water authorization, [hatchery permit application](#), DEC wastewater permit application, loan application with [State of Alaska Fisheries Enhancement Loan program](#). The hatchery permit application has a set schedule of review which we have enclosed a one page overview of the review elements produced by ADF&G. The Management Feasibility Analysis (MFA) can be viewed [here](#). We believe that we have done the necessary due diligence and research and have all information necessary to fill out the various applications, although there is always the possibility that the process will bring up a question that additional data is needed in order to answer.

We are including some very preliminary drawings and cost estimates prepared for YRAA in 2014 by one of our consultants. We have taken these figures and increased the costs in the budgets as a starting point for consideration. Again we don't wish to spend the funds without assurances that a lease is forthcoming.

The salmon fishermen have assessed themselves with a salmon enhancement tax (SET) of 2%. The tax is collected for the calendar year and is disbursed through the Legislative process with receipt in approx. July of the following year. The SET tax started in May of 2013 and the estimated tax for 2016 is \$56,049.55. Additional income will come from cost recovery when fish starts to return. The remainder of the funds will be generated from the State of Alaska Hatchery enhancement loan funds. Any possible grants opportunities will also be pursued.

It is possible that we can get original broodstock eggs from either Douglas Island Pink and Chum (DIPAC) in Juneau or Prince William Sound Aquaculture Association (PWSAC) in Cordova. The cost of broodstock eggs would be approximately \$55,000 per year for the first five years when there should be enough returning fish to gather our own broodstock/eggs on location.

ESTIMATED COSTS – Infrastructure Costs

20 million Egg Incubation Facility	\$1,600,000
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OPERATING COSTS - Yearly

10 million eggs – broodstock	\$ 55,000
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Operating costs* - based on Sitka Sawmill Cove	\$ 275,000
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Loan payment starting in year 7	\$133,840.00
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*operating costs includes employee's salaries and payroll costs; supplies; fish food; equipment rental; facility and equipment repair and costs; utilities; insurance.

We have enclosed a summary of our financial cash flow from 2012 to 2016 (2016 is preliminary until return is completed).

There is additional information and reports as well as organizing documents that can be viewed on our [website](#). If there is any additional information that you need or want, please contact us and we will do our best to provide you with the information.

Sincerely,

Kathy Hansen

YRAA Consultant

907-586-665 or email: seafa@gci.net

LAND LEASE AGREEMENT BETWEEN
YAK-TAT-KWAAN AND YAKUTAT REGIONAL AQUACULTURE ASSOCIATION, INC.
FOR A FISHERIES INCUBATION & REHABILITATION FACILITY

THIS LEASE entered into this _____ day of _____, 2017 by and between

YAK-TAT-KWAAN (YTK)

Hereinafter known as the Lessor and the

YAKUTAT REGIONAL AQUACULTURE ASSOCIATION, INC (YRAA)

Hereinafter known as the Lessee

ARTICLE I

Basic Agreement: The Lessor and Lessee enter into this Land Lease agreement for a Fisheries Incubation & Rehabilitation Facility for the rent and upon the terms and conditions hereinafter set out. The Lessor does hereby let and lease unto Lessee, and Lessee does let and hereby lease from Lessor the property which is included within the boundaries described in Exhibit I, attached hereto. The Lessor and Lessee agree that the Fisheries Incubation & Rehabilitation Facilities are to the benefit of the citizens of Yakutat and the State of Alaska, and the parties enter into this agreement in furtherance of promoting management of the fisheries resources of the State of Alaska.

Lessor's Representations: Lessor represents and warrants that the property described in Exhibit 1 is the subject of a conveyance to the Lessor from the Bureau of Land Management, Department of the Interior, United States of America under the terms and provisions of the Alaska Native Claims Settlement Act, and that the Lessor, alone, has the right, power, Authority to make and enter into this Lease. Lessor represents and warrants that, at the date hereof, there are no restrictions, covenants, easements, rights-of-way, or uses which would prevent the Lessee from constructing and operating a fisheries incubation and rehabilitation facility on the property described in Exhibit I.

ARTICLE II

Rent and Terms: This lease shall be for the term of _____ years commencing on the _____ day of _____, 2017 and ending on the _____ day of _____, 20____ at and for a rent of \$ _____ per acre for the first five years starting on _____ day of _____, 20____ and ending on _____ day of _____ 20____ ; for a rent of \$ _____ per acre for

years 6 through 10, starting on _____ day of _____, 20__ and ending on _____ day of _____ 20__; and for a rent of \$ _____ per acre for the remainder of the lease starting on _____ day of _____, 20__ and ending on _____ day of _____ 20__. Payment will be made once a year in the month the lease was signed. The above stated rent amount shall remain in effect during the first (1) ten (10) years from the date of the execution of this agreement. For each succeeding five (5) year period the base rent established during year eleven (11) shall be adjusted in accordance with changes in the Consumer Price Index (CPI) (Pacific/Cities and U.S. Average promulgated by the Bureau of Labor Statistics of the U.S. Department of Labor, hereinafter referred to as the "Index") and more specifically, the price figures for Anchorage in said Index since the date of execution of this agreement. The parties agree that a substantially comparable index or set of statistics shall be substituted if the CPI is discontinued or substantially changed from its format in 1981.

ARTICLE III

1. Covenants of the Lessee: The Lessee does hereby covenant and agree with Lessor that Lessee will:
 - a. Pay the rent at the time and place determined by Lessor and in the manner aforesaid;
 - b. Use and occupy said premises in a careful and proper manner;
 - c. Conduct all operations on the property in a manner consistent with all applicable local, state and federal environmental codes, regulations, and statutes and shall bear sole responsibility for any violations thereof. The Lessee shall be solely responsible for securing any permits necessary for their activities on the property. In the event of any legally-prohibited release of any materials to the environment, the Lessee will indemnify the Lessor for any costs of environmental cleanup and restoration as well as any penalties, fines, judgements or other amounts incurred by the Lessee as a result of such release.
 - d. Hold and save Lessor, its officers, agents, and employees, harmless from liability of any nature or kind, including costs and expense for or on account of any and all suits or damages of any character whatsoever resulting from injuries or damages sustained by any person or property by virtue of any act performed solely by Lessee, its agents, officers, or employees pursuant to this Lease; and
 - e. Not use or occupy said premises for any unlawful purpose;
 - f. Not assign this Lease, nor sublet said premises, nor any part thereof;
 - g. Limit the use of the premises to the area, facilities, and works necessary for access to and establishment of a hatchery, fisheries research and management station, and any necessary support structures thereon, or other fishery or administrative purposes which will not have undue adverse impact upon Lessor's use or enjoyment of adjacent property;

structures. Such improvements shall remain the property of Yakutat Regional Aquaculture Association, Inc. and must be removed by YRAA at the expiration or prior to termination or within ninety (90) day of termination of this Lease. Restoration of premises to substantially the same condition as prior to the construction of the improvements will be made if any damage to the premises results from removal of the same;

- e. The Lessee shall pay the rent as herein provided, and shall keep, observe, and perform all of the covenants of this Lease the lessee shall and may, peaceably and quietly, have, hold and enjoy the said premises for the term aforesaid;
- f. The Lease and all the covenants, provisions, and conditions herein contained shall inure to the benefit and be binding the successors and assigns of the parties hereto;
- g. This Lease is subject to all applicable laws of the State of Alaska;
- h. All conditions and covenants of this Lease shall remain in full force and effect during any extension hereof. Any holding over after the expiration date of this Lease or any extension or renewal thereof, shall be construed to be a tenancy form month-to-month, at the same monthly rental and on the terms and conditions herein specified so far as applicable;
- i. If the Lessee shall at any time be in default in the payment of rent herein reserved, or in the performance of any of the covenants, terms and conditions, or provisions of this Lease, and the Lessee shall fail to remedy such default within sixty (60) days after written notice thereof from the Lessor, it shall be lawful for the Lessor to enter upon said premises and again have, repossess, and enjoy the same as if the Lease had not been made, and thereupon this Lease and everything herein contained on the part of the Lessor to be done and performed shall cease and determine without prejudice.

ARTICLE IV

The Lessee hereby agrees to the following conditions:

1. That it shall endeavor to incur the minimum amount of damage or disturbance to the areas of the property leased not necessary for development during construction and use.
2. That all infrastructure be removed and the property returned to an undeveloped status, (i.e. as natural as possible) such as it was prior to occupation.

ARTICLE V

Grant and Term of Option: Should the Lessor determine to sell these parcels, Lessor grants to Lessee the first option to purchase the property described in Exhibit I. This option may be exercised at any time during the term of this Lease. If YRAA chooses to not exercise the first option to purchase if offered by the Lessor, the property will be sold with the condition that this Lease remain valid and in place.

Consideration: The consideration, in the form of rent, includes consideration for this option to purchase and rent for the Lease.

Purchase Price: The purchase price of the property shall be the fair market value of the property as if vacant and unimproved as of the date of the notice of intent to sell. If Lessor and Lessee cannot reach an agreement as to the fair market value of the property, a professional real estate appraiser selected by both Lessor and Lessee shall determine fair market value. The cost of the appraisal shall be borne equally by Lessor and Lessee.

Closing: In the event that Lessee shall exercise this option, closing of this transaction shall take place within one (1) year from the date of the appraisal or a current appraisal shall be obtained at the Lessee expense.

ARTICLE VI

Termination of Lease: Yak-Tat-Kwaan and Yakutat Regional Aquaculture Association, Inc. by written notice, may terminate this Lease, in whole or part when it is in the best interests of the YTK and YRAA by mutual agreement. YRAA may terminate the contract for any reason by notifying YTK in writing 180 days in advance of final termination with the acknowledgement that they must remove all infrastructure and return the land to an undeveloped status unless an alternative agreement is reached with YTK.

ARTICLE VII

Time Is Of the Essence: Time, whenever expressed herein, shall be deemed to be of the essence of this agreement.

Partial Invalidity: If any terms, covenant, article, or condition of this lease or the application thereof, to any person or circumstances shall, to any extent, be illegal, invalid, or unenforceable because of present or future laws, or any rule or regulation of the State of Alaska, or become unenforceable because of judicial construction, the remaining terms, conditions, articles, and covenants of this Lease or the application of such term, covenant, articles, or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each term, covenant, article, or condition of this Lease shall be valid and be enforced to the fullest extent permitted by law.

Rights Cumulative: All rights, powers, and privileges conferred herein upon the parties shall be cumulative but not restrictive to those given by law.

Amendment: No amendment or extension of this Lease shall be effective unless expressed in a writing executed by the parties.

Entire Agreement: This Lease contains the entire agreement of the parties and no representations or agreements, oral or otherwise, between the parties not embodied herein or attached hereto shall be of any force and effect. Any additions or amendments to this Lease

subsequent hereto shall be of no force or effect unless in writing and signed by the parties hereto.

DRAFT

IN WITNESS WHEREOF, the parties hereto have set their hand on the day and year written below.

LESSOR
YAK-TAT-KWAAN

By _____

Title _____

Date _____

STATE OF ALASKA)

) ss.

(Insert))

This is to certify that on this _____ day of _____, 20____, before me a Notary Public in and for the State of Alaska duly commissioned and sworn personally appeared _____ to me known and known by me to be the person described in and who executed the instruments set forth above and be severly stated to me under oath that he is _____ and that he has been authorized by the YAK-TAT-KWAAN Corporation to execute the foregoing Lease for and on behalf of YAK-TAT-KWAAN Corporation and they executed same freely and voluntarily for the uses and purposes therein set forth. WITNESS my hand and official seal the day and year this certificate first above written.

Notary Public for Alaska

Residing at

My Commission expires

IN WITNESS WHEREOF, the parties hereto have set their hand on the day and year written below.

LESSEE
YAKUTAT REGIONAL AQUACULTURE
ASSOCIATION, INC.

By _____

Title _____

Date _____

STATE OF ALASKA)

) ss.

(Insert))

This is to certify that on this _____ day of _____, 20____, before me a Notary Public in and for the State of Alaska duly commissioned and sworn personally appeared _____ to me known and known by me to be the person described in and who executed the instruments set forth above and be severly stated to me under oath that he is _____ and that he has been authorized by the YAKUTAT REGIONAL AQUACULTURE ASSOCIATION, INC. to execute the foregoing Lease for and on behalf of YAKUTAT REGIONAL AQUACULTURE ASSOCIATION, INC. and they executed same freely and voluntarily for the uses and purposes therein set forth. WITNESS my hand and official seal the day and year this certificate first above written.

Notary Public for Alaska

Residing at

My Commission expires

EXHIBIT I

The approximate Hatchery location would be 59.566.1 N Latitude and 139.666.6 W Longitude.

The Pond Outlet at tidewater is located at 59.569.3 N Latitude and 139.671.8 W Longitude. The water rights would be necessary in the area between the Hatchery Location and the pond outlet. The N Pond is 46.9 acres and is located at 59.566.1 N Latitude and 139.675.7 W Longitude. The S Pond is 36.3 acres and is located at 59.564.3 N Latitude and 139.674.6 W Longitude.

DRAFT

Proposed YRAA Lease Area

Hatchery Building Pad 100ft x 100ft

Access Road and Pond Water Pipe (Buried)

Water Collection Pipe (Buried)

952 ft

© 2016 Google
Image © 2016 DigitalGlobe
© SPOT IMAGE

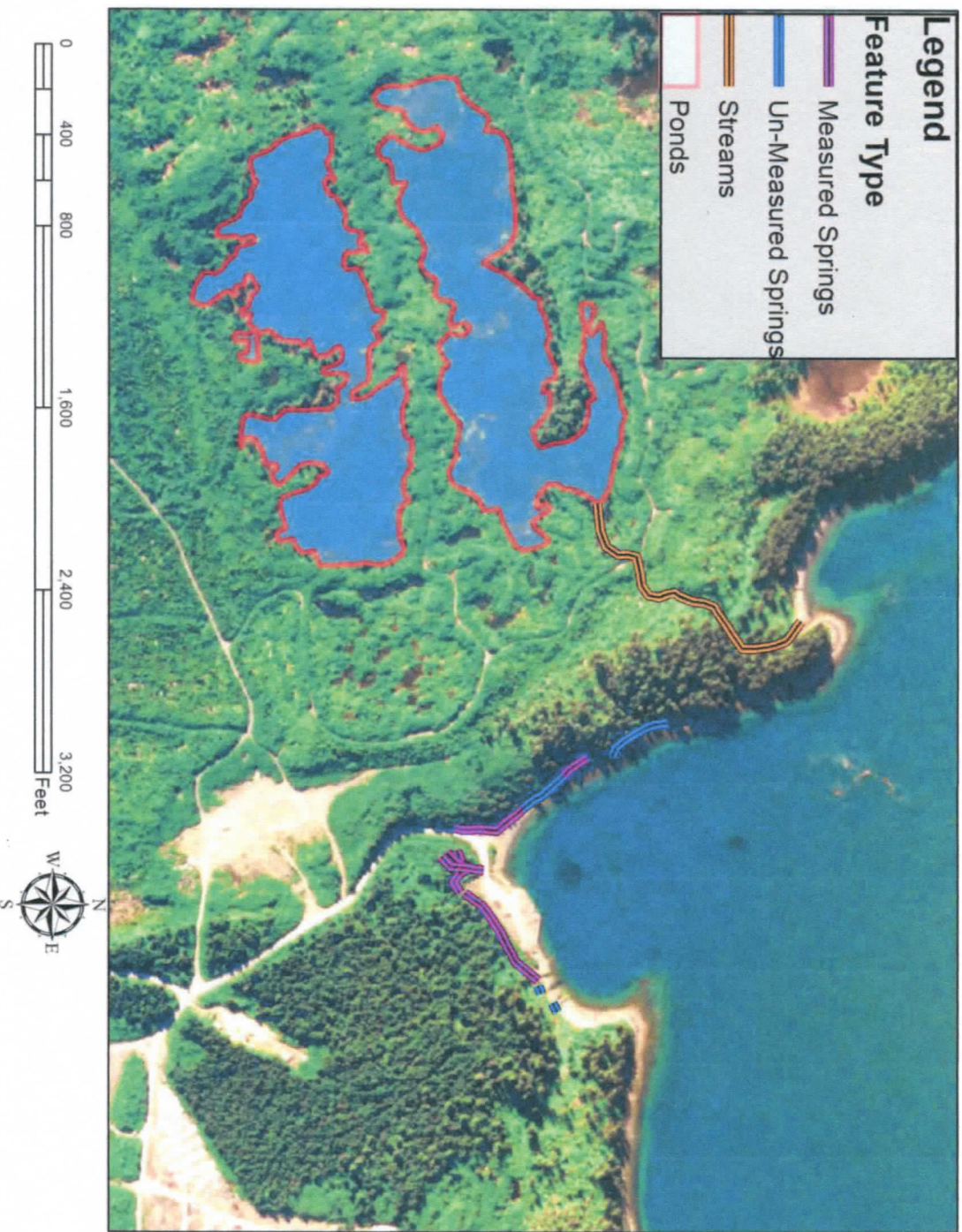


Figure 1. Map of the study area showing Sawmill Cove springs, kettle ponds, and outlet stream to the west.



Figure 2. Map of the North and South Sawmill Cove Ponds including the drainage areas of both ponds and the drainage network.

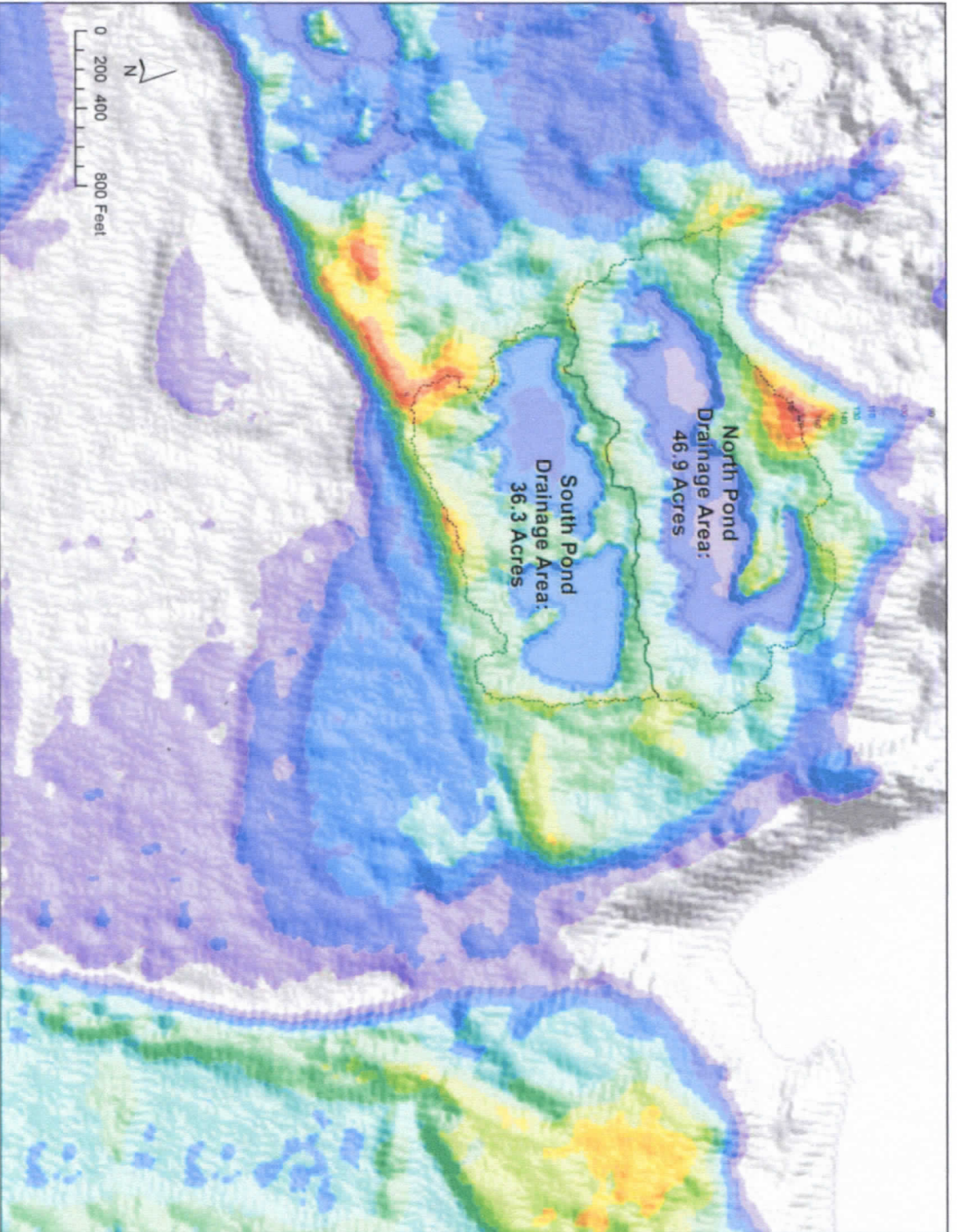


Figure 3. Map of the DEM generated using the ISAR data and the drainage area estimates for both the North and South Sawmill Cove Ponds.

Figure 6. Map of Yakutat and Vicinity Land Ownership

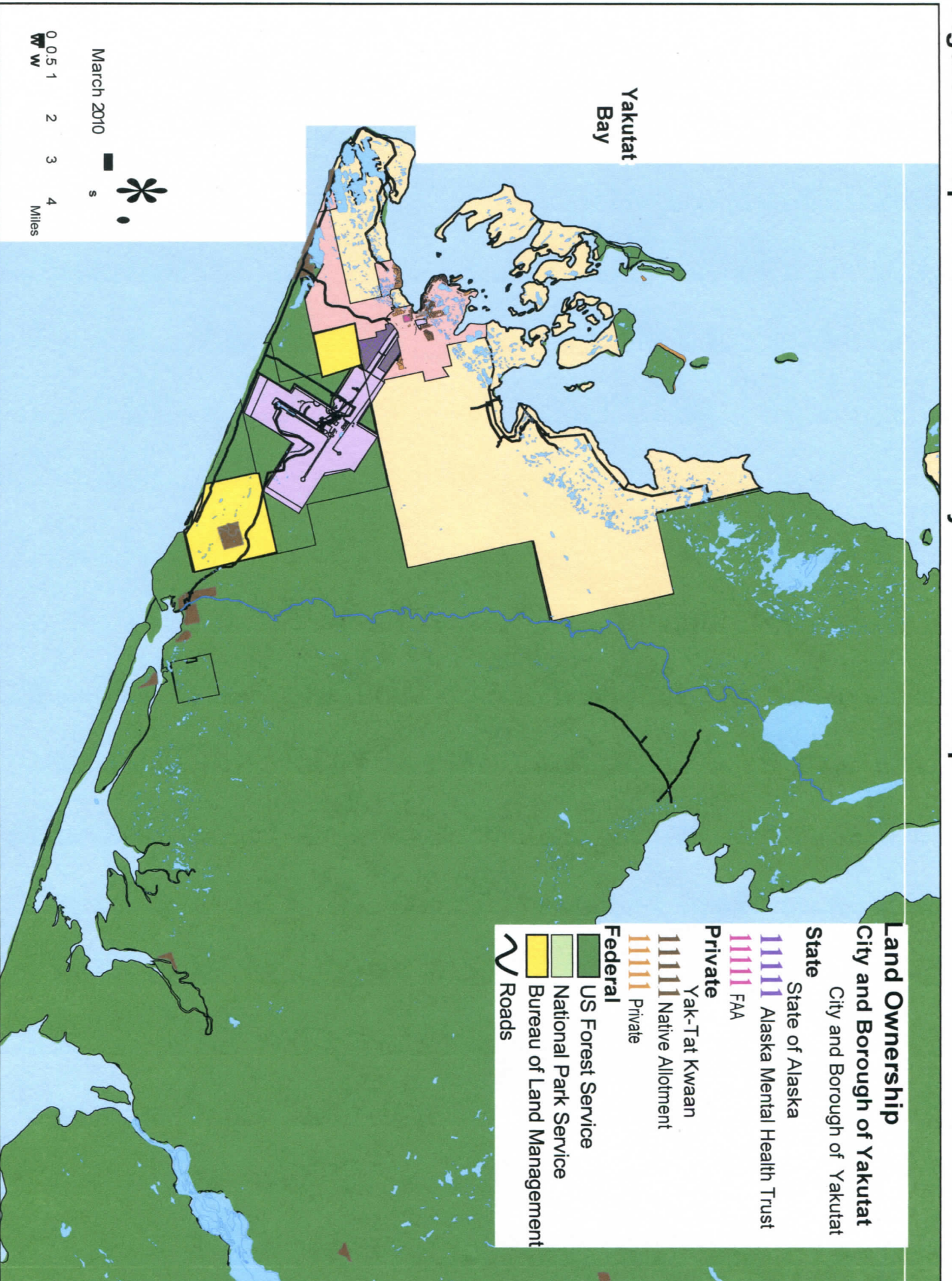


EXHIBIT II - Insurance

As per ARTICLE III (h) of the Lease, Yakutat Regional Aquaculture Association, Inc. (YRAA) will carry the following insurance as a minimum. Without limiting the Lessee's indemnification, it is agreed that the Lessee shall purchase at its own expense and maintain in force at all times during the time period of this lease unless terminated the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Lessee's policy contains higher limits, the Lessor as appropriate will be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to YTK prior to the beginning of work and must provide for a 30 day prior notice of cancellation, nonrenewal or material change of conditions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this lease and shall be grounds for termination of the Lease. All insurance policies shall comply with, and be issued by insurers licensed to transact business of Insurance in the State of Alaska.

Worker's Compensation Insurance: The Lessee shall provide and maintain for all employees engaged in work on this property, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H and Jones Act requirements. The policy must waive subrogation against Yak-Tat-Kwaan.

Commercial General Liability Insurance: covering all business premises and operations used by the Lessee in the performance of operation of an incubation or rehabilitation facility with minimum coverage limits of \$100,000.00 combined single limit per occurrence.

Commercial Automobile Liability Insurance: covering all vehicles owned by YRAA and used by the Lessee with minimum coverage limits of \$100,000.00 combined single limit per occurrence.

All Risk Property Insurance: excluding earthquake and flood insurance, on the hatchery buildings and equipment forming part of or otherwise connected to the facility and vehicles, in such amounts and with such deductibles as under good management practices are ordinarily provided for similar buildings, equipment and vehicles, but in no event in an amount less than the replacement value.

**CITY AN BOROUGH OF YAKUTAT, ALASKA
RESOLUTION 17-270**

A RESOLUTION OF THE ASSEMBLY OF THE CITY AND BOROUGH OF YAKUTAT CLARIFYING PROPERTY TAX WILL BE SPATIALLY APPORTIONED BETWEEN THE LAND LEASED TO YAKUTAT REGIONAL AQUACULTURE ASSOCIATION AND LAND THAT REMAINS UNDEVELOPED UNDER 43 U.S. Code § 1620 AND IF THE LEASE IS TERMINATED AND INFRASTRUCTURES ARE REMOVED IT WILL BE DEEMED TO BE RETURNED BACK TO ITS NATURAL UNDEVELOPED STATE UNDER 43 U.S. Code § 1620.

WHEREAS: The Yakutat Regional Aquaculture Association, Inc. (YRAA) is an IRS recognized non-profit organization seeking to create aquaculture projects in Yakutat for economic development; and

WHEREAS: The Yak-Tat-Kwaan owns land within the City and Borough of Yakutat currently not subject to property tax under 43 U.S. Code § 1620 that is viable for use in aquaculture projects; and

WHEREAS: The Yakutat Regional Aquaculture Association and the Yak-Tat-Kwaan will be discussing a potential land lease and wish to clarify the City and Borough of Yakutat Assembly position on property tax issues before coming to an agreement; and

WHEREAS: Yak-Tat-Kwaan land not ~~contained~~ **itemized or listed in** with the lease between YKI and YRAA and is undeveloped under 43 U.S. Code § 1620 will not be taxed by spatially apportioning the land that is leased [for taxing purposes].

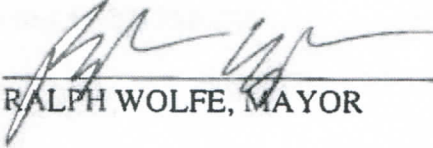
WHEREAS: If the land lease agreement is terminated between the Yak-Tat-Kwaan and Yakutat Regional Aquaculture Association and the infrastructure is **subsequently**, removed the status of the land **written this lease agreement** will go back to being classified as undeveloped under 43 U.S. Code § 1620 (AS 29.45.030(n)); and

WHEREAS: A resolution of the City and Borough of Yakutat Assembly has been passed supporting the Yakutat Regional Aquaculture Association Inc.'s effort to improve and enhance the Yakutat Region's salmon **Harvest** and provide economic benefits to the community of Yakutat.

NOW THEREFORE BE IT RESOLVED THAT the City and Borough of Yakutat will spatially apportion Yak-Tat-Kwaan land to exempt the undeveloped portions Yak-Tat-Kwaan property not on the land lease between the Yakutat Regional Aquaculture Association and Yak-Tat-Kwaan.

BE IT FURTHER RESOLVED THAT the City and Borough of Yakutat will return the tax free status of that land once the lease has terminated, infrastructure is removed and returned to an undeveloped state, until such a point that its status changes again.

PASS AND APPROVED THIS 5 DAY OF Jan, 2017


RALPH WOLFE, MAYOR

ATTEST:


Cathy Bremner CMC, Borough Clerk



DEC 29 2016

CITY OF YAKUTAT

Yakutat Regional Aquaculture Association, Inc.

P.O. Box 153. Yakutat, AK 99689 * (907) 784-3000

December 29, 2016

City and Borough of Yakutat Assembly Members,

The Yakutat Regional Aquaculture Association is getting ready to present a package to the Yak-Tat-Kwaan to try and develop an agreeable lease for an area to develop a hatchery incubation facility. This is the area in the Yakutat region that appears to meet the water quality and quantity standards necessary for a successful project.

We believe that once a lease is agreed upon we finally have the necessary data to move forward to submitting a hatchery permit application. The area that YRAA will be requesting to lease from YKI is not fully defined until a lease is agreed upon. Attached are a series of maps that show the general area that we will be seeking to lease. It is the best we can provide until discussions with YKI occur. The map from Alaska Hydroscience show the kettle ponds and springs that will be the source of water used for the hatchery facility, the proposed YRAA lease area map shows the possible locations for the water collection pipes and possible location for the hatchery building pad and the final map is from the CBY Comprehensive Plan 2010 showing land ownership.

We are requesting the assembly to consider this resolution to resolve questions concerning property tax for clarification and understanding while the lease is being negotiated. It is in the form of a resolution at this time to allow the details to be worked out, when a signed lease is negotiated if necessary we would then provide the area for prorating property tax and to allow an ordinance to be drafted to implement the resolution. YKI has not agreed to anything more than to consider the project and request for lease when presented to their board.

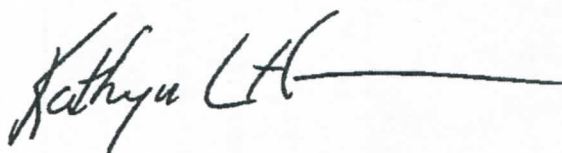
YRAA is considering a chum project initially at 10 million chum eggs and hopefully expanding in time to up to a 40 million release. This is a step wise approach that ADF&G generally requests to build up the release over time to make sure no impacts are occurring on wild stocks before increasing the release size.

A 10 million release should provide approx. 217,000 returning salmon after broodstock needs are met. At an average weight of 8 lbs this has a potential economic value of \$954,800 - \$1,128,400 at a price range of \$0.55 to \$0.065 a lb.

At the May 28th YRAA Board of Directors meeting, the Board of Directors tasked Kathy Hansen, their consultant to do whatever was necessary to move forward with a land lease and submitting a hatchery permit. Having the CBY Assembly pass this resolution helps clarify important property tax issues in developing a lease with YKI.

We have also attached a brief summary of background information about hatcheries and YRAA.

Sincerely,



Kathy Hansen, YRAA Consultant

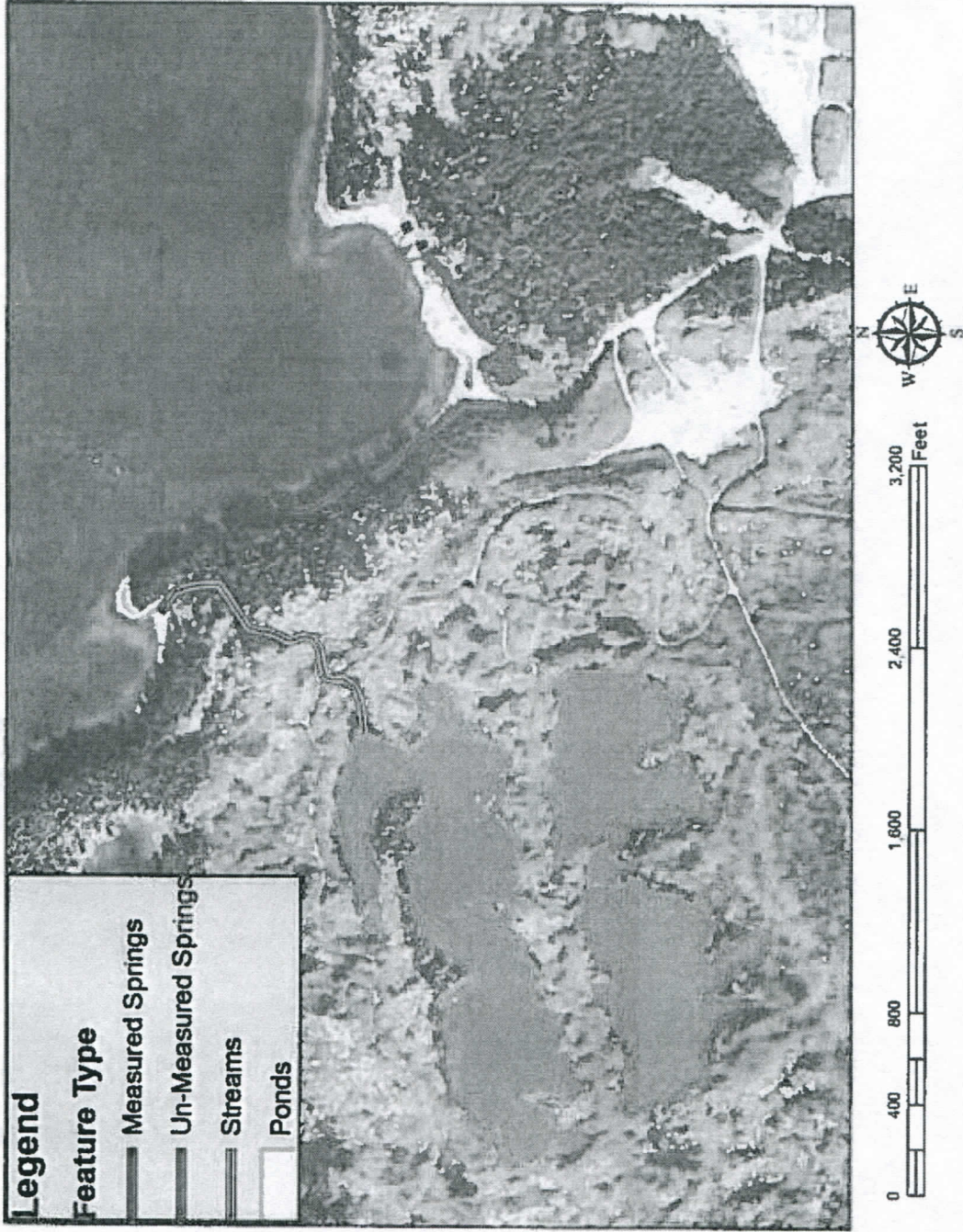


Figure 1. Map of the study area showing Sawmill Cove springs, kettle ponds, and outlet stream to the west.

Proposed YRAA Lease Area

Hatchery Building Pad 100ft x 100ft

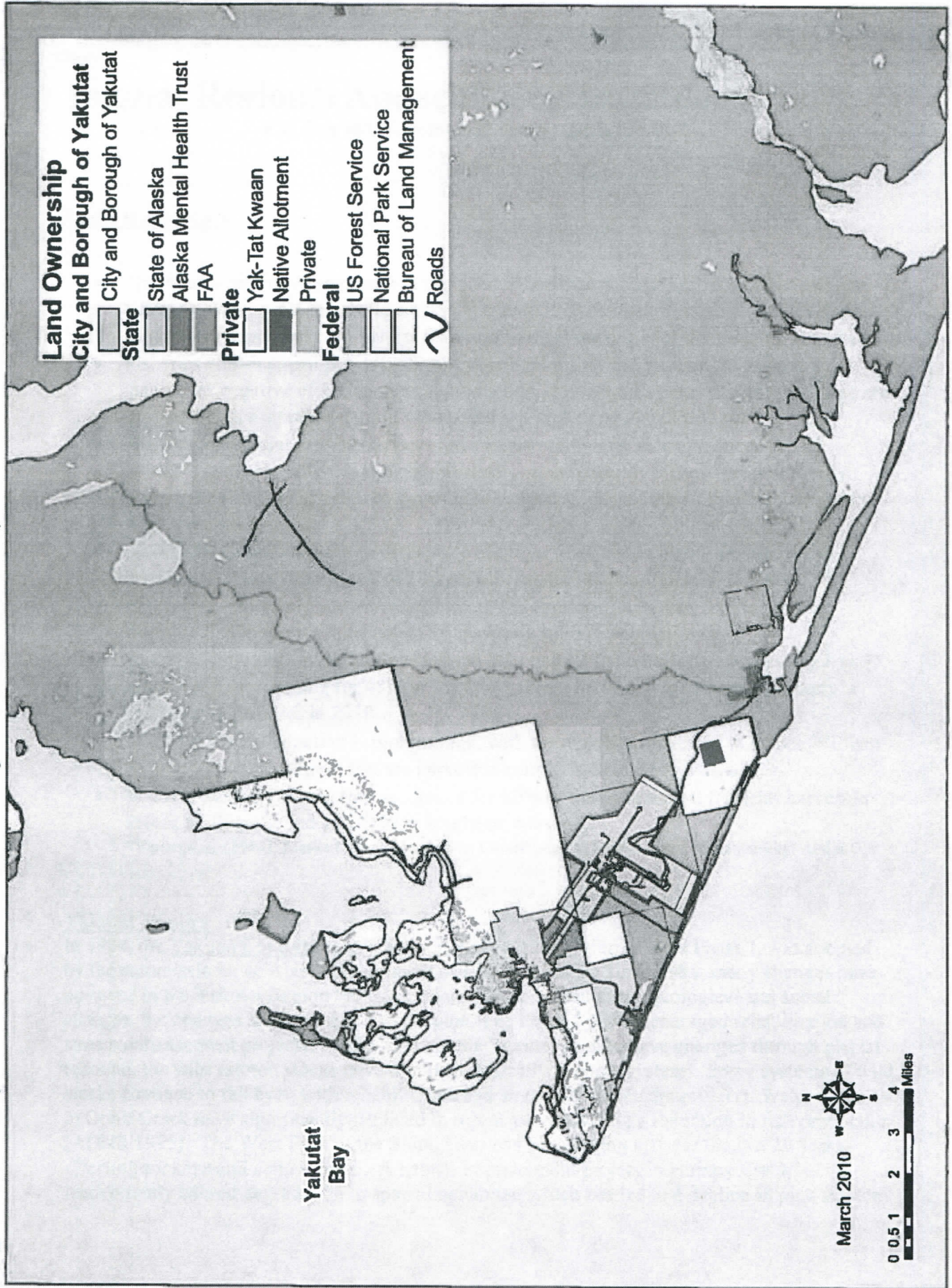
Access Road and Pond Water Pipe (Buried)

Water Collection Pipe (Buried)

952 ft

© 2016 Google
Image © 2016 DigitalGlobe
© SPOT IMAGE

Figure 6. Map of Yakutat and Vicinity Land Ownership



Yakutat Regional Aquaculture Association, Inc.

P.O. Box 153. Yakutat, AK 99689 * (907) 784-3000

Alaska Hatcheries:

- The Alaska hatchery program was designed to increase salmon abundance and enhance fisheries, while protecting wild stocks. The state PNP hatchery program was developed in response to depressed commercial fisheries, to meet the needs of the people of the state.
- Fisheries enhancement projects are **not** permitted if they are anticipated to have a significant negative effect on natural production. All fisheries enhancement programs are designed to **supplement** natural production not replace or displace them.
- Alaska commercial salmon harvests have improved greatly since the inception of Alaska's hatchery program and natural stocks remain healthy.. These programs only protect the fish during the early juvenile life stage; if fish are not fit they will not return from the wild as adults.
- As Alaska's salmon return to their place of origin, they are available for harvest as common property in personal use, sport, subsistence, and commercial fisheries.
- Hatcheries effectively contribute salmon to the commercial harvest and in turn can decrease fishing pressure on naturally spawning salmon populations.
- Hatchery contributions of adult salmon to commercial fisheries have been as much as 77 million fish, accounting for 48% of the total salmon harvested in common property commercial fisheries in 2010.
- Most hatchery production is pink salmon, with the majority harvested in Prince William Sound; and chum salmon that are harvested mainly in Southeast Alaska.
- In 2012, hatchery production accounted for 80% of the commercial fisheries harvest in Prince William Sound and 27% in Southeast Alaska.

*Vercessi, L. (2013). *Alaska Salmon Hatcheries; Contributing to Fisheries and Sustainability*. ADF&G.

Yakutat History

In 1984, the Yakutat Comprehensive Salmon Plan, at times referred to as Phase I, was adopted by the commissioner of Alaska Department of Fish and Game. Since 1984, many changes have occurred in the Yakutat Region including economic, environmental, geological and social changes, but changes were not made to the plan. The Phase I plan encouraged rehabilitation and stream enhancement projects. As the rivers in the Yakutat Region have changed through glacial rebound, the wild salmon stocks have diminished greatly in some systems. Some systems of wild stocks continue to fail even with rehabilitation and stream enhancement projects. Water volumes in Ophir Creek have significantly declined in recent years, causing a reduction in fish production (ADNR 1995). The West Fork of the Situk River has been drying up over the last 20 years affecting sockeye and coho salmon. A habitat improvement project in Humpy Creek inadvertently caused degradation to spawning habitat, which has led to a decline in pink salmon

production. The Phase I plan discouraged supplementation such as hatcheries and remote release strategies. While this reflected the view of the community at the time, opinions toward hatcheries and salmon fisheries enhancement in the Yakutat Region have changed, largely due to local commercial fishermen buying permits in other regions of the state with fully developed fishery enhancement programs that provide opportunity for better financial benefits. Without a Regional Aquaculture Association or a Regional Planning Team there had been little investigation into fisheries enhancement, particularly supplementation opportunities over the last 28 years in the Yakutat region.

In response to the great success of fisheries enhancement North and South of Yakutat and the economic downturn of the Yakutat salmon fisheries, local fisherman created the Yakutat Regional Aquaculture Association (YRAA). With the YRAA formed and approved by the State the next major step was to update the Yakutat Comprehensive Salmon Plan. The revision of this plan was a major undertaking that involved the cooperation of many State, Federal, and local organizations and individuals. The plan has been updated and approved by ADF&G, now allowing for new projects and goals in the Yakutat region.

The revised and updated Yakutat Regional Comprehensive Salmon Plan, Phase II is a combination of setting long-term goals objectives and strategies for the region and identifying potential projects and establishing criteria for evaluating the enhancement and rehabilitation potentials for the salmon resources in the region.

With this comprehensive salmon plan YRAA will be able to move forward with salmon fishery enhancement and supplementation. YRAA has already started project planning and received a management feasibility analysis (MFA) from the department for some potential remote release sites for either pink or chum salmon at Humpback Creek, Redfield Cove, Broken Oar Cove, Puget Cove, Monti Bay and Eleanor Cove.

A copy of the MFA can be accessed from the Yakutat Regional Aquaculture Association website, <http://www.yraa.org>.

Project Development

YRAA has been working with engineers and hydrologists over the past three years to find a suitable site for an enhancement project. There are very specific water characteristics (quality and quantity) needed to operate a successful project and at this time our resources are going towards finding a suitable site. Once a site has been selected the permitting process will begin and a project will move forward.

Enhancement Tax

The State of Alaska allows regional aquaculture associations to collect a tax between 1% and 3% on all salmon caught within their region. Previous to the development of YRAA the City and Borough had been collecting a 1% tax on all salmon delivered in Yakutat. Since tax could only be collected on fish delivered in Yakutat, non-local fisherman could catch Yakutat fish and deliver them outside our region and not pay any tax. Also, since the other aquaculture

associations had their own taxes in place fishermen could claim the fish were caught within the Yakutat region and again not pay any tax.

YRAA has worked with the City and Borough to phase out their 1% salmon tax and has adopted a State collected 2% region-wide tax. This is lower than the 3% tax other aquaculture associations charge in hopes that now non-local fishermen catching Yakutat fish will claim them as well as allowing the YRAA sufficient funding for project development.

Although Yakutat fishermen have been paying a salmon tax for many years it now shows up on fish tickets because it is a State collected tax, and this has some fishermen concerned. This tax is used for YRAA project development and has been proven by the aquaculture associations North and South of Yakutat to be very good investments. For example, fishermen have received \$23 worth of Prince William Sound Aquaculture salmon for every \$1.00 of enhancement taxes they have paid since 1990. (McDowell, 2012)

If you have any questions, concerns or ideas please don't hesitate to contact us:

YRAA Office Hours: Wednesday-Friday 10am-2pm or call: (907) 784-3000

Email: YakutatRAA@gmail.com

Website: <http://www.yraa.org>

YRAA BOARD OF DIRECTORS:

SETNET: Jonathan Pavlik, Nate Endicott, Wayne Ivers and Sheri Nelson

HANDTROLL: Larry Bemis and Casey Mapes

POWER TROLL: Herb Holcomb and Sam L. Demmert

SPORT FISH REP: Pat Robbins

SUBSISTENCE USER:

REG/VILLAGE/SHARE HOLDER REP: Beverly Bremner

PUBLIC AT LARGE: Jesse Pavlik and Lowell Petersen

CITY/CHAMBER: Nick Holcomb

PROCESSOR: Harold Robbins

What is a hatchery?

Hatcheries in Alaska consist of taking fertilized eggs of salmon and incubating them in boxes with water flowing over the eggs until they hatch. At this point, depending on the species, the newly hatched salmon are transported to a net-pen in the ocean in close proximity to a fresh water source allowing them to imprint that specific location for return. In the case of chums the salmon are contained and protected in the net-pen and fed for approximately three months. Once the salmon have reached a pre-determined weight, usually just several grams, the nets are opened and the salmon fry released into the ocean. From this point the salmon continue their life cycle in the ocean for 3-5 years and then return to the spot at which they were released. Essentially a hatchery provides additional protection for wild salmon spawn allowing for a greater percentage to survive and return.

Hatchery Permits are required for the construction and/or operation of a private non-profit salmon hatchery in Alaska. Hatchery permits specify the species and number of salmon that can be incubated at the hatchery, as well as release sites, broodstock sources, and other conditions of operation. Once they are issued, hatchery permits do not expire, but they may be revoked. Hatchery permits are non-transferable, so if a hatchery is sold or leased, the new operator must apply for a new permit.

What can a hatchery offer Yakutat and its residents?

See attachments for financial benefits, including jobs and ex-vessel contributions.

Who would make the important choices regarding the running and maintaining of the hatchery?

All proposed hatchery projects must first be reviewed and approved by the YRAA board of directors. From this point the Regional Planning Team (RPT), which consists of representatives from different divisions within the Alaska department of Fish and Game and YRAA members, review the project. A rigorous permitting/application process with the State then proceeds and a project will only be approved by the Commissioner of Fish and Game once it meets all the necessary criteria for a hatchery. This process can sometimes take several years.

The application process includes:

- an analysis of the possible effects the hatchery would have on fisheries management
- submission of an application providing detailed information on the proposed hatchery
- review of the application by department technical staff
- regional planning team review of the hatchery's compatibility with the regional salmon plan
- a public hearing presenting the plans for the proposed hatchery
- commissioner approval or denial of the hatchery permit

A hatchery permit will not be approved if it is deemed to have significant negative effects on natural production. These effects are determined by State biologists, geneticists, and other professionals within the state hatchery division.

Hatchery permits always carry conditions to protect fish health and wild salmon stocks, such as requiring department approval of broodstock sources and release sites, and inspection of salmon before release.

What kind of salmon would be coming from our hatchery?

Alaska hatcheries are capable of enhancing all species of salmon, but the current focus of the YRAA has been on chum and pink salmon. These two are the hardiest and cheapest species to incubate allowing a greater profit margin for fishermen.

How long does a hatchery last? What kind of future investments are required to keep it viable?

Once a hatchery program reaches full operation it is designed to be self-funding. Tax is collected on the fish sold in the region and the hatchery performs cost-recovery harvesting to continue funding the operation of the project.

Table 2
Project Budget Estimates
YRAA Hatchery

Item No.	Item Description	20 million egg	40 million egg
A	Site Development	\$64,800	\$64,800
B	Water Supply and Drain Systems	\$72,000	\$72,000
C	Hatchery Building	\$319,800	\$528,000
D	Fish Culture Systems	\$217,700	\$379,000
E	Process Water Tempering System	\$45,600	\$45,600
F	Saltwater Rearing	\$104,400	\$164,000
G	Support Facilities (Office, lab, apartment)	\$276,000	\$276,000
H	Mobilization	\$47,992	\$87,100
	Estimated Construction Bid Amount	\$1,157,900	\$1,616,500
	8% Design	\$92,632	\$129,320
	1% Permitting	\$11,579	\$16,165
	8% Construction Administration	\$92,632	\$129,320
	3% YRAA Legal, Admin Costs	\$34,737	\$48,495
	8% Construction Contingencies	\$92,632	\$129,320
	Total Project Budget	\$1,482,112	\$2,069,120

YRAA Hatchery
20 Million Egg Facility
Budget Item Details

ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE	AMOUNT	SUBTOTALS	SUBTOTALS WITH EST CONTINGENCY
Site Development						
1 Fill	CY	100	\$ 40.00	\$ 4,000	\$54,000	\$64,800
2 Foundation excavation and preparation	IS	1	\$ 5,000.00	\$ 5,000		
3 Septic Tank, Drainfield	IS	1	\$ 10,000.00	\$ 10,000		
4 Fuel tanks, pumps, piping	IS	1	\$ 5,000.00	\$ 5,000		
5 Emergency Genset	IS	1	\$ 20,000.00	\$ 20,000		
6 Communications, Alarms	IS	1	\$ 10,000.00	\$ 10,000		
Water Supply and Drain Systems						
1 Intakes at hillside springs	ea	4	\$ 5,000.00	\$ 20,000	\$72,000	
2 Water supply piping	lf	300	\$ 50.00	\$ 15,000		
4 Water supply piping, installation	IS	1	\$ 5,000.00	\$ 5,000		
5 Head tank	IS	1	\$ 5,000.00	\$ 5,000		
6 Gas Stabilization Tower	lf	1	\$ 5,000.00	\$ 5,000		
7 Valves, misc fittings	IS	1	\$ 5,000.00	\$ 5,000		
8 Drain system to saltwater	IS	1	\$ 5,000.00	\$ 5,000		
Hatchery Building						
1 Foundations	CY	30	\$ 1,500.00	\$ 45,000	\$319,800	
2 Slab	CY	30	\$ 1,000.00	\$ 30,000		
3 Pre-engineered metal bldg, installed	SF	1400	\$ 125.00	\$ 175,000		
4 Mechanical, heat and vent	IS	1	\$ 1,500.00	\$ 1,500		
5 Electrical, lighting	IS	1	\$ 15,000.00	\$ 15,000		
Fish Culture Systems						
1 Nopad Incubators	ea	112	\$ 1,200.00	\$ 134,400	\$217,700	
3 40x8x5 alum raceway	ea	1	\$ 20,000.00	\$ 20,000		
4 Gas Stabilization Tower	ea	1	\$ 2,000.00	\$ 2,000		
5 Distribution Piping	IS	1	\$ 10,000.00	\$ 10,000		
6 Shipping and installation	IS	1	\$ 15,000.00	\$ 15,000		
Process Water Tempering System						
1 Boiler or saltwater piping	IS	1	\$ 5,000.00	\$ 5,000	\$45,600	
2 Circ pumps	ea	2	\$ 4,000.00	\$ 8,000		
3 Heat exchangers	ea	1	\$ 15,000.00	\$ 15,000		
4 Electrical	IS	1	\$ 5,000.00	\$ 5,000		
5 Control system	IS	1	\$ 5,000.00	\$ 5,000		
Saltwater Rearing						
1 Wavemaster Frames, 40x40	ea	7	\$ 10,000.00	\$ 70,000	\$104,400	
2 Nets	ea	7	\$ 1,000.00	\$ 7,000		
3 Anchors	IS	1	\$ 5,000.00	\$ 5,000		
4 Misc equipment, feed shed, etc.	IS	1	\$ 5,000.00	\$ 5,000		
Support Facilities (Office, lab, apartment)						
1 Office, laboratory, shops etc.	SF	500	\$ 150.00	\$ 75,000	\$276,000	
2 Apartment	SF	1000	\$ 150.00	\$ 150,000		
3 Office, laboratory finishes and furnishings	SF	1	\$ 5,000.00	\$ 5,000		
Mobilization						
	%	8%	\$ 599,900	\$ 47,992	\$47,992	\$57,600
				Subtotal \$	964,900	\$1,157,900
				20% Design/Estimating Conting	\$193,000	
				Estimated Construction Bid Amount	\$1,157,900	

YRAA Hatchery
40 Million Egg Facility
Budget Item Details

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE	AMOUNT	SUBTOTALS	SUBTOTALS WITH EST CONTINGENCY
A Site Development							
1	Fill	CY	100	\$ 40.00	\$ 4,000		
2	Foundation excavation and preparator	ls	1	\$ 5,000.00	\$ 5,000		
3	Septic Tank, Drainfield	ls	1	\$ 10,000.00	\$ 10,000		
4	Fuel tanks, pumps, piping	ls	1	\$ 5,000.00	\$ 5,000		
5	Emergency Genset	ls	1	\$ 20,000.00	\$ 20,000		
6	Communications, Alarms	ls	1	\$ 10,000.00	\$ 10,000		
						\$54,000	\$64,800
B Water Supply and Drain Systems							
1	Intakes at hillside springs	ea	4	\$ 5,000.00	\$ 20,000		
2	Water supply piping	lf	300	\$ 50.00	\$ 15,000		
4	Water supply piping, installer	ls	1	\$ 5,000.00	\$ 5,000		
5	Head tank	ls	1	\$ 5,000.00	\$ 5,000		
6	Gas Stabilization Tower	lf	1	\$ 5,000.00	\$ 5,000		
7	Valves, misc fittings	ls	1	\$ 5,000.00	\$ 5,000		
8	Drain system to saltwater	ls	1	\$ 5,000.00	\$ 5,000		
						\$60,000	\$72,000
C Hatchery Building							
1	Foundations	CY	50	\$ 1,500.00	\$ 75,000		
2	Slab	CY	50	\$ 1,000.00	\$ 50,000		
3	Pre-engineered metal bldg installer	SF	2200	\$ 125.00	\$ 275,000		
4	Mechanical, heat and vent	ls	1	\$ 20,000.00	\$ 20,000		
5	Electrical, lighting	ls	1	\$ 20,000.00	\$ 20,000		
						\$440,000	\$528,000
D Fish Culture Systems							
1	Nopad incubators	ea	224	\$ 1,200.00	\$ 268,800		
3	40x8x5 alum raceway	ea	1	\$ 20,000.00	\$ 20,000		
4	Gas Stabilization Tower	ea	1	\$ 2,000.00	\$ 2,000		
5	Distribution Piping	ls	1	\$ 10,000.00	\$ 10,000		
6	Shipping and installer	ls	1	\$ 15,000.00	\$ 15,000		
						\$315,800	\$379,000
E Process Water Tempering System							
1	Boiler or saltwater piping	ls	1	\$ 5,000.00	\$ 5,000		
2	Circ pumps	ea	2	\$ 4,000.00	\$ 8,000		
3	Heat exchangers	ea	1	\$ 15,000.00	\$ 15,000		
4	Electrical	ls	1	\$ 5,000.00	\$ 5,000		
5	Control system	ls	1	\$ 5,000.00	\$ 5,000		
						\$38,000	\$45,600
F Saltwater Rearing							
1	Wavemaster Frames, 40x40	ea	14	\$ 10,000.00	\$ 140,000		
2	Neils	ea	14	\$ 1,000.00	\$ 14,000		
3	Anchors	ls	1	\$ 5,000.00	\$ 5,000		
4	Misc equipment, feed shed, etc.	ls	1	\$ 5,000.00	\$ 5,000		
						\$164,000	\$164,000
G Support Facilities (Office, lab, apartment)							
1	Office, laboratory, shops etc.	SF	500	\$ 150.00	\$ 75,000		
2	Apartment	SF	1000	\$ 150.00	\$ 150,000		
3	Office, laboratory finishes and furnishings:	SF	1	\$ 5,000.00	\$ 5,000		
						\$230,000	\$276,000
H Mobilization							
		%	8%	\$ 907,800	\$ 72,624		
						\$72,624	\$87,100
				Subtotal	\$ 1,374,400		
				20% Design/Estimating Conting	\$274,800		
				Estimated Construction Bid Amount	\$1,649,300		\$1,616,500

230 S FRANKLIN ST., STE 212
JUNEAU, AK 99801
PH 907 586 6400 FAX 907 463 3677
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TETRA TECH

HATCHERY CONCEPT PLAN
CONFIGURED FOR 40 MIL CHUM EGGS

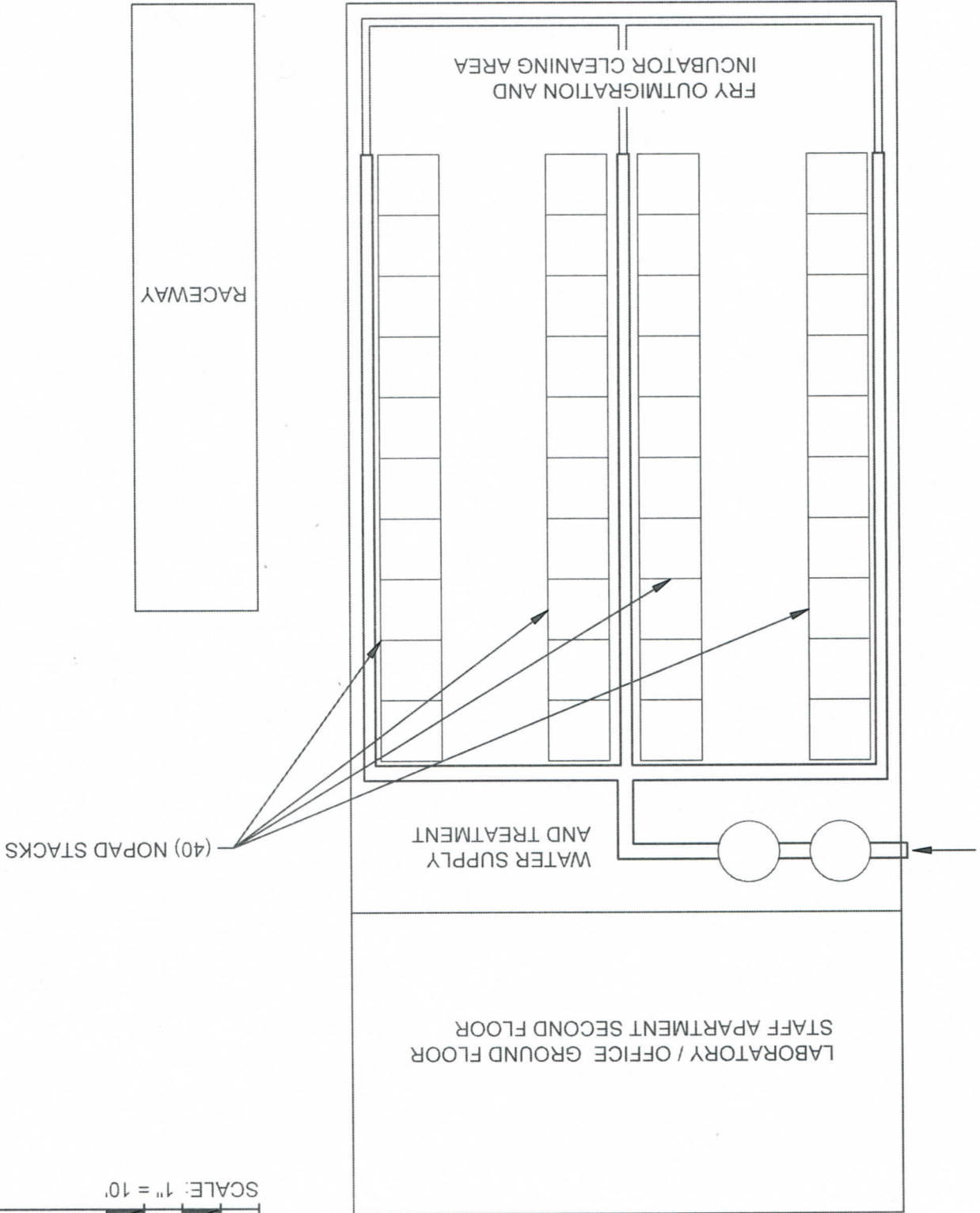
YAKUTAT REGIONAL AQUACULTURE ASSOCIATION

C-100

Project No.: 135-97323-14001
Date: 01-24-2014
Designed By: DRB

Bar Measures 1 inch

Copyright: Tetra Tech



SCALE: 1" = 10'



YAKUTAT REGIONAL AQUACULTURE ASSOCIATION

YRAA Chum proforma

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rearing & Release										
Release Site	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet	Deep Inlet
# Fry	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000	12,000,000	12,000,000	12,000,000	15,000,000
Adult Returns										
# Adults (Total)	-	-	27,000	175,500	222,750	225,000	225,000	225,000	234,000	283,500
Commercial	-	-	16,200	105,300	133,650	135,000	135,000	135,000	140,400	170,100
Commercial Value	\$ -	\$ -	\$ 64,800	\$ 421,200	\$ 534,600	\$ 540,000	\$ 540,000	\$ 540,000	\$ 561,600	\$ 680,400
Cost Recovery (CR) Fish	-	-	10,800	70,200	89,100	90,000	90,000	90,000	93,600	113,400
Revenue										
<u>Cost Recovery</u>										
CR Pounds	-	-	86,400	561,600	712,800	720,000	720,000	720,000	748,800	907,200
Total Revenue	\$ -	\$ -	\$ 56,160	\$ 365,040	\$ 463,320	\$ 468,000	\$ 468,000	\$ 468,000	\$ 486,720	\$ 589,680
Expenses										
<u>Rearing</u>	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 225,000
<u>Cost Recovery</u>				\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Total Expenses	\$ 135,000	\$ 135,000	\$ 135,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 240,000
Net Income / Loss	\$ (135,000)	\$ (135,000)	\$ (78,840)	\$ 215,040	\$ 313,320	\$ 318,000	\$ 273,000	\$ 273,000	\$ 291,720	\$ 349,680
Cumulative Income/Loss	\$ (135,000)	\$ (270,000)	\$ (348,840)	\$ (133,800)	\$ 179,520	\$ 497,520	\$ 770,520	\$ 1,043,520	\$ 1,335,240	\$ 1,684,920

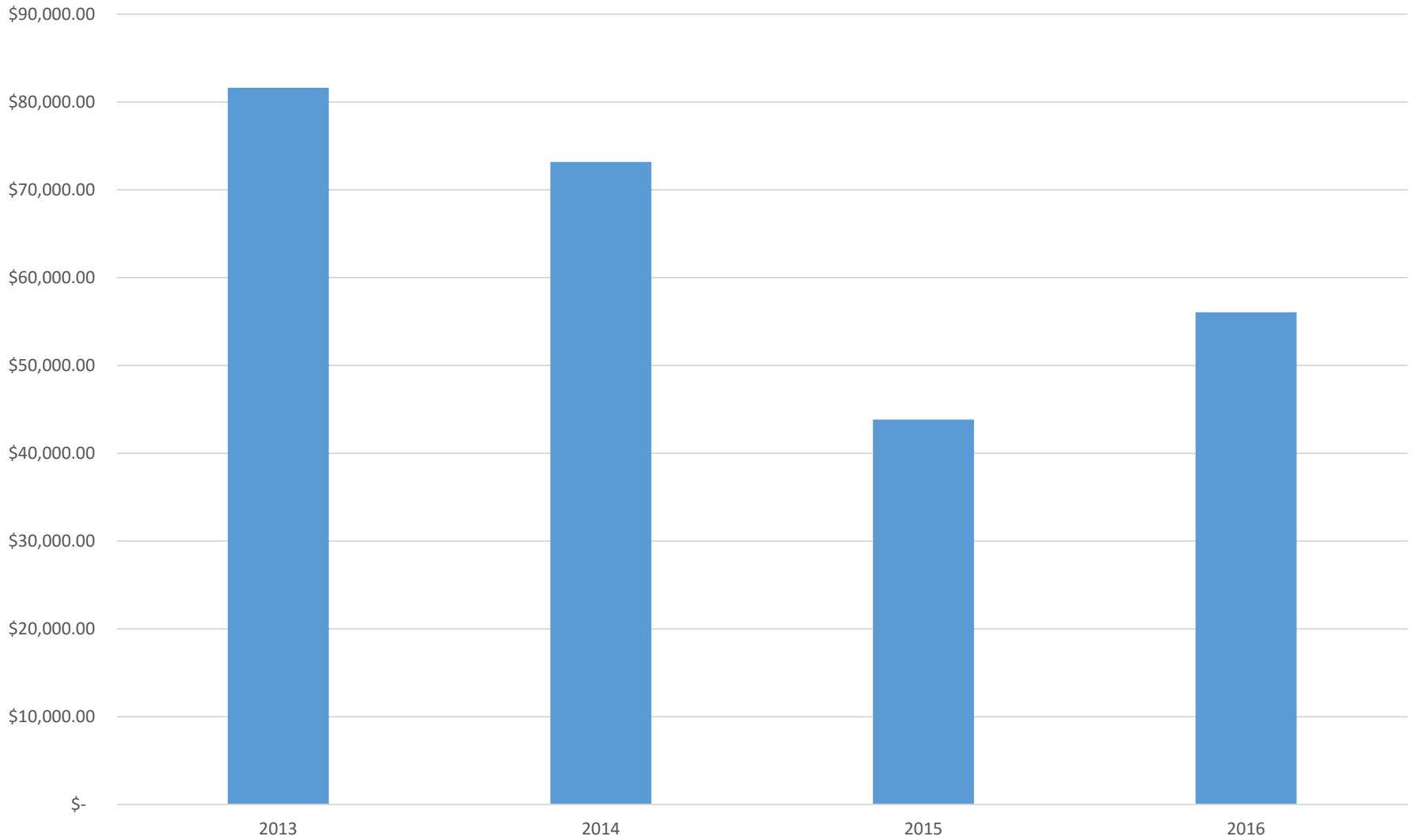
Assumptions

Release & Survival	Adult Returns	Revenue	Expenses
fry 9,000,000	commercial 60%	CR Price / Lb. \$ 0.65	Rearing (per fry) \$ 0.015
marine survival 2.5%	adult weight 8		CR Harvest \$ 15,000
	Com. Price / Lb. \$ 0.50		
	Age		
	Age Class: Percent		
	3 12%		
	4 66%		
	5 21%		
	6 1%		

Comments:

Release	Annual release of 9 million fry beginning in 2019 (BY 2018) increasing to 12 million fry in 2025 (BY 2024)
Adult Returns	First sizable adult return in 2022. Age class estimates are based on NSRAA's Medveje long-term average.
Revenue	Assumes 60% commercial, 40% cost recovery split. Commercial price is slightly less than the price paid in SE AK in 2016 CR price is the low end of the range of prices given by NSRAA & DIPAC over the last five years
Expenses	Rearing cost is calculated at \$0.01.5 / fry, slightly higher than NSRAA Thomas Bay and Crawfish projects @ %.01.

Salmon Enhancement TAX



YRAA Financial SUMMARY

Yakutat Regional Aquaculture Association

EIN: 27-5373505

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016*</u>
<u>INCOME:</u>					
SOA Legislative Grant/Commerce Grant	43,876.00	\$ 56,124.00	\$ 100,000.00		
Salmon Enhancement Tax			\$ 81,611.34	\$ 73,157.94	\$ 43,824.03
City & Borough of Yakutat & Salmon Board	3,255.36	\$ 200,000.00			
TOTAL INCOME	47,131.36	\$ 256,124.00	\$ 181,611.34	\$ 73,157.94	\$ 43,824.03
<u>EXPENSES:</u>					
Comprehensive Plan Update		\$ 50,000.00	\$ 100,000.00		
Consulting Fees/Contract Labor	\$ 15,221.27	\$ 12,229.10	\$ 16,454.50	\$ 1,912.50	\$ 3,961.35
Board of Directors Election	\$ 4,002.58	\$ 6,041.38	\$ 3,100.96	\$ 3,830.93	\$ 3,267.35
Meeting Expenses	\$ 263.41	\$ 540.06	\$ 1,685.38		\$ 150.00
D&O Liability Insurance			\$ 2,591.00	\$ 1,308.00	\$ 25.00
Legal & Professional/Licenses	\$ 1,075.00		\$ 325.00		\$ 400.00
Bank Charges	\$ 130.28			\$ 52.65	\$ 78.01
Office Expenses	\$ 462.41	\$ 3,168.64	\$ 3,224.70	\$ 841.37	\$ 205.86
Rent			\$ 3,250.00	\$ 3,600.00	\$ 2,250.00
Utilities					
Heating Fuel - office		\$ 220.88	\$ 732.21	\$ 563.00	\$ 640.63
Water, Sewer & Elect			\$ 2,051.09	\$ 1,437.52	\$ 1,716.45
Internet		\$ 289.00	\$ 1,099.22	\$ 1,573.78	\$ 1,132.90
Phone			\$ 845.56	\$ 658.24	\$ 674.14
Project Planning & Water Testing		\$ 1,951.70	\$ 29,661.79	\$ 30,071.00	\$ 28,339.00
Salmon Tax Assessment Planning	\$ 188.53	\$ 19,173.32			
Salaries			\$ 34,382.00	\$ 27,674.00	\$ 19,016.00
Payroll Taxes (company) & Payroll Taxes from Previous Years			\$ 4,410.13	\$ 9,411.65	\$ 3,112.62
TOTAL EXPENSES	\$ 21,343.48	\$ 93,614.08	\$ 203,813.54	\$ 82,934.64	\$ 64,969.31

YRAA Financial SUMMARY

Checking Account Balance 1/1	\$ -	\$ 25,787.88	\$ 188,297.80	\$ 174,538.91	\$ 168,265.23
Checking Account Balance 12/31	\$ 25,787.88	\$ 188,297.80	\$ 174,538.91	\$ 168,265.23	\$ 147,226.20
Uncleared checks			\$ 5,977.78	6,784.54	
Gaming Account Balance 1/1	n/a	n/a	\$ -	\$ 500.00	\$ 447.35
Gaming Account Balance 12/31	n/a	n/a	\$ 500.00	\$ 447.35	\$ 341.10

*2016 still preliminary

PNP HATCHERY PERMIT REVIEW ELEMENTS

<i>TO BEGIN</i>	STATUS	START DATE	DUE DATE	NOTES
Management Feasibility Analysis (MFA) Request made to Dept. by applicant.				Dept. processing time is <u>90 days</u> from date received.

SCHEDULE A (60 days, minimum)

PROCEDURE	STATUS	START DATE	DUE DATE	NOTES
Application accepted as complete by the PNP coordinator. The MFA must be completed and included with the application.				Schedule A <u>60 days</u> minimum review time may be delayed to accommodate for RPT review at fall or spring regularly scheduled meeting.
FMPD staff review				HQ PNP Hatchery Program reviews concurrent with regional review.
Dept. fisheries management, pathology, genetics, and regional review.				Pathology and genetics, and CF, SF, Habitat, & Wildlife divisions provide recommendations.
*RPT review (to determine if the proposal is compatible with the regional comprehensive salmon plan)				Need to send recommendation to commissioner (as RPT Minutes).
Basic Management Plan drafted				BMP drafted cooperatively between dept. and applicant.
END OF SCHEDULE A (60 days, at best)				

*At a regularly scheduled fall or spring RPT meeting.

SCHEDULE B (75 days, minimum)

PROCEDURE	STATUS	START DATE	DUE DATE	NOTES
Completed application with <u>drafted BMP</u> with 30-day notice for public hearing				Sched. B processing is 75 days. <i>Public Notice: once a week for 3 weeks, completed at least 10 days before hearing (PH total of 31 days from first notice)</i>
Public hearing, with 15 days to comment after public oral hearing. The Dept. will respond to all written comments within 10-days. Total hearing and response time is no less than 25 days.				Accept written comments for 15-days after public hearing, will respond within 10-working days of receipt to objections. Public hearing ends 15-days after oral hearing.
BMP finalized				Incorporate recommendations.
END OF SCHEDULE B (75 days)				

REVIEW AND DETERMINATION

PROCEDURE	STATUS	START DATE	DUE DATE	NOTES
The ADF&G Commissioner will render a decision within 75 calendar days.				

ALASKA SALMON HATCHERIES

CONTRIBUTING TO FISHERIES AND SUSTAINABILITY



Lorraine Vercesi

Alaska Department of Fish and Game — Division of Commercial Fisheries — P.O. Box 115526 Juneau, AK 99811-5526

ALASKA HATCHERY PROGRAM

The Alaska hatchery program was designed to increase salmon abundance and enhance fisheries, while protecting wild stocks. The program was built in response to depressed commercial fisheries, to meet the needs of the people of the state.

Fisheries enhancement projects are not permitted if they are anticipated to have a significant negative effect on natural production. Our fisheries enhancement program is designed to supplement natural production, not replace or displace it.

Alaska commercial salmon harvests have improved greatly since the inception of Alaska's hatchery program and natural stocks remain healthy (Figure 1).

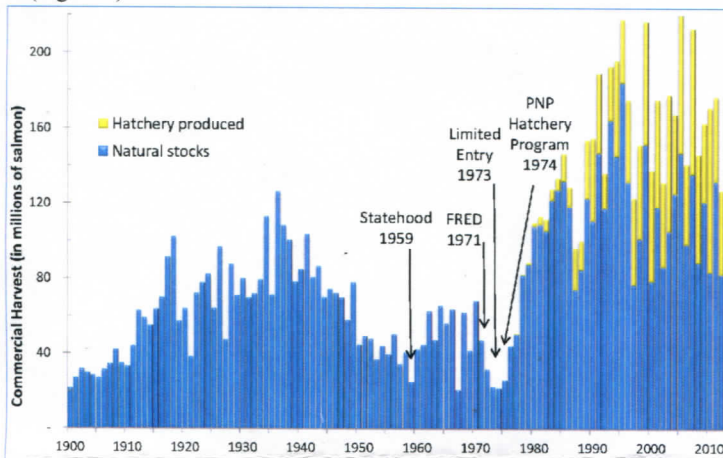


Figure 1.—Alaska commercial salmon harvests, in millions of fish, 1900–2012.

FISHERIES CONTRIBUTION

As Alaska's salmon return to their place of origin, they are available for harvest as common property in personal use, sport, subsistence, and commercial fisheries.

Hatcheries effectively contribute salmon to the commercial harvest and in turn can decrease fishing pressure on naturally-spawning salmon populations.

Hatchery contributions of adult salmon to commercial fisheries have been as much as 77 million fish, accounting for 48% of the total salmon harvested in common property commercial fisheries in 2010 (Figure 2).

In 2012, 37.2 million hatchery-produced salmon were harvested statewide in the commercial common property fisheries or 31% of the total commercial fisheries harvest (Figure 2).

Most hatchery production is pink salmon, with the majority harvested in Prince William Sound (PWS); and chum salmon that are harvested mainly in Southeast Alaska (SEAK).

In 2012, hatchery production accounted for 80% of the commercial fisheries harvest in PWS and 27% in SEAK.

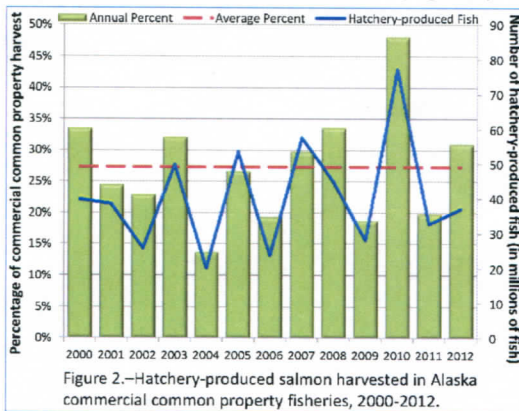


Figure 2.—Hatchery-produced salmon harvested in Alaska commercial common property fisheries, 2000–2012.

Salmon produced by Alaska's fisheries enhancement program remain wild. Our programs only protect the fish during the early juvenile life stage; if fish are not fit they will not return from the wild as adults.

By design, the hatchery program in Alaska has attempted to minimize interactions between natural and hatchery stocks by locating hatcheries away from significant naturally-occurring populations of salmon.

Only local stocks are permitted for use so that hatchery-produced fish are locally adapted and have local genetic profiles. Breeding or manipulation of stock characteristics is prohibited and large numbers of broodstock are used in order to maintain diversity, so that Alaska's fish remain wild.



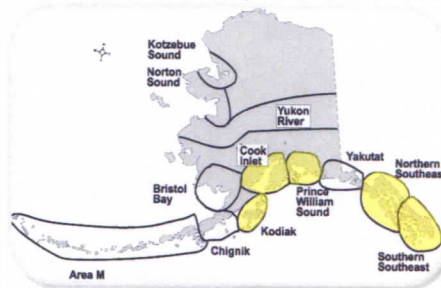
Alaska's salmon fisheries are managed with wild stock priority, to ensure adequate numbers of salmon reach natal freshwater spawning areas to maintain healthy, sustainable, naturally-spawning populations. ADF&G biologists estimate escapement goals for key wild stock systems and monitor returns to these systems annually.

Cooperative development of annual management plans guide hatchery operations, production, and harvest management of returns, lending to success in fisheries management and contribution while maintaining hatcheries' production goals.



In 2012, programs contributing primarily to commercial fisheries were conducted by hatcheries in five of the twelve designated aquaculture areas, along the coastline between Southeast Alaska and Kodiak. The number of active hatcheries by area were:

- Southern Southeast - 8
- Northern Southeast - 9
- Prince William Sound - 6
- Cook Inlet - 4
- Kodiak - 2



Hatcheries, in general, operate at planned capacity, with the average number of eggs collected and annual releases consistent for the last decade (Figure 3).

Requests for increases in hatchery production are approached with consideration of potential risks to wild stocks. Wild-hatchery salmon interactions studies are occurring, to better understand those relationships as they occur in Alaska. As studies provide results, we will evaluate and decide if modifications to the program may be warranted.

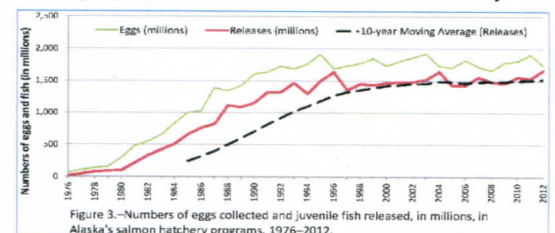


Figure 3.—Numbers of eggs collected and juvenile fish released, in millions, in Alaska's salmon hatchery programs, 1976–2012.