

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Sitka Sound Science Center****Federal Tax ID: 26 1253086****Project Title:****Project Type: Maintenance and Repairs**

Sitka Sound Science Center - Water System & Facility Upgrades

State Funding Requested: \$480,000**House District: 2 / A**

One-Time Need

Brief Project Description:

Project will upgrade the water pipeline and intake system for the Sitka Sound Science Center's salmon hatchery workforce development facility.

Funding Plan:

Total Project Cost:	\$480,000
Funding Already Secured:	(\$0)
FY2012 State Funding Request:	<u>(\$480,000)</u>
Project Deficit:	\$0

Detailed Project Description and Justification:

This project will upgrade the water pipeline that flows from Indian River through the Sheldon Jackson Campus, below the recently-purchased state-owned Stratton Library to the Sitka Sound Science Center and the salmon hatchery it operates. This water is critical to the operation of the hatchery and the intake and pipeline system are dangerously outdated. The wood stave pipe, that is part of the pipeline, goes directly below the Stratton Library and upgrading the system will be important to making the Stratton, now owned by the Department of Education, more functional.

The Sheldon Jackson hatchery was granted one of the first hatchery permits in the State of Alaska when Sheldon Jackson College owned the facility. The facility has trained thousands of people to work in fisheries biology, salmon enhancement and other natural resource-based careers, who are now leaders and resource managers around Alaska. Sheldon Jackson College operated the hatchery and when the college closed its doors the Sitka Sound Science Center (SSSC), a non-profit organization, took over operation of the facility. The SSSC also formed an important partnership with the University of Alaska Fisheries Technology Program to continue using the SJ Hatchery as a training center. The Sitka Sound Science Center also has a memorandum of agreement with the Northern Southeast Regional Aquaculture Association which allows for a substantial increase of salmon returns to the common property fishery in Sitka Sound while also providing a hands-on training ground for future fisheries managers. Sitka Sound Science Center is a workforce and economic development entity committed to preparing the workforce needed by the aquaculture and fisheries industry which are large contributors to the State's economy.

Today, the hatchery is operational but in need of modernization. In order to continue to prepare students to participate in Alaska's fisheries workforce, it is necessary to upgrade the equipment and systems.

In addition, this upgrade will correct a safety issue in Sitka. The current intake system poses a threat to human safety as there are few safeguards to prevent the public from entering the intake area. The intake is easily accessible by the public and also inefficient in its operation. The current intake must be cleaned by hand regularly and requires 24-hour vigilance during flooding events. Additionally, the current water delivery system involves a wood stave pipe from 70 years ago which runs below the recently purchased (by the State of Alaska) Stratton Library and endangers the foundation and the valuable collections within the structure. The wood stave pipe has broken at least once in the last ten years, flooding Stratton and several other times endangering hatchery operations.

This renovation project involves upgrading the hatchery equipment so that the Science Center can expand its Coho rearing capacity and improve the safety and efficiency of the freshwater component of the operation. When Sitka Sound Science Center applied for the hatchery permit, it requested the Department of Fish & Game allow for a doubling of our Coho salmon production. This increase will hopefully bring more revenue to the center, improve the common property fishery in Sitka Sound, and offer important training opportunities for students in the UAS Fisheries Technology Program.

The engineering firm, HDR that had designed ADFG's William Jack Hernandez Sportfish Hatchery in Anchorage provided an estimate for costs of renovating the water intake and filtration system. The costs include the labor and materials for replacing the filter system and creating a continuous pipeline for the water. Currently, the water goes into a culvert, then through a 36' pipe, then an open flume, and finally through a 48" wood stave pipe that runs under the Stratton Library and on down to the hatchery. The new system will have the water in one continuous 12-inch pipe all the way down to the hatchery. It will secure Stratton Library from future damage and it will increase the water efficiency for the Sheldon Jackson Hatchery.

Has the project gone through a local public review and approval process?

The Water Department at the City of Sitka understands this issue as well as they have had to deal with the wooden pipeline failures in the past. The systems have been assessed by NSRAA staff and aquaculture engineering staff who have determined that this project is vital to the efficient operation of Sitka Sound Science Center's salmon hatchery, safety of the community, and is important to the health of the SSSC's partnership with the University of Alaska Fisheries Technology Program. This project is critical to preserving the Stratton Library which is likely to house important State historical items, possibly Sheldon Jackson archives.

Project Timeline:

Funding received for SSSC Water Intake and Pipeline Renovation: July 1, 2011

Write engineering and design solicitation: August 1, 2011

Engineering bids due: September 15, 2011

Engineering selection: October 1, 2011

Construction ready design completed: January 1, 2012

Construction Bids due: March 1, 2012

Construction begins: April 1, 2012

Construction completed: August 1, 2012

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Sitka Sound Science Center

Grant Recipient Contact Information:

Name:	Lisa Busch
Title:	Executive Director
Address:	PO Box 1373 Sitka, Alaska 99835
Phone Number:	(907)747-8878
Email:	lbusch@sitkasoundsciencecenter.org

Has this project been through a public review process at the local level and is it a community priority? Yes No

Legislative Capital Project Request Guidelines

Who is requesting the grant?

Sitka Sound Science Center, non-profit

Federal Tax ID Number:

26 1253086

What is the physical location of the project?

City and Borough of Sitka

What is the project title?

Sitka Sound Science Center Water Intake and Flume System Overhaul

Briefly describe the project and objective:

This project will upgrade and improve the safety of the SSSC water intake and associated pipeline that flows from Indian River through the Sheldon Jackson Campus, below the recently-purchased state-owned Stratton Library to the Sitka Sound Science Center and the salmon hatchery it operates. This water is critical to the operation of the educational hatchery. The intake and pipeline system are dangerously outdated. A wood stave pipe, that is part of the pipeline, goes directly below the Stratton Library and upgrading the system will be important to making Stratton, now owned by Department of Education more functional.

Funding Plan *(Quick Facts):*

	Category	\$\$\$	Description
A	Total Project Cost	\$954,000	This project includes the acquisition and renovation of the Sheldon Jackson science laboratory facility; the upgrading of the water intake and filtration system used to train fisheries technology students in salmon rearing. This legislative request includes funding for the water intake and filtration system from Indian River down to the hatchery facility.
B	Funding Already Secured	\$474,000	Funding has been secured from the City of Sitka(\$200,000);the Karsh Family Foundation(\$100,000); the Boat Company(\$8,000); other sources(\$169,000)
C	FY12 State Funding Request	\$480,000	This is the amount of money needed for improving the safety and efficiency of the water intake and transporting the water from Indian River to the hatchery.
D	Other funding requested		We are in the Pre-Development program funded by Rasmuson Foundation,the Denali Commission and the Alaska Mental Health Trust. We are applying to the Salmon Mitigation Treaty Funds. We have applied to Rural Economic Development Funds for other upgrades to the hatchery and facility
E	Project Deficit	\$480,000	

If you receive the funding you've requested from the state in this year's budget, will you be requesting additional state funding for this project in the future?

(Yes/No/Maybe; explain as required. For example, you may be expecting funding from other sources, but if that falls through, then additional state assistance may be requested in the future): When we receive funding for the Water Intake and Flume System Overhaul, this part of the renovation will be completed. The remaining part of this project, the acquisition of the property, has already been secured. Renovating the intake and water line is SSSC's highest priority. Future plans

Legislative Capital Project Request Guidelines

call for modernizing the hatchery to provide much-needed training for Alaska's fisheries workforce.

Detailed Project Description:

This legislative request is for upgrading the water intake system for the Sheldon Jackson Hatchery, now owned and operated by Sitka Sound Science Center (see attached figures). This project is important to the State of Alaska in large part because of the role the hatchery plays in work force development: training Alaskans in fisheries technology. The renovation will also protect the community from an unsafe water transport system and enhance the value of the recently acquired State owned Stratton Library. The SSSC SJ Hatchery produces fish for the common property fisheries, that have totaled \$1.4 million for the commercial, charter, recreational, and subsistence harvest of salmon returning to the hatchery.

In a relatively short amount of time, Sitka Sound Science Center has done a tremendous amount of work to acquire and begin renovation of a facility that is important to work force development for the fisheries and fisheries enhancement industries in Alaska. The building acquisition was supported in large part by the City of Sitka which made a significant financial contribution.

The SJ Hatchery was granted one of the first salmon hatchery permits in the State of Alaska when Sheldon Jackson College owned the facility. The facility has trained thousands of people to work in fisheries biology, salmon enhancement and other natural resource-based careers who are now leaders and resource managers around Alaska. Sheldon Jackson College operated the hatchery and when The College closed its doors in 2007, the Sitka Sound Science Center (SSSC), a non-profit organization, took over operation of the facility.

The SSSC has already formed an important partnership with the University of Alaska Fisheries Technology Program to continue using the SJ Hatchery as a training center. The Sitka Sound Science Center also has a memorandum of agreement with the Northern Southeast Regional Aquaculture Association which allows for a substantial increase of salmon returns to the common property fishery in Sitka Sound while also providing a hands-on training ground for future fisheries managers. Sitka Sound Science Center is a workforce and economic development entity committed to preparing the workforce needed by the aquaculture and fisheries industry which are large contributors to the State's economy.

Today, the hatchery is operational but in need of modernization. In order to continue to prepare students to participate in Alaska's fisheries workforce, it is necessary to upgrade the equipment and systems.

In addition, this upgrade will correct a safety issue in Sitka. The current intake system is poses a threat to human safety as there are few safeguards to prevent the public from entering the intake area. The intake is easily accessible by the public and also inefficient in its operation. The current intake must be cleaned by hand regularly and requires 24 hour vigilance during flooding events. Additionally, the current water delivery system involves a wood stave pipe from 70 years ago which runs below the recently purchased (by State of Alaska) Stratton Library and endangers the foundation and the valuable collections within the

Legislative Capital Project Request Guidelines

structure. The wood stave pipe has broken at least twice in the last ten years, flooding Stratton and several other times endangering hatchery operations.

The engineering firm, HDR that designed ADFG's William Jack Hernandez Sport fish Hatchery in Anchorage provided an estimate for costs of renovating the water intake and filtration system. The costs include the labor and materials for replacing the intake and filter system and creating a continuous pipeline for the water. Currently, the water goes into a culvert, then through a 36" pipe, then an open flume, and finally through a 48" wood stave pipe that runs under the Stratton Library and on down to the hatchery. The new system will have the water in one 12 inch pipe all the way down to the hatchery in one continuous pipe. It will secure Stratton Library from future damage possible with breakages in the wooden line and it will be increase the water efficiency for the Sheldon Jackson Hatchery, and result in higher survival of hatchery production.

Has the project gone through a local public review and approval process?

The Water Department at the City of Sitka understands this issue well as they have had to deal with the wooden pipeline failures in the past. The systems have been assessed by NSRAA staff and aquaculture engineering staff who has determined that this project is vital to the efficient operation of Sitka Sound Science Center's salmon hatchery, safety of the community and important to the health of SSSC's partnership with the University of Alaska Fisheries Technology Program. This project is critical to preserving the Stratton Library which is likely to house important State historical items, possibly Sheldon Jackson archives. The project is supported by the City and Borough of Sitka (see attached letter from City of Sitka Administrator James Dinley).

Top-Level Project timeline:

When funding is secure, design and engineering will begin immediately. Construction will begin in November and will be completed within one year.

What entity will be responsible for the ongoing maintenance and operations of this project once it's complete?

Sitka Sound Science Center

Name and contact information for the person who will administer this grant if it is approved and who can answer questions about this request.

Lisa Busch, Executive Director, Sitka Sound Science Center

Additional Backup - *You are encouraged to include with your request as much backup and supporting documentation has possible – financials, cost estimates, diagrams, photos, design documents, letters of support, resolutions, etc.*

- *Backup documentation should be provided via e-mail in separate .pdf files. do not include all documentation in one file.*
- *Do not group several separate grant requests into the same backup documentation. Each project must stand on its own and have its own backup. If backup material references several different capital requests it makes the review process much more difficult.*



City and Borough of Sitka

100 Lincoln Street • Sitka, Alaska 99835

February 14, 2011

Dear Alaska Legislators,

This is a letter of support for the Water Intake and Flume System Overhaul project requested by Sitka Sound Science Center.

As part of its research and education mission, the Sitka Sound Science Center (SSSC) operates the Sheldon Jackson (SJ) salmon hatchery. This hatchery provides work force development and training opportunities through its partnerships with the University of Alaska and the Sitka School District. This hatchery has been training Alaskans who have gone on to work in fisheries biology and aquaculture around the State since the early 1970s and it remains an important part of the scientific education sector of Sitka.

The water intake and transport system that feeds the hatchery is antiquated and unsafe. The intake system is not fenced properly, leaving it accessible to the general public. The filter system is primitive and the conveyance piping is well past its useful service life. A section of the piping through the old SJ campus is wood stave construction and has burst twice in recent years due to corrosion failures of the steel bands holding the wood staves together. These bursts have put Stratton Library building and its collections, the municipal water and sewer mains and a wastewater lift station as well as the SSSC building itself at risk and has caused tens of thousands of dollars of damage to property and Lincoln Street – Sitka's "main street"; the only route to Totem Park a major tourist destination.

This project will benefit the City and Borough of Sitka and its citizens as well as the property and programs of the State of Alaska which has recently acquired the Stratton Library which is partially built over this old large diameter wood stave line. Improvements to the intake and conveyance system will make the delivery of water to the SSSC safer, more efficient and drastically decrease maintenance costs for many years. It will also be an important safety improvement for the Lincoln Street Right-of-Way and our community in general.

SSSC has already proven itself to be a good citizen to the community of Sitka. Since taking over the hatchery operation they installed a backflow preventer to protect the municipal drinking water supply from the potential of their process water entering the drinking water system – something the city had been requesting for several years. And just recently at the request of the city they rerouted public viewing tank water overflow away from the municipal wastewater collection system to their marine outfall; this piping change will result in a reduction in the municipality's pump operation and maintenance costs of over 85% for that particular wastewater pump station.

Sincerely,

James E. Dinley
City and Borough of Sitka
Municipal Administrator

Providing for today...preparing for tomorrow

Sitka Sound Science Center



Photos:

1. view of general intake area looking upstream
2. intake 2 at Indian River
3. intake 1 at Indian River
4. end of fish ladder at Indian River
5. 1st ladder at hatchery
6. 2nd ladder at hatchery

Water system Sitka Sound Science Center



-  Hatchery Schematic
-  12" HDPE pipe
-  48" HDPE pipe
-  42" wood stave pipe
-  Open channel
-  Gate Valve
-  Cleanout Gallery
-  Chapel Dam
-  Cleanout return flow
-  Stratton Library

Image © 2009 DigitalGlobe

57°03'03.47" N 135°19'04.23" W

elev 79 ft