**Northern Southeast Regional Aquaculture - Hidden Falls Salmon Hatchery**

**FY2013 Request:** **$1,237,000**
**Reference No:** **52167**

**AP/AL:** Allocation
**Category:** Development
**Location:** Hidden Falls
**Impact House District:** Sitka/Wrangell/Petersburg (HD 2)
**Estimated Project Dates:** 07/01/2012 - 06/30/2017

**Project Type:** Renewal and Replacement
**Recipient:** Northern Southeast Regional Aquaculture Association, Inc.
**House District:** Sitka/Wrangell/Petersburg (HD 2)
**Contact:** Jo Ellen Hanrahan
**Contact Phone:** (907)465-2506

**Appropriation:** State Owned Hatcheries - Upgrades and Maintenance

**Brief Summary and Statement of Need:**
Northern SE Regional Aquaculture Organization - Hidden Fall Salmon Hatchery
Hidden Falls Hatchery is a state-owned hatchery built in 1979. This project will fund weatherization and energy efficiency, hydropower, water system, and boat dock upgrades.

| **Funding:** | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | Total |
|---|---|---|---|---|---|---|---|
| Gen Fund | $1,237,000 | | | | | | $1,237,000 |
| Total: | $1,237,000 | $0 | $0 | $0 | $0 | $0 | $1,237,000 |

☐ State Match Required ☑ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

**Operating & Maintenance Costs:**

| | Amount | Staff |
|---|---|---|
| Project Development: | 0 | 0 |
| Ongoing Operating: | 0 | 0 |
| One-Time Startup: | 0 | |
| Totals: | 0 | 0 |

**Additional Information / Prior Funding History:**
SLA 11, Ch 5, pg 75, ln 23 - $1,044,000 GF

**Project Description/Justification:**
Northern Southeast Regional Aquaculture Org (NSRAA)-Hidden Falls Hatchery is a State-owned salmon hatchery located remotely in Kasnyku Bay on Baranof Island in Chatham Strait, approximately 20 miles northeast of Sitka. The facility was built in 1979 and has many deferred maintenance needs. This project will provide for water supply system improvements, replacement of hydroelectric system components, weatherization and energy efficiency upgrades, boat dock replacement, and site grounds re-leveling.

The Hidden Falls Hatchery is presently 30 years old. The original penstock and control valves have not had a thorough inspection and evaluation since the early 1990's. Staff has encountered problems with corrosion in other process water piping and fittings throughout the facility and has had one section of penstock fail (the penstock from the "valve coral" to the turbine house). This section of penstock was found to have holes corroded in it wherever the protective coating of the thin-walled pipe was exposed. NSRAA staff has had difficulty shutting completely the large butterfly valves in the valve coral. We are interested in having the two main penstocks inspected, evaluated for corrosion and some evaluation of the service life and condition of the present valves controlling the penstocks.

Dock/Pier Replacement

The present marine docking facilities at Hidden Falls Hatchery are in need of repair or replacement. Presently the existing pier has wood pilings that are rotting. The current concrete float that the tide ramp rests on is in good repair but too small to adequately serve the facility needs. The existing adjacent dolphins are in extremely poor repair and not usable by barges serving the facility. In fact, no ramp-barge now exists to serve the facility and nearly all freight is delivered by vessels such as a fish tender or a large landing craft. NSRAA is interested in looking at the option and cost of installing a tide bridge and floating dock capable of handling freight at the dock and utilizing an all-terrain forklift to move that freight to shore. The most common freight items tend to be pallets of fish food (~2,200 lbs) and full totes of salmon carcasses (~1,500 lbs). The operating weight without a load of the Caterpillar Telehandler is ~20,500 lbs. The floating dock itself should be designed to hold at least 100,000 to 150,000 lbs. This dock will also serve to handle the weekly floatplane flights providing support to the facility. The aircraft used normally include a Cessna 185 and DeHavilland Beaver on floats.

Hydropower Turbine & Generator Replacement

The current turbine and generator has been running continuously for nearly 30 years. Staff will be working with the turbine manufacturer directly to evaluate the condition of the turbine and the necessity for any major repair and/or replacement of components. NSRAA has been informed by the turbine manufacturer that a replacement generator for this system is a custom order item that would come from Germany. Lead time for receiving a replacement is one year.

Front Round Pond Field Re-leveling

Many of the 20ft diameter round ponds installed in the 1989 Chinook Expansion project are experiencing some severe settling problems. This has led to problems with both process water and drain connections coming apart at the pond, pond bottoms developing large dips and uneven surfaces, and distortion of the ponds to such a degree that there is a significant loss of useable volume. NSRAA wishes to develop and implement a plan for repair.

Solid Waste Incinerator Replacement

The solid waste incinerator currently on site is at the end of its useful life. Incinerator controls and parts are antiquated and increasingly harder to find. It is increasingly more difficult to get the incinerator to work at top performance and efficiently and successfully incinerate solid waste generated at the facility.

Water System PRV Replacement/Modulating Valve

NSRAA staff has continued to work hard to increase the efficiency and reliability of Hidden Falls water system. As part of that, we have wondered if the addition of a modulating valve and replacement of the existing PRV would benefit the facility's water management. The basic line of thought here is that a modulating valve in conjunction with a level control indicator in the turbine sump might replace the current PRV and be useful in maintaining the proper weir spill level at the turbine which feeds most of the facilities' low pressure water demand. In addition, by adding a second PRV installed solely on the High Pressure line serving the front round pond field, this delivery pressure could be reduced to a more moderate pressure and assure a safer, more reliable water service to these ponds.

Housing Weatherization/Energy Savings Upgrades

Most of the residences at the facility were constructed in the early 1980's. Advancements in windows, doors, and insulation would make significant improvements in thermal efficiency for the residences if installed. Reduced electric heating demand would provide greater flexibility during periods of water conservation by reducing hydropower consumption. Further, should the facility have to operate on stand-by diesel generation, significant savings in fuel could be realized. Most of the residence, while in good shape, are now nearing 30 years of age and are due for some major maintenance, such as siding replacement, roofing, and doors. NSRAA has replaced many of the old, original windows with new vinyl clad windows.