

Agency: Commerce, Community and Economic Development

Grants to Municipalities (AS 37.05.315)

Grant Recipient: Sitka

Project Title:

Project Type: Remodel, Reconstruction and Upgrades

Sitka - Blue Lake Hydroelectric Expansion

State Funding Requested: \$20,000,000
One-Time Need

House District: 2 / A

Brief Project Description:

Matching funding for critical expansion of the Blue Lake Hydroelectric Project in Sitka.

Funding Plan:

Total Cost of Project: \$100,000,000

	<u>Funding Secured</u>		<u>Other Pending Requests</u>		<u>Anticipated Future Need</u>	
	<i>Amount</i>	<i>FY</i>	<i>Amount</i>	<i>FY</i>	<i>Amount</i>	<i>FY</i>
Federal Funds			\$12,500,000	11		
State Funds	\$12,500,000	09				
Local Funds					\$55,000,000	12
Total	\$12,500,000		\$12,500,000		\$55,000,000	

Detailed Project Description and Justification:

The City & Borough of Sitka requests financial assistance to expand the Blue Lake Hydroelectric Project to its maximum energy generating capacity. Complete state funding in the FY2011 budget is critical to continue the project and allow the City & Borough of Sitka to proceed with bonding. The project is the community's top priority and a key component to maximize Southeast Alaska's hydroelectric resources. Blue Lake is the primary power source for Sitka. The project needs to be expanded to meet growing demand and secure a renewable energy supply for the community.

Despite actively promoting energy conservation, hydroelectric energy usage is escalating at a rate that will shortly exceed system capacity. Therefore, Sitka is actively working to complete the project as quickly as possible. Sitka will match each dollar of State assistance with the goal of ultimately financing the project 50 percent with State funds and 50 percent municipal funds.

Sitka has exhausted its hydroelectric resources, and existing hydroelectric generation is operating at over 96 percent capacity. Sitka homes and businesses are moving from high cost heating oil to clean, renewable hydroelectric energy. Sitka's energy needs are currently met by about 20 percent oil and 80 percent hydroelectric energy resources. Expanding Blue Lake would displace an estimated 5 million gallons of diesel fuel needed for supplemental diesel generators to power the community prior to completion of the expansion project.

The project will raise the height of the existing Blue Lake dam by 83 feet to 425 feet, construct a new intake gate, and a new section of power tunnel to supply a new powerhouse adjacent to the existing powerhouse. The new powerhouse will replace two 4MW generators with three 6MW generators and increase Sitka's average annual hydroelectric energy production by about 35,400 MWh or 29 percent of current capacity.

For use by Co-chair Staff Only:

\$15,000,000
Approved

6:19 PM 5/4/2010

Sitka is currently finalizing the engineering design and licensing phase of this expansion project. The draft permit application was submitted to FERC in March 2010. A \$4.6 million contract for final engineering design and construction specifications will be awarded in April 2010. Bid specifications for purchase of the turbine generators have been released with a bid opening of June 15, 2010; engineer's estimate for the turbines is \$15M. The goal is to complete the construction and bring this new hydroelectric capacity on line in 2014.

Project Timeline:

The goal is to complete the construction and bring this new hydroelectric capacity on line in 2014.

Engineering, Design and Geotechnical; FERC license submittal: \$8,320,000., FY 2010-11.

Material and Equipment Procurement and Construction: \$56,676,000., FY2012-14. Total estimated: \$100,000,000

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

City and Borough of Sitka

Grant Recipient Contact Information:

Name: Marlene Campbell
 Address: 100 Lincoln St.
 Sitka, AK 99835
 Phone Number: (907)747-1855
 Email: campbell@cityofsitka.com

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

FY2011 CBS LEGISLATIVE CAPITAL PROJECT REQUEST

Project Title: EXPANSION TO MAXIMUM CAPACITY OF THE BLUE LAKE HYDROELECTRIC PROJECT

Total Project Cost: \$100,000,000 (100%)
Funding already secured: \$12,500,000 State FY2009 (13%)
FY2011 State funding request: \$20,000,000 (20%)
Additional Funding Required/Outstanding: \$67,500,000 Federal, Municipal (67%)
City and Borough of Sitka Federal Tax ID Number: 92-0041163

The City and Borough of Sitka requests financial assistance to construct an expansion of the Blue Lake Hydroelectric Project to maximum energy capacity. The funding request has increased due to an increase in project costs. The project Detailed Design Study was completed in February and indicated a total project cost of approximately \$100,000,000 with actual construction costs estimated at \$75,000,000. A Federal request was not funded. Sitka will match each dollar of State assistance with the goal of ultimately financing the project 50 percent with State funds and 50 percent municipal funds. This additional State funding is critical to continue this project and proceed with bonding. Additional State support is critical to continue this project and proceed with bonding.

The scope of the Blue Lake Hydroelectric Project is to raise the height of the existing dam by 83 feet to 425 feet, construct a new intake gate and a new section of power tunnel to supply a new powerhouse to be constructed adjacent to the existing powerhouse. The new powerhouse will replace the existing two (2) 4MW generators with three (3) 6MW generators and increase installed capacity from 8MW to 18MW, with an increase in Sitka's average total annual hydroelectric energy production by about 35,400 MWh or 29 percent of system capacity. Sitka is aggressively engaged in the final engineering design and licensing phase of this expansion project. The draft permit application was submitted to FERC in March 2010. A \$4.6M contract for final engineering design and construction specifications will be awarded in April 2010. Bid specifications for purchase of the turbine generators have been released with a bid opening of June 15, 2010; engineer's estimate for the turbines is \$15M. The goal is to complete the construction and bring this new hydroelectric capacity on line in 2014.

Sitka has exhausted its hydroelectric resources and load studies predict up to 5M gallons of fuel oil for the use of supplemental diesel generators will be required prior to completion of the Blue Lake Expansion Project. Sitka homes and businesses are moving from the high cost of heating oil to clean, renewable hydroelectric energy. The total energy requirements of Sitka are currently met by about 20 percent oil and 80 percent hydroelectric energy resources. Total annual KWh sold in FY'09 increased by 3.36 percent over FY'08, which follows load increases of 4.5 percent in FY'07, and 8 percent in FY'06. Base-case load studies have predicted annual load growth at approximately 1.2 percent yet the electric system has seen unprecedented growth, averaging 3.8 percent annually since 1973. The existing hydroelectric generation is now operating at over 96 percent capacity. It is expected that volatile oil prices will continue the trend of exponential system load growth and that any new hydroelectric capacity will be fully utilized to displace oil for space and water heating.

Despite CBS actively promoting energy conservation, hydroelectric energy usage is escalating at a rate that will shortly exceed system capacity. Therefore, Sitka is actively working to complete the project as quickly as possible and is pledging 50 percent of the total project costs.

SITKA BLUE LAKE HYDROELECTRIC EXPANSION

Project Description:

The Blue Lake Hydroelectric Project will raise the height of the existing dam by 83 feet to 425 feet; construct a new intake structure and a new section of power tunnel to a new powerhouse. The new powerhouse will replace the existing two 4 MW generators with three 6 MW generators. This will increase installed capacity from 8 MW to 18 MW, with an increase in Sitka's average total annual hydroelectric energy production by about 35,400 MW hours or 29 percent of system capacity. Sitka is aggressively engaged in the preliminary engineering and licensing phase of this expansion of its hydroelectric capability at Blue Lake. The goal is to complete the construction and bring this new hydroelectric capacity on line in 2015.

How will the funds be spent?

Appropriated funds will be utilized for project material purchase and project construction. Initial cost estimates from the Comprehensive Design Development Report are as follows:

<u>Project Phase</u>	<u>Estimated Cost</u>
Preparatory Work	\$8,320,000
Arch Dam Raise	\$8,900,000
Intake Tunnel & Gate Shift Excavation	\$3,730,000
Surge Chamber Excavation	\$4,060,000
Intake Civil Works and Equipment	\$1,530,000
Tunnel Refurbishment	\$1,950,000
New Penstock	\$3,750,000
Powerhouse Civil and Access Road	\$7,646,000
Powerhouse Mechanical Equipment	\$8,938,000
Powerhouse Electrical Equipment	\$8,500,000
Switchyard Upgrade	\$1,732,000
Escalation during Construction	\$ 780,000
Contingency	\$14,960,000
Engineering and Administration	\$9,350,000
Interest During Construction	\$4,170,000
Escalation (January 2012 Bid)	\$5,380,000
Reserve Account	\$3,650,000
Cost of Debt Issuance	<u>\$3,010,000</u>
TOTAL PROJECT COST:	\$100,360,000

How many jobs will be created through this project?

To date, approximately 35 jobs have been created through this project, including 10 local positions. Various field studies and surveying work is being completed utilizing local resources. During the construction phase, up to 100 jobs will be created for the 21.4 year period of project construction.

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8. How will the funds be spent?

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Tunnel Refurbishment	\$1,950,000
New Penstock	\$3,750,000
Powerhouse Civil & Access Road	\$7,646,000
Powerhouse Mechanical Equipment	\$8,938,000
Powerhouse Electrical Equipment	\$8,500,000
Switchyard Upgrade	\$1,732,000

19. How many jobs will be created through this project?

To date, approximately 35 jobs have been created through this project, including 10 local positions. Various field studies and surveying work is being completed utilizing local resources. During the construction phase, up to 100 jobs will be created for the 2-4 year period of project construction.

CITY AND BOROUGH OF SITKA

RESOLUTION 2009-52

**A RESOLUTION BY THE CITY AND BOROUGH OF SITKA (CBS)
SUBMITTING CBS 2011 STATE LEGISLATIVE PRIORITIES
TO STATE OF ALASKA AND 2010 LEGISLATURE**

WHEREAS, the City and Borough of Sitka has long supported cooperative efforts and resources with the State of Alaska to maximize public services for the citizens of the State of Alaska in the most efficient, cost effective manner; and

WHEREAS, the State of Alaska has reduced its cooperative resources and efforts, resulting in not adequately maintaining State owned facilities and passing unfunded mandates on to municipalities; and

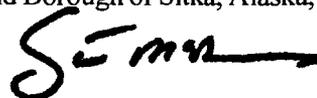
WHEREAS, the City and Borough of Sitka and other municipalities have suffered major budget impacts from State management of the PERS/TRS system, State harbors, State roads and utilities, and other State responsibilities which should be compensated;

NOW, THEREFORE, BE IT RESOLVED that the Assembly of the City and Borough of Sitka, Alaska, adopts the following FY2011 State Legislative Priorities and urges the Alaska State Legislature to support them to the maximum extent possible:

- **State Revenue Sharing/Community Dividend/Local Tax Relief** - The City and Borough of Sitka supports State Revenue Sharing provided on a sustainable basis drawn from proposals such as the Community Dividend or similar means of equitably compensating Alaska communities for providing local services.
- **Education** - State funding should be increased to cover escalating transportation expenses, inflation, the rising costs of fuel and energy, and reasonable new costs to improve the quality of education.
- **Local Control and Maximum Local Self-Government Guaranteed by the Alaska Constitution**- The Legislature should defeat any legislation that creates new unfunded mandates or takes away existing powers of local governments. The State should fund existing unfunded State mandates.
- **Public Transit and Community Transportation** – The City and Borough of Sitka supports the creation by the State of a forward funded statewide Transit Trust Fund, with the income from the Fund used to find or match Federal funding for local public transit.
- **Deferred Maintenance of Harbors** – The State should fully fund the deferred maintenance of State harbors being transferred to local governments. In addition, the state should fully fund the harbor 50 percent matching funds program legislated by SB 291, the Municipal Harbor Facility Grant Fund, to assist with future harbor upgrades.

NOW FURTHER BE IT RESOLVED that the Assembly submits the enclosed FY2011 City and Borough of Sitka Legislative Priorities, CBS Legislative Capital Project Requests and CBS Requests for State Funding for State Facilities in priority order to the 2010 Session of the Alaska State Legislature and State of Alaska.

PASSED, APPROVED, AND ADOPTED by the Assembly of the City and Borough of Sitka, Alaska, on this 22th day of December, 2009.

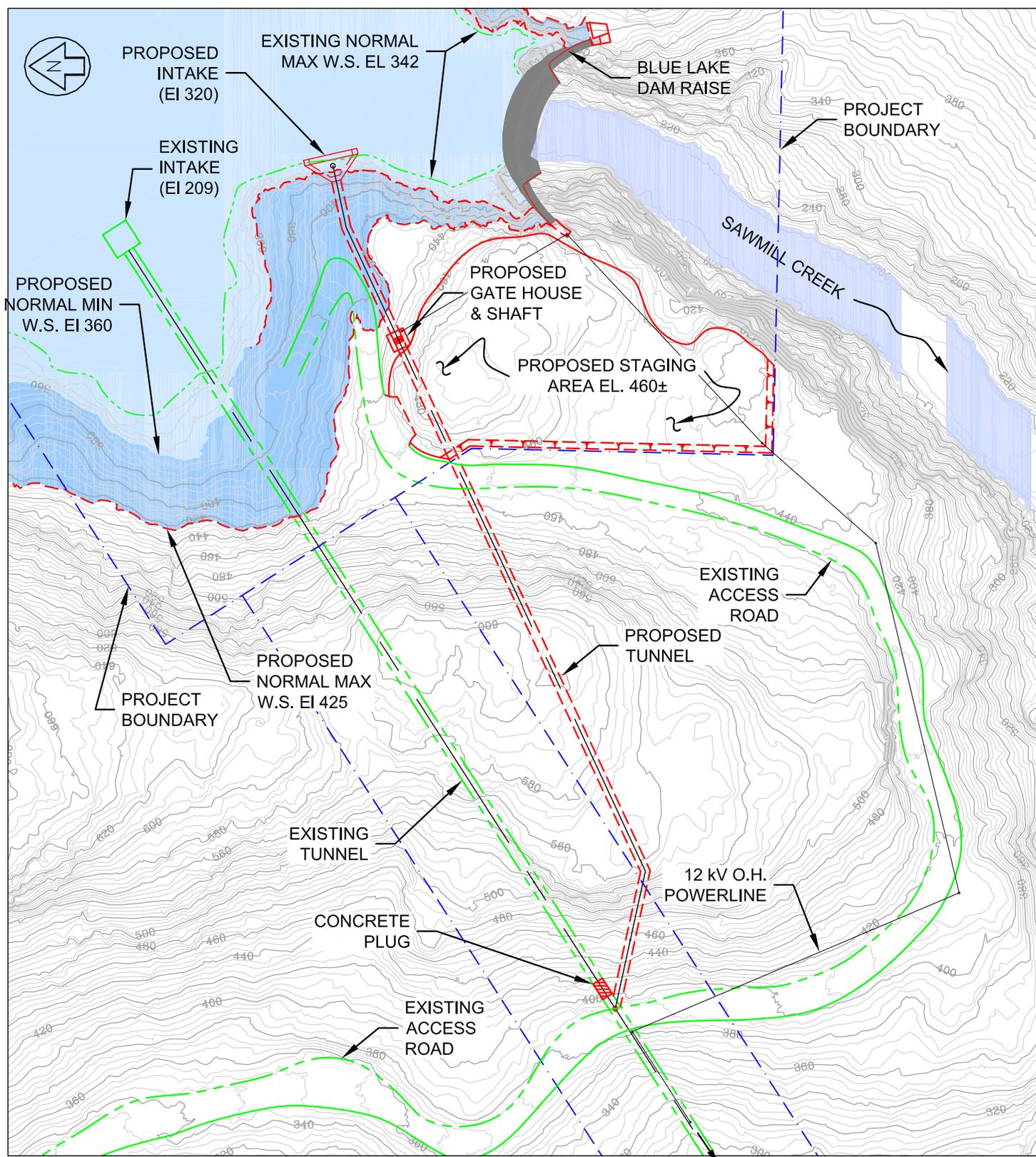


Scott McAdams, Mayor

ATTEST:



Sara Peterson, Acting Municipal Clerk



PLAN VIEW

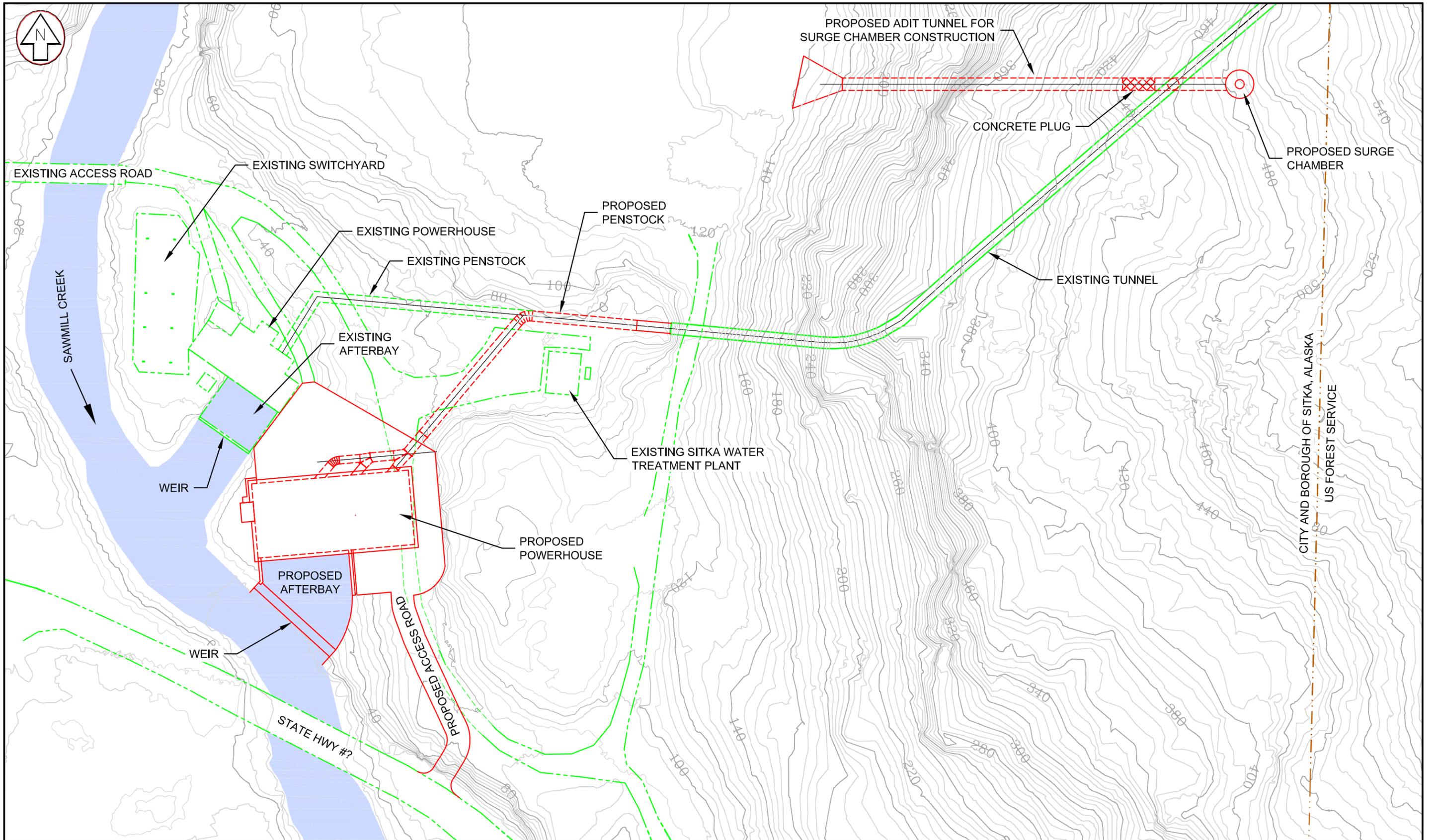
SCALE: 1" = 150'



TO FVU

Dam Intake Area Plan
BLUE LAKE EXPANSION PROJECT
CITY AND BOROUGH OF SITKA, ALASKA

FIGURE XX
HATCH AGRES



PLAN VIEW
 SCALE: 1" = 40'
 0 40 80 120

Powerhouse Site Plan
BLUE LAKE EXPANSION PROJECT
CITY AND BOROUGH OF SITKA, ALASKA
HATCH ACRES

FIGURE XX



SITKA ECONOMIC DEVELOPMENT ASSOCIATION

329 Harbor Drive, Suite 212 Sitka, Alaska 99835 (907) 747-2660 fax (907) 747-7688 www.sitka.net

April 26, 2010

The Honorable Sean Parnell
Governor of the State of Alaska
Post Office Box 110001
Juneau, Alaska 99811-0001

E-mail: sean.parnell@alaska.gov

Dear Governor Parnell:

The Sitka Economic Development Association (SEDA) supports your mission to promote economic growth and opportunities for Alaska's families. This is SEDA's mission as well. We, therefore, request your consideration of the following information as you review the FY2011 Capital Budget.

The Blue Lake Hydroelectric Expansion, Sawmill Cove Waterfront Development, and Public Safety Academy Driver Training Facility projects are infrastructure improvements critical to creating and maintaining high quality jobs in Sitka.

- **Blue Lake Hydroelectric Expansion**

During peak loads Sitka is already at, and sometimes beyond, the capacity of the existing Blue Lake system. Affordable, renewable energy not only serves the basic needs of Sitka's residents it is an important attractant for new businesses.

- **Sawmill Cove Waterfront Development**

Sawmill Cove Industrial Park is basically a deep-water port without a dock. Construction of a marine bulkhead is a key component to development of the Park and to the diversification and stability of Sitka's economy. The most immediate use of the bulkhead is to move supplies, large equipment, and gravel for the Blue Lake dam and Sitka Airport projects. Movement of bulk-water, wood products, and fish waste are additional uses related to recent business proposals.

Other important projects include improvements to visitor related infrastructure and facilities, the acquisition of Stratton Library for the benefit of the State's Sheldon Jackson Museum, and repairs and upgrades to existing buildings and roads.

All of these capital projects create immediate jobs that put Alaskan's to work. More importantly, they promote private-sector investment and support the creation of long-term jobs and economic stability in our community.

Thank you for your service to the State of Alaska.

Sincerely,

Garry White, Executive Director

cc: Senator Bert Stedman
Representative Peggy Wilson