

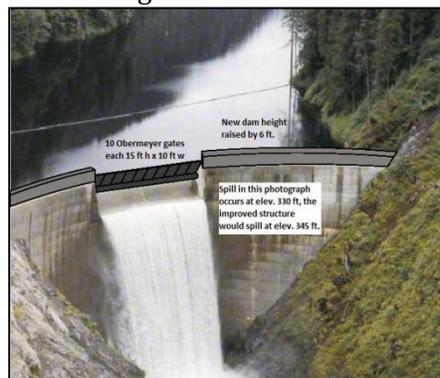
The Southeast Alaska Power Agency (SEAPA) is working diligently to advance new power generation opportunities to serve the growing load demands of the region. Our integrated planning process supports responsible development that will provide the maximum long-term benefit for ratepayers. We currently have multiple initiatives following parallel paths to address near, mid, and long-term power and energy needs.

1. **Near-term:** We are maximizing existing infrastructure, often referred to as the “low hanging fruit”.
 - a. Swan Lake Reservoir Expansion
 - b. Tyee Cooling Water Modification
 - c. Tyee Weir (Stream Gage)
2. **Mid-term:** Options 1, 2, and 3 under SEAPA’s Request for Offers of Power & Energy (RFO) specifically address mid-term load growth. This process spurs competition and innovation, while seeking to fill anticipated needs. Proposals are not limited to hydro and will likely provide a wide variety of options. We have received several notices of intent to offer and we look forward to receiving proposals next year.
3. **Long-term:** SEAPA is conducting a regional hydrosite analysis that spans from Kake to Metlakatla. This important process will provide detailed cost and resource analysis of potential hydropower sites to help determine the best future project(s). Additionally, Op-

tion 4 of the aforementioned RFO process provides a mechanism to partner with another entity to develop a project to meet long-term regional needs.

Swan Lake Reservoir Expansion highlights:

- \$13.3 million dollar cost
- 6 foot raise on dam crest
- Gates will be installed in existing fixed spillway slot
- Reservoir full pool elevation will increase by 15 feet
- Provides 25% more storage in the reservoir
- Offsets up to 12,000 MWhrs of diesel generation annually, which is equivalent to 800,000 gallons of expensive diesel
- Long-term benefit that utilizes existing infrastructure



SEAPA continues to actively pursue State funding support for the **Swan Lake Reservoir Expansion Project**. We have met directly with Governor Sean Parnell, State and Federal Legislators, and State of Alaska resource agencies to maintain a prominent position with key decision makers. The project was recently selected by the City of Ketchikan and the Ketchikan Gateway Borough as their #1 community priority, which along with resolutions of

support from all three member communities, enhances our ability for funding success. Any State funding SEAPA can secure for this project will directly benefit all electric utility rate payers in Ketchikan, Petersburg, and Wrangell.

Tyee Lake Outlet Weir (stream gaging) Project: SEAPA’s contractor recently completed log removal, forming, and concrete work on the project. This challenging remote work was completed accident free during a short construction window.



The new weir will replace the current USGS gaging station which has been problematic. Our FERC license requires that we accurately measure reservoir outlet flows.



Improved measurement capability will also allow us to better assess the basin as we evaluate expanding the Tyee Hydroelectric Project. As a side benefit, there is a small increase in storage even though we do not change the historic operat-

ing range of the lake (reservoir). This storage increase allows us to pay for this project in 6 years if the total cost is kept under \$1.5 million at our wholesale power rate of \$68/MWh.

Tyee Cooling Water Conversion: Generator cooling water (CW) at Tyee is currently supplied off the penstock via a set of pressure reducing valves. The valves are manually operated and typically left fully open except during manual unit start/stop operation. Tests conducted during 2012 indicated throttling the CW and using the existing pumps is a more efficient way to cool the units. The annual value of using the existing CW pumps combined with a simple control system modification is approximately 1,000 MWh of additional energy available for our member utilities.

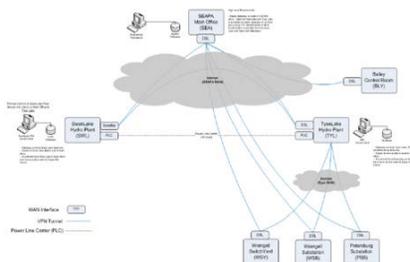


The CW piping modification design has been completed and crews have installed 90% of the piping system. We anticipate installation will be completed in October, with control system programming and commissioning activities wrapping up in November.

SEAPA plans and oversees all major maintenance and infra-

structure enhancements at our two hydro projects, which also includes 175 miles of transmission lines and four submarine cable crossings. We are continually working to maintain and improve various aspects of our interconnected system to ensure safe, reliable delivery of power and energy to our valued member utilities.

Satellite Communications System Upgrade: SEAPA is in the process of upgrading to a “full mesh” satellite communications system. This will provide a robust secure private link between the SEAPA office, Tyee Lake Plant, Petersburg Substation, Wrangell Substation, Wrangell Switchyard, and the Swan Lake Plant. Delivery of the satellite equipment is scheduled for the end of October with installation to follow in November at Swan Lake and the SEAPA office. The frame work for the satellite dish was designed by Tongass Engineering and fabricated by Tek Indoor Environmental. It has been delivered to Swan Lake. The crew installed the frame work and poured a 12’x12’ concrete pad around it. They also installed the necessary conduit for power and fiber to the dish. After installation of the dish, a roof will be constructed to help shield it from snowfall.



Supervisory Control and Data Acquisition (SCADA) Upgrade Project: This project will standardize the backbone of our regional control network. Phase I is the replacement of the north side SCADA system (Tyee, Petersburg, and Wrangell). Phase II

includes Swan Lake SCADA, PLC replacements, and installation of data storage in the SEAPA office. A factory acceptance test is scheduled near the end of October. Field installation and commission will follow, with project completion anticipated in February 2014.

Regional Hydrosite Analysis: This effort is fully underway. McMillen Engineering was selected as our project lead and our joint team of experts completed initial field assessments on Annette Island in September. Lessons learned from this first field deployment will allow us to further refine future field plans as we expand to additional areas. This is a multi-year effort that will span our region from Kake to Metlakatla. It is a follow-up to the Southeast Alaska Integrated Resource Plan (SEIRP) and is funded through a portion of our \$3MM DCCED grant. This process will catalog critical information necessary to determine the highest value hydropower projects to meet the growing needs of our region. It is important that we invest in projects that provide maximum long-term benefit for the ratepayers.

SEAPA has provided this “high level” summary of ongoing activities to enhance communications with our three member communities of **Ketchikan, Petersburg, and Wrangell**. Community Flyers are coordinated with our bi-monthly Board meetings and distributed to the Mayors and City Managers of our member communities. Although there is not adequate space to cover all of our projects, we hope this cross-section is useful and informative. We look forward to providing future updates and encourage people to visit the SEAPA website for further information on these and other interesting topics at www.seapahydro.org. Thank you.