

## COMMUNITY FLYER

August 2013 By: Trey Acteson, CEO

The Southeast Alaska Power Agency is providing this "high level" summary of ongoing activities to enhance communications with our three member communities of Ketchikan, Petersburg, and Wrangell. Additional detail on these and other topics is available on the SEAPA website. Future Community Flyers will be coordinated with our bi-monthly Board meetings and distributed to the Mayors and City Managers of our member communities.

The Swan Lake Reservoir Expansion Project will provide 25% additional water storage, offsetting up to 12,000 MWhrs of diesel generation annually (equivalent to 800,000 gal/diesel or \$2.75 million @ 3.44/gal). This \$13.3MM project has a long-term benefit (100 years) and is scheduled to be completed in 2016. SEAPA has received strong support from all three member communities and is actively pursuing State funding to minimize any impact to our base wholesale power rate.



SEAPA is rapidly advancing the **Tyee Lake Outlet Weir (stream gaging) Project**. This challenging project is being supported by BAM Construction out of Ketchikan and includes manually clearing part of

an enormous log jam at the lake outlet, removing several feet of debris and sediment with five gallon buckets down to bedrock, and then constructing a 3' thick concrete weir to accurately measure outlet flows as required by our FERC license.



This is a remote project requiring helicopter transport of small batch concrete in a suspended ½ yard bucket. The weir will be poured in early September and provides an additional 4,000 MWhrs annually.



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Fiber Fusion has been selected as our replacement and integration contractor for the **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 in October and project completion is anticipated in February 2014.



SEAPA's Regional Hydrosite Analysis Project is fully underway. McMillen Engineering was selected as our project lead and a field team has recently been deployed to Annette Island. 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 deterhighest mine the value hydropower projects to meet the growing needs of our region. It is important that we invest in projects that provide maximum longterm benefit for the ratepayers.

As part of our ongoing risk mitigation efforts, SEAPA purchased a spare set of **Generator Windings** for the Swan Lake Hydroelectric Plant. This will allow periodic aggressive pass/fail testing of the existing windings in both machines during scheduled maintenance, thus reducing the risk of failure during peak demand periods. These coils have a long-lead time and had to be custom manufactured to fit our generators. Although expensive (\$872K), it is much better to be proactive than risk burning diesel for three months while waiting on replacement parts. The coils are stored onsite in a climate controlled environment.



Our transmission line contractor, Chatham Electric. completed Tower 252 guy anchor repairs in June. The original single guy anchor broke near ground penetration. The anchor has been repaired and two additional guys have been added. Chatham also made line repairs to correct what appears to be damage caused by a firearm to the Swan-Tyee Intertie (STI). Human caused damage can seriously impact system reliability and is very expensive to repair. Additional ongoing transmission line maintenance includes bank stabilization near Structure 76-1. This work is being performed by Reid Brothers of Petersburg and supported by Tongass Engineering of Ketchikan. Project completion is expected by the end of September.



SEAPA is leading preliminary development efforts for the Kake -Petersburg Intertie (KPI). We have approximately \$5MM in State grant monies to permit and design this project, advancing it to construction ready status. The line would transmit power to Kake at either 69 or 138 kilovolts (kV) and consist primarily of single wood pole structures. The length of the line varies depending on final route selection, but will be approximately 50-60 miles. This project will require full State funding for construction and estimates are in the range of \$60-72MM. The Environmental Impact Statement (EIS) and Record of Decision (ROD) are anticipated in June 2014.



We are in the process of upgrading to a "full mesh" **Satellite Communications System**. This will provide a secure private link between the SEAPA office, Tyee Lake Plant, Petersburg Substation, Wrangell Substation, Wrangell Switchyard, and the Swan Lake Plant. It is essential that we have a robust communications system to support our interconnected regional assets. Cyber security is of critical importance to our industry and SEAPA is proactively taking measures to thwart intrusion.

SEAPA recently completed the **Tyee Lake Hydroelectric Facility Tidewater Dock Replacement Project.** We are continuously updating aging infrastructure to ensure safe, reliable delivery of power and energy to our valued member utilities.



Helicopter pads are required to safely access much of SEAPA's critical infrastructure. We will be installing two new prototypes by the end of October to address different terrain applications. Upon proof of concept, SEAPA has plans to replace approximately 120 decaying helipads over the next two years.



Although there is not adequate space to cover all of our projects, we hope this cross-section provides a foundation to build upon. We look forward to providing future updates and encourage people to visit the SEAPA website at <u>www.seapahydro.org</u>. Thank you.