

**MONTHLY UPDATE FOR CITY ASSEMBLY**

**BLUE LAKE EXPANSION PROJECT**

Month ending December 31, 2014

Report No. 25

**FINAL Blue Lake Expansion Monthly Update**

**SCOPE**

- 83 ft. dam raise with modified tunnel system and new 15.9 MW powerhouse (\$89 million)
- Eight supply contracts for Owner-Furnished equipment and materials (\$16 million)

**PROJECT HIGHLIGHTS DURING THIS MONTH**

- December 1 – Alaska Crane began demobilizing the 600 ton crane.
- December 2 – Conducted final executive partnering meeting.
- December 3 – Clif Stump left. Ely Johnson is now Project Manager for Barnard.
- December 3 – Conducted a site visit at GPIP with Garry White to review overburden storage.
- December 8 – Issued Substantial Completion for dam, left abutment, spillway and plunge pool, gatehouse, site utilities, powerhouse excavation and backfill.
- December 11 – Began moving rock at dam site.
- December 16 – Jim Rutherford visited site to confirm that the project was constructed in accordance with the Hatch design.
- December 16 – A leak was noticed in the adit plug cold joint.
- December 17 – Loaded WEG transformer for shipment to Mexico.
- December 19 – Identified all overburden located on lot 15 and confirmed identification with Garry White.
- December 20 – Issued Certificate of Final Substantial Completion of Contract 9 and issued the final punch list identifying retained funds.
- December 20 – Barnard site staff left for the holidays.
- December 22 – Completed the removal of overburden from lot 15.

**COST SUMMARY - updated 12/31/2014**

Project Element	Current Contract Total or Projected Amount	Payments	
		Paid this Month	Paid to Date*
Supply Contracts			
Contract 1 - Turbine Generator Equipment	\$11,801,058	\$ 334,181	\$ 12,673,056
Contract 2 - Switchgear	\$647,672	\$ 15,823	\$ 628,622
Contract 2A/2B - SS/Raw Water Switchgear	\$300,000	\$ -	\$ 208,547
Contract 3 - Gates and Hoist	\$780,185	\$ 78,019	\$ 781,395
Contract 4 - Penstock	\$836,315	\$ -	\$ 837,593
Contract 5 - 69 kV Transformers	\$603,406	\$ 3,397	\$ 576,766
Contract 6 - Bridge Crane Equipment	\$270,518	\$ -	\$ 272,298
Contract 7 - Steel Building	\$1,145,712	\$ -	\$ 1,147,754
Contract 8, Debris Management	\$2,258,714	\$ 269,598	\$ 1,420,208
Contract 9, General Construction	\$92,226,581	\$ 2,645,773	\$ 93,811,578
Temporary Filtration	\$1,651,424	\$ 5,605	\$ 1,121,795
Diesel Fuel	\$1,260,000	\$ -	\$ 236,412
Remaining Project Costs			
License Amendment	\$1,400,000	\$ 1,606	\$ 1,338,844
Engineering	\$9,498,393	\$ 9,883	\$ 12,006,057
Construction Management	\$8,076,201	\$ 39,790	\$ 7,741,136
City Performed Work	\$1,495,000	\$ 74,332	\$ 2,187,460
Incentive Payment	\$1,600,000	\$ -	\$ -
Cost of Bond Issuance/Reserve Account	\$3,500,000	\$ -	\$ -
<b>TOTALS</b>	<b>\$139,351,179</b>	<b>\$ 3,478,007</b>	<b>\$ 136,989,521</b>
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$145,256,724</b>		

\*Paid to Date includes unpaid retainage

**COST CHANGES THIS MONTH**

- Contract 9, Change Order 14 executed for \$496,784.85.
- Certain project elements have exceeded their budgeted cost, however, due to underruns in other elements the overall budget is not expected to be exceeded.
- It will be necessary to transfer funds within the project to balance the individual contracts and project elements.

**CONSTRUCTION SCHEDULE MILESTONES: PLANNED/ACTUAL**

Construction Start	11-20-2012 / 12-03-2012	Sub. Comp. BLU #3	10-26-2014 / 10-25-2014
Drainage Tunnel complete	07-01-2013 / 05-05-2013	Sub. Comp. FVU	11-12-2014 /
Tunnel Ex. complete	08-19-2013 / 07-24-2013	Sub. Comp. BLU #5	11-22-2014 / 10-24-2014
Intake Structure complete	06-04-2014 / 06-04-2014	Substantial Completion	02-01-2015 / 12-20-2014
Begin Generation outage	08-24-2014 / 08-17-2014		
End Generation outage	10-26-2014 / 10-24-2014		

**NOTES ON PROJECT SCHEDULE**

- The most recent look-ahead schedule submitted by Barnard shows the following work to be performed in January:
  - Reach final completion on all project features.
  - Perform work itemized on the punch list.
- CBS will be responsible for the reinstallation of the repaired WEG transformer.
- The damaged WEG transformer has been returned to the factory.
- Bruce Belley will install the FVU controls in January.
- Barnard will return to complete the punch list on January 2.

**OTHER ITEMS OF INTEREST**

- The weather and rainfall during the construction of the project have been so good that there is ample water in the reservoirs for forecasted generation over the next two water years.
- All interruptible loads are being returned to service.
- The Generation Department is transitioning from construction to generation.
- A site service representative from Gilkes, UEE and EPS will be required to return in February to complete electrical testing of the FVU and synchronous motor mode operation of the BLU units.
- During January the CM team will complete the Final Construction Report and other FERC requirements in preparation for the final Board of Consultant meeting.
- We hope to schedule the final BOC meeting during the week of February 16.
- The official Blue Lake Project dedication ceremony has been scheduled for May 7 & 8, 2015.
- Paul, Dean, and Retha will be writing the Blue Lake Operations Manual.

**PROJECT RISK PROFILE**

The City believes that since construction has reached Substantial Completion there is very low risk relative to construction.

## PROJECT PHOTO RECORD THIS MONTH

Photos are taken of each work area each month from a fixed location to document construction progress by work area. Relevant photos of the project for this month are provided on the following pages.



Figure 1. Dam and Left Abutment Area, Complete.



**Figure 2. Intake Portal and Right Abutment, Complete.**



**Figure 3. Gate House Location, Complete.**



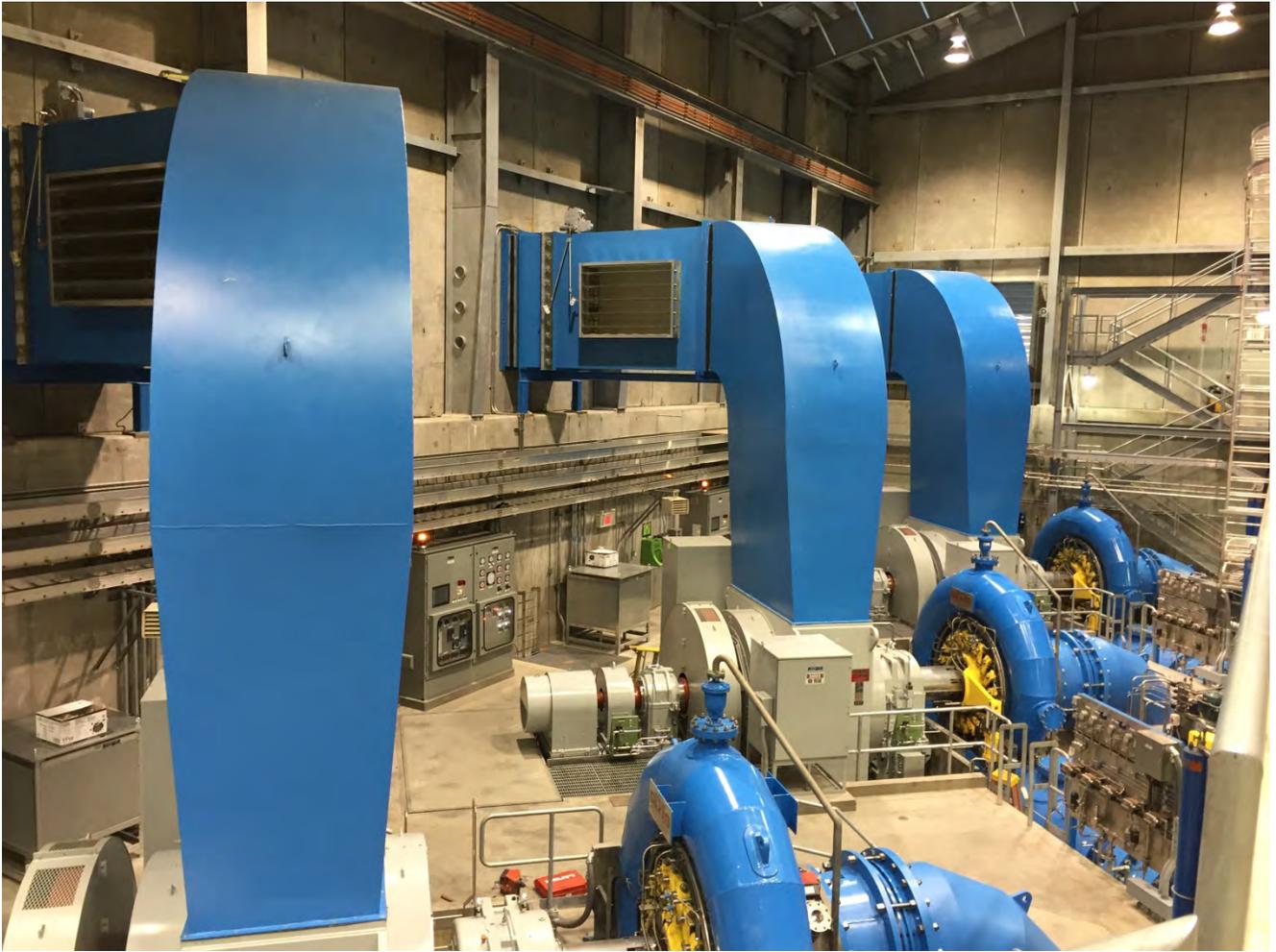
**Figure 4. Dam Staging area, The 600 ton crane has been demobilized and the area is being prepped for the Forest Service site work.**



**Figure 5. Lower Portal Area, Complete.**



**Figure 6. Powerhouse Site, Complete.**



**Figure 7. Powerhouse Interior, Complete.**



**Figure 8. Surge Chamber Adit, Complete.**

## **Blue Lake Level Forecast**

The Lake Level Forecast has been removed from this report because it will no longer impact the project construction or performance.

*Appendix 1 to Monthly Update for City Assembly*

**December 31, 2014**

**Summary of Temporary Filtration Project Status**

**Alternative Water Source Filtration System (Blue Lake Project):**

Completed.

**Summary of Titan 130 Diesel Turbine Project Status**

Only punch list items remain on this project.