

MONTHLY UPDATE FOR CITY ASSEMBLY

BLUE LAKE EXPANSION PROJECT

Month ending November 30, 2014

Report No. 24

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

- November 3 – Issued Certificate of Substantial Completion of underground work.
- November 4 – Conducted 2 Unit full load governor tests.
- November 10 – Temporary Filtration Plant was taken out of service.
- November 12 – Operators moved into the new Blue Lake control room.
- November 12 – Contract 9, Change Order 13 executed.
- November 13 – Conducted a Ribbon cutting ceremony in the Blue Lake powerhouse.
- November 13 – Completed mechanical run on FVU.
- November 14 – Issued Certificate of Substantial Completion of Powerhouse, Penstock, and Water Treatment Building.
- November 14 – Gilkes and UEE site representatives left site.
- November 19 – Received request for substantial completion of the Temporary Filtration Plant.
- November 4-14 – UEE conducted training for the Electric Department Generation Crew.
- November – The spillway repair was completed.
- November – All concrete forms were removed from the dam.
- November – Dam misc. metals were 90% completed.

COST SUMMARY - updated 11/30/2014

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	\$ 543,760	\$ 12,338,875
Contract 2 - Switchgear	\$647,672	\$ -	\$ 612,799
Contract 2A/2B - SS/Raw Water Switchgear	\$300,000	\$ -	\$ 208,547
Contract 3 - Gates and Hoist	\$780,185	\$ -	\$ 703,376
Contract 4 - Penstock	\$836,315	\$ -	\$ 837,593
Contract 5 - 69 kV Transformers	\$603,406	\$ -	\$ 573,369
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	\$ -	\$ 1,150,610
Contract 9, General Construction	\$91,729,796	\$ 3,715,937	\$ 91,165,805
Temporary Filtration**	\$1,651,424	\$ 85,517	\$ 1,116,190
Diesel Fuel	\$1,260,000	\$ 18,105	\$ 236,412
Remaining Project Costs			
License Amendment	\$1,400,000	\$ 37,405	\$ 1,337,238
Engineering	\$9,498,393	\$ 27,302	\$ 11,996,173
Construction Management	\$8,076,201	\$ 168,820	\$ 7,701,346
City Performed Work	\$1,495,000	\$ 42,807	\$ 2,113,128
Incentive Payment	\$1,600,000	\$ -	\$ -
Cost of Bond Issuance/Reserve Account	\$3,500,000	\$ -	\$ -
TOTALS	\$138,854,394	\$ 4,639,654	\$ 133,511,514
ESTIMATED TOTAL PROJECT COST	\$145,256,724		

*Paid to Date includes unpaid retainage

COST CHANGES THIS MONTH

- Contract 9, Change Order 13 reduced Barnard contract by \$3,154,400.14.
- 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 /
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 December:
 - Reach substantial completion on all project features.
 - Perform work itemized on the punch list.
 - Crane demobilization is expected to take place from 12/2-12/10.
 - Barnard will complete the construction of the No. 2 switchyard in December.
 - Barnard will reach substantial and final completion about 1 month ahead of schedule.
- CBS will be responsible for the reinstallation of the repaired WEG transformer.
- The damaged WEG transformer is being returned to the factory.
- NAES will install the conduit and wire for the FVU in December.
- Bruce Belley will install the FVU controls in January.

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 to water years.
- All interruptible loads are being returned to service.
- The Generation Division 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.
- The Temporary Indian River water supply has been dismantled.
- The final executive partnering meeting will occur December 2.
- Blue Lake has peaked at 406' elevation with a minimal amount of floating debris in the reservoir. McG Constructors, Inc. will continue performing the Reservoir Debris Management under Contract 8.
- The official Blue Lake Project dedication ceremony has been scheduled for May 7 & 8, 2015.

PROJECT RISK PROFILE

The City believes that since construction is reaching 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, Barnard crews removed all concrete forms.



Figure 2. Intake Portal and Right Abutment, Spillway sack and patch work completed.



Figure 3. Gate House Location, Reservoir access road paving completed.



Figure 4. Dam Staging area, In preparation for crane demob, the staging area has been cleared.



Figure 5. Lower Portal Area, Final fill is being placed on the penstock.



Figure 6. Powerhouse Site, no change this month.

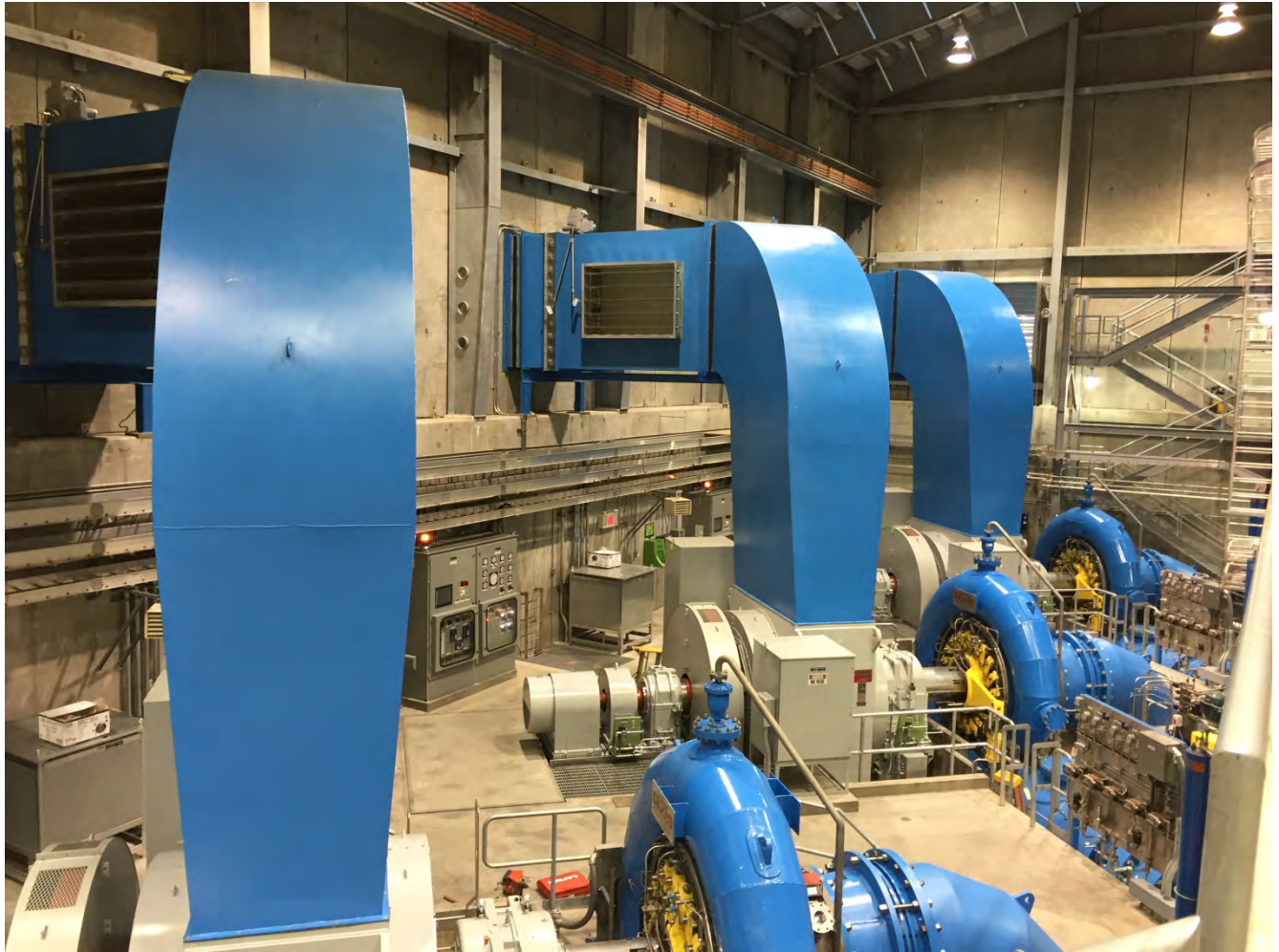


Figure 7. Powerhouse Interior, Conducted 2 Unit full load governor tests. Operators moved into the new Blue Lake control room.

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

November 30, 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.

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

1. Progress of work

This will be the final monthly construction report for the Blue Lake Expansion Project.

Environmental Protection

Barnard continues to install erosion and sediment control measures as required at the dam site, storage yard at Sawmill Cove Industrial Park and powerhouse area as ground disturbing activities continue. BMP maintenance and repair is ongoing as needed throughout the project site. Barnard is removing BMP's as final restoration is done in completed work areas.

Gate Chamber

Gate Chamber construction is complete.

Gate House

Final punchlist work continues in the gate house. Barnard completed the final scaling of the gate house access road and placed the D1 road surfacing material. The reservoir access road concrete paving was also completed in late November.

Dam Raise

Barnard crews completed formwork removal on the dam in November. The majority of the permanent handrails and walkways were also completed in November. The spillway sack and patch work was completed. The left abutment thrust block and cutoff wall punch-list work was also completed in November.

Fish Valve Unit

BCCI completed installation and testing of the Fish Valve Unit in November. Final punch-list items will be completed in early December.

Powerhouse

Final commissioning was completed on all three units in November. The City operators began continuous commercial operation of the Blue Lake powerhouse on November 13. Barnard and its subcontractors continued to work on the final punchlist work in the powerhouse.

Barnard completed the required installation and testing on the Blue Lake water treatment facility. The facility was commissioned and brought online in early November.

Barnard also completed installation of a second 60" diameter culvert under the old Blue Lake Powerhouse road.

Switchyard

AMCL completed demolition of the number 2 side of the existing transformer yard. AMCL and NAES began construction of the T2 transformer foundation and conduit installations.

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

Temporary Filtration Plant

The temporary filtration plant was demobilized in November following the completion and startup of the Blue Lake Water Treatment Plant. The only remaining work is permanent fence installation.

2. Status of Construction

Status of Ongoing Major Construction Activities

- Powerhouse Excavation – Complete
- Powerhouse Steel Building – Complete
- Powerhouse Roof - Complete
- Precast Wall Panels – Complete
- Dam Raise – Complete
- Dam Spillway – Complete
- Dam Parapet Walls and Crest Slab – Complete
- Left Abutment Thrust Block and Cutoff Wall – Complete
- Powerhouse Concrete – Complete
- Commissioning – Complete

See Section 1 above for construction work completed in November 2014.

3. Construction Issues

No major construction issues in November 2014.

4. Contract Status

Barnard's key subcontractors for the Blue Lake Project are as follows:

Name	Scope
ASRC McGraw Constructors, LLC	Powerhouse Construction
Southeast Earthmovers, Inc.	Excavation
Blue Lake Tunnelers	Underground Construction
Crux Subsurface	Foundation Grouting, Micropiles, PRW's
O'Neill Surveying and Engineering	Land Survey
Baranof Materials Test Lab	Quality Control
NAES Power Contractors	Turbine-Generator Installation/Electrical

Barnard's key material suppliers for the Blue Lake Project are as follows:

Name	Scope
ASRC McGraw Constructors, LLC	Concrete Supply
Gerdau Reinforcing Steel	Concrete Reinforcing Steel
Haskell Corporation	Misc. Metal Fabrication

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

5. Critical Events and Dates

Please see attached summary progress schedule updated November 30, 2014.

Critical Dates for the Blue Lake Project are as follows:

Milestone	Date	Required Status of Construction
1	07/01/2013	Drainage Tunnel Complete – Completed May 6, 2013
2	08/19/2013	Initial Intake Excavation Complete – Completed July 21, 2013
3	06/04/2014	Intake Structure Complete – Completed June 4, 2014
4	08/24/2014	Ready for Generation Outage – Completed August 16, 2014
5	65 days after start of Generation Outage	Substantial Completion of 1 st Blue Lake Turbine Generator – Completed October 24, 2014.
6	91 days after start of Generation Outage	Substantial Completion of 2 nd Blue Lake Turbine Generator – Completed October 25, 2014
7	80 days after start of Generation Outage	Substantial Completion of Fish Valve Unit - Completed November 14, 2014

6. Reservoir Filling

N/A

7. Foundations

Not applicable for this report.

8. Sources of Major Construction Material

The City and Borough of Sitka will be providing most of the major construction materials for this project. Please see list below.

Contract No.	Vendor	Scope of Supply
1	Gilbert Gilkes and Gordon, Ltd.	Turbines and Generators
2	Myers	12.47 kV Switchgear
3	Linita Design and Manufacturing	Bulkhead Gate, Fixed Wheel Gate and Hoist
4	T Bailey, Inc.	Penstock and Manifold
5	WEG Electric	69kV Transformers
6	Benchmark Industrial Services	Powerhouse Bridge Crane
7	CHG Building Systems	Powerhouse Building

9. Material Testing and Results

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

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Compaction testing was completed during installation of a new culvert under the existing powerhouse access road.

Concrete testing for the project is nearly complete.

No issues have been encountered to date.

10. Instrumentation

Not applicable for this report.

11. Photographs



Figure 1: Dam Raise

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.



Figure 2: Powerhouse in Operation



Figure 3: Ribbon Cutting Ceremony - 11/13/14

12. Erosion Control and Other Environmental Issues

BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: NOVEMBER 30, 2014

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

Barnard is continuing to install the required environmental protection measures on the project site ahead of ground disturbing activities. Ongoing maintenance of dewatering system at powerhouse excavation site will be required to maintain water quality in Sawmill Creek.

13. Other Items of Interest

The Blue Lake Powerhouse was put into commercial operation on November 13, 2014. A ribbon cutting ceremony was held at the powerhouse.