

## Assembly Update 10-2-13

### **\*Centennial Hall & Library Site Parking Lot Development:**

- Phase IV concrete pedestrian plaza is complete.
- Landscape planting for Phase I and II is complete.
- Striping for the Centennial Hall Parking Lot is complete
- Paving and striping for the Crescent Harbor Parking lot is complete

The project includes the complete reconstruction of the Centennial Hall Parking Lot and Crescent Harbor Parking lot. The improvements include storm drain, water, sewer, curb and gutter, paving, lighting, pedestrian plaza and landscaping.

S&S General Contractors was awarded the construction contract in the amount of \$2,613,651. The total project budget is \$3,950,000.

### **\*Baranof Street Water and Sewer Improvements:**

- All paving, water, sewer and storm drains have been completed
- Road striping is completed

The project includes water, sewer, storm drain, curb and gutter, sidewalk and pavement improvements and has a total funding of \$2,672,500 including Alaska Department of Environmental Conservation (ADEC) Municipal Matching Grant and Loan funds.

The Assembly awarded the construction contract to S&S General Contractors on the April 23, 2013 Assembly meeting, in the amount of \$1,712,916. The total estimated project cost is \$2,232,000.

### **Edgecumbe Drive Street Reconstruction:**

- Public Works has contracted O'Neill Surveying and Engineering to survey Edgecumbe Drive to assist in the design of the improvements. The asbuilt/topographic survey is anticipated to be completed no later than December 15, 2013.
- Public Works anticipates advertising a Request for Qualifications for professional engineering services early fall 2013.

The project is funded through a \$2,900,000 FY2013 State Legislative Grant (Paving Failed Collector Streets – Edgecumbe Drive and Jeff Davis Street). Budgetary cost estimates were completed to help scope the project based on funds available. That estimate indicates approximately \$5.5 million would be required to completely rebuild Edgecumbe Drive from Kimsham to Cascade Creek to include paving, curb and gutter, sidewalk, and storm drain (budget shortfall of \$3.25 million); approximately \$3.5 million

would be required to rebuild Edgcumbe Drive from Kimsham to Cascade Creek to include paving and storm drain only (budget shortfall of \$1.25 million); and approximately \$2.5 million would be required to rebuild Edgcumbe Drive from Kimsham to Cascade Creek to include paving the drive lanes (not shoulders) and storm drain (budget shortfall of \$250,000). Public Works staff has begun planning level work for this project. Test borings were completed along Edgcumbe Drive in areas of suspected subgrade failure and in other areas of interest on March 4-5, 2013. This information will assist in the design of the improvements. Public Works anticipates construction during the summer of 2014.

#### **Ultra Violet (UV) Disinfection Facility:**

- The Kick off meeting for the final design of the project with CH2MHill was held August 26 and 27, 2013.
- A site survey was performed to locate the property corners. This will help delineate the site from the rock piles that are growing at Sawmill Cove Industrial Park. The new topography will be provided to the design consultant for incorporation into the site plan.

The Blue Lake drinking water system is a surface water system, which must comply with the EPA Enhanced Surface Water Treatment Rules (ESWTRs). The subject UV Disinfection Facility will provide the additional microbial and disinfection controls required under the ESWTRs.

The current project cost estimate is \$8,966,000. Funding for this project is provided by State of Alaska Department of Environmental Conservation (ADEC) loans and grants:

- \$4,000,000 FY 2011 ADEC Loan. Includes \$2,500,000 financed with \$1,500,000 subsidized.
  - \$2,550,000 FY 2012 ADEC Loan (pending).
  - \$3,500,000 FY 2012 ADEC Grant (30% local match requirement).
  - \$2,061,000 FY 2013 ADEC Grant (pending - 30% local match requirement).
- \$12,111,000 Total Project Funding.

The grants and loans indicated as pending are grants and loans listed on the Alaska Drinking Water Fund intended use plans, for which CBS has submitted appropriate paper work to have the grant or loan finalized.

#### **ANB Harbor Replacement:**

- Transpac Marinas has begun fabrication of the new main floats in Anacortes, Washington. Float completion is scheduled for early November 2013.

- Mantle Industries (working as a subcontractor to Transpac Marinas) has begun fabrication of the new ANB Harbor gangway. The gangway is scheduled to be completed late October 2013.
- Moffatt & Nichol will be performing several inspections of the floats under fabrication over the next month. CBS Harbor Department Maintenance Supervisor Ron Pratt will accompany M&N staff on two inspections that bookend his own personal travel plans in October 2013.
- The Installation Contract is currently being advertised. Several bid addenda have been released in response to bidder inquiries.
- The anticipated bid opening date for the Installation Contract is October 4, 2013 with a recommendation to award to the Assembly on October 22, 2013.

CBS received a FY13 State of Alaska Municipal Harbor Facility Matching Grant, for the ANB Harbor Replacement Project, which will cover 50% of eligible construction costs not to exceed \$4,250,000 in match funding. CBS has received bond proceeds from the Alaska Municipal Bond Bank in the amount of \$4,600,000 for this project. On January 10, 2013, the Assembly awarded a Professional Services Contract to Moffatt & Nichol for the ANB Harbor Replacement Project. On June 25, 2013, the Assembly approved award of the Procurement Contract to Transpac Marinas, Inc. for \$2,698,870.00. The total project cost is estimated at \$8,130,000.

#### **Storm Water Master Plan Phase II:**

- The project is complete. A report to the Assembly is planned.

The first phase of the Storm Water Master Plan was completed in late June 2012 with Tetra Tech Alaska, LLC gathering existing infrastructure data and condition inventory to include in our GIS system along with precipitation analysis and drainage basin delineation as part of the first phase of the project. The second year grant funding (FY13) was approved by the Alaska Department of Environmental Conservation and the grant agreement was authorized by the Assembly in July 2012. The grant amount of \$43,388 requires a forty percent CBS match of \$28,925.

#### **Alternative Water Source Investigation Filtration (Blue Lake Project):**

- The consultant has prepared the draft RFP for the leasing of the water filter units. The guarantee that the units will be available for installation when needed is under evaluation.
- The consultant was in town on August 26 and 27, 2013 to assist the utility department in preparing the taste test panels. The taste test panels were prepared and presented to the public August 27, 2013.

The proposed schedule has the design completed in October 2013, ADEC permitting completed in March of 2014, construction of the piping and pumping completed in April 2014 and final installation of the filter units in June 2014 for operation in July 2014. The

preliminary design cost estimate has a projected design and construction cost of \$3,000,000. Due to the lack of well potential in the Indian River Valley, temporary surface water filtration will need to be utilized during the Blue Lake Project outage. Award of the design contract to CH2MHILL, was approved by the Assembly on February 12, 2013.

**\*Hollywood & New Archangel design:**

- Public Works advertised a Request for Qualifications for professional engineering services in early fall 2013.
- Received two Statements of Qualification from qualified firms. Dowl HKM LLC. was selected and contract negotiations are underway.

The project includes design for water, sewer, storm drain and pavement improvements, and potentially curb and gutter and sidewalk improvements on Hollywood Way and New Archangel Street from Halibut Point Road to Marine Street. Funding for design is available from ADEC Loans (Hollywood Water \$250,000, Hollywood & New Archangel Sewer \$500,000), General Fund budget for streets (\$5,000), and Enterprise Funds (Hollywood Water \$25,000, Hollywood Sewer \$25,000, New Archangel Sewer \$25,000).

**Airport Baggage and TSA Area design:**

- Public works is awaiting a revised fee proposal from the consultant selected to design the improvements (McCool Carlson Green) and anticipates awarding a professional services contract in fall 2013.

The project includes design for additions to the south and east sides of the terminal to allow expansion of the baggage makeup and TSA baggage screening areas, as well as an overhaul of the terminal layout. The project will also help establish a Passenger Facility Charges (PFC) program that will raise funds for the construction of the work. Funding collected from a previous PFC program amount to \$275,000 for the design project. \$76,000 budgeted for an unfinished Airport Lighting Retrofit project is available if needed.

**Sitka Community Hospital Roof Replacement:**

- Installation of the new roofing is progressing and will be completed in October 2013.

The Assembly approved award of a construction contract to CBC Construction, Inc. in the amount of \$784,754.16 for the Sitka Community Hospital Roof Replacement project on April 23, 2013. Due to the very competitive bid received, a change order to the contract was approved to upgrade the insulation to a better product (polyiso instead of EPS). The project is funded through a \$1,200,000 FY2013 State Legislative Grant.

### **Swan Lake Restoration / Dredging Project (Project # 90747):**

- Public Works is working with Fish and Game and the Rotary Club to develop a dredging schedule for 2014 to coincide with the annual fishing derby on Swan Lake. Once the issues have been resolved, CBS will issue a Change Order adding more dredging quantity to the contract utilizing most of the available grant funding.
- Public Works and the Contractor are planning to complete all of the dredging in 2014.
- Purchase of a refurbished aquatic weed harvester was included in the grant funding. These floating machines cut and remove the vegetation to improve recreational opportunities and water flow through the lake. The search for a suitable harvester is on-going with several suppliers.

The Assembly approved award of a construction contract to Island Enterprises, Inc. in the amount of \$399,806 for the Swan Lake Restoration – Lake Dredging project on April 23, 2013. The project includes dredging prioritized selected locations to improve water flow through the lake, winter habitat for fish, access and recreation in general. The City and Borough of Sitka received \$771,236 in Federal funds through the Coastal Impact Assistance Program (CIAP) for this restoration project on Swan Lake. The grant is administered through the Wildlife and Sport Fish Restoration Program, CIAP Branch and runs through December 2015.

### **Sea Walk – Crescent Harbor Park to National Historic Park:**

- New sidewalks are nearly complete. Landscaping is near completion. Bridges and boardwalks are under construction. Guardrails have arrived and are beginning to be installed.
- Construction is anticipated to continue through the summer 2013 with substantial completion in early October 2013.
- A Grand Opening Ceremony is anticipated to take place the weekend of the Alaska Day Events following substantial completion.

On March 12, 2013, the Assembly approved award of a contract to CBC Construction for the Sea Walk – Crescent Harbor Park to National Historic Park project in the amount of \$1,222,662.14 for the base bid and all five additive alternates. The current phase of the Sea Walk extends from the Centennial Hall Parking Lot to the Sitka National Historic Park boundary near Kelly Street. The Sea Walk is funded by way of the following: \$1,000,000 FY 2011 State of Alaska Grant (Sea Walk Extension Part C), \$700,000 FY 2011 State of Alaska Grant (Crescent Park Sidewalk Widening), \$80,000 Paul Sarbanes Transit in the Parks Programs (TRIP) Grant (applied for and administered by National Park Service), and \$175,000 CPET funds (Sea Walk – Centennial Building to Tennis Courts).

### **Centennial Hall Renovation:**

- The design consultant, McCool Carlson Green, is incorporating the comments from the public meeting into the exterior building design concepts.

The current total estimated cost for this project is \$15.2 million including the new museum wing. Current grant funding allocated specifically to the project is only \$8,230,000. A \$2,000,000 FY10 Legislative Grant designated for a lightering facility visitor's center (previously planned for under the O'Connell Bridge), is eligible to be used for this project since Centennial Hall serves as a visitor center for the Crescent Harbor Lightering Facility. A FY14 Legislative Priority Request was submitted consisting of \$4,200,000 for the Centennial Hall building improvements and \$3,341,000 for combined Library/Centennial Hall heating system improvements; however it does not appear that either request will be funded at this time. Additionally, approximately \$2,000,000 is available in the Marine Passenger Fee Fund that could be used for this project. If additional funds are not secured, the scope of the project will need to be scaled back or phased with additional museum and meeting space expansion planned for the future when funding becomes available.

### **\*Library Development Planning:**

- The Design team is still working with the design group and staff to finalize the conceptual design.
- Professional costs estimate will be prepared once concept design is finalized. It is scheduled in October 2013.
- Finalization of the FEMA information is still outstanding.

The design phase is expected to take 12 months at a minimum with the earliest advertisement for construction planned for late summer/fall 2014. The project construction may be completed in 2015, depending on the phasing plan that is developed.

The State funding of \$5.7 million awarded to CBS is a direct appropriation with no funding match requirements. A private donation of \$400,000 has also been given to the project by the John J. and Eleanor Brust Family. \$350,000.00 of the budget was allocated to the Centennial Hall Parking Lot Project to relocate the Swan Lake storm drain, leaving a current project budget of \$5.75 million for the expansion and renovation of the Library.

### **\*Blatchley Middle School:**

- The Blatchley Middle School Remodel Project is Substantially Complete.
- The Hubble Lighting Controls are working properly.

- Punch list items are being completed and training for School District personnel is taking place.
- The project is substantially complete.

The project budget is \$12.475 million. The project is within its budget. The contract required substantial completion date is August 1, 2013, which was met with the exception of the door correction (installation). The door work will have its own completion date.

**\*Pacific High School:**

- The Pacific High School Renewal Project is Substantially Complete.

The project budget is \$2.671 million and the project is within its budget. The contract required substantial completion date is December 1, 2013.

**\*Water Service Calls; Leaks/Locates/Routine Repairs & Maintenance:**

- During the month, the Water Division responded to 14 callouts; for various locates, water service leaks – all on the customer side and two main breaks.
- Water operators replaced a short section of main on Highland Drive on Friday, September 6, 2013. The main had a corrosion hole on the bottom of the pipe about the size of a quarter.
- September 13, 2013 an 18' section of the 16" cast iron main along SMC Rd. burst in the 700 block. Repairs began that night and into Saturday morning. Approximately 23' of 16" main was replaced. A second circumferential crack was discovered about 8' further out of town from the replaced section. That crack was temporarily repaired using a wraparound clamp. Thursday, September 26<sup>th</sup> that section of main will be replaced with new ductile iron. A section of main on the town side of the original break will also be replaced as a precaution.
- Water operators pressure tested and installed the new 6" HDPE service line, backflow preventer and water meter for Crescent Harbor during the first week of September.
- Water operators continue working daily with DOT's HPR Road subcontractor, Coastal Excavation, by performing locates near their storm drain crossing locations as the contractor makes their way towards town.
- Water operators worked with QAP, DOT's SMC Rd. contractor, to isolate a hydrant that will be moved near the SMCIP Administration building.

- Water operators coordinated with other Public Works staff and paving contractor, Aggregate Construction Inc. (ACI), during and after the paving of Erler and Spruce Streets; new valve box tops were provided to and installed by ACI.
- The Water Division is preparing for the annual flushing program. Each fall the water transmission main and all major distribution lines are flushed at high velocity to remove any sediment that has settled during the previous year. The flushing is preceded by valve box cleaning and leak listening with a special amplification device. This takes place early in the mornings before traffic makes working in the streets difficult and noisy. Noise levels are recorded and compared with previous year's values for individual main line valves which will guide additional leak investigations in specific areas. Flushing is tentatively scheduled to begin the night of October 6<sup>th</sup> and continue until approximately the 16<sup>th</sup>.
- No progress was made on the annual (as time allows) fire hydrant 'weed whacking' and painting program – 25 hydrants have been washed and repainted so far in the Indian River, Lillian Drive, and Price Street neighborhoods. With about 450 hydrants to maintain it is our goal to get around 75 repainted each year – a six-year cycle. With this busy construction season it will be difficult for our small three person crew to accomplish this goal.

**\*Wastewater (WW) Repairs & Maintenance:**

- Wastewater operators continue working with DOT's HPR sub-contractor locating sewer system infrastructure as they install drainage culverts across HPR.
- Operators also continued to clean and paint the interior of lift station generator buildings as time allows.
- WW operators completed cleaning and replacing all air-vacuum valves on the various force mains and the outfall line – this is an annual preventative maintenance task. The valves and piping plug with grease and will not function if they are plugged.
- WW operators continue to do research work on the existing old Lake St. lift station (LS). Individual pumping and dry weather inflow rates were determined during the first week of September. Wet weather flows will be determined after some steady consecutive days of rain. This data along with survey information will be used to select pumps for the replacement LS in the future.
- High run times at the Channel LS were investigated and tracked back to inappropriate water flows entering a residential sanitary sewer. This appears to have reduced compressor run times down to normal. Operators will continue to



closely monitor this station. WW operators check each pump at every LS twice weekly and more frequently during unusual operations.

- The WW crew began a large in-house repair job at the BIHA lift station (LS) wet well on Indian River Rd. This project consumed much of the WW operators time September 9<sup>th</sup> through the 16<sup>th</sup>. The grout around the pump suction lines had failed, were broken in and allowing ground water to flow into the wet well, creating more flow than necessary. These were not small holes but rather a section of the concrete wet well wall that was broken out and replaced with grout when the LS were built. Operators used expanding foam chemical grout that reacts with water forming solid foam and oakum for strength to eventually stop the water from leaking into the wet well. After the water was stopped, they trimmed off excess foam, built forms inside the wet well and eventually poured concrete that attached to the original concrete wall creating a permanent repair. During this project a plug and temporary pump and power were installed in the upstream manhole and connected to the discharge piping down inside the pump chamber part of the LS so the wastewater is flowing as it normally would.

**\*Sawmill Cove Industrial Site – Wastewater (WW) Update:**

- Operators switched 100% of the WW flow from the site to the biological treatment system and have flushed the 7000' 6" force main with water. QAP, the Sawmill Creek Road Contractor, cut out a 600' section of it out of their way to allow for construction of a large retaining wall. With the small extended aeration plant loaded higher it requires more operator attention than under normal low load conditions. The plant is doing ok considering the rapid change in organic loading i.e. more food for the bugs to consume.

**\*Summer Water Quality (WQ) Monitoring of Indian River:**

- This summer's special monitoring of Indian River water continues; the second set of samples were sent to the lab for analysis during the first week of September. This WQ data is needed to fine tune the temporary filtration system design that is needed to serve the public during the Blue Lake penstock outage in 2014. The first taste and odor testing panel was held on August 27, 2013. A second test was conducted in-house on September 19<sup>th</sup> when there were considerably more dead fish in the river. The treated IR water during the second tasting had an objectionable taste and odor to nearly every person trying it. This information has been relayed to our treatment consultants who will develop a plan to cost effectively reduce the taste and odor issues and determine what treatment steps should be included in the treatment train when the salmon are in the river in 2014.

### **Water Division and Electric Department Working together on Blue Lake Water Quality:**

- The Water Division is working with the Electric Department to gather background water quality data out in the lake and around the construction activity as required during the project. This background data from out in the lake and at different depths will help us understand water quality changes in the future as the lake fills to greater depths and as the water moves through the lake towards the intake. The first field monitoring was completed and the first set of samples was sent to the lab for analysis.

### **\*Household Hazardous Waste Collection Event :**

- The biannual household hazardous waste collection event was held at the Wastewater Treatment Plant the weekend of September 28 and 29, 2013.

### **Federal Land Access Program (FLAP) Grant:**

The City and Borough of Sitka has been awarded a \$916,897 MAP-21 Federal Lands Access Program (FLAP) Grant for Phase 5 Cross Trail multimodal pathway (Cross TMP), Baranof Street and Yaw Drive connectors, by Western Federal Lands (WFL). The Assembly approved submission of the grant in Resolution 2013 - 03 in February.

Phase 4 of the project, pathway reconstruction and re-routing from Yaw Drive to the CBS property was funded by the Department of Transportation in the STIP in 2009. DOT planners, with the concurrence with Western Federal Lands (WFL) and CBS, initiated action to combine the two projects as a single \$1.8 million grant and have the project managed by Western Federal Lands for greater efficiency and cost savings.

The CBS is starting to work with the property owners to secure construction licenses and easements of the properties that will be affected during and after the trail is constructed.

- Match Agreement with Western Federal Land has been signed.
- Mental Health Land Trust (MHLT) construction License and Easement documentation has been signed.
- Bureau of Land Management application has been signed and submitted.
- Memorandum of Understanding with Sitka Trail Works and CBS has been signed.
- Reimbursable Agreement with Western Federal Land has been signed and submitted.

### **Solid Waste Management Plan:**

A Request for Qualifications (RFQ) for a consultant to develop a Solid Waste Management Plan began advertisement September 16, 2013 and will open October 14, 2013.

### **Drop off Recycle Center:**

On July 1, 2013, CBS Public Works Department took over the operation of the recycle center. Since then, major changes have been made at the center to help with the transition. Roll off containers have been set in place of the handling system that was designed for plastics in the past. This will allow for a more efficient way of handling the plastics and for a cleaner recycle center. The containers have been moved and the area underneath them has been cleaned. For accessibility, the Baranof Barracuda building has been moved back beside the collection area for aluminum cans. The aluminum can roll off container has also been moved back beside the Barracuda's area.

CBS hired a Recycle Center Operator that started his new position on Tuesday, 20 August 2013. CBS will be looking at picking up recyclables utilizing the same schedule as before. The box truck previously owned and used by the Sitka School district for recyclable pickups, has been transferred to the CBS, and will continue to be used for the recycling operation. Recycle materials will be collected starting the first week of September. The recycling collections at the schools are going good!

### **AT&T Cell on Wheels:**

AT&T requested that the City and Borough of Sitka consider a proposal for AT&T to locate a Cell on Wheels (COW) at Kimsham due to the service issues that they are experiencing. The AT&T Cell on Wheels arrived at Kimsham on Friday, July 12, 2013. As soon as AT&T installs electric on the COW, the installation can be scheduled. This would be a temporary site initially while they negotiated with Department of Education (near Mt. Edgecumbe School) on a permanent site placing a cell tower in place of the water tower that exists now.

- COW is hooked up to electricity and awaiting the circuits.

### **\*New Hires:**

We welcome the following staff members to our Public Works team:

- Doug Bain – Assistant Scrap yard Operator
- Brian Craig – Heavy Equipment Operator
- John Flory – Temporary SCIP Manager/Project Engineer
- Ron Conklin – Recycling Coordinator
- Dave Longtin – Senior Engineer



## BLUE LAKE EXPANSION PROJECT

### MONTHLY UPDATE FOR CITY ASSEMBLY

Report No. 10

Month ending September 30, 2013

#### 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

- September 5 – A quarterly executive partnering session was conducted. All indications are that partnering has been beneficial to date.
- September 5 – The City met with Barnard and requested that Barnard provide the temporary Filtration system at Indian River to be utilized during the generation outage. This work will be a change order to the contract. The filtration bid package was issued the following day.
- September 9 – Arctic Slope Regional Corporation (ASRC) McGraw Construction placed 543 CY completing the draft tube ceiling and the power house to elevation 5.94’.
- September 9 – The City made progress payment No. 6 to Gilkes for the turbine generators. Virtually all turbine generator equipment is on site.
- September 9-11 – The City, Gilkes, Barnard, ACRS, and NAES observed the storage of Gilkes equipment and agreed on the methods used. A meeting was held to discuss the installation and commissioning plans. These plans remain to be prepared.
- September 11 – Crux Subsurface completed installing the 6 pressure relief wells at the downstream toe of the dam. The 6 wells have all intercepted the rubble filled gut below the dam as desired. Concrete footings have been installed around each well. Completion of this work was only possible due to the dry September.
- September 12 – FERC approved the draft analysis of the left abutment excavation.
- September 13 – The final structural-stability analysis of the left abutment excavation was forwarded to the Board of Consultants and FERC. The FERC has accepted this analysis as complete and there are now no more issues regarding rock support at the dam.
- September 21 – The first sections of penstock in the powerhouse, at Units 4, and 5 have been installed.
- September 21 – Crux Subsurface (a subcontractor to Barnard) completed the consolidation grouting of the dam foundations. They have found very solid rock requiring essentially no treatment. Seven secondary holes have been required (spots that needed a second injection of grout).
- September 24 – Blue Lake staff advised the City that two suppliers will be providing pricing on the temporary water filters for Indian River.
- September 24 – ASRC placed 372 CY of powerhouse concrete completing the floor at Unit 5 to elevation 13’ (the turbine operating floor level).
- September 24 – Barnard installed the third penstock segment in the powerhouse at Unit 3
- September 29 - ASRC placed 330 CY of powerhouse concrete completing the floor at Unit 4 to elevation 13’.
- September, all month – Barnard continued placing concrete blocks to raise the dam. A total of two 10-ft high blocks are complete on the dam next to the left abutment and nine blocks are complete on the dam next to the right abutment.

- September, all month – Barnard continued construction on the gate chamber. The floor and walls are complete. Forms are being installed to place the crown.
- September, all month – The City continues to minimize generation at Blue Lake and to increase generation at Green Lake. This is being done to balance the two reservoirs to obtain maximum power generation during the next water year.
- September, all month – ASRC, Schmolck Mechanical (SMC), and NAES Electrical continued installing embedded materials for the powerhouse placements.

### COST SUMMARY - updated 9/30/2013

Project Element	Current Contract Total or Projected Amount	Payments	
		Paid this Month	Paid to Date*
<b>Supply Contracts</b>			
Contract 1 - Turbine Generator Equipment	\$11,573,707	\$4,451,043	\$10,258,002
Contract 2 - Switchgear	\$647,672	\$0	\$64,581
Contract 2A - SS Switchgear	\$300,000	\$0	\$0
Contract 3 - Gates and Hoist	\$780,185	\$117,028	\$703,376
Contract 4 - Penstock	\$836,315	\$0	\$795,778
Contract 5 - 69 kV Transformers	\$592,584	\$0	\$119,721
Contract 6 - Bridge Crane Equipment	\$270,518	\$0	\$245,246
Contract 7 - Steel Building	\$1,138,918	\$694,888	\$978,498
Contract 8, Debris Management	\$1,530,000	\$0	\$0
Contract 9, General Construction	\$88,175,661	\$3,172,225	\$40,670,853
Diesel Fuel	\$1,260,000	\$0	\$0
Temporary Filtration**	\$3,000,000	\$0	\$0
<b>Remaining Project Costs</b>		\$0	\$0
License Amendment	\$1,400,000	\$6,553	\$1,182,381
Engineering	\$9,498,393	\$7,106	\$11,493,349
Construction Management	\$8,076,201	\$279,377	\$3,522,976
City Performed Work	\$1,495,000	\$17,661	\$1,367,625
Incentive Payment	\$1,600,000	\$0	\$0
Cost of Insurance/Reserve Account	\$3,500,000	\$0	\$0
<b>TOTALS</b>	<b>\$135,675,154</b>	<b>\$8,745,881</b>	<b>\$71,402,386</b>
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$141,517,667</b>		

\*Paid to Date includes unpaid retainage

\*\*Temporary Filtration budget updated. Assembly approval will be requested at a later date for the overrun.

### COST CHANGES THIS MONTH

- No other change orders were issued for the equipment and materials contracts that affect the cost of these goods.
- We continue to expect a series of change orders for the supply contracts for the purchase of additional spare parts (Contracts 1, 2, and 6) over the next months. These suppliers are slow in getting us pricing and information for the spares.

- Change Order 4 was submitted September 27 for eleven change items in the amount of \$766,133.36.
- There are a series of change items still under negotiation as follows:
  - Modification of the dam site staging area (changes in material quantities spoiled in this area and prep work to allow USFS final grading and improvements in this area).
  - Armoring of the reservoir access road (armoring needed as the road area was not rock as expected in the original design).
  - Changes to the powerhouse electrical conduit and cable requirements (a group of small changes in conduit and the addition of a number of control cables).
  - Removal of a rock knob along the powerhouse access road (this knob is at risk of sliding and cannot be adequately reinforced with rock bolts or anchors).
  - Dredging in front of sluice gate valve and repair if necessary. This will be done next spring when the lake is drawn down.

We do not expect these change items to impact the project schedule. We have not received pricing from Barnard for all of the above change items and expect to reach agreement on them in October.

**CONSTRUCTION SCHEDULE MILESTONES: PLANNED/ACTUAL**

Construction Start	11-20-2012 / 12-03-2012	Sub. Comp. BLU #5	10-24-2014/
Drainage Tunnel Comp.	07-01-2013 / 05-05-2013	Sub. Comp. FVU	11-12-2014/
Tunnel ex. complete	08-19-2013 / 07-24-2013	Sub. Comp. BLU#4	11-22-2014/
Ready for Gen. Outage	08-24-2014/	Substantial Completion	02-01-2015/

**NOTES ON PROJECT SCHEDULE**

- The most recent look-ahead schedule submitted by Barnard shows the following upcoming target dates:
  - a. Continued concrete work on the powerhouse floors and walls throughout October.
  - b. Continued dam concrete work throughout October. Placement of 5 blocks is planned during the month.
  - c. Continued placement of the concrete gate shaft liner and gate chamber concrete.
  - d. Continued excavation of the powerhouse access road.
  - e. Removal of the rock knob at the powerhouse access road.
- Most of the Owner Furnished equipment is now on site. We anticipate no issues with delivery times for the eight Owner Furnished equipment contracts.
- The CM team and Electric Department continue working on the City-performed work tasks to ensure these activities are completed on time. Good progress was made in September. In September, design was completed for two electrical cabinets the City will provide. We plan to begin installation of conduit in the switchyard during October. Materials for the switchyard control panel and SCADA system are arriving on site. We are on-track with the City-performed work.

## **PROJECT RISK PROFILE**

A discussion of the major risk areas follows below. As a general rule risks are measured as follows:

**LOW:** Probability of less than 10%, or mitigation cost less than \$1 million.

**MODERATE:** Probability of more than 30%, or mitigation cost up to \$5 million.

**HIGH:** Probability of more than 60%, or mitigation cost likely more than \$5 million.

The City's project team believes the following risk areas will dominate the potential for increases in overall Project cost. We also believe these areas pose the greatest risk for schedule delays.

**Construction Schedule:** In Barnard's most recent (September 2013) schedule, the critical start of the 2014 Generation Outage is shown starting on August 23, 2014, one day ahead of schedule.

**CURRENT RISK: LOW**

**Weather and Lake Levels:** Flows from Blue Lake were cut back significantly in early August to bring the two lakes' water levels into better balance. With the temporary tunnel plug in place, we no longer have a risk of flooding out the tunnel work. With lower than normal rainfall in August and September we now have a reduced probability that both lakes will refill this fall. Refill probabilities are now just above 80%

**CURRENT RISK: LOW (through 2013)**

**Rock Conditions:** Contract 9 includes an allowance of \$2,702,000 for rock support in the Project tunnels, shafts and excavations. This rock support is a combination of rock bolts, shotcrete, and steel arch supports. Project-wide the total underground excavation work is now about 96% complete.

We have determined that there are several areas that need rock support or work beyond the original design. It is fortunate that these areas are generally not critical operating structures. The following areas require additional rock support or removal:

1. In the reservoir and intake area we are adding: above ground slope support along the access road; rock support in the intake area; and have now decided to determine the cost of adding concrete lining in the intake gate shaft.
2. In the powerhouse area, removal of a rock knob along the powerhouse access road as described above

The total underground rock support on the Project is significantly less than budgeted. We have a large under-run on rock support quantities, which will result in cost savings to the City. These cost savings will most likely be used to pay for the added above ground rock support in the intake and powerhouse areas.

**CURRENT RISK: LOW**

**City Performed Work, for Contract 9:** The City has elected to self-perform some work associated with the Project's general construction. This work includes: procurement, installation and field wiring of a switchyard control building; installation and connection of fiber-optic cables from the powerhouse to the dam; control wiring of the Fish Valve Unit generator; and design and installation of the SCADA system. More than 30% of this work is now complete. We continue to make good progress in this work and we are on schedule.

**CURRENT RISK: LOW.** [See Appendix 1-Action Plan at the end of this monthly update, for the status of this self-performed work].

**Temporary Water Filtration Plant:** During the August through September 2014 outage of the Blue Lake tunnel, the City will get its drinking water from a temporary water supply. This temporary system remains to be purchased and installed at Indian River; some final design is still required. This system must be in place and fully operational prior to the Generation Outage. Any delay in the filtration plant beyond August 23, 2014, will delay the hydro expansion Project. Barnard has been asked to provide and install the filtration project as a change order to contract 9. The filtration project is being managed by McMillen LLC and CH2MHILL will perform the final design. The City Water Department will operate the plant with assistance from CH2MHILL and the supplier.

**CURRENT RISK: MODERATE** [The current status of the filtration system design and planned construction is described in Appendix 2. If the filtration system is constructed as planned, we will be on track for the Expansion Project.]

**Other:** This is a broad combination of bad things that might happen such as: earthquakes; construction site accidents; floods; extreme winter weather; fire; labor unrest; etc. We expect that many of these risks would be covered by insurance at least in part.

**CURRENT RISK: LOW**

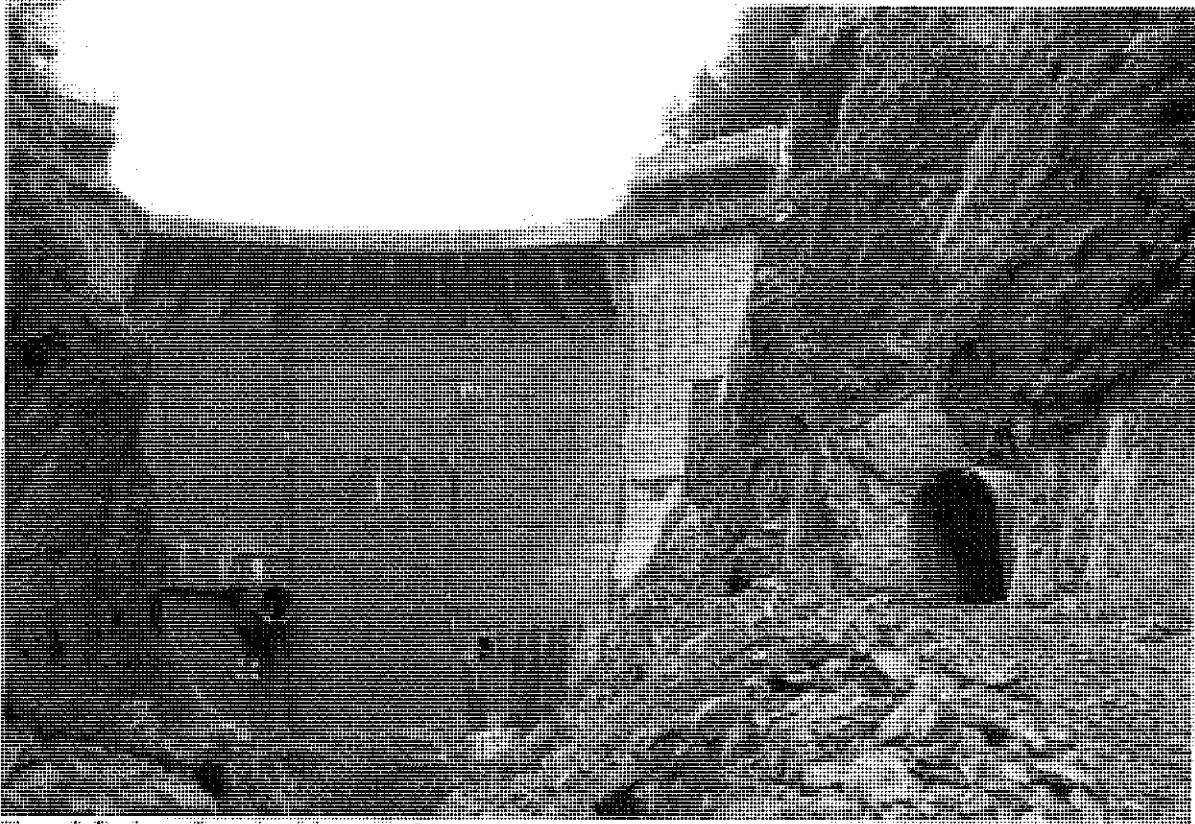


## PROJECT PHOTO RECORD THIS MONTH

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, Harvard continued placing concrete blocks to raise the dam. A total of two 18-ft high blocks are complete on the dam next to the left abutment.**



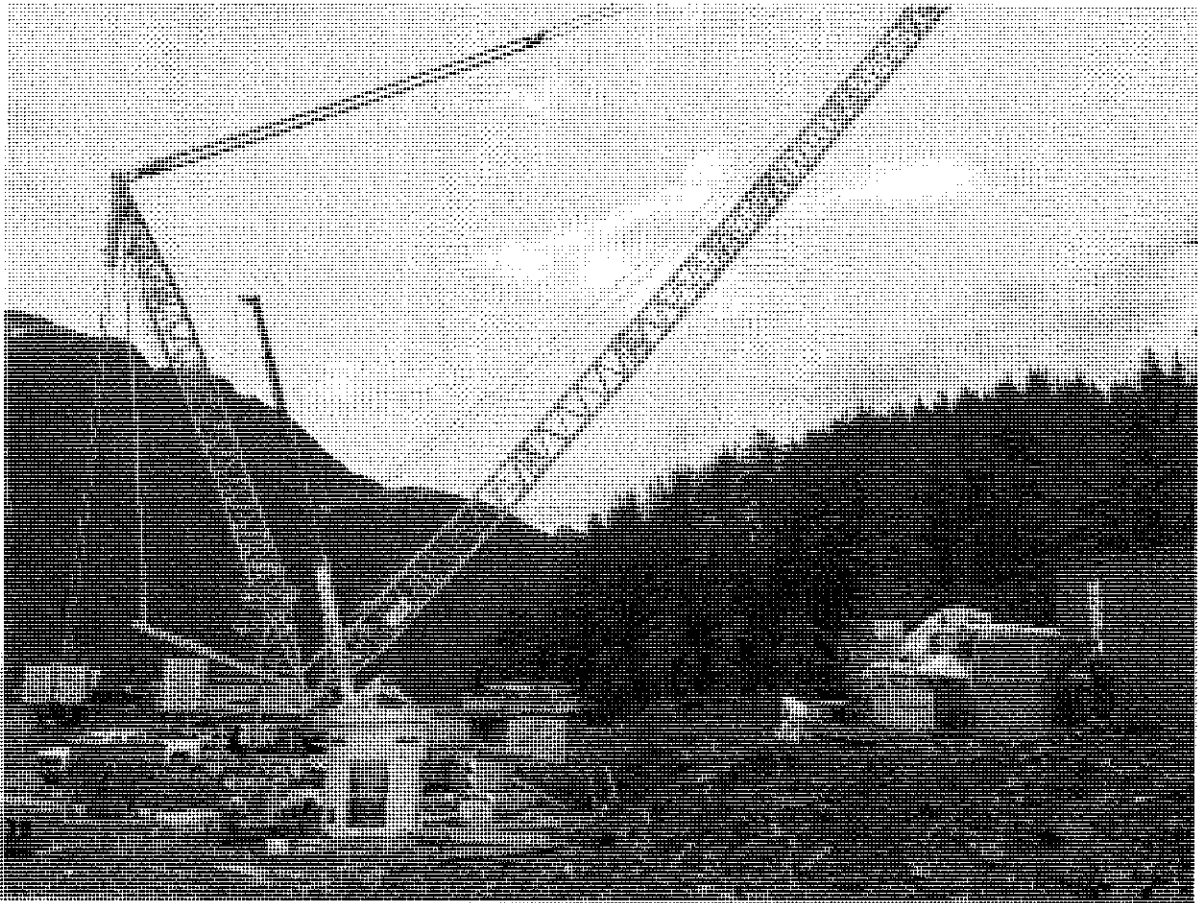
**Figure 2. Drainage Tunnel and Sensor Wall, Crain Subcontractor completed installing six permeable rubble walls at the downstream toe of the dam. The 6 wells have all intercepted the rubble filled gut below the dam as desired. Concrete footings have been installed around each well. Completion of this work was only possible due to the dry September.**



**Figure 3. Intake Portal and Right Abutment, Nine blocks are complete on the dam next to the right abutment.**



**Figure 4. Gate House Location, Barnard continued construction of the gate chamber. The floor and walls have been placed. Forms are being installed to place the crown.**



**Figure 5. Dam Staging area, No change this month.**

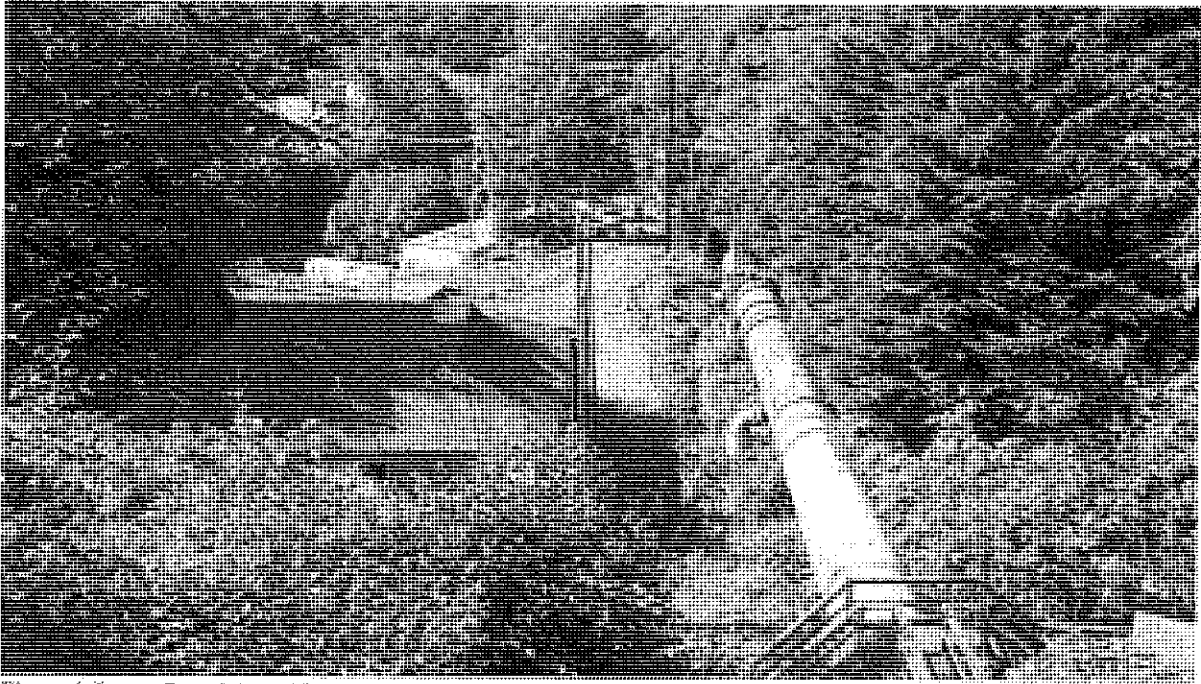
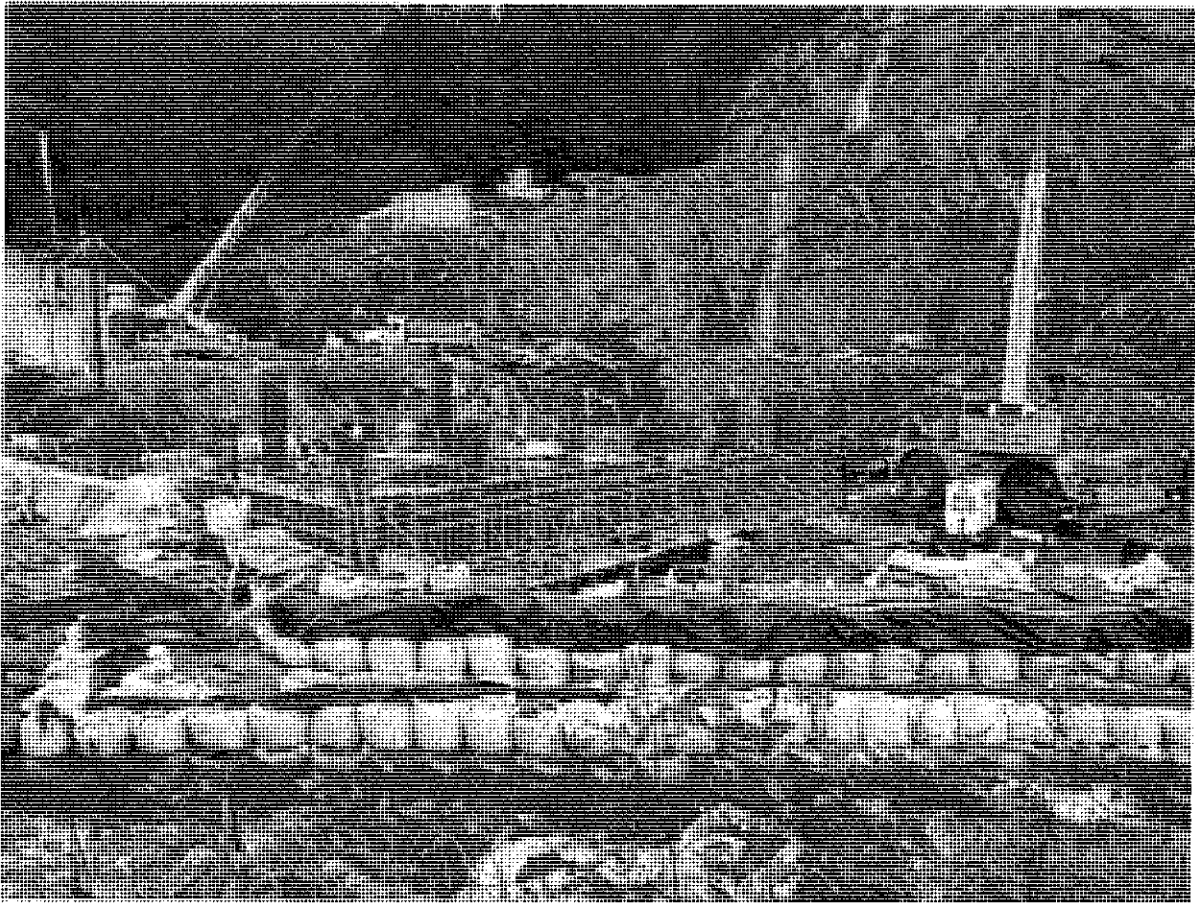


Figure 6. Lower Portal Area, No change this month.



**Figure 7. Fourchamps Site, Arctic Slope Regional Corporation (ASRC) McGraw Construction placed 543 CY completing the draft tube ceiling and the power house to elevation 5.94'. Additionally; a 372 CY placement and a 330 CY placement completing Unit 4 and 5 floor to elevation 13'.**

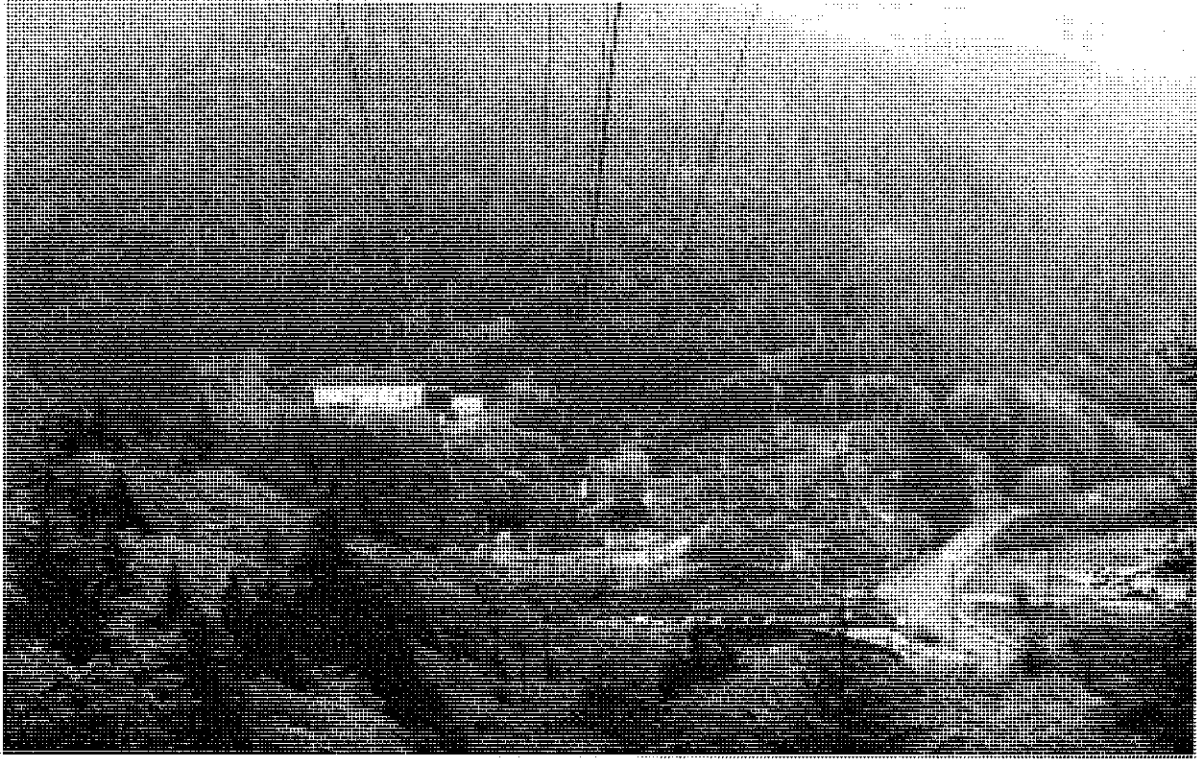


Figure 8. Lower Project Site, Work restricted on the perimeter access road and new powerhouse site.



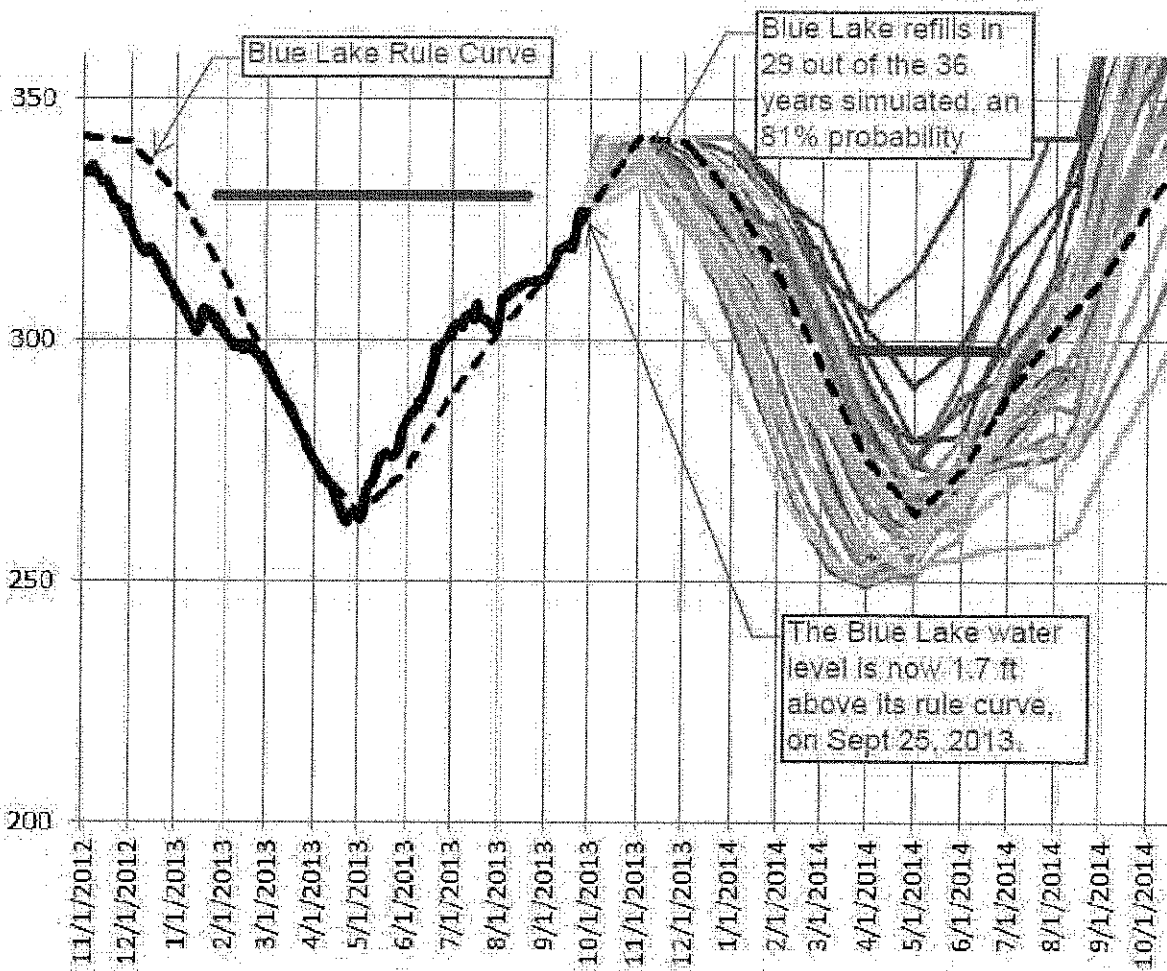
**LAKE LEVEL WINDOW FORECAST**  
**Blue Lake Expansion Project**  
**Contract 9 – General Construction**

Forecast Date: September 26, 2013

Blue Lake WSEL: 326.7 on September 25, 2013

**Highlights:**

1. Through September, the Electric Department continued to cut back the Blue Lake out flows by operating only one Blue Lake turbine-generator unit most of the month. This cut-back is aimed at balancing the water levels in Blue Lake and Green Lake, with a goal of ensuring that both lakes refill fully this fall.
2. With Barnard's installation of a temporary plug in the intake tunnel, the issue of whether the Blue Lake water level will impact construction in 2013 is now moot.
3. Rains in late September helped a lot, both lakes gained several feet relative to their rule curves between September 19 and 25. Blue Lake is 1.7 ft above its rule curve. Green Lake is one foot below its rule curve.
4. The probability of the lakes refilling and spilling has dropped from late August. Blue Lake has an 81% probability of refill and Green Lake, 89%.



**LAKE LEVEL WINDOW FORECAST – GREEN LAKE**  
**Blue Lake Expansion Project**  
**Contract 9 – General Construction**

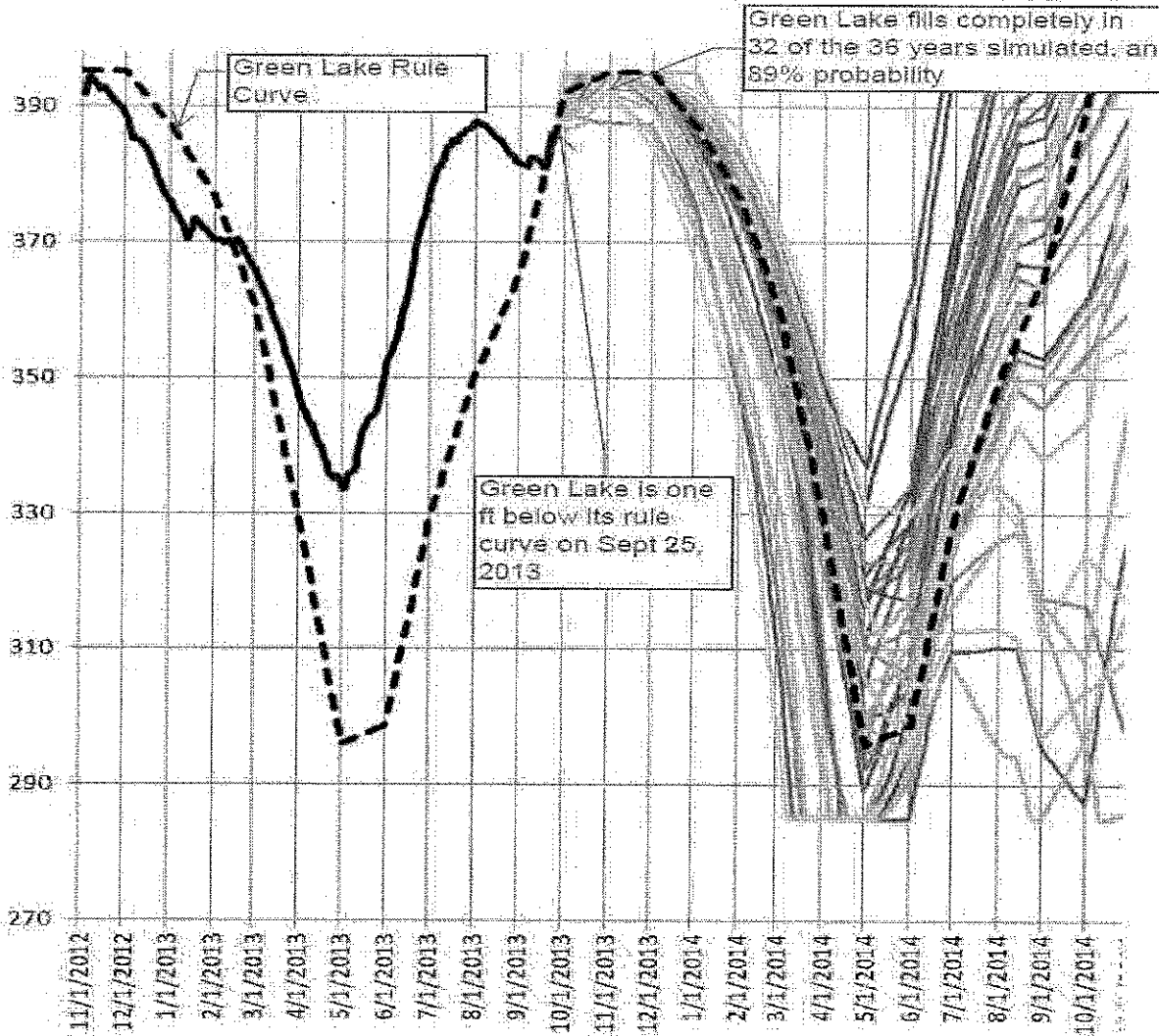
Forecast Date: September 26, 2013

Green Lake WSEL: 385.9 on September 25, 2013

Simulated water levels in Green Lake, for September 26, 2013 lake level forecast.

**Highlights:**

1. CBS Electric Department staff is now running the Green Lake power plant more aggressively (two units on continuously) to reduce Blue Lake generation, store water in Blue Lake and aim towards both lakes spilling about the same time this fall.
2. With more aggressive operation and low rainfall in August and September, Green Lake is now at the same level it was on July 22, more than 2 months ago.
3. The probability that Green Lake will fill completely this fall has now dropped from 97% probable on July 31 to 92% probable on August 29, 2013, to 89% probable on Sept. 26.



*Appendix 1 to Monthly Update for City Assembly*

*September, 2013  
ACTION PLAN  
City Performed Work, for Contract 9*

The following table presents the Project Team’s plan, staffing assignments and schedule to ensure that these owner-furnished design, fabrication and construction elements of the Expansion Project do not delay the construction contractor or result in additional costs.

Blue shaded boxes indicate completed work items.

Yellow shaded boxes indicate items of concern.

Project Element	Design Phase		Fabrication, Delivery and Construction		
	Lead	Date planned/complete	Lead	Date Complete	Notes
PH Plant Function PLC panel, with BOM (north wall, near gridline 4, sits on floor)	S. Kim	4/30/2013/	B. Belley	July 2013	Panel to be “owner furnished” to Barnard. Conduit underneath will go thru cutout.
Industrial water pump pane - control cabinet (outside the south wall of PH)	S. Kim	5/15/2013	B. Belley	June 2013	Panel to be “owner furnished” to Barnard. UPS will give 5-10 minutes of power in the event of an outage. (OK).
Industrial water pump panel VFD cabinet (inside the east wall of PH—southeast corner)	S. Kim	7/15/2013	B. Belley	August 2013	Included with industrial pump panel. See above
Fish Valve Unit as-built	R. Dryden	4/18/2013/			95% of the work that needs to be done is CAD work, to be transferred to the EES CAD team.
Fish Valve Unit interconnection wiring design, diagrams	R. Dryden	6/1/2013/	B. Belley	Oct 2014	Install wiring and startup FVU after Generation Outage. Lots of CAD; similar to the above.
Switchyard control panels – <b>First Priority for Bob</b>	R. Dryden	4/15 /14	B. Belley		Need final drawings from Bob. CBS has 90% of material on site.
Switchyard control enclosure (building)	R. Dryden	4/20/2013/	Parkline		Rennie and Donny Byrd will build the foundation and erect the building.
Switchyard control conduit					Bruce and line crew will install conduit.
Configure Blue Lake Control Room	Tal Frank Dean		Tal		Dean marked up DP-3 panel drawing to show circuits needed for SCADA.
Transfer Green Lake SCADA system	Tal			9/1/2013	Green Lake SCADA system will be located in the SCADA closet, not the Plant function cabinet.
<b>Work in the more distant future</b>					
Site to Site Fiber optic	J. Wheeler, B. Belley	Design Complete and March	Chatham	6/1/2014	Fiber needs to be terminated at the following locations: Gate house, FVU, Switchyard control building, BLU SCADA.
In-plant fiber optics	T. Honadel		B. Belley	6/1/2014	This is 12 fiber cable between SCADA devices at the Blue lake site
SCADA system design and supply	T. Honadel, D. Orbison	Nov 2013	T. Honadel, B. Belley	3/1/2014	Tal has the UEE tags to proceed. Tal witnessed the Gilkes FAT test and is incorporating UEE data in the CBS SCADA system.
PH interconnection diagrams	S. Kim	2/15/2014			Design of interconnects needed to quantify cable schedules. Barnard needs for install in 2014. Seung needs UEE interconnect to complete.
Relay Coordination and Ground Fault Study	EPS Corp.	2/1/2014	EPS	6/1/2014	These are settings for the protective relays and controls
Station interface with old Blue Lake PH	B. Dryden	1/15/2014	J. Wheeler	Nov 2014	Re-power existing PH as a shop area, after Generation Outage. Make sure conduit is in the right place.

## *Appendix 2 to Monthly Update for City Assembly*

**September 30, 2013**

### **Summary of Temporary Filtration Project Status**

#### **Alternative Water Source Investigation Filtration (Blue Lake Project):**

It was decided by Public Works, Water Department, and the Electrical Department to incorporate this work into the general construction contract for the Blue Lake Expansion at a meeting held August 28, 2013. It was decided that:

- CH2MHILL will develop a price request that will be submitted to Barnard as a change order for the supply and installation of the temporary filtration plant for Indian River.
- CH2MHILL will select the filtration elements and proceed with the final design. Barnard will be given the opportunity to adjust their price based on the final design.
- McMillen will perform the construction management.
- The City will provide plant operation with possible assistance from the supplier.

The completion of this work is now in the critical path.

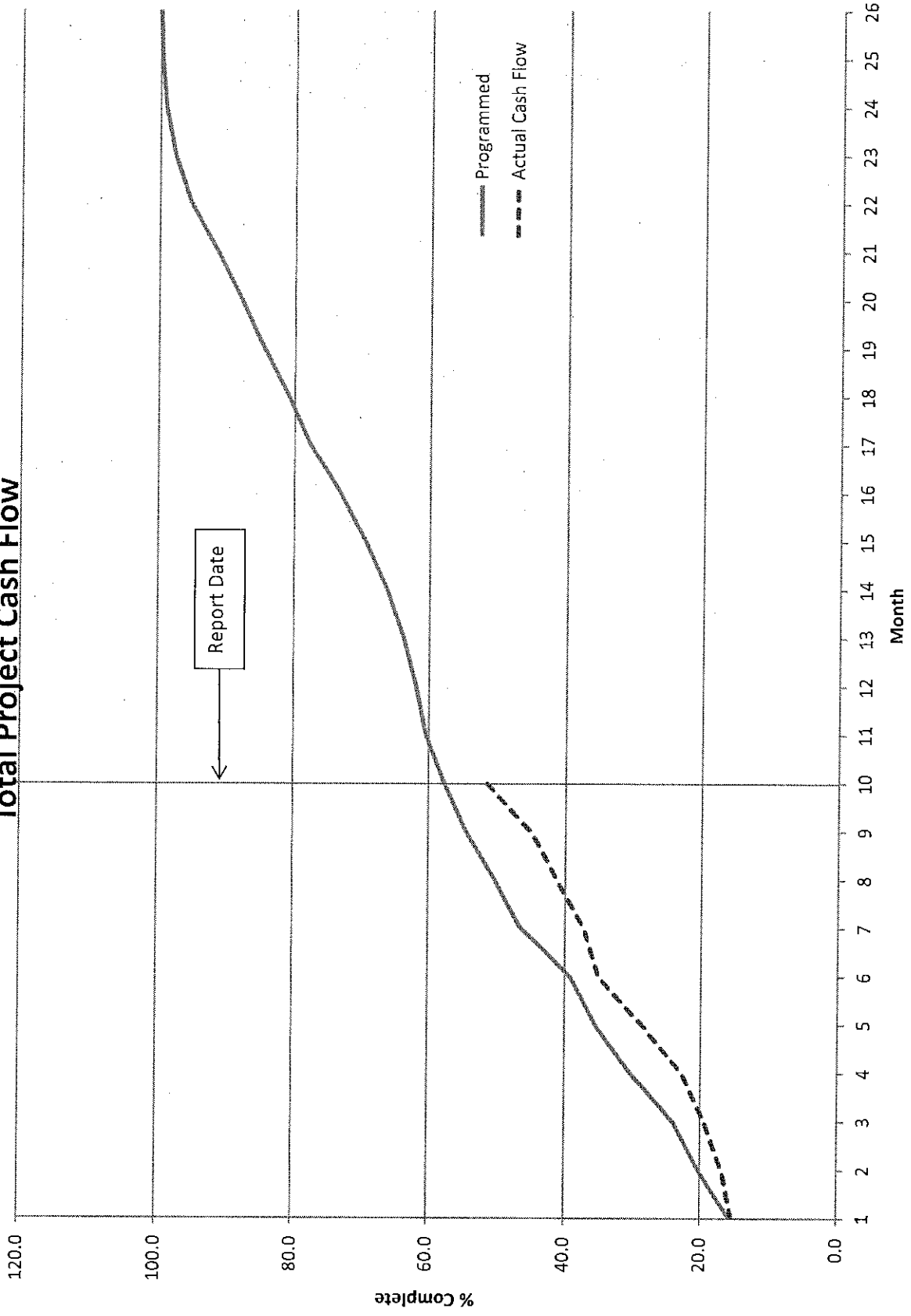
The proposed schedule has the design completed in November 2013, ADEC permitting completed in March 2014, construction of the piping and pumping completed in April 2014 and final installation of the filter units in June 2014 for operation in July 2014. The preliminary design cost estimate has a projected design and construction cost of \$3,000,000. Due to the lack of well potential in the Indian River Valley, temporary surface water filtration will need to be utilized during the Blue Lake Project outage.

Award of the design contract was approved by the Assembly on February 12, 2013.

#### **Installation of Titan I30 Turbine for Standby Generation:**

- All Titan Complex site retaining walls and sub-grade compaction is now complete.
- Titan Turbine Generator Unit heavy foundation is now being formed, steeled, anchor-bolt aligned and ground grid tie-in prepped.
- Concrete pouring for this unit is scheduled for first week in October; weather permitting (approximately 70 yards high-strength).
- Titan exhaust stack forming and pouring to follow immediately, weather permitting.
- Final U/G circuit planning nearly complete and planning that careful excavation first week in October, weather and materials arrival dependent.
- Mike Carson, electrical engineer for the substation, is scheduled to attend Titan GSU Transformer testing in Missouri October 24-28. This critical transformer scheduled to ship in November.
- Solar Titan unit testing scheduled for November at San Diego. Solar has not indicated any change from the planned March, 2014 Titan Complex arrival at Sitka dockside.
- Final completion of cableways, additional support structures, ground grid and many project details must await the main Titan Package setting on the foundation in the spring. A clear crane operating field is required for this 110 ton structure to be placed in final position.
- The planned fully operational Titan target date is June, 2014.
- Final ADEC Minor Permit AQ0014MSS02 was issued September 25, 2013.
- PCN #004 was received from Solar for the design and installation of a fuel treatment skid. Fuel skid was a requested alternative to a fuel oil purifier. Evaluation of proposal, including cost, is underway.

# Total Project Cash Flow



## BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

### **1. Progress of work**

#### 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.

#### Gate Chamber Concrete

Barnard has completed all of the floor and wall concrete placements in the Gate Chamber, behind the concrete plug. Our crews have started setting the pre-built crown formwork with anticipation of placing the crown concrete in early October.

#### Dam Raise

Barnard crews have completed 10 monolith block pours on the dam raise. Our crews are continuing to work on both sides of the existing spillway during the first season work. Barnard crews have also begun concrete work on the left abutment thrust block.

Crux Subsurface has completed the consolidation grouting for the left abutment thrust block and cutoff wall above Elevation 390. All consolidation grouting is now complete.

Crux Subsurface has completed installation of the six pressure relief wells in the plunge pool. Barnard assisted Crux with the placement of the concrete protection caps for each of the wells.

#### Powerhouse

ASRC McGraw has completed the concrete for approximately ½ of the Elevation 13 floor slab in the powerhouse. NAES Power Contractors and Schmolck Mechanical are both working at the powerhouse now to install the embedded drain piping and electrical conduit.

Southeast Earthmovers continues rock excavation for the new powerhouse access road and completed Phase 1 of the penstock excavation.

Barnard crews have installed the first three segments of penstock pipe in the powerhouse to allow the EL 13 concrete placements to be completed.

### **2. Status of Construction**

#### **Status of Ongoing Major Construction Activities**

- Powerhouse Excavation – 85% complete
- Dam Raise – 900 CY placed to date.
- Powerhouse Concrete – 1900 CY placed to date.
- Gate Chamber Concrete – 100 CY placed to date.
- Thrust Block Consolidation Grouting – Complete

## BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

- Penstock Piping – 135 LF installed.
- Pressure Relief Wells – Complete.

See Section 1 above for construction work completed in September 2013.

### **3. Construction Issues**

The team identified a non-conformance at the Powerhouse in September. It was determined that the powerhouse has been constructed 0.23 feet higher than design elevation. We have determined that we can continue to build the powerhouse at the higher elevation. We are in the process of determining the corrective measures to regain the 0.23 feet of head loss due to the higher turbine centerline elevation.

### **4. Contract Status**

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

<b>Name</b>	<b>Scope</b>
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:

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

### **5. Critical Events and Dates**

Please see attached summary progress schedule updated August 31, 2013.

Critical Dates for the Blue Lake Project are as follows:

<b>Milestone</b>	<b>Date</b>	<b>Required Status of Construction</b>
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
4	08/24/2014	Ready for Generation Outage

## BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

5	61 days after start of Generation Outage	Substantial Completion of 1 <sup>st</sup> Blue Lake Turbine Generator
6	91 days after start of Generation Outage	Substantial Completion of 2 <sup>nd</sup> Blue Lake Turbine Generator
7	80 days after start of Generation Outage	Substantial Completion of Fish Valve Unit

### 6. Reservoir Filling

Not applicable for this report

### 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.

<b>Contract No.</b>	<b>Vendor</b>	<b>Scope of Supply</b>
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

Materials Received this Period:

Rebar – Barnard has been receiving reinforcing steel for the powerhouse and dam throughout the month of September.

Misc. Metals - Barnard has been receiving misc. metals for various project features throughout the month of September.

Turbine Generator Equipment (Contract 1) – Barnard received the remainder of the T/G equipment in September. Gilkes representatives were onsite in September to inspect the equipment.

Fixed Cone Valve - Barnard took receipt of the fixed cone valve for the penstock drain in late September.



## BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

### **9. Material Testing and Results**

Concrete testing is ongoing for the dam raise, gate chamber and powerhouse concrete. No issues have been encountered to date.

### **10. Instrumentation**

Not applicable for this report.

### **11. Photographs**

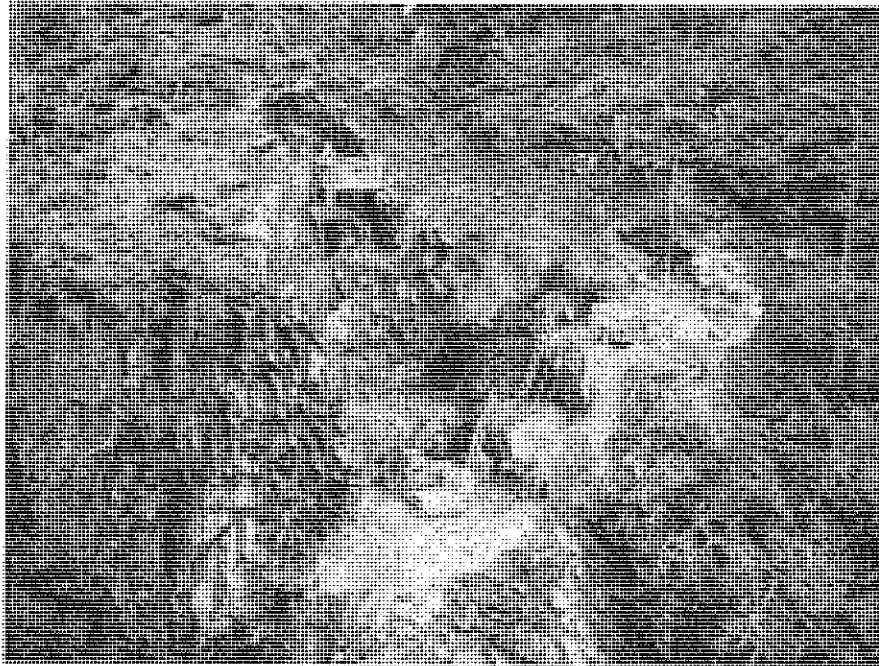
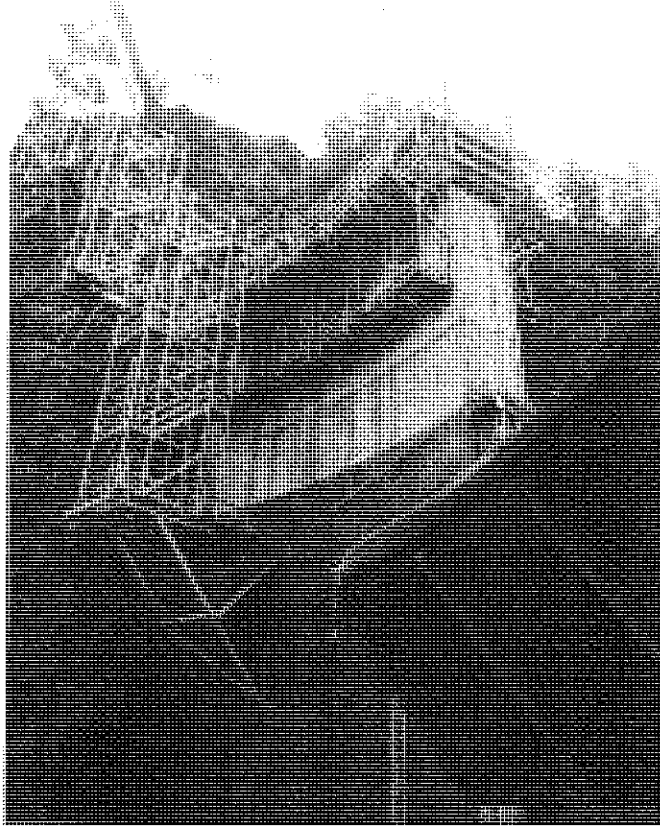


Figure 1: Cut-off Wall Consolidation Grouting

**BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT**

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

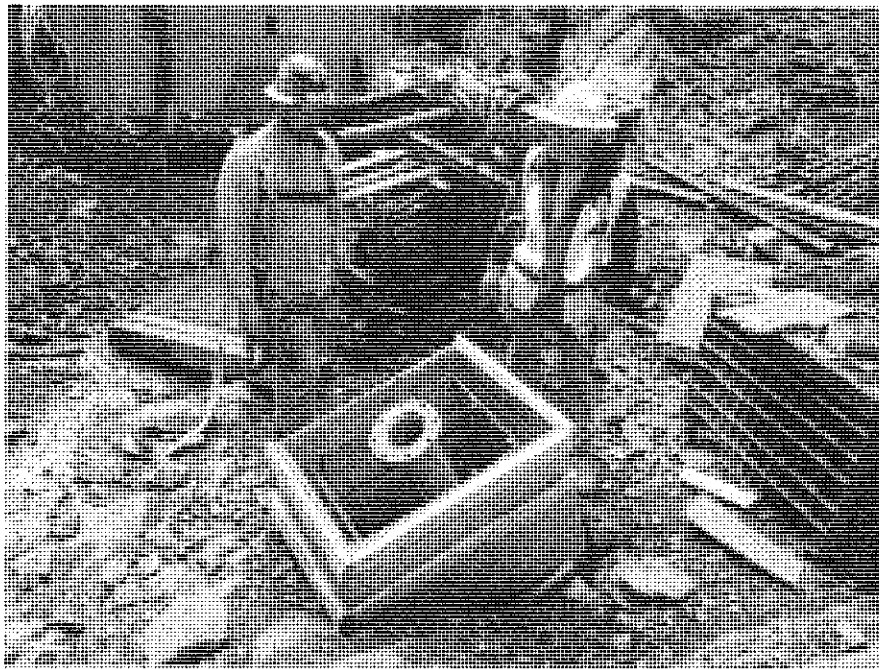


**Figure 2: Dam Raise**

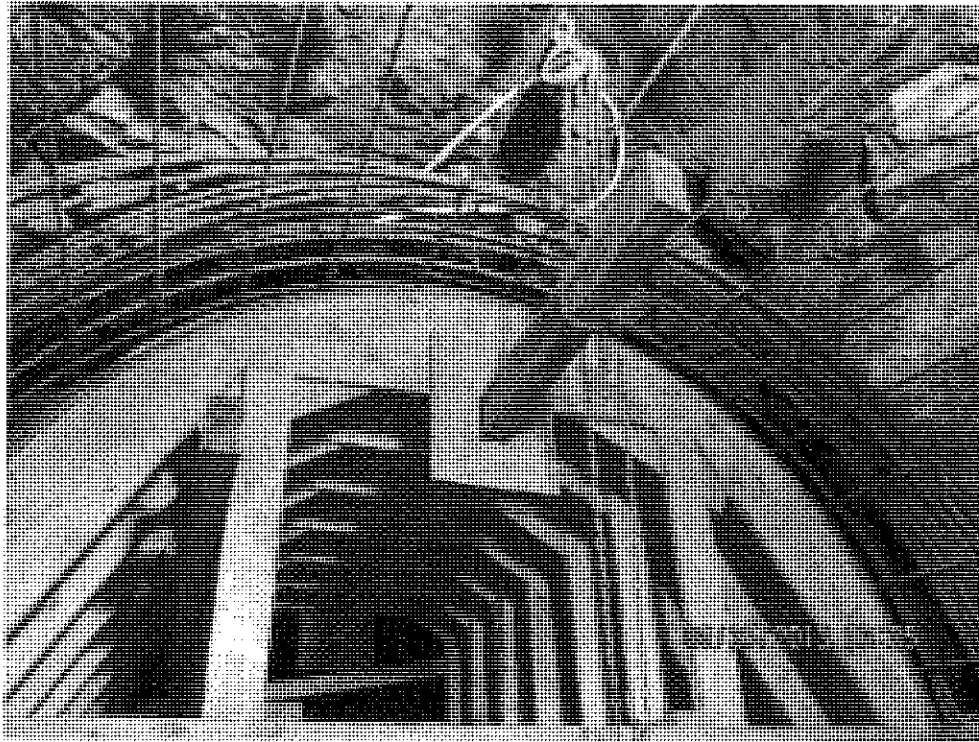
**BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT**

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.



**Figure 3: Pressure Relief Well Cap**



**Figure 4: Gate Chamber Crown Formwork**

**BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT**

For Period Ending: SEPTEMBER 30, 2013

Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

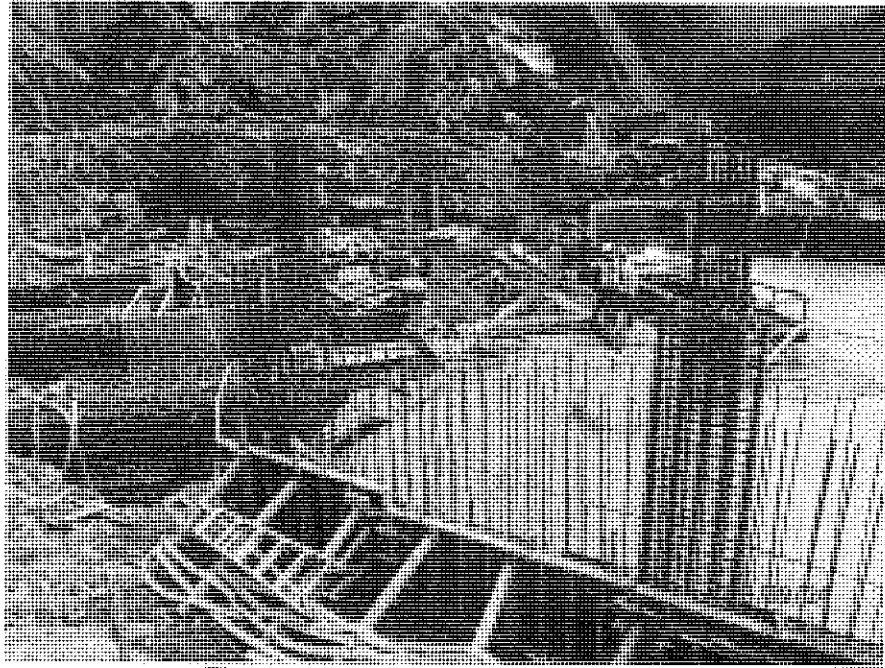


Figure 5: Powerhouse E.L. 13 Finished Floor

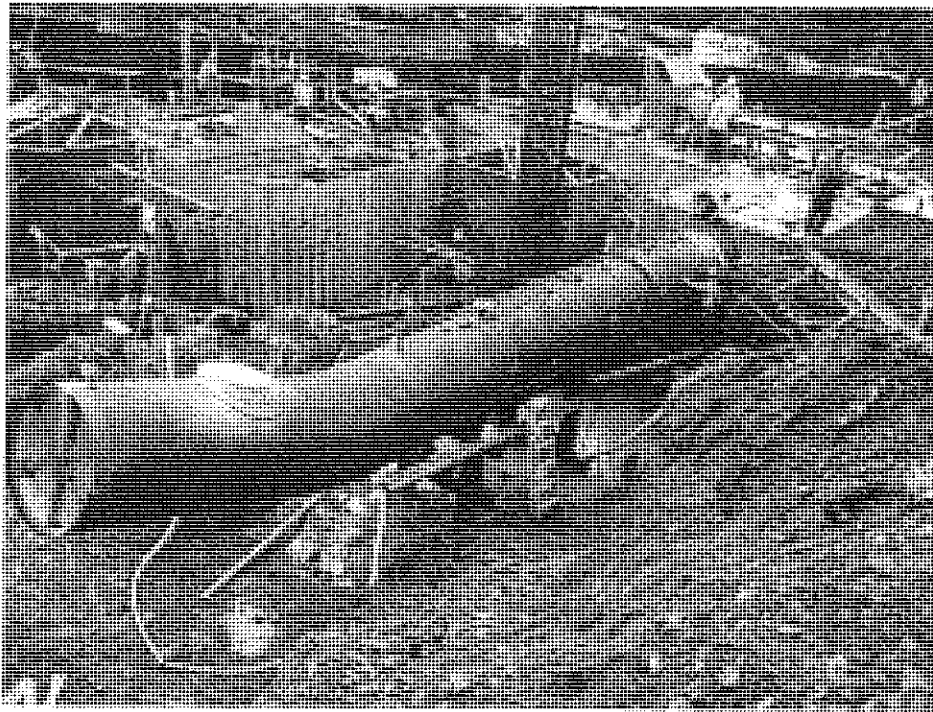


Figure 6: Unit 5 Penstock

## **BLUE LAKE EXPANSION PROJECT MONTHLY CONSTRUCTION REPORT**

For Period Ending: SEPTEMBER 30, 2013

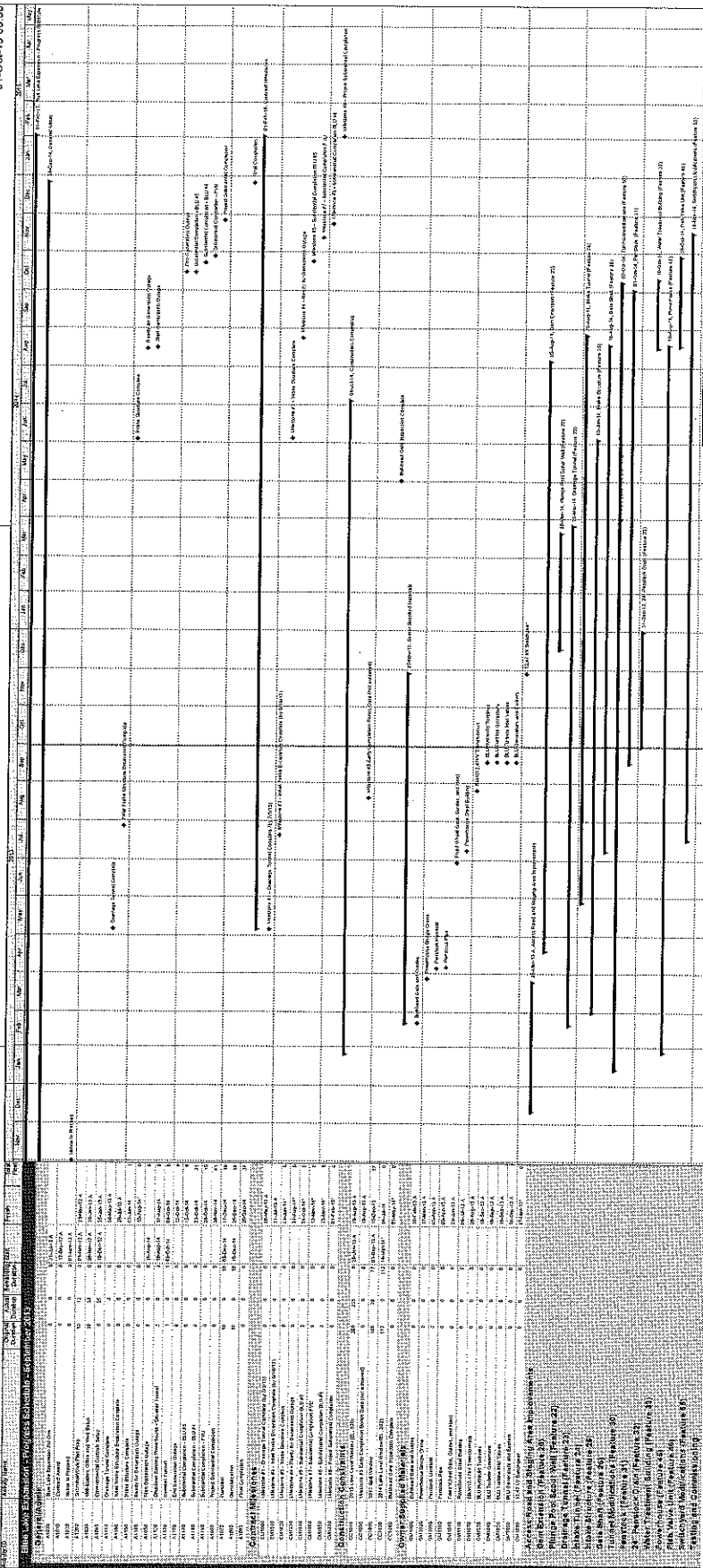
Prepared by: BARNARD CONSTRUCTION COMPANY, INC.

### **12. Erosion Control and Other Environmental Issues**

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**

Blue Lake Expansion - Progress Schedule - September 2013



01-Oct-13 09:00