# RECLAMATION Managing Water in the West

## MID-PACIFIC CONSTRUCTION OFFICE Willows, California

### **Construction Progress Report L-29**





## CONSTRUCTION PROGRESS REPORT (L-29) MID-PACIFIC CONSTRUCTION OFFICE MID-PACIFIC REGION AUGUST 2017

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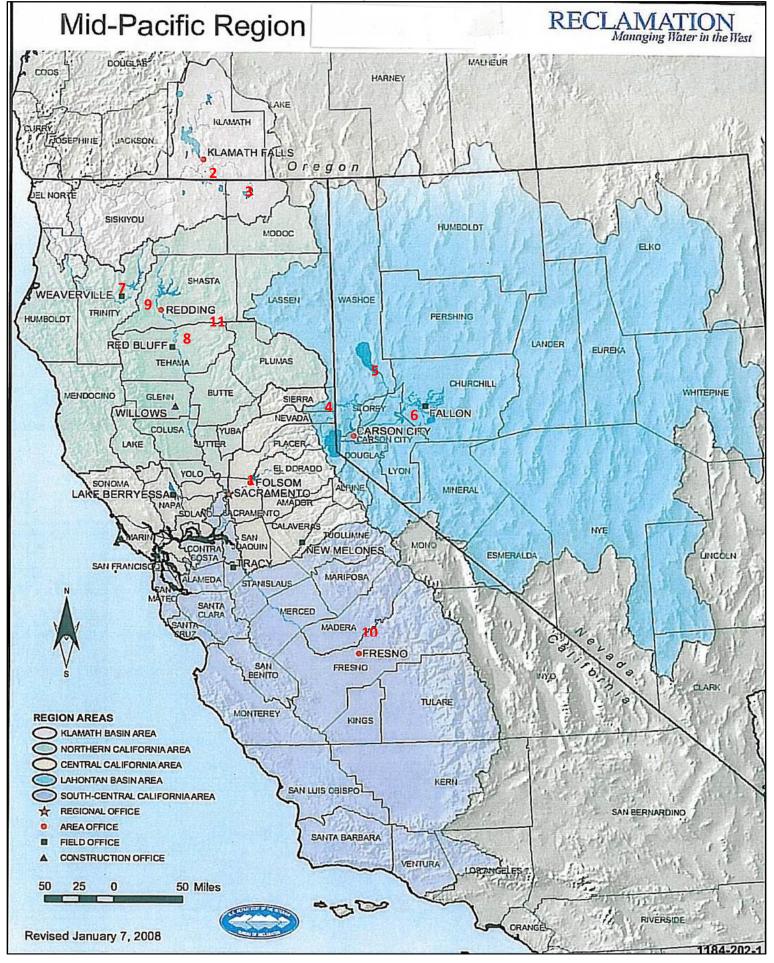
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#### Areas in the Mid-Pacific Region Where Work was Performed





## STAFFING MID-PACIFIC CONSTRUCTION OFFICE

The Mid-Pacific Construction Office had 34 construction and administrative employees at the close of this month as follows:

Construction Engineer's Office	1
Preaward and Project Management Group	3
Administrative Management	6
Division of Field Engineering	17
Division of Office Engineering	4
Materials Lab Branch	3



### GLOSSARY ACRONYMS AND ABBREVIATIONS

ACRONYM	MEANING
0040	Central California Area Office
CVD	Central Valley Project
KBAO	Klamath Basin Area Office
LBAO	Lahontan Basin Area Office
MP	Mid-Pacific Regional Office
14000	Mid-Pacific Construction Office
NCAO	Northern California Area Office
SCCAO	South Central California Area Office
SJRRP	San Joaquin River Restoration Program
TO	Tracy Office



### **Central California Area Office**

# Contract No. R10PC20019 Specification No. 20-C0689 Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement - Folsom Unit, American River Division, Central Valley Project, California Andritz Hydro, Charlotte, NC

Work Performed August 0.0%

Time Elapsed 100.0% Work Completed 100.0%

Contractor Earnings August \$0.00

Previous \$20,610,792.74 Total to Date \$20,610,792.74

#### **Area Office Project Management**

Project Manager: Jonathan Rogado, MP-250

#### Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Before contract completion the following work will be performed:

Acceptance testing for Unit 3.

Remaining warranty inspections for Units 1, 2, and 3.

Final submittals (including As-built Drawings and O&M Manuals).

#### Field Engineering

Construction Manager: Reynaldo Garcia, MPCO-310 Construction Representative: Todd Dooley, MPCO-314.

Number of Contractor Employees: 0

#### **Work Performed**

# Contract No. R14PC00096 Specification No. 20-C0816 Nimbus Dam Radial Gate Repairs, Phase III – Nimbus Dam, American River Division, Central Valley Project, California Alltech Engineering Corporation, Mendota Heights, MN

Work Performed	August	2.7%
	Time Elapsed	94.6%
	Work Completed	64.4%
Contractor Earnings	August	\$395,097.68
_	Previous	\$8,904,388.27
	Total to Date	\$9,299,485.95

#### **Area Office Project Management**

Project Manager: Jonathan Rogado, MP-250

#### Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Invoice No. 25, in the amount of \$395,097.68 for work performed from July 1, 2017 to July 31, 2017, was received this reporting period.

#### **Field Engineering**

Construction Manager: Reynaldo Garcia, MPCO-310 Construction Representative: Michael Manlick, MPCO-313

Number of Contractor Employees: 8

#### **Work Performed**

The following work was performed at Gate 7. The scaffolding was removed. Temporary anchor holes were cleaned, prepped, and packed with mortar. The new wire ropes were synchronized to matching lengths. The gate was cycled to tension and stretch the ropes. The trunnion pins were lubricated. Coating touch-up was performed on a few hard-to-reach areas of gate 7. The new gate seal and clamp bars were installed, and the gate was cycled to check tensioning. A light test was used to check for voids. No voids were found after testing. The gate guide shoes and new shims were installed. The mechanical counter was adjusted, setting it at "0" with the gate seated properly on the bottom sill. The cathodic protection anode assemblies were installed on each of the lifting bracket assemblies and tested for continuity. Seepage from the new gate seal was checked on the downstream spillway and confirmed to be within specifications. The chain hoist anchors and pad eyes were removed from the bottom caisson. The electric water pump was removed; and the bulkhead and pier braces were relocated to Gate 6.

The following work was performed at Gate 6. The bulkhead was installed between the piers and the pier braces were installed as water was drained from the gate chamber. Gate 6 seals and clamp bars were removed. The lifting link assemblies were removed and the lifting bracket eyes were honed and measured. The existing bushings were temporarily reinstalled and the temporary link assemblies were installed allowing the gate to be placed on stands. All guide shoe, shim, bolt hole, and gate measurements were taken.

The existing wire ropes were removed and replaced with the Government supplied new ropes. Scaffolding was erected on the upstream and downstream sides of the Gate 6. A heat shrink containment wrapping was installed over the scaffolding.

Abrasive blasting was performed on both sides of the gate structure; and a brushing, blow-down, and vacuuming prepared the Gate 6 for weld pit examination and repairs.

Painters performed some coating work on the powerplant's downstream handrails; applying a yellow UV resistant polyurethane top coat over the primer coat.

#### Contract No. R16PC00075 Specification No. 20-C0838

## Folsom UHA Switchgear Replacement – Folsom Unit, American River Division, Central Valley Project, California Cal Electro, Inc., Redding, CA

Work Performed	August	29.2%
	Time Elapsed	100.3%
	Work Completed	84.2%
Contractor Earnings	August	\$926,337.22
_	Previous	\$1,747,750.00
	Total to Date	\$2,674,087.22

#### **Area Office Project Management**

Project Manager: Vanhue Ly, CC-614

#### Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Invoice 05 was received this reporting period, in the amount of \$926,337.22, for work performed from June 22, 2017 to August 1, 2017.

#### **Field Engineering**

Construction Manager: Reynaldo Garcia, MPCO-310 Construction Representative: Sean Frische, MPCO-317

Number of Contractor Employees: 14

#### **Work Performed**

All circuits from the temporary switchgear have been returned to the new UHA switchgear. The contractor began and completed disassembly of the temporary switchgear this month. The contractor completed installing new power cables for the switchyard station service and transformers KV9A and KZ4A. Subcontractor Pacific Power Testing completed functional testing of the switchgear. The new UHA switchgear is fully energized and operational.

The contractor finished assembling the peripheral items and connecting the internal wiring in the prefabricated control building. The final anchoring of the building to the concrete slab is being addressed by the building manufacturer.

The contractor then began cleaning up the site, addressing punch list items, and demobilizing.

Contract No. R16PC00113
Specification No. 20-C0858
Folsom Dam Municipal and Industrial Temperature Control
Device Safety Measures, Folsom Unit, American River Division,
Central Valley Project, California
Sapper West, Inc., Sacramento, CA

Work Performed	August	0%
	Time Elapsed	75%
	Work Completed	21%
Contractor Earnings	August	\$0.00
	Previous	\$63,021.24
	Total to Date	\$63,021.24

#### **Area Office Project Management**

Project Manager: Brian Zewe, CC-612

#### Office Engineering

Contract Manager: Kent Perkes, MPCO-225

#### **Field Engineering**

Construction Manager: Reynaldo Garcia, MPCO-310 Construction Representative: Todd Dooley, MPCO-314

Number of Contractor Employees: 0

#### **Work Performed**

## Contract No. R17PC00100 Specification No. None

## Folsom Dam Auxiliary Spillway American River Phase V – Right Bank Stabilization, Folsom Unit, American River Division, Central Valley Project, California

#### Harrison Western Construction Corporation, Lakewood, CO

Work Performed	August Time Elapsed Work Completed	0% 0% 0%
Contractor Earnings	August Previous Total to Date	\$0.00 \$0.00 \$0.00

#### **Area Office Project Management**

Project Manager: Kyle Keer, CC-108

#### Office Engineering

Contract Manager: Kent Perkes, MPCO-225

This contract was awarded on August 29, 2017, to Harrison Western Construction Corporation in the amount of \$1,333,200.00.

#### **Field Engineering**

Construction Manager: Reynaldo Garcia, MPCO-310 Construction Representative: Ben Richburg, MPCO-318

Number of Contractor Employees: 0

#### **Work Performed**

### Klamath Basin Area Office

#### Contract No. R17PC00083

#### **Specification No. None**

### Tule Lake Road Improvement Phase 2- Klamath Project, Oregon - California

#### Coleman Environmental Engineering, Inc., Upper Lake, CA

Work Performed	August	0.0%
	Time Elapsed	0.0%
	Work Completed	0%
Contractor Earnings	August	\$0.00
	Previous	\$0.00
	Total to Date	\$ 0.00

#### **Area Office Project Management**

Project Manager: Mike Green, KO-400

#### Office Engineering

Contract Management: Amber Pierce, MPCO-205

#### Field Engineering

Field Engineer: Brian Wagner, MPCO-300

Onsite Government Representative: Russell Davies, MPCO-341.

Number of Contractor Employees: 0

#### **Work Performed**

## **Lahontan Basin Area Office**

# Contract No. R16PC00062 Specification No. 20-C0850 Stampede Dam, Dam Safety Modifications - Stampede Division, Washoe Project, Nevada-California NW Constructors, Inc., Bozeman, MT

Work Performed	August	8%
	Time Elapsed	50.0%
	Work Completed	41.1%
Contractor Earnings	August	\$1,803,225.77
	Previous	\$7,420,778.21
	Total to Date	\$9,224,003.98

#### **Area Office Project Management**

Project Manager: Todd Hill, MP-240

#### Office Engineering

Contract Manager: Kent Perkes, MPCO-225

Invoice No. 10, in the amount of \$1,803,225.77, for work performed from July 1, 2017 to July 31, 2017, was received this reporting period.

Modification No. 0015 - Various In-Scope Changes to Drain Pipe Plan, was executed August 15, 2017, in the amount of \$98,000.00.

#### Field Engineering

Construction Manager: Kyle Hughes, MPCO-324

Construction Representative: Zahid Wazid, MPCO-349; Sean Hill, MPCO-328, Dennis Schuenemann, MPCO-338; Mario Pereira, TSC; Kenneth Taylor, TSC

Number of Contractor Employees: 46

#### Work Performed

NW Construction continued installing Mechanically Stabilized Earth (MSE) wall panels for the dike sections between stations 24+55 to 9+05. The third, fourth and fifth course of panels were installed during this period. The sixth course of panels are the only MSE walls yet to be complete. The Zone 2A (2-inch minus processed backfill) and Zone 2B (filter sand) backfill was completed from elevation 5973-ft to 5979-ft. Reinforced Earth Company representatives monitored the panel installation at the dike and adjusted the panel batter to 0.75-inches. NW Construction started staining the bottom course of MSE panel. NW Construction continued installing MSE wall panels between stations 37+40 to 49+10 for the dam section. The first, second, and third course of panels were installed this month. There are three remaining courses of panels to be completed on the dam, in addition to the step up panels on the left abutment, and panels tying in to the spillway from station 37+40. The Zone 2A and Zone 2B backfill was completed from elevation 5969.1-ft to 5976-ft.

Subcontractor, Camblin Steel, started and finished installing the reinforcement bars for the first lift of spillway wall, counterforts, and headwall. Syblon Reid finished installing formwork and placing concrete for the first spillway wall lift and counterfort walls between stations 4+77.75 and 5+15.00 from elevation 5946.95-ft to elevation 5965.5-ft. Syblon Reid also finished formwork and placing concrete for the headwall from elevation 5958.10-ft to 5965.50-ft. Truckee-North Tahoe Materials (TNT) supplied the concrete (Mix No. 75417, 5000-psi), 7.5-sack mix with 25-percent flyash replacement, 60-percent water replaced with ice, air entrainment admixture and mid-range water reducer admixture. The concrete temperature averaged 57-degrees at placement, the air content averaged 5.9-percent, and the slump averaged 5.1-inches. Concrete was placed in 20-inch lifts with a total of 11 lifts. Each lift was consolidated using 2-½-inch diameter vibrator spaced approximately 10-inch apart or as practical. Vibration windows were cut out on the formwork for placing the vibrators for the counterfort placement. A total of 298.5 cubic yards of concrete was placed. After the placement, the subcontractor placed blankets on the concrete for protection.

NW Construction finished excavating wetland to the modified drawings. The wetland specialist is expected to start transplant next month.

Subcontractor, Diversified Contractors, started mobilizing equipment for replacing the fence on the spillway. An engineered scaffold system was installed inside the spillway wall for hoisting equipment and to provide a work platform.

NW Construction continued placing riprap at the completed section of the upstream slope over the riprap bedding. Placement of the cobble protection material was completed on the downstream slope. Topsoil was spread around the downstream toe area for final stabilization work. NW Construction continued backfilling the new Vista Point Road. NW Construction then finished the required dam excavation. Excavated material was utilized for either the embankment crest backfill, the O&M road, or the new vista access road. NW Construction started and finished installing the Mechanically Stabilized Earth (MSE) wall toe drain system for the dam section. The toe drain system includes installation of the sand filter material, gravel envelope around the perforated toe drain pipe, and non-perforated outfall pipe.

Subcontractor Nassco Pipeline Services conducted initial video inspection of the installed pipes. The pipes will require some cleaning.



Stampede Dam, Dam Safety Modifications A view of fifth course of panels on the dike.



Stampede Dam, Dam Safety Modifications
A view of the survey stakes marking the area for the step up leveling pad.



Stampede Dam, Dam Safety Modifications
A view of the concrete placement for the first wall lift on the spillway.

# Contract No. R17PC00063 Specification No. 20-C0860 Marble Bluff Dam and Fish Passage Facility Radial Gate Rehabilitation – Washoe Project, Nevada-California Diana Prince Construction, Inc., Irvine, CA

Work Performed	August	3.6%
	Time Elapsed	20.0%
	Work Completed	3.6%
Contractor Earnings	August	\$31,163.76
_	Previous	\$0.00
	Total to Date	\$31,163.76

#### **Area Office Project Management**

Project Manager: Kristine Flynn

#### Office Engineering

Contract Administrator: Madelyn Giles, MPCO-230

Invoice No. 01, in the amount of \$31,163.76, was received this reporting period for work performed from July 17, 2017 to August 31, 2017.

#### **Field Engineering**

Construction Engineer: Reynaldo Garcia, MPCO-310

Construction Representative: Todd Dooley, MPCO-314, Michael Manlick, MPCO-313

Number of Contractor Employees: 0

#### **Work Performed**

#### Contract No. R17PC00067 Specification No. None Lahontan Dam Rated Vehicle Barrier System - Newlands Project, Fallon, Nevada Sentinel Builders LCC, Sparks NV

Work Performed	August Time Elapsed	0.0% 40.0%
	Work Completed	0.0%
Contractor Earnings	August	\$0.00
	Previous	\$0.00
	Total to Date	\$0.00

#### **Area Office Project Management**

Project Manager: Scott Schoenfeld, LO-410

#### Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

This contract was awarded on June 1, 2017 in the amount of \$146,535.00.

#### Field Engineering

Construction Engineer: Reynaldo Garcia, MPCO-310 Construction Representative: Reynaldo Garcia, MPCO-310

Number of Contractor Employees: 0

#### **Work Performed**

# Northern California Area Office

Contract No. R15PC00150
Specification No. 20-C0824
Trinity Dam Intako Mochani

## Trinity Dam Intake Mechanical Equipment Refurbishment/Gate Shaft Refurbishing, Phase I - Trinity River Division, Central Valley Project, California

BCI Construction USA, Inc., Belleville, IL

Work Performed August 0.0%

Time Elapsed 88% Work Completed 99.0%

Contractor Earnings August \$0.00

Previous \$2,626,778.50 Total to Date \$2,626,778.50

#### **Area Office Project Management**

Project Manager: Robert Gee, NC-230

#### Office Engineering

Contract Manager: Kent Perkes, MPCO-225

#### Field Engineering

Construction Manager: Brian Wagner, MPCO-300 Construction Representative: Jason Foust, MPCO-325

Number of Contractor Employees: 1

#### **Work Performed**

Data collection for monthly monitoring report.

# Contract No. R15PC00089 Specification No. 20-C0831 Intake 3 Screen Extension, Coleman National Fish Hatchery, Shasta Division, Central Valley Project, California Contractor Services Group, Inc., West Sacramento, CA

 Work Performed
 August Time Elapsed 94.3% Work Completed
 94.3% 90.0%

 Contractor Earnings
 August \$40,301.80 Previous \$1,774,786.25

\$1,815,088.05

#### **Area Office Project Management**

Project Manager: Hank Harrington, NC-210

#### Office Engineering

Contract Manager: Kent Perkes, MPCO-225

Invoice No. 06, in the amount of \$40,301.80, was received this reporting period for work performed from February 1, 2017 to July 31, 2017.

Total to Date

#### **Field Engineering**

Construction Manager: Brian Wagner, MPCO-300

Construction Representative: Fernando Pavone, MPCO-333

Number of Contractor Employees: 1

#### **Work Performed**

CSG crew installed chain tensioners on each of the Fish Screens to alleviate chain jumping on the drive sprockets. The tensioners were installed on the chain between the motor and the screen drive shaft.



Intake 3 Screen Extension, Coleman National Fish Hatchery
An image of the installed chain tensioner.

# Contract No. R16PC00006 Specification No. 20-C0841 Trinity Powerplant Generator Rewinds - Trinity River Division, Central Valley Project, California Voith Hydro, Inc., York, PA

 Work Performed
 August Time Elapsed 66.1% Work Completed
 66.1% 57.3%

 Contractor Earnings
 August \$0.00 Previous \$7,635,407.29 Total to Date
 \$7,635,407.29

#### **Area Office Project Management**

Project Manager: Joe Ascoli, NC-650

#### Office Engineering

Contract Administrator: Madelyn Gyles, MPCO-230

#### **Field Engineering**

Construction Manager: Brian Wagner, MPCO-300

Construction Representative: Stephen Holmes, MPCO-320

Number of Contractor Employees: 1

#### **Work Performed**

The contractor worked on repairing warped plywood flooring and moved crates stored at the east end of the powerplant near the Unit 2 stop logs to prepare for the Unit 2 clearance.

Contract No. R17PC00029
Specification No. 20-C0847
Trinity River Division Powerplants Replacement of Station
Service Transformers and Low Voltage Bus System – Trinity
River Division, Central Valley Project, Trinity and Shasta
Counties, California
Gardner Zemke, Albuquerque, NM

 Work Performed
 August Time Elapsed 20.0% Work Completed
 20.0% 2

#### **Area Office Project Management**

Project Manager: Laurie Larson, NC-211

#### Office Engineering

Contract Administrator: Madelyn Giles, MPCO-230

#### Field Engineering

Construction Engineer: Brian Wagner, MPCO-300

Construction Representative: Stephen Holmes, MPCO-320

Number of Contractor Employees: 0

#### **Work Performed:**

No onsite work was performed during this reporting period.

#### Contract No. R16PC00134 Specification No. 20-C0852

## Whiskeytown Lake, Spring Creek Temperature Control Curtain - Trinity River Division, Central Valley Project, California BCI Construction USA, Inc., Belleville IL

Work Performed	August	10.8%
	Time Elapsed	77.9%
	Work Completed	10.8%
Contractor Earnings	August	\$209,808.30
	Previous	\$0.00
	Total to Date	\$209,808.30

#### **Area Office Project Management**

Project Manager: Robert Gee, NC-230

#### Office Engineering

Contract Manager: Amber Pierce, MPCO-205

Invoice No. 01, in the amount of \$209,803.30, was received this reporting period for work performed from October 1, 2016 to July 31, 2017.

#### Field Engineering

Construction Manager: Brian Wagner, MPCO-300

Construction Representative: Stephen M. Holmes, MPCO-320, Russell Davies, MPCO-341

Number of Contractors Employees: 7

#### Work performed

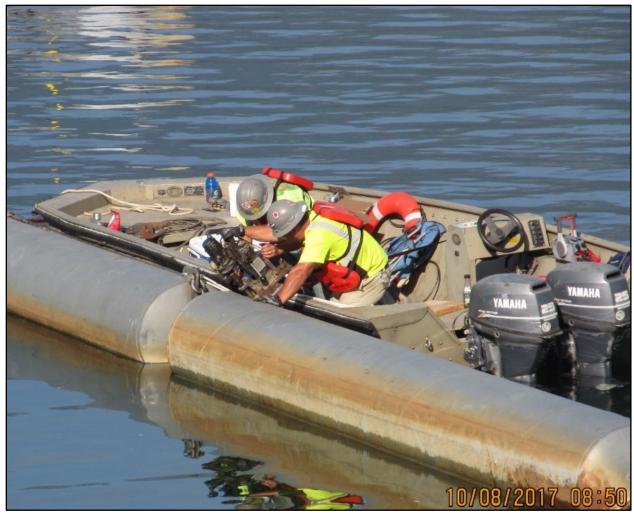
The contractor mobilized two storage containers, supplies, and equipment in the staging area. On-water equipment brought to the site include a shuttle boat and work barge. Supplies, such as chains and shackles, were delivered to the site throughout this period.

The contractor used a drill or a cutting torch for the evaluation and removal of the existing upper bushings on the curtain float tanks. The cutting torch became the favored method of removal after several drill bits broke. Each new bushing was ground out and deburred. The new bushings were welded to the tank end plates. The curtain float tanks were repaired so that the bushings, shackles, and chain links could be replaced. No work was performed on the anchor tanks, or where the curtain float tanks were under tension.

The old shackles and removed tank pieces have been stockpiled in the staging area, to be sorted and given to Reclamation for storage.



Whiskeytown Lake, Spring Creek Temperature Control Curtain A view of the eroded chain, shackles, and curtain support float ears.



Whiskeytown Lake, Spring Creek Temperature Control Curtain A view of the contractors working on the float tank connections.

# South Central California Area Office

There was no work performed during this period for the South Central California
Area Office.

## San Joaquin River Restoration Program

# Contract No. R16PC00110 Specification No. 20-C0853 Madera Canal Headworks Low-Flow Valve - Friant Division, Central Valley Project, California BCI Construction USA, Inc., Belleville, IL

Work Performed	August	42.3%
	Time Elapsed	93.4%
	Work Completed	82.3%
Contractor Earnings	August	\$758,068.90
_	Previous	\$714,690.38
	Total to Date	\$1,472,759.28

#### **Area Office Project Management**

Project Manager: Adam Nickels, MP-170

#### Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Invoice 04, in the amount of \$758,068.90, was received this reporting period for work performed from July 1, 2017 to July 31, 2017, was received this reporting period.

#### **Field Engineering**

Construction Engineer: Brian Wagner, MPCO-300

Construction Representative: Fernando Pavone, MPCO-333

Number of Contractor Employees: 24

#### **Work Performed**

BCI removed the existing 96 inch hollow jet valve. The valve was removed in sections, which included removing the adapter, the gear box, the needle support, the needle, and the valve body. The crew used the assistance of subcontractor American Crane to remove the valve body. The valve components were transported to the staging area and re-assembled.

The new 60 inch fixed cone valve was delivered to the site during this period. The new valve components included the transition spool, hood spool, hood, fixed cone assembly and the dismantling joint. The BCI crew prepared the flanges from the fixed cone valve and from the penstock in preparation for the installation of the valve. After the installation of the valve was complete the motor actuator was installed to operate the valve locally. Subcontractor ,AC Electric, assisted BCI with the electrical installation along with installing the conduits and conductors to power the new motor actuator. The subcontractor also verified that some of the conductors were communicating with the existing programmable logic control. BCI crew then conducted the dry test of the new valve.

Subcontractor Seal Rite Paving removed the existing asphalt from the parking lot and re-graded the area using new aggregate base material. The crew also installed the new asphalt, paving the area that was determined by the Onsite Government Representative.

BCI crew installed the new backwater bulkhead, after this permanent bulkhead after installation the crew removed the temporary bulkhead.

# Contract No. R16PC00111 Specification No. 20-C0855 San Joaquin Hatchery Water Supply Pipeline - Friant Division, Central Valley Project, California BCI Construction USA, Inc., Belleville, IL

Work Performed	August	10.1%
	Time Elapsed	100.0%
	Work Completed	94.6%
Contractor Earnings	August	\$269,136.03
_	Previous	\$1,220,831.27
	Total to Date	\$1,489,967.30

#### **Area Office Project Management**

Project Manager: Adam Nickels, MP-170

#### Office Engineering

Contract Manager: Amber Pierce, MPCO-205

Invoice No. 08, in the amount of \$269,136.03, was received this reporting period for work performed from July 1, 2017 to July 31, 2017.

#### **Field Engineering**

Construction Manager: Brian Wagner, MPCO-300

Construction Representative: Fernando Pavone, MPCO-333

Number of Contractor Employees: 8

#### **Work Performed**

BCI prepared the guard post holes and assisted subcontractor Outback Material, by placing the concrete for the guard posts, using mix design 45F1V08. The contractor's crew then placed the stones using mortar to restore the historic slope stone protection. The crew also placed concrete for the valve boxes to protect the cast iron extension pipe for the 24-inch and 30-inch butterfly valves. Then the crew repaired the coatings on a section of the 30-inch pipeline from station 1+95 to 2+15. The crew sanded, cleaned, and then applied the epoxy coating material. The crew coated the section of the 24-inch pipe that connects to the new 24-inch modulating valve. The contractor worked on cleaning the staging area, removing the construction debris, and arranging the construction materials and equipment. The crew cleaned and graded the area, and installed the stones back onto the slope. The subcontractor, Site Rite paving crew, mobilized their equipment to the site to work on the new asphalt placement. The crew placed the new asphalt material in two compacted layers.

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San Joaquin Hatchery Water Supply Pipeline
An Image of the guard posts being set in concrete.



San Joaquin Hatchery Water Supply Pipeline A view of the pipe being coated by the contractor.

## Mid-Pacific Regional Office

#### Contract No. R16PC00091 Specification No. 20-C0843

## North Fork Screens and Ladder Completion Contract - Battle Creek Salmon and Steelhead Restoration Project, California TNT Industrial Contractors, Inc., Sacramento, CA

Work Performed	August Time Elapsed Work Completed	12.1% 60.8% 21.8%
Contractor Earnings	August Previous Total to Date	\$662,472.00 \$533,028.00 \$1,195,500.00

#### **Area Office Project Management**

Project Manager: Mary Marshall, MP-203

#### Office Engineering

Contract Administrator: Casandra Arthur, MPCO-111

Invoice No. 05, in the amount of \$662,472.00, was received during this reporting period for work performed from July 12, 2017 to July 26, 2017.

#### Field Engineering

Construction Manager: Brian Wagner, MPCO-300 Construction Representative: Jason Foust, MPCO-325

Number of Contractor Employees: 35

#### **Work Performed**

At the North Fork Battle Creek Feeder Diversion Dam (NBCFDD) area subcontractor Syblon Reid General Engineering Contractors (SRC) finished installing the diversion including placing super-sacks used to support the final HDPE pipe sections and 30" HDPE pipe was flown into place with the 130-ton crane. Ratchet straps and come-a-longs were used to pull the pipes into position. Work also included construction of the cofferdam using a combination of visqueen, super-sacks and 50-lb. sand bags using the 130-ton crane to supply the crew. SRC also completed an energy dissipater at the discharge of the 30-inch diversion pipe which will provide water to the Cross County Canal flume for power generation. Flashboards were delivered to the site this during this period. SRC finished erecting forms, installing rebar and placing concrete for the fish screen wall extensions on the NBCFDD. The concrete was placed this reporting period including the 74' wall extension, the top of wall on the left side, the wall addition for the counter weight support, and the slide gate. The concrete was placed using a 31m segmented boom concrete pump truck with additional hose. The mix design used was BR752FA1 for general concrete. The concrete was consolidated with different sizes of vibrators and the smaller

vibrator was used in tight areas at the ends of the forms. The concrete was screed and floated and cure applied. 27.11 cubic yards of concreter was placed this reporting period. The crew then removed the kickers and forms, constructing the formwork for the bullnose at the primary trash rack and began to construct the form work for the orifice gate openings in the baffle walls.

SRC began and finished the additional chipping to be performed under modification 004 ths period. The work included chipping concrete to a greater depth to achieve 1-inch clear behind the near face rebar at the tie-in points for the new 74-foot wall in the fish screen structure. The contractor used an air compressor to power two jack hammers. An electrical jack hammer was used around some of the rebar for finer precision.

SRC constructed forms for the backfill concrete on the upstream end of the fish ladder at the NBCFDD area this period. Half of the backfill concrete leveling slab for the upstream fish ladder extension occurred this period. Prior to placing backfill concrete there was a foundation inspection by a Reclamation Geologist. The concrete was placed with a 1 CY bucket and the 130-ton crane.

SRC and Munson Pump Service (MPS) continued and finished setting up the secondary containment for the water diversion. Munson installed a 6" pump and a 4" pump to remove water in the secondary containment area above the NBCFDD. Two 125kVA generators and a fuel cell were set up to power the pumps. SRC also worked on the downstream side of the fish ladder to improve the downstream cofferdam and the dewatering system. SRC personnel continued to adjust the sump pumps and control the water from entering the work area during this period.

SRC drilled holes and epoxied #6 rebar in the top of the wall on both the upstream and downstream end of the fish screen structure. SRC installed the rebar cage for the bullnose on the upstream side of the fish screen head gate. SRC also began to pre-fabricate the form work for the fish ladder extension.

SRC began the concrete removal for the baffle walls on the existing structure at the orifice gate openings. Prior to removing the concrete, the limits of the removal were saw cut to a maximum of 1-inch depth. The crew then began chipping for the orifice gate opening adjustment. The air compressor was used to power the chipping guns.

SRC operator used the small excavator onsite, to begin the excavation at the upstream end of the fish ladder structure. The over burden was removed but the subgrade elevation will not be excavated until the area is more thoroughly dewatered. This period the excavation was near the lines and grades on the specification drawings. The excavation will be completed after the concrete removal is completed. SRC also removed the concrete slab on the upstream end of the fish ladder. The operator used the CAT skid steer with hoe ram and the excavator to break apart and remove the concrete slab. The spoils were loaded into the skip box and removed from the creek bed with the 130-ton crane. The contractor began the excavation for the downstream end of the fish ladder structure. The operator used the skid steer with hoe ram and the excavator to break apart and remove the boulders on the downstream end of the fish screen. The spoils were loaded into the skip box and removed from the creek bed with the 130-ton crane.

At the Eagle Canyon Diversion Dam (ECDD) worksite SRC cleared vegetation in the laydown yard and the vegetation along the access road and foot trail. The 8-inch galvanized pipe, Victaulic couplers, and a storage container was mobilized to the Eagle Canyon Diversion Dam site during this period. Materials were transported into the worksite using a 90-ton crane. SRC began the layout and installation of the 8-inch and 4-inch drainage pipes. Rocks that will interfere with the installation were removed along the cliff. The crew then began and finished installing the supports for the 8-inch pipe. All work which required the Eagle Canyon Canal outage was completed during this period. The remaining spring collection system will be completed at a later date.

The location of the cores where the pipe penetrates the fish ladder wall were laid out and the technicians from National Concrete Cutting performed the coring in the fish ladder walls. Two 10" cores were taken from the walls to allow the 8-inch pipe to pass through. SRC began installing the galvanized ladders. The existing ladders were removed and the new ladders were laid out. Anchor bolts for the new ladders were epoxied into the walls.



North Fork Screens and Ladder Completion Contract A view of the completed rebar for the wall extension



North Fork Screens and Ladder Completion Contract
A view of the new slide gate opening that was chipped out this period.

## **Contracts in Warranty Status**

## R11PC20185 No. 20-C0778 Tracy 13.8kV Switchgear/Breaker Replacement – Tracy Pumping Plant and Substation - Delta Division, Central Valley Project, California

There was no Office Engineering Administrative activity this period. The warranty work for the B15 DFR will extend the 1-year warranty from June 29, 2017 through June 28, 2018.

### R13PC20159 No. 20-C0819 Lake Berryessa Concessions Areas Improvements – Lake Berryessa, Solano Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began on March 31, 2017 and will end March 30, 2018.

### R15PC00132 No. 20-C0845 Lake Berryessa Putah Canyon Drinking Water Well - Lake Berryessa, Solano Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began August 27, 2016 and will end August 26, 2017.

### R16PC00079 No. 20-C0851 Red Bluff Flap Gate Retrofit - Sacramento Canals Unit, Sacramento River Division, Central Valley Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began March 16, 2017 and will end March 15, 2018.

## R17PC00022 No. 20-C0857 Western Tracy Switchyard - Chain Link Fence Project Tracy Pumping Plant and Substation - Delta Division, Central Valley Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began May 11, 2017 and will end May 10, 2018.

## R11PC2023S None Red Bluff Diversion Dam, Fish Passage Improvement Project Terrestrial Mitigation - Sacramento River Division, Central Valley Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began December 31, 2016 and will end December 30, 2017.

### R16PC00099 None Folsom Dam Resource Building Replacement - Folsom Unit, American River Division, Central Valley Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began February 14, 2017 and will end February 13, 2018.

### R16PC00100 None Lake Woollomes Recreation Area Asphalt Replacement - Central Valley Project, California

There was no Office Engineering Administrative activity this period. The 1-year warranty period began April 26, 2017 and will end April 25, 2018.

### R15PC00080 20-C0836 Klamath Basin Area Office Sewer Lift Station, Klamath Basin Area Office, Klamath Falls, Oregon

Office Engineering is reviewing required submittals. The 1-year warranty period began January 20, 2017 and will end January 19, 2018.

## **Lab Reports**

Stampede Safety of Dams Project
There was no laboratory information provided from the Materials Lab for this project during this period.

North Fork Screens and Ladders Completion Contract
There was no laboratory information provided from the Materials Lab for this project during this period.