

RECLAMATION

Managing Water in the West

MP CONSTRUCTION OFFICE

Willows, California

Construction Progress Report – L29



Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation
The contractor's crew planting the containerized plants at the emergent marsh area
between stations 10+00 and 15+00

December 2012
"Doing It Right from the Start"



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

CONSTRUCTION PROGRESS REPORT (L-29)
 MP CONSTRUCTION OFFICE
 MID-PACIFIC REGION
 December 2012

CONTENTS

	PAGE
LOCATION MAP.....	i
STAFFING.....	ii
GLOSSARY OF TERMS.....	iii

<u>CONTRACT/SPECS OR P.O. NO., CONTRACTOR, AND CONTRACT NAME</u>	PAGE	MAP	
	<u>NO.</u>	<u>NO.</u>	<u>NO.</u>
CCAO	1		
R10PC20R15 20-C0649A Abide International, Inc. Fixed Wheel Gate Rehabilitation – American River Division – Folsom Unit – Central Valley Project, California	3		1
R10PC20019 20-C0689 Andritz Hydro Corp. Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement – American River Division – Folsom Unit – Central Valley Project, California	5		1
R10PC20767 20-C0703 Voith Siemens Hydro Power Generation, Inc. Folsom Power Plant U1, U2, and U3 Replacement Runners – American River Division – Folsom Unit – Central Valley Project, California	7		1
R09PC20171 20-C0720 Perryman Mechanical, Inc. Nimbus Powerplant HVAC System Modification – American River Division – Folsom Unit, Central Valley Project, California	8		2
R10PC20114 20-C0754 Shimmick Construction Co., Inc. Folsom Dam – Safety of Dams Modification – MIAD Key-Block – American River Division, Folsom Unit - Central Valley Project, California	9		1
R10PC20R57 20-C0760 Building Solutions, Inc. Folsom Dam Civil Maintenance Building – American River Division – Folsom Unit – Central Valley Project, California	11		1
R10PC20859 None Trofholz Technologies, Inc. Folsom Dam and Powerplant Site Security System – American River Division – Folsom Unit – Central Valley Project, California	14		1
KBAO		17	
LBAO		21	
NCAO		25	

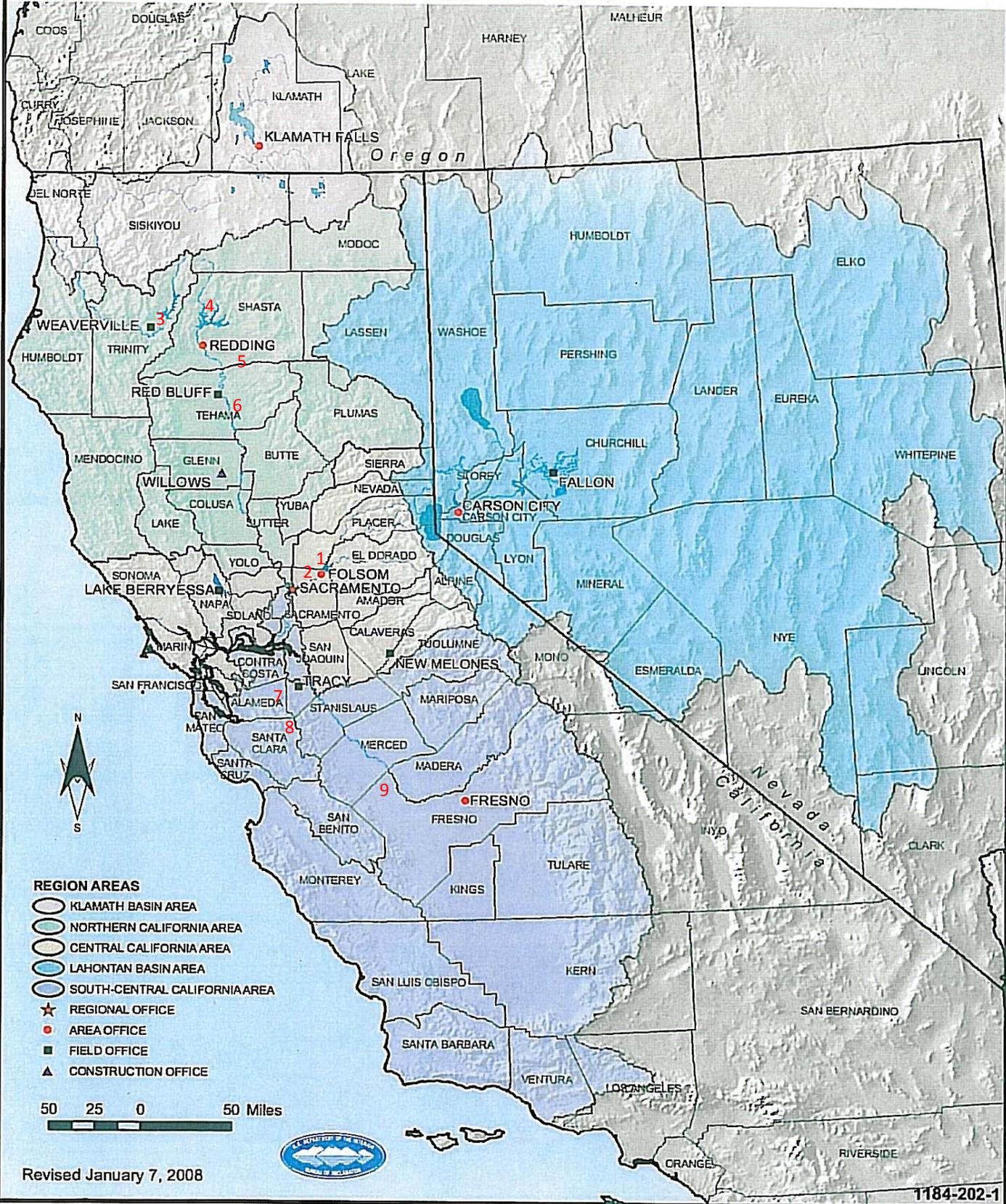
R10PC20744	20-C0712	National Electric Coil, Inc.	27	3
J.F. Carr Power Plant, Generator G1 and G2 Rewinds – Trinity River Division – Central Valley Project California				
R10PC20102	20-C0755	Andritz Hydro Corp.	28	3
Spring Creek Powerplant Generators G1 and G2 Rewinds – Trinity River Division – Central Valley Project, California				
R12PC20044	20-C0774a	Eaton Corp.	29	3, 4
Station Service Switchgear Replacement – Trinity River Division – Central Valley Project, California				
R12PC20077	20-C0787	Alltech Engineering Corp.	31	4
Shasta Dam Temperature Control Device Wire Rope Replacement – Shasta Division – Central Valley Project, California				
R12PC20053	20-C0789	Ray-Mac Mechanical, Inc.	33	4
Shasta Powerplant Control and Computer Room HVAC Replacement – Shasta Division – Central Valley Project, California				
R10PC20025	None	Tehama Environmental Solutions, Inc.	34	5
Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring – Shasta Division – Central Valley Project, California				
R11PC20235	None	Tehama Environmental Solutions, Inc.	35	6
Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation – Sacramento Canal Units – Sacramento River Division – Central Valley Project, California				
SCCAO			37	
R10PC80R23	20-C0761	Shimmick Construction Co., Inc.	39	7
Delta-Mendota Canal–California Aqueduct Intertie – Central Valley Project – California				
R11PC20185	20-C0778	Contra Costa Electric Corp.	40	8
Tracy 13.8kV Switchgear/Breaker Replacement – Tracy Pumping Plant and Substation – Central Valley Project, California				
R11PC20107	20-C0788	Slayden Construction Group, Inc.	41	9
San Luis Demonstration Treatment Plant – San Luis Unit Drainage – West Stanislaus Division – San Luis Unit – Central Valley Project, California				
Regional			43	
R10PC20005	20-C0717	Syblon Reid Contractors	45	
North Fork Screens and Ladders – Battle Creek Salmon and Steelhead Restoration Project, California				
R10PC20R42	20-C0746	RTA Construction/Ray Toney JV	46	
Hydropower Facility Modifications-Stage 1–ARRA Project No. 14.000 - Battle Creek Salmon and Steelhead Restoration Project, California				

R10PX20R54	20-C0750	Don Pedro Pump, LLC	47
Drought Relief, Well Enhancements – ARRA Project No. 28.000 – Central Valley Project			
R10PC20R80	20-C0759	Layne Christensen Co.	49
Drought Relief–Construction of New Wells – ARRA Project No. 28.002–California			
Contracts in Warranty Status			51
R09PC20R03	20-C0677		53
Transformer K1A and K2A Replacements, Folsom Power			
R10PC20128	20-C0706		53
New Melones Power Plant Excitation System Replacement			
R10PC20R11	20-C0730		53
Red Bluff Pumping Plant and Fish Screen, Pumps and Motors			
R10PC20R09	20-C0740		53
Red Bluff Pumping Plant and Fish Screen Landfill Excavation and Canal, Siphon and Access Bridge			
R10PC20R39	20-C0744		53
Volta Wasteway Refuge Level 2 Diversification Phase I Project Central Valley Project, California			
R10PX20R45	20-C0750		53
Drought Relief, Well Enhancements			
R10PC20R24	20-C0751		53
Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates			
R10PC20R33	20-C0752		53
Red Bluff Pumping Plant and Fish Screen			
R10PC20197	20-C0768		53
Control, Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam Dam and Powerplant			
R10PC20196	20-C0769		53
Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant			
R11PC20155	20-C0776a		54
Delta Cross Channel Gate Control and Lighting Improvements			
R12PC20055	20-C0776b		54
Delta Cross Channel Gate Hoist Wire Rope Replacement			
R12PC20158	20-C0777		54
Stampede Powerplant and Switchyard Recoatings			
R11PC20124	20-C0780		54
Coleman National Fish Hatchery Barrier Weir Site Modifications			

R12PC20193 20-C0791 Shasta Dam Traffic Circle Pavement Rehabilitation	54
R10PC20R32 20-C0749 Fish Screen Structure Phase 3, Contra Costa Canal	54
Lab Reports	55

Mid-Pacific Region

RECLAMATION
Managing Water in the West



STAFFING – MID PACIFIC CONSTRUCTION OFFICE

The Mid Pacific Construction Office had 62 construction and administrative employees at the close of this month as follows:

Construction Engineer's Office	2
Preaward & Project Management Group	3
Administrative Management	11
Division of Field Engineering	26
Division of Office Engineering	11
Materials Lab Branch	9

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

MEANING

ARRA	American Recovery and Reinvestment Act
CCAO	Central California Area Office
CVP	Central Valley Project
KBAO	Klamath Basin Area Office
LBAO	Lahontan Basin Area Office
MP	Mid Pacific Regional Office
MPCO	Mid-Pacific Construction Office
NCAO	Northern California Area Office
SCCAO	South Central California Area Office
TO	Tracy Office

CCAO

Contract No. R10PC20R15
Specification No. 20-C0649A
Fixed Wheel Gate Rehabilitation – American River Division – Folsom Unit - Central Valley
Project, California
Abide International, Inc., Sonoma, CA

Work Performed:	December	16.4%
	Time Elapsed	82.1%
	Work Completed	47.3%

Contractor Earnings:	December	\$1,349,417.37
	Previous	\$2,529,703.18
	Total to Date	\$3,879,120.55

MPCO Noncontract Costs:	1st Quarter Expenditures:	\$62,413.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$62,413.00
	FY13 Budgeted:	\$195,730.00
	Amount Remaining:	\$133,317.00
	Percent Remaining:	68.11%

Area Office Project Management
Project Manager: Jesse Castro, CC-607

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

An invoice was received this reporting period that covered April 1, 2012 through December 31, 2012.

Modification No. 005, hydraulic wheel gates was executed this reporting period.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Gustavo Aguilera, MPCO-337

Number of Contract Employees: 7

Work performed:
Folsom Fixed Wheel Gate Rehabilitation:

As the main contractor for this project, Abide International, Inc. was present at the jobsite during the month of December coordinating and overseeing all activities related to the Fixed Wheel Gates Rehabilitation Project.

This month the contractor and the subcontractors worked on lifting the 15-ton hydraulic cylinder and setting it at Unit Number One where it will be temporarily hooked up and tested for correct operation. Barnhart did the placement of the hydraulic cylinder, while Western Integrated Technologies worked on the hydraulic hook-up connection from the new hydraulic system to the rebuilt hydraulic cylinder. Wulff Electrical did the switch over of power that needed to be made with CCAO operator assisting this new connection.

In a combined effort, American Crane, Barnhart, and Monterey Mechanical performed work in the yard on rehabbing Unit 1 FWG preparing for placement in Unit 2 FWG when that unit is replaced, they worked together to move the gate so that Monterey Mechanical could start placing the new seals on the gate.

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

Work Performed:	December	0%
	Time Elapsed	62.0%
	Work Completed	53.9%
Contractor Earnings:	December	\$0
	Previous	\$10,637,860.64
	Total to Date	\$10,637,860.64
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$114,567.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$114,567.00
	FY13 Budgeted:	\$419,580.00
	Amount Remaining:	\$305,013.00
	Percent Remaining:	72.69%

Area Office Project Management
Project Manager: Jesse Castro, CC-607

Office Engineering
Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Sergio Vivar, MPCO-311, Sean Frische, MPCO-317

Number of Contract Employees: 18

Work performed:
After Contract Measurement Services (CMS) verified the position of all the key bars, the contractor fully welded repositioned key bars in place and painted the welds and the face of the stator frame. Martin Testing Laboratories visually inspected key bar welds and noted no discrepancies.

After CMS verified the levelness of the bottom shelf of the stator frame, the contractor tack-welded shims along the bottom shelf of the stator frame and then placed the top and bottom finger plates.

The contractor also performed the following work:

- Stacked laminations to the first, second, third (final) press heights and performed the first, second, third and final presses on the new lamination stack, confirming stack dimensions after each press.
- Installed the upper and lower coil support rings
- Welded the lower coil supports onto the bottom side of the bottom shelf of the stator
- Installed exciter platform vertical posts and secured previously installed threaded anchors
- Completed installing platform framework, metal decking and toe boards



Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement
Andritz Hydro workers inside the stator

Contract No. R10PC20767

Specification No. 20-C0703

Folsom Power Plant U1, U2, and U3 Replacement Runners – American River Division – Folsom Unit – Central Valley Project, California

Voith Siemens Hydro Power Generation, Inc., York, PA

Work Performed:	December	0%
	Time Elapsed	79.9%
	Work Completed	72.1%
Contractor Earnings:	December	\$0
	Previous	\$5,283,450.21
	Total to Date	\$5,283,450.21

Note: Costs are included with Contract No. R10PC20019, Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement.

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

Field Engineering

Construction Manager: N/A supply contract

Construction Representative: N/A supply contract

Number of Contract Employees: N/A supply contract

Work performed: N/A supply contract

Contract No. R09PC20171
Specification No. 20-C0720
Nimbus Powerplant HVAC System Modification – American River Division – Folsom Unit,
Central Valley Project, California
Perryman Mechanical, Inc., West Sacramento, CA

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	79.9%
Contractor Earnings:	December	\$0
	Previous	\$428,963.09
	Total to Date	\$428,963.09
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$13,023.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$13,023.00
	FY13 Budgeted:	\$31,400.00
	Amount Remaining:	\$24,815.00
	Percent Remaining:	79.03%

Area Office Project Management
 Brian Zewe, CC-607A

Office Engineering
 Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

The contractor has only to complete overdue submittals and is expected to complete submittal requirements in the next few months.

Field Engineering
 Construction Manager: Henry Garcia, MPCO-310
 Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 0

Work performed:
 All site work has been completed and the substantially complete date was December 17, 2010.

Contract No. R10PC20114
Specification No. 20-C0754
Folsom Dam – Safety of Dams Modification – MIAD Key-Block – American River Division,
Folsom Unit, Central Valley Project, California.
Shimmick Construction Co., Inc., Sacramento, CA

Work Performed:	December	1.0%
	Time Elapsed	100%
	Work Completed	94.3%
Contractor Earnings:	December	\$475,509.64
	Previous	\$42,182,469.05
	Total to Date	\$42,657,978.69
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$285,239.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$285,239.00
	FY13 Budgeted:	\$999,720.00
	Amount Remaining:	\$714,481.00
	Percent Remaining:	71.47%

Area Office Project Management
Project Manager: Larry Hobbs, CC-106

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

Invoice 29 was received and forwarded to the Denver finance office for processing.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Howard Diedrich, MPCO-316; Sean Frische, MPCO-317

Number of Contract Employees: 33

Work Performed:
CELL F:
Shimmick Construction Co., Inc. finished placing and compacting select backfill in Cell F. Backfill was completed from elevation 347' to 380'. Level 2 and Level 1 bracing were removed as the required backfill elevation was completed.

CELL C:

Shimmick Construction Co., Inc. finished placing lean concrete in Cell C this month. A total of 1300 cyd of lean concrete was placed on the last lift. The final surveyed elevation of lean concrete in Cell C was 343.14'. A total of 9080 cyds (batch-ticket quantity) have been placed in Cell C for all lifts. Contractor also started placing and compacting select backfill this month. Select backfill was completed from elevation 343.14' to elevation 368'. The Contractor also completed removal of Level 3, Level 2 and Level 1 bracing in Cell C.

PROCESSING BACKFIL:

Shimmick Construction Co., Inc. continued processing select backfill to fulfill the shortage in quantity. Approximately 21,500 tons of select backfill was processed this month.

DEMOBILIZATION:

Shimmick Construction Co., Inc. started demobilizing equipment and material from the site this month. CEMEX finished demobilizing their two concrete batch-plants.

MODIFICATION 005:

Shimmick Construction Co., Inc. continued staging Modification 5 related material for demobilization.

MODIFICATION 007:

Shimmick Construction Co., Inc. completely shutdown power to Cell C and Cell F this month. All but two of the dewatering pumps at Cells C and F were removed, washed and stored for demobilization. The majority of the electrical system has been removed and is ready for storage in the three connex.

The 800kw backup generator was demobilized.

Cartridge filters for the arsenic treatment were back-flushed as needed this month.

Shimmick Construction Company's consultant HSI finished monitoring and recording data from the supplemental dewatering system for the two cells, daily average was 436 gpm dewatered out of both cells.

Contract No. R10PC20R57

Specification No. 20-C0760

Folsom Dam Civil Maintenance Building – American River Division – Folsom Unit - Central Valley Project, California

Building Solutions Inc., Reno, NV

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	97.7%
Contractor Earnings:	December	\$0
	Previous	\$6,618,117.91
	Total to Date	\$6,618,117.91
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$4,615.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$4,615.00
	FY13 Budgeted:	\$35,000.00
	Amount Remaining:	\$0.00
	Percent Remaining:	71.47%

Area Office Project Management

Project Manager: Ed Roza, CC-608

Office Engineering

Contract Administrator: John Zimmerman, MPCO-230

Invoice 23 was received and forwarded to the Denver finance office for processing. It was not for work done this period but for work done through September 30, 2012.

We are dealing with completion of final submittals, Requests for Equitable Adjustment 4, 6, and 7, and liquidated damages.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Michael E. Manlick, MPCO-313

Number of contract employees: 4

Work Performed:

Rex Moore's fire alarm control technician repaired two trouble alarms. The malfunction with one was due to a dislodged magnetic alarm switch on the duct smoke detector access door; the malfunction with the other was due to a grounding problem in the tamper switch wiring. The

technician also tied the duct smoke detector wiring for EC-1 into the Fire Alarm Panel. This detector will require a test.

Building Solutions' personnel attempted to locate and seal water leaks at the entry roof over Quad A, as well as the water penetration from the reversible roof-top fans EF-4 (tire storage room in Quad C) and EF-5 (paint storage in Quad D). After more rain the fan unit over the tire storage room still showed signs of leaking. Therefore the contractor inspected and re-caulked. By month's end, the leak had not been stopped. The personnel repaired the water-damaged ceiling drywall and paint in the planner's room in Quad A and in the paint storage room.

A ground fault interrupter tripping issue on the domestic water heat tape system was traced to an error in installation. The failure of the fire suppression heat tape system was traced to an error in the grounding procedure. The heat tape systems will not be fully corrected and tested until after January 1, 2013.

Iron Mechanical installed the properly rated motor actuator on the gravity relief hood, RH-3, over the garage in Quad B.

Blown fuses were discovered on unit heaters UH-5 and UH-6 located in the lawn and in the landscape room of Quad C. It was determined that both unit heaters were functioning properly and that perhaps a voltage spike in one phase of the wiring blew the same fuse on both units.

It was reported that the CCAO mechanics are still having problems with the pressure switch for one of the roll-up doors in the Garage of Quad B. A service call from the subcontractor will be scheduled.



Folsom Dam Civil Maintenance Building
Water damage from rain fall in the paint storage room

Contract No. R10PC20859

Specification No. None

Folsom Dam and Powerplant Site Security System – American River Division – Folsom Unit -

Central Valley Project, California

Trofholtz Technologies, Inc., Rocklin, CA

Work Performed:	December	0.0%
	Time Elapsed	102.5%
	Work Completed	97.3%

Contractor Earnings:	December	\$0.00
	Previous	\$6,197,358.93
	Total to Date	\$6,197,358.93

MPCO Noncontract Costs:	1st Quarter Expenditures:	\$34,365.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$34,365.00
	FY13 Budgeted:	\$37,180.00
	Amount Remaining:	\$2,815.00
	Percent Remaining:	7.57%

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoice was received this period.

A Contract Modification will be processed for a time extension.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Phil Moseby, MPCO-327

Number of Contract Employees: 2

Work Performed:

Administration Building & Front Gate Areas:

Trofholtz Technologies, Inc. (TTI's) crew began troubleshooting on the Lenel's communication programming system in the BCC's room.

Dikes 4, 5, & 6:

The Dikes #4, #5, #6 wireless microwave system had a loss in communication (Video) between the transmitter and the receiver on the cameras. TTI's Project Engineer, Mr. Everett Kellogg, and his crewman conducted the troubleshooting of the network connection and verifying the computer terminations.

Power Plant Electrical & Conduit Installations:

TTI's Project Manager, Mr. Tommy Smith, repaired Card Reader #6 and cameras at the Power Plant's main door at floor level #6.

Security Control Center (SCC):

TTI's Project Manager, Mr. Tommy Smith, and Technician Mr. Lee Miles began work on the Lenel's programming and the UPS backup support in the SCC. In addition, the crewmen conducted troubleshooting of the network connection and verifying the computer terminations.

Others:

TTI's Project Manager, Mr. Tommy Smith, and Technician Mr. Lee Miles installed the Code Fix load for the Chameleon's computer system.

TTI's crewman is maintaining their BMPs and housekeeping of the trailer and lay down area.

KBAO

There were no active construction projects underway for the Klamath Basin Area Office in December 2012.

LBAO

There were no active construction projects underway for the Lahontan Basin Area Office in December 2012.

NCAO

Contract No. R10PC20744
Specification No. 20-C0712
J.F. Carr Power Plant, Generator G1 and G2 Rewinds – Trinity River Division – Central Valley
Project California
National Electric Coil, Inc., Columbus, OH

Work Performed	December	0%
	Time Elapsed	100%
	Work Completed	98.0%
Contractor Earnings	December	\$0
	Previous	\$14,918,516.31
	Total to Date	\$14,918,516.31
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$45,061.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$45,061.00
	FY13 Budgeted:	\$93,515.00
	Amount Remaining:	\$48,454.00
	Percent Remaining:	51.81%

Area Office Project Management
Program Manager: John Dotter, NC-261

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Worked Performed:
The contactor did not perform any work this period. The contractor completed contract work in September, and performed Modification 7 work in November and completed the mod work in December 2012.

Contract No. R10PC20102

Specification No. 20-C0755

Spring Creek Powerplant Generators G1 and G2 Rewinds – Trinity River Division – Central Valley Project, California

Andritz Hydro Corp., Charlotte, NC

Work Performed:	December	0.0%
	Time Elapsed	44.5%
	Work Completed	66.8%

Contractor Earnings:	December	\$0.00
	Previous	\$7,502,740.65
	Total to Date	\$7,502,740.65

MPCO Noncontract Costs:	1st Quarter Expenditures:	\$9,405.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$9,405.00
	FY13 Budgeted:	\$10,000.00
	Amount Remaining:	\$595.00
	Percent Remaining:	5.95%

Area Office Project Management

Project Manager: Joe Ascoli, NC-650

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

A Contract Modification was issued with for 1-year time extension. The new completion date is June 28, 2013.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:

No site work was performed this period for the Unit 2 outage.

Contract No. R12PC20044
Specification No. 20-C0774a
Station Service Switchgear Replacement – Trinity River Division – Central Valley Project,
California
Eaton Corporation, Raleigh, NC

Work Performed:	December	36.8%
	Time Elapsed	72.6%
	Work Completed	37.3%
Contractor Earnings:	December	\$815,977.91
	Previous	\$9,600.59
	Total to Date	\$825,578.50
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$27,374.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$27,374.00
	FY13 Budgeted:	\$183,945.00
	Amount Remaining:	\$156,571.00
	Percent Remaining:	85.12%

Area Office Project Management
Project Manager: Jeff Gifford, NC-221

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

Notice to Proceed date: April 2, 2012

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 7

Work performed:
The following work was performed at the Spring Creek Power Plant.

Eaton Corporation: The crew mainly worked on the control panel CSA in the control room, removing switches and wires, and installing new lights, switches, control conductors, and meters. They assisted with buss duct installation, and started commissioning.

A&M Electric: Workers performed the following work:

- Installation of the temporary transformer, switchboard, and conductors to the individual panels
- Removed old switchgear and buss ducting
- Removed old conductors from conduits and cable trays
- Installed new switchgear and conductors to the six main panels and the switchgear
- Modified the buss duct

Cal Inc: Workers removed asbestos wire from Control Panel CSA and removed a lead paint coated buss duct. They transported all removed hazardous material from the site.



Station Service Switchgear Replacement
Eaton electricians testing the remote breaker
racking device on a spare breaker in the switchgear

Contract No. R12PC20077

Specification No. 20-C0787

Shasta Dam Temperature Control Device Wire Rope Replacement – Shasta Division – Central Valley Project, California

Alltech Engineering Corp., Mendota Heights, MN 55120

Work Performed:	December	0%
	Time Elapsed	13.5%
	Work Completed	0%
Contractor Earnings:	December	\$0
	Previous	\$0
	Total to Date	\$0
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$2,112.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$2,112.00
	FY13 Budgeted:	\$8,300.00
	Amount Remaining:	\$6,188.00
	Percent Remaining:	74.55%

Area Office Project Management

Project Manager: Bob Gee, NC-230

Office Engineering

Contract Administrator: John Zimmerman, MPCO-230

No invoices were received this period.

Field Engineering

Construction Manager: Steven Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 4

Work performed:

Alltech arrived onsite December 10, 2012, and replaced the wire rope on the five top gates and two side gates. A subcontractor used a mobile crane to remove the top and side gate cable drum covers. Alltech cut the old wire rope into sections using a metal chop saw and stockpiled the old materials in the NCAO maintenance yard. Alltech received the new wire rope and installed it on these seven gates. Alltech received the painted extension link connectors and installed them on these gates. NCAO Operations began cycling the side gates.



Shasta Dam Temperature Control Device Wire Rope Replacement
Side gates from which cables were removed

Contract No. R12PC20053
Specification No. 20-C0789
Shasta Powerplant Control and Computer Room HVAC Replacement – Shasta Division –
Central Valley Project, California
Ray-Mac Mechanical, Inc., Mt. Shasta, CA.

Work Performed:	December	0%
	Time Elapsed	100.0%
	Work Completed	94.3%
Contractor Earnings:	December	\$0
	Previous	\$309,680.00.00
	Total to Date	\$309,680.00.00
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$10,091.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$10,091.00
	FY13 Budgeted:	\$15,765.00
	Amount Remaining:	\$5,674.00
	Percent Remaining:	35.99%

Area Office Project Management
Project Manager: Bob Gee, NC-230

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

Notice to Proceed date: April 26, 2012

No invoices were received this period.

The contractor has only to complete final submittals.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:
No site work was performed as the contractor completed all site work in October 2012. The substantially complete date was October 5, 2012.

Contract No. R10PC20025

Specification No. None

Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring – Shasta

Division – Central Valley Project, California

Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	December	0%
	Time Elapsed	39.5%
	Work Completed	88.4%
Contractor Earnings:	December	\$0
	Previous	\$626,095.31
	Total to Date	\$626,095.31
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$171.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$171.00
	FY13 Budgeted:	\$34,390.00
	Amount Remaining:	\$34,219.00
	Percent Remaining:	99.50%

Area Office Project Management

Project Manager: Hank Harrington, NC-210

Office Engineering

Contract Administrator: Jacquelyn Olds, MPCO-202

No invoices were received this period.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

The contractor's current activity consists of maintaining vegetation planted in 2010.

Contract No. R11PC20235

Specification No. None

Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation –
Sacramento Canal Units—Sacramento River Division—Central Valley Project, California
Sacramento Canal Units – Sacramento River Division – Central Valley Project, California
Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	December	6.0%
	Time Elapsed	12.3%
	Work Completed	69.8%
Contractor Earnings:	December	\$275,125.68
	Previous	\$3,034,045.40
	Total to Date	\$3,309,171.08
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$150,426.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$150,426.00
	FY13 Budgeted:	\$211,825.00
	Amount Remaining:	\$61,399.00
	Percent Remaining:	28.99%

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Jacquelyn Olds, MPCO-202

Invoice 7 was received and forwarded to the Denver finance office for processing.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 18

Work performed:

During this period the Tehama Environmental Solutions, Inc. crew worked at the emergent marsh areas planting the containers that included spike rush, wire rush, common rush and deer rush. The crew planted along the fish passage channel right and left side looking downstream. The crew planted on the left side of the channel between approximate stations 2+50 and 7+50, 9+75 and 15+00, 15+50 and 30+50. The crew planted on the right side of the channel between

approximate stations 9+75 and 15+00, 16+00 and 30+50. The crew also planted the sycamore trees along the east side of the project.

Tehama Environmental Solutions, Inc. crew also worked on fixing the Limit of Disturbance Fence (LOD) that was damaged during the high water flows.

Tehama Environmental Solutions, Inc. crew installed two informational signs at the entrance of the walking trail, adjacent to the main parking lot.

Subcontractor Meyers crew worked on ripping the ground in preparation for the hydro-seeding between approximate stations 2+50 and 13+00, and 16+00 and 30+00.

Modification #2

Tehama Environmental Solutions, Inc. crew worked on raking and removing the small vegetation from the southern island in preparation for the hydro-seeding operation.



Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation
The contractor's crew planting the containerized plants at the emergent marsh area
between stations 10+00 and 15+00

SCCAO

Contract No. R10PC80R23

Specification No. 20-C0761

Delta-Mendota Canal–California Aqueduct Intertie – Central Valley Project – California
Shimmick Construction Company, Inc., Tracy, CA

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	99.4%

Contractor Earnings:	December	\$0
	Previous	\$15,223,893.71
	Total to Date	\$15,223,893.71

MPCO Noncontract Costs:	1st Quarter Expenditures:	\$6,128.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$6,128.00
	FY13 Budgeted:	\$10,000.00
	Amount Remaining:	\$3,872.00
	Percent Remaining:	38.72%

Area Office Project Management

Project Manager: Erika Kegel, MP-730

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

Invoice 19 was received and forwarded to the Denver finance office for processing. It was not for work done this period, but for work done through May 25, 2012.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Chris Van Deusen, MPCO-345

Number of Contract Employees: 2

Work performed:

All site work, except for punch list items, was completed in May 2012.

No work was performed this period.

Contract No. R11PC20185
Specification No. 20-C0778
Tracy 13.8kV Switchgear/Breaker Replacement – Tracy Pumping Plant and Substation – Central Valley Project, California
Contra Costa Electric Corp., Martinez, CA

Work Performed:	December	0%
	Time Elapsed	33.8%
	Work Completed	10.4%
Contractor Earnings:	December	\$0
	Previous	\$1,207,280.72
	Total to Date	\$1,207,280.72
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$55,657.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$55,657.00
	FY13 Budgeted:	\$335,675.00
	Amount Remaining:	\$280,018.00
	Percent Remaining:	83.42%

Area Office Project Management
Project Manager: Warren Feng, TO-438

Office Engineering
Contract Administrator: Amber Pierce, MPCO-205

This is a design build contract.

No invoices were received this period

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: David Derk, MPCO-334

Number of Contract Employees: 0

Work performed:
No site work was performed because the contractor has not yet mobilized to the site. The contractor is scheduled to begin site work in February 2013.

Contract No. R12PC20107
Specification No. 20-C0788
San Luis Demonstration Treatment Plant – San Luis Unit Drainage –
West Stanislaus Division – San Louis Unit – Central Valley Project, California
Slayden Construction Group, Inc., Stayton, OR

Work Performed:	December	1.4%
	Time Elapsed	12.9%
	Work Completed	1.4%
Contractor Earnings:	December	\$302,686.44
	Previous	\$0
	Total to Date	\$302,686.44
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$135,505.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$135,505.00
	FY13 Budgeted:	\$1,320,895.00
	Amount Remaining:	\$1,185,390.00
	Percent Remaining:	89.74%

Area Office Project Management
Project Manager: Cheryl Carter, SCC-105

Office Engineering
Contract Administrator: Casandra Arthur, MPCO-245

Invoice 1 was received this period and forwarded to the Denver finance office for processing.

Field Engineering
Construction Manager: John Nelson, MPCO-328
Construction Representative: Chris Van Deusen, MPCO-345

Number of Contract Employees: 6

Work performed:
The contractor mobilized equipment and offices. It also installed environmental fencing, straw wattle and silt fencing for management of storm water under the Stormwater Pollution Prevention Plan.

O'Dell Engineering inspected initial installation of fiber rolls and silt fencing and performed pre-storm inspections.

United Site Services installed temporary fencing around the treatment plant site.

McElvany, Inc. installed a base rock working pad for the aggregate pier work and provided a water tank and truck to supply Malcolm's batch plant.

Power Plus installed temporary power and lighting to the jobsite and office trailers. Power Plus tied into the Panoche Drainage District panel at the southwest corner of the treatment plant site.

Panoche Drainage District employees moved an irrigation pipe that was inside the contractor use area to a location north of the site.

Malcolm Drilling, Inc. mobilized equipment for installation of grouted aggregate piers and installed one test pier on December 27 and six more on December 28.

Regional

Contract No. R10PC20005
Specification No. 20-C0717
North Fork Screens and Ladders – Battle Creek Salmon and Steelhead Restoration Project,
California
Syblon Reid Contractors, Folsom, CA

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	97.4%
Contractor Earnings:	December	\$0
	Previous	\$12,333,348.93
	Total to Date	\$12,333,348.93
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$17,466.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$17,466.00
	FY13 Budgeted:	\$73,490.00
	Amount Remaining:	\$56,024.00
	Percent Remaining:	76.23%

Project Management

Project Manager: Mary Marshall, MP-203

Office Engineering

Contract Administrator: Kent Perkes, MPCO-225

No invoices were received this period.

The remaining work for the contractor to perform is to gain approval of a few final submittals including as-built drawings.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 0

Work performed:

The contractor completed all contract site work in December 2011, and demobilized its field office. However, substantial completion will not be issued until as-built drawings are approved.

Contract No. R10PC20R42
Specification No. 20-C0746
Hydropower Facility Modifications - Stage 1 – Battle Creek Salmon and Steelhead Restoration
Project, California
RTA Construction/Ray Toney JV, Redding, CA

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	89.9%
Contractor Earnings:	December	\$0
	Previous	\$7,560,467.20
	Total to Date	\$7,560,467.20
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$176,934.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$176,934.00
	FY13 Budgeted:	\$265,045.00
	Amount Remaining:	\$88,111.00
	Percent Remaining:	33.24%

Project Management

Project Manager: Mary Marshall, MP-203

Office Engineering

Contract Administrator: Kent Perkes, MPCO-225

Invoices 24, 25 and 26 were received and forwarded to the Denver finance office for processing. They were not for work done this period, but were for work done through November 6, 16, and 30, 2012, respectively.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 0

Work performed:

The contractor has not scheduled onsite work until materials for Modifications 12 and 15 arrive, after January 1, 2013. The contractor continues to monitor the site per the Stormwater Pollution Prevention Plan, Risk Level 2 requirements.

Purchase Order No. R10PX20R54

Specification No. 20-C0750

Drought Relief, Well Enhancements – ARRA Project No. 28.000 – Central Valley Project Don
Don Pedro Pump, LLC–Turlock, CA

Work Performed:	December	0%
	Time Elapsed	100%
	Work Completed	86.5%
Contractor Earnings:	December	\$0
	Previous	\$1,084,249.60
	Total to Date	\$1,084,249.60
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$729.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY12 Cumulative Total:	\$729.00
	FY12 Budgeted:	\$30,000.00
	Amount Remaining:	\$29,271.00
	Percent Remaining:	97.57%

Project Management

Project Manager: Kevin Clancy, MP-410

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering

Construction Manager: John Nelson, MPCO-328

Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 2

Work performed:

The contractor completed all site work this period, which consisted of completing work and testing at the following wells:

- West Stanislaus Irrigation District Well 123.1
- Del Porto Water District Well 98.1 (This well was found to be nonviable.)
- Grasslands Water District 10.6 (This well was found to be nonviable.)
- Grasslands Water District 10.12
- Grasslands Water District 10.13



Drought Relief, Well Enhancements
West Stanislaus Irrigation District Well 123.1 Completed

Contract No. R10PC20R80

Specification No. 20-C0759

Drought Relief – Construction of New Wells – ARRA Project No. 28.002 – California

Layne Christensen Company, Fontana, CA

Work Performed:	December	8.7%
	Time Elapsed	100%
	Work Completed	96.2%
Contractor Earnings:	December	\$1,357,994.73
	Previous	\$13,619,671.88
	Total to Date	\$14,977,666.61
MPCO Noncontract Costs:	1st Quarter Expenditures:	\$10,509.00
	2nd Quarter Expenditures:	\$0.00
	3rd Quarter Expenditures:	\$0.00
	4th Quarter Expenditures:	\$0.00
	FY13 Cumulative Total:	\$10,509.00
	FY13 Budgeted:	\$30,000.00
	Amount Remaining:	\$19,491.00
	Percent Remaining:	64.97%

Area Office Project Management

Project Manager: Kevin Clancy, MP-410

Office Engineering

Contract Administrator: John Zimmerman, MPCO-232

Invoice 13 was received and forwarded to the Denver finance office for processing.

Field Engineering

Construction Manager: John E. Nelson, MPCO-328

Construction Representative: John E. Nelson, MPCO-328

Number of Contract Employees: 3

Work performed:

San Luis Water District, Well 43: Electrical work was completed.

Del Puerto Water District, Well 50a: Construction and equipment installation was performed.

Contracts in Warranty Status

R09PC20R03 20-C0677 Transformer K1A and K2A Replacements, Folsom Power

There was no Office Engineering Administrative activity this period.

5-year warranty for K1A extends to January 30, 2016, and that for K2A extends to January 4, 2017.

R10PC20128 No. 20-C0706 New Melones Power Plant Excitation System Replacement

There was no Office Engineering Administrative activity this period.

1-year warranty extends to May 24, 2013.

R10PC20R11 20-C0730 Red Bluff Pumping Plant and Fish Screen, Pumps and Motors

There was no Office Engineering Administrative activity this period.

3-year warranty extends to August 2015.

R10PC20R09 20-C0740 Red Bluff Pumping Plant and Fish Screen, Landfill Excavation and Canal, Siphon and Access Bridge

There was no Office Engineering Administrative activity this period.

1-year warranty extends to December 21, 2012.

R10PC20R39 20-C0744 Volta Wasteway Refuge Level 2 Diversification Phase I Project – ARRA Project No. 28.129

There was no Office Engineering Administrative activity this period.

1-year warranty extends to February 9, 2013.

R10PX20R45 No. 20-C0750 Drought Relief, Well Enhancements

There was no Office Engineering Administrative activity this period.

1-year warranty for Tulare Irrigation District Well 1.16 extends to May 13, 2013. The 1-year warranties for all other wells have expired.

R10PC20R24 20-C0751 Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates

There was no Office Engineering Administrative activity this period.

1-year warranty extended to December 12, 2012.

R10PC20R33 20-C0752 Red Bluff Pumping Plant and Fish Screen

Invoice 30 was received and forwarded to Denver for processing.

1-year warranty extends to September 26, 2013.

R10PC20197 20-C0768 Control, Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and Powerplant

There was no Office Engineering Administrative activity this period.

2-year warranty extends to September 7, 2013.

R10PC20196 20-C0769 Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant

There was no Office Engineering Administrative activity this period.

2-year warranty extends to June 13, 2013.

R11PC20155 No.20-C0776a Delta Cross Channel Gate Control and Lighting Improvements

Closeout submittals were dealt with this period.

1-year warranty extends to April 24, 2013.

R12PC20055 20-C0776b Delta Cross Channel Gate Hoist Wire Rope Replacement

There was no Office Engineering Administrative activity this period.

1-year warranty extends to May 11, 2013.

R11PC20158 20-C0777 Stampede Powerplant and Switchyard Recoatings

There was no Office Engineering Administrative activity this period.

1-year warranty extends to August 12, 2013.

R11PC20124 20-C0780 Coleman National Fish Hatchery Barrier Weir Site Modifications

There was no Office Engineering Administrative activity this period.

1-year warranty extends to September 28, 2013.

R12PC20193 20-C0791 Shasta Dam Traffic Circle Pavement Rehabilitation

There was no Office Engineering Administrative activity this period.

1-year warranty extends to August 4, 2013.

R10PC20R32 20-C0749 Fish Screen Structure Phase 3, Contra Costa Canal

1-year warranty for M340 CPU located inside the SCADA panel ends March 20, 2013.

1-year warranty for Siemens ultrasonic level transmitter ends August 21, 2013.

U.S. Bureau of Reclamation
Aggregate Gradation Summary

From 2/16/2012 to 12/31/2012

Specification : 20-C0754
Mix Number : 1534982
Project : MIAD Key-Block Cells A,B,C,D,E,F

Feature : MIAD Key-Block Lean Concrete

Nominal Size : 1" (ASTM)

Combined Aggregate Gradations for Lean Concrete

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	1 1/2"	1"	1/2"	#4	#8				
Spec Max %		100.0		50.0		10			
Spec Min %		100.0		0.0		0			
02/16/2012D		100.0		45.9		8.1	N/A	2.72	1.00
02/23/2012D		100.0		43.5		7.7	3.15	2.72	1.00
03/02/2012B		100.0		42.9		6.6	5.5	2.72	1.00
03/05/2012D		100.0		47.2		7.9	N/A	2.72	1.00
03/09/2012B		100.0		48.3		7.8	5.5	2.72	1.00
03/21/2012B		100.0		46.6		7.9	5.0	2.72	1.00
06/28/2012E		100.0		50.8		9.5	N/A	2.72	1.00
07/10/2012E		100.0		46.4		8.5	N/A	2.72	1.00
07/12/2012A		100.0		44.8		8.3	N/A	2.72	1.00
07/17/2012E		100.0		43.3		8.1	N/A	2.72	1.00
07/19/2012A		100.0		45.2		8.3	N/A	2.72	1.00
07/24/2012E		100.0		47.7		9.2	N/A	2.72	1.00
07/26/2012A		100.0		44.2		7.9	N/A	2.72	1.00
07/31/2012A		100.0		44.3		8.1	N/A	2.72	1.00
10/25/2012F		100.0		46.4		7.9	N/A	2.72	1.00
11/02/2012F		100.0		46.3		8.0	N/A	2.72	1.00
11/06/2012C		100.0		47.7		8.8	N/A	2.72	1.00
11/10/2012F		100.0		43.7		8.1	N/A	2.72	1.00
11/14/2012C		100.0		47.3		8.3	N/A	2.72	1.00
11/15/2012F		100.0		45.1		8.4	N/A	2.72	1.00
11/27/2012C		100.0		44.7		8.3	N/A	2.72	1.00
12/07/2012C		100.0		41.7		6.8	N/A	2.72	1.00
Average		100.0		45.6		8.1	3.80	2.72	1.00

U.S. Bureau of Reclamation

SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE RELATIVE DENSITY/RELATIVE COMPACTION METHOD

PROJECT: Central Valley

SPECIFICATION REQUIREMENTS:

PERIOD OF REPORT: 12/01/2012 - 01/07/2013

FEATURE: MIAD Key-Block

Min Relative Compaction: 95.00 %

TOTAL MATERIAL PLACED: 0 Cubic Yards

Max Relative Compaction: 95.00 %

SPECIFICATION NO: 20-C0754

UNITS PER ACCEPTED TEST: 0 Cubic Yards

FILL NAME: 1 - Key Block

TEST NUMBER	LOCATION			FIELD DENSITY TESTS						INDEX TESTS					GRADATION				VISUAL SOIL CLASS	OTHER TESTS	REMARKS			
				METH	USBR	TEST	WET DEN	MOIS	SPEC GRAV		CONTROL FRACTION		DEG	MAX INDEX	MIN INDEX	REL DEN	REL COMP	+3"				GRV	SND	FIN
STATION	SET	ELEV	COMP						METH	MAT	MAT	IN							IN	DRY DEN	MOIS CONT			
12-05-A-01-R-A*	4	Cell+0F	CL	349	VR	7205	157.4	5.8	2.71	2.71	147.4	5.8	107	142.1	0.0	100.0	103.7	9	73	21	6	GP	N	21'WOE 25'SON
12-06-A-01-R-A*	4	Cell+0F	CL	351	VR	7205	153.7	5.6	2.69	2.71	145.1	5.6	96	139.9	0.0	100.0	103.7	4	68	25	7	GP	N	44'WOE 22'SON
12-11-A-01-R-A*	4	Cell+0F	CL	357	VR	7205	159.8	8.1	2.71	2.72	147.3	8.1	148	142.2	0.0	100.0	103.6	0	0	0	0	GP	N	16'SON 26'EOW
12-11-A-02-R-A*	4	Cell+0C	CL	346	VR	7205	153.5	4.1	2.72	2.72	147.5	4.1	74	141.8	0.0	100.0	104.0	0	0	0	0	GP	N	21'SON 29'EOW
12-13-A-01-R-A*	4	Cell+0C	CL	349	VR	7205	155.2	5.5	2.70	2.72	146.7	5.5	100	139.6	0.0	100.0	105.1	9	57	35	8	GP	N	49'EOW 8' NOS
12-13-A-02-R-A*	4	Cell+0F	CL	362	VR	7205	158.6	6.7	2.73	2.72	148.0	6.7	121	142.3	0.0	100.0	104.0	0	0	0	0	GP	N	35'EOW 2' NOS
12-18-A-01-R-A*	4	Cell+0F	CL	366	VR	7205	154.3	6.9	2.73	2.72	143.4	6.9	100	141.9	0.0	100.0	101.1	2	61	32	8	GW	N	15'SON 43'WOE
12-18-A-02-R-A*	4	Cell+0C	CL	353	VR	7205	150.5	6.6	2.77	2.72	140.9	6.6	81	142.3	0.0	100.0	99.0	0	0	0	0	GP	N	24'WOE 25'SON
12-20-A-01-R-A*	4	Cell+0C	CL	364	VR	7205	153.7	5.1	2.72	2.72	145.9	5.1	85	140.1	0.0	100.0	104.1	3	59	30	8	GW	N	15'NOS 60'WOE
12-28-A-01-R-A*	4	Cell+0f	CL	376	VR	7205	151.7	5.4	2.72	2.72	142.7	5.4	78	142.7	0.0	100.0	100.0	9	71	23	6	GP	N	19'SON 31'WOE
01-04-A-01-R-A*	4	CELL+0C	CL	377	VR	7205	143.2	4.0	2.72	2.72	137.7	4.0	47	143.5	0.0	100.0	96.0	0	63	30	8	GW	N	22'NOS 16'WOE
01-07-A-01-R-A*	4	CELL+0C	CL	380	VR	7205	146.9	6.7	2.72	2.72	137.7	6.7	78	140.5	0.0	100.0	98.0	0	56	34	10	GP	N	62'WOE 14'NOS
ACCEPTED TESTS THIS PERIOD: 12				AVG.			153.2	5.9	2.72	2.72	144.2	5.9	93	141.6	0.0	100.0	101.9	3	42	19	5			
				S.D.			4.7	1.2	0.02	0.00	3.7	1.2	26	1.2	0.0	0.0	3.0	4	32	15	4			
				C.O.V.			3.1	20.3	0.72	0.14	2.6	20.3	28	0.9	0.0	0.0	2.9	129	75	77	77			

U.S. Bureau of Reclamation

STATISTICAL SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE RELATIVE DENSITY/RELATIVE COMPACTION METHOD

PROJECT: Central Valley
01/07/2013

SPECIFICATION REQUIREMENTS:

PERIOD OF REPORT: 12/01/2012 -

FEATURE: MIAD Key-Block

Min Relative Compaction: 95.00 %
Max Relative Compaction: 95.00 %

TOTAL MATERIAL PLACED: 0 Cubic Yards

SPECIFICATION NO: 20-C0754

UNITS PER ACCEPTED TEST: 0 Cubic Yards

FILL NAME: 1 - Key Block

	This Period	To Date
No. of Tests Taken	12	22
No. of Tests Accepted	12	22
No. of Tests Rejected	0	0
No. of Rejected Tests not Re-Checked	0	0
Average Percent +3-Inch Material	3.0	3.2
Average Percent Gravel	42.3	49.8
Average Percent Sand	19.2	24.9
Average Percent Fines	5.1	6.4
Average Wet Density Total Material (PCF)	153.2	152.7
Average Moisture Content Control Fraction (%)	5.9	5.3
Average Dry Density Control Fraction (PCF)	144.2	145.2
Average Minimum Dry Density (PCF)	0.0	0.0
Average Maximum Dry Density (PCF)	141.6	142.5
Average Percent Relative Density (PCF)	100.0	100.0
Average Percent Relative Compaction (PCF)	101.9	102.0
Percent of Accepted RC Tests Less Than 95.00	0.0	0.0
Percent of Accepted RC Tests Greater Than 95.0	100.0	100.0
Tests Accepted Outside of Specification Limits	12	22
Maximum RC of 95.0	12	22

U.S. Bureau of Reclamation
Concrete Construction Data

Concrete Class: Lean Concrete Fill
Report of Mixes Used From 10/25/2012 to 12/31/2012

Mix Design Number: 1529207
Specification Number: 20-C0754
Project: MIAD Key-Block
Feature: Lean Concrete

(psi)	Percent Of																Fresh Concrete Tests					Compressive Strength Of Individual Specimens							
	y^3	Coarse Aggregate						Yield Quantities per Cubic Yard										— Air —											
		Date	of	in each size				Pounds		Oz		Cem	M	Slump	UW	W/	Grav	Press	3	7	28	90	180						
Time	Conc	Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Eff	P	(ins)	(pcf)	C+P	Meth	Meter	Day	Day	Day	Day	Day	
10/25/2012																													
08:13	887.50	70.6	100.0	0.0	0.0	0.0	469	399	107	1990	830	0	0.0	0.0	0.0	0.0	3.9	67	5.00	140.6	0.93	-0.1	1.5	940	1590	#####	920	1540	#####
10:16	887.50	70.6	100.0	0.0	0.0	0.0	475	405	103	2008	836	0	0.0	0.0	0.0	0.0	3.9	69	5.50	141.7	0.94	-1.0	1.0	920	1530	#####	920	1610	#####
13:07	887.50	70.5	100.0	0.0	0.0	0.0	472	406	103	2008	842	0	0.0	0.0	0.0	0.0	3.4	72	7.00	141.9	0.93	-1.0	1.0	920	1370	#####	910	1360	#####
16:21	887.50	70.5	100.0	0.0	0.0	0.0	472	402	101	1992	832	0	0.0	0.0	0.0	0.0	3.7	72	6.50	140.7	0.94	-0.3	1.5	840	1450	#####	850	1530	#####
11/02/2012																													
08:30	700.00	70.4	100.0	0.0	0.0	0.0	476	405	105	1998	839	0	0.0	0.0	0.0	0.0	3.8	68	6.75	141.6	0.93	-0.9	1.3	1010	1510	#####	1010	1570	#####
11:09	700.00	70.4	100.0	0.0	0.0	0.0	474	405	106	1996	840	0	0.0	0.0	0.0	0.0	3.8	73	5.75	141.5	0.93	-0.9	1.2	920	1550	#####	970	1520	#####
12:56	700.00	70.4	100.0	0.0	0.0	0.0	474	405	102	2001	840	0	0.0	0.0	0.0	0.0	4.0	75	5.75	141.6	0.93	-0.9	1.3	1000	1600	#####	1010	1630	#####
15:08	700.00	70.5	100.0	0.0	0.0	0.0	474	408	101	2007	841	0	0.0	0.0	0.0	0.0	3.9	73	5.75	141.9	0.93	-1.1	1.5	1010	1620	#####	1010	1620	#####
11/06/2012																													
08:06	662.50	84.8	100.0	0.0	0.0	0.0	465	397	97	2361	425	0	0.0	0.0	0.0	0.0	3.6	69	6.00	138.7	0.94	1.2	0.7	900	1410	#####	940	1410	#####
11:11	662.50	71.1	100.0	0.0	0.0	0.0	478	404	98	2006	816	0	0.0	0.0	0.0	0.0	3.9	71	5.00	140.8	0.95	-0.5	0.7	1000	1510	#####	990	1640	#####
13:16	662.50	71.1	100.0	0.0	0.0	0.0	482	410	104	2023	822	0	0.0	0.0	0.0	0.0	3.7	74	5.50	142.3	0.94	-1.6	1.8	1010	1430	#####	1020	1570	#####
14:28	662.50	71.2	100.0	0.0	0.0	0.0	472	396	98	1980	801	0	0.0	0.0	0.0	0.0	3.6	74	5.50	138.8	0.96	0.8	0.7	1010	1430	#####	990	1450	#####
11/10/2012																													
07:59	617.50	68.7	100.0	0.0	0.0	0.0	473	403	104	1966	894	0	0.0	0.0	0.0	0.0	3.5	64	6.25	142.2	0.93	-1.1	0.3	930	1400	#####	950	1460	#####
10:47	617.50	69.1	100.0	0.0	0.0	0.0	471	401	104	1943	870	0	0.0	0.0	0.0	0.0	3.8	69	6.50	140.3	0.93	0.0	0.3	1090	1530	#####	1050	1540	#####
12:57	617.50	69.0	100.0	0.0	0.0	0.0	475	405	106	1958	879	0	0.0	0.0	0.0	0.0	3.8	71	6.00	141.6	0.93	-0.9	1.2	1070	1530	#####			

14:49	617.50	69.1	100.0	0.0	0.0	0.0	471	402	102	1954	875	0	0.0	0.0	0.0	0.0	3.9	68	6.50	140.9	0.93	-0.3	0.8	1010	1530	#####	
#####	#####																							970	1550	#####	
#####	#####																							980	1550	#####	
11/14/2012																											
07:05	687.50	71.0	100.0	0.0	0.0	0.0	473	404	103	2018	825	0	0.0	0.0	0.0	0.0	3.7	60	6.00	141.6	0.93	-0.7	0.5	970	1500	#####	
09:52	687.50	70.9	100.0	0.0	0.0	0.0	474	404	103	2020	830	0	0.0	0.0	0.0	0.0	3.6	67	7.00	141.9	0.93	-1.0	0.4	930	1450	#####	
12:25	687.50	70.9	100.0	0.0	0.0	0.0	476	406	103	2019	827	0	0.0	0.0	0.0	0.0	3.9	68	5.00	141.9	0.94	-1.1	0.5	930	1470	#####	
14:28	687.50	70.9	100.0	0.0	0.0	0.0	475	405	102	2012	824	0	0.0	0.0	0.0	0.0	3.9	73	5.50	141.4	0.94	-0.8	0.5	830	1470	#####	
#####	#####																							980	1590	#####	
#####	#####																							960	1580	#####	
#####	#####																							940	1550	#####	
#####	#####																							940	1600	#####	
11/15/2012																											
11:58	600.00	69.7	100.0	0.0	0.0	0.0	471	402	101	1964	853	0	0.0	0.0	0.0	0.0	3.3	68	6.50	140.4	0.94	0.0	0.5	870	1340	#####	
15:04	600.00	69.7	100.0	0.0	0.0	0.0	469	400	102	1959	850	0	0.0	0.0	0.0	0.0	3.7	70	6.75	140.0	0.93	0.3	0.4	890	1340	#####	
#####	#####																							800	1470	#####	
#####	#####																							800	1480	#####	
11/27/2012																											
07:22	595.00	69.5	100.0	0.0	0.0	0.0	473	404	103	1975	866	0	0.0	0.0	0.0	0.0	3.1	62	6.50	141.6	0.93	-0.7	0.5	890	1270	#####	
08:45	595.00	69.5	100.0	0.0	0.0	0.0	473	403	101	1968	862	0	0.0	0.0	0.0	0.0	3.3	59	6.00	141.0	0.94	-0.4	0.5	830	1250	#####	
10:33	595.00	69.5	100.0	0.0	0.0	0.0	474	404	102	1970	863	0	0.0	0.0	0.0	0.0	2.9	63	7.00	141.2	0.94	-0.6	0.5	900	1320	#####	
12:41	595.00	69.7	100.0	0.0	0.0	0.0	473	402	103	1981	863	0	0.0	0.0	0.0	0.0	3.4	63	6.75	141.6	0.94	-0.7	0.5	900	1320	#####	
#####	#####																							870	1170	#####	
#####	#####																							860	1170	#####	
#####	#####																							960	1410	#####	
#####	#####																							970	1360	#####	

U.S. Bureau of Reclamation
Concrete Construction Data

Concrete Class: Lean Concrete Fill
Report of Mixes Used From 10/25/2012 to 12/31/2012

Mix Design Number: 1529207
Specification Number: 20-C0754
Project: MIAD Key-Block
Feature: Lean Concrete

(psi)	Percent Of																Fresh Concrete Tests					Compressive Strength Of Individual Specimens							
	y^3	Coarse Aggregate						Yield Quantities per Cubic Yard										Air											
Date of 1 Time Year	Conc	Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Eff	P	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	
12/07/2012																													
10:19	650.00	67.8	100.0	0.0	0.0	0.0	1855	252	64	1201	570	0	0.0	0.0	0.0	0.0	7.5	63	7.00	146.0	5.87	**.*	0.5	1230	1860	#####			
																								1310	1900	#####			
11:53	650.00	67.9	100.0	0.0	0.0	0.0	443	407	103	1940	916	0	0.0	0.0	0.0	0.0	3.6	63	7.00	141.1	0.87	0.7	0.5	1050	1500	#####			
																								1030	1430	#####			
Design	45.0	100.0	0.0	0.0	0.0	475	399	101	1257	1542	0	0.0	0.0	0.0	0.0	0.0			8.00	139.8	0.95	0.4	0.4					1000	
AVG.	70.5	100.0	0.0	0.0	0.0	522	398	101	1972	823	0	0.0	0.0	0.0	0.0	0.0	3.8	68	6.15	141.3	1.11	-2.5	0.8	959	1487				
S.D.	2.9	0.0	0.0	0.0	0.0	261	29	8	169	97	0	0.0	0.0	0.0	0.0	0.0	0.8	5	0.65	1.3	0.93	10.4	0.4	90	134				
C.O.V	4.2	0.0	0.0	0.0	0.0	50.1	7.2	7.5	8.5	11.8	0.0	0.0	0.0	0.0	0.0	20.3	6.6	10.6	0.9	84.1	**.*	53.9	9.4	9.0					

Bureau.....: Required average strength = 1125 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi & C.O.V. (n=102) = 8.7
 ACI.....: Required average strength = 1171 psi at 28 days (n=102)
 CURE METHOD...: Water Tank with an Average Cure Temperature of 59 - 75 (F)

= Specimen not broken as of report date.