

- Engineering Services Key Activities for the Month of June 2008

## Summary

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- Recent Events
  - Repair of the Sepulveda Feeder
- Supply and Delivery Reliability:
  - Inland Feeder Program
  - Mills Water Treatment Plant Capacity Upgrade
  - Perris Valley Pipeline
  - San Diego Pipeline No. 6
  - Skinner Water Treatment Plant Expansion No. 4
- Infrastructure Reliability:
  - Capital Program for Projects Costing Less than \$250,000
  - CRA Electrical Reliability Program
  - Jensen Water Treatment Plant Improvements Program
  - Reservoir Cover Replacement Program
  - Skinner Water Treatment Plant Improvements Program
- Water Quality:
  - Oxidation Retrofit Program
- Regulatory:
  - Chlorine Containment and Handling Facilities

## Attachments

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Monthly Progress Report of Construction and Procurement Contracts for May 2008.

## Detailed Report

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This report details key engineering activities for the month of June 2008.

**Recent Events:**

**Repair of Sepulveda Feeder:** The Sepulveda Feeder is a 96-inch diameter prestressed concrete cylinder pipeline (PCCP) which was installed in 1970. A recent electromagnetic inspection identified four pipe sections in need of urgent repair (Figure 1). The Executive Committee of Metropolitan’s Board delegated authority to the General Manager to award a construction contract and the full Board ratified the committee’s authorization. The work was completed and the pipeline was returned to service June 30, 2008.



Figure 1: Excavation underway at the Sepulveda Feeder

## **Supply and Delivery Reliability:**

**Inland Feeder Program:** The program consists of 44 miles of pipeline and tunnels that will enable Metropolitan to convey up to 1,000 cubic feet per second of State Water Project supplies from the Devil Canyon's Second Afterbay to Diamond Valley Lake. Eight of nine construction contracts have been completed. Recent activities include the following:

- Arrowhead East Tunnel (AET) – The contractor is continuing the process of disassembling the tunnel boring machine (TBM) and the mining support equipment at Strawberry Portal (Figure 2). This equipment is being shipped off-site for storage and future salvage. Once the TBM is removed from the tunnel, the Contractor will commence tunnel cleaning work in preparation for installation of the final pipe liner. Additionally, the Contractor will be installing several grout shunt flow collars at predetermined locations along the alignment to stem water flow from one hydrogeologic compartment to another. The pipe installation is anticipated to commence in August.
- Arrowhead West Tunnel (AWT) – Poor ground conditions were encountered for much of May and into early June as the TBM crossed an extensive fault zone estimated to be about 40 feet in width. The ground was very weak in this zone, and was comprised of completely crushed rock and clay seams. In the second week of June, the TBM moved past this difficult zone and mining conditions improved significantly. The TBM advanced 305 feet in May and another 80 feet through June 10th. The TBM is now mining in the final curve on the tunnel drive. The total length of tunnel mined to date is 18,569 feet (93 percent of the tunnel's length). Staff anticipates the remaining 1,000 feet to be mined will be completed by September 2008. In May, the contractor continued work at Devil Canyon portal by excavating the portal within the foundation walls that had been previously installed.



Figure 2: Dismantling and removal of the TBM at Arrowhead East Tunnel

### **Supply and Delivery Reliability (cont.):**

**Mills Water Treatment Plant Capacity Upgrade:** This program will upgrade specific components of the Mills plant to match the plant's hydraulic capacity of 326 mgd. The program consists of five projects. Recent activities include the following:

- **Ozone Contactors Nos. 3 and 4** – Under the completed Mills Oxidation Retrofit Program (ORP) project, Ozone Contactors Nos. 1 and 2 were installed with a combined capacity of 160 mgd. To increase the ozonation capacity to 326 mgd, two new ozone contactors are required. Figure 3 shows construction of the wall forms for the contactor chambers. Construction is approximately 45 percent complete and is scheduled to be completed by July 2009.
- **Modules Nos. 1 and 2 Rehabilitation** – To fully upgrade the Mills plant, Modules Nos. 1 and 2 will be rehabilitated and returned to service. Final design is approximately 95 percent complete and is scheduled to be completed by July 2008.
- **Solids Handling Upgrade** – A study was completed in October 2007 to identify improvements to reliably handle solids from the plant's full 326-mgd capacity. The recommended upgrades include a washwater reclamation plant and thickeners. Preliminary design is 7 percent complete and is scheduled to be completed by September 2009.
- **Chemical System Capacity Upgrades** – Portions of the existing chemical facilities will be upgraded to support the full 326-mgd plant capacity. Final design is approximately 95 percent complete and is scheduled to be completed by July 2008.

The program is scheduled to be completed in 2011/12 and is within budget.



Figure 3: Construction of Wall Forms for Contactor Chambers

**Supply and Delivery Reliability (cont.):**

**Perris Valley Pipeline:** This 96-inch diameter pipeline will be approximately six and a half miles long, extending east and south from the Mills plant to provide service to Eastern Municipal Water District and Western Municipal Water District of Riverside County (WMWD). Recent activities include the following:

- Mills Plant Reach – A portion of the Perris Valley Pipeline on the Mills plant site was completed in June 2006 by WMWD and is currently in service.
- Perris Valley Pipeline North Reach – The contractor has installed approximately 11,200 feet of pipe through June and is about 72 percent complete overall. Tunnel excavation under Alessandro Boulevard and the railroad crossing is progressing (Figure 4). The contractor is currently approximately 120 days behind schedule owing to their method of excavation. The project projected completion date has now been revised to November 2008. Staff is coordinating with the affected member agencies. Staff is continuing to monitor the contractor's progress, to assist the contractor where possible, and is considering possible options to minimize impacts of the delay.
- Perris Valley Pipeline South Reach – The Board awarded the construction contract for South Reach at the June meeting. Following issuance of the Notice to Proceed, the contractor will commence mobilization and construction. South Reach construction is scheduled to be completed by late 2009.



Figure 4: Tunnel at Alessandro Boulevard

**Supply and Delivery Reliability (cont.):**

**San Diego Pipeline No. 6 – South Reach Feasibility Study:** Based on the Integrated Area Study completed in 2007, the South Reach of San Diego Pipeline No. 6 is scheduled to be online 2018. The alternative alignments are being evaluated based on construction and right of way constraints, environmental impacts, construction, operations, and maintenance costs, schedule, and operational flexibility. A key element of the tunnel construction alternatives will be the need and cost to control groundwater. Pipeline alignment issues are primarily concerned with community and environmental impacts, and construction in proximity to existing Metropolitan pipelines and other utilities. The draft reports by both Metropolitan and the San Diego County Water Authority are anticipated to be completed by the end of 2008.



Figure 5: The far west alignment alternative would traverse the Santa Margarita Creek Canyon

**Supply and Delivery Reliability (cont.):**

**Skinner Water Treatment Plant Expansion No. 4:** This program includes construction of a new 110-mgd water treatment module (Module No. 7) and supporting facilities. The work is planned to be completed under multiple construction contracts.

- Washwater Reclamation Plant No. 3 and a coal removal structure were completed in December 2006, while construction of Module No. 7 commenced service in July 2007. Construction of the Chemical Systems Modifications was completed in October 2007. All chemical systems have been placed into service.
- Reclaimed washwater pumping station construction is 83 percent complete and is scheduled to be completed by May 2009 (Figure 6).

The program is on schedule to be completed in fiscal year 2008/09 and is within budget.



Figure 6: Skinner Reclamation Washwater Pumping station

## **Infrastructure Reliability:**

**Capital Program for Projects Costing Less than \$250,000:** The minor capital projects support timely and essential repairs and upgrades for various equipment such as pumps and valves, structural components, plumbing or electrical equipment, HVAC systems, etc. Each fiscal year, the Board authorizes the General Manager to move forward with capital projects costing less than \$250,000. Recent activities include the following:

- Jensen Plant Sodium Hydroxide Chemical Valves Replacement – Project is 60 percent complete and is scheduled to be completed by August 2008 (Figure 7).
- Weymouth Plant Compressed Air System – Compressors were installed to operate power equipment for abrasive blasting, coating application, and the operation of pneumatic tools. Start-up and testing were completed in June 2008.
- Microwave Communications Sites Building Upgrade – This project will upgrade six microwave communication facilities. Final design is complete. Construction is scheduled to be completed by December 2008.
- Replacement of Plumbing Fixtures – This project will replace toilets and urinals with water efficient fixtures at selected high-use facilities. The project is 40 percent complete and is scheduled for completion by August 2008.
- Wadsworth Pumping Plant Circuit Breaker Upgrades – Faulty circuit breakers controlling power to the forebay pumps and generators will be replaced and upgraded. Final design is complete. Construction is scheduled to be completed by August 2008.
- Diemer Plant Washwater Check Valve Recycle Pump Replacement – This project will replace deteriorated check valves for the recycle pumps. The project is currently 30 percent complete and installation is scheduled to be completed by September 2008.

The overall program is on schedule and is within budget.



Figure 7: Valve replacement at Jensen plant



### **Infrastructure Reliability (cont.):**

**CRA Electrical Reliability Program:** This program was established to maintain reliability of Colorado River Aqueduct (CRA) electrical equipment and facilities. The program currently has ten projects, seven of which have been completed. Recent activities include the following:

- Transformer Bank Replacement Study at All Pumping Plants – A study is being performed to assess the condition of the main CRA pumping plant transformers, which were originally installed in the 1930's and 1940's. The study is 85 percent complete and scheduled to be completed by July 2008.
- Danby Towers Foundation Rehabilitation – The Danby Towers support the 230 kV West Mead transmission line which supplies power to the CRA. This project will rehabilitate deteriorated tower foundations. Evaluations of the tower foundations were completed in June 2008 (Figure 8). A request to the Board for final design of repairs is planned for the fall 2008.
- 230 kV System Synchronizers – This project will reduce CRA outage durations in the event of power disturbances in the western United States 230 kV power grid. Voltage monitoring equipment to automatically synchronize Metropolitan's 230 kV system with the power grid will be installed at the switchyards at Gene, Eagle Mountain, and Hinds pumping plants by Southern California Edison (SCE). This project is scheduled to be completed by June 2009.

The program is on schedule to be completed in fiscal year 2010/11 and is within budget.



Figure 8: Soil excavation of the foundation piles for the purpose of evaluating their condition

## **Infrastructure Reliability (cont.):**

**Jensen Water Treatment Plant Improvements Program:** This program was initiated to maintain reliability and to improve operating efficiency of the Jensen plant through specific improvement projects. The program currently contains 29 projects, of which 6 have been completed. Recent activities include the following:

- Washwater Pump Modifications – Phases 1 and 2 – Phase 1 will install a recirculation line with a modulating valve to reduce frequent pump on/off cycling and to stabilize the reclaimed washwater return flow rate to the main plant inlet line. Phase 2 will retrofit ten pumps with variable speed drives to control flows to the washwater reclamation plants. Final design for Phase 1 was completed in December 2007. A request to the Board to authorize Phase 1 construction is planned for August 2008. Final design for Phase 2 will commence after the start-up and successful operation of Phase 1.
- Solids Handling Facility – A request to the Board to authorize preliminary design, preparation of environmental documentation and geotechnical analyses is planned for September 2008.
- Solids Thickener Capacity Increase – Final design was completed in December 2007 and Board award of a construction contract is planned for August 2008.
- Lagoon Modifications – Modifications were completed in May 2008 to address current operating conditions. A study is underway to assess the lagoons' capacity to handle additional Jensen plant solids residuals in the future, which may lead to additional improvements. The study is scheduled to be completed in August 2008.
- Module No. 1 Filter Valve Replacement – Four valves in Filter No. 16 were replaced during the January 2007 plant shutdown and the remaining valves in Module No. 1 were inspected. Preliminary design is 90 percent complete to replace the remaining 76 valves for the filters in Module No. 1, and is scheduled to be completed in July 2008.
- Alum to Polymer Tank Conversion – Preliminary design was completed in December 2007 for conversion of the plant's two existing alum tanks to polymer service. In April 2008, the Board authorized final design and construction of the project. Final design is 90 percent complete and is scheduled to be completed in August 2008.
- Administration Building Seismic Upgrades – Final design is 96 percent complete and is scheduled to be completed in July 2008.
- Entrance Improvements – This project will improve access and security at the Jensen plant's San Fernando Road entrance. Final design is 65 percent complete and is scheduled to be completed in September 2008. A Value Engineering study was completed in March 2008.

**Infrastructure Reliability (cont.):**

**Jensen Water Treatment Plant Improvements Program (cont.):**

- Washwater Tanks Seismic Upgrades – This project will seismically retrofit Jensen plant’s two washwater tanks. Preliminary design commenced with geotechnical investigations in May 2008 and is expected to be completed in June 2009 (Figure 9).

The program is on schedule to be completed in fiscal year 2011/12 and is within budget.



Figure 9: Soils boring adjacent to washwater tank at Jensen plant

### **Infrastructure Reliability (cont.):**

**Reservoir Cover Replacement Program:** This program consists of replacement of the floating covers, installation of liners, and related repairs at the Orange County, Palos Verdes, and Skinner Finished Water Reservoirs, and at Jensen Finished Water Reservoir No. 2. The existing floating covers at these facilities have reached the end of their useful lives and require replacement.

- Orange County Reservoir – Final design is 75 percent complete and is scheduled to be completed by September 2008.
- Skinner Finished Water Reservoir – Final design is complete. The project will be advertised for bids to coordinate with a planned shutdown during the 2009/2010 winter shutdown season.
- Palos Verdes Reservoir – Final design is scheduled to commence in July 2008 (Figure 10).
- Jensen Finished Water Reservoir No. 2 – Design for the existing floating cover inlet modification was completed. A request to the Board for authorization and funding for construction is scheduled for February 2009.

The program is on schedule to be completed by fiscal year 2010/2011 and is within budget.



Figure 10: Palos Verdes Reservoir

## **Infrastructure Reliability (cont.):**

**Skinner Water Treatment Plant Improvements Program:** This program was initiated to maintain reliability and improve operating efficiency of the Skinner plant through specific improvement projects. The program currently contains 18 projects, of which 8 have been completed and 2 have been deferred. Two projects within this program are being executed under major construction contracts underway at the Skinner Plant. Recent activities include the following:

- Electrical Buildings Upgrade – This project will replace deteriorated electrical equipment and install air conditioning systems and insulation in twelve electrical buildings to improve reliability. Final design is 90 percent complete and is scheduled to be completed by December 2008. A pilot project to replace some motor control center components by District forces will be conducted and completed by November 2008. With results of this pilot project, a request to the Board for construction funding is scheduled for January 2009.
- Ground Fault Protection Upgrade – This project will upgrade the plant’s ground fault protection system to reduce the potential for plant shutdowns caused by electrical ground faults. Final design is 90 percent complete and is scheduled to be completed by December 2008.
- Plant-Wide Replacement of Turbidimeters and Particle Counters – This project will replace the existing turbidimeters and particle counters in Modules Nos. 1 through 6. Replacement at Modules Nos. 1 through 3 is complete. Replacement at Modules Nos. 4 through 6 is scheduled to be completed by end of June 2008.
- Plant No. 2 Filter Surface Wash Valve and Actuator Replacement – This project will replace the existing surface wash valves and actuators in Modules Nos. 4 through 6. The project will be implemented in two phases: Phase 1 – performance evaluation and Phase 2 – valve and actuator procurement and installation. The installation is expected to be completed by early 2010.
- Washwater Reclamation Plant No. 2 Solids Removal Equipment and Modules Nos. 5 and 6 Surface Wash Header Replacement – These projects will replace deteriorated solids removal equipment and corroded surface wash headers (Figure 11). Final design is 60 percent complete and is scheduled to be completed by September 2008.
- Skinner Completion Project – In February 2008, the Board authorized preliminary and final design for containment of sodium hypochlorite piping between Modules Nos. 5 and 6, secondary containment for the filter backwash polymer and sodium hypochlorite pipes at Modules Nos. 1 to 6, and a new potable water pump with an emergency generator. Preliminary design is 10 percent complete and is scheduled to be completed in July 2008.

The overall program is on schedule to be completed in fiscal year 2011/12 and is within budget.



Figure 11: Washwater Reclamation Plant No. 2 existing solids collectors to be replaced

## Water Quality:

**Oxidation Retrofit Program:** This program was established to add ozone to provide disinfection, to control tastes and odors, and to reduce the level of disinfection by-products in the finished water at all five of Metropolitan's treatment plants. Ozone will enable Metropolitan to meet state and federal drinking water regulations. Recent activities include the following:

- Mills Plant – A construction contract to add two new ozone contactors to upgrade the plant's ozonation system capacity to 326 mgd is approximately 45 percent complete and is scheduled to be completed by July 2009. Fabrication of additional ozone equipment is 5 percent complete and is scheduled to be completed by September 2009.
- Jensen Plant – The plant's ozone system became fully operational in July 2005.
- Skinner Plant – Construction is approximately 83 percent complete and is scheduled to be completed in mid-2009 (Figure 12).
- Weymouth Plant – This program consists of multiple staged construction contracts. Final design of a new plant inlet conduit, which will relocate the conduit from beneath the Administration Building to the location of the planned ozone contactors, is 10 percent complete and is scheduled to be completed in December 2008. The Weymouth ozone facilities are currently scheduled to be completed in 2014.
- Diemer Plant – Construction of the ORP site preparation work has been completed. Final design of the ozonation facilities is complete. The project was advertised for bids in early March 2008, and bids were received and open in June 2008. A request to the Board to award the construction contract is planned for July 2008.



Figure 12: Installation of ozone generators at the Skinner plant

**Regulatory:**

**Chlorine Containment and Handling Facilities:** This program includes design and construction of facilities to handle and contain chlorine to minimize the possibility of a chlorine leak. Recent activities include the following:

- Diemer, Weymouth, and Skinner Plants – The Diemer, Weymouth, and Skinner projects were completed in 2002, 2005, and 2008, respectively.
- Jensen Plant – Construction of the chlorine containment facility is 88 percent complete and is scheduled to be completed in September 2008.
- Mills Plant – Construction and start-up testing of the southern portion of the chlorine containment facility is complete. Construction of the northern portion is expected to be completed in September 2008. Overall, the project is 95 percent complete. Figure 13 shows construction work in the vicinity of the chlorine containment facility.

The program will be completed in fiscal year 2010/11 and is within budget.



Figure 13: Mills Chlorine Containment facility nearing construction completion



**MONTHLY PROGRESS REPORT  
OF CONSTRUCTION AND PROCUREMENT CONTRACTS  
May 2008**  
(Progress Through May 25, 2008)

<b>Summary of Progress</b>		
	Construction	Related Procurement
Number of Contracts	19	4
Total Bid Amount of Contracts in Progress	\$ 799,840,360	\$ 45,501,420
Number of Contracts Awarded This Month	3	0
Total Bid Amount of Contracts Awarded This Month	\$ 3,779,100	\$ -
Contract Gross Earnings This Month*	\$ 17,323,270	\$ 579,137

*\*Note: Earnings reflected in this report represent the value of the work performed by the contractor through the 25th day of the month. Earnings include contract retention and other similar deductions from amounts earned by the contractor but otherwise required to be withheld by Metropolitan by law or by contract. Further, payments are made in the month following the performance of the work. For these reasons, contract payments reflected in Metropolitan's financial system will be less than the earnings shown in this report until the final payment has been made to the contractor.*

**Contracts Awarded This Month**

Contract No. 1659, Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 4, in the amount of \$1,447,500, was awarded to Spiniello Companies. The project consists of removal of existing subsurface vacuum and air release valves; abatement of lead and asbestos-containing material inside subsurface vaults; and modification and extension of piping system for installation of new vacuum and air release valves at above-ground locations within the cities of Beverly Hills, Burbank, Carson, Downey, Gardena, Glendale, Inglewood, La Mirada, Los Angeles, Norwalk, Santa Fe Springs, Torrance, West Hollywood, and portions of Los Angeles County.

Contract No. 1660, Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 5, in the amount of \$1,278,500, was awarded to Zusser Company, Inc. The project consists of removal of existing subsurface vacuum and air release valves; abatement of lead and asbestos-containing material inside subsurface vaults; and modification and extension of piping system for installation of new vacuum and air release valves at above-ground locations within the cities of Burbank, San Fernando, and the communities of Chatsworth, Granada Hills, Mission Hills, Pacoima, Sherman Oaks, Sun Valley, and Van Nuys within the City of Los Angeles.

Contract No. 1661, Robert B. Diemer Water Treatment Plant West Washwater Tank Refurbishment, in the amount of \$1,053,100, was awarded to Abhe & Svoboda, Inc. The project consists of abrasive blasting and recoating of the exterior and interior surfaces of a steel water storage tank; seismic retrofit; tank disinfection; repairing trusses, beams, roof, hatch cover, and vent structure.

**Contracts Completed This Month**

Contract No. 1607, Robert B. Diemer Water Treatment Plant Entrance Relocation, Vehicle Maintenance Center, and Solids Handling Facilities, was completed on May 14, 2008, and the notice of completion was recorded on May 21, 2008.

Contract No. 1636, F.E. Weymouth Water Treatment Plant Perimeter Improvements, Phase I, was completed on April 29, 2008, and the notice of completion was recorded on May 7, 2008.

**Summaries/Status of Contracts**

The summaries/status of current construction and construction-related procurement contracts are provided on the following pages.



**Summary of Construction Contracts (Page 1 of 2)**

Cont. No.	Spec. No.	Feature	Contractor	Contract Amount	Earnings This Month	Earnings To Date	Net Extra Work To Date	Start Date	Contract Completion Date	Estimated Completion Date	Estimated Percent Complete
		<b>Inland Feeder Contract</b>		Projected Cost to Complete							
1542	1437	<b>Arrowhead Tunnels Project<sup>1</sup></b>	J. F. Shea Const Inc/Kenny Const Co., JV	\$ 397,000,000	\$ 5,906,892	\$ 284,250,894	N/A	8/2/02	9/15/10	9/10	72%
		<b>Inland Feeder Totals</b>		<b>\$ 397,000,000</b>	<b>\$ 5,906,892</b>	<b>\$ 284,250,894</b>	<b>\$ -</b>				
				Bid Amount							
1607	1504	Robert B. Diemer Water Treatment Plant Entrance Relocation, Vehicle Maintenance Center, and Solids Handling Facilities	Brutoco Engineering & Construction, Inc.	\$ 29,260,000	\$ -	\$ 30,103,755	\$ 843,755	6/13/05	5/14/08	5/08	100%
1609	1483	Robert A. Skinner Water Treatment Plant Oxidation Retrofit Program and Washwater Reclamation Plant No. 3	Shimmick Construction/Obayashi Corp. JV	\$ 184,650,000	\$ 3,954,597	\$ 160,155,410	\$ 3,975,824	7/28/05	5/5/09	5/09	85%
1628	1517	Henry J. Mills Water Treatment Plant Chemical System Upgrades	J. R. Filanc Construction Co., Inc.	\$ 19,914,600	\$ 966,348	\$ 17,974,675	\$ 383,447	5/2/06	6/13/08	7/08 <sup>2</sup>	89%
1631	1535	Diemer Water Treatment Plant Site Preparation for Oxidation Retrofit Program	Kiewit Pacific Co.	\$ 70,516,455	\$ 306,825	\$ 70,909,575	\$ 1,122,330	5/15/06	5/29/08	6/08	99%
1633	1516A	Joseph Jensen Water Treatment Plant Jensen Chlorine Containment and Fluoride Project	Brutoco Engineering & Construction, Inc.	\$ 19,988,000	\$ 980,500	\$ 18,726,066	\$ 780,737	8/29/06	10/3/08	10/08	90%
1636	1546A	F. E. Weymouth Water Treatment Plant Perimeter Improvements, Phase I	Pima Corp. dba Advanced Construction	\$ 2,648,710	\$ -	\$ 2,725,921	\$ 77,211	10/24/06	4/29/08	5/08	100%
1640	1542	Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No.1	Steve P. Rados, Inc.	\$ 2,806,400	\$ 44,586	\$ 2,848,026	\$ 88,626	12/18/06	6/12/08	6/08	99% <sup>3</sup>
1649	1559	F. E. Weymouth Water Treatment Plant Operations and Maintenance Building	Brutoco Engineering & Construction, Inc.	\$ 9,030,000	\$ 819,255	\$ 5,499,082	\$ 54,769	7/13/07	7/10/08	7/08	61%

<sup>1</sup> Earnings for this project are as of April 25, 2008.

<sup>2</sup> Time extension pending.

<sup>3</sup> Contract substantially complete. Punch list work remains.



Summary of Construction Contracts (Page 2 of 2)

Cont. No.	Spec. No.	Feature	Contractor	Contract Amount	Earnings This Month	Earnings To Date	Net Extra Work To Date	Start Date	Contract Completion Date	Estimated Completion Date	Estimated Percent Complete
		<b>Miscellaneous Contracts</b>		Bid Amount							
1650	1549	Henry J. Mills Water Treatment Plant Ozone Contactors 3 and 4	C.W. Roen Construction Co.	\$ 14,556,000	\$ 839,894	\$ 5,947,368	\$ 24,171	7/25/07	6/11/09	6/09	41%
1651	1589	Perris Valley Pipeline, North Reach	W.A. Rasic Construction Co., Inc.	\$ 39,250,000	\$ 2,859,808	\$ 23,883,041	\$ 39,564	8/7/07	9/23/08	9/08	61%
1653	1568	CRA Reliability Program Phase 6	Abhe & Svoboda, Inc.	\$ 3,382,110	\$ 230,070	\$ 321,375	\$ -	10/8/07	5/8/09	5/09	10%
1654	1565	Rialto Pipeline Improvements Phase II	Brutoco Engineering & Construction, Inc.	\$ 2,147,500	\$ 118,500	\$ 1,777,500	\$ -	10/8/07	9/12/08	9/08	83%
1656	1581	Diamond Valley Lake Security and Wildlife Protection Fencing and Road	Lightning Fence Co., Inc.	\$ 511,500	\$ 295,995	\$ 416,995	\$ -	2/21/08	7/11/08	7/08	82%
1657	1579	Robert B. Diemer Water Treatment Plant Hatch Covers Replacement	Cora Constructors Inc.	\$ 332,932	\$ -	\$ -	\$ -	4/10/08	8/18/08	8/08	0%
1658	1601	F.E. Weymouth Water Treatment Plant Administration Building HVAC Controls Upgrade	Air-Ex Air Conditioning, Inc.	\$ 67,053	\$ -	\$ -	\$ -	6/23/08	10/15/08	10/08	0%
1659	1584	Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 4	Spiniello Companies	\$ 1,447,500	\$ -	\$ -	\$ -	6/13/08	5/27/09	5/09	0%
1660	1597	Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 5	Zusser Company, Inc.	\$ 1,278,500	\$ -	\$ -	\$ -	6/20/08	6/3/09	6/09	0%
1661	1439A	Robert B. Diemer Water Treatment Plant West Washwater Tank Refurbishment	Abhe & Svoboda, Inc.	\$ 1,053,100	\$ -	\$ -	\$ -	6/13/08	1/20/09	1/09	0%
				\$ 402,840,360	\$ 11,416,378	\$ 341,288,789	\$ 7,390,434				
<b>Total Value of Construction Contracts in Progress</b>				<b>\$ 799,840,360</b>	<b>\$ 17,323,270</b>	<b>\$ 625,539,683</b>	<b>\$ 7,390,434</b>				





**Summary of Construction and Procurement Contracts Completed This Month Pending Final Payment**

Cont. No.	Spec. No.	Feature	Contractor	Bid Amount	Estimated Final Earnings	Estimated Total Net Value of Extra Work	Date Work Accepted	Date Notice of Completion Recorded	Date Final Payment Due
1607	1504	Robert B. Diemer Water Treatment Plant Entrance Relocation, Vehicle Maintenance Center, and Solids Handling Facilities	Brutoco Engineering & Construction, Inc.	\$ 29,260,000	\$ 30,103,755	\$ 843,755	5/14/08	5/21/08	7/13/08
1636	1546A	F. E. Weymouth Water Treatment Plant Perimeter Improvements, Phase I	Pima Corp. dba Advanced Construction	\$ 2,648,710	\$ 2,725,921	\$ 77,211	4/29/08	5/7/08	6/28/08



**Summary of Procurement Contracts**

Cont. No.	Spec. No.	Feature	Contractor	Bid Amount	Earnings This Month	Earnings to Date	Starting Date	Delivery Date	Remarks
1582	1480	Oxygen/Ozone System Equipment for the Robert A. Skinner Water Treatment Plant Oxidation Retrofit Program	Ozonias North America	\$ 8,409,000	\$ -	\$ 6,205,194	6/22/04	12/30/09	Payments on this contract are made quarterly
1622	1515A	Oxygen/Ozone System Equipment for the Robert B. Diemer and F. E. Weymouth Water Treatment Plants Oxidation Retrofit Program	Ozonias North America	\$ 15,733,300	\$ 579,137	\$ 6,300,761	2/2/06	6/3/10	Payments on this contract are made quarterly
1645	1547	Steel Pipe and Fittings for Perris Valley Pipeline	Northwest Pipe Company	\$ 17,955,170	\$ -	\$ 10,697,060	3/5/07	11/1/08	
1655	1604	Henry J. Mills Water Treatment Plant Ozone System Reliability Upgrade Equipment	Ozonias North America	\$ 3,403,950	\$ -	\$ -	1/17/08	12/18/09	Payments on this contract are made quarterly
<b>Total Value of Procurement Contracts in Progress</b>				<b>\$ 45,501,420</b>	<b>\$ 579,137</b>	<b>\$ 23,203,015</b>			

Contract No. 1542 Specifications No. 1437 Contractor: J. F. Shea Const Inc/Kenny Const Co., JV	<b>Inland Feeder Program Arrowhead Tunnels Project</b>
<b>Scope of Work:</b> The project consists of purchasing two tunnel boring machines (TBMs); excavating two 12-foot interior finished diameter tunnels; constructing three portal structures; furnishing and installing a precast concrete segmental liner and a final liner for the Arrowhead West tunnel. Project modified to a cost reimbursable contract effective April 26, 2006.	
<b>At a Glance:</b> Estimated Percent Complete 72%	
Estimated Completion Date September 2010	
<b>Details:</b> Projected Cost to Complete \$397,000,000 Earnings To Date \$284,250,894 *	
Earnings This Month \$5,906,892 *	
Contract Start 8/2/02	
Contract Completion 9/15/10	Excavation and shoring of Devil Canyon portal site

Contract No. 1607 Specifications No. 1504 Contractor: Brutoco Engineering & Construction, Inc.	<b>Robert B. Diemer Water Treatment Plant Entrance Relocation, Vehicle Maintenance Center, and Solids Handling Facilities</b>	
<b>Scope:</b> The work consists of construction of gravity thickeners; a solids dewatering facility building; a truck loading facility; elevated solids storage hoppers; a pump station; vehicle maintenance building; and entrance gate facilities.		
<b>At a Glance:</b> Estimated Percent Complete 100%		
Percent Extra Work 2.9%		
Completion Date May 2008		
<b>Details:</b> Bid Amount \$29,260,000 Earnings To Date \$30,103,755 Net Extra Work To Date \$843,755 Earnings This Month \$0 Net Extra Work This Month \$0		
Contract Start 6/13/05		
Duration in Working Days 350		
Actual Contract Completion 5/14/08		Completed solids handling facility

\*Earnings for this project are as of April 25, 2008.

<p>Contract No. 1609 Specifications No. 1483 Contractor: Shimmick Construction/Obayashi Corp. JV</p>	<p><b>Robert A. Skinner Water Treatment Plant Oxidation Retrofit Program and Washwater Reclamation Plant No. 3</b></p>
<p><b>Scope:</b> The work consists of construction of buildings and water treatment structures, washwater reclamation plant, chemical and liquid oxygen facilities, cooling water pump station, power substation, switchgear building, and associated work.</p>	
<p><b>At a Glance:</b> Estimated Percent Complete <b>85%</b> Percent Extra Work <b>2.2%</b> Estimated Completion Date <b>May 2009</b></p>	<p>Steel erection at Ozone Destruct Building</p>
<p><b>Details:</b> Bid Amount <b>\$184,650,000</b> Earnings To Date <b>\$160,155,410</b> Net Extra Work To Date <b>\$3,975,824</b> Earnings This Month <b>\$3,954,597</b> Net Extra Work This Month <b>\$55,186</b> Contract Start <b>7/28/05</b> Duration in Working Days <b>865</b> Contract Completion <b>5/5/09</b></p>	
<p>Contract No. 1628 Specifications No. 1517 Contractor: J. R. Filanc Construction Co., Inc.</p>	<p><b>Henry J. Mills Water Treatment Plant Chemical System Upgrades</b></p>
<p><b>Scope:</b> The work consists of construction of new chlorine containment facility including truck unloading and acid storage buildings, evaporator room, injection facility, and chlorine scrubber areas.</p>	
<p><b>At a Glance:</b> Estimated Percent Complete <b>89%</b> Percent Extra Work <b>1.9%</b> Estimated Completion Date <b>July 2008</b></p>	<p>Compaction of subgrade for caustic unloading slab</p>
<p><b>Details:</b> Bid Amount <b>\$19,914,600</b> Earnings To Date <b>\$17,974,675</b> Net Extra Work To Date <b>\$383,447</b> Earnings This Month <b>\$966,348</b> Net Extra Work This Month <b>\$26,239</b> Contract Start <b>5/2/06</b> Duration in Working Days <b>360</b> Contract Completion <b>6/13/08 *</b></p>	

\*Time extension pending.

Contract No. 1631  
1535  
Contractor: Kiewit Pacific Co.

**Diemer Water Treatment Plant Site Preparation for Oxidation Retrofit Program**

**Scope:**  
The work consists of demolition of shop building, underground fuel tanks, and steel pipelines; installation of more than 3,000 feet of steel pipe, motor control center, remote transmitting unit, LPG tank and vaporizer, subdrain systems, and associated work.



**At a Glance:**  
Estimated Percent Complete 99%  
Percent Extra Work 1.6%  
Estimated Completion Date June 2008

West Washwater Tank intertie bypass line

**Details:**  
Bid Amount \$70,516,455  
Earnings To Date \$70,909,575  
Net Extra Work To Date \$1,122,330  
Earnings This Month \$306,825  
Net Extra Work This Month \$81,880  
Contract Start 5/15/06  
Duration in Working Days 445  
Contract Completion 5/29/08

Contract No. 1633  
Specifications No. 1516A  
Contractor: Brutoco Engineering & Construction, Inc.

**Joseph Jensen Water Treatment Plant Jensen Chlorine Containment and Fluoride Project**


**Scope:**  
The work consists of construction of new chlorine containment facility, evaporator room, and chlorine scrubber area, new fluorosilicic acid unloading, storage and injection facility, and associated work.




**At a Glance:**  
Estimated Percent Complete 90%  
Percent Extra Work 3.9%  
Estimated Completion Date October 2008


Demolition of caustic unloading pad


**Details:**  
Bid Amount \$19,988,000  
Earnings To Date \$18,726,066  
Net Extra Work To Date \$780,737  
Earnings This Month \$980,500  
Net Extra Work This Month \$0  
Contract Start 8/29/06  
Duration in Working Days 460  
Contract Completion 10/3/08

Contract No. 1636 Specifications No. 1546A Contractor: Pima Corp. dba Advanced Construction	<b>F. E. Weymouth Water Treatment Plant Perimeter Improvements, Phase I</b>
<b>Scope:</b> The work consists of landscape, lighting and irrigation improvements; decorative fencing; and extending paved parking.	
<b>At a Glance:</b> Estimated Percent Complete <b>100%</b> Percent Extra Work <b>2.9%</b> Completion Date <b>April 29, 2008</b>	
<b>Details:</b> Bid Amount <b>\$2,648,710</b> Earnings To Date <b>\$2,725,921</b> Net Extra Work To Date <b>\$77,211</b> Earnings This Month <b>\$0</b> Net Extra Work This Month <b>\$0</b> Contract Start <b>10/24/06</b> Duration in Working Days <b>160</b> Actual Contract Completion April 29, 2008	
	Completed landscaping along Sedalia Avenue



Contract No. 1640 Specifications No. 1542 Contractor: Steve P. Rados, Inc.	<b>Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 1</b>
<b>Scope:</b> The work consists of furnishing new replacement valves, pipes, and fittings for Metropolitan's inventory; removal of existing subsurface vacuum and air release valves; abatement of lead, PCBs and asbestos-containing material inside subsurface vaults; and modification and extension of piping system for installation of new vacuum and air release valves at above-ground locations within the cities of Los Angeles, Alhambra, Commerce, Montebello, Monterey Park, Rosemead, and South Pasadena.	
<b>At a Glance:</b> Estimated Percent Complete <b>98%</b> Percent Extra Work <b>3.2%</b> Estimated Completion Date <b>June 2008</b>	
<b>Details:</b> Bid Amount <b>\$2,806,400</b> Earnings To Date <b>\$2,848,026</b> Net Extra Work To Date <b>\$88,626</b> Earnings This Month <b>\$44,586</b> Net Extra Work This Month <b>\$44,586</b> Contract Start <b>12/18/06</b> Duration in Working Days <b>260</b> Contract Completion <b>6/12/08 *</b>	
	Clean-up of flanges

\*Contract substantially complete. Punch list work remains.

Contract No. 1649 Specifications No. 1559 Contractor: Brutoco Engineering & Construction, Inc.	<b>F. E. Weymouth Water Treatment Plant Operations and Maintenance Building</b>
<b>Scope:</b> The work consists of constructing a new centralized Operations and Maintenance Building of approximately 26,566 square feet including a Weld Shop, Machine Shop, Pipe Shop, Carpentry Shop, Test Area, Parts Storage Area, Instrumentation Shop, office areas, and restrooms/locker rooms.	
<b>At a Glance:</b> Estimated Percent Complete <b>61%</b> Percent Extra Work <b>0.61%</b> Estimated Completion Date <b>July 2008</b>	
<b>Details:</b> Bid Amount <b>\$9,030,000</b> Earnings To Date <b>\$5,499,082</b> Net Extra Work To Date <b>\$54,769</b> Earnings This Month <b>\$819,255</b> Net Extra Work This Month <b>\$38,957</b> Contract Start <b>7/13/07</b> Duration in Working Days <b>220</b> Contract Completion <b>7/10/08</b>	
Placement of base material prior to compaction at loading dock	

Contract No. 1650 Specifications No. 1549 Contractor: C.W. Roen Construction Co.	<b>Henry J. Mills Water Treatment Plant Ozone Contactors 3 and 4</b>
<b>Scope:</b> The work consists of constructing two new contactors, installing Metropolitan-furnished ozone equipment, and making tie-ins to existing process and utility lines within the existing contactor structure.	
<b>At a Glance:</b> Estimated Percent Complete <b>41%</b> Percent Extra Work <b>0.17%</b> Estimated Completion Date <b>June 2009</b>	
<b>Details:</b> Bid Amount <b>\$14,556,000</b> Earnings To Date <b>\$5,947,368</b> Net Extra Work To Date <b>\$24,171</b> Earnings This Month <b>\$839,894</b> Net Extra Work This Month <b>-\$1,897</b> Contract Start <b>7/25/07</b> Duration in Working Days <b>460</b> Contract Completion <b>6/11/09</b>	
Placement of concrete slab in new pipe gallery adjacent to Contactor 4	



<p>Contract No. 1651 Specifications No. 1589 Contractor: W.A. Rasic Construction Co., Inc.</p>	<p><b>Perris Valley Pipeline, North Reach</b></p>
<p><b>Scope:</b> The project consists of installing approximately 2.7 miles of large-diameter welded steel pipe. The work includes excavation; tunneling; pipe installation and welding; street improvements; construction of service connection EM-23; furnishing and installing valves and related piping; constructing manhole, blow-off, and other cast-in-place reinforced concrete vault structures; and electrical instrumentation and equipment.</p>	
<p><b>At a Glance:</b> Estimated Percent Complete <b>61%</b> Percent Extra Work <b>0.10%</b> Estimated Completion Date <b>September 2008</b></p>	
<p><b>Details:</b> Bid Amount <b>\$39,250,000</b> Earnings To Date <b>\$23,883,041</b> Net Extra Work To Date <b>\$39,564</b> Earnings This Month <b>\$2,859,808</b> Net Extra Work This Month <b>\$20,230</b> Contract Start <b>8/7/07</b> Duration in Working Days <b>250</b> Contract Completion <b>9/23/08</b></p>	<p>Installation of 96-inch pipe</p>
<p>Contract No. 1653 Specifications No. 1568 Contractor: Abhe &amp; Svoboda, Inc.</p>	<p><b>CRA Reliability Program Phase 6</b></p>
<p><b>Scope:</b> The project consists of rehabilitating deteriorated slide gates and upgrading electrical equipment at the San Jacinto Diversion Structure, and replacing valves and installing a security fence at the Desert Water/Coachella Valley discharge structure located at the Whitewater River.</p>	
<p><b>At a Glance:</b> Estimated Percent Complete <b>10%</b> Percent Extra Work <b>0.00%</b> Estimated Completion Date <b>May 2009</b></p>	
<p><b>Details:</b> Bid Amount <b>\$3,382,110</b> Earnings To Date <b>\$321,375</b> Net Extra Work To Date <b>\$0</b> Earnings This Month <b>\$230,070</b> Net Extra Work This Month <b>\$0</b> Contract Start <b>10/8/07</b> Duration in Working Days <b>400</b> Contract Completion <b>5/8/09</b></p>	<p>Concrete placement in foundation forms for discharge channel crossing</p>

Contract No. 1654  
 Specifications No. 1565  
 Contractor: Brutoco Engineering & Construction, Inc.

**Rialto Pipeline Improvements Phase II**

**Scope:**  
 The project consists of construction of a new isolation bulkhead structure with removable spool piece, replacement of 30 feet of PCCP with 120-inch-diameter welded steel pipe, and installation of 96-inch-diameter sectionalizing valves in existing vault structures. The removable spool piece and 96-inch-diameter valves are furnished by Metropolitan.



**At a Glance:**  
 Estimated Percent Complete **83%**  
 Percent Extra Work **0.00%**  
 Estimated Completion Date **September 2008**

Installation of 16-inch air intake

**Details:**  
 Bid Amount **\$2,147,500**  
 Earnings To Date **\$1,777,500**  
 Net Extra Work To Date **\$0**  
 Earnings This Month **\$118,500**  
 Net Extra Work This Month **\$0**  
 Contract Start **10/8/07**  
 Duration in Working Days **230**  
 Contract Completion **9/12/08**

Contract No. 1656  
 Specifications No. 1581  
 Contractor: Lightning Fence Co., Inc.

**Diamond Valley Lake Security and Wildlife Protection Fencing and Road**



**Scope:**  
 The project consists of demolition of approximately 2,500 feet of existing fencing; construction of approximately 15,000 feet of new fencing and maintenance road (15-foot wide) between the Diamond Valley Lake East Recreation Area and wildlife corridor.





**At a Glance:**  
 Estimated Percent Complete **82%**  
 Percent Extra Work **0.00%**  
 Estimated Completion Date **July 2008**

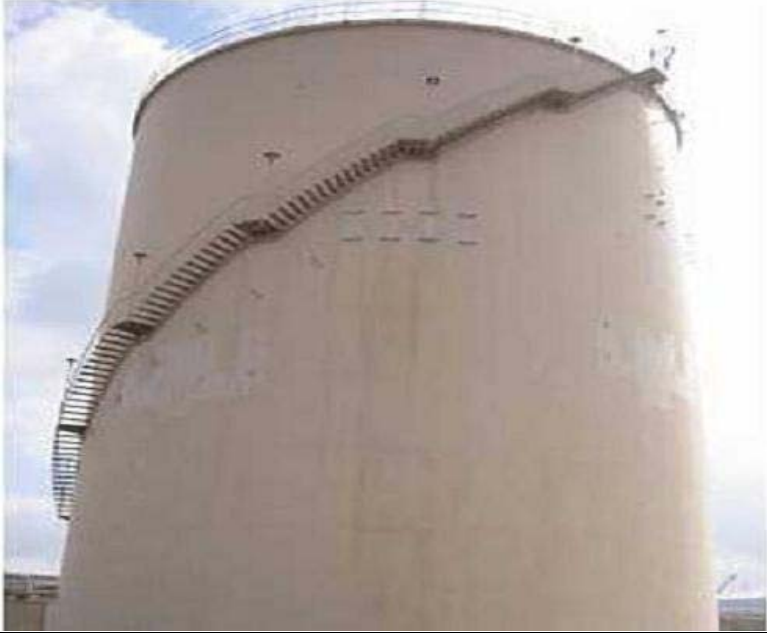
Placement of fence posts

**Details:**  
 Bid Amount **\$511,500**  
 Earnings To Date **\$416,995**  
 Net Extra Work To Date **\$0**  
 Earnings This Month **\$295,995**  
 Net Extra Work This Month **\$0**  
 Estimated Contract Start **2/21/08**  
 Duration in Working Days **100**  
 Contract Completion **7/11/08**

Contract No. 1657 Specifications No. 1579 Contractor: Cora Constructors Inc.	<b>Robert B. Diemer Water Treatment Plant Hatch Covers Replacement</b>
<b>Scope:</b> The project consists of replacement of 15 corroded hatch covers over the filter outlet conduit and Finished Water Reservoir inlet conduit, removal and disposal of PCB-containing sealant, temporary relocation of caustic piping, and repair of spalled concrete curbs.	
<b>At a Glance:</b> Estimated Percent Complete 0% Percent Extra Work 0.00% Estimated Completion Date August 2008	
<b>Details:</b> Bid Amount \$332,932 Earnings To Date \$0 Net Extra Work To Date \$0 Earnings This Month \$0 Net Extra Work This Month \$0 Contract Start 4/10/08 Duration in Working Days 90 Contract Completion 8/18/08	Existing hatch cover
Contract No. 1658 Specifications No. 1601 Contractor: Air-Ex Air Conditioning, Inc.	<b>F.E. Weymouth Water Treatment Plant Administration Building HVAC Controls Upgrade</b>
<b>Scope:</b> The project consists of designing, furnishing and installing a building HVAC Control System that networks all of the standalone units to a central building controller that will monitor and control all the units.	
<b>At a Glance:</b> Estimated Percent Complete 0% Percent Extra Work 0.00% Estimated Completion Date October 2008	
<b>Details:</b> Bid Amount \$67,053 Earnings To Date \$0 Net Extra Work To Date \$0 Earnings This Month \$0 Net Extra Work This Month \$0 Estimated Contract Start 6/23/08 Duration in Working Days 80 Estimated Contract Completion 10/15/08	Air handler unit to be connected to new central controller

Contract No. 1659 Specifications No. 1584 Contractor: Spiniello Companies	<b>Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 4</b>	
<b>Scope:</b> The project consists of removal of existing subsurface vacuum and air release valves; abatement of lead and asbestos-containing material inside subsurface vaults; and modification and extension of piping system for installation of new vacuum and air release valves at above-ground locations within the cities of Beverly Hills, Burbank, Carson, Downey, Gardena, Glendale, Inglewood, La Mirada, Los Angeles, Norwalk, Santa Fe Springs, Torrance, West Hollywood, and portions of Los Angeles County.		
<b>At a Glance:</b> Estimated Percent Complete <b>0%</b> Percent Extra Work <b>0.00%</b> Estimated Completion Date <b>May 2009</b>		
<b>Details:</b> Bid Amount <b>\$1,447,500</b> Earnings To Date <b>\$0</b> Net Extra Work To Date <b>\$0</b> Earnings This Month <b>\$0</b> Net Extra Work This Month <b>\$0</b> Contract Start <b>6/13/08</b> Duration in Working Days <b>240</b> Contract Completion <b>5/27/09</b>		
		Existing site condition located in Glendale

Contract No. 1660 Specifications No. 1597 Contractor: Zusser Company, Inc.	<b>Air Release and Vacuum Valve Relocation for Treated Water Pipelines Construction Package No. 5</b>	
<b>Scope:</b> The project consists of removal of existing subsurface vacuum and air release valves; abatement of lead and asbestos-containing material inside subsurface vaults; and modification and extension of piping system for installation of new vacuum and air release valves at above-ground locations within the cities of Burbank, San Fernando, and the communities of Chatsworth, Granada Hills, Mission Hills, Pacoima, Sherman Oaks, Sun Valley, and Van Nuys within the City of Los Angeles.		
<b>At a Glance:</b> Estimated Percent Complete <b>0%</b> Percent Extra Work <b>0.00%</b> Estimated Completion Date <b>June 2009</b>		
<b>Details:</b> Bid Amount <b>\$1,278,500</b> Earnings To Date <b>\$0</b> Net Extra Work To Date <b>\$0</b> Earnings This Month <b>\$0</b> Net Extra Work This Month <b>\$0</b> Contract Start <b>6/20/08</b> Duration in Working Days <b>240</b> Estimated Contract Completion <b>6/3/09</b>		
		Existing site condition located in Sun Valley

Contract No. 1661 Specifications No. 1439A Contractor: Abhe & Svoboda, Inc.	<b>Robert B. Diemer Water Treatment Plant          West Washwater Tank Refurbishment</b>
<b>Scope:</b> The project consists of abrasive blasting and recoating of the exterior and interior surfaces of a steel water storage tank; seismic retrofit; tank disinfection; repairing trusses, beams, roof, hatch cover, and vent structure.	
<b>At a Glance:</b> Estimated Percent Complete 0% Percent Extra Work 0.00% Estimated Completion Date January 2009	
<b>Details:</b> Bid Amount \$1,053,100 Earnings To Date \$0 Net Extra Work To Date \$0 Earnings This Month \$0 Net Extra Work This Month \$0 Contract Start 6/13/08 Duration in Working Days 150 Contract Completion 1/20/09	
Tank to be refurbished	