

Metropolitan Wastewater Department

Labor-Management Partnership Annual FY 2008 Performance Report



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I. Introduction

The San Diego Metropolitan Wastewater Department (MWWD) has undertaken this department-wide Bid to Goal Reengineering Project as a productivity improvement initiative in concert with the City of San Diego's Business Process Reengineering effort. The Bid to Goal Program is designed to increase the public's trust by helping the utility deliver quality services at costs that are competitive with private market providers, resulting in savings to ratepayers. This program has been successful in focusing the employees on key organizational objectives and motivating them toward successful completion of these goals.

In Fiscal Year 2008, MWWD successfully achieved 100% of its 8 Department-wide Gainsharing Goals, and 77% of its 26 Divisional Goals. The following tables and Division Descriptions provide a detailed description of achievement of specific Gainsharing Goals (GSGs) for the Department and each of the Divisions, as well as a summary of additional relevant FY08 achievements and other areas to focus on in the future.

The Bid to Goal concept and program was originally developed in 1997 as a pilot methodology in operating and maintaining MWWD's major treatment facilities. Its primary objective was to provide tangible evidence of organizational competitiveness through adaptations of the most appropriate features of the public and private sectors. The original pilot proved successful and received national recognition by such organizations as Harvard University's John F. Kennedy School of Government and the International City/County Managers' Association. The concept was subsequently expanded to MWWD's wastewater collection system. Effective July 1, 2007, the MWWD Bid to Goal Program was modified to be a department-wide program. This change to the program fulfills a strategic goal of the department to bring the entire wastewater utility under the same performance management plan, thereby facilitating consistency and alignment of the organization's goal setting and accountability mechanisms.

The Bid to Goal Program can be defined and described in a variety of ways. The "Goal," which is to meet or beat a "Private Market Proposal," is designed to yield economic benefits to ratepayers while maintaining the integrity and soundness of capital investments, infrastructure, and operations; and safeguarding the environment. In addition, the "Goal" is designed such that the City can continue to meet its commitments to employees and promote cooperative labor-management relations. Successful implementation of the "Bid" results in City employees continuing to provide management, operations, and maintenance services of the City's municipal and regional wastewater system.

It is noted that the Bid to Goal concept embodies continual improvement through industry benchmarking and process assessment, both on an ongoing basis and periodically (approximately every 5 years), in a very rigorous and thorough process. The periodic major benchmarking and process reengineering effort is designed to account for

such significant changes in the operating environment as improved technology, enhanced industry best practices, and changes in the competitive marketplace. This aspect of Bid to Goal is analogous to the periodic refreshment of private contract operations via renegotiation of ongoing contracts with updated information, but avoids the potential disruption of a public health and safety related service (documented as experienced by other local governments) attributed to changing service providers when current operations are appropriate, proven, and analyzed to be competitive relative to a viable private provider. A related factor is the mitigation of expenses, time and litigation risks associated with an open competition.

The initial MWWD Bid to Goal agreements covered wastewater collection, conveyance, treatment, and disposal processes. This Agreement refreshes those benchmarks, plus incorporates all support services conducted by MWWD into a unified department-wide Agreement aimed at articulating and aligning common business goals and objectives for the entire wastewater utility.

II. Financial Performance

CITY OF SAN DIEGO METROPOLITAN WASTEWATER DEPARTMENT

Performance Report, FY 2008

Financial Performance

	Metro Facilities Dept.	Muni Facilities Dept.	<u>TOTAL Bid</u>
ADJUSTED BUDGET OBJECTIVE - APPENDIX A			
Salary Adjusted Bid-to-Goal Target #			\$228,459,238
SLA Pass-Through			\$16,620,294
Plus Special Bid Adjustments (Increases > Salary Adjs. and CPI)			\$0
Director's Contingency (49051)			\$4,681,639
TOTAL Adjusted Bid			\$207,157,305

Adjusted Bid Minus In-Scope Exp. & Enc. Equals Savings (or Deficit)			\$25,289,010
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III. Department-wide Performance Metrics

Key Performance Metrics	Performance Goal	FY 2008 Performance
1. Sanitary Sewer Overflows: Number of SSOs per 100 miles of Main	FY 2008 to improve upon FY 2007 total. Goal thereafter to be reset each year.	There were fewer spills in FY 2008 (69 spills, 3018 miles of pipe; 2.3 spills per 100 miles) than 2007 (85 spills, 3018 miles of pipe; 2.8 spills per 100 miles).
2. Point Loma Wastewater Treatment Plant Permit Compliance	≥80% TSS Removal (annual average), ≥58% BOD Removal (annual average)	87.34% TSS Removal (REP) 67.02% BOD Removal (REP)
3. North City Water Reclamation Plant Permit Compliance	<30 mg/l BOD and TSS for 30-day avg. 45 mg/l BOD and TSS for daily max	Secondary Effluent: BOD 7.80 Avg. TSS 8.42 Avg. Reclaimed Water Effluent: BOD 0.14 Avg. TSS 0.03 Avg. Secondary Effluent: BOD 22.40 Daily Max. TSS 19.60 Daily Max Reclaimed Water Effluent: BOD 5.46 Daily Max. TSS 2.53 Daily Max.
4. South Bay Water Reclamation Plant Permit Compliance: RW	<30 mg/l BOD and TSS for 30-day avg. 45 mg/l BOD and TSS for daily max	2.02 mg/l BOD and 1.79 mg/l TSS for 30-day avg. 4.82 mg/l BOD and 5.15 mg/l TSS for daily max.
South Bay Water Reclamation Plant Permit Compliance: NPDES ¹	<30 mg/l BOD and TSS for 30-day avg., 45 mg/l BOD and TSS for daily max	30.36 mg/l BOD and 12.39 mg/l TSS for 30-day avg. 178 mg/l BOD and 64 mg/l TSS for daily max. ¹
5. Metro Biosolids Center Performance:	Maintain cake solids percent between 28% and 32%	28.55% concentration
6. ISO 140001 Certification for Wastewater Collection Division	Retain certification	WWC retained ISO Certification.

7. ISO 140001 Certification for Wastewater Treatment and Disposal Division	Retain certification	WWTD retained ISO Certification
8. ISO 140001 Certification for Environmental Monitoring and Technical Services Division	Retain certification	EMTS retained ISO Certification

All eight Department-wide performance metrics were achieved in FY08, with the omission of Goal Four due to Administrative Relief.¹

¹Administrative Relief granted to Goal Four per the September 23, 2008 memo.

IV. Divisional Performance Metrics

Metropolitan Wastewater Department
Environmental Monitoring and Technical Services Division
Goal Summary Table FY 2008

Goals	1) Every Quarter Enter: Y = Yes, N = No, P = Partial credit for Quarterly Goals, or J = Goal in Jeopardy (Year End Only) 2) Add % Complete if applicable. 3) M= Monthly, FY= Fiscal Year, Q= Quarterly					Comments ■ Specify actual numerical values for all goals. ■ Provide circumstances / plan of corrective action for all goals in jeopardy. ■ Provide & save information from each quarter.
	Q1	Q2	Q3	Q4	Year End	
1. Conduct An Evaluation To Assess The Need and Methods for Regulating Industrial Discharges of Total Dissolved Solid (TDS) Discharges to the Sewer System.	Y	Y	Y	Y	Y	Q1: Planning underway. Q2: Planning and research underway. Q3: Planning and research underway. Q4: Report delivered and Statement of Completion signed on 6/30/08.
2. Implement Actions Necessary To Comply With Storm Water Regulations for Industrial Facilities (FY).	Y	Y	Y	Y	Y	Q1: All sites were inspected during the first quarter. Q2: All sites were inspected during the second quarter; runoff samples were collected & analyzed at all sites. Q3: All sites were inspected during the third quarter. Q4: All sites were inspected during the fourth quarter; new BMPs were communicated and placed in SWPPP binders; annual reports submitted 6/26/08.
3. Develop a Laboratory Equipment Management Plan (FY).	Y	Y	Y	Y	Y	Q1: Work plan under development. Q2: Working draft prepared. Q3: Development ongoing. Q4: Completed.
4. Implement Enhanced Ocean Monitoring Plan (FY)	Y	Y	Y	Y	Y	Q1: Planning underway. Q2: Planning underway. Q3: Finalizing plans for completion by close of fiscal year. Q4: Goal Completion Report and Statement of Completion signed and filed as required; goal completed successfully as of 6/24/08.

5. Minimize Recordable Injuries \leq 5 (FY) *Shared goal with EPM and AS	Y	N	N	Y	Y	Q1: 1 Recordable Injury. Q2: 3 Recordable Injuries. Q3: 1 Recordable Injuries. Q4: 0 Recordable Injuries.
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EMTS met 100% of their goals (5 of 5 Goals).

**Metropolitan Wastewater Department
Engineering & Program Management Division
Goal Summary Table FY 2008**

Goals	1) Every Quarter Enter: Y = Yes, N = No, P = Partial credit for Quarterly Goals, or J = Goal in Jeopardy (Year End Only) 2) Add % Complete if applicable. 3) M= Monthly, FY= Fiscal Year, Q= Quarterly					Comments ■ Specify actual numerical values for all goals. ■ Provide circumstances / plan of corrective action for all goals in jeopardy. ■ Provide & save information from each quarter.
	Q1	Q2	Q3	Q4	Year End	
1. Expand Formal Condition Assessment System (FY)	Y	Y	Y	Y	Y	Q1: Beginning to develop draft plan. Q2: Draft plan under development. Q3: Draft submitted 3/28/08; DCN 2008000934. Q4: Final Plan submitted and approved June 18.
2. Redirection of Flow Studies (FY)	N ROF=0% SCR=0%	N ROF=20% SCR=17%	N ROF=20% SCR=17%	Y ROF=60% SCR=66%	Y ROF=100% SCR=100%	Q1: Completed (0) ROF study, and (0) SCR submittal. Q2: Completed (2) ROF study, and (1) SCR submittal. Q3: Completed (2) ROF study, and (1) SCR submittal. Q4: Completed (8) ROF study, and (4) SCR submittal.
3. Complete 80 miles of Sewer Condition Assessment (FY).	Y	Y	Y	Y	Y	Q1: 28 miles completed. Q2: 12.95 miles completed. Q3: 25.00 miles completed. Q4: 38.25 miles completed.
4. Complete 26 Sewer Modeling, Flow Monitoring, and Flow Projection Related Studies	Y	Y	N	Y	Y	Q1: Completed (4) as-needed technical studies, (1) small mains report, (1) capacity report, and (1) EOY Flow & Load Q2: Completed (4) as-needed technical studies, and (1) small mains report. Q3: Completed (3) as-needed technical studies. Q4: Completed (5) as-needed technical studies, (3) modeling studies, (2) small mains reports, and (1) I/I analysis report.
5. Minimize Recordable Injuries ≤ 5 (FY) *Shared goal with EMTS and AS	Y	N	N	Y	Y	Q1: 1 Recordable Injury. Q2: 3 Recordable Injuries. Q3: 1 Recordable Injuries. Q4: 0 Recordable Injuries.

EPM met 100% of their goals.

**Metropolitan Wastewater Department
Administrative Services Division
Goal Summary Table FY 2008**

Goals	1) Every Quarter Enter: Y = Yes, N = No, P = Partial credit for Quarterly Goals, or J = Goal in Jeopardy (Year End Only) 2) Add % Complete if applicable. 3) M= Monthly, FY= Fiscal Year, Q= Quarterly					Comments ■ Specify actual numerical values for all goals. ■ Provide circumstances / plan of corrective action for all goals in jeopardy. ■ Provide & save information from each quarter.
	Q1	Q2	Q3	Q4	Year End	
1. Standardize Contracting Procedures (FY)	Y	Y	Y	Y	Y	Q1: Flow-charting completed. Q2: Written procedures/desk instructions completed. Q3: Written procedures/desk instructions presented to Senior Management. Q4: Complete in Q3.
2. Current Year Monitoring (FY)	Y	Y	Y	Y	Y	Q1: The process for producing, reviewing, and projecting the CYM has been completed. Q2: Draft monthly reports created. Q3: Dashboard screenshots of CYM display initialed and dated by Deputy Director. Date-stamped Simpler or Business Objects Reports initialed by Deputy Director and associated process has been implemented. Q4: Monthly reports presented to Management.
3. Performance Monitoring Dashboard (FY) ¹	Y	Y	Y	N	N	Q1: Generating list of current performance measures slated for migration. Q2: Director signed off on list of Key Performance Indicators. Q3: Completion schedule approved by Director and presented to IT Executive Committee. Q4: Administrative Relief approved by Mgt. for this Goal. ¹
4. Super Seven Training (FY)	Y	Y	Y	Y	Y	Q1: Drafting Super Seven Matrix. Q2: Completed Super Seven Matrix

						Q3: Monthly training reports provided to Mgt. Q4: Monthly training reports provided to Mgt.
5. Minimize Recordable Injuries to ≤ 5 (FY) *Shared goal with EPM and EMTS	Y	N	N	Y	Y	Q1: Admin 1 injury Q2: Admin 3 Injuries Q3: Admin 1 Injuries Q4: Admin 0 Injuries

¹ Administrative Relief was granted for Gainsharing Goal #3 Performance Monitoring Dashboard on September 24, 2008.

AS met 100% of their goals (with the omission of Goal #3) (e.g. 4 of 4)

**Metropolitan Wastewater Department
Wastewater Collection Division
Goal Summary Table FY 2008**

Goals	1) Every Quarter Enter: Y = Yes, N = No, P = Partial credit for Quarterly Goals, or J = Goal in Jeopardy (Year End Only) 2) Add % Complete if applicable. 3) M= Monthly, FY= Fiscal Year, Q= Quarterly					Comments ■ Specify actual numerical values for all goals. ■ Provide circumstances / plan of corrective action for all goals in jeopardy. ■ Provide & save information from each quarter.
	Q1	Q2	Q3	Q4	Year End	
1. Manage Construction Section Activities To Improve Performance While Transitioning to a Most Effective Organization (MEO) Staffing Level (M); Avg. 80 repairs per month Lineal footage avg. of 10 lineal feet or more per activity.	N	N	N	Y	Y	Q1: 64 Repairs average per month with LN FT. of 16' per repair. 0% (Too many vacancies in construction section). Q2: 65 Repairs average per month with LN FT. of 14' per repair. 25% (Too many vacancies in construction section). Q3: 73 Repairs average per month with LN FT. of 12' per repair. 50% (Too many vacancies in construction section). Q4: 81 Repairs average per month with LN FT. of 10' per repair. 100%
2. Manage Main Cleaning Section Activities to Improve Performance while Transitioning to a Most Effective Organization (MEO) Staffing Level (M) Clean Gravity Sewer so less than 70 SSOs occur	Y	N	J	Y	Y	Q1: 13 SSOs Q2: 23 SSOs Q3: 21 SSOs Q4: 12 SSOs; 69 total.

3. Manage WWCD Labor Activities to Reduce Overtime Costs (for each section) while Transitioning to a Most Effective Organization (MEO) Staffing Level (Q) Overtime ratio < 12%	N	N	N	N	N	<p>Q1: Admin <1%; Constr. 19.6%; Engr & Assess <1%; FEWD 3.1%; MC 12.8%; PS 9.7%; P&S 5.5%; Division overall 12.4%</p> <p>Q2: Admin 1.4%; Constr. 19%; Engr & Assess 0%; FEWD 2.8%; MC 11.3%; PS 12.5%; P&S 3%; Division overall 11.8%</p> <p>Q3: Admin <1%; Constr. 18.3%; Engr & Assess 0%; FEWD 3.4%; MC 13.9%; PS 11.4%; P&S 3.6%; Division overall 12.4%</p> <p>Q4: Admin 4%; Constr. 22.9%; Engr & Assess 1.1%; FEWD 3.9%; MC 19.1%; PS 10.8%; P&S 4.3%; Division overall 15.9%</p>
4. Secure 600 Manhole Covers (FY)	N	Y	Y	Y	Y	<p>Q1: 69 MHs Secured 1st Quarter FY08</p> <p>Q2: 190 MHs Secured 2nd Quarter FY08</p> <p>Q3: 194 MHs Secured 3rd Quarter FY08</p> <p>Q4: 170 MHs Secured 4th Quarter FY08 (total of 623)</p>
5. Review of Standard Operating Procedures (FY)	N	N	N	Y	Y	<p>Q1: WWC currently has 76 SOPs, 0 reviewed FY08TD</p> <p>Q2: 0 SOPs reviewed FY08TD</p> <p>Q3: 0 SOPs reviewed FY08TD</p> <p>Q4: 76 SOPs reviewed FY08TD (total of 76 reviewed)</p>
6. Minimize Recordable Injuries to < 47 (FY)	N	Y	Y	Y	Y	<p>Q1: WWC 11 Injuries</p> <p>Q2: WWC 7 Injuries</p> <p>Q3: WWC 5 Injuries</p> <p>Q4: WWC 13 Injuries (total of 36)</p>

WWC met 83% of their goals (5 of 6)

**Metropolitan Wastewater Department
Wastewater Treatment and Disposal Division
Goal Summary Table FY 2008**

Goals	1) Every Quarter Enter: Y = Yes, N = No, P = Partial credit for Quarterly Goals, or J = Goal in Jeopardy (Year End Only) 2) Add % Complete if applicable. 3) M= Monthly, FY= Fiscal Year, Q= Quarterly					Comments <ul style="list-style-type: none"> Specify actual numerical values for all goals. Provide circumstances / plan of corrective action for all goals in jeopardy. Provide & save information from each quarter.
	Q1	Q2	Q3	Q4	Year End	
1. WWTD Alarm Management (FY)	Y	Y	N	N	N	Q1: 100% of outstanding DCS alarms > 30 days old, and all alarms Off Scan or Off Alarm check are accounted for with WO#, DCS Change or Work in Progress Reports. Q2: See Q1 comment. Q3: All outstanding DCS alarms > 30 days old & points Off Scan or Off Alarm check have a WO# or DCS Change or Work in Progress Report. 30 day follow up on WO#s & changes is in question for all Qs. Q4: See Q3.
2. Review and Verification of WWTD Assets in EMPAC System (FY)	N	N	N	N	N	Q1: List creation in progress. Q2: A framework and procedure was developed for ongoing asset creation or deletion. Q3: Framework and procedure signed off by facility managers and Deputy Director. Q4: Verification of system off target resulting in missing of goal.
3. Energy Conservation (FY)2	N	N	N	N	N	Q1: Studying revision to the energy conservation calculation to alleviate seasonal anomalies. Q2: The actual increase was 1.29% (63.3 million kWh actual vs. 62.5 million kWh allowed). Q3: Flow adjusted increase was 0.95% (actual increase 5.04%). Q4: Conservation levels off target – goal missed.

4. Review of Standard Operating Procedures (SOPs). (FY)	Y	Y	Y	N	N	Q1: 100% facilities on track with plan and between 10 & 25% SOPs reviewed. Q2: 100% facilities on track for SOP review. Q3: 100% facilities on track for SOP review. Q4: 90% of SOP's were reviewed, revised and tailgate held.
5. WWTD Warehouse Policies (FY)	Y	Y	Y	Y	Y	Q1: Procedures are being written. Q2: Procedures are being written. Q3: Procedures are being written. Q4: Procedures presented and approved by DD and Department Director.

2. Goal Adjustment granted as detailed in 1/23/2008 memo.

WWTD met 25% of their goals (with the omission of goal #3) (e.g. 1 of 4)

V. Division Annual Performance Reports

FY 2008 Bid to Goal Program Annual Performance Report Environmental Monitoring and Technical Services (EMTS) Division
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EMTS Division achieved 100% of their Gainsharing Goals. These are described in Section IV.

EMTS Division had direct responsibility for meeting one of the eight Metropolitan Wastewater Department (MWWD) key performance indicators and played a key support role in several of the others.

During fiscal year 2008, EMTS Division successfully maintained its ISO 14001 certification. An independent outside auditor verified the Division's commitment to pollution prevention, regulatory compliance and continual improvement. In so doing, the Division was successful in renewing its ISO 14001 certification. This required ongoing diligence to ensure that the Division followed appropriate regulatory requirements in fulfilling its mission within MWWD; that any potential negative environmental impacts as a result of the EMTS operation were minimized to the extent possible, and to specifically achieve the EMTS Division's objectives and targets. The latter action was to ensure department-wide compliance with storm water regulations, to assess the source of total dissolved solids (TDS) and to support the design of a long term enhanced ocean monitoring plan.

Achievement of MWWD Goals for the Point Loma Wastewater Treatment Plant (PLWTP) Permit Compliance, South Bay Water Reclamation Plant (SBWRP) Permit Compliance, and North City Water Reclamation Plant (NCWRP) Permit Compliance were directly influenced by the EMTS Division. In its role as regulatory liaison and providing laboratory support, EMTS Division staff carried out the process control analyses to provide the plant operations personnel with information necessary to assess plant performance and to make the necessary process changes to ensure permit compliance. EMTS Division also performs the permit-required monitoring and provides reports to the regulatory agencies, thus documenting that the facilities meet all of their discharge permit requirements. In order to accomplish this, over 268,000 individual analyses were performed and more than 215 reports were submitted.

EMTS Division had four divisional goals and one goal shared with two other divisions within the department. The shared goal was to "*Minimize Recordable Injuries.*" This goal was achieved as the three responsible divisions were able to decrease the recordable injuries below what had been the five year average for these divisions. Such a reduction in injuries saves money and improves employee productivity and job satisfaction.

A dedicated goal for the EMTS Division was to "*Implement Actions Necessary to Comply with Storm Water Regulations for Industrial Facilities.*" This goal was met by reviewing all of the recently adopted storm water regulations and taking the appropriate actions to ensure that MWWD was in compliance. This included ensuring that all appropriate MWWD industrial facilities had applied for and/or received state permits and that all conditions of the permits were met. Facility inspections, analysis of storm water runoff, and timely reports to the state were all

required to meet this goal. MWWD is fully compliant with the industrial storm water requirements, and this goal was fully met.

Another EMTS goal was *"To Conduct an Evaluation to Assess the Need and Methods for Regulating Industrial Discharges of Total Dissolved Solids (TDS) to the Sewer System."* MWWD's water reclamation activities are severely impacted by the level of TDS in the wastewater. Customer agreements require that no more than 1000 mg/l of TDS be present; reducing TDS is very expensive. This goal was met by an extensive survey of TDS in the local wastewater and analysis of those data to look for potential control strategies to limit the TDS present in the wastewater tributary to the water reclamation facilities.

EMTS Division additionally had the goal of *"Implementing an Enhanced Ocean Monitoring Program."* In conjunction with discharging treated wastewater through two ocean outfalls into the Pacific Ocean, MWWD conducts an extensive ocean monitoring program to ensure that the discharge is in compliance with state and federal regulations and that no negative impacts to the environment are occurring. In response to public comment concerning the City's waiver from secondary treatment for the Point Loma discharge, MWWD has developed an enhanced ocean monitoring program. This goal was met by working with scientists from Scripps Institution of Oceanography and the Southern California Coastal Water Research Project to develop a long term strategy of incorporating monitoring elements that agree with the general regulatory monitoring requirements, but are not specifically identified in the regulatory required program. This goal was fully met and allows EMTS Division to better anticipate future ocean monitoring requirements and to plan accordingly, including ensuring the availability and efficient allocation of necessary resources.

The final EMTS Division specific goal was to *"Develop a Laboratory Equipment Management Plan."* The purpose of this effort was to develop a plan to better manage the assets of the laboratory sections. Combined, the Marine Biology, Microbiology, Industrial Waste Chemistry and the Wastewater Chemistry Services laboratories have a large inventory of expensive analytical instrumentation with which to carry out their regulatory mandated duties. The goal of an equipment management plan was to ensure that future equipment needs could be better estimated and planned for by anticipating the need for replacement. The goal was fully met as all significant equipment from the different sections has been combined into a single data base that details the regulatory requirement for its use, exact maintenance and calibration procedures, average useful life spans, ability to extend life span, and acquisition dates. This equipment management plan is now being consulted during the annual budget preparation in order to better forecast future budgetary needs.

During fiscal year 2008 EMTS Division also achieved several other significant accomplishments.

1. *Preparing the renewal application for the Point Loma Wastewater Treatment Plant for a Waiver from secondary treatment.* The EMTS Division prepared a responsive application to the Regional Water Quality Control Board (RWQCB) and the US Environmental Protection Agency (USEPA) to renew the waiver from secondary treatment. Following strict federal guidelines, this highly technical document details all

current wastewater operations, future planning assumptions and is a complete review of the quality of the discharge from Point Loma and its interrelationship with the ocean environment. The renewal application document contains over two thousand pages in eight volumes. The document was found to be complete and responsive by the regulatory agencies. In response to the application the US EPA has now tentatively approved the renewal of the waiver pending the results of a public review process. The Waiver saves local wastewater ratepayers up to \$1.5 billion dollars in capital costs and \$30 to 40 million dollars per year in operating costs by not having to provide additional treatment at the PLWTP.

2. *Facilitating a scientific panel review of ocean monitoring data.* During fiscal year 2008, a decision was required by the Mayor and City Council on whether or not to re-apply for the waiver from secondary treatment at the PLWTP. In order to provide additional information to assist in this decision, EMTS Division facilitated the formation of a scientific panel to review information about the discharge from Point Loma and its effect on the ocean. The panel included scientists from UCSD, San Diego State University, and Scripps Institution of Oceanography. EMTS Division provided extensive support to the panel, including data from years of ocean monitoring. At the conclusion of the review, the panel released a report to the Mayor that detailed their findings.
3. *Sewer Science Program.* In conjunction with the annual Water Environment Research Foundation Technical Conference that was held in San Diego, the EMTS Division participated in a program to educate local science teachers about the technical aspects of wastewater treatment so that these teachers can take the information back to their classrooms and share it with their students. By so doing, the public will become better informed of the benefits and challenges that the City of San Diego faces in dealing with municipal wastewater operations and issues.

Although unforeseen events such as combining the Water Department and MWWD under a common director, requests for additional information by the regulatory agencies for the Waiver application, and work on implementing partial disinfection at the PLWTP impacted the EMTS Division workload during fiscal year 2008, enough flexibility existed to accomplish the needed work. In some cases, this was done by deferring work that will need to be caught up at a future date. However, regulatory mandated tasks were accomplished at all times by using overtime where necessary. For the most part, however, the assumptions made in developing the Most Efficient Organization (MEO) for EMTS Division were found to be correct and reflective of the resources needed to accomplish the anticipated work. The EMTS Division was able to stay within budget and accomplish its mission.

In the future, the deferred work from last fiscal year due to unforeseen circumstances will be caught up by the continued judicious use of overtime and taking advantage of the flexibility that exists in addressing some of the regulatory required work, as well as internal administrative tasks. This will allow the division to continue to ensure a high degree of regulatory compliance while working within the established MEO. Additionally, future unforeseen circumstances may well include the still unknown level of effort that will be required in response to the USEPA's tentative decision on the Waiver Renewal Application. And, as always, future regulatory

changes that require an additional level of effort to comply with, may impact the allocation of EMTS Division's resources.

<p style="text-align: center;">FY 2008 Bid to Goal Program Annual Performance Report Engineering and Program Management (EPM) Division</p>
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EPM Division achieved 100% of their Gainsharing Goals. These goals are described in Section IV.

As one of the technical support divisions for the Department, in FY08 the EPM Division performed the following tasks, required in the Final Consent Decree with the Environmental Protection Agency, in support of the overall goal to reduce sewer spills.

EPM completed the CCTV inspection of 30 miles of sewers over 40 years old and the condition assessment analysis of 110 miles of sewers to determine which sewers require replacement, rehabilitation or maintenance. Those sewers requiring replacement or rehabilitation are packaged for future CIP projects.

EPM completed 12 redirection flow studies in order to determine the economic and environmental feasibility of relocating sewers out of canyon bottoms.

EPM completed the annual Trunk Sewer Capacity Assessment Report. The assessment analyzes all 121 trunk sewers in the system and prioritizes them as critical, semi-critical or non-critical according to flow monitoring and modeling results. Trunk sewers identified as critical or semi-critical are studied further to determine the appropriate action to ensure capacity is available for current and future needs.

FY08 was a transitional year for the EPM Division as responsibility for the implementation of the CIP from design to startup was transferred to the Engineering and Capital Projects (E&CP) Department. As part of this transition, EPM worked closely with our counterparts in E&CP to complete the CIP requirement to replace a specific number of sewer miles. In FY08, 16.05 miles of sewers were replaced or rehabilitated.

In addition to meeting the Final Consent Decree goals the EPM Division had four divisional goals and one goal shared with two other divisions within the department. The shared goal was to "*Minimize Recordable Injuries*". This goal was achieved.

A dedicated goal for the EPM Division was to "*Expand Formal Condition Assessment System.*" This goal was met by the preparation of a Condition Assessment Plan to inspect all Metro Interceptors and outfalls and 20% of the equipment and assets at the treatment plants and pump stations, with the goal to implement the plan starting in FY09.

Another EPM goal was to "*Complete 26 Sewer Modeling, Flow Monitoring and Flow Projection Related Studies.*" This goal was met with some of the highlights being the completion of the Annual Trunk Sewer Capacity Report, the capacity analysis for the Participating Agency contracts and the 2008 Infiltration and Inflow Report.

During FY08 the EPM Division also achieved several other significant accomplishments.

1. The Environmental Section completed ten re-vegetation/restoration projects and began the construction of two mitigation sites. These projects were required to mitigate the impacts of the Wastewater Collection Division sewer cleaning program and emergency repairs. During the course of the year it was discovered that there was a misunderstanding in how the accounting for projects which are awarded in one year, but implemented over several years should be accounted for in the budget. Also, actual expenditures in FY08 were counted against prior year budgets. As a result there was a surplus in the Environmental fund.
2. The Energy Management Section negotiated a contract for an innovative system to sell PLWTP's waste digester gas to Biofuels, Energy, LLC who will use the gas to power fuel cells at the SBWRP and UCSD. This contract will result in revenues of \$250,000 per year and the production of renewable energy. It will also result in electrical costs saving at the SBWRP of \$75,000. During the year MWWD also began selling PLWTP's GUF and Hydro renewable energy under the new SDG&E contract at a 60% increased price, or 7.56 Cents per kWh, this will increase revenues by \$600,000 per year.
3. The Development Review Section completed 414 discretionary reviews in FY08; this included 151 initial reviews, 186 re-submittals and 77 preliminary reviews. This compares to 461 reviews in FY07. The Review Section met the Development Services Customer service goal of completing initial reviews in 25 working days and re-submittals in 15 working days, 80% of the time.

In addition to the accomplishments of the Division there were some variances in the budget related to two factors.

Centralization of engineering functions - The City completed a Business Process Re-engineering and responsibility for all CIP was recommended to be centralized in the Engineering and Capital Projects Department. For the EPM Division, the impact was the transfer of the design and construction/startup responsibilities and activities to the centralize department. EPM retained responsibility for planning, scheduling and budgeting. The transition was originally scheduled to take place in October 2007. The actual physical transition took place in February 2008 and the budget transition occurred at the end of the fiscal year. As a result the EPM division is over budget in salaries due to carrying personnel on our budget past the physical transition date. This is offset by the under expenditure in Inter-fund Transfers and Service Level Agreements.

Development Review – At the time the original bid was developed there was discussion of moving the Development Review Section to the Development Services Department. As a result funds were included in the budget under Service Level Agreements to fund the non developer reimbursable functions of the Development Review Section. Since the Section was not moved in FY08, these funds were not expended.

<p style="text-align: center;">FY 2008 Bid to Goal Program Annual Performance Report Administrative Services (AS) Division</p>
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AS Division achieved 100% (4 of 4) of their Gainsharing Goals. The Division was granted Administrative Relief for 1 additional goal. These are described in Section IV.

The eight department-wide goals are, by necessity, directly related to the business of wastewater containment, transport and treatment. The success of the department's operations is dependent on the quality of its support services, including:

1. Timely, relevant and fair employee selection practices that enable operations to maintain adequate staffing levels;
2. Procurement of goods and services through well-constructed contracts that enable operations to obtain needed supplies and contractual expertise;
3. Meeting operations' budgetary needs through thoughtful budget development that includes input from operations management and personnel;
4. Development and maintenance of a rate structure that ensures sufficient revenues to fund operations; and
5. Provision of appropriate training and safe business practices to ensure the competence, safety and well-being of operations personnel.

These and other support services provided by AS Division have a direct impact on the operations divisions' success in meeting their goals and in providing quality wastewater services to the public.

Following the Business Process Reengineering of the contracting process, additional clarity was needed regarding which department was responsible for the disciplines of production, solicitation, administration of solicitation, and contract documentation. By organizing and memorializing the contracting process while coordinating with other Citywide contracting activities, staff is now better able to process timely and accurate documentation in approved formats through the contracting process.

With the implementation of the Most Efficient Organization (MEO) in FY 2008, timely review of expenditures was critical to achievement of this business objective. Coordinated work among many staff was necessary in the face of multiple accounting and budgeting changes. The projection of line item expenditures on a monthly basis necessitated analysts developing a more detailed familiarity with their assigned operating budgets resulting in an effective and efficient financial performance monitoring program.

The AS Division desired to migrate the existing Dashboard performance reporting system (REP) to Business Objects, including updating to reflect the Key MWWD Performance Metrics for FY 2008. The Information Services Section met each of the steps required for goal achievement, short of the actual migration of the data. Throughout the process, the Section remained on-track for successful accomplishment of this goal. The migration of REP to Business Objects did not occur due to cost and the implementation timing of OneSD. As OneSD is on the horizon,

MWWD would have been spending a large sum of money (~\$250K) for Business Objects, which would imminently be replaced by OneSD. Since a conscious business decision was made to forego this expense, and given that the responsible section was on-track and would have achieved the goal absent this decision by department management, AS Division was not penalized for not completing this goal.

The division prioritized and was successful in developing a mechanism to track and monitor supervisory training progress to ensure that City policies and procedures are followed while fostering a positive work environment. At the time of this goal's development, there was no way to easily view data related to the core training desired for MWWD supervisors. Employee Opinion Survey and Exit Interview data indicated that supervisors would benefit from additional supervisory training. To accomplish this goal, an assessment of current training was done. After completion, minimum supervisory training requirements were determined, and progress was tracked to ensure supervisors receive the appropriate training.

The Department's intent is to directly contribute to optimal employee productivity and job satisfaction by providing the safest work environment feasible. The number of recordable injuries allocated for goal credit is based on a five-year average of six (6) recordable injuries. The AS division as part of MWWD's three support divisions met this business objective, recording a total of five (5) injuries during Fiscal Year 2008.

<p style="text-align: center;">FY 2008 Bid to Goal Program Annual Performance Report Wastewater Collection Division (WWC)</p>

WWC Division achieved 83% of their Gainsharing Goals. These are described in Section IV.

Per the Memorandum of Understanding (MOU) Bid to Goal Public Contract Operations Agreement, there were eight key performance service levels stipulated as key metrics to overall wastewater utility service delivery that served as 'Department-wide Goals'. The first Key Performance Metric and goal pertained to Sanitary Sewer Overflows: Number of SSOs per 100 miles of main; with the Performance Goal for FY 2008 to improve upon FY 2007 total. This goal was met as there were 69 spills in FY 2008 and 85 in FY 2007, or 2.45 spills per 100 miles in FY 2008 vs. 3.02 in FY 2007. The sixth, seventh, and eighth goals pertain to ISO 140001 Certification, with the goal for each simply being to "retain certification". WWCD did in fact retain certification in FY 2008. Regular internal and external audits of our Environmental Management System supported this goal.

WWC Division met five of its six goals. The first two goals pertain to Construction section performance and are prefaced by "Manage construction section activities to improve performance while transitioning to the Most Effective Organization (MEO) staffing level". Goal #1 was to "Complete an average 80 sewer main/lateral construction repair and replacement activities per month or more while achieving a lineal footage average of 10 lineal feet or more per activity." This goal was met. The second goal was to "Clean Gravity Sewer pipe so that less than 70 Sanitary Sewer Overflows (SSO) occur in fiscal year 2008". This goal was also achieved – there were 69 City spills in FY2008. The third goal pertains to labor activity and is prefaced by "Manage WWCD Labor Activities to reduce overtime costs while transitioning to a Most Effective Organization (MEO) staffing level". Goal #3 was to "Reduce the ratio of straight overtime hours to total regular hours within each work unit to 12% or less." This goal was not met. It is noted that WWC Division carried an approximately 10% vacancy rate, primarily in the Construction and Main Cleaning sections throughout the fiscal year due to issues relating to a hiring freeze, and that in order to maintain the required level of service and system maintenance, the Division incurred overtime costs in excess of this goal. This goal will be reevaluated for FY 2010. The fourth goal pertains to meeting regulatory requirements and is to "Secure a total of 600 manholes, an average of 50 manholes per month, to comply with the Final Consent Decree Requirements." This goal was met. The fifth goal pertained to best management practices. "WWCD staff will thoroughly review all Standards Operating Procedures (SOPs)." They will update the procedures as needed, write new procedures if necessary, update the SOP folders, and tailgate the updated SOPs to all appropriate staff." The Division worked hard to review, update as necessary, and convene tailgate training on SOPs. The sixth and final goal pertained to safety. It was "To measure the effectiveness of our safety initiatives in reducing recordable injuries." The specified criterion was to decrease by one or more the recordable injuries from last fiscal year, or have no more than 47 injuries. This goal was met as there were only 36 recordable injuries.

Some significant Planned Initiatives or Improvements as per section 3.3.1 of the Bid document were successfully implemented, while others achieved less progress. Some

successes include the improvement of overall sewer cleaning quality by utilizing recently purchased flushing and rodding tools, and having supplemental main cleaning training provided by an outside consultant as well as utilization of an outside Closed Circuit Televising (CCTV) vendor to verify the cleaning findings of pipe cleaned on a one and three month frequency. The findings verification was used to provide feedback to the field operators and management, and to provide maintenance Planning & Scheduling staff information to modify cleaning frequencies in accordance with the findings.

Another success was the incorporation of Non-Right-of-Way (NROW) or canyon section Significant Rainfall Event (SRE) documentation into the PSTools database. Previously canyon section staff used stand-alone Spacient software. Now the electronic SRE data will be regularly downloaded into PSTools.

WWC Engineering services were also redefined and reallocated in accordance with the Bid, and sewer alarm monitoring functions and activities were transitioned to contract.

Some Planned Initiative or Improvements that experienced less progress include the initiatives for greater flexibility between work units, reducing cleaning requirements in low [spill] risk areas, improving the use of management tools to increase sewer repair productivity, optimization of the pump station maintenance program, and reviewing the organizational design of sewer acceptance, warranty, and repair/replacement decision making and modification to increase coordination. These Initiatives and Improvements will be reevaluated for the subsequent Bid in FY 2009.

<p>FY 2008 Bid to Goal Program Annual Performance Report Wastewater Treatment and Disposal Division (WWTD)</p>
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WWTD Division achieved 25% (1 of 4) of their Gainsharing Goals. The Division was granted Administrative Relief for one additional goal. These are described in Section IV.

Operational Report

Fiscal Year 2008 operational performance was exceptional. The WWTD Team's performance has been recognized through the receipt of Platinum Awards in 2007 from the National Association of Clean Water Agencies (NACWA, formerly AMSA). Since 1986, NACWA has been presenting Gold and Platinum Awards to large wastewater treatment facilities that consistently meet all National Pollutant Discharge Elimination System (NPDES) permit limits during a calendar year. The awards went to the PLWTP, for the fourteenth consecutive year, the NCWRP for the tenth consecutive year, and the SBWRP for the fifth consecutive year.

Maintenance Report

In Fiscal Year 2008, there was a warehouse goal and an asset goal. No partial credit was given for any goal that was incomplete. To receive credit for the goal, all measurements (or quarters) were to have been achieved. During fiscal year 2008 the warehouse goal was met while the asset goal was not.

The warehouse goal was intended to ensure that all applicable procedures were appropriately documented. Ultimately, the effort produced 19 documented procedures. This task was accomplished by the warehouse manager and senior clerk typist of the Central Support Facility.

The asset goal was divided into three sections. The sections included: delivery of a comprehensive asset inventory list (by keyword/qualifier) to all facilities; development of a framework and procedure for ongoing asset creation or deletion; verification of the asset inventory list for consistency and accuracy by all facilities and the Central Planning section. Although the first and third sections of the asset goal were not met, the information verification process was time well spent. The facilities not only verified data, but also provided additional or corrected asset information. The collected information will lead to more consistency in the maintenance data and will provide for more robust analyses of those data. In addition, the Asset Management Team is utilizing the subject data to make changes to the database where necessary.

ISO 14001 Certification

The internationally recognized ISO 14001 Environmental Management System (EMS) sets goals and objectives which focus on regulatory compliance, pollution prevention, and continual improvement of the work unit activities. All of the WWTD facilities have obtained certification through the ISO 14001 program. In June of 2008, WWTD Division took part in an external audit review by ABS Quality Evaluations, Inc. They conducted a recertification audit at MOC2, SBWRP, PLWTP, NCWRP and Metropolitan Biosolids Center (MBC). They also reviewed the facility and divisional ISO 14001 documents. WWTD Division successfully renewed its ISO

14001 certification. With ISO 14001 certification, the WWTD Team continued to achieve external verification of the high level of service provided to ratepayers.

In Fiscal Year 2008, the WWTD Division's environmental objectives and targets were:

1. Develop various alternatives for Biosolids disposal/reuse.
2. Review 100% of current WWTD facility SOP's for revision and document control.
3. Reduce energy consumption in FY08 by 1.0%.

Department Level Goals

WWTD has several key performance goals outlined in the Department's metrics for performance service levels. The Division successfully achieved all but one of the goals. The outliers were the result of several single day excursions above the permitted daily maximum for total suspended solids (TSS) and biochemical oxygen demand (BOD₅) at the SBWRP. However, upon further review it has been determined that the subject excursions were the indirect result of the increased delivery of reclaimed water to users. Increased production and delivery of reclaimed water reduced the amount of secondary effluent and reclaimed water overflow being discharged to the outfall. When the volume of subject streams was reduced there was an associated reduction in plant flow discharge pressure at the sampling point. SBWRP's reduction in secondary effluent and reclaimed water overflow pressure at the outfall sampling location allowed effluent from the International Boundary and Water Commission (IBWC) Plant to migrate up to the sample point and get drawn into the SBWRP sample.

Plant staff has relocated the outfall effluent sample point after these events. The relocation occurred on July 14, 2008; however, there have been several subsequent events that indicate that the sampling issue has continued. All secondary and tertiary samples taken prior to the problematic sample point indicated that the facility was well within performance limits and, therefore, the goal was effectively achieved. The information was communicated to Department Management, who concurred on the division's assessment of the issue as well. WWTD staff will readdress the sampling issue to ensure that it is appropriately resolved during FY 2009.

Division Level Goals

WWTD also spelled out five division level goals for FY2008. The goals were: Alarm Management; Review and Verification of Assets in EMPAC system; Energy Conservation; Review of Standard Operating Procedures; and Warehouse Policies. The division met only one of the five goals. The performance goals not met were: Alarm Management; Energy Conservation; Review and Verification of Assets in the EMPAC System; Review of Standard Operating Procedures. The Warehouse goal, discussed previously in the Maintenance Section of this report, was effectively achieved. The goals that were not met are further discussed in the following text.

Alarm Management: There had been a history of false, phantom, nuisance and unaddressed alarms in the Distributed Control System (DCS) at the facilities. Given the multitude of these alarms, the reliability of system data was adversely impacted. To resolve the issue, the alarm

management goal was structured to ensure that legitimate alarm messages older than 30 days were addressed by a work request or a DCS change request to correct the root causes of problems. To effectively facilitate proactive follow up on resolutions of identified alarm problems, work requests and DCS change requests were then to be placed in a closed or awaiting parts status within 30 days of the date of initiation.

Unfortunately, none of the facilities provided complete, thirty day follow up reports to alarm point work requests, work orders or DCS change requests as required. In addition, no DCS change requests were made or tracked. DCS change related phone calls were indicated on intermediate spreadsheets, but progress was not tracked for any work initiated. Ultimately, this led to a limited amount of effort being focused on root cause problem solving. It appears that some of the inability to effectively address this goal may have been directly related to long term systemic issues associated with the purpose of an alarm. Given the ongoing underlying issues and critical nature of this function and the need to ensure that alarms are effectively utilized to manage the processes and treatment trains at the facilities, the goal is being revisited in an altered format in FY 2009. To ensure that staff clearly understands the purpose of the goal, regular communication on alarm management policies and best management practices will be provided on a regular basis during FY 2009.

Energy Conservation: The division's target for energy reduction in fiscal year 2008 was one (1) percent compared to the baseline fiscal years 2005 and 2006. Adjustments for flow variations and power generation export credits were incorporated into the calculations to ensure that any positive or negative differential effectively represented real increases or decreases in consumption of this resource. The division did not achieve this goal during the fiscal year. There were, however, extenuating circumstances that contributed to the division's inability to achieve this goal.

One of the main reasons that goal was not met was the direct result of a decrease in energy generation exports. Decreases in exports were the result of sustained outages of Gas Utilization Facility (GUF) generators during overhaul efforts and an ongoing outage of the Hydroelectric Facility at PLWTP. The delays in completion to the overhaul of GUF unit #2 extended well beyond an anticipated three week time frame. There was also a bearing failure on GUF unit #2 that was the direct result of a contractor error in the overhaul process that resulted in an additional 30 days of down time of the subject unit. The bearing failure was then followed by an unexpected failure of the idler gear on the same unit later in the fiscal year.

The cumulative impact of the extended engine generator outages combined with a long term shutdown of the PLWTP Hydroelectric facility to address repairs of associated equipment and long needed capital improvements contributed to a significant reduction in energy exports. In addition to reduced energy exports, the increased demand for reclaimed water at SBWRP and North City (NCWRP) Water Reclamation Plants further exacerbated the issue by increasing energy consumption during the same period. Increased energy consumption at SBWRP was also accompanied by increased consumption at Grove Avenue Pump Station (GAPS) and Otay River Pump Station (ORPS) as these facilities' pump outputs were ramped up to provide additional flow to the SBWRP.

This goal was not revisited by the division in Fiscal Year 2009. However, given the impacts of energy consumption on the overall costs of division operations, staff will continue to monitor consumption and production as well as continue efforts toward greater conservation of this resource. It is expected that over the course of FY 2009 issues with sustained outages of power generation facilities will be effectively addressed.

Verification of Assets in the EMPAC System: In order to ensure that the EMPAC system continued to effectively reflect the division's assets, staff developed a goal to review the listed assets in the system's database. The goal included delivery of a comprehensive asset inventory list to all facilities, development of a framework and procedure for ongoing asset creation or deletion and verification of the asset inventory list for consistency and accuracy. Division staff was unsuccessful in attainment of this goal for several reasons. The goal, which was extensively discussed prior to the beginning of the fiscal year, required delivery of the asset inventory list to all facilities prior to September 1, 2007. Though there was a substantial amount of discussion about the goal, it was not approved until mid September. The list, which had a designated delivery date requirement prior to September 1st was not available to the facilities until well after the goal was approved. The apparent confusion associated with approval of the goal resulted in late delivery of the list. Ultimately, with the exception of one facility, staff verified the inventory list accuracy and provided input that ensured that changes to the database were made, when necessary. In addition, staff developed and implemented an effective framework and procedure for asset creation and deletion. Though staff was not completely successful in meeting the assigned deadlines associated with all portions of the goal, the review and verification process occurred. The EMPAC asset inventory list now more accurately reflects actual division assets. There is also a mechanism in place for asset creation and deletion in the system as a result of pursuing this goal. Therefore, the established goal did help to achieve the intended outcome. In addition, staff has continued to utilize the practices established by this goal as a standard for this section of the asset management program in fiscal year 2009.

Review of Standard Operating Procedures: The purpose of the goal was to review all standard operating procedures (SOP) to ensure that all text within the subject documents was still applicable to the equipment and processes at the WWTd facilities. The goal was also intended to be utilized to incorporate any SOP modifications that were driven by the Department's best business practices, including the change of the division's name. Up until fiscal year 2008 there had been no overall formal review of the facilities' SOPs. This goal enabled all facilities to systematically review all SOPs and confirm that the current operational practices were in line with the written procedures and vice versa. Due to the fact that a small portion of the required information and documentation did not get delivered per the prescribed deadline, the division did not achieve this goal. Though the goal was not achieved, the facilities did complete the associated tasks and all SOPs were reviewed and updated by early August 2008.

Gain Sharing Goals FY2008 Results

The goals for Fiscal Year 2008 were structured to encompass broad, divisional goals and are closely linked to the Strategic Business Plan. This program has been successful in focusing the employees on key organizational objectives and motivating them toward successful completion of these goals. The audited Gain Sharing Goal results indicate that the WWTd division met

25% of the goals in FY2008, meeting one of the four goals. The fifth goal, energy management, was eliminated due to extenuating circumstances associated with third party contractor issues and other factors beyond the control of division staff. However, no credit was sought or given as this goal was eliminated from the evaluation process. In addition, no partial credit will be authorized for the three other goals as the achievement criteria required 100% attainment of the measurement benchmark.

WWTD Division Safety Record

The safety record for WWTD was somewhat improved in FY2008. There were a total of 34 recordable injuries, compared to the previous fiscal year's total of 39. The injury incidence rate of 13.4 was slightly lower than prior fiscal years. Several steps have been taken to key in on safety measures, including tailgate training focused on safety awareness and injury prevention. A well-defined response time for safety work orders also remained in place to ensure that identified safety repairs continue to be addressed in a timely manner. Implementation of the Department's Injury Review Committee is expected to identify trends in types and frequency of injuries as well as address unsafe work practices.

Disposal and Beneficial Use of Biosolids

WWTD staff and MWWD continued our effort to maintain a sustainable biosolids disposal program. The five (5) year agreement for biosolids services with San Diego Landfill Systems, which commenced on March 14, 2005, is providing MWWD reliable disposal methods that target 100 percent beneficial use for the biosolids generated from the wastewater treatment system. The agreement allows the City the right to pursue Class "A" Biosolids disposal alternatives if such efforts afford the City additional cost effective benefits. To that end the division successfully implemented a process for review and analysis of alternative methods of addressing biosolids disposal. The purpose of the endeavor was anticipatory in nature as there are several emerging issues associated with biosolids use and disposal. It is expected that the effort will generate recommendations that will ensure that the Department and Division are poised to effectively address all projected issues.

The beneficial use program successfully diverted 100% of the biosolids produced to beneficial use in FY2008. This percentage was calculated based on the disposal data for FY2008 and includes the 12.88% biosolids diverted to land application in Arizona and 87.12% as alternative daily cover at the Otay Landfill.

VI. Asset Management

A. General Overview

The MWWD Asset Management Group (AMG) leads the asset management (AM) program - a body of management practices and supporting processes designed to maximize the cost-effective use of capital assets. An effective AM program provides for the systematic planning, acquisition, deployment, operation, maintenance, and control of capital assets, as well as for optimized cycles of rebuilding or replacing. Collection of data necessary to perform asset management has been ongoing in MWWD for several years. By FY 2008, a majority of the necessary data had been collected, so the AMG shifted its focus to achieve the following:

1. Analysis of individual asset maintenance costs in an effort to identify possible maintenance plan changes,
2. Implementation of a condition assessment program using data in the existing computerized maintenance management systems (CMMS) and data generated by the WWTDD Division's Reliability Maintenance Group (RMG),
3. Development of a tool to allow facilities to predict which major assets or operating system will require future investment based on condition assessment and work order data, and
4. Preparation for installation of SAP plant maintenance software to replace existing MWWD CMMS applications.

The AMG is under the direct supervision of the Assistant Director after being moved from the WWTDD Division at the beginning of FY 2008. This change has allowed the AMG to begin supporting and establishing asset management policies for both operating divisions of MWWD. The AMG is also assisting Water Department staff in defining goals for that department's AM program.

The AM group endeavors to provide for consistency across the department in terms of four key processes. At present, these processes vary significantly between divisions and workgroups within the divisions. These processes include:

1. Inventory (component listing and description, condition assessment, valuation)
2. Operations and Maintenance Management (work management, parts inventory control and purchasing)
3. Capital Planning (repair and replacement, expansion for capacity)
4. Analysis and Projection (managerial/financial analysis and reporting)

Computerized Maintenance Management Systems (CMMSs)

The Department continues to use several distinct Computerized Maintenance Management Systems (CMMSs) to manage work, to plan for replacement or overhaul of major plant equipment, and to keep asset records. Examples of these software systems are EMPAC, PS Tools, and SHARQ, among many others.

Although WWTD failed to meet every milestone of a Gainsharing Goal aimed at updating all EMPAC asset data records, the division was successful in gathering approximately 90% of the required data and in developing a uniform process for altering asset data. Development of Asset Maintenance Plans is ongoing and will allow for the standardization of maintenance practices and a reduction in breakdown maintenance. A major initiative of AMG is development of a condition assessment tool that will allow department facilities to quickly determine which assets and systems of assets are most likely to require major corrective maintenance or replacement within a user-specified period of time. This tool will allow for better budget planning and for prioritization of preventive maintenance practices. Among the asset attributes used to assign condition ratings are asset lifetime, asset cost, number of corrective work orders vs. total number of work orders, criticality, and condition information collected by the Reliability Maintenance Group (RMG) (see section B below). Expansion and refinement of the system's Asset Master Records, Bills of Material (BOM's), and Keyword Qualifiers will continue once the asset data has been verified.

It is anticipated that in FY 2009 and beyond, the AM Group will lead the Public Utilities (Water and MWWD) effort to implement SAP software to replace the existing CMMS applications. The change to SAP will allow for integration of CMMS and warehousing activities with City Purchasing and Human Resource Management activities now being implemented in SAP by the OneSD program. This City-wide integration will improve department efficiency by reducing duplication of effort in labor-time entry and equipment purchasing. The unification of asset data by virtue of a unified CMMS will additionally allow for more advanced AM analysis that is presently difficult or impossible with multiple, unrelated systems.

B. Predictive Maintenance

The Reliability Maintenance Group (RMG) of the WWTD Division was established approximately ten years ago. The goal of RMG is to promote and perform cost effective predictive maintenance practices and to direct facilities on needed corrective or preventive maintenance work to both MWWD operating divisions and the Water Operations Division. RMG inspects assets and generates proactive and corrective reports for Department facilities. RMG has greatly reduced dependence on contract services and provides reports in the following disciplines:

1. Vibration analysis,
2. Alignment and balancing of rotating equipment,
3. Oil analysis, and
4. Infrared thermography.

Vibration Analysis Program

All facilities used vibration analysis technology during FY08. This program is helpful in determining the root cause of failures and to derive recommended changes to operations and/or maintenance procedures in order to achieve better equipment reliability. The WWC Division has been using this program to assist with acceptance testing of their pump stations.

Laser Alignment and Balancing

Laser alignment technology has been very successful, averaging 6-7 alignments a month. This service was provided to Wastewater Collections Division facilities as well as WWTD Division facilities.

Oil Analysis

Oil analysis was provided to all facilities in FY08, with contract services used only for advanced lab analysis and consulting. The oil analysis program has been modified to include facility staff for routine oil sampling. In addition to providing oil analysis, RMG has provided information/advice on oil storage and transfer, including a color code system for oil containers and storage at PLWWTP.

Infrared Thermography

Infrared Thermography (IRT) was performed at all of the WWTD Division facilities in FY08. This service is also provided to the Wastewater Collections Division and Water Operations Division on an as requested basis.

C. Stores/Warehouse/Procurement

Warehouse staff continued to maintain primary responsibility for researching, ordering, and tracking parts and materials for five WWTD warehouses. Supplier catalogs and stocking policies have been developed in an effort to guide staff in creating equipment and parts inventories. New inventory tracking and security procedures have been implemented as a result of an internal review performed in FY 2007. It is anticipated that these new procedures will help to control inventory and provide greater support of the overall maintenance process by improving parts availability.

VII. Conclusion

Continued Growth of Bid to Goal Programs within the City

Bid-to-Goal originated in the Operations and Maintenance Division of MWWD and was implemented in the Department's Wastewater Collection Division thereafter. The Water Department's Water Operations group entered into its own Agreement in Fiscal Year 2005, and the program has produced very positive results in its first three years. The Water Department's Customer Support Division Agreement was approved and implemented during FY07. MWWD successfully implemented the department-wide Bid-to-Goal MOU and Bid in FY2008. The Bid-to-Goal approach to competitive government serves as a model for other municipalities both nationally and internationally.