



Memorandum

*To: Diane Gabriel, P.E., General Manager
Montecito Sanitary District*

From: Grant Hoag, P.E.

Date: May 3, 2010

Subject: Montecito Sanitary District Updated Connection Fees

The purpose of this memo is to document the assumptions, findings and conclusions of our update of the Montecito Sanitary District (MSD) connection fees. The existing connection fee is \$3,250 per equivalent residential unit (ERU); it was enacted in 2004. The MSD service area is nearly built out, but has existing but unused capacity for a limited number of new residences and commercial businesses.

Using the capacity available for new sewer connections, and the existing investment in system-wide facilities, we recommend that the existing connection fee be increased to \$7,320 per ERU. This new fee is calculated from the capital asset investments made by the District to develop capacity in the wastewater system for the benefit of future customers. The new fee will reimburse existing customers for their investments in the MSD facilities that has remaining capacity that is available to future customers. With this fee, which has been calculated consistent with State Government Codes, any future customer growth will “pay for itself” without being a burden on existing customers.

We also recommend that, based on the findings of this study, a schedule of new connection fees be enacted for future non-residential customers using their connected water demand levels. Finally, we recommend that the updated fee be increased periodically based on the inflationary escalations in facility construction costs.

The study findings are based on the analysis in the attached tables. The tables summarize MSD system capacities and the value of capital assets as of 6/30/09, and identify the following values:

- Connection fees defined in dollars per equivalent residential unit (ERU); and
- Connection fees based on ERUs per unit of water demand associated with sewage discharged from low, medium, and high sewage strength commercial dischargers.

Background

MSD is required by state law to provide sewer services to all new development. In addition to future development of residential parcels and increases in services at existing commercial businesses, there are at least 350 unsewered residences within the service area on septic systems; many located adjacent to existing sewer pipelines. MSD has a policy of supporting the sewer system hook-ins for these residences, but requires that “growth pay for itself,” and that the connection fee be set at a level that can compensate existing customers for their investment in conveyance and treatment facility capacity that will be available for new customers seeking to connect to the system. This connection fee is calculated from the value of the MSD facilities that are available to serve new connections.

MSD Resolution 2004-816 provides the current connection fees. As shown below, the fees are based on a variety of customer types; typical connection fee classes are provided below:

<u>Connection Type</u>	<u>Billing Unit</u>	<u>Charge</u>
Single family residence	Dwelling Unit	\$3,250
Clubs, Halls	Member average daily attendance (ADA)	\$200 to \$325
Commercial (low to high strength sewage)	Employee ADA	\$200 to \$875
Schools (day or resident)	Student ADA	\$245 to \$875
Restaurant	Seat	\$435

In addition to the connection fee, MSD also charges new hookups for construction inspection and requires a performance bond deposit.

Connection Fee Calculation Guidelines

California Government Code Sections 66000 - 66024 enacted by Assembly Bill 1600 are the primary regulations applicable to the development and recovery of connection fees. These regulations are applicable only to cities with statutory authority to regulate growth. As such, MSD is not restricted by government code for the determination of connection fees. For cities regulated by this code, the three key requirements are:

- There must be a nexus between the facility costs and the connection fees.
- The proceeds of the connection fees must be segregated from other funds.
- The revenues must be “committed” to a project within five years of receipt.

Although MSD is not legally required to comply with these connection fees codes, it is recommended that the calculation be consistent with these methods. As such, the calculations described below are based on the nexus between fee amounts and MSD capital values.

Calculation Methodology

There are two methods available to utilities for developing connection fees that recover the cost of capacity available for new service. These are the Average Cost Buy-in and the Incremental Growth-Related Cost methods. The later method is appropriate only for utilities that have significant expansion-related capital projects. Since MSD has limited unused capacity, and because there are no planned expansion projects, calculation of connection fees using the Average Cost Buy-in Method is used herein. This method is particularly appropriate for utilities serving near built-out communities, and is based solely on the value of existing assets.

With the proposed Average Cost Buy-in Method, connection fees are based on the average existing investment per connection. In this study the investment is calculated from the replacement value of the existing fixed assets, less the depreciation. This analysis has escalated the original cost of the fixed assets by the regional index for construction cost inflation, and calculates the new replacement value of assets; the facility values identified herein are based on the replacement cost new less depreciation (RCNLD) of the fixed assets. In addition to the fixed asset value of the system facilities, MSD's cash assets are also included in the value of a new connection. Connection fees are based solely on asset values, and exclude operating costs.

The values of MSD's fixed and cash assets are divided by the system customers to determine the unit value of each connection fee. A single unit value of the fixed assets is based on the system's build-out capacity, while the unit value of MSD's cash assets is based on the number of existing customers.

Connection fees are imposed only upon new customers. Without a usage history for these new customers, MSD must base the connection fee on the anticipated burden the new customer will place on the system. An effective and popular method for estimating the burden is to calculate the total flow capacity of the system based on the maximum number of equivalent residential units (ERUs) that can be served.

Once that unit cost per residential ERU is developed, it can be extended to non-residential customers. This is done by allocating a unit of ERU load to its components of flow, sewage strength and administration facilities. The estimated sewage discharge flows are proportional to water demands using a water returned to sewer ratio, and the wastewater strength is based on customer classifications. As such, a wastewater connection fee is defined for new non-residential customers based on their class and indoor water demand levels.

Connection Fee Schedule Development

The calculations of ERU values are presented in Tables 1 through 7, plus Appendix A. The calculations result in proposed connection fee schedules. Each table and calculation step is described below.

Table 1 MSD Sewer Service Capacity

The purpose of Table 1 is to identify the average customer discharge capacity of the sewer system based on flows and loadings. In April 2009, instantaneous peak headwork flows exceeded 1.75 MGD, while the MSD rated plant capacity of 1.5 MGD of average annual flows. The average annual influent flows in 2009 were 0.829 MGD.

As shown in Table 1, average monthly customer discharges in 2009 were 0.782 MGD, with collection system inflow and infiltration (I/I) during the rainy season increasing average flows and suspended solids loading at the treatment plant headworks. MSD capacity, excluding the facilities' handling I/I loading, is 0.415 MGD, 3,286 pounds per day (ppd) of biochemical oxygen demand (BOD), and 3,659 ppd of total suspended solids (TSS). Based on this system capacity, divided by the average discharge from a single-family dwelling, the MSD system has an equivalent residential capacity of 7,684 ERUs.

Table 2 MSD Fixed Asset Value

The purpose of Table 2 is to summarize MSD's existing fixed asset values. As shown, based on 445 different assets listed in Appendix A, the current replacement cost new less depreciation (RCNLD) of the fixed assets is \$56 million. The replacement cost of the entire system is \$122 million, and the accumulated depreciation is \$66 million. The subsurface pipeline value is the most significant MSD asset, with the original cost of \$20 million now exceeding a replacement value of \$98 million. Due to the 75 year life of these pipes, the RCNLD value of pipes is \$46 of the \$56 million for the entire MSD system.

Table 3 MSD Updated Connection Fee

The connection fee is calculated by dividing MSD assets by the system capacity identified in Table 1. In addition to the net fixed asset value of \$56 million provided in Table 2, MSD also has debt principal outstanding of \$14.8 million, and appropriated but unspent bond proceeds of \$6.2 million that have been allocated to facility project construction. As such, net fixed asset value is \$47.5 million, and the unit facilities fee is \$6,185 per ERU. The total cash reserves are \$4.8 million; with current customers of 4,247 ERUs the unit cash asset fee is \$1,141 per ERU. Combined, the total asset value for future growth is \$7,326 per ERU. We recommend that this connection fee be rounded to \$7,300 per ERU for administrative convenience. In the following tables this charge is allocated among wastewater loading units to calculate a connection fee for new non-residential customers.

Table 4 MSD Fixed Asset Allocations

The purpose of Table 4 is to calculate how the net asset values are allocated among the wastewater discharge loading categories. These loading categories are wastewater flows, BOD and TSS loads, and account-based administration facilities. As shown, for each asset class (i.e. treatment, solids disposal etc) a cost-causative function is identified for the loading categories. This cost-causative process is used for facilities to recognize the relationship between the costs of a facility and the load factors causing the costs. As shown, all conveyance facilities are allocated to flows, as is 26 percent of the treatment plant. The result is that 92 percent is assigned to the flow-based loads of new customer connections, with the remaining value allocated primarily to sewage strength.

Table 5 MSD Fixed Assets Allocations & Equivalent Residential Unit Values

The purpose of Table 5 is to identify the load amount per loading category for 1.0 ERU, and the value per unit of each load. As shown, the loads of 1.0 ERU are allocated among the categories of wastewater flows, BOD and TSS loads, and administration facility. This allocation is based on the allocation of system values to categories developed in the prior table, and the MSD loading capacities developed in Table 1. As shown, 92 percent of the value per 1.0 ERU, or \$6,752, is allocated to flow. Also developed is that this flow-based value is equal to \$36 per gallon per day (GPD) of estimated 189 GPD of wastewater discharge from 1.0 ERUs. The table also provides ERU loading units (and unit connection rates) for BOD, TSS and new accounts. For example, 1.0 ERU has 0.36 pounds per day (ppd) of BOD and for TSS, with a connection fee value of \$728 per ppd for both. The value per ERU for the administration facility is \$47.

Table 6 MSD Commercial Connection Fees

The purpose of Table 6 is to tabulate the calculated wastewater connection fee ERU's based on indoor water demands of new customers by class. As shown, we recommend that a new non-residential low to high-strength customers be charged from 0.0038 to 0.0047 ERUs per gpd of indoor water demand, in addition to a flat fee of 0.0064 ERUs per connection for the administrative facilities fee. At the calculated fee of \$7,326 per ERU, these unit rates equal \$28 to \$34 gpd of indoor water demand. As provided in the following section, the non-residential unit connection fees should be periodically updated for inflationary escalations, and can be enacted as units of an ERU to simplify the adjustment process.

Also shown in the table is the unit connection fee for residential strength discharges of 0.0047 ERUs per gpd of indoor water demand, based on a 90 percent return to sewer ratio. This value is provided for charges to single-family dwelling estates on residential parcels which have anticipated loads on the system significantly in excess of typical single-family dwelling residence parcels.

Note also that in addition to the flow-based charges, all new connections must also pay a one-time administrative facilities fee for the value of the MSD administrative headquarters facility. However, the standard rate for 1.0 ERU is based on the inclusion of that administrative facility fee.

Table 7. Updating of Connection Fees for Inflation

The purpose of Table 7 is to provide tabulated values for MSD Resolution No. 2010-856 Section VIII-Fees Subsection 5 Connection Fees. As shown in the table, all connection fees are listed in ERU billing “units.” This is done to simplify periodic updating of the connection fee based on inflationary escalations, without having to modify the table itself. This potential clause in the MSD resolution, as drafted by the Vallejo Sanitation & Flood Control District, is written as:

This [resolution] shall be updated annually on or about the first day of January by an adjustment of all fees contained herein, as set forth below. Said annual adjustment shall, at a minimum, be made by multiplying each fee included in this ordinance by the ratio of the ENR construction Cost Index of [Los Angeles] of the current October, as reported by Engineering News-Record, the McGraw-Hill Construction Weekly. The result of said multiplications shall be rounded to the nearest five dollar (\$5.00) increment to become the fee amounts for the ensuing year, effective sixty (60) days after adoption of the revised fee amounts. Additional increases in the connection fees necessary to recover costs of projected capital improvements shall be at the discretion of the Board of [Directors]. Notwithstanding the foregoing, this section shall not preclude the Board of [Directors] from time-to-time changing the ordinance or adopting fees other than those as provided herein to be effective on any other date.

Under separate cover MSD has been provided with three sample wastewater connection fee resolutions and ordinances enacted by California wastewater districts with treatment capacity, including two with provisions for inflationary escalations based on the Construction Cost Index of the Engineering News Record (ENRCCI). The text shown above is taken from one of the ordinances.

Attachments: Tables 1-7, Appendix A

Table 1
MSD Sewer Service Capacity

Billing Classifications	Dwellings	Accounts	Parcels	Flow (mgd)	BOD (lbs/day)	TSS (lbs/day)	ERU
Residential Accounts							
Single-family Dwelling	2,290	2,290	2,290	0.432	829	829	2,290
Other (Condos etc)	1,413	710	710	0.128	246	246	678
Subtotal	3,703	3,000	3,000	0.560	1,075	1,075	2,968
	Avg. Water Use (Hcf/year)						
Non-residential Accounts							
Low Strength	25,255	57	21	0.039	47	47	199
Medium Strength	107,875	43	19	0.166	574	806	975
High Strength	10,228	3	2	0.016	118	92	98
Residential SFD		8	6	0.001	2	2	6
Condo and 2nd Dwellings		1	2	0.000	0	0	0.4
Subtotal	143,358	112	50	0.222	741	947	1,278
Non-residential Water Use Returned to Sewer				75%			
Annual Avg Connection Discharges		3,112	3,050	0.782	1,816	2,022	
Average Inflows				0.047		1,358	
Total 2009 average flows and influent strengths				0.829	1,816	3,380	4,247
Plant Capacity				1.500	3,286	6,117	
Plant Capacity Excluding Inflows				1.415	3,286	3,659	7,684

Source: MSD Accts and Revenues Data - 5156 Montecito Tax Roll and MSD Fees for Commercial accounts in FY 2008-09

Table 2
MSD Fixed Asset Value

Description	Lift Stations	Subsurface	Treatment	Disposal	Admin	Total
Number of Assets	69	138	194	5	39	445
Original Cost	\$2,440,747	\$19,618,641	\$8,394,351	\$532,467	\$496,499	\$31,482,704
Depreciation	\$588,791	\$7,219,636	\$3,629,221	\$350,700	\$262,586	\$12,050,935
Original Cost Less Depreciation	\$1,851,956	\$12,399,005	\$4,765,129	\$181,767	\$233,913	\$19,431,770
Replacement Cost New	\$3,556,894	\$98,026,578	\$16,575,454	\$3,066,321	\$765,954	\$121,991,201
Depreciation	\$1,313,508	\$52,359,730	\$9,796,628	\$2,001,504	\$430,719	\$65,902,090
Replacement Cost New Less Depreciation	\$2,243,385	\$45,666,848	\$6,778,826	\$1,064,817	\$335,235	\$56,089,111

In 2004 the total asset value was \$45 million.

Values are as of 6/30/09. The fixed asset valuation calculations are included in Appendix A.

Table 3
MSD Updated Connection Fee

Description	Value
System Value (RCNLD, 6/30/09)	
Admin	\$335,235
Collection (lift stations)	\$2,243,385
Solids (disposal)	\$1,064,817
Subsurface (pipelines)	\$45,666,848
WWTP (treatment)	\$6,778,826
Grand Total Fixed Assets	\$56,089,111
Less Bond Principal Outstanding	(\$14,790,000)
Subtotal	\$41,299,111
Plus Unspent Bond Proceeds for Projects	\$6,225,318
Total Asset Value	\$47,524,429
Build Out Customers (ERUs)	7,684
Facilities Fee (\$/ERU)	\$6,185
Total Cash (3/31/10)	
Reserve funds with LAIF	\$1,620,494
Deprecation fund with SB County	\$1,217,149
Cash with SB County	\$2,006,633
Total Cash	\$4,844,276
Current Customers (ERUs)	4,247
Cash Assets Fee (\$/ERU)	\$1,141
Net System Value (6/30/09)	
	\$52,368,705
Facilities Fee (\$/ERU)	\$6,185
Liquid Assets Fee (\$/ERU)	\$1,141
Updated Connection Fee (\$/ERU)	\$7,326
Recommended Connection Fee (\$/ERU)	\$7,300
Current Connection Fee	\$3,250

Table 4
MSD Fixed Asset Allocations

Description	Lift Stations	Subsurface	Treatment	Disposal	Administration	Total
Fixed Asset Value	\$2,243,385	\$45,666,848	\$6,778,826	\$1,064,817	\$335,235	\$56,089,111
Plus Unspent Bond Proceeds	\$1,037,553	\$1,037,553	\$4,150,212			\$6,225,318
Less Bonds Outstanding	(\$1,479,000)	(\$4,437,000)	(\$8,874,000)			(\$14,790,000)
Net Asset Value	\$1,801,938	\$42,267,401	\$2,055,038	\$1,064,817	\$335,235	\$47,524,429
Unit Value per Build-out ERU	\$235	\$5,501	\$267	\$139	\$44	\$6,185
Plus Cash (excluding bond proceeds)						
Reserve funds with LAIF	\$540,165	\$540,165	\$540,165			\$1,620,494
Deprecation fund (SB County)	\$405,716	\$405,716	\$405,716			\$1,217,149
Cash with SB County	\$76,084	\$1,784,664	\$86,770	\$44,960	\$14,155	\$2,006,633
Total Cash	\$1,021,965	\$2,730,545	\$1,032,651	\$44,960	\$14,155	\$4,844,276
Unit Value per Current ERUs	\$241	\$643	\$243	\$11	\$3	\$1,141
Net Value	\$475	\$6,144	\$511	\$149	\$47	\$7,326

Allocations to Loading Categories (a)	Allocations						
Flow	100%	100%	26%	0%	0%	92.2%	\$6,752
BOD	0%	0%	37%	50%	0%	3.6%	\$264
TSS	0%	0%	37%	50%	0%	3.6%	\$264
Accounts	0%	0%	0%	0%	100%	0.6%	\$47
Total (%)	100%	100%	100%	100%	100%	100%	\$7,326

a. Source: Table 3-2, 2008 Rate Study

Table 5
MSD Fixed Assets Allocations & Equivalent Residential Unit Values

Loading Category	Net Allocated Value	Units	Unit Connection Rate	1.0 ERU Loading	1.0 ERU Value
Flow	\$48,265,500	GPD WW	\$36	189	\$6,752
BOD	\$1,883,747	ppd	\$728	0.36	\$264
TSS	\$1,883,747	ppd	\$728	0.36	\$264
Accounts	<u>\$335,711</u>	Account	\$47	1.00	<u>\$47</u>
Total	\$52,368,705				\$7,326

ppd: Pound per day; GPD WW: gallons per day of wastewater discharge

Table 6
MSD Commercial Connection Fees

Non-residential Connection	Sewage Flow (GPD)	Capacity		Fee (\$ per WW GPD)	Water Use Returned to Sewer	Fee (\$ per Wtr GPD, a)	Fee (ERU per GPD of Water Demand, a)
		BOD (ppm)	TSS (ppm)				
Low Strength	1.00	144	145	\$38	75%	\$28	0.0038
Residential Strength	1.00	230	230	\$39	90%	\$35	0.0047
Medium Strength	1.00	415	583	\$42	75%	\$31	0.0043
High Strength	1.00	900	700	\$45	75%	\$34	0.0047
						ERU per Connection	
Administration Facility Fee						\$47	0.0064
							Fee (\$/ERU)
Residential Dwelling	189	230	230				\$7,326

a. Commercial connection fee is based on water demand (GPD), not wastewater discharge, using a return to sewer ratio of 75 percent.

Table 7
MSD Wastewater Connection Fees

Customer Sewage Strength	Unit Connection Fee (ERU per estimated GPD of Water Demand)
Low Strength	0.0038
Residential Strength	0.0047
Medium Strength	0.0043
High Strength	0.0047
	ERU per Connection
Administrative Facility Fee	0.0064
Residential Dwelling (1.0 ERU)	\$7,300

ERU: Equivalent Residential Unit; GPD: Gallon per Day
1.0 ERU includes the administrative facility fee, while the fee per GPD does not.

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
ADMIN004	Admin	bidg addition	50	1976	\$28,851	\$577	\$10,387	2,920	\$96,443	\$1,929	\$32,790
ADMIN001	Admin	vault	50	1976	\$7,213	\$144	\$2,596	2,920	\$24,111	\$482	\$8,198
ADMIN003	Admin	building	50	1984	\$43,517	\$870	\$22,628	5,260	\$80,756	\$1,615	\$40,378
ADMIN002	Admin	bidg addition	50	1988	\$124,651	\$2,493	\$74,790	5,771	\$210,840	\$4,217	\$122,287
ADMIN040	Admin	repaving monte cristo road	25	1988	\$13,693	\$548	\$2,738	5,771	\$23,160	\$926	\$3,706
ADMIN038	Admin	office furniture	24	1988	\$2,267	\$0	\$0	5,771	\$3,834	\$160	\$479
ADMIN036	Admin	office furniture	23	1989	\$1,487	\$0	\$0	5,790	\$2,507	\$109	\$327
ADMIN010	Admin	hp laserjet iip printer	22	1990	\$1,335	\$0	\$0	5,995	\$2,173	\$99	\$296
ADMIN007	Admin	hardware/software	15	1996	\$6,185	\$0	\$0	6,558	\$9,206	\$614	\$1,227
ADMIN033	Admin	carpet office	50	1996	\$2,575	\$52	\$1,957	6,558	\$3,832	\$77	\$2,836
ADMIN039	Admin	office furniture	14	1996	\$9,556	\$0	\$0	6,558	\$14,222	\$1,016	\$1,016
ADMIN014	Admin	Software	11	1999	\$1,894	\$0	\$0	6,826	\$2,709	\$246	\$246
ADMIN012	Admin	Telephone system	10	2000	\$11,015	\$0	\$0	7,068	\$15,211	\$1,521	\$1,521
ADMIN009	Admin	laserjet printer	9	2001	\$1,103	\$138	\$138	7,227	\$1,490	\$166	\$166
ADMIN008	Admin	HP designjet plotter	9	2001	\$6,439	\$805	\$804	7,227	\$8,697	\$966	\$966
ADMIN006	Admin	computer	9	2001	\$2,031	\$0	\$0	7,227	\$2,743	\$305	\$305
ADMIN013	Admin	autocad desktop	9	2001	\$3,598	\$0	\$0	7,227	\$4,859	\$540	\$540
ADMIN045	Admin	Software	7	2003	\$19,255	\$0	\$0	7,532	\$24,954	\$3,565	\$3,565
ADMIN046	Admin	Software	7	2003	\$1,366	\$0	\$0	7,532	\$1,770	\$253	\$253
ADMIN047	Admin	MAP Guide Software	7	2003	\$30,935	\$0	\$0	7,532	\$40,091	\$5,727	\$5,727
ADMIN049	Admin	Table & chairs	10	2003	\$2,116	\$212	\$1,058	7,532	\$2,742	\$274	\$1,097
ADMIN015	Admin	Operating system	7	2003	\$3,225	\$0	\$0	7,532	\$4,180	\$597	\$597
ADMIN048	Admin	Refrigerator	10	2003	\$1,017	\$102	\$509	7,532	\$1,318	\$132	\$527
ADMIN050	Admin	Alcove enclosure	10	2003	\$4,018	\$402	\$2,009	7,532	\$5,207	\$521	\$2,083
ADMIN053	Admin	Computer	6	2004	\$1,935	\$387	\$0	8,192	\$2,306	\$384	\$384
ADMIN052	Admin	Laptop	6	2004	\$2,184	\$437	\$0	8,192	\$2,602	\$434	\$434
ADMIN051	Admin	Projector	6	2004	\$1,769	\$354	\$0	8,192	\$2,108	\$351	\$351
ADMIN056	Admin	ENERGY EFFICIENT LIGH	10	2005	\$8,981	\$898	\$5,389	8,567	\$10,232	\$1,023	\$6,139
ADMIN054	Admin	BOARD ROOM REFURBISI	10	2005	\$7,981	\$798	\$4,789	8,567	\$9,093	\$909	\$5,456
ADMIN055	Admin	COMPUTERS & SOFTWAR	6	2005	\$4,049	\$810	\$809	8,567	\$4,613	\$769	\$1,538
A-2006.2	Admin	BOARD ROOM FURNITUR	10	2005	\$5,864	\$586	\$4,246	8,567	\$6,681	\$668	\$4,009
A-2006.1	Admin	SOFTWARE UPGRADE	3	2006	\$5,335	\$1,778	\$1,387	8,879	\$5,865	\$1,955	\$0
A-2006.3	Admin	GIS BROWSER ENHANCE	3	2006	\$24,467	\$8,156	\$6,117	8,879	\$26,898	\$8,966	\$0
A-2007 1	Admin	NEW DELL SERVER	7	2006	\$8,655	\$1,443	\$6,010	8,879	\$9,515	\$1,359	\$5,437
A-2008-3	Admin	GIS / SCADA	6	2007	\$6,701	\$1,340	\$5,361	9,182	\$7,124	\$1,187	\$4,749
A-2008-2	Admin	Telephone/Software Upgrad	7	2007	\$21,814	\$3,116	\$18,698	9,182	\$23,191	\$3,313	\$16,565
A-2008-1	Admin	Computer/Software Upgrade	6	2007	\$22,899	\$4,580	\$18,319	9,182	\$24,343	\$4,057	\$16,229
A-2007 2	Admin	NEW DELL W/S - McCaleb	6	2007	\$1,250	\$250	\$979	9,182	\$1,329	\$221	\$886
CIP	Admin	PLANT ELECTRICAL CONT	40	2008	\$43,274	\$1,082	\$42,192	9,823	\$43,000	\$1,075	\$41,925
COLL035	Collection	Pump Sta. #1	75	1961	\$25,500	\$340	\$9,520	935	\$266,178	\$3,549	\$95,824
COLL036	Collection	Pump Sta. #2	75	1961	\$17,000	\$227	\$6,347	935	\$177,452	\$2,366	\$63,883
COLL037	Collection	Pump Sta. #3	75	1961	\$16,000	\$213	\$5,973	935	\$167,014	\$2,227	\$60,125
COLL038	Collection	Pump Sta. #4	75	1961	\$25,500	\$340	\$9,520	935	\$266,178	\$3,549	\$95,824
COLL042	Collection	Rodding machine	32	1982	\$13,390	\$0	\$0	4,934	\$26,490	\$828	\$4,139
COLL008	Collection	Car #3-dump truck -int'l	28	1985	\$10,775	\$431	\$862	5,447	\$19,309	\$690	\$2,758
COLL058	Collection	Vehicle Hoist (one-half)	24	1988	\$2,205	\$0	\$0	5,771	\$3,730	\$155	\$466
COLL039	Collection	Fairbanks Morse 4" Base pu	25	1988	\$3,801	\$152	\$760	5,771	\$6,429	\$257	\$1,029
COLL060	Collection	Winch with tripod	22	1990	\$1,655	\$0	\$0	5,995	\$2,695	\$122	\$367
COLL063	Collection	Portable generator	21	1990	\$18,900	\$0	\$0	5,995	\$30,775	\$1,465	\$2,931
COLL056	Collection	Truck mounted hoist car #3	20	1991	\$3,108	\$0	\$0	6,090	\$4,982	\$249	\$498
COLL019	Collection	Hydrojet w/trailer	20	1991	\$43,957	\$0	\$0	6,090	\$70,452	\$3,523	\$7,045
COLL041	Collection	Portable pump(on trailer)1/2	25	1991	\$4,223	\$169	\$1,351	6,090	\$6,769	\$271	\$1,895
COLL022	Collection	Lift station alarm system	20	1991	\$12,835	\$0	\$0	6,090	\$20,571	\$1,029	\$2,057
COLL057	Collection	Topo maps	19	1992	\$4,500	\$0	\$0	6,349	\$6,919	\$364	\$728
COLL059	Collection	Water truck #8-Yard	19	1992	\$53,556	\$0	\$0	6,349	\$82,343	\$4,334	\$8,668
COLL023	Collection	Ls#4 force main valve vault	50	1992	\$11,020	\$220	\$7,493	6,349	\$16,943	\$339	\$11,183
COLL049	Collection	steam cleaner-plant	18	1993	\$1,347	\$0	\$0	6,478	\$2,030	\$113	\$226
COLL018	Collection	Grimmer schmidt#125 comp	18	1993	\$9,937	\$0	\$0	6,478	\$14,973	\$832	\$1,664
COLL013	Collection	double throw safety switch	18	1993	\$4,611	\$0	\$0	6,478	\$6,948	\$386	\$772
COLL021	Collection	Kaye dialog plus 8 channel x	17	1994	\$1,786	\$0	\$0	6,533	\$2,668	\$157	\$314
COLL055	Collection	Trailer mounted generator	17	1994	\$10,182	\$0	\$0	6,533	\$15,214	\$895	\$1,790
COLL032	Collection	Portable generator	17	1994	\$29,244	\$0	\$0	6,533	\$43,694	\$2,570	\$5,140
COLL007	Collection	Car #2-1994 chevy truck	17	1994	\$18,716	\$1,248	\$1,248	6,533	\$27,963	\$1,645	\$3,290
COLL017	Collection	Gas detector -yard	15	1995	\$2,448	\$0	\$0	6,526	\$3,661	\$244	\$244
COLL020	Collection	jetstream maint software	17	1995	\$9,698	\$647	\$1,293	6,526	\$14,504	\$853	\$2,560
COLL010	Collection	cement mixer w/hitch	14	1996	\$1,934	\$161	\$0	6,558	\$2,879	\$206	\$206
COLL046	Collection	smoke blower	14	1996	\$1,217	\$0	\$0	6,558	\$1,811	\$129	\$129
COLL048	Collection	standby pump - l/s #2	25	1997	\$4,439	\$178	\$2,486	6,664	\$6,503	\$260	\$3,382
COLL047	Collection	standby generator l/s #4	25	1997	\$34,660	\$1,386	\$19,410	6,664	\$50,772	\$2,031	\$26,401
COLL050	Collection	storage facility covering	50	1997	\$8,428	\$169	\$6,574	6,664	\$12,346	\$247	\$9,383
COLL061	Collection	1998 Dodge Truck	11	1999	\$29,223	\$0	\$0	6,826	\$41,788	\$3,799	\$3,799
COLL044	Collection	Sewer mains	75	2001	\$56,255	\$750	\$51,005	7,227	\$75,981	\$1,013	\$67,876
COLL004	Collection	ADAS for L/S	11	2001	\$6,513	\$651	\$1,954	7,227	\$8,797	\$800	\$2,399

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
COLL026	Collection	multiranger plus	11	2001	\$2,126	\$213	\$638	7,227	\$2,871	\$261	\$783
COLL051	Collection	Portable pumps	25	2001	\$4,976	\$199	\$3,583	7,227	\$6,720	\$269	\$4,570
COLL053	Collection	Tools	11	2001	\$6,400	\$640	\$1,920	7,227	\$8,644	\$786	\$2,357
COLL014	Collection	Elec upgrade L/S#4	25	2001	\$23,421	\$937	\$16,864	7,227	\$31,634	\$1,265	\$21,511
COLL031	Collection	portable crane	12	2002	\$1,407	\$117	\$703	7,403	\$1,855	\$155	\$773
COLL003	Collection	4 veh. Radios/antennas	8	2002	\$2,250	\$321	\$321	7,403	\$2,967	\$371	\$371
COLL065	Collection	2002 Dodge Dakota	9	2002	\$14,773	\$1,847	\$3,694	7,403	\$19,479	\$2,164	\$4,329
COLL067	Collection	Gas detector-replace	10	2003	\$1,867	\$0	\$0	7,532	\$2,420	\$242	\$968
COLL068	Collection	Equipment/tool replace	10	2003	\$2,120	\$0	\$0	7,532	\$2,747	\$275	\$1,099
COLL066	Collection	Computer hardware	7	2003	\$3,526	\$0	\$0	7,532	\$4,570	\$653	\$653
COLL071	Collection	SCBA's	10	2003	\$17,248	\$0	\$0	7,532	\$22,353	\$2,235	\$8,941
COLL072	Collection	Push camera	10	2003	\$8,997	\$0	\$0	7,532	\$11,660	\$1,166	\$4,664
COLL064	Collection	Van Inspection System	12	2003	\$88,161	\$7,347	\$51,428	7,532	\$114,255	\$9,521	\$57,127
COLL062	Collection	Combo truck	12	2003	\$149,006	\$11,388	\$92,068	7,532	\$193,108	\$16,092	\$96,554
COLL069	Collection	Confined space equip	10	2003	\$4,961	\$0	\$0	7,532	\$6,429	\$643	\$2,572
COLL073	Collection	Auto dialers-LS #3&4	10	2004	\$4,676	\$468	\$2,338	8,192	\$5,571	\$557	\$2,786
COLL074	Collection	L/S Gas detection	10	2004	\$4,660	\$466	\$2,330	8,192	\$5,552	\$555	\$2,776
COLL079	Collection	Trailer	10	2004	\$3,508	\$351	\$1,754	8,192	\$4,180	\$418	\$2,090
COLL077	Collection	Rodder hose	10	2004	\$1,613	\$161	\$806	8,192	\$1,922	\$192	\$961
COLL075	Collection	Gas detector	10	2004	\$4,847	\$485	\$2,424	8,192	\$5,775	\$578	\$2,888
COLL080	Collection	Inflow infiltration study	25	2004	\$29,582	\$1,183	\$23,665	8,192	\$35,247	\$1,410	\$28,198
COLL076	Collection	Office furniture	10	2004	\$5,408	\$541	\$2,704	8,192	\$6,444	\$644	\$3,222
COLL078	Collection	3/4"nozzle	10	2004	\$1,034	\$103	\$517	8,192	\$1,232	\$123	\$616
C-2006.1	Collection	Pipe Trailer	10	2005	\$2,160	\$216	\$1,584	8,567	\$2,461	\$246	\$1,477
C-2007 2	Collection	Manhole Raising	10	2007	\$16,130	\$1,613	\$14,383	9,182	\$17,148	\$1,715	\$13,718
C-2007-1	Collection	Sewer Extension	10	2007	\$2,049	\$205	\$1,844	9,182	\$2,178	\$218	\$1,743
C-2008-2	Collection	New CCTV Camera, Cable	7	2007	\$47,019	\$6,717	\$40,302	9,182	\$49,986	\$7,141	\$35,704
C-2008-1	Collection	L/S # 3 - New Compressors	10	2007	\$12,387	\$1,239	\$11,148	9,182	\$13,168	\$1,317	\$10,534
C-2008-3	Collection	Raise 4 Manholes to Grade	10	2008	\$2,650	\$265	\$2,385	9,823	\$2,633	\$263	\$2,370
CIP	Collection	LIFT STATION 4 - FORCE I	75	2008	\$1,186,086	\$15,814	\$1,170,272	9,823	\$1,178,577	\$15,714	\$1,162,863
CIP	Collection	LIFT STATION 4 - FORCE I	75	2008	\$120,708	\$1,609	\$119,099	9,823	\$119,944	\$1,599	\$118,345
CIP	Collection	LIFT STATION 4 - FORCE I	75	2008	\$76,690	\$1,023	\$75,667	9,823	\$76,204	\$1,016	\$75,188
CIP	Collection	LIFT STATION 4 - FORCE I	75	2008	\$11,021	\$147	\$10,874	9,823	\$10,951	\$146	\$10,805
C-2009-1	Collection	20 New SmartCovers (w/Flo	10	2008	\$74,567	\$7,457	\$67,110	9,823	\$74,095	\$7,409	\$66,685
C-2009-2	Collection	Raise / Repair (3) Manholes	10	2009	\$4,150	\$415	\$3,735	9,761	\$4,150	\$415	\$4,150
DISP004	Solids	outfall line	75	1961	\$248,378	\$3,312	\$92,728	935	\$2,592,662	\$34,569	\$933,358
DISP001	Solids	sludge beds	35	1978	\$27,611	\$0	\$0	3,421	\$78,776	\$2,251	\$9,003
DISP003	Solids	sludge drying beds	26	1985	\$102,494	\$0	\$0	5,447	\$183,679	\$7,065	\$14,129
DISP002	Solids	sludge beds	20	1994	\$58,774	\$2,939	\$17,632	6,533	\$87,815	\$4,391	\$21,954
DISP005	Solids	outfall repair	20	2003	\$95,210	\$4,761	\$71,407	7,532	\$123,390	\$6,169	\$86,373
	Subsurface	Manholes-1960	75	1960	\$1,615	\$22	\$581	910	\$17,325	\$231	\$6,006
PISVCP1960	Subsurface	137' of 8" VCP	75	1960	\$2,699	\$36	\$970	910	\$28,950	\$386	\$10,036
	Subsurface	Manholes-1961	75	1961	\$6,641	\$89	\$2,479	935	\$69,321	\$924	\$24,956
PISVCP1961	Subsurface	1827' of 8" VCP	75	1961	\$36,997	\$493	\$13,812	935	\$386,188	\$5,149	\$139,028
	Subsurface	Manholes-1962	75	1962	\$19,656	\$262	\$7,600	963	\$199,299	\$2,657	\$74,405
PISACP1962	Subsurface	1847' of 18" ACP	75	1962	\$33,005	\$440	\$12,762	963	\$334,642	\$4,462	\$124,933
PISCIP1962	Subsurface	4517' of 6" CIP	75	1962	\$44,453	\$593	\$17,188	963	\$450,710	\$6,009	\$168,265
PISVCP1962	Subsurface	3101' of 21" VCP	75	1962	\$134,518	\$1,794	\$52,014	963	\$1,363,893	\$18,185	\$509,187
PISVCP1962	Subsurface	280' of 8" VCP	75	1962	\$5,837	\$78	\$2,257	963	\$59,186	\$789	\$22,096
	Subsurface	Manholes-1963	75	1963	\$827,420	\$11,032	\$330,969	995	\$8,119,277	\$108,257	\$3,139,454
PISCIP1963	Subsurface	1811' of 8" CIP	75	1963	\$20,354	\$271	\$8,142	995	\$199,725	\$2,663	\$77,227
PISCIP1963	Subsurface	110' of 4" CIP	75	1963	\$942	\$13	\$377	995	\$9,243	\$123	\$3,574
PISCIP1963	Subsurface	1097' of 6" CIP	75	1963	\$11,155	\$149	\$4,462	995	\$109,460	\$1,459	\$42,324
PISVCP1963	Subsurface	827' of 18" VCP	75	1963	\$32,863	\$438	\$13,145	995	\$322,475	\$4,300	\$124,690
PISVCP1963	Subsurface	4775' of 6" VCP	75	1963	\$95,192	\$1,269	\$38,077	995	\$934,100	\$12,455	\$361,185
PISVCP1963	Subsurface	391' of 12" VCP	75	1963	\$10,986	\$146	\$4,394	995	\$107,803	\$1,437	\$41,684
PISVCP1963	Subsurface	2710' of 21" VCP	75	1963	\$121,467	\$1,620	\$48,586	995	\$1,191,922	\$15,892	\$460,877
PISVCP1963	Subsurface	2612' of 10" VCP	75	1963	\$61,857	\$825	\$24,743	995	\$606,988	\$8,093	\$234,702
PISVCP1963	Subsurface	201311' of 8" VCP	75	1963	\$4,336,467	\$57,820	\$1,734,587	995	\$42,552,709	\$567,369	\$16,453,714
PISVCP1963	Subsurface	1357' of 15" VCP	75	1963	\$49,021	\$654	\$19,608	995	\$481,036	\$6,414	\$186,001
	Subsurface	Manholes-1964	75	1964	\$5,504	\$73	\$2,275	1,033	\$51,991	\$693	\$20,796
PISVCP1964	Subsurface	1384' of 8" VCP	75	1964	\$30,971	\$413	\$12,801	1,033	\$292,547	\$3,901	\$117,019
	Subsurface	Manholes-1965	75	1965	\$18,082	\$241	\$7,714	1,072	\$164,638	\$2,195	\$68,051
PISVCP1965	Subsurface	4316' of 8" VCP	75	1965	\$100,195	\$1,336	\$42,750	1,072	\$912,307	\$12,164	\$377,087
	Subsurface	Manholes-1966	75	1966	\$13,982	\$186	\$6,152	1,125	\$121,313	\$1,618	\$51,760
PISCIP1966	Subsurface	310' of 6" CIP	75	1966	\$3,565	\$48	\$1,569	1,125	\$30,932	\$412	\$13,198
PISVCP1966	Subsurface	3226' of 8" VCP	75	1966	\$78,593	\$1,048	\$34,581	1,125	\$681,905	\$9,092	\$290,946
	Subsurface	Manholes-1967	75	1967	\$218,942	\$2,919	\$99,254	1,203	\$1,776,471	\$23,686	\$781,647
PISCIP1967	Subsurface	59' of 12" CIP	75	1967	\$1,054	\$14	\$478	1,203	\$8,551	\$114	\$3,762
PISCIP1967	Subsurface	119' of 6" CIP	75	1967	\$1,442	\$19	\$654	1,203	\$11,703	\$156	\$5,149
PISVCP1967	Subsurface	9003' of 12" VCP	75	1967	\$301,529	\$4,020	\$136,693	1,203	\$2,446,568	\$32,621	\$1,076,490
PISVCP1967	Subsurface	37881' of 8" VCP	75	1967	\$972,679	\$12,969	\$440,948	1,203	\$7,892,201	\$105,229	\$3,472,568
	Subsurface	Manholes-1968	75	1968	\$30,564	\$408	\$14,263	1,275	\$233,987	\$3,120	\$106,074

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
PISVCP196E	Subsurface	6072' of 8" VCP	75	1968	\$167,671	\$2,236	\$78,247	1,275	\$1,283,635	\$17,115	\$581,915
	Subsurface	Manholes-1969	75	1969	\$18,656	\$249	\$8,954	1,309	\$139,114	\$1,855	\$64,920
PISVCP196E	Subsurface	3371' of 8" VCP	75	1969	\$102,274	\$1,364	\$49,091	1,309	\$762,639	\$10,169	\$355,898
	Subsurface	Manholes-1970	75	1970	\$144,824	\$1,931	\$71,447	1,482	\$953,862	\$12,718	\$457,854
PISCIP1970	Subsurface	174' of 8" CIP	75	1970	\$2,997	\$40	\$1,478	1,482	\$19,742	\$263	\$9,476
PISVCP197C	Subsurface	24013' of 8" VCP	75	1970	\$792,837	\$10,571	\$391,133	1,482	\$5,221,917	\$69,626	\$2,506,520
	Subsurface	Manholes-1972	75	1972	\$15,463	\$206	\$8,040	1,966	\$76,771	\$1,024	\$38,897
PISVCP1972	Subsurface	1966' of 8" VCP	75	1972	\$82,397	\$1,099	\$42,846	1,966	\$409,091	\$5,455	\$207,273
	Subsurface	Manholes-1973	75	1973	\$40,860	\$545	\$21,792	2,100	\$189,919	\$2,532	\$98,758
PISVCP1973	Subsurface	3667' of 8" VCP	75	1973	\$166,136	\$2,215	\$88,606	2,100	\$772,216	\$10,296	\$401,552
PISVCP1973	Subsurface	1257' of 12" VCP	75	1973	\$74,282	\$990	\$39,617	2,100	\$345,268	\$4,604	\$179,539
	Subsurface	Manholes-1975	75	1975	\$15,176	\$202	\$8,498	2,586	\$57,283	\$764	\$31,315
PISPVC197E	Subsurface	66' of 8" PVC	75	1975	\$2,645	\$35	\$1,481	2,586	\$9,983	\$133	\$5,458
PISVCP197E	Subsurface	173' of 6" VCP	75	1975	\$8,467	\$113	\$4,741	2,586	\$31,960	\$426	\$17,471
PISVCP197E	Subsurface	1436' of 8" VCP	75	1975	\$75,942	\$1,013	\$42,528	2,586	\$286,648	\$3,822	\$156,701
	Subsurface	Manholes-1976	75	1976	\$2,353	\$31	\$1,349	2,920	\$7,866	\$105	\$4,405
PISVCP197E	Subsurface	246' of 8" VCP	75	1976	\$14,121	\$188	\$8,097	2,920	\$47,204	\$629	\$26,434
	Subsurface	Manholes-1977	75	1977	\$7,574	\$101	\$4,443	3,162	\$23,381	\$312	\$13,405
PISVCP1977	Subsurface	76' of 6" VCP	75	1977	\$4,332	\$58	\$2,541	3,162	\$13,372	\$178	\$7,667
PISVCP1977	Subsurface	498' of 8" VCP	75	1977	\$30,670	\$409	\$17,993	3,162	\$94,679	\$1,262	\$54,282
PISVCP1977	Subsurface	220' of 18" VCP	75	1977	\$24,994	\$333	\$14,663	3,162	\$77,157	\$1,029	\$44,237
	Subsurface	Manholes-1978	75	1978	\$19,045	\$254	\$11,427	3,421	\$54,336	\$724	\$31,877
PISVCP197E	Subsurface	1466' of 8" VCP	75	1978	\$97,296	\$1,297	\$58,378	3,421	\$277,592	\$3,701	\$162,854
	Subsurface	Manholes-1980	75	1980	\$19,035	\$254	\$11,929	4,102	\$45,291	\$604	\$27,779
PISPVC198C	Subsurface	1137' of 8" PVC	75	1980	\$66,678	\$889	\$41,785	4,102	\$158,650	\$2,115	\$97,305
PISVCP198C	Subsurface	242' of 8" VCP	75	1980	\$18,728	\$250	\$11,736	4,102	\$44,562	\$594	\$27,331
	Subsurface	Manholes-1981	75	1981	\$117,796	\$1,571	\$75,390	4,531	\$253,766	\$3,384	\$159,027
PISPVC1981	Subsurface	2433' of 8" PVC	75	1981	\$155,815	\$2,078	\$99,722	4,531	\$335,671	\$4,476	\$210,354
PISVCP1981	Subsurface	5227' of 8" VCP	75	1981	\$441,759	\$5,890	\$282,726	4,531	\$951,677	\$12,689	\$596,384
PISVCP1981	Subsurface	296' of 6" VCP	75	1981	\$23,152	\$309	\$14,817	4,531	\$49,876	\$665	\$31,255
	Subsurface	Manholes-1982	75	1982	\$3,749	\$50	\$2,449	4,934	\$7,416	\$99	\$4,746
PISVCP1982	Subsurface	226' of 12" VCP	75	1982	\$26,957	\$359	\$17,612	4,934	\$53,329	\$711	\$34,130
	Subsurface	Manholes-1984	75	1984	\$20,317	\$271	\$13,815	5,260	\$37,703	\$503	\$25,135
PISVCP1984	Subsurface	1215' of 8" VCP	75	1984	\$120,434	\$1,606	\$81,895	5,260	\$223,493	\$2,980	\$148,995
	Subsurface	Manholes-1985	75	1985	\$65,783	\$877	\$45,610	5,447	\$117,890	\$1,572	\$80,165
PISPVC198E	Subsurface	909' of 8" PVC	75	1985	\$69,083	\$921	\$47,898	5,447	\$123,804	\$1,651	\$84,187
PISPVC198E	Subsurface	613' of 6" PVC	75	1985	\$41,241	\$550	\$28,594	5,447	\$73,909	\$985	\$50,258
PISVCP198E	Subsurface	2623' of 8" VCP	75	1985	\$263,072	\$3,508	\$182,396	5,447	\$471,450	\$6,286	\$320,586
PISVCP198E	Subsurface	243' of 6" VCP	75	1985	\$22,555	\$301	\$15,639	5,447	\$40,421	\$539	\$27,486
	Subsurface	Manholes-1986	75	1986	\$37,885	\$505	\$26,772	5,452	\$67,825	\$904	\$47,025
PISPVC198E	Subsurface	2074' of 8" PVC	75	1986	\$161,380	\$2,152	\$114,041	5,452	\$288,916	\$3,852	\$200,315
	Subsurface	Manholes-1987	75	1987	\$142,502	\$1,900	\$102,602	5,474	\$254,096	\$3,388	\$179,562
PISDIP1987	Subsurface	180' of 6" DIP	75	1987	\$14,721	\$196	\$10,600	5,474	\$26,250	\$350	\$18,550
PISPVC1987	Subsurface	6702' of 8" PVC	75	1987	\$534,967	\$7,133	\$385,176	5,474	\$953,905	\$12,719	\$674,093
PISPVC1987	Subsurface	495' of 6" PVC	75	1987	\$34,978	\$466	\$25,184	5,474	\$62,369	\$832	\$44,074
PISVCP1987	Subsurface	746' of 8" VCP	75	1987	\$78,583	\$1,048	\$56,579	5,474	\$140,122	\$1,868	\$99,019
PISVCP1987	Subsurface	276' of 6" VCP	75	1987	\$26,907	\$359	\$19,373	5,474	\$47,977	\$640	\$33,904
	Subsurface	Manholes-1988	75	1988	\$106,296	\$1,417	\$77,950	5,771	\$179,792	\$2,397	\$129,450
PISDIP1988	Subsurface	85' of 8" DIP	75	1988	\$7,757	\$103	\$5,689	5,771	\$13,121	\$175	\$9,447
PISPVC198E	Subsurface	5206' of 8" PVC	75	1988	\$426,211	\$5,683	\$312,554	5,771	\$720,907	\$9,612	\$519,053
PISVCP198E	Subsurface	162' of 8" VCP	75	1988	\$17,503	\$233	\$12,835	5,771	\$29,604	\$395	\$21,315
	Subsurface	Manholes-1989	75	1989	\$9,046	\$121	\$6,755	5,790	\$15,251	\$203	\$11,184
PISDIP1989	Subsurface	207' of 6" DIP	75	1989	\$17,732	\$236	\$13,241	5,790	\$29,895	\$399	\$21,923
PISPVC198E	Subsurface	448' of 8" PVC	75	1989	\$37,457	\$499	\$27,968	5,790	\$63,148	\$842	\$46,309
	Subsurface	Manholes-1990	75	1990	\$13,913	\$186	\$10,574	5,995	\$22,655	\$302	\$16,916
PISPVC199C	Subsurface	621' of 8" PVC	75	1990	\$53,237	\$710	\$40,460	5,995	\$86,687	\$1,156	\$64,726
	Subsurface	Manholes-1991	75	1991	\$203,764	\$2,717	\$157,577	6,090	\$326,584	\$4,354	\$248,204
PISDIP1991	Subsurface	1288' of 8" DIP	75	1991	\$125,768	\$1,677	\$97,260	6,090	\$201,575	\$2,688	\$153,197
PISPVC1991	Subsurface	8374' of 8" PVC	75	1991	\$733,512	\$9,780	\$567,250	6,090	\$1,175,643	\$15,675	\$893,489
PISPVC1991	Subsurface	1132' of 6" PVC	75	1991	\$87,778	\$1,170	\$67,881	6,090	\$140,687	\$1,876	\$106,922
	Subsurface	Manholes-1994	75	1994	\$42,402	\$565	\$34,487	6,533	\$63,354	\$845	\$50,683
PISVCP1994	Subsurface	1815' of 8" VCP	75	1994	\$234,670	\$3,129	\$190,865	6,533	\$350,624	\$4,675	\$280,499
PISVCP1994	Subsurface	180' of 6" VCP	75	1994	\$21,538	\$287	\$17,518	6,533	\$32,181	\$429	\$25,745
	Subsurface	Manholes-1996	75	1996	\$16,524	\$220	\$13,881	6,558	\$24,593	\$328	\$20,330
PISVCP199E	Subsurface	664' of 8" VCP	75	1996	\$89,217	\$1,190	\$74,942	6,558	\$132,783	\$1,770	\$109,767
PISVCP199E	Subsurface	638' of 4" VCP	75	1996	\$73,478	\$980	\$61,722	6,558	\$109,358	\$1,458	\$90,403
PISVCP199E	Subsurface	59' of 6" VCP	75	1996	\$7,337	\$98	\$6,163	6,558	\$10,920	\$146	\$9,027
	Subsurface	Manholes-1998	75	1998	\$46,417	\$619	\$40,228	6,852	\$66,123	\$882	\$56,425
PISPVC199E	Subsurface	1570' of 8" PVC	75	1998	\$168,383	\$2,245	\$145,932	6,852	\$239,872	\$3,198	\$204,691
PISPVC199E	Subsurface	142' of 12" PVC	75	1998	\$18,975	\$253	\$16,445	6,852	\$27,030	\$360	\$23,066
	Subsurface	Manholes-1999	75	1999	\$100,968	\$1,346	\$88,851	6,826	\$144,382	\$1,925	\$125,131
PISPVC199E	Subsurface	3563' of 8" PVC	75	1999	\$391,171	\$5,216	\$344,230	6,826	\$559,366	\$7,458	\$484,784
PISPVC199E	Subsurface	214' of 4" PVC	75	1999	\$18,487	\$246	\$16,269	6,826	\$26,437	\$352	\$22,912

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
PISVCP199€	Subsurface	272' of 8" VCP	75	1999	\$39,408	\$525	\$34,679	6,826	\$56,353	\$751	\$48,839
	Subsurface	Manholes-2001	75	2001	\$31,078	\$414	\$28,178	7,227	\$41,976	\$560	\$37,498
PISPVC2001	Subsurface	1060' of 8" PVC	75	2001	\$121,789	\$1,624	\$110,423	7,227	\$164,494	\$2,193	\$146,948
	Subsurface	Manholes-2002	75	2002	\$25,631	\$342	\$23,581	7,403	\$33,796	\$451	\$30,642
PISPVC2002	Subsurface	955' of 8" PVC	75	2002	\$113,117	\$1,508	\$104,067	7,403	\$149,151	\$1,989	\$135,231
P-2003	Subsurface	Parra Grande Mainline ext +	10	2003	\$145,869	\$0	\$0	7,532	\$189,043	\$18,904	\$75,617
	Subsurface	Cima Del Mundo Rd Ext + 2'	75	2004	\$619,641	\$8,262	\$586,593	8,192	\$738,307	\$9,844	\$689,087
	Subsurface	Barker Pass Ext +2 manhole	75	2004	\$36,248	\$483	\$34,315	8,192	\$43,190	\$576	\$40,310
	Subsurface	Survey-Site Plan Master-20y	25	2005	\$3,210	\$128	\$2,696	8,567	\$3,657	\$146	\$3,072
	Subsurface	Sewer Main Rehab	50	2005	\$842,365	\$16,847	\$774,975	8,567	\$959,720	\$19,194	\$882,943
	Subsurface	Flow Meters For I&I	10	2005	\$35,725	\$3,573	\$21,435	8,567	\$40,703	\$4,070	\$24,422
	Subsurface	Orchard Ave Ext +16 lateral	75	2005	\$490,912	\$6,545	\$471,276	8,567	\$559,304	\$7,457	\$529,474
	Subsurface	N. Jameson Relocation Proj	50	2005	\$297,792	\$5,956	\$273,968	8,567	\$339,279	\$6,786	\$312,137
	Subsurface	M-2006.1	75	2006	\$41,863	\$558	\$40,747	8,879	\$46,022	\$614	\$44,181
P-2006.1	Subsurface	Emergency Sewer Rehab/R	50	2006	\$73,562	\$1,471	\$70,620	8,879	\$80,870	\$1,617	\$76,017
P-2007-1	Subsurface	Tabor Lane Mainline Extensi	50	2006	\$397,263	\$7,945	\$384,739	8,879	\$436,727	\$8,735	\$410,523
P-2006.2	Subsurface	Influent Flow Recorder - Nev	50	2006	\$64,880	\$1,298	\$61,852	8,879	\$71,325	\$1,427	\$67,046
P-2008-3	Subsurface	Olive Road Ext - Inspection	50	2007	\$4,000	\$80	\$3,920	9,182	\$4,252	\$85	\$4,082
P-2007-5	Subsurface	Flow Meters For I&I	10	2007	\$3,838	\$384	\$3,454	9,182	\$4,080	\$408	\$3,264
P-2007-4	Subsurface	Emergency Sewer Rehab/R	50	2007	\$95,289	\$1,906	\$93,383	9,182	\$101,301	\$2,026	\$97,249
P-2008-5	Subsurface	Rehab 3 Manholes	50	2007	\$9,680	\$194	\$9,486	9,182	\$10,291	\$206	\$9,879
P-2008-4	Subsurface	Rehab 2 Manholes	50	2007	\$6,150	\$123	\$6,027	9,182	\$6,538	\$131	\$6,277
P-2007-2	Subsurface	Olive Road Mainline Extensi	50	2007	\$58,625	\$1,173	\$57,453	9,182	\$62,324	\$1,246	\$59,831
P-2009-1	Subsurface	Emergency Mainline Repairs	50	2008	\$16,225	\$325	\$15,901	9,823	\$16,122	\$322	\$15,800
P-2009-2	Subsurface	Emergency Mainline Repairs	50	2008	\$5,270	\$105	\$5,165	9,823	\$5,237	\$105	\$5,132
P-2008-6	Subsurface	Tollis Ave Main Ext & 1 M/H	50	2008	\$183,300	\$3,666	\$179,634	9,823	\$182,140	\$3,643	\$178,497
	Subsurface	Raise 4 Manhold Covers	50	2008	\$2,650	\$53	\$2,597	9,823	\$2,633	\$53	\$2,581
P-2007-3	Subsurface	Sewer Main Rehabilitation	50	2008	\$558,565	\$11,171	\$547,394	9,823	\$555,029	\$11,101	\$543,928
P-2008-2	Subsurface	Sewer Main Rehabilitation	50	2008	\$28,765	\$575	\$28,190	9,823	\$28,583	\$572	\$28,011
P-2008-1	Subsurface	Emergency Sewer Rehab/R	50	2008	\$137,057	\$2,741	\$134,315	9,823	\$136,189	\$2,724	\$133,465
P-2009-3	Subsurface	Emergency Mainline Repairs	50	2009	\$5,000	\$100	\$4,900	9,761	\$5,000	\$100	\$5,000
	Subsurface	Raise/Repair 3 Manhold cov	50	2009	\$5,000	\$100	\$4,900	9,761	\$5,000	\$100	\$5,000
Plant050	WWTP	swing fuser (12)-plant	51	1962	\$18,000	\$0	\$0	963	\$182,504	\$3,579	\$14,314
Plant029	WWTP	drives (2)-plant	51	1962	\$6,000	\$0	\$0	963	\$60,835	\$1,193	\$4,771
Plant022	WWTP	Building, structure etc	55	1962	\$464,331	\$9,287	\$37,147	963	\$4,707,897	\$85,598	\$684,785
Plant121	WWTP	shower room-plant	50	1968	\$11,797	\$236	\$2,360	1,275	\$90,311	\$1,806	\$16,256
Plant045	WWTP	digester structure-plant	50	1978	\$63,000	\$1,260	\$25,200	3,421	\$179,742	\$3,595	\$68,302
Plant041	WWTP	digester guardrails-plant	50	1978	\$4,278	\$86	\$1,711	3,421	\$12,205	\$244	\$4,638
Plant092	WWTP	paving & landscaping-yard	34	1978	\$17,858	\$0	\$0	3,421	\$50,950	\$1,499	\$4,496
Plant149	WWTP	was ps electrical cntrl unit	37	1978	\$10,000	\$0	\$0	3,421	\$28,531	\$771	\$4,627
Plant150	WWTP	influent pump-plant	30	1982	\$60,484	\$0	\$0	4,934	\$119,653	\$3,988	\$11,965
Plant066	WWTP	hoist-pump room-plant	30	1982	\$20,692	\$0	\$0	4,934	\$40,934	\$1,364	\$4,093
Plant065	WWTP	handrails-plant	50	1982	\$48,406	\$968	\$23,235	4,934	\$95,760	\$1,915	\$44,050
Plant063	WWTP	grading & paving-plant	40	1982	\$175,353	\$4,384	\$61,374	4,934	\$346,894	\$8,672	\$112,741
Plant135	WWTP	generator-plant	30	1982	\$138,350	\$0	\$0	4,934	\$273,691	\$9,123	\$27,369
Plant052	WWTP	fencing-plant	30	1982	\$22,164	\$0	\$0	4,934	\$43,845	\$1,462	\$4,385
Plant087	WWTP	digester modifications-plant	50	1982	\$23,875	\$478	\$11,460	4,934	\$47,232	\$945	\$21,727
Plant126	WWTP	daf system-plant	30	1982	\$111,336	\$0	\$0	4,934	\$220,251	\$7,342	\$22,025
Plant143	WWTP	clarifiers-equipment-plant	30	1982	\$218,539	\$0	\$0	4,934	\$432,326	\$14,411	\$43,233
Plant030	WWTP	clarifiers-construction-plant	50	1982	\$404,309	\$8,086	\$194,069	4,934	\$799,828	\$15,997	\$367,921
Plant142	WWTP	blowers and motors-plant	30	1982	\$169,580	\$0	\$0	4,934	\$335,474	\$11,182	\$33,547
Plant016	WWTP	air blower-plant	30	1982	\$2,167	\$0	\$0	4,934	\$4,288	\$143	\$429
Plant038	WWTP	contact chamber	50	1982	\$15,514	\$310	\$7,447	4,934	\$30,691	\$614	\$14,118
Plant097	WWTP	rotary screen	30	1982	\$34,772	\$0	\$0	4,934	\$68,788	\$2,293	\$6,879
Plant117	WWTP	grinders	30	1982	\$63,668	\$0	\$0	4,934	\$125,951	\$4,198	\$12,595
Plant078	WWTP	laboratory flooring/cabinets	30	1982	\$60,088	\$0	\$0	4,934	\$118,869	\$3,962	\$11,887
Plant072	WWTP	interior piping	50	1982	\$89,287	\$1,786	\$42,858	4,934	\$176,633	\$3,533	\$81,251
Plant051	WWTP	exterior piping	50	1982	\$194,958	\$3,899	\$93,580	4,934	\$385,678	\$7,714	\$177,412
Plant133	WWTP	sump pumps	30	1982	\$11,142	\$0	\$0	4,934	\$22,041	\$735	\$2,204
Plant127	WWTP	stairs and ramps	50	1982	\$19,133	\$383	\$9,184	4,934	\$37,850	\$757	\$17,411
Plant151	WWTP	polymix tanks & pumps	30	1982	\$71,626	\$0	\$0	4,934	\$141,695	\$4,723	\$14,169
Plant064	WWTP	hoist-chlorination room	30	1982	\$19,100	\$0	\$0	4,934	\$37,785	\$1,260	\$3,779
Plant007	WWTP	air compressor	30	1982	\$8,754	\$0	\$0	4,934	\$17,318	\$577	\$1,732
Plant053	WWTP	flow measuring flume	50	1982	\$6,378	\$128	\$3,062	4,934	\$12,617	\$252	\$5,804
Plant108	WWTP	plant water pump	30	1982	\$3,183	\$0	\$0	4,934	\$6,298	\$210	\$630
Plant122	WWTP	site wall-plant	50	1985	\$49,525	\$990	\$26,744	5,447	\$88,754	\$1,775	\$46,152
Plant021	WWTP	building addition-plant	50	1985	\$38,266	\$765	\$20,663	5,447	\$68,576	\$1,372	\$35,660
Plant080	WWTP	locker room improvements	50	1985	\$2,152	\$43	\$1,162	5,447	\$3,857	\$77	\$2,006
Plant157	WWTP	allocation of 1985 expenses	40	1985	\$18,052	\$451	\$7,673	5,447	\$32,352	\$809	\$12,941
Plant154	WWTP	allocation of 1985 expenses	28	1985	\$20,027	\$0	\$0	5,447	\$35,891	\$1,282	\$5,127
Plant153	WWTP	allocation of 1985 expenses	29	1985	\$9,369	\$0	\$0	5,447	\$16,791	\$579	\$2,895
Plant156	WWTP	allocation of 1985 expenses	28	1985	\$10,357	\$414	\$828	5,447	\$18,561	\$663	\$2,652
Plant155	WWTP	allocation of 1985 expenses	26	1985	\$10,850	\$0	\$0	5,447	\$19,444	\$748	\$1,496

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
Plant024	WWTP	car#3-dump truck	28	1985	\$10,775	\$431	\$862	5,447	\$19,309	\$690	\$2,758
Plant118	WWTP	sewage treatment facilities	50	1986	\$49,988	\$1,000	\$27,994	5,452	\$89,493	\$1,790	\$48,326
Plant132	WWTP	Chicago influent pumps	28	1986	\$9,526	\$381	\$1,143	5,452	\$17,055	\$609	\$3,046
Plant081	WWTP	locker room imprvmts	50	1986	\$23,094	\$462	\$12,933	5,452	\$41,344	\$827	\$22,326
Plant094	WWTP	pipe sections	50	1986	\$5,000	\$100	\$2,800	5,452	\$8,951	\$179	\$4,834
Plant079	WWTP	liquid level control	25	1987	\$1,047	\$0	\$0	5,474	\$1,867	\$75	\$224
Plant147	WWTP	vehicle hoist-vehicle #7	24	1988	\$2,205	\$0	\$0	5,771	\$3,730	\$155	\$466
Plant098	WWTP	comline sanderson pump	25	1988	\$1,770	\$71	\$354	5,771	\$2,994	\$120	\$479
Plant086	WWTP		22	1989	\$1,370	\$68	\$69	5,790	\$2,309	\$105	\$210
Plant036	WWTP	concrete slab for dumbster-y	50	1989	\$1,606	\$32	\$996	5,790	\$2,707	\$54	\$1,624
Plant106	WWTP	printed cicuit boards	23	1989	\$1,115	\$0	\$0	5,790	\$1,880	\$82	\$245
Plant114	WWTP	regulator for generator	23	1989	\$1,785	\$0	\$0	5,790	\$3,010	\$131	\$393
Plant005	WWTP	above ground fuel tank	50	1990	\$15,320	\$306	\$9,805	5,995	\$24,946	\$499	\$15,466
Plant012	WWTP	aluminum awning	50	1990	\$4,575	\$92	\$2,928	5,995	\$7,450	\$149	\$4,619
Plant082	WWTP	magentic & cable locator	22	1990	\$2,035	\$0	\$0	5,995	\$3,313	\$151	\$452
Plant138	WWTP	tractor-john deer	20	1991	\$27,619	\$0	\$0	6,090	\$44,267	\$2,213	\$4,427
Plant109	WWTP	pump(rotary screen)	25	1991	\$3,701	\$148	\$1,184	6,090	\$5,933	\$237	\$1,661
Plant110	WWTP	portable pump(on trailer)	25	1991	\$4,223	\$169	\$1,351	6,090	\$6,769	\$271	\$1,895
Plant104	WWTP	pump(daf recycle)	25	1991	\$3,022	\$121	\$967	6,090	\$4,843	\$194	\$1,356
Plant088	WWTP	new ras control	20	1991	\$3,428	\$0	\$0	6,090	\$5,495	\$275	\$549
Plant090	WWTP	open channel meter	20	1991	\$2,980	\$0	\$0	6,090	\$4,776	\$239	\$478
Plant101	WWTP	pump for rotary screen	25	1992	\$2,905	\$116	\$1,046	6,349	\$4,467	\$179	\$1,429
Plant095	WWTP	pump-sludge process	25	1992	\$1,745	\$70	\$628	6,349	\$2,683	\$107	\$858
Plant123	WWTP	sludge bed modification	22	1992	\$33,562	\$1,678	\$6,713	6,349	\$51,602	\$2,346	\$11,728
Plant047	WWTP	disinfection alternatives	22	1992	\$14,044	\$702	\$2,809	6,349	\$21,593	\$982	\$4,908
Plant002	WWTP	4" toe boards alum(6)	20	1993	\$3,724	\$186	\$931	6,478	\$5,612	\$281	\$1,122
Plant146	WWTP	storage cabinets	18	1993	\$1,757	\$0	\$0	6,478	\$2,648	\$147	\$294
Plant055	WWTP	forklift	18	1993	\$9,472	\$0	\$0	6,478	\$14,273	\$793	\$1,586
Plant128	WWTP	steam cleaner	18	1993	\$1,347	\$0	\$0	6,478	\$2,030	\$113	\$226
Plant060	WWTP	furnance .14 cuft 120v	17	1994	\$1,377	\$0	\$0	6,533	\$2,057	\$121	\$242
Plant054	WWTP	flow proportional controller	17	1994	\$1,767	\$0	\$0	6,533	\$2,640	\$155	\$311
Plant058	WWTP	two goulds sump pumps	25	1994	\$1,083	\$43	\$476	6,533	\$1,618	\$65	\$647
Plant091	WWTP	overhaul compressors	17	1994	\$5,146	\$0	\$0	6,533	\$7,689	\$452	\$905
Plant048	WWTP	dissolved oxygen meter	17	1994	\$1,179	\$0	\$0	6,533	\$1,762	\$104	\$207
Plant139	WWTP	trailer mounted generator	17	1994	\$10,182	\$0	\$0	6,533	\$15,214	\$895	\$1,790
Plant025	WWTP	car #2 1994 chevy truck	17	1994	\$18,715	\$1,248	\$1,248	6,533	\$27,963	\$1,645	\$3,290
Plant113	WWTP	rebuild positive displacemen	20	1994	\$12,562	\$628	\$3,768	6,533	\$18,768	\$938	\$4,692
Plant160	WWTP	1995 Jeep	15	1995	\$18,655	\$0	\$0	6,526	\$27,901	\$1,860	\$1,860
Plant158	WWTP	Forklift	15	1995	\$8,750	\$0	\$0	6,526	\$13,087	\$872	\$872
Plant031	WWTP	air diffuser manifolds	20	1995	\$8,938	\$447	\$3,128	6,526	\$13,369	\$668	\$4,011
Plant069	WWTP	influent pump control	15	1995	\$8,782	\$0	\$0	6,526	\$13,135	\$876	\$876
Plant096	WWTP	clarifier sprockets	14	1996	\$24,000	\$0	\$0	6,558	\$35,719	\$2,551	\$2,551
Plant115	WWTP	reroofing	50	1996	\$11,512	\$230	\$8,749	6,558	\$17,133	\$343	\$12,678
Plant043	WWTP	digester piping	50	1996	\$102,270	\$2,045	\$77,725	6,558	\$152,210	\$3,044	\$112,635
Plant017	WWTP	blower building	50	1996	\$78,366	\$1,567	\$59,558	6,558	\$116,633	\$2,333	\$86,308
Plant013	WWTP	asphalt paving	25	1996	\$40,432	\$1,617	\$21,024	6,558	\$60,175	\$2,407	\$28,884
Plant124	WWTP	sludge storage bins	50	1996	\$45,874	\$917	\$34,864	6,558	\$68,275	\$1,365	\$50,523
Plant035	WWTP	composite sampler	14	1996	\$3,523	\$0	\$0	6,558	\$5,244	\$375	\$375
Plant018	WWTP	blowers & controls	20	1996	\$171,887	\$8,594	\$68,754	6,558	\$255,821	\$12,791	\$89,537
Plant049	WWTP	doppler flow meter	14	1996	\$2,759	\$0	\$0	6,558	\$4,106	\$293	\$293
Plant011	WWTP	alarm monitor	14	1996	\$1,919	\$0	\$0	6,558	\$2,855	\$204	\$204
Plant070	WWTP	ras disinfection pump	14	1996	\$1,673	\$0	\$0	6,558	\$2,490	\$178	\$178
Plant112	WWTP	hydrojet pump	25	1996	\$7,575	\$303	\$3,939	6,558	\$11,274	\$451	\$5,411
Plant044	WWTP	digester/DAFT structure	50	1996	\$370,449	\$7,409	\$281,541	6,558	\$551,343	\$11,027	\$407,994
Plant057	WWTP	French drain	50	1997	\$1,699	\$34	\$1,325	6,664	\$2,489	\$50	\$1,892
Plant077	WWTP	lab scale	13	1997	\$2,847	\$0	\$0	6,664	\$4,171	\$321	\$321
Plant034	WWTP	Muffin Monsters	20	1997	\$2,229	\$111	\$1,003	6,664	\$3,266	\$163	\$1,306
Plant010	WWTP	Air supply line	20	1997	\$22,498	\$1,125	\$10,124	6,664	\$32,955	\$1,648	\$13,182
Plant130	WWTP	Storage facility covering	50	1997	\$8,456	\$169	\$6,595	6,664	\$12,386	\$248	\$9,413
Plant019	WWTP	Plant compressor	20	1997	\$2,891	\$145	\$1,301	6,664	\$4,236	\$212	\$1,694
Plant105	WWTP	ras pump replacement	25	1998	\$3,085	\$123	\$1,851	6,852	\$4,395	\$176	\$2,461
Plant033	WWTP	Muffin Monsters	20	1998	\$1,491	\$75	\$746	6,852	\$2,124	\$106	\$956
Plant075	WWTP	Irrg sys & plantings	25	1998	\$9,917	\$397	\$5,950	6,852	\$14,127	\$565	\$7,911
Plant099	WWTP	Waste sludge pump	25	1998	\$1,908	\$76	\$1,144	6,852	\$2,718	\$109	\$1,522
Plant068	WWTP	Froth spray pump	25	1998	\$1,524	\$61	\$914	6,852	\$2,171	\$87	\$1,216
Plant136	WWTP	ras pump replacement	25	1999	\$19,127	\$765	\$12,241	6,826	\$27,352	\$1,094	\$16,411
Plant144	WWTP	Belt press	20	1999	\$930,955	\$46,548	\$512,025	6,826	\$1,331,247	\$66,562	\$665,623
Plant046	WWTP	Disinfection system	20	2000	\$13,302	\$665	\$7,981	7,068	\$18,370	\$919	\$10,104
Plant148	WWTP	WAS flow meter	11	2000	\$3,912	\$391	\$783	7,068	\$5,403	\$491	\$982
Plant141	WWTP	Turbidity Meter	11	2000	\$1,874	\$187	\$375	7,068	\$2,588	\$235	\$470
Plant111	WWTP	RAS flow meter	11	2000	\$4,464	\$446	\$893	7,068	\$6,165	\$560	\$1,121
Plant061	WWTP	Gas Detector	11	2000	\$1,265	\$127	\$253	7,068	\$1,748	\$159	\$318
Plant145	WWTP	upper spindle rack	11	2001	\$1,230	\$123	\$369	7,227	\$1,662	\$151	\$453

Appendix A

MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

Asset Number	Fac Desc	Description	Updated Life	Yr in Service	Original Cost (OC)	FY 08-09 Depreciation	Original Cost Less Depreciation (OCLD)	Service Year ENRCCI/SF	2009 Replacement Cost (RC)	RC Depreciation	2009 RC/NLD
Plant107	WWTP	piston pump upgrade	25	2001	\$3,152	\$126	\$2,270	7,227	\$4,257	\$170	\$2,895
Plant059	WWTP	fumehead purchase	11	2001	\$9,253	\$925	\$2,775	7,227	\$12,498	\$1,136	\$3,408
Plant039	WWTP	plant diffusers	9	2001	\$9,885	\$0	\$0	7,227	\$13,351	\$1,483	\$1,483
Plant042	WWTP	clarifier wiers	20	2001	\$12,000	\$600	\$7,800	7,227	\$16,208	\$810	\$9,725
Plant067	WWTP	Chains & Sprockets	11	2001	\$21,621	\$2,162	\$6,487	7,227	\$29,202	\$2,655	\$7,964
Plant084	WWTP	milltronics multiranger	11	2001	\$2,126	\$213	\$638	7,227	\$2,871	\$261	\$783
Plant027	WWTP	CED/CES/GRAINGER	20	2001	\$3,907	\$195	\$2,539	7,227	\$5,277	\$264	\$3,166
Plant056	WWTP	freestanding dishwasher	11	2001	\$5,593	\$559	\$1,678	7,227	\$7,554	\$687	\$2,060
Plant134	WWTP	Portable Pumps	25	2001	\$11,754	\$470	\$8,463	7,227	\$15,876	\$635	\$10,796
Plant085	WWTP	moisture balance	11	2001	\$3,126	\$313	\$938	7,227	\$4,222	\$384	\$1,151
Plant020	WWTP	box scraper & fork set	11	2001	\$3,060	\$306	\$918	7,227	\$4,133	\$376	\$1,127
Plant125	WWTP	spectrophotometer	11	2001	\$2,911	\$291	\$873	7,227	\$3,932	\$357	\$1,072
Plant004	WWTP	8" gate valves	50	2001	\$1,587	\$32	\$1,364	7,227	\$2,143	\$43	\$1,800
Plant003	WWTP	8" check valves	50	2001	\$3,820	\$76	\$3,286	7,227	\$5,160	\$103	\$4,334
Plant074	WWTP	internet wiring	8	2002	\$1,566	\$0	\$0	7,403	\$2,065	\$258	\$258
Plant100	WWTP	plug & check valve remov	50	2002	\$8,820	\$176	\$7,761	7,403	\$11,630	\$233	\$10,002
Plant062	WWTP	U.S. filter envirex product	20	2002	\$18,162	\$908	\$12,714	7,403	\$23,948	\$1,197	\$15,566
Plant028	WWTP	U.S. filter envirex product	20	2002	\$5,243	\$262	\$3,670	7,403	\$6,913	\$346	\$4,494
Plant008	WWTP	U.S. filter envirex product	20	2002	\$1,293	\$65	\$905	7,403	\$1,705	\$85	\$1,108
Plant164	WWTP	Clarifier inlet gates-replace	10	2003	\$36,221	\$3,622	\$18,111	7,532	\$46,942	\$4,694	\$18,777
Plant167	WWTP	Hypochlorite tank	10	2003	\$16,853	\$1,685	\$8,426	7,532	\$21,841	\$2,184	\$8,736
Plant116	WWTP	Residual Recorder	10	2003	\$9,310	\$931	\$6,190	7,532	\$12,066	\$1,207	\$4,826
Plant162	WWTP	Lab equipment	10	2003	\$7,377	\$738	\$3,689	7,532	\$9,560	\$956	\$3,824
Plant161	WWTP	Equip tool replacement	10	2003	\$5,099	\$510	\$2,549	7,532	\$6,608	\$661	\$2,643
Plant165	WWTP	Back channel grating	10	2003	\$21,621	\$2,162	\$10,811	7,532	\$28,020	\$2,802	\$11,208
Plant103	WWTP	Portable Hoist	12	2003	\$3,193	\$266	\$1,863	7,532	\$4,138	\$345	\$2,069
Plant168	WWTP	Plant security	10	2003	\$2,455	\$246	\$1,227	7,532	\$3,182	\$318	\$1,273
Plant071	WWTP	Influent Sampler	10	2003	\$4,027	\$403	\$2,014	7,532	\$5,219	\$522	\$2,088
Plant166	WWTP	2 workstations	7	2003	\$3,149	\$630	\$0	7,532	\$4,081	\$583	\$583
Plant159	WWTP	Portable generator	12	2003	\$29,456	\$2,455	\$17,267	7,532	\$38,174	\$3,181	\$19,087
Plant178	WWTP	Rebuild Muffin Monster #2	10	2004	\$8,225	\$823	\$4,112	8,192	\$9,800	\$980	\$4,900
Plant177	WWTP	Sodium Bisulfite Tank	10	2004	\$14,881	\$1,488	\$7,441	8,192	\$17,731	\$1,773	\$8,865
Plant181	WWTP	Muffin Controllers	20	2004	\$3,587	\$179	\$2,690	8,192	\$4,274	\$214	\$3,205
Plant171	WWTP	Pipe Threading Machine	10	2004	\$5,171	\$517	\$2,586	8,192	\$6,161	\$616	\$3,081
Plant170	WWTP	Trailer	10	2004	\$3,508	\$351	\$1,754	8,192	\$4,180	\$418	\$2,090
Plant179	WWTP	Replace Valves & RAS pum	10	2004	\$3,220	\$322	\$1,610	8,192	\$3,837	\$384	\$1,918
Plant169	WWTP	Cleaner	10	2004	\$1,991	\$199	\$996	8,192	\$2,372	\$237	\$1,186
Plant180	WWTP	Install drain lines	25	2004	\$12,310	\$492	\$9,848	8,192	\$14,667	\$587	\$11,734
Plant173	WWTP	Rplmt Speed Reducer DAF-	10	2004	\$2,829	\$283	\$1,414	8,192	\$3,371	\$337	\$1,685
Plant172	WWTP	Incubator	10	2004	\$2,748	\$275	\$1,374	8,192	\$3,274	\$327	\$1,637
Plant174	WWTP	Diesel Drive Pump	10	2004	\$29,531	\$2,953	\$14,766	8,192	\$35,186	\$3,519	\$17,593
Plant175	WWTP	By Pass Pump	10	2004	\$1,667	\$167	\$834	8,192	\$1,986	\$199	\$993
Plant176	WWTP	Chlorine Analyzer	10	2004	\$8,851	\$885	\$4,426	8,192	\$10,546	\$1,055	\$5,273
13	WWTP	SODIUM BISULFITE TANK	20	2005	\$30,214	\$1,511	\$24,172	8,567	\$34,424	\$1,721	\$27,539
8	WWTP	SLUICE GATE-INSTALLATI	10	2005	\$5,890	\$589	\$3,534	8,567	\$6,711	\$671	\$4,026
7	WWTP	SLIDE GATES-CONTACT C	10	2005	\$17,517	\$1,752	\$10,511	8,567	\$19,957	\$1,996	\$11,974
6	WWTP	LIGHTING REPLACEMENT	10	2005	\$13,923	\$1,392	\$8,353	8,567	\$15,863	\$1,586	\$9,518
5	WWTP	EQUIPMENT / TOOLS	10	2005	\$7,321	\$732	\$4,393	8,567	\$8,341	\$834	\$5,005
4	WWTP	EMERGENCY REPLACEME	10	2005	\$19,341	\$1,934	\$11,605	8,567	\$22,036	\$2,204	\$13,221
3	WWTP	EFFLUENT MULTI-METER	10	2005	\$11,653	\$1,165	\$5,826	8,567	\$13,276	\$1,328	\$7,966
2	WWTP	CONDUIT BENDER REPLA	10	2005	\$5,226	\$523	\$2,613	8,567	\$5,954	\$595	\$3,572
1	WWTP	AERIAL LIFT	10	2005	\$14,160	\$1,416	\$7,080	8,567	\$16,133	\$1,613	\$9,680
10	WWTP	Slice gate replace	10	2005	\$6,826	\$683	\$4,096	8,567	\$7,777	\$778	\$4,666
9	WWTP	WORKSTATION MODIFICA	10	2005	\$4,859	\$486	\$2,915	8,567	\$5,536	\$554	\$3,322
T-2006.2	WWTP	MUFFIN MONSTER-REBUI	6	2005	\$6,875	\$1,375	\$3,896	8,567	\$7,833	\$1,305	\$2,611
11	WWTP	IIPP Plan Creation	10	2005	\$1,200	\$120	\$720	8,567	\$1,367	\$137	\$820
12	WWTP	Site Plan Survey-Master Pla	20	2005	\$3,210	\$161	\$2,568	8,567	\$3,657	\$183	\$2,926
T-2007.3	WWTP	MUFFIN MONSTER REBUI	6	2006	\$10,072	\$2,014	\$6,715	8,879	\$11,073	\$1,845	\$5,536
T-2006.3	WWTP	INFLUENT PUMP STATION	20	2006	\$509,996	\$25,500	\$456,871	8,879	\$560,659	\$28,033	\$476,560
T-2006.1	WWTP	EMERGENCY REPLACEME	10	2006	\$18,652	\$1,865	\$14,922	8,879	\$20,505	\$2,050	\$14,353
T-2008-6	WWTP	Maintenance / Shop Bldg -Al	35	2007	\$3,716	\$106	\$3,610	9,182	\$3,950	\$113	\$3,725
	WWTP	Misc. Phone System Upgrac	6	2007	\$21,814	\$4,363	\$13,452	9,182	\$23,191	\$3,865	\$15,461
	WWTP	Misc. Computer/SCADA Upg	3	2007	\$29,600	\$9,867	\$9,733	9,182	\$31,467	\$10,489	\$10,489
T-2008-12	WWTP	Disinfection Project	20	2007	\$10,588	\$529	\$10,059	9,182	\$11,256	\$563	\$10,130
T-2008-2	WWTP	Clarifier Drives - Replaceme	15	2007	\$11,598	\$773	\$10,825	9,182	\$12,330	\$822	\$10,686
T-2008-4	WWTP	Aeration Header - Replacem	20	2007	\$218,933	\$10,947	\$207,986	9,182	\$232,746	\$11,637	\$209,472
T-2008-8	WWTP	Wet Well Gas Detection	10	2007	\$5,830	\$583	\$5,247	9,182	\$6,198	\$620	\$4,958
T-2007.1	WWTP	Maintenance / Shop Bldg - N	35	2007	\$1,703,738	\$48,678	\$1,642,890	9,182	\$1,811,238	\$51,750	\$1,707,738
T-2008-1	WWTP	Elec Cart for Plant - New	10	2007	\$8,171	\$817	\$7,354	9,182	\$8,687	\$869	\$6,949
T-2008-11	WWTP	Site and Building Master Pla	35	2007	\$24,076	\$688	\$23,388	9,182	\$25,595	\$731	\$24,133
T-2008-10	WWTP	Hypo Pumps-Control Unit	10	2007	\$3,254	\$325	\$2,929	9,182	\$3,459	\$346	\$2,767
T-2007.2	WWTP	Emergency Replacements	10	2007	\$3,992	\$399	\$3,593	9,182	\$4,244	\$424	\$3,395
T-2008-9	WWTP	Blower Control System	20	2007	\$76,965	\$3,848	\$73,117	9,182	\$81,821	\$4,091	\$73,639

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MSD Fixed Assets & Depreciation: Original and Replacement Cost Valuation

<i>Asset Number</i>	<i>Fac Desc</i>	<i>Description</i>	<i>Updated Life</i>	<i>Yr in Service</i>	<i>Original Cost (OC)</i>	<i>FY 08-09 Depreciation</i>	<i>Original Cost Less Depreciation (OCLD)</i>	<i>Service Year ENRCCI SF</i>	<i>2009 Replacement Cost (RC)</i>	<i>RC Depreciation</i>	<i>2009 RCNLD</i>
T-2008-7	WWTP	Biosolids Reuse	7	2007	\$2,194	\$313	\$1,881	9,182	\$2,332	\$333	\$1,666
T-2009-1	WWTP	2009 Ford Escape Hybrid Ve	10	2008	\$30,985	\$3,099	\$27,887	9,823	\$30,789	\$3,079	\$27,710
	WWTP	CCTV Camera, Cable & Sle	8	2008	\$47,019	\$5,877	\$41,142	9,823	\$46,721	\$5,840	\$40,881
T-2008-5	WWTP	Turbidity Meter - Replaceme	7	2008	\$3,103	\$443	\$2,660	9,823	\$3,083	\$440	\$2,643
T-2009-2	WWTP	New WAS pump	20	2008	\$11,392	\$570	\$10,822	9,823	\$11,320	\$566	\$10,754
	WWTP	Muffin Monster Replacemen	15	2009	\$93,698	\$6,247	\$87,451	9,761	\$93,698	\$6,247	\$93,698
T-2009-4	WWTP	2008 Whisperwatt, trailer mc	12	2009	\$45,078	\$3,757	\$41,322	9,761	\$45,078	\$3,757	\$45,078
Total					\$31,482,704	\$688,308	\$19,431,770		\$121,991,201	\$2,114,301	\$56,089,111