
Amador Water Agency
AWS PARTICIPATION FEE STUDY
FINAL REPORT

October 3, 2007

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I. Executive Summary

Introduction

The Amador Water Agency first adopted participation fees based on a system buy-in methodology in April 1999. This methodology is based on the average investment in the water system by current customers as determined using fixed asset accounting records. In the spring of 2004, the Agency engaged The Reed Group, Inc to assist the Agency in updating the financial plan for the Amador Water System (AWS), proposing new water rates for the period FY 04-05 through FY 06-07, and updating participation fees. The Reed Group, Inc. has assisted the Agency with water rate and participation fee analyses for a number of years, and this study was an extension of previous assistance.

Participation fees, to be paid by new development when connecting to the water system, reflect the cost of capacity in the water system and ensure that new customers bear a fair and proportionate share of the cost of capacity in the water system. In the spring of 2004, the fee was comprehensively updated using the following calculations:

- New water facilities were included in the fixed asset records, and those taken out of service were deleted
- The fixed asset valuation was updated for inflation (using the 20-cities CCI) and depreciation
- Updated capital reserve data
- Updated the current number of 5/8" equivalent meters included in the existing water system

The Agency is facing a number of major capital improvement projects, such as a new water treatment plant, which are necessary to provide water service to future customers. Because of the new growth-related future facilities, the incremental cost methodology is a common approach for capacity charges. The approach is based on the cost of future water facilities, whereby new customers pay for the incremental investment necessary for system expansion.

Occasionally, aspects of both the system buy-in and incremental cost methodologies are combined when calculating capacity charges. The Agency is proposing to implement this combined method, which recognizes that new development will benefit from both existing facilities as well as new facilities. Careful consideration was used to eliminate the potential of double charging and the deletions/adjustments to the fixed asset records are described later in the report. The calculation of participation fees is consistent with the statutory requirements contained in Government Code Section 66013..

The combined methodology recognizes that new development will benefit from available capacity in existing facilities, as well as capacity in new facilities to be built by the AWS. Care was exercised to avoid a double charging whereby new development would pay for existing capacity as well as new capacity in facilities that serve the same function.

The approach to developing this combined methodology participation fee was to include all elements of the incremental cost fee, plus to add the value of components in the existing water system which would benefit new development, but are not duplicated by projects included in the incremental cost method.

Calculation of Combined Method	Retail	Whlse	Untrtd	
	4,140	1,285	1,125	Buy-in
	1,685	1,685	1,685	Incremental-Transmission
	4,050	4,050	-	Incremental-Treatment
	9,875	7,020	2,810	Total (5/8" meter)
Comments:				
(1) Grants are not included in buy-in calculation				
(2) lone pipeline, and related transmission facilities have been reclassified as treated water pipelines since the fee calculation is assuming that all treatment will occur at Tanner.				

The table below reflects the current and proposed participation fee schedules, which will be adjusted annually for inflation based on the 20-cities CCI. Different fee schedules are provided for treated retail, treated wholesale and untreated water customers. The cities of Jackson, Drytown and Plymouth (future) are wholesale customers of the Amador Water System.

**Amador Water Agency
Current and Proposed Participation Fees**

Meter Size	Hydr. Cap. Factor	Current Participation Fees			Proposed Participation Fees		
		Treated Retail Part. Fee	Treated Wholesale Part. Fee	Untreated Water Part. Fee	Treated Retail Part. Fee	Treated Wholesale Part. Fee	Untreated Water Part. Fee
5/8"	1	\$ 7,365	\$ 5,370	\$ 3,445	\$ 9,875	\$ 7,020	\$ 2,810
3/4"	1.5	\$ 11,050	\$ 8,055	\$ 5,165	\$ 14,813	\$ 10,527	\$ 4,214
1"	2.5	\$ 18,415	\$ 13,425	\$ 8,610	\$ 24,688	\$ 17,547	\$ 7,023
1 1/2"	5	\$ 36,825	\$ 26,850	\$ 17,225	\$ 49,378	\$ 35,098	\$ 14,046
2"	8	\$ 58,920	\$ 42,960	\$ 27,560	\$ 79,005	\$ 56,157	\$ 22,479
3"	16	\$ 110,475	\$ 80,550	\$ 51,675	\$ 158,004	\$ 112,314	\$ 44,953
4"	25	\$ 184,125	\$ 134,250	\$ 86,125	\$ 246,884	\$ 175,490	\$ 70,242
6"	50	\$ 368,250	\$ 268,500	\$ 172,250	\$ 493,767	\$ 350,981	\$ 140,483
8"	90	\$ 662,850	\$ 483,300	\$ 310,050	\$ 888,785	\$ 631,767	\$ 252,869
10"	145	\$ 1,067,925	\$ 778,650	\$ 499,525	\$ 1,431,930	\$ 1,017,845	\$ 407,404
12"	215	\$ 1,583,475	\$ 1,154,550	\$ 740,675	\$ 2,123,205	\$ 1,509,215	\$ 604,081

II. Participation Fees

This section of the report describes the calculation of participation fees based on aspects of both the system buy-in and incremental cost methodologies. The combined method calculation of participation fees recognizes that both new and existing facilities provide benefit to new customers. Accounting and reporting requirements for buy-in (reimbursement) and incremental (future) fee elements differ, thereby increasing the complexity to calculate, update and administer. Finally, capacity charges are based on both methodologies and would be subject to the rigors contained in Government Code Section 66013.

AWS Participation Fee System Buy-in Calculations

A portion of the participation fee developed for the AWS is based on the system buy-in methodology. In calculating the fees, the value of the water system assets were determined using fixed asset accounting records. Several adjustments to these records were made as described in this section. In addition to fixed assets, the valuation includes the funds available in the AWS for capital improvements (i.e., the Capital Fund).

Fixed Asset Records

Table II below provides a listing of fixed assets of the Amador Water System used in the buy-in fee calculations. The following adjustments were made to these asset records for purpose of the fee calculation and are detailed in Appendix B-1:

- *Short-Lived Assets Omitted* – Assets with useful lives of less than 15 years were excluded from the buy-in fee calculations. Short-lived assets typically include vehicles, equipment, machinery, computers, office furnishings, etc. While these assets make up part of the overall value of the water utility, they are generally not part of the water delivery system. Arguably short-lived assets could be included in the buy-in fee calculation, however excluding them is conservative. New customers will pay for short-lived assets as ratepayers.
- *Development Specific Projects Excluded* – Fixed asset records include a variety of water system assets that are development specific. These development facilities are appropriately excluded from the buy-in fee calculation because they may not provide system-wide benefits.

Table II
Amador Water System
Fixed Asset Records

Description	Cls.	Year Acquired	Service Life	Original Cost	Repl. Cost Less Deprec.
AWS Fixed Assets					
Amador Water System Purchase	UP	1985	40	400,000	337,698
Utility Plant (PG&E) PRV's	UP	1987	40	45,000	40,191
Utility Plant (PG&E) Distribution System	D	1987	40	4,580,810	4,091,253
New York Ranch Reservoir (PG&E)	L	1987	-	200,000	357,251
Ione Reservoir (PG&E)	L	1987	-	150,000	267,939
Tanner Reservoir (PG&E)	L	1987	-	250,000	446,564
Land and Land Rights	L	1987	-	187,338	334,634
Source of Supply	SS	1987	40	70,423	62,897
Pumping Plant	PP	1987	40	3,727	3,329
American Forest Water Main	D	1987	40	45,000	40,191
Distribution System Improvements	D	1987	40	15,348	13,708
Ione Trans Pipeline	D	1988	50	1,425,749	1,539,504
Airport Pipeline	D	1988	50	307,823	332,383
Building (Admin/Shop)	GP	1988	40	280,028	256,039
Airport Pipeline	D	1989	40	18,816	17,648
Ione Trans Pipeline	D	1989	40	79,175	74,262
General Plant	D	1990	40	29,140	27,868
Airport Pipeline	D	1990	40	23,864	22,822
Ione Trans Pipeline	D	1990	40	1,171,224	1,120,087
HWY 49 Mainline Replacement	D	1991	40	8,430	8,233
Utility Plant-Pump Station	PP	1992	40	1,275	1,258
HWY 49 Mainline/Sutter Creek Reg Pits	D	1992	40	245,279	242,027
Highway 49 Intertie	D	1993	40	374,797	368,011
Highway 49 Intertie	D	1994	40	82,258	80,804
HWY 49 Mainline/Sutter Creek Reg Pits	D	1994	40	18,897	18,563
Utility Plant Clear Well Liner	SS	1995	40	267,224	269,089
Utility Plant Clear Well Liner	SS	1996	40	10,026	10,179
Pumping Plant -Preston	PP	1997	40	3,034	3,074
Distribution System -Ridge & Hillside	D	1997	40	285,313	289,069
Distribution System -Ridge & Hillside	D	1998	40	2,196,677	2,263,261
Ione Vault Replacement	D	1999	40	1,885	1,958
E. Main Street Main-Line Replacement	D	1999	40	5,042	5,239
Safe Drinking Water Project-Ridge R	D	1999	40	314,654	326,972
Ione Dam Inspection	UP	2000	40	8,960	9,351
Y2K Replacement (Generators)	GP	2000	40	19,714	20,576
Amador City Transmission Main	D	2000	40	1,119	1,168
Ione Transmission Line	D	2000	40	426	445
Ione Distribution System	D	2000	40	491	512
Safety Improvement - Vaults	D	2000	40	843	880
Ione Distribution Improvements	D	2000	40	273	285
Ione Vault Replacement	D	2001	40	269	284
Preston Pump Station	PP	2001	40	7,006	7,399

**Table II
Amador Water System
Fixed Asset Records**

Description	Cls.	Year Acquired	Service Life	Original Cost	Repl. Cost Less Deprec.
Eagles Nest Upgrade	D	2001	40	497	525
Tanner Shop Expansion	GP	2002	40	243,387	256,359
Tanner Office Expansion	GP	2002	40	480,666	506,285
Mahoney Mill Road	D	2002	40	40,523	42,683
Tanner WTP Sample Pump Station	PP	2004	40	785	803
Tanner Clearwell Baffles	SS	2004	40	61,708	63,138
Highway 49 Relocation & Upsizing	D	2004	40	11,591	11,860
Spanish Street Pressure Relief	D	2004	20	3,084	2,900
Ruby Street Main Replacement	D	2004	40	31,770	32,507
Sierra West Business Park	D	2004	40	5,552	5,680
Tanner Shop Parking Area	GP	2004	15	964	853
Tanner Office Road/Storm Drain	GP	2004	15	7,302	6,462
Tanner Maint Bldg-2nd Floor	GP	2004	40	2,217	2,269
Ione Clearwell Baffles	SS	2005	40	4,938	4,958
Highway 49 Relocation & Upsizing	D	2005	40	49,987	50,193
Ridgewood Acres Loop	D	2005	40	22,326	22,418
Sierra West Business Park	D	2005	40	13,102	13,155
Ione Distrib Impr-Ione Loop	D	2005	40	29,487	29,608
Golden Hills Estates	D	2005	40	2,687	2,698
Academy Drive Fire MLX	D	2005	40	454	456
Plymouth Pipeline MOU/Design/Easements	D	2005	40	2,155	2,163
Tanner Shop Parking Area	GP	2005	15	502	460
Tanner Office Road/Strm drain	GP	2005	15	112	102
Tanner Maint Bldg-2nd Floor	GP	2005	40	17,110	17,181
Ione Water Storage Tank Constrc (AWA Time)	SS	2006	40	12,899	12,770
Sierra Pacific BLM/Ind Park	D	2006	40	62,330	61,705
Ione Distribution Improvements	D	2006	40	350	346
Highway 49 Relocation & Upsizing	D	2006	40	183,373	181,533
Ridgewood Acres Loop	D	2006	40	7,502	7,427
Academy Drive Fire MLX	D	2006	40	211	209
Plymouth Pipeline MOU/design/easements	D	2006	40	14,053	13,912
Tanner Maint Bldg-2nd Floor	GP	2006	40	66,364	65,698
Gardella Access Road	GP	2007	20	33,667	33,667
Highway 49 Relocation & Upsizing	D	2007	40	236,440	236,440
Plymouth Pipeline MOU/design/easements	D	2007	40	74,476	74,476
Sierra Pacific BLM/Ind Park	D	2007	40	64,799	64,799
Ione Distribution Loop	D	2007	40	30,357	30,357
Golden Hills Estates-Phase II	D	2007	40	460	460
Amador Ridge Center	D	2007	40	18,594	18,594
Amador Central Park	D	2007	40	9,592	9,592
Trent Tank Fence	SS	2007	15	6,413	6,413
Tanner Maint Bldg-2nd Floor	GP	2007	40	39,518	39,518
Ione Water Storage Tank Constrc	SS	2007	40	2,585,000	2,585,000
Castle Oaks/Ione Transm Line Upsizing	D	2007	40	100,000	100,000
Totals				\$ 17,716,659	\$ 17,933,538

Escalation and Depreciation

The valuation of water system assets has been adjusted to current value by (1) escalating historical costs to replacement cost in current dollars using the *Engineering News Record* 20-cities construction cost index (20-cities CCI), and (2) depreciating from the date of construction to 2007 based on the service life of each asset. Both of these adjustments are typical (though not required) in buy-in fee calculations. The 20-cities CCI was utilized because this is believed to be the most representative of construction cost trends affecting the Amador Water System.

Service lives for fixed asset depreciation are the same as those used for accounting depreciation. Most water system assets have 40-year service lives and straight-line depreciation was used.

Capital Reserves

At the end of FY 06-07 the Amador Water System had approximately \$3.9 million in capital replacement and capital improvement reserves. While these funds are not capital facilities, they are intended to be used for capital projects that will rehabilitate, upgrade, or expand the water system. Capital reserves are therefore appropriately included in the buy-in fee calculation.

Existing Customers (Equivalent Meters)

The system buy-in method for calculating participation fees for new development bases the fee on the average value of the water system for existing customers. Hence, once the value of the water system has been determined it is necessary to divide this amount by the number of customers, or more appropriately, the number of 5/8" equivalent meters. The standard meter size for residential customers is 5/8". Using hydraulic capacity factors it is possible to express connections of various sizes in terms of equivalent 5/8" meters.

The table below summarizes the number of customers served by the Amador Water System expressed in 5/8" meter equivalents. AWS's retail service area is equivalent to 4,640 5/8" equivalent meters, excluding the capacity provided through wholesale connections to the City of Jackson, Drytown and Plymouth.

In addition to its own retail customers, the Amador Water System provides wholesale treated water service to the City of Jackson, Drytown, and soon the City of Plymouth. New development occurring in any of these cities will also be subject to participation fees because new development within the cities will benefit from AWS's water system similar to other customers. The City of Jackson services about 2,400, Drytown about 100, and the City of Plymouth serves more than 600 5/8" equivalent meters for a total of about 3,100 wholesale 5/8" equivalent meters.

**Amador Water System
Summary of Customers and 5/8" Equivalent Meters**

	<u>Customer Accounts</u>	<u>5/8" Equivalent Meters</u>
AWS Retail Service Area	3,140	4,640
Jackson/Drytown/Plymouth Retail Cust.	<u>2,475</u>	<u>3,100</u>
AWS & Jackson/Drytown/Plymouth Totals	5,675	7,740

Not all of the water system serves (or benefits) the cities of Jackson, Drytown, and Plymouth and their customers. The treated water distribution system primarily serves the AWS's retail customers. Therefore, treated water distribution facility costs should not be reflected in the participation fee applicable to new development within the cities of Jackson, Drytown and Plymouth.

Participation Fee System Buy-In Summary

The table below summarizes the system buy-in participation fee calculation for the Amador Water System. Separate fees are calculated for AWS retail service area customers, wholesale treated water service customers, and untreated water service customers. Participation fees for meters larger than 5/8" are scaled based on the hydraulic capacity, which is listed on page 4, of each meter size relative to a 5/8" meter.

System Buy-In Method

	Water System Valuation		No. of 5/8" Equiv. Mtrs.	Participation Fee
	Original Cost	Replac. Cost Less Deprec.		
Asset Category				
Utility Plant	\$ 453,960	\$ 387,241	7,740	\$ 50
Land and Land Rights	\$ 787,338	\$ 1,406,388	7,740	\$ 182
Source of Supply	\$ 3,018,631	\$ 3,014,444	7,740	\$ 389
Pumping Plant	\$ 15,827	\$ 15,863	4,640	\$ 3
Raw Water Transmission	\$ -	\$ -	7,740	\$ -
Water Treatment Plant	\$ -	\$ -	7,740	\$ -
Treated Water Distribution	\$ 12,249,352	\$ 11,904,133	4,640	\$ 2,566
General Plant	\$ 1,191,551	\$ 1,205,469	7,740	\$ 156
Total Plant in Service	\$ 17,716,659	\$ 17,933,538		
Capital Reserves				
Capital Replacement Reserve	\$ 3,918,000	\$ 3,918,000	7,740	\$ 506
Plymouth Participation Fees	\$ 1,340,000	\$ 1,340,000	4,640	\$ 289
Adjustments for Debt				
Debt Interest Costs				
2006 Series A			7,740	\$ -
CSDA Series Z			7,740	\$ -
Outstanding Principal				
2006 Series A			7,740	\$ -
CSDA Series Z			7,740	\$ -
Total Water System Value	\$ 22,974,659	\$ 23,191,538		
AWS Participation Fees (for 5/8" meter)				
		Treated Retail Water Service #1	\$	4,140
		Treated Wholesale Water Service #2	\$	1,285
		Untreated Water Service #3	\$	1,125

#1 footnote - treated retail includes all of the asset categories listed, including capital reserves.

#2 footnote - treated wholesale excludes pumping plant, water treatment distribution, and Plymouth participation fees.

#3 footnote - untreated water excludes pumping plant, water treatment plant, water treatment distribution, general plant, and Plymouth participation fees.

AWS Participation Fee Incremental Cost Calculations

The incremental cost methodology focuses on the cost of new water system capacity provided by future capital improvement projects. Each functional component (water treatment and raw water transmission) is considered separately with respect to capacity that would be provided for new development with each new project. Calculations related to each component of the incremental cost participation fee are described below.

- **Water Supply Transmission Capacity** – A 9-mile raw water transmission pipeline was constructed to replace the existing open Amador Canal, thereby reducing water loss and improving water quality, which totaled \$24.7 million less EBMUD's contribution of \$4.5 million. The Agency is also proposing a small diameter pipeline be placed in the existing canal to continue service to customers as well to provide capacity to serve additional customers. Preliminary costs are estimated at \$3.79 million. Also included is the recently constructed emergency raw water transmission by-pass line, which totaled \$1.27 million. Using a demand factor of .045 AF per year per equivalent dwelling unit, the raw water transmission system pipelines could provide water supply capacity to about 24,000 equivalent customers.
- **Water Treatment Capacity** – The CIP includes construction of a new Tanner Regional Water Treatment Plant. All costs of a new regional water treatment plant are based on project costs divided by the number of equivalent customers that can be served. The preliminary estimate for construction totals of an 8 MGD reliable plant totals \$23.1 million, which includes \$1.98 million for land purchased. Water treatment plants are sized to meet maximum day demands that are defined to be 1.8 times average day demands. The new plant would provide capacity to about 10,000 customers. Water treatment costs are not included in the participation fee for untreated water customers.

**Incremental Cost Method
Raw Water Transmission System**

Construction Cost of Amador Transmission Pipeline	\$ 24,706,167
less EBMUD Contribution	\$ 4,500,000
Total	<u>\$ 20,206,167</u>
Estimated PV of Financing Costs (1)	\$ 15,154,625
Value of Amador Transmission Pipeline	\$ 35,360,792
 Emergency By-pass Line	\$ 1,271,405
Estimated Cost of Small Diameter Pipeline	\$ 3,791,200
	\$ 40,423,397
 Capacity of AWSTP (Equiv. Mtrs.)	24,000
 Transmission Component of AWS Participation Fee	<u><u>\$ 1,685</u></u>

Notes:

(1) Includes present value of issuance and interest costs associated with the portion of the 2006 Series A bonds that were used for the Amador Transmission Pipeline. The financing factor is estimated at 75%.

**Amador Water System
Fixed Asset Records**

Description	Year Acquired	Service Life	Original Cost	Repl. Cost Less Deprec.
AWS Fixed Assets				
AWS Transmission Line/Small Pipe/By-Pass Line	2007	40	25,268,772	25,268,772
			25,268,772	25,268,772

Transmission Project Costs-to-Date
Through 6/30/07

	Totals thru FY 2001-02	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	sub-totals
9-mile pipe							
planning	\$ 577,879	\$ 42,844	\$ 114,664	\$ 195,402	\$ 130,923	\$ 15,883	\$ 1,077,595
Admin Rec.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,267	\$ 4,267
CEQA	\$ 90,712	\$ 64,050	\$ 52,276	\$ 35,901	\$ 54,640	\$ 168,871	\$ 466,450
Design	\$ 171,423	\$ 601,004	\$ 659,685	\$ 42,053	\$ 606	\$ -	\$ 1,474,771
Rt of Way	\$ -	\$ 2,745	\$ 44,604	\$ 29,393	\$ 489,879	\$ 450,327	\$ 1,016,948
Constr.	\$ -	\$ -	\$ -	\$ -	\$ 3,573,487	\$ 16,791,323	\$ 20,364,811
	\$ 840,014	\$ 710,643	\$ 871,229	\$ 302,749	\$ 4,249,535	\$ 17,430,671	\$ 24,404,842

Remaining Expenses (estimated) Ranger Pipelines \$ 226,325
Right of Way \$ 75,000

Total Project Cost \$ 24,706,167

	Totals thru FY 2001-02	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	sub-totals
by-pass line	\$ -	\$ -	\$ -	\$ -	\$ 317,850	\$ 953,555	\$ 1,271,405
	\$ -	\$ -	\$ -	\$ -	\$ 317,850	\$ 953,555	\$ 1,271,405

**Incremental Cost Method
Water Treatment Plant**

Estimated Construction Cost of Tanner WTP Expansion	\$ 21,156,841
Gardella land purchase	\$ 1,981,343
Total	<u>\$ 23,138,184</u>
Estimated PV of Financing Costs (1)	<u>\$ 17,353,638</u>
Total Estimated Cost of Tanner WTP Expansion	<u>\$ 40,491,822</u>
 Capacity of Tanner WTP Expansion (Equiv. Mtrs.)	 10,000
 Treatment Component of AWS Participation Fee	 <u><u>\$ 4,050</u></u>

Notes:

(1) Present value of estimated issuance and interest costs at 75% of construction costs.

**Amador Water System
Fixed Asset Records**

Description	Cls.	Year Acquired	Service Life	Original Cost	Repl. Cost Less Deprec.
<i>AWS Fixed Assets</i>					
Regional WTP on Gardella Property	WT	2007	40	23,138,184	23,138,184
				23,138,184	23,138,184

Accounting for Participation Fee Revenues and Expenditures

Under Government Code Section 66013(c) the Agency is required to separately account for participation fee revenues in a manner that avoids commingling of fee revenues with other revenues and to expend fee revenues solely for the purpose for which the fees are collected.

Under Government Code Section 66013(d), within 180 days after the end of each fiscal year, the Agency is required to make the following information publicly available for the prior fiscal year related to participation fees:

- A brief description of the type of participation fee in each account or fund
- The amount of the participation fees
- The beginning and ending balance of the account or fund
- The amount of the participation fees collected and the interest earned

- Identification of each capital improvement on which participation fees were expended and the amount of the expenditures on each improvement, including the total percentage of the cost of the improvement that was funded with the fees
- Identification of each capital improvement on which participation fees were expended that were completed during the fiscal year
- Identification of each capital improvement that is anticipated to be undertaken in the following fiscal year
- Description of any interfund transfers or loans made from participation fee accounts or funds, including the capital improvement on which the transferred or loaned fee will be expended, and in the case of a loan the date on which the loan will be repaid, and the interest to be received

The entire government code section is attached and detailed in Appendix A

Participation Fee Updates

At a minimum, it is recommended that the AWS participation fees be adjusted annually for inflation based on the 20-cities CCI. This is a common means of updating capacity charges and works reasonably well for a few years. A more comprehensive and accurate way to update the participation fee is to recalculate them using the same calculation methodology used in this report. It is recommended that a comprehensive update be performed at least every 3 to 5 years.

The buy-in methodology used to calculate the participation fees is relatively simple to update once the procedures are put in place. The recalculation of water system buy-in fees entails making the following updates to the calculations:

- Add new water facilities included in fixed asset records, and delete those taken out of service
- Update the fixed asset valuation for inflation (using the 20-cities CCI) and depreciation
- Update capital reserve data
- Adjust historical debt service costs for inflation, recent interest payments, and any new debt issuance costs
- Update the current number of 5/8" equivalent meters included in the existing water system.

Appendix A – Government Code Section 66013

66013. (a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

(b) As used in this section: (1) "Sewer connection" means the connection of a structure or project to a public sewer system. (2) "Water connection" means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code. (3) "Capacity charge" means a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged. (4) "Local agency" means a local agency as defined in Section 66000. (5) "Fee" means a fee for the physical facilities necessary to make a water connection or sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

(c) A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected. Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

(d) For a fund established pursuant to subdivision (c), a local agency shall make available to the public, within 180 days after the last day of each fiscal year, the following information for that fiscal year: (1) A description of the charges deposited in the fund. (2) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund. (3) The amount of charges collected in that fiscal year. (4) An identification of all of the following: (A) Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used. (B) Each public improvement on which charges were expended that was completed during that fiscal year. (C) Each public improvement that is anticipated to be undertaken in the following fiscal year. (5) A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan. (e) The information required pursuant to subdivision (d) may be included in the local agency's annual financial report. (f) The provisions of subdivisions (c) and (d) shall not apply to any of the following: (1) Moneys received to construct public facilities pursuant to a contract between a local agency and a person or entity, including, but not limited to, a reimbursement agreement pursuant to Section 66003. (2) Charges that are used to pay existing debt service or which are subject to a contract with a trustee for bondholders that requires a different accounting of the charges, or charges that are used to reimburse the local agency or to reimburse a person or entity who advanced funds under a reimbursement agreement or contract for facilities in existence at the time the charges are collected. (3) Charges collected on or before December 31, 1998. (g) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022. (h) Fees and charges subject to this section are not subject to the provisions of Chapter 5

(commencing with Section 66000), but are subject to the provisions of Sections 66016, 66022, and 66023. (i) The provisions of subdivisions (c) and (d) shall only apply to capacity charges levied pursuant to this section.

Appendix B – AWS Participation Fee Calculation Supporting Details

The following exhibit provides supporting details to the calculation of participation fees for the Amador Water System, which includes the detailed listing of excluded fixed assets.

Appendix B-1
Short-Lived Assets/Development Specific Projects (Excluded)

Computer Equipment-Capital Lease	GP	1985	5	34,372	-
Arroyo Ditch	UP	1985	40	394,236	283,113
Trailer	GP	1985	7	6,932	-
Equipment	GP	1986	7	262	-
Truck	GP	1986	7	5,000	-
Automobile	GP	1986	5	4,770	-
Computer Equipment	GP	1986	5	34,481	-
Equipment	GP	1986	7	13,826	-
Backhoe	GP	1986	10	62,138	-
Tanner Plant (PG&E)	WT	1987	40	520,000	464,427
Utility Plant	UP	1987	40	4,735	4,229
Utility Plant-Canal Improvements	UP	1987	40	9,200	8,217
Utility Plant (PG&E)	UP	1987	40	1,091,350	974,716
General Plant	GP	1987	40	119,913	107,098
Water Treatment (PG&E)	WT	1987	40	1,134,969	862,250
Vehicle-Capital Lease	GP	1988	5	24,752	-
Utility Plant (fire hydrant, meters etc...)	UP	1988	40	58,559	53,543
General Plant	GP	1988	12	47,699	-
Water Treatment Plant (Prison)	WT	1988	40	2,203,711	2,014,931
General Plant	GP	1989	12	12,072	-
AWS Trans Pipeline	RWT	1989	40	114,850	107,724
General Plant	D	1990	40	20,376	19,486
General Plant	UP	1990	40	20,744	19,838
General Plant	GP	1990	40	22,688	21,697
General Plant-canal imp	RWT	1990	40	6,941	6,638
General Plant	GP	1991	40	55,916	54,610
General Plant	GP	1991	40	927	905
General Plant	GP	1991	40	123	120
General Plant	GP	1991	40	2,643	2,581
General Plant	GP	1991	40	2,776	2,711
Utility Plant	UP	1992	40	229,815	226,768
Water Treatment Plant Improvement	WT	1992	40	5,695,098	4,780,129
Utility Plant	GP	1993	40	10,293	10,106
Treatment Plant	WT	1995	40	77,109	66,048
Utility Plant - Upper Canal	RWT	1995	40	944	951
Utility Plant	D	1995	40	417,833	420,748
General Plant	GP	1995	40	113,003	113,792
Treatment Plant	WT	1996	40	49,890	43,086
Utility Plant	D	1996	40	92,064	93,471
General Plant	GP	1996	40	19,077	19,368
Raw Water Transmission	RWT	1997	40	3,262	3,304
Treatment Plant	WT	1997	40	64,725	55,781
Land	L	1997	7	65,476	-
1997 Case 580SL Backhoe	GP	1997	10	55,865	-
Dissolved Oxygen Meter	GP	1998	10	284	32
Valve Exerciser	GP	1998	10	3,000	339
Chain for Ditch Witch	GP	1998	10	530	60
Generator	GP	1998	10	922	104
60" Sweeper for Bobcat	GP	1998	10	2,896	327

Appendix B-1
Short-Lived Assets/Development Specific Projects (Excluded)

AWS Transmission Project	TD	1998	7	1,673	-
Tanner Treatment Plan Expansion	WT	1998	40	744,740	652,692
Treatment Plant Roof	WT	1998	40	4,300	3,769
Allen Ranch Road	D	1998	40	31,636	32,595
400 Series Meters	TD	1999	40	2,274	2,010
Meter Replacements	TD	1999	40	4,253	3,759
10" Meter Replacements	TD	1999	40	5,482	4,846
Meters	TD	1999	40	44,628	39,448
Meters	TD	1999	40	5,286	4,672
Bunker Hill Road Meter Replacement	TD	1999	40	1,263	1,116
Meters	TD	1999	40	2,966	2,622
Line Locators	GP	1999	7	753	-
Leak Detector	GP	1999	7	4,464	-
Lifeline Cable	GP	1999	7	886	-
Wind Protected Microphone	GP	1999	7	919	-
Spray Machine	GP	1999	7	327	-
Trapper	GP	1999	7	2,018	-
2" Adapter	GP	1999	7	104	-
SCADA Computer Components	GP	1999	7	283	-
Vehicle Tools	GP	1999	7	601	-
Pruner Saw	GP	1999	7	515	-
Tool Box/Kits	GP	1999	7	1,441	-
600 Ft Discharge Hose	GP	1999	7	1,144	-
Winch	GP	1999	7	574	-
Auto Level & Tripod	GP	1999	7	1,371	-
Leveling Rod	GP	1999	7	164	-
Camera	GP	1999	7	672	-
Computer Componets	GP	1999	7	349	-
Diesel Rammer	GP	1999	7	4,070	-
Excavator & Buckets	GP	1999	7	34,411	-
Cutoff Saw	GP	1999	7	924	-
Ione Water Treatment Plant Backwash	WT	1999	40	654	578
Jackson Treated Water Service	WT	1999	40	85,336	75,430
Tanner/WTP Expansion	WT	1999	40	234,563	207,335
Edgebrook Unit 5	TD	1999	40	165	146
Edgebrook Unit 6	TD	1999	40	424	375
Meeks	TD	1999	40	507	448
Amador County Food Bank	TD	1999	40	33	29
Reed Minerals	TD	1999	40	2,374	2,098
Amador City Fire Station	TD	1999	40	17	15
Ridge Fees	TD	1999	40	111,190	98,283
New York Ranch Crossing	RWT	1999	40	4,812	5,000
Regan Raw Water Pipeline	RWT	1999	40	70	73
Jean Court Main Replacement	D	1999	40	7,279	7,564
AWS Participation Fee	GP	1999	40	14,089	14,641
Eagles Ranch	TD	2000	40	1,836	1,630
Safe Drinking Water - Ridge	TD	2000	40	96	85
Sutter Gold Venture	TD	2000	40	111	98
Ione Canal-Mondani	TD	2000	40	8,580	7,617
Meeks	TD	2000	40	100	89

Appendix B-1
Short-Lived Assets/Development Specific Projects (Excluded)

Ione Current Stream Meter	TD	2000	40	634	563
Reed Miners	TD	2000	40	216	192
Brusatori	TD	2000	40	397	352
Amador City Bridge Utility Fire Flow	TD	2000	40	1,721	1,528
Castle Oaks Commercial Dev.	TD	2000	40	141	125
Ione Canal-Allen	TD	2000	40	95	84
Brusatori Contributed Capital	TD	2000	40	1,500	1,332
Contributed Capital-Eagles Ranch	TD	2000	40	70,000	62,146
Safety Tanks	WT	2000	40	1,102	978
Ione WTP Backwash	WT	2000	40	1,240	1,101
Tanner Raw Water Intake	WT	2000	40	463	411
Tanner WTP Air Dryer	WT	2000	40	2,080	1,847
PSM/RMP Plant Improvement	WT	2000	40	79	70
Turbidimeter	WT	2000	40	3,340	2,965
Ione WTP Streaming	WT	2000	40	650	577
Jackhammer	GP	2000	7	2,116	-
Test Equipment	GP	2000	7	697	-
Cordless Drill	GP	2000	7	270	-
Computer Componets	GP	2000	5	1,028	-
400 Series Meters	TD	2000	40	1,045	928
Meters	TD	2000	40	9,038	8,024
Ron McKenny Meter	TD	2000	40	6,439	5,716
Nash Service	TD	2000	40	239	212
Meters	TD	2000	40	33,194	29,470
Meters	TD	2000	40	1,445	1,283
Meters	TD	2000	40	5,231	4,644
10" Meter	TD	2000	40	55	48
Line Locator	GP	2000	10	1,211	391
ATV	GP	2000	10	7,423	2,396
Hydrants	D	2000	40	1,441	1,504
Preventative Maintenance Software	GP	2000	40	5,973	6,234
Valve Replacement	D	2000	40	169	176
Upper Canal Berm	RWT	2000	40	43	45
Air Conditioner	GP	2000	40	3,666	3,826
Booster Pump Rancheria	D	2000	40	7,971	8,319
GSA Expansion	D	2000	40	19,073	19,907
PSM/RMP Plant Improvement	WT	2001	40	1,071	962
Eagles Ranch MLX	TD	2001	40	231	207
Keystone Alley MLX	TD	2001	40	1,397	1,255
Brusatori MLX-Fire Protector	TD	2001	40	332	298
Ione Elementary	TD	2001	40	2,651	2,382
Ione Pharmacy	TD	2001	40	2,038	1,831
Howards Body Shop	TD	2001	40	511	459
Ione WTP Lime Room Demo	WT	2001	40	30	27
Tanner Compression Replacement	WT	2001	40	5,213	4,683
Tanner WTP Phase II	WT	2001	40	720	647
MQ Tools & Instruments	GP	2001	10	1,814	767
Canal Improvement-KASL	RWT	2001	40	47,535	50,205
Valve Replacement	D	2001	40	1,113	1,175
Valve Replacement-SC	D	2001	40	2,271	2,399

Appendix B-1
Short-Lived Assets/Development Specific Projects (Excluded)

Valve Replacement-Ione	D	2001	40	1,165	1,230
1 Cell Phone	GP	2002	3	138	-
Blower	GP	2002	3	404	-
Tanner WTP Expansion Phase 2	WT	2002	40	393,703	352,741
PSM/RMP Plant Improvement	WT	2002	40	10,452	9,365
Treatment Plant	WT	2003	40	17	15
Stroh Fire Hydrant-Cont Capital	TD	2003	40	9,403	8,463
Castle Oaks-Cont Capital	TD	2003	40	12,100	10,890
Landscaping Project	GP	2003	15	4,061	3,501
Ione Paving	GP	2003	15	2,785	2,401
Transmission & Distribution	D	2003	40	6,937	7,340
Ione Raw Water Screen	RWT	2004	10	35,406	27,415
Tanner Filter Rebuild	WT	2004	20	17,825	15,151
Ione WTP SCADA/Radio/BW/PLC	WT	2004	10	8,671	6,070
Ione Emergency Backwash System	WT	2004	20	5,423	4,610
Gold Rush Golf Development	D	2004	40	483	494
Jacson Hills Gold Club	D	2004	40	174	178
Mother Lode Mini Storage	D	2004	40	53	54
Valley View Estates	D	2004	40	2,109	2,158
Hydrant-Jerry Sherman	D	2004	40	69	71
Golden Hills Estates	D	2004	40	958	980
Chlorine Conversion - Plants	WT	2004	20	524	445
Ione Backwash Water	WT	2004	40	2,362	2,185
Ione WTP Expansion/Planning	WT	2004	40	40,319	37,295
Bossi/Previtali Planning study	RWT	2004	7	114	72
Ione Reservoir Algae Manifold	SS	2004	40	622	636
Fire Hydrant Replacement	D	2004	40	10,726	10,974
Stroh Fire Hydrant	D	2004	40	11	11
Del Vista Road Ext to Bryson Dr	D	2004	40	808	826
Jackson Valley Estates	D	2004	40	91	93
Ione Oaks II	D	2004	40	7,743	7,923
Crestview Estates Unit III	D	2004	40	932	954
Crestview Estates Unit IV	D	2004	40	931	953
Quail Oaks	D	2004	40	433	443
American Legion Water Main	D	2004	40	182	186
Amador High School MLX	D	2004	40	4,261	4,360
Claudia Marker MLX	D	2004	40	241	247
GRE Management Service MLX	D	2004	40	148	152
Pocket Park MLX	D	2004	40	13,838	14,159
Ridge PLC Replacement	PP	2004	10	9,311	7,209
Industrial SQL Server	GP	2005	5	10,135	6,081
Cisco Equip for Ione WTP	GP	2005	5	7,450	4,470
Mother Lode Mini Storage	D	2005	40	482	484
Golden Hills Estates Phase II	D	2005	40	4,122	4,139
Gold Country Plaza	D	2005	40	2,575	2,585
Ridge Business Park	D	2005	40	708	711
Waterman Road - L-Yager	D	2005	40	1,393	1,399
Amador Ridge Shopping Center	D	2005	40	3,246	3,260
Lowe's Home Bldg Center	D	2005	40	1,369	1,375
Ione Elementary FH Relocated	D	2005	10	272	230

Appendix B-1
Short-Lived Assets/Development Specific Projects (Excluded)

Ridge PLC Replacement	WT	2005	10	1,205	964
Tanner Filter Rebuild	WT	2005	40	146,271	138,957
Tanner WTP Sample Pump Station	WT	2005	40	1,964	1,866
Ione WTP SCADA/Radio/BW/PLC	WT	2005	10	24,465	19,572
Ione Raw Water Screen	RWT	2005	10	1,075	909
Chlorine Conversion - Plants	WT	2005	20	389	350
Tanner TP Refurbish Cells #3 & #4	WT	2005	10	113,399	90,719
Ione Backwash Water	WT	2005	40	402	382
Ione WTP Expansion-Planning	WT	2005	40	82,858	78,715
Fire Hydrant Replacement	D	2005	40	10,565	10,608
Ione Oaks II	D	2005	40	2,126	2,135
Crestview Estates Unit III	D	2005	40	1,042	1,046
Crestview Estates Unit IV	D	2005	40	53	53
American Legion Water Main	D	2005	40	92	92
Amador High School MLX	D	2005	40	46	46
GRE Management Service MLX	D	2005	40	2,633	2,644
Valley View Estates	D	2005	40	58	59
Del Vista Rd Extension	D	2005	40	2,202	2,211
Animal Sheltr MLX	D	2005	40	2,215	2,224
Edgebrook Units 7, 8 & 9	D	2005	40	2,719	2,730
Castle Oaks II	D	2005	40	3,945	3,961
Violet Lane Fire Protection	D	2005	40	6,149	6,174
Ione Jr High Fire MLX	D	2005	40	1,963	1,971
David Drive MLX - Allen's	D	2005	40	343	345
Tanner WTP Sample Pump Station	WT	2006	40	1,166	1,137
Ione WTP Expansion/Planning	WT	2006	40	133,842	130,496
Tanner Filter Rebuild	WT	2006	40	4,166	4,062
Ione WTP SACAD/Radio/BW/PLC	WT	2006	40	1,658	1,617
Ione Emergency Backwash System	WT	2006	40	151	147
Ione Clearwell Baffles	WT	2006	40	56,103	54,700
Ione WP Filter Rebuild	WT	2006	40	76,657	74,741
Buena Vista Casino	D	2006	40	1,880	1,861
Gold Rush Golf Development	D	2006	40	82	82
Mother Lode Mini Storage	D	2006	40	324	320
Ridge Business Park	D	2006	40	6,579	6,513
Golden Hills Estates	D	2006	40	1,146	1,134
Gold Country Plaza	D	2006	40	1,328	1,315
Golden Hills Estates Phase II	D	2006	40	2,395	2,371
Amador Ridge Shopping Center	D	2006	40	45,612	45,154
Old Mill Plaza	D	2006	40	1,862	1,843
Lowe's Home Bldg Center	D	2006	40	9,298	9,205
Ione Elementary FH Relocated	D	2006	40	344	341
Lot 5 Sierra West Business Park	D	2006	40	2,277	2,254
Powder House Estates	D	2006	40	27	27
Amador Auto Center	D	2006	40	858	849
Canal Temporary Improvements	RWT	2006	40	6,665	6,598
New York Ranch Resvr Plan	RWT	2006	40	10,504	10,399
Ione Elementary FH Relocated	D	2006	40	148	147
Crestview Estates Unit 3	D	2006	40	246	244
Fire Hydrant Replacement	D	2006	40	17,046	16,875

Appendix B-1

Short-Lived Assets/Development Specific Projects (Excluded)

GRE Management Service MLX	D	2006	40	10,710	10,602
Edgebrook Units 7, 8 & 9	D	2006	40	7,015	6,945
Castle Oaks II	D	2006	40	6,650	6,583
lone Jr High Fire MLX	D	2006	40	2,310	2,286
David Drive MLX - Allen's	D	2006	40	546	541
Feed Barn MLX	D	2006	40	3,840	3,801
Washington Place-lone MLX	D	2006	40	650	644
Amador Transit Mix MLX	D	2006	40	766	758
Prospect Plaza MLX	D	2006	40	415	411
Castle Oaks Village 3	D	2006	40	420	415
lone 101 Project MLX	D	2006	40	52	52
lone Oaks II	D	2006	40	39	39
				\$ 16,029,759	\$ 13,590,231