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ALOHA UTILITIES, INC.

DIRECT TESTIMONY OF JOHN B. WHITCOMB, PHD.

MARGARET M. LYTLE, APPEARING ON BEHALF OF

INTERVENOR, SOUTHWEST FLORIDA WATER

MANAGEMENT DISTRICT

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FPSC-COMMISSION CLERK

1 DIRECT TESTIMONY of John B. Whitcomb, PhD.

2 Q. Please state your name and professional address.

3 A. John B. Whitcomb, PhD, 1906 19th Street, Golden CO 80401

4 Q. Have you been retained by the Southwest Florida Water Management
5 District to provide testimony in this proceedings?

6 A. Yes.

7 Q. Please provide a brief summary of your qualifications as they relate to
8 this proceeding.

9 A. I am an economist/statistician who has worked with over 100 water
10 agencies on projects related to water pricing, market research, water
11 conservation intervention analysis, and benefit-cost evaluation as a
12 consultant over the last 12 years. I was the principal investigator of
13 major studies measuring customer understanding and sensitivity to water
14 pricing and bill presentation in Florida, Texas, the Southwestern U.S.
15 (Arizona, California, and Nevada), and Brazil. I have conducted four out
16 of the last five major water price elasticity studies conducted in the
17 U.S. and have worked on over a dozen water cost-of-service studies. I
18 hold a BA in economics and geography from the University of California,
19 Santa Barbara and a PhD in geography and environmental engineering from
20 the Johns Hopkins University.

21 For this proceeding, it is particularly relevant that I was the lead

1 statistician of a study conducted for the Southwest Water Management
2 District titled *Water Price Elasticity Study*. The study was originally
3 published in August 1993. Subsequently, I concluded that the type of
4 water use model used with the single family customers in that 1993 study
5 could be improved. This came about from peer review of the original
6 model and my further investigation of this model in other price
7 elasticity studies in other parts of the United States. The limitation
8 of the 1993 single family model is that interactions between water
9 prices and property values were not adequately separated. Using the
10 original database, I re-specified and re-estimated the single family
11 water use model using a more conventional model form. The results of
12 this work, six years after the original report were published, are
13 described in an update of the report of the same name dated August 1999.
14 The big picture findings of the 1993 report did not change. Long-run
15 water price elasticities for the single family Florida homes studied
16 still tend to be about -0.5.

17 I should also state I am the designer of the Waterate 2001 software
18 program that Aloha Utility, Inc. (Aloha) used as part of this rate case.
19 Waterate 2001 is an Excel workbook that agencies can use as a planning
20 tool to simulate how changes in water and sewer rate structures impact
21 water revenues and water demand. It automates complex calculations and
22 provides a comprehensive, flexible framework from which to evaluate

1 alternative rate structures. Features include single or multi-block
2 rate structures that can vary by season, short- and long-run price
3 elasticity adjustments specified by customer class, and detailed
4 reporting of expected water use changes over a 5-year planning horizon.
5 Waterate is not a cost-of-service rate model as some often assume. It is
6 purely a tool for assessing the water use impacts from alternative water
7 and sewer rate structures given certain assumptions.

8 Q. At the request of the South West Florida Water Management District, did
9 you review Aloha's use of Waterate 2001 as applied to this rate case?

10 A. Yes. I contacted and received on October 31, 2001 an electronic copy of
11 the Excel workbook used by Steve Watford in this case. Steve is the
12 President of Aloha and he called me previously around August 1, 2001
13 with questions about Waterate 2001. A copy of the Waterate tables
14 provided is attached as Exhibit 1.

15 Q. In your review, what is your opinion of the appropriateness of the
16 application of Waterate 2001 in this case?

17 A. While the application was generally appropriate, I found three areas
18 where the accuracy or interpretation of the application can be improved.
19 First, sewer rates need to be factored into the evaluation. In Aloha's
20 Seven Springs Water Division, a customer's sewer bill is based, in part,
21 on monthly water use. Moreover, the sewer rates are both significant and
22 have been significantly increased. It is my understanding that the

1 residential sewer rate increased from \$2.26 per thousand gallons (TG)
2 before December 8, 2000 to \$3.41/TG starting May 23, 2001 (there was
3 also an interim rate of \$3.65) with a 10 TG cap per month. This is a
4 significant change and is part of the overall price signal customers
5 face. Sewer price should be factored into the price elasticity
6 calculation. The following is a quote from the Waterate 2001 manual:

7 Enter water and sewer prices (\$/water unit) associated with each
8 rate block. You will need to do so for the year prior to the base
9 year, the base year, and for the planning years (1 to 5).

10 Second, I am not knowledgeable about FPSC rules on how to factor in
11 long-run price changes into a rate case. It is my opinion that only half
12 of a water price impact on water use will occur in the first year after
13 the change. I provide the following quote from the Waterate 2001 manual:

14 In the short-run, customers can affect behavioral changes but are
15 limited in their ability to alter capital investments in outdoor
16 landscaping and water using appliances and fixtures. Once a
17 customer makes a water-related investment it becomes a sunk cost.
18 It may take a long time before that investment needs replacing.
19 It may take an extreme climate fluctuation (e.g., freeze) before
20 landscaping gets replanted with drought-tolerant alternatives
21 (xeriscape). Bathroom fixtures (e.g., toilets) may last for over
22 30 years. Hence, while increases in water prices may induce

1 customers to act sooner, it may take some customers years to
2 complete desired changes. In addition, it may take a customer a
3 number of billing cycles just to understand the ramifications of a
4 rate structure change. Because of these factors, price elasticity
5 can be expected to be greater in the long run than in the short
6 run.

7 Based on review of previous research studies, we recommend that
8 users assume a short-run half life of one year. In other words,
9 50, 75, and 87.5 % (needs to be rounded in Table 2 of Exhibit 1)
10 of the long-run price impact occurs in the first, second, and
11 third years after a price change respectively. The user can
12 change this progression if desired.

13 Aloha assumes in its application of Waterate 2001 that all of the long-
14 run price impact will occur in the first year. I think it will be half
15 that in the first year. Again, I do not know how multiple year price
16 impacts are accounted for in the context of this type of rate case so I
17 only present this as an observation so that people can interpret results
18 correctly.

19 Third, in Waterate Table 8 of Exhibit 1, I noticed that the water prices
20 shown for residential customers in the 0 to 3 TG per month rate tier in
21 1999 and 2000 are set to \$1.32. In reality, for the base years 1999 and
22 2000 Aloha had a \$0 price for the first 3 TG as this water use was part

1 of the minimum base facility charge. Aloha properly reduced income
2 associated with the base facility charge in Table 7 of Exhibit 1. The
3 net impact of all of this is negligible and does not impact the bottom
4 line results. In future runs, however, it would be cleaner to make this
5 change. In fact, I recently changed the Waterate code to specifically
6 account for minimum water use associated with the base facility charge.

7 Q. Could your three changes be made in Aloha's run of Waterate 2001?

8 A. Yes. It would be fairly easy to insert the sewer prices, adjust the
9 short-run price elasticity to fit FPSC rules if necessary, and change
10 the minimum use quantity charge to \$0 for the first 0 to 3 TG/month
11 tier.

12 Q. Is the price elasticity algorithm contained in Waterate and used by
13 Aloha appropriate for this rate case?

14 A. Yes. The SWFWMD study was based on a relatively large empirical dataset
15 collected for 1,200 individual homes served by 10 SWFWMD retail water
16 agencies. Given the water prices associated with this case, the
17 approximate constant unit price elasticity is about -0.5. The
18 approximate constant unit price elasticity in this case is about -0.5.
19 That means that for every 1% increase in combined water/sewer price over
20 inflation, water use will drop by 0.5% over the long-run. This finding
21 is consistent with other researcher's findings in Florida. For example,
22 such studies are described in Chapter 14 pages 295 to 301 of the Water

1 Resources Atlas of Florida, 1998. In addition, results are consistent
2 with the other two Southeastern studies conducted by Danielson of 261
3 homes in Raleigh, North Carolina (indoor elasticity of -0.305 and
4 outdoor elasticity of -1.38) and Ware and North for 14 Georgia
5 Communities (-0.61 and -0.67 depending on model). Given the consistency
6 of findings in general and the local scope of the SWFWMD study in
7 specific, I believe the price elasticities used are appropriate and the
8 best estimates available. In Exhibit 2, I provide references of
9 relevant price elasticity studies.

10 Further, the price changes I have reviewed in Aloha's case are
11 significant and material. The proposed water rates almost double
12 existing rates. This is on top of the very significant sewer charge
13 increase.

14 Q. Has Waterate been used at other water agencies?

15 A. Waterate is not a cost-of-service model, but a rate planning tool.

16 Waterate is most applicable to agencies facing significant changes in
17 revenue requirements or contemplating significant changes in rate
18 structure. This does not happen often as most water agencies make small
19 year-to-year incremental changes. Aloha is an exception as it is looking
20 at doing both. Outside of Florida I have setup and beneficially applied
21 Waterate in Austin TX, San Antonio TX, Corpus Christi TX, Las Vegas NV,
22 Santa Monica CA, Redwood City CA, Petaluma CA, and several agencies in

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Brazil. In Florida I have fielded a number of phone calls of people interested in getting a copy of the model or in data input questions. Several consulting firms operating in Florida have also obtained copies of Waterate. I do not know of any agencies using Waterate on an on-going basis, but that is not the purpose of Waterate.

CERTIFICATE OF SERVICE

I certify that a true copy of the foregoing was sent by U.S. Mail
to the following persons on this 6 day of November 2001:

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Margaret M. Lytle

TABLE 2. PRICE ELASTICITY									
Customer Class	Long-Run Elasticity		Short-Run Adjustment				Single Family Property Value % Weights		
			1st Year	2nd Year	3rd Year	4th Year	Low	Med	High
Residential	Florida		100%	100%	100%	100%	50%	0%	50%
General Service 3/4"	-0.20		100%	100%	100%	100%	33%	0%	67%
General Service 1"	-0.20		100%	100%	100%	100%	33%	0%	67%
General Service 1 1/2"	-0.20		100%	100%	100%	100%	33%	33%	34%
General Service 2"	-0.20		100%	100%	100%	100%	33%	0%	67%
General Service 3"	-0.20		100%	100%	100%	100%	33%	33%	34%
General Service 4"	-0.20		100%	100%	100%	100%	33%	0%	67%
General Service 6"	-0.20		100%	100%	100%	100%	33%	0%	67%

Price Specification

Marginal Price

Average Price

TABLE 3. WATER REVENUE REQUIREMENTS

	Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005
Base Case						
Revenue Requirements	\$1,849,005	\$3,012,527	\$0	\$0	\$0	\$0
Short-Run Variable						
Revenue Requirements	\$389,484	\$1,073,000	\$0	\$0	\$0	\$0
Short-Run Variable as % of Total Base Case	21.1%	35.6%				

TABLE 4. WATER ACCOUNTS

Meter Size	EMU Factor	Number of Accounts by Meter Size					
		Base Year 2000	Five Year Planning Horizon				
			2001	2002	2003	2004	2005
All Customer Classes							
5/8"		9,125	9,552	0	0	0	0
3/4"		0	0	0	0	0	0
1"		46	48	0	0	0	0
1.5"		15	16	0	0	0	0
2"		25	26	0	0	0	0
3"		1	1	0	0	0	0
4"		2	2	0	0	0	0
6"		5	6	0	0	0	0
8"		0	0	0	0	0	0
10"		0	0	0	0	0	0
12"		0	0	0	0	0	0
Total Accounts		9,219	9,651	0	0	0	0
Total EMUs		9,831	10,326	0	0	0	0
Residential							
5/8"	1	8,989	9,410				
3/4"	1.5						
1"	2.5						
1.5"	5						
2"	8						
3"	16						
4"	25						
6"	50						
8"	80						
10"	115						
12"	215						
Total Accounts		8,989	9,410	0	0	0	0
Total EMUs		8,989	9,410	0	0	0	0

TABLE 4. WATER ACCOUNTS

Meter Size	EMU Factor	Number of Accounts by Meter Size					
		Base Year	Five Year Planning Horizon				
		2000	2001	2002	2003	2004	2005
General Service 3/4"							
5/8"	1	136	142				
3/4"	1.5						
1"	2.5						
1.5"	5						
2"	8						
3"	16						
4"	25						
6"	50						
8"	80						
10"	115						
12"	215						
Total Accounts		136	142	0	0	0	0
Total EMUs		136	142	0	0	0	0
General Service 1"							
5/8"	1						
3/4"	1.5						
1"	2.5	46	48				
1.5"	5						
2"	8						
3"	16						
4"	25						
6"	50						
8"	80						
10"	115						
12"	215						
Total Accounts		46	48	0	0	0	0
Total EMUs		115	120	0	0	0	0

TABLE 4. WATER ACCOUNTS

Meter Size	EMU Factor	Number of Accounts by Meter Size					
		Base Year	Five Year Planning Horizon				
		2000	2001	2002	2003	2004	2005
General Service 1 1/2"							
5/8"	1						
3/4"	1.5						
1"	2.5						
1.5"	5	15	16				
2"	8						
3"	16						
4"	25						
6"	50						
8"	80						
10"	115						
12"	215						
Total Accounts		15	16	0	0	0	0
Total EMUs		75	80	0	0	0	0
General Service 2"							
5/8"	1						
3/4"	1.5						
1"	2.5						
1.5"	5						
2"	8	25	26				
3"	16						
4"	25						
6"	50						
8"	80						
10"	115						
12"	215						
Total Accounts		25	26	0	0	0	0
Total EMUs		200	208	0	0	0	0

Meter Size		EMU Factor	Number of Accounts by Meter Size					
			Base Year	Five Year Planning Horizon				
			2000	2001	2002	2003	2004	2005
General Service 3"								
5/8"	1							
3/4"	1.5							
1"	2.5							
1.5"	5							
2"	8							
3"	16		1	1				
4"	25							
6"	50							
8"	80							
10"	115							
12"	215							
Total Accounts			1	1	0	0	0	0
Total EMUs			16	16	0	0	0	0

General Service 4"								
5/8"	1							
3/4"	1.5							
1"	2.5							
1.5"	5							
2"	8							
3"	16							
4"	25		2	2				
6"	50							
8"	80							
10"	115							
12"	215							
Total Accounts			2	2	0	0	0	0
Total EMUs			50	50	0	0	0	0

TABLE 4. WATER ACCOUNTS

Meter Size	EMU Factor	Number of Accounts by Meter Size					
		Base Year	Five Year Planning Horizon				
		2000	2001	2002	2003	2004	2005
General Service 6"							
5/8"	1						
3/4"	1.5						
1"	2.5						
1.5"	5						
2"	8						
3"	16						
4"	25						
6"	50	5	6				
8"	80						
10"	115						
12"	215						
Total Accounts		5	6	0	0	0	0
Total EMUs		250	300	0	0	0	0

TABLE 4. WATER ACCOUNTS

Meter Size	EMU Factor	Number of Accounts by Meter Size					
		Base Year	Five Year Planning Horizon				
		2000	2001	2002	2003	2004	2005

TABLE 5. ANNUAL WATER CONSUMPTION (BASE CASE)

Customer Class	Water Consumption in Thousand Gallons (TG)					
	Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005
Residential	925,916	1,003,845				
General Service 3/4"	22,713	24,625				
General Service 1"	10,314	11,182				
General Service 1 1/2"	8,805	9,546				
General Service 2"	36,425	39,491				
General Service 3"	1,501	1,627				
General Service 4"	2,197	2,382				
General Service 6"	17,785	19,282				
Total Water	1,025,656	1,111,980	0	0	0	0

TABLE 6. WATER BILL DISTRIBUTION IN BASE YEAR

TG/Bill	Residential		General Service 3/4"		General Service 1"		General Service 1 1/2"		General Service 2"		General Service 3"		General Service 4"		General Service 6"		
	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	Bill Count	Bill %	
0	7,264	6.7%	314	19.3%	43	7.8%	34	18.6%	22	7.5%		0.0%		0.0%	1	1.7%	
1	6,559	6.0%	227	13.9%	29	5.3%	4	2.2%	10	3.4%		0.0%		0.0%	1	1.7%	
2	10,436	9.6%	127	7.8%	31	5.6%	2	1.1%	10	3.4%		0.0%	1	3.7%		0.0%	
3	11,094	10.2%	88	5.4%	29	5.3%	5	2.7%	7	2.4%		0.0%		0.0%		0.0%	
4	10,275	9.4%	81	5.0%	24	4.4%	6	3.3%	4	1.4%		0.0%	2	7.4%		0.0%	
5	8,579	7.9%	89	5.5%	24	4.4%	9	4.9%	2	0.7%		0.0%		0.0%	1	1.7%	
6	7,122	6.5%	51	3.1%	10	1.8%	4	2.2%	10	3.4%		0.0%		0.0%	5	8.3%	
7	5,894	5.4%	59	3.6%	19	3.5%	4	2.2%	6	2.0%		0.0%		0.0%		0.0%	
8	4,799	4.4%	30	1.8%	6	1.1%	4	2.2%	6	2.0%		0.0%		0.0%	1	1.7%	
9	4,188	3.8%	43	2.6%	22	4.0%	1	0.5%	2	0.7%		0.0%		0.0%	1	1.7%	
10	3,659	3.4%	33	2.0%	14	2.6%	3	1.6%	1	0.3%		0.0%		0.0%	4	6.7%	
11	3,099	2.8%	33	2.0%	17	3.1%	2	1.1%	2	0.7%		0.0%		0.0%	1	1.7%	
12	2,852	2.6%	25	1.5%	14	2.6%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
13	2,483	2.3%	36	2.2%	13	2.4%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
14	2,201	2.0%	20	1.2%	6	1.1%	2	1.1%	1	0.3%		0.0%		0.0%	1	1.7%	
15	1,955	1.8%	25	1.5%	16	2.9%	3	1.6%	3	1.0%		0.0%		0.0%		0.0%	
16	1,729	1.6%	27	1.7%	11	2.0%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
17	1,530	1.4%	19	1.2%	12	2.2%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
18	1,360	1.2%	9	0.6%	14	2.6%	0.0%	0.0%	4	1.4%		0.0%		0.0%		0.0%	
19	1,214	1.1%	11	0.7%	7	1.3%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
20	1,042	1.0%	19	1.2%	8	1.5%	2	1.1%	2	0.7%		0.0%		0.0%		0.0%	
21	963	0.9%	15	0.9%	15	2.7%	2	1.1%	0.0%	0.0%		0.0%		0.0%		0.0%	
22	871	0.8%	9	0.6%	9	1.6%	2	1.1%	1	0.3%		0.0%		0.0%	1	1.7%	
23	798	0.7%	11	0.7%	4	0.7%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
24	735	0.7%	13	0.8%	8	1.5%	1	0.5%	2	0.7%		0.0%	1	3.7%		0.0%	
25	687	0.6%	10	0.6%	10	1.8%	2	1.1%	3	1.0%		0.0%		0.0%		0.0%	
26	578	0.5%	11	0.7%	10	1.8%	2	1.1%	3	1.0%		0.0%		0.0%		0.0%	
27	544	0.5%	8	0.5%	1	0.2%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
28	442	0.4%	9	0.6%	9	1.6%	2	1.1%	1	0.3%		0.0%		0.0%		0.0%	
29	402	0.4%	3	0.2%	3	0.5%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
30	369	0.3%	14	0.9%	6	1.1%	0.0%	0.0%	3	1.0%		0.0%		0.0%		0.0%	
31	322	0.3%	8	0.5%	3	0.5%	3	1.6%	1	0.3%		0.0%		0.0%		0.0%	
32	299	0.3%	3	0.2%	9	1.6%	1	0.5%	1	0.3%		0.0%	1	3.7%		1.7%	
33	211	0.2%	3	0.2%	5	0.9%	1	0.5%	2	0.7%		0.0%		0.0%	3	5.0%	
34	216	0.2%	8	0.5%	3	0.5%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
35	228	0.2%	5	0.3%	4	0.7%	2	1.1%	1	0.3%		0.0%		0.0%		0.0%	
36	189	0.2%	10	0.6%	4	0.7%	2	1.1%	0.0%	0.0%		0.0%		0.0%		0.0%	
37	151	0.1%	4	0.2%	5	0.9%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
38	134	0.1%	3	0.2%	9	1.6%	1	0.5%	3	1.0%		0.0%		0.0%		0.0%	
39	116	0.1%	3	0.2%	5	0.9%	2	1.1%	2	0.7%		0.0%	1	3.7%		0.0%	
40	99	0.1%	3	0.2%	1	0.2%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
41	108	0.1%	1	0.1%	2	0.4%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
42	95	0.1%	2	0.1%	4	0.7%	3	1.6%	2	0.7%		0.0%		0.0%		0.0%	
43	101	0.1%	1	0.1%	2	0.4%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
44	94	0.1%	1	0.1%	3	0.5%	3	1.6%	2	0.7%		0.0%		0.0%		0.0%	
45	77	0.1%	4	0.2%	4	0.7%	2	1.1%	3	1.0%		0.0%		0.0%		0.0%	
46	61	0.1%	3	0.2%	2	0.4%	0.0%	0.0%	1	0.3%		0.0%	2	7.4%		0.0%	
47	49	0.0%	2	0.1%	1	0.2%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
48	39	0.0%	0.0%	0.0%	1	0.2%	2	1.1%	3	1.0%		0.0%		0.0%		0.0%	
49	42	0.0%	2	0.1%	3	0.5%	0.0%	0.0%	2	0.7%		0.0%		0.0%		0.0%	
50	45	0.0%	1	0.1%	3	0.5%	1	0.5%	0.0%	0.0%		0.0%	1	3.7%		0.0%	
51	37	0.0%	2	0.1%	2	0.4%	0.0%	0.0%	0.0%	0.0%		0.0%	1	3.7%	2	3.3%	
52	40	0.0%	3	0.2%	0.0%	0.0%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
53	25	0.0%	1	0.1%	3	0.5%	0.0%	0.0%	3	1.0%		0.0%	1	3.7%		0.0%	
54	28	0.0%	3	0.2%	1	0.2%	0.0%	0.0%	0.0%	0.0%		0.0%	1	3.7%		0.0%	
55	28	0.0%	2	0.1%	2	0.4%	2	1.1%	0.0%	0.0%		0.0%		0.0%		0.0%	
56	24	0.0%	1	0.1%	1	0.2%	0.0%	0.0%	0.0%	0.0%		0.0%	1	3.7%		0.0%	
57	21	0.0%	0.0%	0.0%	2	0.4%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		0.0%	
58	22	0.0%	4	0.2%	0.0%	0.0%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
59	25	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	2	0.7%		0.0%		0.0%	1	1.7%	
60	16	0.0%	1	0.1%	1	0.2%	1	0.5%	3	1.0%		0.0%	1	3.7%		0.0%	
61	21	0.0%	0.0%	0.0%	1	0.2%	2	1.1%	1	0.3%		0.0%		0.0%		0.0%	
62	18	0.0%	0.0%	0.0%	1	0.2%	1	0.5%	3	1.0%		0.0%		0.0%		0.0%	
63	16	0.0%	0.0%	0.0%	2	0.4%	1	0.5%	3	1.0%		0.0%		0.0%	2	3.3%	
64	13	0.0%	1	0.1%	0.0%	0.0%	0.0%	0.0%	2	0.7%		0.0%	1	3.7%		0.0%	
65	12	0.0%	3	0.2%	1	0.2%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		0.0%	
66	10	0.0%	1	0.1%	1	0.2%	0.0%	0.0%	4	1.4%		0.0%		0.0%	1	1.7%	
67	6	0.0%	1	0.1%	0.0%	0.0%	0.0%	0.0%	1	0.3%		0.0%		0.0%	1	1.7%	
68	5	0.0%	2	0.1%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%	1	3.7%		0.0%	
69	8	0.0%	2	0.1%	0.0%	0.0%	0.0%	0.0%	1	0.3%		0.0%		0.0%		0.0%	
70	8	0.0%	3	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%	1	1.7%	
71	10	0.0%	2	0.1%	1	0.2%	0.0%	0.0%	4	1.4%		0.0%		0.0%		0.0%	
72	5	0.0%	1	0.1%	1	0.2%	1	0.5%	3	1.0%		0.0%	1	3.7%		0.0%	
73	9	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
74	4	0.0%	3	0.2%	0.0%	0.0%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
75	5	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	3	1.0%		0.0%		0.0%		0.0%	
76	8	0.0%	2	0.1%	0.0%	0.0%	0.0%	4	1.4%		0.0%		0.0%		0.0%		
77	6	0.0%	1	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		0.0%	
78	7	0.0%	4	0.2%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
79	1	0.0%	2	0.1%	0.0%	0.0%	1	0.5%	1	0.3%		0.0%		0.0%		0.0%	
80	10	0.0%	1	0.1%	1	0.2%	1	0.5%	2	0.7%		0.0%		0.0%		0.0%	
81	3	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
82	7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		0.0%	
83	9	0.0%	1	0.1%	0.0%	0.0%	0.0%	2	0.7%	0.0%	0.0%		0.0%		0.0%		
84	5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1	0.3%	0.0%	0.0%		0.0%		0.0%		
85	6	0.0%	2	0.1%	0.0%	0.0%	1	0.5%	3	1.0%		0.0%		0.0%		0.0%	
86	5	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	1	0.3%		0.0%	1	3.7%		0.0%	
87	3	0.0%	0.0%	0.0%	1	0.2%	0.0%	2	0.7%	0.0%	0.0%		0.0%		0.0%		
88	3	0.0%	1	0.1%	0.0%	0.0%	0.0%	1	0.3%	0.0%	0.0%		0.0%		0.0%		
89	7	0.0%	1	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		
90	7	0.0%	2	0.1%	1	0.2%	0.0%	0.0%	0.0%	0.0%	1	9.1%		0.0%		0.0%	
91	4	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
92	6	0.0%	0.0%	0.0%	1	0.2%	0.0%	0.0%	1	0.3%		0.0%		0.0%		0.0%	
93	3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		
94	4	0.0%	1	0.1%	0.0%	0.0%	1	0.5%	0.0%	0.0%		0.0%		0.0%		0.0%	
95	2	0.0%	1	0.1%	0.0%	0.0%	0.0%	3	1.0%	0.0%	0.0%		0.0%	1	3.7%		0.0%
96	2	0.0%	1	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%		
97	5	0.0%	1	0.1%	0.0%	0.0%	0.0%										

TABLE 7. FIXED CHARGES

Check if fixed meter charges the same for all customer classes.

All Classes						
	Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005
\$/Account/Bill	\$3.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$/EMU/Bill	\$0.00	\$9.23	\$0.00	\$0.00	\$0.00	\$0.00
Meter Size	\$/Bill	\$/Bill	\$/Bill	\$/Bill	\$/Bill	\$/Bill
5/8"	\$3.36	\$9.23	\$0.00	\$0.00	\$0.00	\$0.00
3/4"	\$3.36	\$13.85	\$0.00	\$0.00	\$0.00	\$0.00
1"	\$3.36	\$23.08	\$0.00	\$0.00	\$0.00	\$0.00
1.5"	\$3.36	\$46.15	\$0.00	\$0.00	\$0.00	\$0.00
2"	\$3.36	\$73.84	\$0.00	\$0.00	\$0.00	\$0.00
3"	\$3.36	\$147.68	\$0.00	\$0.00	\$0.00	\$0.00
4"	\$3.36	\$230.75	\$0.00	\$0.00	\$0.00	\$0.00
6"	\$3.36	\$461.50	\$0.00	\$0.00	\$0.00	\$0.00
8"	\$3.36	\$738.40	\$0.00	\$0.00	\$0.00	\$0.00
10"	\$3.36	\$1,061.45	\$0.00	\$0.00	\$0.00	\$0.00
12"	\$3.36	\$1,984.45	\$0.00	\$0.00	\$0.00	\$0.00

TABLE 8. QUANTITY CHARGES

Customer Class	Block	Base Year - 1 1999				Base Year 2000				Base Year +1 2001				Base Year +2 2002				Base Year +3 2003				Base Year +4 2004				Base Year +5 2005			
		TG/BIll		\$/TG		TG/BIll		\$/TG		TG/BIll		\$/TG		TG/BIll		\$/TG		TG/BIll		\$/TG		TG/BIll		\$/TG		TG/BIll		\$/TG	
		Min	Max	Water	Sewer	Min	Max	Water	Sewer	Min	Max	Water	Sewer	Min	Max	Water	Sewer	Min	Max	Water	Sewer	Min	Max	Water	Sewer	Min	Max	Water	Sewer
Residential	1	1	3	\$1.32					1	10	\$2.24							1											
	2	4		\$1.32	1	3	\$1.32											1											
	3																												
	4																												
	5																												
	6																												
General Service 3/4"	1	1	3	\$1.32	1	3	\$1.32			1		\$2.24	1					1											
	2	4		\$1.32	4		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 1"	1	1	8	\$1.32	1	8	\$1.32			1		\$2.24	1					1											
	2	9		\$1.32	9		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 1 1/2"	1	1	15	\$1.32	1	15	\$1.32			1		\$2.24	1					1											
	2	16		\$1.32	16		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 2"	1	1	24	\$1.32	1	24	\$1.32			1		\$2.24	1					1											
	2	25		\$1.32	25		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 3"	1	1	48	\$1.32	1	48	\$1.32			1		\$2.24	1					1											
	2	49		\$1.32	49		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 4"	1	1	75	\$1.32	1	75	\$1.32			1		\$2.24	1					1											
	2	76		\$1.32	76		\$1.32																						
	3																												
	4																												
	5																												
	6																												
General Service 6"	1	1	98	\$1.32	1	98	\$1.32			1		\$2.24	1					1											
	2	99		\$1.32	99		\$1.32																						
	3																												
	4																												
	5																												
	6																												

TABLE 9. REVENUE SUMMARY

	Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005
Revenue Impacts All Classes						
Base Case Revenue Requirement	\$1,849,005	\$3,012,527	\$0	\$0	\$0	\$0
Change from Changes in Base Water Use	\$0	-\$304,807	\$0	\$0	\$0	\$0
Adjusted Revenue Requirement	\$1,849,005	\$2,707,720	\$0	\$0	\$0	\$0
Fixed Charge Revenues						
Fixed Charge Revenues	\$391,713	\$1,143,708	\$0	\$0	\$0	\$0
Quantity Charge Revenues	\$1,353,868	\$1,852,930	\$0	\$0	\$0	\$0
Total Fixed and Quantity Revenues	\$1,745,580	\$2,996,638	\$0	\$0	\$0	\$0
Revenue Surplus/Shortfall	(\$103,425)	\$288,918	\$0	\$0	\$0	\$0
Revenue Impacts By Class						
Fixed Charge Revenues						
Residential	\$362,436	\$1,042,252	\$0	\$0	\$0	\$0
General Service 3/4"	\$5,484	\$15,728	\$0	\$0	\$0	\$0
General Service 1"	\$4,913	\$13,291	\$0	\$0	\$0	\$0
General Service 1 1/2"	\$3,004	\$8,861	\$0	\$0	\$0	\$0
General Service 2"	\$8,136	\$23,038	\$0	\$0	\$0	\$0
General Service 3"	\$642	\$1,772	\$0	\$0	\$0	\$0
General Service 4"	\$2,012	\$5,538	\$0	\$0	\$0	\$0
General Service 6"	\$5,086	\$33,228	\$0	\$0	\$0	\$0
Total	\$391,713	\$1,143,708	\$0	\$0	\$0	\$0
Quantity Charge Revenues						
Residential	\$1,222,211	\$1,633,965	\$0	\$0	\$0	\$0
General Service 3/4"	\$29,981	\$49,903	\$0	\$0	\$0	\$0
General Service 1"	\$13,614	\$22,643	\$0	\$0	\$0	\$0
General Service 1 1/2"	\$11,623	\$19,325	\$0	\$0	\$0	\$0
General Service 2"	\$48,081	\$79,946	\$0	\$0	\$0	\$0
General Service 3"	\$1,981	\$3,294	\$0	\$0	\$0	\$0
General Service 4"	\$2,900	\$4,822	\$0	\$0	\$0	\$0
General Service 6"	\$23,476	\$39,034	\$0	\$0	\$0	\$0
Total	\$1,353,868	\$1,852,930	\$0	\$0	\$0	\$0
Total Fixed and Quantity Revenues						
Residential	\$1,584,648	\$2,676,216	\$0	\$0	\$0	\$0
General Service 3/4"	\$35,465	\$65,630	\$0	\$0	\$0	\$0
General Service 1"	\$18,527	\$35,934	\$0	\$0	\$0	\$0
General Service 1 1/2"	\$14,627	\$28,186	\$0	\$0	\$0	\$0
General Service 2"	\$56,217	\$102,984	\$0	\$0	\$0	\$0
General Service 3"	\$2,623	\$5,066	\$0	\$0	\$0	\$0
General Service 4"	\$4,912	\$10,360	\$0	\$0	\$0	\$0
General Service 6"	\$28,562	\$72,262	\$0	\$0	\$0	\$0
Total	\$1,745,580	\$2,996,638	\$0	\$0	\$0	\$0

TABLE 10. WATER USE SUMMARY

Customer Class	Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005
All Classes						
Base Water Use (TG)	1,025,656	1,111,980	0	0	0	0
Price Elastic Change	0	-315,880	0	0	0	0
% Change	0.0%	-28.4%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	1,025,656	796,100	0	0	0	0
Residential						
Base Water Use (TG)	925,916	1,003,845	0	0	0	0
Price Elastic Change	0	-305,497	0	0	0	0
% Change	0.0%	-30.4%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	925,916	698,348	0	0	0	0
General Service 3/4"						
Base Water Use (TG)	22,713	24,625	0	0	0	0
Price Elastic Change	0	-2,347	0	0	0	0
% Change	0.0%	-9.5%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	22,713	22,278	0	0	0	0
General Service 1"						
Base Water Use (TG)	10,314	11,182	0	0	0	0
Price Elastic Change	0	-1,074	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	10,314	10,108	0	0	0	0
General Service 1 1/2"						
Base Water Use (TG)	8,805	9,546	0	0	0	0
Price Elastic Change	0	-919	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	8,805	8,627	0	0	0	0
General Service 2"						
Base Water Use (TG)	36,425	39,491	0	0	0	0
Price Elastic Change	0	-3,801	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	36,425	35,690	0	0	0	0
General Service 3"						
Base Water Use (TG)	1,501	1,627	0	0	0	0
Price Elastic Change	0	-157	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	1,501	1,470	0	0	0	0
General Service 4"						
Base Water Use (TG)	2,197	2,382	0	0	0	0
Price Elastic Change	0	-229	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	2,197	2,153	0	0	0	0
General Service 6"						
Base Water Use (TG)	17,785	19,282	0	0	0	0
Price Elastic Change	0	-1,856	0	0	0	0
% Change	0.0%	-9.6%	0.0%	0.0%	0.0%	0.0%
New Water Use (TG)	17,785	17,426	0	0	0	0

TABLE 11. WATER USE BY BLOCK

Customer Class	Block	Base Year 2000			Base Year +1 2001			Base Year +2 2002			Base Year +3 2003			Base Year +4 2004			Base Year +5 2005						
		TG/BIII		% of Water Sold		TG/BIII		% of Water Sold		TG/BIII		% of Water Sold		TG/BIII		% of Water Sold		TG/BIII		% of Water Sold			
		Min	Max	Base	New	Change	Min	Max	Base	New	Change	Min	Max	Base	New	Change	Min	Max	Base	New	Change		
Residential	1	1	3	30.4%	N.A.	N.A.	1	10	88.4%	82.5%	14.1%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	4		89.6%	N.A.	N.A.	11		31.6%	17.5%	-14.1%			0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 3/4"	1	1	3	14.0%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	4		85.1%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 1"	1	1	8	32.4%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	9		87.6%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 1 1/2"	1	1	15	20.8%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	16		79.2%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 2"	1	1	24	14.5%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	25		85.5%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 3"	1	1	48	37.7%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	49		62.3%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 4"	1	1	75	71.4%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	76		28.6%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
General Service 6"	1	1	98	21.5%	N.A.	N.A.	1		100.0%	100.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%	1		0.0%	0.0%
	2	99		78.5%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	3			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	4			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	5			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%
	6			0.0%	N.A.	N.A.			0.0%	0.0%				0.0%	0.0%			0.0%	0.0%			0.0%	0.0%

TABLE 12. WATER DISTRIBUTION IMPACTS - % OF BILLS BY BIN

TG/Bin	Residential Bill Distribution: % of Annual Bills						General Service 3/4" Bill Distribution: % of Annual Bills					
	Base Year	Five Year Planning Horizon					Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
0	6.7%	6.7%	0.0%	0.0%	0.0%	0.0%	19.3%	19.3%	0.0%	0.0%	0.0%	0.0%
1	6.0%	10.7%	0.0%	0.0%	0.0%	0.0%	13.9%	15.4%	0.0%	0.0%	0.0%	0.0%
2	9.6%	12.3%	0.0%	0.0%	0.0%	0.0%	7.8%	7.9%	0.0%	0.0%	0.0%	0.0%
3	10.2%	13.6%	0.0%	0.0%	0.0%	0.0%	5.4%	5.8%	0.0%	0.0%	0.0%	0.0%
4	9.4%	9.4%	0.0%	0.0%	0.0%	0.0%	5.0%	5.7%	0.0%	0.0%	0.0%	0.0%
5	7.9%	7.3%	0.0%	0.0%	0.0%	0.0%	5.5%	4.6%	0.0%	0.0%	0.0%	0.0%
6	6.5%	6.5%	0.0%	0.0%	0.0%	0.0%	3.1%	3.8%	0.0%	0.0%	0.0%	0.0%
7	5.4%	7.3%	0.0%	0.0%	0.0%	0.0%	3.6%	2.6%	0.0%	0.0%	0.0%	0.0%
8	4.4%	5.9%	0.0%	0.0%	0.0%	0.0%	1.8%	2.7%	0.0%	0.0%	0.0%	0.0%
9	3.8%	3.1%	0.0%	0.0%	0.0%	0.0%	2.6%	2.4%	0.0%	0.0%	0.0%	0.0%
10	3.4%	2.7%	0.0%	0.0%	0.0%	0.0%	2.0%	2.2%	0.0%	0.0%	0.0%	0.0%
11	2.8%	2.2%	0.0%	0.0%	0.0%	0.0%	2.0%	1.9%	0.0%	0.0%	0.0%	0.0%
12	2.6%	1.8%	0.0%	0.0%	0.0%	0.0%	1.5%	2.1%	0.0%	0.0%	0.0%	0.0%
13	2.3%	1.5%	0.0%	0.0%	0.0%	0.0%	2.2%	1.5%	0.0%	0.0%	0.0%	0.0%
14	2.0%	1.3%	0.0%	0.0%	0.0%	0.0%	1.2%	1.7%	0.0%	0.0%	0.0%	0.0%
15	1.8%	1.2%	0.0%	0.0%	0.0%	0.0%	1.5%	1.5%	0.0%	0.0%	0.0%	0.0%
16	1.6%	1.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.8%	0.0%	0.0%	0.0%	0.0%
17	1.4%	0.9%	0.0%	0.0%	0.0%	0.0%	1.2%	0.7%	0.0%	0.0%	0.0%	0.0%
18	1.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.6%	1.2%	0.0%	0.0%	0.0%	0.0%
19	1.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.7%	1.1%	0.0%	0.0%	0.0%	0.0%
20	1.0%	0.4%	0.0%	0.0%	0.0%	0.0%	1.2%	0.6%	0.0%	0.0%	0.0%	0.0%
21	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.9%	0.8%	0.0%	0.0%	0.0%	0.0%
22	0.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.6%	0.8%	0.0%	0.0%	0.0%	0.0%
23	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%
24	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%
25	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%
26	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%
27	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%
28	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%
29	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
30	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%
31	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.5%	0.0%	0.0%	0.0%	0.0%
32	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%
33	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%
34	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%
35	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%
36	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%
37	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
38	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
39	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
40	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
41	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
42	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
43	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
44	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
45	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
46	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
48	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
49	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
50	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
51	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
52	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
53	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
54	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
55	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
56	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
57	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
58	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
59	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
60	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
61	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
62	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
63	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
64	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
65	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
66	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
67	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
68	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
69	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
70	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
71	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
72	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
73	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
74	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
75	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
76	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
77	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
78	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
79	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
81	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
82	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
83	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
84	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
85	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
86	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
87	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
88	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
90	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
91	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
92	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
93	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
94	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
95	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
96	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
97	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
98	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
99	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Top Bin	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	1.8%	0.0%	0.0%	0.0%	0.0%
Totals	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Top Bin Ave	133	100	0	0	0	0	215	184	0	0	0	0

TABLE 12

Bin Tg/Bill	General Service 1" Bill Distribution: % of Annual Bills						General Service 1 1/2" Bill Distribution: % of Annual Bills					
	Base Year	Five Year Planning Horizon					Base Year	Five Year Planning Horizon				
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
0	7.8%	7.8%	0.0%	0.0%	0.0%	0.0%	18.8%	18.8%	0.0%	0.0%	0.0%	0.0%
1	5.3%	6.4%	0.0%	0.0%	0.0%	0.0%	2.2%	2.4%	0.0%	0.0%	0.0%	0.0%
2	5.8%	6.1%	0.0%	0.0%	0.0%	0.0%	1.1%	1.7%	0.0%	0.0%	0.0%	0.0%
3	5.3%	5.4%	0.0%	0.0%	0.0%	0.0%	2.7%	3.2%	0.0%	0.0%	0.0%	0.0%
4	4.4%	4.8%	0.0%	0.0%	0.0%	0.0%	3.3%	4.4%	0.0%	0.0%	0.0%	0.0%
5	4.4%	3.3%	0.0%	0.0%	0.0%	0.0%	4.9%	3.8%	0.0%	0.0%	0.0%	0.0%
6	1.8%	3.1%	0.0%	0.0%	0.0%	0.0%	2.2%	2.4%	0.0%	0.0%	0.0%	0.0%
7	3.5%	2.0%	0.0%	0.0%	0.0%	0.0%	2.2%	2.4%	0.0%	0.0%	0.0%	0.0%
8	1.1%	3.7%	0.0%	0.0%	0.0%	0.0%	2.2%	1.0%	0.0%	0.0%	0.0%	0.0%
9	4.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.5%	1.7%	0.0%	0.0%	0.0%	0.0%
10	2.6%	3.4%	0.0%	0.0%	0.0%	0.0%	1.6%	1.2%	0.0%	0.0%	0.0%	0.0%
11	3.1%	2.7%	0.0%	0.0%	0.0%	0.0%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%
12	2.6%	2.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%
13	2.4%	2.0%	0.0%	0.0%	0.0%	0.0%	0.5%	1.4%	0.0%	0.0%	0.0%	0.0%
14	1.1%	2.7%	0.0%	0.0%	0.0%	0.0%	1.1%	1.2%	0.0%	0.0%	0.0%	0.0%
15	2.9%	2.3%	0.0%	0.0%	0.0%	0.0%	1.6%	0.6%	0.0%	0.0%	0.0%	0.0%
16	2.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%
17	2.2%	1.7%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%
18	2.6%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%
19	1.3%	3.0%	0.0%	0.0%	0.0%	0.0%	0.5%	1.3%	0.0%	0.0%	0.0%	0.0%
20	1.5%	1.6%	0.0%	0.0%	0.0%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%
21	2.7%	1.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%
22	1.6%	1.7%	0.0%	0.0%	0.0%	0.0%	1.1%	0.8%	0.0%	0.0%	0.0%	0.0%
23	0.7%	2.0%	0.0%	0.0%	0.0%	0.0%	0.5%	1.2%	0.0%	0.0%	0.0%	0.0%
24	1.5%	1.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.9%	0.0%	0.0%	0.0%	0.0%
25	1.8%	1.2%	0.0%	0.0%	0.0%	0.0%	1.1%	1.0%	0.0%	0.0%	0.0%	0.0%
26	1.8%	0.9%	0.0%	0.0%	0.0%	0.0%	1.1%	0.8%	0.0%	0.0%	0.0%	0.0%
27	0.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%
28	1.6%	0.8%	0.0%	0.0%	0.0%	0.0%	1.1%	1.7%	0.0%	0.0%	0.0%	0.0%
29	0.5%	1.7%	0.0%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%
30	1.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
31	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	1.6%	0.8%	0.0%	0.0%	0.0%	0.0%
32	1.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.5%	1.2%	0.0%	0.0%	0.0%	0.0%
33	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.5%	0.9%	0.0%	0.0%	0.0%	0.0%
34	0.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%
35	0.7%	1.2%	0.0%	0.0%	0.0%	0.0%	1.1%	1.0%	0.0%	0.0%	0.0%	0.0%
36	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%
37	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%
38	1.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.5%	1.7%	0.0%	0.0%	0.0%	0.0%
39	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	1.1%	0.9%	0.0%	0.0%	0.0%	0.0%
40	0.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.5%	1.6%	0.0%	0.0%	0.0%	0.0%
41	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%
42	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%	1.6%	0.3%	0.0%	0.0%	0.0%	0.0%
43	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.9%	0.0%	0.0%	0.0%	0.0%
44	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	1.6%	0.4%	0.0%	0.0%	0.0%	0.0%
45	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%	0.0%	0.0%	0.0%	0.0%
46	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
47	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
48	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%
49	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
50	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
51	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
52	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%
53	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%
54	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%
55	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%
56	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%
57	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
58	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
59	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
60	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
61	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.3%	0.0%	0.0%	0.0%	0.0%
62	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%
63	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
64	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
65	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
66	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
67	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
68	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%
69	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
70	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
71	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
72	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%
73	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%
74	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%
75	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
76	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
77	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%
78	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%
79	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
80	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
81	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
82	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
83	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
84	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
85	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%
86	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
87	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
88	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
89	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
90	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
92	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
93	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
94	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
95	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
96	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
97	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
98	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
99	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Top Bin	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%	13.7%	13.7%	0.0%	0.0%	0.0%	0.0%
Totals	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Top Bin Ave	166	150	0	0	0	0	188	179	0	0	0	0

TABLE 13. WATER SOLD DISTRIBUTION IMPACTS

BIN	Residential Bill Distribution: % of Annual Water Sold		General Service 3A Bill Distribution: % of Annual Water Sold	
	Base Year	Five Year Planning Horizon	Base Year	Five Year Planning Horizon
0	0.0%	0.0%	0.0%	0.0%
1	11.0%	15.8%	8.4%	0.0%
2	10.3%	14.0%	5.2%	0.0%
3	8.2%	11.9%	4.3%	0.0%
4	8.0%	9.8%	3.8%	0.0%
5	6.9%	8.0%	3.1%	0.0%
6	5.8%	6.9%	3.1%	0.0%
7	5.2%	5.7%	2.8%	0.0%
8	4.5%	4.4%	2.6%	0.0%
9	4.0%	3.4%	2.5%	0.0%
10	3.5%	2.9%	2.3%	0.0%
11	3.1%	2.4%	2.2%	0.0%
12	2.8%	2.1%	2.0%	0.0%
13	2.2%	1.9%	1.7%	0.0%
14	1.9%	1.5%	1.5%	0.0%
15	1.8%	1.1%	1.5%	0.0%
16	2.0%	1.3%	1.7%	0.0%
17	1.4%	0.9%	1.4%	0.0%
18	1.4%	0.8%	1.3%	0.0%
19	1.3%	0.7%	1.3%	0.0%
20	1.2%	0.6%	1.2%	0.0%
21	1.0%	0.5%	1.2%	0.0%
22	0.9%	0.4%	1.1%	0.0%
23	0.8%	0.4%	1.1%	0.0%
24	0.7%	0.3%	1.0%	0.0%
25	0.7%	0.3%	1.0%	0.0%
26	0.6%	0.2%	0.9%	0.0%
27	0.5%	0.2%	0.8%	0.0%
28	0.5%	0.2%	0.8%	0.0%
29	0.4%	0.2%	0.7%	0.0%
30	0.4%	0.1%	0.7%	0.0%
31	0.4%	0.1%	0.7%	0.0%
32	0.3%	0.1%	0.7%	0.0%
33	0.3%	0.1%	0.7%	0.0%
34	0.3%	0.1%	0.6%	0.0%
35	0.2%	0.1%	0.6%	0.0%
36	0.2%	0.1%	0.6%	0.0%
37	0.2%	0.1%	0.5%	0.0%
38	0.2%	0.1%	0.5%	0.0%
39	0.2%	0.1%	0.5%	0.0%
40	0.2%	0.1%	0.5%	0.0%
41	0.1%	0.0%	0.5%	0.0%
42	0.1%	0.0%	0.5%	0.0%
43	0.1%	0.0%	0.5%	0.0%
44	0.1%	0.0%	0.5%	0.0%
45	0.1%	0.0%	0.5%	0.0%
46	0.1%	0.0%	0.5%	0.0%
47	0.1%	0.0%	0.4%	0.0%
48	0.1%	0.0%	0.4%	0.0%
49	0.1%	0.0%	0.4%	0.0%
50	0.1%	0.0%	0.4%	0.0%
51	0.1%	0.0%	0.4%	0.0%
52	0.1%	0.0%	0.4%	0.0%
53	0.1%	0.0%	0.4%	0.0%
54	0.1%	0.0%	0.4%	0.0%
55	0.1%	0.0%	0.4%	0.0%
56	0.0%	0.0%	0.4%	0.0%
57	0.0%	0.0%	0.4%	0.0%
58	0.0%	0.0%	0.4%	0.0%
59	0.0%	0.0%	0.4%	0.0%
60	0.0%	0.0%	0.4%	0.0%
61	0.0%	0.0%	0.4%	0.0%
62	0.0%	0.0%	0.4%	0.0%
63	0.0%	0.0%	0.3%	0.0%
64	0.0%	0.0%	0.3%	0.0%
65	0.0%	0.0%	0.3%	0.0%
66	0.0%	0.0%	0.3%	0.0%
67	0.0%	0.0%	0.3%	0.0%
68	0.0%	0.0%	0.3%	0.0%
69	0.0%	0.0%	0.3%	0.0%
70	0.0%	0.0%	0.3%	0.0%
71	0.0%	0.0%	0.3%	0.0%
72	0.0%	0.0%	0.3%	0.0%
73	0.0%	0.0%	0.3%	0.0%
74	0.0%	0.0%	0.3%	0.0%
75	0.0%	0.0%	0.3%	0.0%
76	0.0%	0.0%	0.3%	0.0%
77	0.0%	0.0%	0.2%	0.0%
78	0.0%	0.0%	0.2%	0.0%
79	0.0%	0.0%	0.2%	0.0%
80	0.0%	0.0%	0.2%	0.0%
81	0.0%	0.0%	0.2%	0.0%
82	0.0%	0.0%	0.2%	0.0%
83	0.0%	0.0%	0.2%	0.0%
84	0.0%	0.0%	0.2%	0.0%
85	0.0%	0.0%	0.2%	0.0%
86	0.0%	0.0%	0.2%	0.0%
87	0.0%	0.0%	0.2%	0.0%
88	0.0%	0.0%	0.2%	0.0%
89	0.0%	0.0%	0.2%	0.0%
90	0.0%	0.0%	0.2%	0.0%
91	0.0%	0.0%	0.2%	0.0%
92	0.0%	0.0%	0.2%	0.0%
93	0.0%	0.0%	0.2%	0.0%
94	0.0%	0.0%	0.2%	0.0%
95	0.0%	0.0%	0.2%	0.0%
96	0.0%	0.0%	0.2%	0.0%
97	0.0%	0.0%	0.2%	0.0%
98	0.0%	0.0%	0.2%	0.0%
99	0.0%	0.0%	0.2%	0.0%
100	0.0%	0.0%	0.2%	0.0%
101	0.0%	0.0%	0.2%	0.0%
102	0.0%	0.0%	0.2%	0.0%
103	0.0%	0.0%	0.2%	0.0%
104	0.0%	0.0%	0.2%	0.0%
105	0.0%	0.0%	0.2%	0.0%
106	0.0%	0.0%	0.2%	0.0%
107	0.0%	0.0%	0.2%	0.0%
108	0.0%	0.0%	0.2%	0.0%
109	0.0%	0.0%	0.2%	0.0%
110	0.0%	0.0%	0.2%	0.0%
111	0.0%	0.0%	0.2%	0.0%
112	0.0%	0.0%	0.2%	0.0%
113	0.0%	0.0%	0.2%	0.0%
114	0.0%	0.0%	0.2%	0.0%
115	0.0%	0.0%	0.2%	0.0%
116	0.0%	0.0%	0.2%	0.0%
117	0.0%	0.0%	0.2%	0.0%
118	0.0%	0.0%	0.2%	0.0%
119	0.0%	0.0%	0.2%	0.0%
120	0.0%	0.0%	0.2%	0.0%
121	0.0%	0.0%	0.2%	0.0%
122	0.0%	0.0%	0.2%	0.0%
123	0.0%	0.0%	0.2%	0.0%
124	0.0%	0.0%	0.2%	0.0%
125	0.0%	0.0%	0.2%	0.0%
126	0.0%	0.0%	0.2%	0.0%
127	0.0%	0.0%	0.2%	0.0%
128	0.0%	0.0%	0.2%	0.0%
129	0.0%	0.0%	0.2%	0.0%
130	0.0%	0.0%	0.2%	0.0%
131	0.0%	0.0%	0.2%	0.0%
132	0.0%	0.0%	0.2%	0.0%
133	0.0%	0.0%	0.2%	0.0%
134	0.0%	0.0%	0.2%	0.0%
135	0.0%	0.0%	0.2%	0.0%
136	0.0%	0.0%	0.2%	0.0%
137	0.0%	0.0%	0.2%	0.0%
138	0.0%	0.0%	0.2%	0.0%
139	0.0%	0.0%	0.2%	0.0%
140	0.0%	0.0%	0.2%	0.0%
141	0.0%	0.0%	0.2%	0.0%
142	0.0%	0.0%	0.2%	0.0%
143	0.0%	0.0%	0.2%	0.0%
144	0.0%	0.0%	0.2%	0.0%
145	0.0%	0.0%	0.2%	0.0%
146	0.0%	0.0%	0.2%	0.0%
147	0.0%	0.0%	0.2%	0.0%
148	0.0%	0.0%	0.2%	0.0%
149	0.0%	0.0%	0.2%	0.0%
150	0.0%	0.0%	0.2%	0.0%

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