

**Las Vegas Valley Water District
Rates Citizens Advisory Committee**

RECOMMENDATIONS REPORT

November 6, 2007

**Rates Citizens Advisory Committee Recommendations Report
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LAS VEGAS VALLEY WATER DISTRICT Rates Citizens Advisory Committee Recommendations Report

Background

The Las Vegas Valley Water District Rates Citizens Advisory Committee (committee) was convened in August 2007 under the direction of the LVVWD Board of Directors. The purpose of the committee was to make recommendations regarding the District's water rates and charges in order to achieve the District's conservation goals and meet future revenue requirements.

The committee consisted of fourteen (14) members selected by the LVVWD Board of Directors to represent diverse stakeholder groups within the District's service area. The committee met six times between August 15, 2007 and October 31, 2007, completing a process consisting of three phases – education, evaluation of rate structure scenarios and formulation of recommendations.

This report summarizes the activities and results of the committee process. Section I is an overview of the committee process. Section II reviews committee discussion topics. Section III provides the committee's seven near and long-term recommendations. Appendices A and B provide a list of committee members and a synopsis of each meeting. Appendix C provides rate scenarios that informed the committee's deliberations. Some scenarios were requested by committee members to explore effects of fundamental changes to the current rate structure. Other scenarios were developed by staff to illustrate the impacts of changes to the various rate structure elements, including service charge, tier pricing, tier thresholds or seasonal rates. These scenarios are provided as background only and do not reflect the committee's final consensus as outlined by the recommendations. Appendix D includes perspective statements submitted by committee members.

I. Advisory Committee Process

To coordinate and manage committee meetings, the LVVWD retained an independent, neutral facilitator from out-of-state (Lewis Michaelson, Katz & Associates, San Diego, California). Mr. Michaelson was responsible for soliciting dialogue and interaction among committee members, ensuring all perspectives had an opportunity to be heard and considered, and suggesting appropriate process tools to assist the committee members in problem-solving and other aspects of their deliberations.

“Consensus” served as the basis for formulation of the committee's recommendations. Members worked together to identify positions that were generally acceptable to the committee as a whole. In instances where consensus was not possible (that is, where members had strong conflicting positions or perspectives on an issue), the minority views have been preserved in this final report.

An overview of each committee meeting is included in Appendix B. A complete summary for each meeting is available on www.lvvwd.com or by contacting the LVVWD.

II. Discussion Topics

During the education phase of the committee process, members received information regarding LVVWD rates (historical and current), conservation achievements and goals, budget projections, and potential peak demand issues. These general discussions set the ground work for an in-depth evaluation of the current rate structure. As a part of this discussion, the committee received information on other rate structure types, perceived issues and inequities of the current rate structure.

Rates Structure Types

The committee evaluated six major rate structures, including flat, declining block, uniform, inverted block, seasonal and budgets.

The committee ruled out uniform rates and water budgets because of their complexity and declining block and flat structures for residential customers because they do not provide an incentive for conservation. However, the committee discussed the benefits of implementing a flat rate structure for commercial customers as a means to increase equity between businesses with inherently different water use patterns. Concern for unintended impacts to commercial customers became an important concept in the committee's discussions and guided some of the near and long-term recommendations. The LVVWD Legal counsel advised that a change to the Water District Act of 1989 would be required before commercial customers could receive a flat water rate at a reasonable level to address the committee's concern. However, the District agreed that this is an area that merits additional consideration and analysis in as much as future rate increases continue to target high levels of water use regardless of consumptive versus non-consumptive use patterns.

The committee focused its discussions on the seasonal and inverted block structures to maintain the simplicity of the current structure and to use price, rather than changes to thresholds, to motivate conservation. Members expressed a desire to minimize the potential public confusion or revenue uncertainty that might accompany any dramatic change to the number or threshold of tiers. The committee discussed the seasonal rate type as an effective response to potential peak demand issues.

Perceived Issues and Inequities

LVVWD staff provided information on several perceived issues and inequities that had been identified by staff and members of the community. The committee focused significant efforts on some issues, while others were identified as long-term concerns warranting further study by staff. A brief synopsis of these issues and the committee's general response follows below.

Overall Pricing Not Aggressive Enough

A common belief is that high water rates provide a universal solution to conservation challenges and supply demands. The committee received information about LVVWD water rates compared to other cities with conservation-focused rates in the desert southwest. Compared to many cities, LVVWD has aggressive tier thresholds, but the District's tier pricing is significantly lower than many other cities.

The committee looked specifically at rate structure scenarios with pricing comparable to Tucson, Arizona (see Scenarios 5 and 6). Scenario 6 doubled the threshold allowances for Tiers 1 and 2 and applied almost all of the price increase to Tier 3 at \$5.13 per thousand gallons and Tier 4 at \$10.75 per thousand gallons. The committee acknowledged the fact that such a scenario would aggressively target discretionary water use among residential customers; however, many members expressed

concern about the impact of such a proposal on commercial customers with significant levels of non-discretionary use in Tiers 3 and 4.

Value of Water and Subsidized Price for Life-line Water Use

LVVWD has historically maintained a low price for the first tier of water use, in order to encourage/reward conservation and attempt to protect low-income customers. However, many have suggested that LVVWD water pricing should more closely reflect the value of water in the desert. Additionally, the low service charge and Tier 1 price have resulted in a subsidy for the lowest levels of water use.

Some committee members felt the subsidy was acceptable, when compared to the advantage of sending a strong pricing signal for conservation. Other committee members felt that it was important to communicate the value of water by minimizing the number of very low monthly water bills (under \$10).

Rate Tiers Tied to Meter Size

LVVWD staff explained that the rate thresholds have historically been set based on meter size equivalency (the relative capacity of each meter size) with the exception of Tier 4 which was set to capture the highest 20 percent of water use for each meter size. The equivalency-based rates are equitable based on relative service capacity, but may not reflect the differences in water use patterns between smaller and large meter customers. To analyze this issue, the committee considered rate structure Scenarios 9a and 9b which set all tiers based on water use percentiles. However, because of significant changes to the thresholds and the difficulty of projecting the outcomes for revenue stability and conservation, the committee did not favor this proposal.

Fourth Tier Threshold

As noted in the discussion above, the fourth tier was set to capture the highest 20 percent of water use for each meter size. Successful conservation efforts have caused this percentile to erode for several meter sizes (for example, Tier 4 currently affects approximately 16 percent of 5/8-inch meter customers). Staff suggested that Tier 4 might be recalibrated to affect 20 percent of customers. However, the committee did not favor this option as a tool for achieving conservation goals.

HOA's With Individual and Common Area Meters

The individual and common area metering combinations installed by developers in some local homeowners associations (HOA's) result in higher water bills for some customers. The committee considered solutions to this issue, but given the wide variety of customer classes and service combinations involved in addressing such an issue, concluded that the issue was too complicated for the scope of this process.

Reducing Peak Demands

The committee received information about the possible loss of Intake 1 if Lake Mead levels continue to decline at the rate experienced over the last several years. If this occurs prior to the completion of Intake 3, an aggressive peak demand management program will be necessary to avoid supply shortages during peak water use months. The committee agreed that a seasonal rate would accomplish this goal. The group discussed alternatives for implementation at length. The alternatives discussed by the committee included immediate implementation of a conservative seasonal rate to gain experience and complete the administrative groundwork, or preparation of an aggressive seasonal structure for implementation only if absolutely necessary. The group did not favor immediate implementation of an aggressive seasonal rate.

Incentive to Reset Clocks Fall/Winter

LVVWD conservation staff suggested that a significant opportunity for conservation existed in the number of customers that do not reset irrigation clocks in the fall or winter according to adopted watering restrictions. The committee recognized the potential for conservation in this area, but concluded that fall/winter pricing signals would compete with summer pricing aimed at reducing peak demands and therefore should not be considered at this time.

In addition to its orientation on relevant issues, the committee received a set of considerations that served to guide the evaluation of rate scenarios. These included:

- Achieve LVVWD conservation goals
- Maintains equity in water pricing to the highest degree possible
- Avoids unnecessary rate shock
- Ensures adequate revenue stability and financial integrity
- Ensures outcomes reflect community concerns

During the course of discussion, the committee identified an additional area for consideration:

- Comprehensible for the public

Based on these criteria and with direction from committee members, LVVWD staff prepared rate scenarios for the committee's consideration (Appendix C). Some scenarios were requested by committee members to explore effects of fundamental changes to the current rate structure. Other scenarios were developed by staff to illustrate the impacts of changes to the various rate structure elements, including service charge, tier pricing, tier thresholds or seasonal rates. These scenarios are provided as background only and do not reflect the committee's final consensus as outlined by the recommendations.

Each scenario was designed to achieve an overall 23.2 percent revenue increase. This figure was based on the results of an elasticity study to identify what pricing signal would be needed to achieve the District's conservation goals. It is also consistent with the revenue increases needed to maintain revenue sufficiency. Review and discussion of the rate structure scenarios led to the development of the committee's final recommendations.

III. Recommendations

Members recognized the challenge in balancing all of these goals, since some goals are in conflict with each other. After careful evaluation of the issues and options, however, the Committee reached consensus on several recommendations. Where consensus was not reached, alternative viewpoints have been documented. As a result of its deliberations, the committee proposes the following recommendations for consideration by the LVVWD Board of Directors.

Near-Term Recommendations

The following near-term recommendations are proposed for implementation in the next three to six months, upon discussion and approval by the LVVWD Board of Directors. Some of these near-term recommendations include phased elements for long-term implementation.

- 1. Take incremental steps towards increasing the monthly service charge to reflect the actual service-related costs, provided that the conservation pricing signal of the inverted block structure is not significantly weakened.**

Historically, the monthly service charge has been under-priced, with uncovered costs being recovered through rates. This approach was originally intended to enhance the conservation pricing signal of the tiered rates. For reference, the current service charge for a 5/8-inch-meter single family residential customer would need to increase approximately 137% to reflect the actual service-related costs. The majority of committee members recommended an initial increase of 50% to the current service charge (from \$4.04 to \$6.06 for a 5/8-inch meter), while a few favored a more conservative increase of 25% (from \$4.04 to \$5.05 for a 5/8-inch meter). Increasing the service charge to the actual service-related costs (\$9.60 for a 5/8-inch meter) over time would provide greater stability to the District's revenue stream and improve the equitable allocation of fixed service costs across all customers. Those members of the committee that favored a lower increase were concerned that the conservation pricing signal would be weakened if the service charge was increased too much. The committee recommended that adjustments should be implemented incrementally over time to avoid unduly affecting the District's ability to send an adequate conservation pricing signal.

- 2. Provide the additional pricing signal needed to induce further conservation by implementing increases to tier pricing. The increases should escalate gradually from Tier 1 to Tier 4, taking into consideration the impacts of any summer seasonal rate (Recommendation 4).**

Through the course of the process, the committee considered various methods for applying the necessary 23.2 percent overall rate increase. Most scenarios presented to the committee included a service charge increase of some degree with the balance of the 23.2 percent increase applied to the current inverted block rate structure. Some scenarios emphasized consistency by applying an equal percentage increase to each tier, while others focused on conservation by placing the increase entirely on Tiers 3 and 4. The committee strongly supported increasing pricing to promote conservation. However, members were not in complete agreement about how heavily the highest tiers should bear the burden of these increases. Many members expressed concerns over unintended impacts to commercial customers or those users that are already conserving to the extent possible. They were particularly concerned for users who have little or no discretionary water use but who would still reach the third and fourth tiers every month. The committee also expressed a desire to minimize impacts to lower income groups and to reward users who are already conserving appropriately.

After extensive discussion and review of scenarios, the committee generally agreed that a graduated approach (applying an increase to all tiers, but with a larger percentage increase for the higher tiers) is appropriate for conservation purposes. However, the increases should be balanced with other rate components (particularly seasonal rates discussed in Recommendation 4) to avoid disproportionate and unintended consequences. The committee directed staff to develop a range of tier pricing increases within the parameters set by the committee's final recommendations for consideration by the LVVWD Board of Directors.

3. Do not implement a “marquee” rate or associated threshold.

A few members suggested the implementation of a marquee rate and associated threshold that targeted only the very highest of users, similar to that found in the rate structure of Tucson. The committee generally concluded that while such a rate and threshold might have public relations value, it added another layer of complexity to the current structure and would not necessarily do anything to achieve the larger conservation or revenue goals of the District, since the experience of most water purveyors is that almost no one actually pays that rate.

4. Begin testing a summer seasonal rate structure.

As Lake Mead water levels continue to decline, the potential to lose Intake 1 prior to the completion of SNWA’s third intake threatens to impact the District’s ability to deliver water to the Las Vegas Valley during periods of peak demand. In the interim, local water purveyors are exploring ways to increase conservation and reduce peak demands during the hottest time of the year to avoid potential supply shortages.

To address peak demands, the committee generally supported the use of more aggressive pricing within the current rate structure. However, in keeping with its concerns over minimizing dramatic change to the current rate structure, avoiding rate shock and limiting unintended impacts to non-discretionary water users in the highest tiers, the committee did not endorse strong “peak” pricing within the year-round rates. Instead, the committee recommended the District implement a moderate summer seasonal rate in the next few years that would apply from May through August and focus on temporary price increases to Tiers 3 – 4. The committee specified that the seasonal rate should serve as a baseline for the District in the event more aggressive peak pricing becomes necessary to avoid potential peaking issues. The seasonal rate should be balanced with year-round pricing increases for Tier 3 and/or Tier 4 to avoid a compounded or too punitive pricing signal that would constitute rate shock.

The committee generally supported implementation of a conservative seasonal rate next summer. However, a few members felt a seasonal component should only be pursued if absolutely necessary. They recommended first analyzing such an approach to ensure the various impacts to customer classes were well understood and reasonably fair, before such a system was implemented to manage peak demands.

5. Take incremental steps towards charging all residential customers the same rate for the same amount of water use regardless of meter size.

The committee recommended the consolidation of tier thresholds for single-family residential accounts to achieve equity among customers and to target conservation of discretionary water use. Under the current rate structure, residents with a 3/4, 1, 1½ or 2-inch meter (typically those with the highest levels of water use) are allowed proportionately greater amounts of water in the lower-priced rate tiers than a 5/8-inch meter. Although there was general agreement that this discrepancy should be addressed, the committee recognized the potential for significant rate shock if the adjustments were made fully and immediately. Instead, the committee recommended implementing the change over the course of three or four rate increases, beginning first with a one-third reduction of the difference between 5/8-inch rate tier thresholds and the thresholds for

single-family residential customers with meters larger than 5/8-inch. (For example, the start of Tier 2 would move from 7,500 to 6,600 gallons for 3/4-inch customers and from 12,500 to 10,000 gallons for 1-inch customers.)

Similar adjustments would then occur with subsequent rate increases. However, the committee recommended that the impacts be analyzed first to assess and avoid unintended consequences as future adjustments are implemented.

Long-Term Recommendations

The following long-term recommendations are proposed for implementation over the next one to five years, depending on the outcome of relevant research, analysis or additional discussion at the staff, management and District Board level.

- 1. Consider opportunities to create distinctions between residential water rates and those of other customer classes (e.g., commercial or municipal) in order to provide the District with greater flexibility to increase pricing in the highest tiers.**

The committee believes that such distinctions would make it possible to focus pricing signals on outdoor, discretionary use, while avoiding unnecessary impacts to other customers with little or no discretionary water use in the highest tiers.

- 2. Consider annual incremental price increases and rate structure adjustments to meet revenue requirements and/or sustain conservation pricing signals.**

The Integrated Water Planning Advisory Committee, conducted by the Southern Nevada Water Authority, recommended that local purveyors “sustain current pricing signals [for conservation] by ensuring water rates keep pace with inflation.” While the LVVWD Rates Committee recognized the need for future rate increases and supported regular, incremental increases over less frequent but dramatic jumps in rate pricing, many members were not in favor of indexing the District’s rates or service charge to inflation. Instead, the committee recommends that the LVVWD Board of Directors annually consider appropriate price increases or rate adjustments to meet revenue requirements and/or achieve conservation goals.

APPENDIX A

Rates Citizen Advisory Committee Membership



APPENDIX A

Rates Citizens Advisory Committee Membership

Committee Membership

Olga Albicki, Wells Fargo Bank
Bill Bible, Nevada Resort Association
Karl Braun, Manufactured homeowner
Louis Conner, Seven Seas Restaurant
Sandra Evans, Camden Properties
Steve Hill, Silver State Materials Corp.
Paul Jaramillo, Par-3 Landscape
Cynthia Lopez, Link Tech Consulting
Ralph Murphy, National Association of Industrial/Office Properties
Richard Plaster, Signature Homes
Launce Rake, Progressive Leadership Alliance of Nevada
Devin Reiss, Greater Las Vegas Association of Realtors
Danny Thompson, AFL-CIO
Ron Winkle, Sun City Summerlin HOA

Stakeholder Group

Finance
Gaming
Manufactured Housing
Small Business
Multi-family Housing
Business
Golf Course / Landscape
Resident
Commercial Development
Residential Development
Environment
Small Business
Labor
Senior

APPENDIX B

Rates Citizen Advisory Committee Meeting Synopsis



APPENDIX B

Rates Citizen Advisory Committee

The following provides a brief synopsis of discussion topics for each Rates meeting. A summary was developed for each meeting and is available on www.lvvwd.com or by contacting the LVVWD.

Meeting 1 – August 15, 2007: Introduction of committee members, facilitator and key SNWA staff. Review the Rates Committee’s purpose and process, overview of drought and revenue issues.

Meeting 2 – September 05, 2007: Overview potential peaking issues, analysis of density impacts, LVVWD Elasticity Study, major rate structure types, historical and current LVVWD rate structures.

Meeting 3 – September 19, 2007: Comparison of LVVWD rates to other desert cities, perceived issues and inequalities, and Scenarios 1-4.

Meeting 4 – October 03, 2007: Review Scenarios 5-11 (proposed by committee members), and discuss potential recommendations.

Meeting 5 – October 17, 2007: Discussion of desired outcomes, review Scenarios 12 and 9b, and discuss potential recommendations.

Meeting 6 – October 31, 2007: Review Scenarios 13-16, and finalize recommendations.

APPENDIX C

Rates Resource Scenarios

LVVWD staff prepared 14 rate scenarios for the committee's consideration. Some scenarios were requested by committee members to explore effects of fundamental changes to the current rate structure. Other scenarios were developed by staff to illustrate the impacts of changes to the various rate structure elements, including service charge, tier pricing, tier thresholds or seasonal rates. These scenarios are provided as background only and do not reflect the committee's final consensus as outlined by the recommendations.

Each scenario was designed to achieve an overall 23.2 percent revenue increase. This figure was based on the results of an elasticity study to identify what pricing signal would be needed to achieve the District's conservation goals. It is also consistent with the revenue increases needed to maintain revenue sufficiency. Review and discussion of the rate structure scenarios led to the development of the committee's final recommendations.



Scenario Number: 1

Scenario Description:

No change in the number to tiers or thresholds. Apply a 23.2% increase to the service charge and all tier rates.

System-Wide Rate Increase?	23.2%
Meets Revenue Requirements?	Yes, through 2010
Revenue Confidence (1-10)?	10
Meets GPCD Target of 250 by 2010?	Yes
Projected Conservation?	5.55%
Years to Implement?	1

\$65 Million gross annual revenue increase

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.36	\$2.33	\$3.23	\$4.29
\$ Increase/(Decrease)	\$0.26	\$0.44	\$0.61	\$0.81
% Increase/(Decrease)	23.2%	23.2%	23.2%	23.2%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	(0)
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates (May - August)

Not Applicable

Scenario Number: 2

Scenario Description:

No change in the number to tiers or thresholds. Increase to service charge to actual cost. Apply 16% increase to all tier rates.

System-Wide Rate Increase?	22.5%	
Meets Revenue Requirements?	Yes, through 2010	\$63 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.36%	
Years to Implement?	1	

Monthly Service Charge

Tier Pricing (all meter sizes)	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.28	\$2.19	\$3.04	\$4.04
\$ Increase/(Decrease)	\$0.18	\$0.30	\$0.42	\$0.56
% Increase/(Decrease)	16.0%	16.0%	16.0%	16.0%

Monthly Tier Thresholds (5/8" Service)

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	(0)
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates (May - August)

Not Applicable

Scenario Number: 3

Scenario Description:

Increase the service charge by 50%. Four tiers. Recalibrate the 4th tier so it captures the top 20% of consumption in every service size. Increase the rate in every tier by 17%.

System-Wide Rate Increase?	22.9%	
Meets Revenue Requirements?	Yes, through 2010	\$64 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.46%	
Years to Implement?	1	

Monthly Service Charge

Old Rates	\$4.04
New Rates	\$6.06
\$ Increase/(Decrease)	\$2.02
% Increase/(Decrease)	50.0%

Rate per 1,000 Gallons

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.29	\$2.21	\$3.07	\$4.07
\$ Increase/(Decrease)	\$0.19	\$0.32	\$0.45	\$0.59
% Increase/(Decrease)	17.0%	17.0%	17.0%	17.0%

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	5	15
Increase/(Decrease)	0	0	(5)	(5)
% Increase/(Decrease)	0%	0%	-50%	-25%

Seasonal Rates (May - August)

Not Applicable

Scenario Number: 4

Scenario Description:

No change in the service charge. Consolidate from 4 to 3 tiers by keeping the same thresholds in tiers 1 and 2, so all consumption in the 4th tier will be moved to the 3rd tier. Set rates at \$1.30, \$2.40, and \$3.50.

System-Wide Rate Increase?	27.0%	
Meets Revenue Requirements?	Yes, through 2010	\$73 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.72%	
Years to Implement?	1	

Monthly Service Charge

Tier Pricing (all meter sizes)	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.30	\$2.40	\$3.50	\$0.00
\$ Increase/(Decrease)	\$0.20	\$0.51	\$0.88	
% Increase/(Decrease)	18.2%	27.0%	33.6%	

Monthly Tier Thresholds (5/8" Service)

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	0
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates (May - August)

Not Applicable

Scenario Number: 5

Scenario Description:

No change in the service charge. No change in tier thresholds. No change in tier 1 or tier 2 rates. Set tier 3 and tier 4 rates as needed to achieve conservation target and revenue sufficiency.

System-Wide Rate Increase?	23.2%	\$65	Million Annual
Meets Revenue Requirements?	Yes through 2010		
Revenue Confidence (1-10)?	8		
Meets GPCD Target of 250 by 2010?	Yes		
Projected Conservation?	5.55%		
Seasonal Rates?	No		
Years to Implement?	1		

Monthly Service Charge

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.10	\$1.89	\$3.25	\$6.05
\$ Increase/(Decrease)	\$0.00	\$0.00	\$0.63	\$2.57
% Increase/(Decrease)	0.0%	0.0%	24.0%	73.9%

Monthly Consumption (1,000 Gallons)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	0	0
% Increase/(Decrease)	0.0%	0.0%	0.0%	0.0%

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	0	0
% Increase/(Decrease)	0.0%	0.0%	0.0%	0.0%

Seasonal Rates

Not Applicable

Scenario Number: 6

Scenario Description:

No change in the service charge. Combine tier 1 and 2 thresholds into tier 1. Make tier 2 thresholds same as the old tier 3. Set tier 4 threshold at top 5% of consumption, and tier 3 threshold at the difference between tier 2 and tier 4. Set tier 1 rate at \$1.50. Set tiers 2 & 3 rates as needed to generate required conservation and revenue requirements. Set tier 4 rate at a "marquee rate" of \$10.75 (\$.01 over Tucson's highest rate). Because we assume consumption in this tier will be very price elastic, we will not count on any revenue from the 4th tier in order to meet revenue requirements.

System-Wide Rate Increase? 23.2%
 Meets Revenue Requirements? Yes, through 2010 \$65 Million annual estimated revenue increase
 Revenue Confidence (1-10)? 7
 Meets GPCD Target of 250 by 2010? Yes
 Projected Conservation? 5.55%
 Years to Implement? 1

Monthly

Service Charge	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
\$4.04	\$1.10	\$1.89	\$2.62	\$3.48
\$4.04	\$1.50	\$3.25	\$5.13	\$10.75
\$0.00	\$0.40	\$1.36	\$2.51	\$7.27
0.0%	36.4%	72.0%	95.8%	208.9%

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	10	10	12
Increase/(Decrease)	5	5	2
% Increase/(Decrease)	100%	100%	20%

Seasonal Rates

Not Applicable

Scenario Number: 7.a

Scenario Description:

Reduce the service charge to \$2.50 per month for 5/8" service. Other service sizes reduced proportionally. No thresholds. One flat rate for all consumption, set at a rate sufficient to achieve conservation target and revenue requirements.

System-Wide Rate Increase? 23.2% \$65 Million annual estimated revenue increase

Meets Revenue Requirements? Yes, through 2010

Revenue Confidence (1-10)? 5

Meets GPCD Target of 250 by 2010? Yes

Projected Conservation? 5.55%

Years to Implement? 1

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$2.87	\$0.00	\$0.00	\$0.00
\$ Increase/(Decrease)	\$1.77	(\$1.89)	(\$2.62)	(\$3.48)
% Increase/(Decrease)	161.0%	-100.0%	-100.0%	-100.0%

Monthly Consumption (1,000 Gallons)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	0	0	0
Increase/(Decrease)	(5)	(5)	(10)
% Increase/(Decrease)	-100.0%	-100.0%	-100.0%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	0	0	0
Increase/(Decrease)	(5)	(5)	(10)
% Increase/(Decrease)	-100.0%	-100.0%	-100.0%

Seasonal Rates

Not Applicable

Scenario Number: 7.b

Scenario Description:

Reduce service charge to \$2.50 per month for 5/8" service. Other service sizes reduced proportionally. No thresholds. One flat rate for all consumption, unless we lose intake #1. If we lose intake #1, add a second tier calibrated to capture the top 25% of consumption during summer months only, for all service sizes, at a "penalty" rate. However, for purposes of determining revenue sufficiency, we will assume that we only get 1/3 of this top 25% of consumption.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million annual estimated revenue increase
Revenue Confidence (1-10)?	5	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$2.87	\$0.00	\$0.00	\$0.00
\$ Increase/(Decrease)	\$1.77	(\$1.89)	(\$2.62)	(\$3.48)
% Increase/(Decrease)	160.9%	-100.0%	-100.0%	-100.0%

Monthly Consumption (1,000 Gallons)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	20
New Thresholds	0	0	0
Increase/(Decrease)	(5)	(5)	(20)
% Increase/(Decrease)	-100%	-100%	-100%

Monthly Tier Thresholds (5/8" Service)

	Tier 1		Tier 2	
	First	Over	First	Over
Old Thresholds	5	5	14	14
New Thresholds	0	0	14	14
Increase/(Decrease)	(5)	(5)	0	0
% Increase/(Decrease)	-100%	-100%	0%	0%

Seasonal Rates

Rate (May through August)
 Thresholds (5/8" Service)

Scenario Number: 8.a

Scenario Description:

No thresholds. One flat rate for all consumption, set at roughly what we are getting from water rates now. Raise the service charge as much as necessary to get 23.2% revenue increase which will achieve conservation goals and meet revenue requirements.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes through 2010	\$65 Million annual estimated revenue increase
Revenue Confidence (1-10)?	9	
Meets GPCD Target of 250 by 2010?	Unknown	
Projected Conservation?	Unknown	
Seasonal Rates?	No	
Years to Implement?	1	

Monthly Service Charge

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$2.30	\$0.00	\$0.00	\$0.00
\$ Increase/(Decrease)	\$1.20	(\$1.89)	(\$2.62)	(\$3.48)
% Increase/(Decrease)	108.8%	-100.0%	-100.0%	-100.0%

Tier Pricing (all meter sizes)

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$2.30	\$0.00	\$0.00	\$0.00
\$ Increase/(Decrease)	\$1.20	(\$1.89)	(\$2.62)	(\$3.48)
% Increase/(Decrease)	108.8%	-100.0%	-100.0%	-100.0%

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	0	0	0	0
Increase/(Decrease)	(5)	(5)	(10)	(20)
% Increase/(Decrease)	-100.0%	-100.0%	-100.0%	-100.0%

Seasonal Rates

Not Applicable

Scenario Number: 8.b

Scenario Description:

No change in current tier thresholds or rates. Get all the revenue increase necessary to achieve conservation goals and revenue requirements by increasing the service charge.

System-Wide Rate Increase?	23.2%
Meets Revenue Requirements?	Yes through 2010
Revenue Confidence (1-10)?	9
Meets GPCD Target of 250 by 2010?	Unknown
Projected Conservation?	Unknown
Years to Implement?	1
	\$65 Million annual estimated revenue increase

Monthly

Service Charge	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.10	\$1.89	\$2.62	\$3.48
\$ Increase/(Decrease)	\$0.00	\$0.00	\$0.00	\$0.00
% Increase/(Decrease)	0.0%	0.0%	0.0%	0.0%

Monthly Consumption (1,000 Gallons)

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	0
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates

Not Applicable

Scenario Number: 9a

Scenario Description:

Increase the service charge by 24%. 1st tier threshold the same as it is now. Recalibrate 2nd tier so the 1st and 2nd tiers capture 50% of consumption. Recalibrate 3rd tier so that captures between 50% and 80% of consumption. Recalibrate 4th tier so that it captures consumption between 80% and 95%. Add a 5th tier calibrated to capture the top 5% of consumption. Set rates as shown below.

System-Wide Rate Increase?	23.8%	
Meets Revenue Requirements?	Yes through 2010	\$67 Million annual estimated revenue increase
Revenue Confidence (1-10)?	9	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service Charge

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48	
New Rates	\$1.10	\$2.20	\$3.30	\$4.40	\$5.50
\$ Increase/(Decrease)	\$0.00	\$0.31	\$0.68	\$0.92	\$5.50
% Increase/(Decrease)	0.0%	16.4%	26.0%	26.4%	

Tier Pricing (all meter sizes)

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48	
New Rates	\$1.10	\$2.20	\$3.30	\$4.40	\$5.50
\$ Increase/(Decrease)	\$0.00	\$0.31	\$0.68	\$0.92	\$5.50
% Increase/(Decrease)	0.0%	16.4%	26.0%	26.4%	

Monthly Consumption (1,000 Gallons)

	First	Next	Next	Next	Over
Old Thresholds	5	5	10		
New Thresholds	5	3	8	16	32
Increase/(Decrease)	0	(2)	(2)		
% Increase/(Decrease)	0%	-40%	-20%		

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Next	Over
Old Thresholds	5	5	10		
New Thresholds	5	3	8	16	32
Increase/(Decrease)	0	(2)	(2)		
% Increase/(Decrease)	0%	-40%	-20%		

Seasonal Rates

Not Applicable

Scenario Number: 9.b

Scenario Description:

Increase the service charge by 24%. 1st tier threshold the same as it is now. Recalibrate 2nd tier so the 1st and 2nd tiers capture 50% of consumption. Recalibrate 3rd tier so that captures between 50% and 80% of consumption. Recalibrate 4th tier so that it captures consumption between 80% and 100%. Set rates as shown below.

System-Wide Rate Increase?	23.2%		
Meets Revenue Requirements?	Yes through 2010	\$65	Million annual estimated revenue increase
Revenue Confidence (1-10)?	9		
Meets GPCD Target of 250 by 2010?	Yes		
Projected Conservation?	5.55%		
Years to Implement?	1		

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.10	\$2.20	\$3.30	\$4.59
\$ Increase/(Decrease)	\$0.00	\$0.31	\$0.68	\$1.11
% Increase/(Decrease)	0.0%	16.4%	26.0%	31.8%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	3	8
Increase/(Decrease)	0	(2)	(2)
% Increase/(Decrease)	0%	-40%	-20%

Seasonal Rates

Not Applicable

Scenario Number: 10

Scenario Description:

Increase service charge by 40%. For single family residential customers only, set thresholds as follows; tier 1 = 5, tier 2 = 12.5, tier 3 = 20, tier 4 = over 20. Set rates as follows; tier 1 = \$1.20, tier 2 = \$2.05, tier 3 = \$3.25, tier 4 = \$5.00. All other customers, including multifamily, construction and golf courses are charged at a flat rate roughly equal to what we are getting now, plus 10%. MHP remain on a tiered spaces rate.

System-Wide Rate Increase?	23.3%	
Meets Revenue Requirements?	Yes through 2010	\$65 Million annual estimated revenue increase
Revenue Confidence (1-10)?	5	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service

Charge	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.20	\$2.05	\$3.25	\$5.00
\$ Increase/(Decrease)	\$0.10	\$0.16	\$0.63	\$1.52
% Increase/(Decrease)	9.1%	8.5%	24.0%	43.7%

Single Family Residential Only

Rate per 1,000 Gallons	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.20	\$2.05	\$3.25	\$5.00
\$ Increase/(Decrease)	\$0.10	\$0.16	\$0.63	\$1.52
% Increase/(Decrease)	9.1%	8.5%	24.0%	43.7%

Monthly Consumption (1,000 Gallons)

Monthly Tier Thresholds (5/8" Service)	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	7.5	7.5	20
Increase/(Decrease)	0	2.5	(2.5)	0
% Increase/(Decrease)	0%	50%	-25%	0%

Commercial Rates

One Flat Rate For All Non Single Family Residential Consumption \$2.82

Seasonal Rates

Not Applicable

Scenario Number: 11

Scenario Description:

Increase the service charge to what it "should be", based on increased costs since 1996. Keep the number of tiers and tier thresholds the same as they are now. Increase the rate of each tier by 10% in non summer months. In summer months, keep the rates in tier 1 and 2 the same as they are in non summer months, but increase the rates in tiers 3 and 4 by enough to provide the revenues we need to achieve conservation goals and revenue requirements. However, because we assume consumption in tiers 3 and 4 in summer months is highly elastic, we will assume that 1/3 of the revenue from the highest consumption in summer months will not occur.

System-Wide Rate Increase? 23.2%
 Meets Revenue Requirements? Yes, through 2010 \$65 Million annual estimated revenue increase
 Revenue Confidence (1-10)? 9
 Meets GPCD Target of 250 by 2010? Yes
 Projected Conservation? 5.55%
 Years to Implement? 1

Monthly Service Charge

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.21	\$2.08	\$2.88	\$3.83
\$ Increase/(Decrease)	\$0.11	\$0.19	\$0.26	\$0.35
% Increase/(Decrease)	10.0%	10.0%	10.0%	10.0%

Rate per 1,000 Gallons

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.21	\$2.08	\$2.88	\$3.83
\$ Increase/(Decrease)	\$0.11	\$0.19	\$0.26	\$0.35
% Increase/(Decrease)	10.0%	10.0%	10.0%	10.0%

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	0	0
% Increase/(Decrease)	0%	0%	0%	0%

Monthly Consumption (1,000 Gallons)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	0	0
% Increase/(Decrease)	0%	0%	0%	0%

Seasonal Rates

	Tier 3	Tier 4
Rate (May through August)	\$3.50	\$6.85

Scenario Number: 12.a

Scenario Description:

Increase service charge for all service sizes by half the amount needed to cover costs that should be paid by service charge. Leave the number of tiers (4) and tier thresholds as they are now. Set tier rates as needed to achieve conservation and revenue sufficiency and apply it evenly, i.e. raise each tier rate by the same percentage.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.33	\$2.29	\$3.17	\$4.21
\$ Increase/(Decrease)	\$0.23	\$0.40	\$0.55	\$0.73
% Increase/(Decrease)	21.0%	21.0%	21.0%	21.0%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	0
% Increase/(Decrease)	0.0%	0.0%	0.0%

Seasonal Rates

Not Applicable

Scenario Number: 12.b

Scenario Description:

Increase service charge for all service sizes by half the amount needed to cover costs that should be covered by service charge. Leave tier thresholds as they are now, except add tier 5 calibrated to capture the top 2% of consumption in each service size. Set tier rates as needed to achieve conservation and revenue sufficiency. Because it will be very elastic, all tier 5 consumption is assumed to be driven down to lower thresholds.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	9	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service Charge

Tier Pricing (all meter sizes)	Rate per 1,000 Gallons				
	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48	
New Rates	\$1.33	\$2.29	\$3.17	\$4.21	\$10.75
\$ Increase/(Decrease)	\$0.23	\$0.40	\$0.55	\$0.73	\$10.75
% Increase/(Decrease)	21.0%	21.0%	21.0%	21.0%	

Monthly Consumption (1,000 Gallons)

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	(0)
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates

Not Applicable

Scenario Number: 12.c

Scenario Description:

Increase service charge for all service sizes by half the amount needed to cover costs that should be paid by service charge. Leave the number of tiers (4) and tier thresholds as they are now. Set tier rates as needed to achieve conservation and revenue sufficiency and apply it evenly, i.e. raise each tier by the same percentage. Add seasonal rates for summer months (May - August).

System-Wide Rate Increase? 23.2%
 Meets Revenue Requirements? Yes, through 2010 \$65 Million gross annual revenue increase
 Revenue Confidence (1-10)? 8
 Meets GPCD Target of 250 by 2010? Yes
 Projected Conservation? 5.55%
 Years to Implement? 1

Monthly

Service

Charge
 \$4.04
 \$7.01
 \$2.97
 73%

Tier Pricing (all meter sizes)

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.27	\$2.17	\$3.01	\$4.00
\$ Increase/(Decrease)	\$0.17	\$0.28	\$0.39	\$0.52
% Increase/(Decrease)	15%	15%	15%	15%

Rate per 1,000 Gallons

Monthly Tier Thresholds (5/8" Service)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	0	0
% Increase/(Decrease)	0%	0%	0%	0%

Monthly Consumption (1,000 Gallons)

Seasonal Rates (May - August)

	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.42	\$2.45	\$3.39	\$4.50
\$ Increase/(Decrease)	\$0.32	\$0.56	\$0.77	\$1.02
% Increase/(Decrease)	29%	29%	29%	29%

Rate per 1,000 Gallons

Scenario Number: 12.d

Scenario Description:

Increase service charge for all service sizes by half the amount needed to cover costs that should be paid by service charge. Leave the number of tiers (4) and tier thresholds as they are now. Set tier rates as needed to achieve conservation and revenue sufficiency and apply it evenly, i.e. raise each tier by the same percentage. Add seasonal rates for summer months (May - August) in tiers 3 and 4 only.

System-Wide Rate Increase? 23.2%
 Meets Revenue Requirements? Yes, through 2010 \$65 Million gross annual revenue increase
 Revenue Confidence (1-10)? 8
 Meets GPCD Target of 250 by 2010? Yes
 Projected Conservation? 5.55%
 Years to Implement? 1

Monthly Service Charge

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.27	\$2.17	\$3.01	\$4.00
\$ Increase/(Decrease)	\$0.17	\$0.28	\$0.39	\$0.52
% Increase/(Decrease)	15%	15%	15%	15%

Monthly Consumption (1,000 Gallons)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	0
% Increase/(Decrease)	0%	0%	0%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	0
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates (May - August)

	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates			\$2.62	\$3.48
New Rates			\$3.55	\$4.71
\$ Increase/(Decrease)			\$0.93	\$1.23
% Increase/(Decrease)			35%	35%

Scenario Number: 13.a

Scenario Description:

Increase service charge to \$5.50 for 5/8" service. Larger service sizes increased proportionally. Four tiers. No change in tier thresholds. Set tier rates as needed to achieve conservation and revenue sufficiency, and apply it evenly, i.e. raise each tier rate by the same percentage.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly

Monthly Service Charge	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.33	\$2.28	\$3.16	\$4.19
\$ Increase/(Decrease)	\$0.23	\$0.39	\$0.54	\$0.71
% Increase/(Decrease)	20.5%	20.5%	20.5%	20.5%

Monthly Consumption (1,000 Gallons)

Monthly Tier Thresholds (5/8" Service)	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	10	20
New Thresholds	5	10	20
Increase/(Decrease)	0	(0)	0
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates

Not Applicable

Scenario Number: 13.b

Scenario Description:

Increase service charge to \$5.50 for 5/8" service. Larger service sizes increased proportionally. Four tiers. No change in tier thresholds. Set tier rates as needed to achieve conservation and revenue sufficiency as shown below, i.e. 10% rate increase in tier 1, 15% rate increase in tier 2, 20% rate increase in tier 3, and whatever is needed in tier 4.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service

Tier Pricing (all meter sizes)	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.21	\$2.17	\$3.14	\$5.05
\$ Increase/(Decrease)	\$0.11	\$0.28	\$0.52	\$1.57
% Increase/(Decrease)	10.0%	15.0%	20.0%	45.1%

Monthly Tier Thresholds (5/8" Service)

	Monthly Consumption (1,000 Gallons)		
	First	Next	Over
Old Thresholds	5	5	10
New Thresholds	5	5	10
Increase/(Decrease)	0	0	(0)
% Increase/(Decrease)	0%	0%	0%

Seasonal Rates

Not Applicable

Scenario Number: 13.c

Scenario Description:

Increase service charge to \$5.50 for 5/8" service. Larger service sizes increased proportionally. Four tiers. No change in tier thresholds. Set tier rates as needed to achieve conservation and revenue sufficiency with non-summer and summer rates as shown below. i.e. 10% rate increase in the 1st tier, 15% rate increase in the 2nd tier, 20% rate increase in the 3rd tier, and whatever is needed in the 4th tier.

System-Wide Rate Increase?	23.3%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	10	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service

Tier Pricing (all meter sizes)	Rate per 1,000 Gallons			
	Tier 1	Tier 2	Tier 3	Tier 4
Old Rates	\$1.10	\$1.89	\$2.62	\$3.48
New Rates	\$1.21	\$2.17	\$3.14	\$4.50
\$ Increase/(Decrease)	\$0.11	\$0.28	\$0.52	\$1.02
% Increase/(Decrease)	10.0%	15.0%	20.0%	29.3%

Monthly Consumption (1,000 Gallons)

	First	Next	Next	Over
Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	(0)	0
% Increase/(Decrease)	0%	0%	0%	0%

Monthly Tier Thresholds (5/8" Service)

Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	(0)	0
% Increase/(Decrease)	0%	0%	0%	0%

Seasonal Rates (May - August)

	Tier 1	Tier 2	Tier 3	Tier 4
New Non Summer Rates			\$3.14	\$4.50
New Summer Rates			\$3.46	\$4.96
\$ Increase/(Decrease)			\$0.31	\$0.46
% Increase/(Decrease)			10.0%	10.2%

Scenario Number: 16.a

Scenario Description:

Increase service charge to \$5.50 for 5/8" service. Larger service sizes increased proportionally. Four tiers. For single family residential customer class (91% of total customers) only, move thresholds for all services larger than 5/8", 1/3 of the way toward 5/8" thresholds. No change in tier thresholds for other customer classes. Set tier rates as needed to achieve conservation and revenue sufficiency, and apply it evenly, i.e. raise each tier rate by the same percentage.

System-Wide Rate Increase?	23.2%	
Meets Revenue Requirements?	Yes, through 2010	\$65 Million gross annual revenue increase
Revenue Confidence (1-10)?	8	
Meets GPCD Target of 250 by 2010?	Yes	
Projected Conservation?	5.55%	
Years to Implement?	1	

Monthly Service

Charge	Tier 1	Tier 2	Tier 3	Tier 4
\$4.04	\$1.10	\$1.89	\$2.62	\$3.48
\$5.50	\$1.32	\$2.26	\$3.13	\$4.16
\$1.46	\$0.22	\$0.37	\$0.51	\$0.68
36.1%	19.7%	19.7%	19.7%	19.7%

Rate per 1,000 Gallons

	Tier 1	Tier 2	Tier 3	Tier 4
	\$1.10	\$1.89	\$2.62	\$3.48
	\$1.32	\$2.26	\$3.13	\$4.16
	\$0.22	\$0.37	\$0.51	\$0.68
	19.7%	19.7%	19.7%	19.7%

Monthly Consumption (1,000 Gallons)

	First	Next	Next	Over
	5	5	10	20
	5	5	10	20
	0	0	(0)	0
	0%	0%	0%	0%

Monthly Tier Thresholds (5/8" Service)

Old Thresholds	5	5	10	20
New Thresholds	5	5	10	20
Increase/(Decrease)	0	0	(0)	0
% Increase/(Decrease)	0%	0%	0%	0%

Seasonal Rates

Not Applicable

APPENDIX D

Member Perspectives



Member Perspective Provided by Launce Rake

Las Vegas and the entire Southwest region are in a period of drought, with no end in sight, that requires urgent and immediate attention. We need to act quickly to reduce per capita consumption in the Las Vegas Valley and to bring our use more in line with water use in other conservation-minded cities throughout the Southwest.

Conservation of water through carefully considered pricing mechanisms has worked in other parts of the Southwest and could significantly ease the problem here, but we need to send a far stronger conservation message to consumers than is reflected in the vague recommendations as they currently stand. Though there will be continuing adjustments to the rates over time, consumers need strong and immediate encouragement to reduce their demand. A sharply tiered rate structure that would go into effect soon could reduce demand.

The Rates Citizens Advisory Committee included disparate members of the community. It has met six times since late August. The committee members worked diligently to address the many complex questions that any changes to the pricing systems would entail. Various and at times sharply divergent perspectives were represented. Given the tight deadline that the committee has been working with, it is worth noting that many of the scenarios reflecting price changes were reviewed rapidly. Although staff members worked to provide as complete analysis as possible of the different scenarios, their work represented broad overviews.

In an effort that reflects both the drive to forge consensus and the race to achieve closure of discussion, the final recommendations from the committee lack two important elements: There is a lack of specificity in the recommendation on how much to increase rates, and how those increases should be distributed. The recommendations generally support an incremental approach to correcting longstanding inadequacies in the pricing system, the most obvious being the rates charged for high-volume users.

There are also some very positive outcomes among the draft recommendations. The following comments are ranked in importance.

Near-term recommendation No. 2

Residents and customers of the Water District joined conservationists in providing the overwhelming public input on the issue of pricing and water conservation, supporting a billing structure that sends strong price signals to water users. Committee members from the gaming, finance, labor, conservation and real estate sectors spoke on the need for significant price signals to win conservation, and it putting those signals where they would do the most good: On the highest-volume water users.

The representative of the conservation community, from the Progressive Leadership Alliance of Nevada, proposed a tiered billing system that would leave low-volume users without any price increases, but would increase high-volume users, who place the most stress on the system, to a greater degree – a family using 36,200 gallons a month, for example, would have its bill increase from about \$106 to more than \$152. Having a specific recommendation to the Board of the Las Vegas Valley Water District would eliminate unnecessary confusion caused by the vague consensus language contained in the draft recommendations: *“The committee directed staff to develop a range of recommended pricing increases within the parameters set by the committee for consideration by the LVVWD Board of Directors.”*

According to water policy analysts from Western Resource Advocates, it is critically important to have the price difference between tiers increase enough that consumers will notice the change and alter their behavior, somewhere around 50 percent. While such price changes can be implemented over time to minimize rate shock on high-volume users, it would be prudent to indicate that is the goal. Many communities, including those with the most successful conservation programs in the Southwest, increase the prices by 100 percent between tiers. Such a move in Las Vegas would exempt many users from any financial impact at all, but put the top use levels in the range of \$8 per 1,000 gallons – a price consistent with urban users in other Southwestern cities. The top price for the heaviest water users in Las Vegas is now \$3.48 per 1,000 gallons.

Thus without more specifics that would win significant conservation goals without penalizing minimal users, PLAN’s representative to the committee cannot endorse near-term recommendation No. 2 in the draft.

Near-term recommendation No. 3

While the draft final near-term recommendations reject the idea that a “marquee” rate will result in conservation savings due to the limited number of customers using water at that level, it is worth nothing that while small in quantity those users who do fall above the threshold use exorbitant volumes of water. Furthermore, it is up to the water district to set the threshold at a level that would be effective in targeting real users.

Near-term recommendation No. 1

It should be noted that adjusting the service charge does not achieve any conservation gains whatsoever. Because the cost would be minimal, the PLAN representative does not contest the issue, however. If the service charge is to be increased, it should be a minimal adjustment, closer to the 25 percent than the 50 percent in the range suggested by staff.

Near-term recommendation No. 4

A seasonal rate structure could provide significant conservation incentives that would result in year-round savings.

Near-term recommendation No. 5

Charging all water users at the same level regardless of meter size is an important step. As one committee member astutely observed, “water is water,” regardless of the size of the pipe entering the residence or business. However, as with other elements in the recommendations, the incremental character of the change is a concern. The community is faced with pressing issues now, and PLAN’s representative would urge that the Board of the water district press this issue and others with as much speed as possible.

Long-term recommendation No. 1

The long-term goal of distinguishing between residential and institutional users, among them users with little discretionary flexibility in their water use and/or users such as multi-family residential that already use minimal per capita amounts of water, is extremely sensible.

Long-term recommendation No. 2

Annual reviews of the pricing platforms can accommodate both unintended consequences and changing situations in this very fluid environment.