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BEFORE THE ARIZONA CORPORATION COMMISSION

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CHAIRMAN

GARY PIERCE
COMMISSIONER

BRENDA BURNS
COMMISSIONER

SUSAN BITTER SMITH
COMMISSIONER

BOB BURNS
COMMISSIONER

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118 **NOTICE OF FILING REBUTTAL TESTIMONY**

Attached is the Rebuttal Testimony of Sheryl L. Hubbard, Jeffrey W. Stuck, Jake Lenderking, Sandra L. Murrey, Thomas J. Bourass, Pauline M. Ahern and Candace Coleman filed on behalf of Chaparral City Water Company.

RESPECTFULLY SUBMITTED this 21st day of January, 2014.

LEWIS ROCA ROTHGERBER, LLP

By _____
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this 21st day of January, 2014, with:

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Phoenix, Arizona 85007

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
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SUSAN BITTER SMITH
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IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
SHERYL L. HUBBARD
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

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EXECUTIVE SUMMARY

Ms. Hubbard testifies that:

- The Company's total revised requested annual revenue increase is $3,089,039 or a 34.3% increase.
- She is sponsoring the following exhibits:
  - Exhibit SLH-R1 – Summary of the Parties Positions
  - Exhibit SLH-R2 – Recalculation of the ACC Staff's UPIS and Accumulated Depreciation
  - Exhibit SLH-R3 – Response to Data Request RUCO 8.04
- The Company has reviewed Staff's accumulated depreciation adjustments and provides additional adjustments to Staff's recommendation.
- The Company has updated its post test year plant additions, which now total $4,579,953.
- CCWC does not agree with RUCO's adjustment to customer deposits.
- CCWC continues to support its 24-month deferral request, an approach recommended by Commission Staff in prior proceedings and an approach that is not duplicative of its SIB Mechanism request.
- CCWC does not accept RUCO's position regarding the deferral of CAP capital charges.
- The Company has accepted certain adjustments to cash working capital recommended by Staff and RUCO and continues to disagree with other adjustments.
- The Company continues to support its declining usage adjustment, which Staff has accepted. If a compliance filing requirement is ordered as recommended by RUCO, the timing should be adjusted.
- The Company agrees with some adjustments proposed by Staff and RUCO to the corporate allocation and disagrees with other adjustments. Particularly, the Company continues to support inclusion of incentive compensation, the At Risk Cost Pool.
- The Company disagrees with Staff's adjustment to accumulated depreciation in which Staff has removed certain assets its finds to be fully depreciated.
- The Company continues to support its modifications to fees for certain miscellaneous services. CCWC's proposed fees more closely align with actual costs of those services.
- The Company does not accept Staff's rate design, which includes a very large discount on the first tier of usage.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Sheryl L. Hubbard. My business address is 2355 W. Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027, and my business phone is (623) 445-2419.

Q. ARE YOU THE SAME SHERYL L. HUBBARD WHO PROVIDED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. The purpose of my testimony in this phase of the Chaparral City Water Company ("CCWC" or "Company") rate application is to provide an overview of the Company's rebuttal case presentation as well as respond to several of the Arizona Corporation Commission Staff ("ACC Staff") and the Residential Consumer Utility Office ("RUCO") recommendations as they pertain to specific adjustments to the Company's direct case filing as discussed below.

Since the filing of Chaparral City Water Company's Application, witnesses Thomas M. Broderick and Ian C. Crooks have taken other positions and are no longer with the Company. As a result, my rebuttal testimony will respond to subject matter originally sponsored by Mr. Broderick and the rebuttal testimony of Ms. Candace Coleman and Mr. Jeffrey W. Stuck will respond to subject matter originally sponsored by Mr. Crooks.

In addition, my rebuttal testimony will respond to recommendations for adjustments by the ACC Staff and RUCO witnesses to Rate Base components and revenue and expense

categories sponsored in my direct testimony. My rebuttal testimony is organized by subject matter primarily focusing on adjustments to CCWC's Adjusted Test Year Rate Base including cash working capital calculations, the 24-month deferral request, and the Central Arizona Project ("CAP") deferral followed by Adjusted Test Year Operating Income adjustments proposed by witnesses for the ACC Staff and RUCO. In addition, I will discuss cost recovery implications associated with recommendations by the ACC Staff to remove some assets from the calculation of depreciation expense.

My rebuttal testimony will incorporate the effects of the Company's witness, Ms. Pauline Ahern's revision to the cost of capital as well as an update to CCWC's capital structure to include a post-filing audit adjustment by the Company's external auditors and common equity activity to date.

Finally, I will respond to the ACC Staff's proposed rate design and low-income program.

III SUMMARY OF REVISED REVENUE REQUIREMENT

Q. WHAT IS CCWC'S REVISED REQUESTED REVENUE INCREASE IN THIS CASE?

A. CCWC's revised requested revenue increase is summarized in Table 1 below.

Table 1. Rebuttal Revenue Requirement

	CCWC	
	Direct	Rebuttal
Original Cost Rate Base	$ 27,269,321	$ 27,769,023
Adjusted Operating Income	$ 889,596	$ 865,297
Current Rate of Return	3.26%	3.12%
Required Operating Income	$ 2,783,254	$ 2,738,026
Required Rate of Return	10.21%	9.86%
Operating Income Deficiency	$ 1,893,658	$ 1,872,729
Gross Revenue Conversion Factor	1.6587	1.6495
Increase in Gross Revenue Requirement	$ 3,141,028	$ 3,089,039

Q. HAVE YOU PREPARED AN EXHIBIT SUMMARIZING THE CHANGES TO THE COMPANY'S REQUEST?

A. Yes. CCWC's revised requested revenue increase, rate base and operating expense are summarized on Exhibit SLH-1R, Summary of Parties' Positions Including CCWC's Revised Requested Revenue Increase. The Company's requested revenue requirement has been revised as a result of accepting a number of the positions recommended by the ACC Staff and RUCO, as well as due to correcting some minor errors identified during the discovery process. The total **revised** requested annual revenue increase is $3,089,039 or a 34.3% increase. The **original** requested annual revenue increase was $3,141,028. The primary reasons for the change in the requested revenue increase is that the Company has updated its cost of capital request from 11.05% to 10.5% as well as corrected its capital structure for a post-filing audit adjustment which reduced the requested increase by approximately $130,000 and updated its post test year plant additions request for projects completed through December 31, 2013, which increased the original annual

revenue requirement by approximately $111,000. The balance of the change in the requested revenue requirement, approximately $33,000, is the result of CCWC accepting some of the ACC Staff's or RUCO's recommended adjustments which is discussed by Ms. Murrey or me in our respective rebuttal testimonies.

Q. HOW DOES CCWC'S REVISED REVENUE REQUIREMENT, WHICH RESULTS FROM ACCEPTING SOME OF THE ACC STAFF'S AND RUCO'S POSITIONS, COMPARE TO THE ACC STAFF'S AND RUCO'S POSITIONS SUBMITTED ON DECEMBER 19, 2013?

A. Staff recommends the Company be authorized approximately 33% of the Company's originally requested overall revenue requirement, and RUCO recommends the Company be authorized approximately 52% of the Company's originally requested overall revenue requirement. Although RUCO and the ACC Staff have recommended increases that are significantly less than CCWC's original requested increase, the Company has reviewed each of their recommendations and has endeavored to accept as many of the ACC Staff's and RUCO's recommendations as possible to reduce the remaining open issues.

Q. WHAT OTHER REBUTTAL TESTIMONY WITNESSES ARE SUPPORTING CCWC'S REVISED REVENUE REQUIREMENT?

A. The following persons are also providing rebuttal testimony to support CCWC's revised revenue requirement. Their primary rebuttal topics are indicated in parentheses:

Mr. Jeffrey W. Stuck (Rebuttal of the ACC Staff's water loss recommendation, RUCO's tank maintenance recommendation, and updates to post test year plant additions)

Ms. Candace Coleman (Rebuttal of RUCO's recommendations opposing a System Improvement Benefit mechanism)

Mr. Jake Lenderking (Rebuttal of RUCO's objection to a Sustainable Water Surcharge mechanism)

Ms. Sandra L. Murrey (Schedule C-2 test year adjusted operating income results accepts the ACC Staff's purchase water pro forma adjustment and rebuttal of various expense pro forma adjustments including incentive compensation)

Mr. Thomas J. Bourassa (Rebuttal of Cost of Service Study recommendations by the ACC Staff)

Ms. Pauline Ahern (Rebuttal of the ACC Staff and RUCO's recommended return on equity)

IV <u>SPONSORED SCHEDULES AND EXHIBITS</u>

Q. PLEASE IDENTIFY THE SCHEDULES YOU ARE SPONSORING.

- I am sponsoring the following schedules:
- Schedule A-1 Rebuttal – Computation of Increase in Gross Revenue Requirement
- Schedule B-1 Rebuttal – Summary of Fair Value Rate Base
- Schedule B-2 Rebuttal – Original Cost Rate Base Pro Forma Adjustments
- Schedule B-5 Rebuttal – Computation of Working Capital Allowance
- Schedule B-6 Rebuttal – Lead/Lag Study – Cash Working Capital Requirement
- Schedule D-1 Rebuttal – Summary of Cost of Capital
- Schedule D-2 Rebuttal – Cost of Long Term Debt
- Schedule H-1 Rebuttal – Summary of Revenues by Customer Classification – Present & Proposed Rates
- Schedule H-2 Rebuttal – Analysis of Revenues by Detailed Class
- Schedule H-3 Rebuttal – Changes in Representative Rate Schedules

- Schedule H-4 Rebuttal – Typical Bill Analysis

Q. PLEASE IDENTIFY THE EXHIBITS YOU ARE SPONSORING.

A. I am sponsoring the following exhibits, which are attached to this rebuttal testimony.

- Exhibit SLH-R1 – Summary of the Parties Positions
- Exhibit SLH-R2 – Recalculation of the ACC Staff's UPIS and Accumulated Depreciation
- Exhibit SLH-R3 – Response to Data Request RUCO 3.01 a.
- Exhibit SLH-R4 – Response to Data Request RUCO 8.04

V ADJUSTMENTS TO RATE BASE

A UTILITY PLANT IN SERVICE

Q. HAVE YOU REVIEWED THE ADJUSTMENTS PROPOSED BY THE ACC STAFF AND RUCO TO CCWC'S UTILITY PLANT IN SERVICE?

A. Yes, I have. The ACC Staff is proposing adjustments based on recalculating the annual plant roll-forward of additions, retirements and adjustments from the test year ended December 31, 2006 authorized in CCWC's last rate case processed under the ownership of Golden State Water Company ("GSWC"). The ACC Staff and RUCO are also proposing adjustments to CCWC's requested post test year plant additions which will be discussed below in the section on Post Test Year Plant Additions.

Q. DO YOU AGREE WITH THE ADJUSTMENTS TO UTILITY PLANT IN SERVICE PROPOSED BY EITHER THE ACC STAFF OR RUCO?

A. Yes and no. The ACC Staff has proposed some adjustments to CCWC's test year utility plant in service resulting from differences in reporting by NARUC account by the prior owner, GSWC, and the current owner EPCOR Water (USA). On one hand, CCWC has accepted the ACC Staff's recommended adjustment to increase plant by $9,731 (see

rebuttal adjustment SLH-3R on Schedule B-2), but on the other hand, based on the workpapers provided by the ACC Staff in response to an informal information request, CCWC is uncertain what type of adjustment to the accounting records will be required upon completion of this case. The calculation of the $9,731 adjustment to increase Utility Plant in Service is detailed in rebuttal Exhibit SLH-2R on page 16 of 16. Table 2 below shows the comparative Utility Plant in Service figures (excluding Post Test Year Plant) for ACC Staff and CCWC.

Table 2. Utility Plant in Service (excludes Post Test Year Plant)

Description	Excludes Post Test Year Plant
ACC Staff's Recalculated Plant in Service at 12/31/12	$ 65,627,031
CCWC's Requested Plant in Service at 12/31/12	$ 65,617,300
Adjustment - Increase (Decrease) to Plant in Service	$ 9,731

RUCO's proposed adjustment to Utility Plant in Service is related to Post Test Year Plant Additions and the Company's response to RUCO's adjustment is discussed in that section.

B ACCUMULATED DEPRECIATION

Q. HAVE YOU REVIEWED THE ADJUSTMENT PROPOSED BY THE ACC STAFF AND RUCO TO CCWC'S ACCUMULATED DEPRECIATION?

A. Yes. The ACC Staff is recommending an adjustment to CCWC's accumulated depreciation of $413,339. The basis of this adjustment, similar to the adjustment to plant in service, is a roll-forward of the accumulated depreciation balance incorporating the depreciation expense, plant retirements and adjustments from the test year ended

December 31, 2006 authorized in CCWC's last rate case which was processed while CCWC was under the ownership of GSWC. Rebuttal Exhibit SLH-3R, is a copy of the response to Data Request No. RUCO 3.01 (a). Page 3 of 3 details by NARUC plant account the Accumulated Depreciation balances for CCWC plant and the General Office Allocation. Based on my review of the ACC Staff's workpapers, it appears that the ACC Staff failed to remove $487,750 associated with GSWC's General Office plant accumulated depreciation allocated to CCWC which overstates the roll-forward balance that the ACC Staff relies upon for its $413,339 reduction to CCWC's proposed Accumulated Depreciation balance. Removing the General Office allocation from the ACC Staff's Accumulated Depreciation roll-forward calculation results in a revised adjustment of ($41,582), or a decrease in the test year Accumulated Depreciation balance reflected on rebuttal adjustment SLH-3R of Schedule B-2 Rebuttal. The calculations in support of the ($41,582) adjustment to reduce Accumulated Depreciation is detailed in rebuttal Exhibit SLH-2R on page 16 of 16. Table 3 below shows the comparative Accumulated Depreciation figures (excluding Accumulated Depreciation on Post Test Year Plant) for ACC Staff and CCWC.

Table 3. Accumulated Depreciation (excludes Post Test Year Plant depreciation)

Description		Excludes Post Test Year Plant Depreciation Expense
ACC Staff's Recalculated Accumulated Depreciation at 12/31/12	$	25,692,540
CCWC's Requested Accumulated Depreciation at 12/31/12	$	25,734,123
Adjustment - Increase (Decrease) to Accumulated Depreciation	$	(41,583)

RUCO's adjustment of $38,609 to increase the Accumulated Depreciation balance relates to depreciation expense on Post Test Year Plant Additions. RUCO proposes and CCWC accepts the use of the half-year convention which recognizes half of a year's depreciation expense on plant placed in service in the calendar year; however, as noted below, CCWC is proposing a revised Post Test Year Plant Addition based on more recent data for completed post test year plant. As a result, if the revised Post Test Year Plant Additions are adopted as proposed by CCWC, the adjustment to the Accumulated Depreciation should be $80,647 to recognize depreciation expense using the half-year convention as proposed by RUCO. Please see the Company's adjustment to Accumulated Depreciation on rebuttal adjustments SLH-2R on Schedule B-2 Rebuttal.

The Company agrees with RUCO's proposed adjustment of ($77,348) to reflect the retirement of Transportation Vehicles as an appropriate adjustment that was not recorded by CCWC until after the end of the test year. The vehicles were retired during the test year and accordingly should have been reflected as a reduction to the Accumulated Depreciation as proposed by RUCO. The ACC Staff proposed the same adjustment which is included in the ACC Staff's adjustment #3 (GWB-7) which CCWC accepted and reflected in rebuttal adjustment SLH-3R. The ACC Staff's adjustment #3 (GWB-7) recomputed Plant In Service and Accumulated Depreciation balances, therefore, a separate adjustment for RUCO's recommendation is not needed.

C <u>POST TEST YEAR PLANT ADDITIONS</u>

Q. THE ACC STAFF AND RUCO HAVE PROPOSED ADJUSTMENTS TO THE COMPANY'S PROPOSED POST TEST YEAR PLANT ADDITIONS. DOES CCWC AGREE WITH EITHER OF THE RECOMMENDATIONS?

A. No. The ACC Staff 's adjustment is based on a July 31, 2013 Construction Work in Progress expenditures to date while the major accounting effort to close all completed

construction projects takes place in the December month-end close for CCWC. RUCO has recommended post test year plant additions based on the same time period as the ACC Staff, but limited inclusion investment projects closed to plant in service as of July 31, 2013 while requesting an update to its data request (RUCO 4.01) for a more recent accounting of completed projects.

Based on the proposals of the two parties, CCWC has updated its response to data request number RUCO 4.01, has revised the post test year plant additions values to reflect all completed projects closed to plant as of December 31, 2013 and has offset those plant additions by the related plant retirements as of the same date. The resulting post test year plant additions total $4,579,953 versus the Company's original request of $3,884,763. CCWC has also recognized a half-year of accumulated depreciation on these assets of $80,647 consistent with the concept recommended by RUCO for a net addition to Rate Base of $4,499,306. (RUCO's half-year depreciation adjustment is different than CCWC's due to the difference in RUCO's recommended post test year plant additions).Please see the Company's adjustment to gross utility plant in service reflected on rebuttal adjustments SLH-2R on Schedule B-2 Rebuttal.

D <u>CUSTOMER DEPOSITS</u>

Q. RUCO HAS PROPOSED AN ADJUSTMENT TO CUSTOMER DEPOSITS TO REFLECT A 13-MONTH AVERAGE OF THE ASSOCIATED ACCOUNT BALANCE FOR INCLUSION IN RATE BASE. DOES CCWC AGREE WITH RUCO'S ADJUSTMENT?

A. RUCO's adjustment would be appropriate if the Commission used an average Rate Base, but this Commission has historically computed Rate Base using test year end data. CCWC would not be opposed to the adjustment, in general, if it reflected a reasonable estimate of the magnitude of customer deposits that CCWC tries to maintain. However,

that is not the case. The monthly balances used to derive RUCO's adjustment range from $16,640 at the beginning of the test year and steadily declined month after month until they reached the amount at year-end of $1,950 that was included in CCWC's Rate Base and is summarized in the Table 1 below.

Table 4. Customer Deposits

	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Customer Deposits	16,640	15,006	9,777	7,720	5,729	3,252	3,140	3,140	2,187	2,069	2,069	1,950	1,950

As you can see, CCWC has pursued a policy of reducing customer deposits and should not now be penalized for deposits that were held by the previous owners.

E 24-MONTH DEFERRAL REQUEST

Q, BOTH THE ACC STAFF AND RUCO ARE RECOMMENDING THE REJECTION OF THE COMPANY'S REQUEST FOR A 24-MONTH DEFERRAL OF POST IN SERVICE AFUDC AND DEPRECIATION. CAN YOU ELABORATE ON THE COMPANY'S REQUEST FOR THIS DEFERRAL?

A. This deferral request is intended to recognize that a return on plant cannot be earned until such time as a company files a request to include that plant in rate base. To request a return on plant, the plant must be in service and at that time, depreciation accounting begins. Depreciation, absent recovery in rates, immediately begins to drain the company's earnings resulting in reduced returns on equity for the company's owners. The inability to recover the return and the associated depreciation when new plant is providing service until a rate decision can be issued has long been referred to regulatory

lag, and the ACC Staff proposed this requested deferral method to address this lag in a March 19, 2012 Staff Report.

The deferral mechanism, if approved, would allow the deferral of financing costs (AFUDC) and depreciation throughout the test year beginning on day 1 of the test year, which in the case of CCWC is January 1, 2012. The deferrals would continue on any plant placed in service throughout the test year and for the following 12 months to allow for the processing of a rate application.

Although both the ACC Staff and RUCO have rejected CCWC's request for this deferral mechanism, they do so on a faulty premise and attempt to make the Company's request sound illogical.

The deferral of the return component (AFUDC) and depreciation would be unnecessary if rates could be adjusted to provide a return on investment in a shorter period of time than is now the case such as occurred with the Arsenic Cost Recovery Mechanisms or in some states through the use of allowing implementation of interim rates within a short time frame after an application for rate change is filed. Typically, these interim rates can be implemented in 3- to 6-months after the filing of a rate application and are always subject to refund to protect customers from utilities that might request higher rates than are ultimately approved.

Q. ARE THE 24-MONTH DEFERRAL MECHANISM AND THE SIB MECHANISM INTENDED TO RECOVER A DEFERRED RETURN AND DEFERRED DEPRECIATION ON THE SAME ASSETS?

A. I think not. A SIB Mechanism is designed to recover a return on and of assets placed in service after the completion of a rate case while the 24-month deferral mechanism is intended to recover a return on and of assets placed in service on day 1 of a test year

through the 24-month period that ends with the issuance of a decision. If there were some SIB-eligible investments that went into service during that 24-month period, they would be excluded by CCWC in its determination of the 24-month amounts. As noted below, in this case, this cannot be an issue as the Company's calculation does not include the time period in which the SIB mechanism would be in place.

Q. HAS CCWC UPDATED THE CALCULATION OF ITS 24-MONTH DEFERRAL REQUEST IN THIS CASE?

A. Yes, and the $607,898 has been revised to $473,463 to reflect actual additions to plant during the 24-month period. An associated revision in the requested amortization of $18,276 has been reflected on Schedule C-2 as part of adjustment SLH-4R. The revised amount does not include any SIB-eligible projects because the 24-month deferral includes plant additions from January 1, 2012 through December 31, 2013, a time period when the SIB Mechanism was not in place countering RUCO's implication that the mechanisms will recover the same investment.

Q. DID CCWC APPLY THE ACTUAL DEPRECIATION RATES TO THE PLANT ADDITIONS THAT HAVE BEEN INCLUDED IN THE REVISED 24-MONTH DEFERRAL MECHANISM IN COMPUTING THE ASSOCIATED DEPRECIATION EXPENSE?

A. Yes. For purposes of determining an appropriate amortization rate, CCWC used the composite rate determined when calculating its depreciation expense on all depreciable plant in service.

Q. HAVE YOU REVIEWED RUCO'S RECOMMENDATION AS IT RELATES TO CCWC'S REQUEST TO AMORTIZE DEFERRED CAP CHARGES IN THIS CASE?

A. Yes, I have.

Q. DO YOU AGREE WITH THEIR RECOMMENDATION?

A. No. RUCO resurrects all of its original arguments pertaining to the additional 1,931 acre feet ("AF") of CAP water purchased in 2007 by GSWC from the proceeding that culminated in the issuance by the Commission of Decision 71308 (issued October 21, 2009). RUCO's arguments relate to the purchase price of the additional allocation as well as the approval by the ACC to allow deferral of 50 percent of the Municipal and Industrial ("M&I") capital costs. RUCO's recommendation is to exclude the deferred balance authorized by the ACC from rate base and to eliminate any recovery of the previously deferred amount.

Q. EVEN THOUGH RUCO'S WITNESS TESTIFIES THAT CCWC IS PROPERLY DEFERRING THE COSTS, THEY ARE NOT RECOMMENDING ANY CURRENT RECOVERY. HOW DOES THE COMPANY RESPOND?

A, In the case leading up to Decision 71308, it seems reasonable to assume that GSWC was seeking clarification of the regulatory treatment of the additional CAP allocation upon which to base its purchasing decision for the acquisition of additional water supplies for its customers. The Commission supported GSWC's decision by including the purchase price in rate base and deferring 50 percent of the additional AF. The ACC Staff supports CCWC's request in this case to begin recovering the deferred and ongoing CAP M&I Capital expense. By so doing, customers receive the appropriate price signals for the costs incurred to provide CCWC's customers with adequate resources.

F CASH WORKING CAPITAL

Q. HAVE YOU REVIEWED THE CASH WORKING CAPITAL RECOMMENDATIONS OF THE ACC STAFF AND RUCO IN THIS PROCEEDING?

A. Yes, I have.

Q. DOES THE COMPANY AGREE WITH ANY OF THE ACC STAFF'S OR RUCO'S RECOMMENDED ADJUSTMENTS TO THE CALCULATION OF CASH WORKING CAPITAL?

A. Yes. Both the ACC Staff and RUCO propose to include interest expense in the calculation of cash working capital, and the Company agrees that interest expense should be a component of the cash working capital calculation. Failure to include interest expense was an oversight on the Company's part in this rate case filing.

Q. DOES THE COMPANY AGREE WITH THE LEVEL OF INTEREST EXPENSE RECOMMENDED BY THE ACC STAFF?

A. No. The ACC Staff uses interest expense based on its recommended hypothetical debt outstanding in a hypothetical capital structure which is problematic when the goal is to compute the time lag to recover the cash outlays required to pay interest costs. Use of hypothetical interest is most likely an error in the ACC Staff's calculation since they do not typically recommend the use of a hypothetical capital structure. I would reiterate that only the actual interest expense that CCWC will pay should be included in the calculation of its cash working capital.

Q. BY USING A PROPOSED HYPOTHETICAL CAPITAL STRUCTURE, DOESN'T THE ACC STAFF OVERSTATE THE INTEREST EXPENSE?

A. Yes, it does. If a hypothetical capital structure that decreases equity by increasing debt is used to determine the cost of capital, the cash working capital requirement is severely understated because the interest component of the capital structure is greater than it is in reality contributing to a reduction in the need for working capital. Even if the revenue requirement is based on the hypothetical capital structure, interest payments will only be paid on the actual debt outstanding which is far less than proposed by the ACC Staff. Not only does the hypothetical capital structure reduce the overall rate of return, it understates the cash working capital requirement of CCWC and it also understates the income tax expense of the Company.

Q. DOES THE COMPANY AGREE WITH THE LAG DAYS ASSOCIATED WITH THE INTEREST EXPENSE COMPONENT OF CASH WORKING CAPITAL USED BY THE ACC STAFF?

A. No. The average expense lag should be 91.25 days (365÷2÷2) because in the case of CCWC, interest payments are made semi-annually on the first day of June and December. Through the Direct Testimony of Jeffrey Michlik, RUCO reflects the same average expense lag in its calculation of the cash working capital, however, the ACC Staff used an average expense lag of 106.25 days which appears to be based on an incorrect assumption that the interest has a mid-month due date which is not the case for CCWC.

Q. DOES CCWC AGREE WITH RUCO'S RECOMMENDED INTEREST EXPENSE IN ITS CALCULATION OF THE CASH WORKING CAPITAL?

A. Mostly. RUCO uses interest expense based on the actual cost of debt and the actual percentage of debt in the capital structure which is the correct way to quantify the interest expense. While RUCO's amount of interest is different than CCWC's proposed expense, that is a function of the authorized rate base and weighted cost of debt using the

actual capital structure and should be recalculated when a final determination of those elements is completed.

Q. PLEASE DISCUSS THE REMAINING ADJUSTMENTS TO THE COMPANY'S CASH WORKING CAPITAL CALCULATION PROPOSED BY THE ACC STAFF AND RUCO.

A. The ACC Staff and RUCO have proposed two other adjustments to the Company's proposed cash working capital: 1) Removal of Regulatory Expense, and 2) Exclusion of Bad Debt Expense from Customer Accounting Expense.

Q. PLEASE EXPLAIN WHY THE COMPANY DISAGREES WITH THE ACC STAFF'S AND RUCO'S RECOMMENDATIONS TO REMOVE REGULATORY EXPENSE FROM THE CASH WORKING CAPITAL CALCULATION.

A. The ACC Staff states that regulatory expense is non-recurring and is typically excluded from the calculations of cash working capital. Regulatory Expense is the recovery of costs incurred by the Company to prepare and litigate rate proceedings before the Commission and consists of cash expenditures. The charges are typically amortized over some period of years that are deemed reflective of the time between rate filings. It has been my experience in rate proceedings in Arizona for Arizona-American Water Company that this expense has been included in the calculation of the cash working capital, and the ACC Staff's departure from that practice in this case is a new development without sufficient justification.

RUCO's witness testifies that rate case expense in a non-cash item which is totally without merit. Although it is an amortization of a previously incurred expense, that simply results due to the regulatory treatment of the cash outlays for customer notices, office supplies for filings, consulting services, and legal expenses are deferred for future recovery in rate proceedings. Failure to include regulatory expense results in an understatement of cash working capital and is unfair to CCWC.

Q. DID RUCO'S WITNESS PROVIDE A LEAD-LAG STUDY CONDUCTED BY UNS AS AN ATTACHMENT TO HIS TESTIMONY TO SUBSTANTIATE RUCO'S RECOMMENDATIONS IN THIS CASE?

A. Yes, even though CCWC was not a party to that case and the UNS Lead-Lag study has an $11 million catch-all category labeled Other Operations and Maintenance. That expense item could include regulatory expenses or bad debt expense for that matter. Providing a schedule such as the UNS Lead-Lag study provides little, if any, support for RUCO's recommendations in this case.

Q. PLEASE EXPLAIN YOUR DISAGREEMENT WITH THE ACC STAFF'S CUSTOMER ACCOUNTING EXPENSE IN THE CASH WORKING CAPITAL CALCULATION.

A. Generally, for purposes of computing the customer accounting expense, the bad debt expense that arises due to the authorized increase in revenue is added to the adjusted test year level of customer accounting expense in the cash working capital calculation. The ACC Staff has failed to include this additional customer accounting-related expense which in the ACC Staff's recommendation amounts to $9,196 of additional expense.

Q. DOES CCWC HAVE THE SAME DISAGREEMENT WITH RUCO'S RECOMMENDED CUSTOMER ACCOUNTING EXPENSE IN THE CASH WORKING CAPITAL CALCULATION?

A. No. I believe that Staff referred to the wrong cell reference when computing their customer accounting expense level and RUCO intentionally excluded bad debt expense because there is no actual payment of bad debt expense in the current year. The test year includes $26,746 of bad debt expense which RUCO excluded. It has been the practice of the Commission to include the level of bad debt expense both reflected in the test year and the additional bad debt expense that will arise due to the increase in revenue in the final decision. Bad debt expense is a loss in revenue and therefore an expense of the Company and should be included in the calculation of cash working capital.

Q. WHAT IS CHAPARRAL CITY WATER COMPANY'S REVISED REQUEST FOR CASH WORKING CAPITAL?

A. Chaparral City Water Company's revised request for the cash-working-capital component of working capital is ($51,534) which incorporates all of the adjustments to the direct case filing. Please see the Company's rebuttal adjustment SLH-5R on Schedule C-2 Rebuttal.

VI <u>ADJUSTED OPERATING INCOME ADJUSTMENTS</u>

Q. PLEASE SUMMARIZE WHICH ADJUSTED OPERATING INCOME ADJUSTMENTS YOU ARE SPONSORING IN THIS PROCEEDING.

A. My testimony will provide rebuttal to adjustments proposed by the ACC Staff and RUCO as they relate to Declining Usage Adjustments, Corporate Allocations, and Depreciation & Amortization expenses.

A DECLINING USAGE ADJUSTMENT

Q. A DECLINING USAGE ADJUSTMENT HAS BEEN RECOMMENDED BY THE ACC STAFF. DOES CCWC ACCEPT THE ACC STAFF'S ADJUSTMENT?

A. The ACC Staff agrees with CCWC's requested adjustment for declining usage, but for different reasons. As such, CCWC maintains its original request for a declining usage adjustment to decrease revenue by $65,960.

Q. HAS RUCO PROPOSED A DECLINING USAGE ADJUSTMENT IN THIS CASE?

A. No, however, RUCO did recommend that, should the Commission approve an adjustment, the Commission should order an additional requirement to report by January 31st of each year the actual increase or decrease in water usage by customer class.

Q. DOES CCWC AGREE WITH RUCO'S RECOMMENDATIONS PERTAINING TO A DECLINING USAGE ADJUSTMENT?

A. No, because RUCO's recommendation encompasses all customer classes and CCWC's adjustment is limited to the residential customers only. In addition, a compliance filing requirement of January 31st of each year is unrealistic as year-end revenue data is rarely available for release to the public that early after the year end. A March 30th deadline would be more realistic for a compliance-type filing such as RUCO recommends. In addition, the information required in the filing should mirror the customer class upon which the adjustment is premised which would be the residential class only.

B CORPORATE ALLOCATIONS

Q. BOTH STAFF AND RUCO PROPOSE ADJUSTMENTS TO THE COMPANY'S CORPORATE ALLOCATION EXPENSE. PLEASE DESCRIBE THE ACC STAFF'S ADJUSTMENTS AND WHETHER THE COMPANY ACCEPTS STAFF'S PROPOSED ADJUSTMENT.

A. Staff proposes a decrease to Corporate Allocation expense of $89,517 for incentive compensation stating that they had not yet received a response to their request seeking clarification and reasons why this cost was necessary in order to provide safe and reliable service to CCWC's ratepayers. The Company provided detailed cost information in support of the Corporate Allocation expenses in response to data request numbers Staff GWB 3.33. In response to data request number RUCO 8.04 attached as rebuttal Exhibit SLH-4R, the incentive compensation detail was provided. CCWC was under the impression that Staff had the necessary information needed as there was no additional follow-up data request seeking additional information regarding the Corporate Allocation.

Incentive compensation as a component of salary and wages is intended to insure that employees are given sufficient incentives to work safely which is a very important element of EPCOR's corporate culture and to ensure that employees perform their respective job functions efficiently and cost effectively by providing oversight through performance goals and measures. Only 10 percent of the incentive compensation is based on financial performance which balances incentives of the utility to be more

efficient, which benefits consumers in the long run, while at the same time recognizing that the utility benefits from increased net earnings in the short term.

The remaining 90% of the incentive compensation is based on specific activities of the individual business units (department). There are three broad categories of activities in the areas of Health and Safety, Operational Efficiency and Customer Service. Each category is weighted equally at 30%. The purpose of this measure is to drive performance to engage and focus all employees on improving the business unit's performance as a utility service provider.

Because the at-risk compensation is an integral part of the employees' salary, CCWC is opposed to the ACC Staff's adjustment to the Corporate Allocation. The Company opposes the ACC Staff's disallowance of any of the employees' incentive program but has quantified the financial component included in the Corporate Allocation at $8,951.

Q. PLEASE DISCUSS RUCO'S ADJUSTMENT TO CORPORATE ALLOCATION EXPENSE.

A. RUCO is proposing a decrease of $139,155 to the Company's Corporate Allocation expense. RUCO's adjustment is comprised of two main categories of expenses, At-Risk Cost Pool and Public and Government Affairs Costs Pool. RUCO asserts that both of the categories have nothing to do with the day to day operations of a water company and ratepayers should not have to bear this expense. CCWC disagrees with RUCO's assertion as it pertains to the At-Risk Cost Pool. The At-Risk Cost Pool includes incentive compensation programs which should be included for the same reasons stated

above in opposition to the ACC Staff's similar proposed disallowance. The Company agrees with RUCO that the Public and Government Affairs Cost Pool of $52,666 should be excluded and has included an adjustment in the rebuttal schedule. Please see the Company's rebuttal adjustment SLH-3R on Schedule C-2 Rebuttal.

C DEPRECIATION EXPENSE

Q. HAVE YOU REVIEWED THE DEPRECIATION EXPENSE ADJUSTMENTS PROPOSED BY THE ACC STAFF AND RUCO?

A. Yes, I have.

Q. DOES CCWC AGREE WITH THE ADJUSTMENTS PROPOSED BY THE ACC STAFF AND RUCO?

A. No. The ACC Staff's depreciation adjustment of ($511,261) is comprised of the depreciation on the combined test year plant in service and the post test year plant in service. CCWC has accepted the ACC Staff's plant reclassifications but has proposed updated post test year plant additions which impact the depreciation calculation. In reviewing the ACC Staff's depreciation work paper, CCWC notes several elements that are inaccurate and should be corrected. The results of these corrections reduce the ACC Staff's depreciation adjustment by $13,397 to $497,864. A copy of a corrected ACC Staff depreciation calculation is attached as rebuttal Exhibit SLH-5R.

Q. DOES CCWC AGREE WITH THE ACC STAFF'S DEPRECIATION ADJUSTMENT IF THE CORRECTIONS ARE MADE TO THE CALCULATIONS?

A. No. A majority of the remaining proposed depreciation adjustment is the result of the ACC Staff removing assets that they deem are fully depreciated. The reasons why

removal of fully depreciated assets from the depreciable plant is inappropriate is discussed in depth in the next section of this testimony.

1 DEPRECIATION ON FULLY-DEPRECIATED ASSETS

Q. THE ACC STAFF HAS PROPOSED AN ADJUSTMENT TO REMOVE PLANT ASSETS TOTALING $4,029,679 FROM THE CALCULATION OF DEPRECIATION EXPENSE ON THE BASIS THAT ACC STAFF DEEMS THESE ASSETS TO BE FULLY DEPRECIATED. DOES CCWC AGREE WITH THIS ADJUSTMENT?

A. No. It has been my experience that utility assets, such as CCWC's, that are depreciated using the group method of depreciation remain in service until they are retired from service and the entire group of assets continues to be depreciated during that time. The rationale for this is that other assets in the same depreciable group may not realize the useful life that has been used in determining their depreciation rate. As a result, the corresponding depreciation rate and the accumulated depreciation of all the group's assets offset each other over time.

Q. HAS THE COMMISSION STAFF EVER TAKEN ISSUE WITH THIS APPROACH IN PRIOR CASES FOR THE COMPANY?

A. Not to my knowledge. The group method approach to calculating depreciation expense has been used by water utilities and accepted by the Commission in all prior cases in which I have been involved. This approach is also approved and accepted by the literature. In "Accounting for Public Utilities", the group method of depreciation is described as follows:

> The group concept has been an integral part of utility depreciation accounting practice for many years. . . . Under the group concept, no attempt is made to keep track of the depreciation reserve applicable to individual items of property. This does not imply any

loss of control, but rather is a practical approach for utilities because they possess millions of items of property.

Q. IF THE COMMISSION ADOPTS THE ACC STAFF'S RECOMMENDATION TO ELIMINATE DEPRECIATION ON ASSETS THAT HAVE BEEN IDENTIFIED AS FULLY DEPRECIATED, DOES THE COMPANY AGREE WITH THE ACC STAFF'S IDENTIFICATION OF FULLY DEPRECIATED ASSETS?

A. No. When the Accumulated Depreciation roll-forward calculations were performed by the ACC Staff, some General Office assets that belong to Golden State Water Company were included in error as discussed above in the section on Accumulated Depreciation. When you exclude the accumulated depreciation of those General Office assets, as must be done because they do not belong to CCWC and accordingly are not recorded on CCWC's accounting records, it eliminates some of the assets deemed fully depreciated by the ACC Staff. In fact, it reduces the ACC Staff's depreciable plant adjustment by $264,394 and the related depreciation expense reduction by $17,635.

2 AMORTIZATION OF 24-MONTH DEFERRAL

Q. BOTH THE ACC STAFF AND RUCO ARE OPPOSED TO INCLUSION OF THE 24-MONTH DEFERRAL OF AFUDC AND DEPRECIATION AND THE ASSOCIATED AMORTIZATION OF THE BALANCE OF THAT DEFERRAL. DO YOU AGREE?

A. As discussed above in conjunction with CCWC's position on the inclusion in Rate Base of the 24-month deferral of AFUDC and depreciation, including the regulatory asset and providing an amortization to expense alleviates some of the regulatory lag inherent in the current process seeking rate relief for water utilities. If the Commission accepts CCWC's request in this case, it will demonstrate to water companies that the efforts put forth by them in water company working groups has been acknowledged and there is support to reduce the negative drain on earnings faced by water companies in Arizona.

1 **D MISCELLANEOUS FEES**

2 **Q. THE ACC STAFF HAS RECOMMENDED CHANGES IN THE**
3 **MISCELLANEOUS SERVICE FEES THAT ARE SOMEWHAT DIFFERENT**
4 **THAN THE FEES PROPOSED BY CCWC. DOES CCWC ACCEPT STAFF'S**
5 **PROPOSED CHANGES?**

6 **A.** The Company, in its direct case presentation, proposed increases to charges both during
7 regular hours and after hours based upon the actual costs incurred by CCWC to perform
8 these services. As a result, it is difficult to accept the new fees proposed by the ACC
9 Staff that are less than the actual costs to perform these services. Although the ACC
10 Staff has made movement in the right direction, some of Staff's recommendations do not
11 go far enough to recover the costs incurred from the cost causer. See Table 2 below for
12 summary of CCWC's request for and the ACC Staff's recommendations for
13 Miscellaneous Fees. The Company strongly believes that its proposed fees are
14 appropriate as they relate directly to the actual costs incurred by the Company for these
15 services.
16
17

Table 5. Miscellaneous Fees

Service Charges	Present	Proposed	ACC Staff
Establishment of Service			
Regular Hours	$ 25.00	$ 60.00	30.00
After Hours	$ 35.00	$ 90.00	N/T
Re-establishment of Service per A.A.C. R14-2-403.D (same customer, same location within 12 months)	*	*	*
Reconnection of Service (delinquent)	$ 35.00	$ 60.00	$ 35.00
Reconnection of Service (delinquent / after-hours)	$ 50.00	$ 90.00	N/T
Water Meter Test (If Correct)	$ 35.00	$ 30.00	35.00
Water Meter Relocation at Customer Request (per A.A.C. R14-2-405.B)	Cost ***	Cost ***	Cost
Meter Re-Read (If Correct)	$ 25.00	$ 10.00	10.00
NSF Check Charge	$ 25.00	$ 25.00	25.00
Late Fee Charge (per month)	1.50%	1.50%	1.50%
Deferred Payment Finance Charge (per month)	1.50%	1.50%	1.50%
Service Call - After Hours(per A.A.C. R14-2-403D)	refer to charges above	refer to charges above	N/T
After Hours Service Charge (a)			$ 35.00
Deposit Requirements Residential	**	**	**
Deposit Requirements Non-Residential	**	**	**
Deposit Interest (per A.A.C. Rule 14-2-403.B)	6% per annum	6% per annum	
*	Per Commission Rule A.A.C. R14-2-403(D) - Months off the system times the monthly minimum.		
**	Per Commission Rule A.A.C. R14-2-403(B)		
***	Per Company Tariff Sheet No. 8.		
In addition to the collection of regular rates, the utility will collect from its customers a proportionate share of any privilege, sales, use, and franchise tax. Per Commission Rule 14-2-409D(5).			
(a) In addition to the charge for any utility service provided after hours			

VII CAPITAL STRUCTURE

Q. HAVE THERE BEEN ANY CHANGES IN CCWC'S TEST YEAR CAPITAL STRUCTURE THAT SHOULD BE REFLECTED IN THIS REQUEST?

A. Yes. As a result of the year end audit by CCWC's external auditors, the 2012 common equity balance was restated to add $4,047,492 to the Contributed Capital (Paid in Capital) account.

Q. WAS THIS ADJUSTMENT KNOWN AT THE TIME OF THE COMPANY'S FILING IN THIS CASE?

A. No. The audited financial statements were issued April 29, 2013 after this rate application was filed.

Q. IS CCWC PROPOSING ANY OTHER CHANGES TO ITS FILED CAPITAL STRUCTURE?

A. Yes. In addition to the audit adjustment, the common equity has been updated to reflect the December 31, 2013 balance which is consistent with the long-term debt outstanding component already reflected in CCWC's capital structure and the cost of equity recommendation has been updated to reflect the current financial outlook. Ms. Ahern provides the testimony regarding the cost of equity revision.

VIII RATE DESIGN

Q. HAVE YOU REVIEWED THE ACC STAFF'S AND RUCO'S PROPOSED RATE DESIGN IN THIS PROCEEDING?

A. Yes, I have.

Q. DOES CCWC HAVE ANY CONCERNS WITH THE RATE DESIGNS PROPOSED BY THE ACC STAFF OR RUCO?

A. The ACC Staff has included a very large discount on the first tier of their rate design. By lowering the first tier rate below that of the current existing first tier rate sends the wrong pricing signal to customers; it signals that water is cheaper, which is not true. And, by lowering the revenue recovered from the first tier, it requires the second and third tier commodity rates to be higher to make up for the discounted revenues, in essence a subsidy. RUCO's proposed rate design does not provide this large discount on their first tier and is preferable to CCWC as it does not distort the pricing signal that the water company should send to its customers.

Q. HAVE YOU REVIEWED RUCO'S RECOMMENDATION AS IT RELATES TO THE ESTABLISHMENT OF A LOW-INCOME PROGRAM?

A. Yes.

Q HAS CCWC PREPARED A PLAN OF ADMINISTRATION PERTAINING TO THE OPERATION AND FUNDING OF A LOW INCOME PROGRAM?

A. CCWC has not prepared a formal plan of administration but would be willing to work with the ACC Staff and RUCO to develop such a document. However, for purposes of this case, the Company has estimated a participation rate of 250 customers and computed a high block surcharge of $0.0573 per thousand gallons based on the proposed low income discount of $7.50 per month (392,580 kgals ÷ 250 X $7.50 X 12). The Company would also request authority to reduce/discontinue the high block surcharge if the participation rate is less than the estimate of 250 customers or if usage in the highest block exceeds the test year level.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. Yes.

REBUTTAL EXHIBIT SLH-1R

Summary of Parties' Positions

Including

CCWC's Revised Requested Revenue Increase

CHAPARRAL CITY WATER COMPANY
Test Year Ended December 31, 2012
Summary of Cost of Capital (Schedule D-1)

Summary of Schedule A-1s

Line No.		Chaparral City Water Company Direct As Filed	Rebuttal Adjustments to CCWC Direct	CCWC Rebuttal	ACC Adjustments to CCWC Direct	ACC Staff As Filed	RUCO Adjustments to CCWC Direct	RUCO As Filed
1	Original Cost Rate Base	$ 27,269,321	$ 499,702	$ 27,769,023	$ (2,102,962)	$ 25,166,359	$ (2,506,826)	$ 24,762,495
2								
3	Adjusted Operating Income	$ 889,596	$ (24,299)	$ 865,297	$ 497,204	$ 1,386,800	$ 272,484	$ 1,162,080
4								
5	Current Rate of Return	3.26%		3.12%	2.25%	5.51%	1.43%	4.69%
6								
7	Required Operating Income	$ 2,783,254	$ (45,228)	$ 2,738,026	$ (769,945)	$ 2,013,309	$ (628,917)	$ 2,154,337
8								
9	Required Rate of Return	10.21%		9.86%	-2.21%	8.00%	-1.51%	8.70%
10								
11	Operating Income Deficiency	$ 1,893,658	$ (20,929)	$ 1,872,729	$ (1,267,149)	$ 626,509	$ (901,401)	$ 992,257
12								
13	Gross Revenue Conversion Factor	1.6587	$ (0)	1.6495		1.6492		**1.6496**
14								
15	**Increase in Gross Revenue**							
16	**Requirement**	**$ 3,141,028**	$ (51,989)	**$ 3,089,039**	$ (2,107,793)	**$ 1,033,235**	$ (1,504,219)	**$ 1,636,808**
17								
18	Test Year Adjusted Present Rate Revenue	$ 9,014,985	$ 0	$ 9,014,985	$ -	$ 9,014,985	$ 65,960	$ 9,080,945
19								
20	Percent Rate Increase	34.84%	-0.58%	34.27%	-23.38%	11.46%	-16.82%	18.02%
21								
22	Return on Common Equity	11.05%	-0.55%	10.50%	-1.75%	9.30%	-1.70%	9.35%

CHAPARRAL CITY WATER COMPANY
Test Year Ended December 31, 2012
Summary of Cost of Capital (Schedule D-1)

Line No.	Summary of Schedule B-1s	Chaparral City Water Company Direct As Filed	Adjustments by CCWC	CCWC Rebuttal	ACC Adjustments to CCWC Direct	ACC Staff	RUCO Adjustments to CCWC Direct	RUCO As Filed
1	Gross Utility Plant in Service	$ 69,502,064	$ 704,921	$ 70,206,985	$ (938,986)	$ 68,563,078	$ (1,770,756)	$ 67,731,308
2	Less: Accumulated Depreciation	25,734,123	39,065	25,773,188	413,339	26,147,462	(38,739)	25,695,384
3								
4	Net Utility Plant in Service	$ 43,767,941	$ 665,856	$ 44,433,797	$ (1,352,325)	$ 42,415,616	$ (1,732,017)	$ 42,035,924
5								
6	Less:							
7	Advances in Aid of Construction	$ 4,008,916	$ 0	$ 4,008,916	$ -	$ 4,008,916	$ -	$ 4,008,916
8								
9	Contributions in Aid of Construction - Net	12,461,921	$ (0)	12,461,921	0	12,461,921	0	12,461,921
10								
11	Customer Meter Deposits	1,950	$ 0	1,950	0	1,950	3,791	5,741
12								
13	Deferred Income Taxes & Credits	1,271,696	$ 0	1,271,696	0	1,271,696	0	1,271,696
14								
15	FHSD Settlement	449,580	$ 0	449,580	0	449,580	0	449,580
16								
17	Plus:							
18	Deferred Debits	686,104	$ (134,436)	551,668	(607,898)	78,206	(686,104)	0
19	Cash Working Capital	(19,817)	$ (31,719)	(51,536)	(142,738)	(162,555)	(84,916)	(104,733)
20	Bank Balances, Prepayments, Inventory	1,029,157	$ -	1,029,157	0	1,029,157	0	1,029,157
21	Utility Plant Acquisition Adjustment	0	$ -	0	0	0	0	0
22								
23	**Total Rate Base**	$ 27,269,322	$ 499,701	$ 27,769,023	$ (2,102,961)	$ 25,166,359	$ (2,506,828)	$ 24,762,495

CHAPARRAL CITY WATER COMPANY
Test Year Ended December 31, 2012
Summary of Cost of Capital (Schedule D-1)

Summary of Schedule C-1s

Line No.		Chaparral City Water Company Direct As Filed	Rebuttal Adjustments by CCWC	CCWC Rebuttal	ACC Adjustments to CCWC	ACC Staff As Filed	RUCO Adjustments to CCWC	RUCO As Filed
1	**Revenues**							
2	Water or Sewer Revenues	$ 8,915,656	$ (0)	$ 8,915,656	$ -	$ 8,915,656	$ 65,960	$ 8,981,616
3	Other Revenues	99,329	0	99,329	-	99,329	-	99,329
4								
5	**Total Revenue**	$ 9,014,985	$ 0	$ 9,014,985	$ -	$ 9,014,985	$ 65,960	$ 9,080,945
6	**Operating Expenses**							
7	Labor	$ 1,024,112	$ 0	$ 1,024,112	$ -	$ 1,024,112	$ (14,090)	$ 1,010,022
8	Purchased Water	1,065,953	90,524	1,156,477	50,926	1,116,879	100,874	1,166,827
9	Fuel & Power	605,885	0	605,885	(20,746)	585,139	7,501	613,386
10	Chemicals	119,266	0	119,266	(4,084)	115,182	1,476	120,742
11	Waste Disposal & Other Utilities	7,113	-	7,113	-	7,113	-	7,113
12	Intercompany Support Services	94,150	-	94,150	-	94,150		94,150
13	Corporate Allocation	500,330	(57,921)	442,409	(89,517)	410,813	(139,155)	361,175
14	Outside Services	508,106	(0)	508,106	-	508,106	-	508,106
15	Group Insurance	178,067	-	178,067	-	178,067	-	178,067
16	Pensions	85,086	0	85,086	-	85,086	-	85,086
17	Regulatory Expense	91,668	-	91,668	-	91,668	-	91,668
18	Insurance Other Than Group	73,025	-	73,025	-	73,025	-	73,025
19	Customer Accounting	318,959	(0)	318,959	-	318,959	-	318,959
20	Rents	1,504	-	1,504	-	1,504	-	1,504
21	General Office Expense	164,179	-	164,179	-	164,179	-	164,179
22	Miscellaneous	158,553	0	158,553	-	158,553	(7,079)	151,474
23	Maintenance Expense	388,614	(0)	388,614	-	388,614	(202,184)	186,430
24	Depreciation & Amortization	2,014,048	1,492	2,015,540	(511,261)	1,502,787	(121,036)	1,893,012
25	General Taxes-Property	251,038	(12,552)	238,486	(18,828)	232,210	(10,822)	240,216
26	General Taxes-Other	86,320	(0)	86,320	-	86,320	-	86,320
27	Income Taxes	389,412	2,756	392,168	96,306	485,718	177,992	567,404
28								
29								
30	**Total Operating Expenses**	$ 8,125,388	$ 24,300	$ 8,149,688	$ (497,204)	$ 7,628,184	$ (206,523)	$ 7,918,865
31	**Utility Operating Income**	$ 889,596	$ (24,300)	$ 865,297	$ 497,204	$ 1,386,800	$ 272,483	$ 1,162,080
32	**Other Income & Deductions**							
33	Other Income & Deductions							
34	Interest Expense	270,179	(36,919)	233,260	333,814	603,993	13,381	283,560
35	Other Expense							
36	Gain/Loss Sale of Fixed Assets							
37	**Total Other Income & Deductions**	$ (270,179)	$ 36,919	$ (233,260)	$ (333,814)	$ (603,993)	$ (13,381)	$ (283,560)
38	**Net Profit (Loss)**	$ 619,417	$ 12,619	$ 632,037	$ 163,390	$ 782,807	$ 259,102	$ 878,520

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Cost of Capital (Schedule D-1)

		CCWC Direct				CCWC Rebuttal			
Line No.	Item of Capital	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost	Dollar Amount	Percent of Total	(e) Cost Rate	Weighted Cost
1	Long-Term Debt	$ 4,545,000	16.60%	5.97%	0.99%	$ 4,545,000	14.11%	5.97%	0.84%
2									
3	Short-Term Debt	$ -	0.00%	0.72%	0.00%	$ -	0.00%	0.72%	0.00%
4									
5	Stockholder's Equity	$ 22,837,590	83.40%	11.05%	9.22%	$ 27,665,533	85.89%	10.50%	9.02%
6									
7	Totals	$ 27,382,590	100.00%		10.21%	$ 32,210,533	100.00%		9.86%

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Cost of Capital

		ACC STAFF				RUCO			
Line No.	Item of Capital	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Long-Term Debt	$ 4,545,000	40.00%	5.97%	2.40%	$ 4,935,000	17.68%	5.92%	1.05%
2									
3	Short-Term Debt	$ -	0.00%	0.41%	0.00%	$ 135,057	0.48%	0.72%	0.00%
4									
5	Stockholder's Equity	$ 22,837,590	60.00%	9.30%	5.60%	$ 22,837,590	81.83%	9.35%	7.65%
6									
7	Totals	$ 27,382,590	100.00%		8.00%	$ 27,907,647	100.00%		8.70%

Chaparral City Water Company
Test Year Ended December 31, 2012
Computation of Working Capital (Schedule B-5)

Line No.		Chaparral City Water Company Direct As Filed	Rebuttal Adjustments by CCWC	CCWC Rebuttal	ACC Adjustments to CCWC	ACC Staff Direct As Filed	RUCO Adjustments to CCWC	RUCO Direct As Filed
1								
2	Cash Working Capital Requirement	$ (19,817)	$ (31,719)	$ (51,536)	$ (142,739)	$ (162,555)	$ (84,917)	$ (104,733)
3	Required Bank Balances1	780,673	-	780,673	-	780,673	-	780,673
4	Material and Supplies Inventories1	-	-	-	-		-	-
5	Prepayments[1]	248,484	-	248,484	-	248,484	-	248,484
6								
7	Total Working Capital Allowance	$ 1,009,341	$ (31,719)	$ 977,621	$ (142,739)	$ 866,602	$ (84,917)	$ 924,424
8								
9								
10								
11								
12								
13	[1]Calculated using thirteen-month averages							
14								
15	Supporting Schedules:						Recap Schedules:	
16	E-1						B-1	
17	Workpapers & Supporting Documents:							
18	Common\Workpapers\Downloads\13-Month Balances by Account - 2012.xlsx							
19								
20								
21								
22	\2013 Chaparral Water Sch. A-F.xls							
23								
24								

Chaparral City Water Company
Test Year Ended December 31, 2012
Lead/Lag Study - Cash Working Capital Requirement

Exhibit
Schedule B-6
Page 1
Witness: Hubbard

COMPANY DIRECT

Line No.	Description	Proforma Test Year Amount	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days Col. C - Col. D	Lead/Lag Factor Col. E/365	Cash Working Capital Required Col. B * Col. F
1							
2							
3							
4							
5	(A)	(B)	(C)	(D)	(E)	(F)	(G)
6							
7	OPERATING EXPENSES						
8	Labor	$ 1,024,112	34.93	13.09	21.84	0.059832705	$ 61,275
9	Purchased Water	1,065,953	34.93	43.67	(8.74)	-0.023948117	(25,528)
10	Fuel & Power	605,885	34.93	27.86	7.07	0.019366952	11,734
11	Chemicals	119,266	34.93	(79.22)	114.15	0.312736815	37,299
12	Waste Disposal & Other Utilities	7,113	34.93	41.90	(6.97)	-0.019098802	(136)
13	Intercompany Support Services	94,150	34.93	29.99	4.94	0.013531335	1,274
14	Corporate Allocation	500,330	34.93	30.00	4.93	0.013503938	6,756
15	Outside Services	508,106	34.93	88.00	(53.07)	-0.145400171	(73,879)
16	Group Insurance	178,067	34.93	12.00	22.93	0.062819007	11,186
17	Pensions	85,086	34.93	67.98	(33.05)	-0.090550856	(7,705)
18	Regulatory Expense	91,668	34.93	(136.54)	171.47	0.469782477	43,064
19	Insurance Other Than Group	73,025	34.93	(26.14)	61.07	0.167312157	12,218
20	Customer Accounting[1]	347,013	34.93	26.53	8.40	0.023010788	7,985
21	Rents	1,504	34.93	-	34.93	0.095695719	144
22	General Office Expense	164,179	34.93	39.69	(4.76)	-0.013044007	(2,142)
23	Miscellaneous	158,553	34.93	(3.22)	38.15	0.104517637	16,572
24	Maintenance Expense	388,614	34.93	17.28	17.65	0.048353253	18,791
25							
26							
27	TAXES						
28	General Taxes-Property[1]	$ 279,936	34.93	213.96	(179.0294)	(0.4905)	$ (137,306)
29	General Taxes-Other	86,320	34.93	3.03	31.8989	0.0874	7,544
30	Income Tax[1]	1,579,831	34.93	37.00	(2.0711)	(0.0057)	(8,964)
31							
32	Interest Expense[1]	-	34.93	91.25	(56.32)	(0.1543)	-
33							
34							
35	TOTAL	$ 7,358,712		CASH WORKING CAPITAL REQUIREMENT			$ (19,817)
36							
37							
38	[1]At proposed rates.						
39							
40	\2013 Chaparral Water Sch. A-F.xls						

Chaparral City Water Company
Test Year Ended December 31, 2012
Lead/Lag Study - Cash Working Capital Requirement

Exhibit
Schedule B-6 Rebuttal
Page 1
Witness: Hubbard

COMPANY REBUTTAL

Line No.	Description	Proforma Test Year Amount	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days Col. C - Col. D	Lead/Lag Factor Col. E/365	Cash Working Capital Required Col. B * Col. F
1							
2							
3							
4							
5	(A)	(B)	(C)	(D)	(E)	(F)	(G)
6							
7	OPERATING EXPENSES						
8	Labor	$ 1,024,112	34.93	13.09	21.84	0.059832705	$ 61,275
9	Purchased Water	1,156,477	34.93	43.67	(8.74)	-0.023948117	(27,695)
10	Fuel & Power	605,885	34.93	27.86	7.07	0.019366952	11,734
11	Chemicals	119,266	34.93	(79.22)	114.15	0.312736815	37,299
12	Waste Disposal & Other Utilities	7,113	34.93	41.90	(6.97)	-0.019098802	(136)
13	Intercompany Support Services	94,150	34.93	29.99	4.94	0.013531335	1,274
14	Corporate Allocation	442,409	34.93	30.00	4.93	0.013503938	5,974
15	Outside Services	508,106	34.93	88.00	(53.07)	-0.145400171	(73,879)
16	Group Insurance	178,067	34.93	12.00	22.93	0.062819007	11,186
17	Pensions	85,086	34.93	67.98	(33.05)	-0.090550856	(7,705)
18	Regulatory Expense	91,668	34.93	(136.54)	171.47	0.469782477	43,064
19	Insurance Other Than Group	73,025	34.93	(26.14)	61.07	0.167312157	12,218
20	Customer Accounting[1]	346,549	34.93	26.53	8.40	0.023010788	7,974
21	Rents	1,504	34.93	-	34.93	0.095695719	144
22	General Office Expense	164,179	34.93	39.69	(4.76)	-0.013044007	(2,142)
23	Miscellaneous	158,553	34.93	(3.22)	38.15	0.104517637	16,572
24	Maintenance Expense	388,614	34.93	17.28	17.65	0.048353253	18,791
25							
26							
27	TAXES						
28	General Taxes-Property[1]	265,484	34.93	213.96	(179.0294)	(0.4905)	$ (130,218)
29	General Taxes-Other	86,320	34.93	3.03	31.8989	0.0874	7,544
30	Income Tax[1]	1,554,059	34.93	37.00	(2.0711)	(0.0057)	(8,818)
31							
32	Interest Expense[1]	233,260	34.93	91.25	(56.32)	(0.1543)	(35,993)
33							
34							
35	TOTAL	$ 7,583,888		CASH WORKING CAPITAL REQUIREMENT			$ (51,536)
36							
37							
38	[1]At proposed rates.						
39							
40	\2013 Chaparral Water Sch. A-F.xls						

Chaparral City Water Company
Test Year Ended December 31, 2012
Lead/Lag Study - Cash Working Capital Requirement

Exhibit
Schedule B-6
Page 1
Witness: Becker

ACC STAFF

Line No.	Description	Proforma Test Year Amount	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days Col. C - Col. D	Lead/Lag Factor Col. E/365	Cash Working Capital Required Col. B * Col. F
1							
2							
3							
4							
5	(A)	(B)	(C)	(D)	(E)	(F)	(G)
6							
7	OPERATING EXPENSES						
8	Labor	$ 1,024,112	34.93	13.09	21.84	0.05983271	$ 61,275
9	Purchased Water	1,116,879	34.93	43.67	(8.74)	-0.0239481	(26,747)
10	Fuel & Power	585,139	34.93	27.86	7.07	0.01936695	11,332
11	Chemicals	115,182	34.93	(79.22)	114.15	0.31273681	36,022
12	Waste Disposal & Other Utilities	7,113	34.93	41.90	(6.97)	-0.01909880	(136)
13	Intercompany Support Services	94,150	34.93	29.99	4.94	0.01353134	1,274
14		410,813	34.93	30.00	4.93	0.01350394	5,548
15	Outside Services	508,106	34.93	88.00	(53.07)	-0.14540017	(73,879)
16	Group Insurance	178,067	34.93	12.00	22.93	0.06281901	11,186
17	Pensions	85,086	34.93	67.98	(33.05)	-0.09055086	(7,705)
18	Regulatory Expense	0	34.93	(136.54)	171.47	0.46978248	-
19	Insurance Other Than Group	73,025	34.93	(26.14)	61.07	0.16731216	12,218
20	Customer Accounting[1]	318,959	34.93	26.53	8.40	0.02301079	7,339
21	Rents	1,504	34.93	-	34.93	0.09569572	144
22	General Office Expense	164,179	34.93	39.69	(4.76)	-0.01304401	(2,142)
23	Miscellaneous	158,553	34.93	(3.22)	38.15	0.10451764	16,572
24	Maintenance Expense	388,614	34.93	17.28	17.65	0.04835325	18,791
25							
26							
27	TAXES						
28	General Taxes-Property[1]	$ 241,003	34.93	213.96	(179.0294)	(0.4905)	$ (118,210)
29	General Taxes-Other	86,320	34.93	3.03	31.8989	0.0874	7,544
30	Income Tax[1]	874,456	34.93	37.00	(2.0711)	(0.0057)	(4,962)
31							
32	Interest Expense[1]	603,993	34.93	106.25	(71.32)	(0.1954)	(118,020)
33							
34							
35	TOTAL	$ 7,035,253		CASH WORKING CAPITAL REQUIREMENT			$ (162,555)
36							
37							
38	[1]At proposed rates.						
39							
40	\2013 Chaparral Water Sch. A-F.xls						

Chaparral City Water Company
Test Year Ended December 31, 2012
Lead/Lag Study - Cash Working Capital Requirement

Exhibit
Schedule B-6
Page 1
Witness: Michlik

RUCO

Line No.	Description	Proforma Test Year Amount	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days Col. C - Col. D	Lead/Lag Factor Col. E/365	Cash Working Capital Required Col. B * Col. F
1							
2							
3							
4							
5	(A)	(B)	(C)	(D)	(E)	(F)	(G)
6							
7	OPERATING EXPENSES						
8	Labor	$ 1,010,022	34.93	13.09	21.84	0.06	$ 60,432
9	Purchased Water	1,166,827	34.93	43.67	(8.74)	-0.02	(27,943)
10	Fuel & Power	613,386	34.93	27.86	7.07	0.02	11,879
11	Chemicals	120,742	34.93	(79.22)	114.15	0.31	37,760
12	Waste Disposal & Other Utilities	7,113	34.93	41.90	(6.97)	-0.02	(136)
13	Intercompany Support Services	94,150	34.93	29.99	4.94	0.01	1,274
14	Corporate Allocation	361,175	34.93	30.00	4.93	0.01	4,877
15	Outside Services	508,106	34.93	88.00	(53.07)	-0.15	(73,879)
16	Group Insurance	178,067	34.93	12.00	22.93	0.06	11,186
17	Pensions	85,086	34.93	67.98	(33.05)	-0.09	(7,705)
18	Regulatory Expense	0	34.93	(136.54)	171.47	0.47	-
19	Insurance Other Than Group	73,025	34.93	(26.14)	61.07	0.17	12,218
20	Customer Accounting[1]	292,213	34.93	26.53	8.40	0.02	6,724
21	Rents	1,504	34.93	-	34.93	0.10	144
22	General Office Expense	164,179	34.93	39.69	(4.76)	-0.01	(2,142)
23	Miscellaneous	151,474	34.93	(3.22)	38.15	0.10	15,832
24	Maintenance Expense	186,430	34.93	17.28	17.65	0.05	9,014
25							
26							
27	TAXES						
28	General Taxes-Property[1]	$ 254,522	34.93	213.96	(179.0294)	-0.49	$ (124,841)
29	General Taxes-Other	86,320	34.93	3.03	31.8989	0.09	7,544
30	Income Tax[1]	567,404	34.93	37.00	(2.0711)	-0.01	(3,220)
31							
32	Interest Expense[1]	283,560	34.93	91.25	(56.32)	(0.15)	(43,755)
33							
34							
35	TOTAL	$ 6,205,305		CASH WORKING CAPITAL REQUIREMENT			$ (104,733)
36							
37							
38	[1]At proposed rates.						
39							
40	\2013 Chaparral Water Sch. A-F.xls						

REBUTTAL EXHIBIT SLH-2R

Recalculation of the ACC Staff's UPIS and Accumulated Depreciation

Chaparral City Water Company
Docket No. W-02113A-13-0118
Test Year ending December 31, 2012

PLANT IN SERVICE

Line No. 2 / 3 / 5	NARUC ACCT #		Dep Rates Decision No. 71308 Depr.	Dec. No. 71308 12/31/2006	Dec. No. 71308 Accum Dep INCLUDES GO ALLOCATION		CCWC's Adjustment to Remove General Office Accumulated Depreciation: REMOVE GO ALLOCATION	Corrected 1/1/2007 Accum Deprec Beginning Balance	Adjusted 1/1/2007 Plant Beginning Balance	Adjusted 1/1/2007 Accum Deprec Beginning Balance	2007 Additions
	301	Organization	0.00%	-	-				-		-
6	302	Franchises	0.00%	-	2,308	e	(2,308)	-	-	-	-
7	303	Land and Land Rights	0.00%	1,551,858	-			-	1,551,858	-	2,734
8	304	Structures & Improvements	3.33%	1,529,642	451,735	a	(94,177)	357,558	1,513,128	352,681	-
9		2007	3.33%						-	-	26,359
10		2008	3.33%								-
11		2009	3.33%								-
12		2010	3.33%								-
13		2011	3.33%								-
14		2012	0								-
15	304	Subtotal Structures & Improvements		1,529,642	451,735		(94,177)	357,558	1,513,128	352,681	26,359
16	305	Collecting and Impounding Rese	2.50%	-	573	b		573	1,000,441	307,214	-
17		2007	2.50%						-	-	-
18		2008	2.50%								-
19		2009	2.50%								-
20		2010	2.50%								-
21		2011	2.50%								-
22		2012	2.50%								-
23	305	Subtotal Collecting and Impounds		-	573		-	573	1,000,441	307,214	-
24	306	Lakes, Rivers, Other Intakes	2.50%	-					-		-
25	307	Wells	3.33%	159,627	76,436			76,436	159,627	76,436	-
26		2007	3.33%								-
27		2008	3.33%								-
28		2009	3.33%								-
29		2010	3.33%								-
30		2011	3.33%								-
31		2012	3.33%								-
32	307	Subtotal Wells		159,627	76,436		-	76,436	159,627	76,436	-
33	308	Infiltration Galleries & Tunnels	6.67%	-					-	-	-
34	309	Supply Mains	2.00%	-		b			2,201,526	674,781	-
35		2007	2.00%								-
36		2008	2.00%								-
37		2009	2.00%								-
38		2010	2.00%								-
39		2011	2.00%								-
40		2012	2.00%								-
41	309	Subtotal Supply Mains		-	-		-	-	2,201,526	674,781	-
42	310	Power Generation Equipment	5.00%	-					-		-
43	311	Pumping Equipment	12.50%	1,588,246	881,086	c		881,086	3,413,631	1,893,726	-
44		2007	12.50%						-	-	1,211,840
45		2008	12.50%						-	-	-
46		2009	12.50%								-

PLANT IN SERVICE

Line No.		NARUC ACCT #		Dep Rates Decision No. 71308 Depr.	Dec. No. 71308 12/31/2006	Dec. No. 71308 Accum Dep INCLUDES GO ALLOCATION		CCWC's Adjustment to Remove General Office Accumulated Depreciation REMOVE GO ALLOCATION	Corrected 1/1/2007 Accum Deprec Beginning Balance	Adjusted 1/1/2007 Plant Beginning Balance	Adjusted 1/1/2007 Accum Deprec Beginning Balance	2007 Additions
47			2010	12.50%								-
48			2011	12.50%								-
49			2012	12.50%								-
50		311	Subtotal Pumbing Equipment		1,588,246	881,086		-	881,086	3,413,631	1,893,726	1,211,840
51		320	Water Treatment Plant	3.33%	5,786,640	293,542	a		293,542	5,803,154	294,380	-
52			2007	3.33%			-			-	-	389,983
53			2008	3.33%								-
54			2009	3.33%								-
55			2010	3.33%								-
56			2011	3.33%								-
57			2012	3.33%								-
58		320	Subtotal Water Treatment Plant		5,786,640	293,542		-	293,542	5,803,154	294,380	389,983
59	4	330.1	Storage Tanks	2.22%	6,512,148	1,996,014	b		1,996,014	3,304,928	1,012,981	-
60	4		2007	2.22%	-	-				-	-	1,688,599
61			2008	2.22%								-
62			2009	2.22%								-
63			2010	2.22%								-
64			2011	2.22%								-
65			2012	2.22%								-
66		330.1	Subtotal Storage Tanks		6,512,148	1,996,014		-	1,996,014	3,304,928	1,012,981	1,688,599
67		331	Transmission & Distribution Mai	2.00%	18,953,054	7,154,728	d		7,154,728	18,978,869	7,164,473	-
68			2007	2.00%						-	-	2,040,825
69			2008	2.00%								-
70			2009	2.00%								-
71			2010	2.00%								-
72			2011	2.00%								-
73			2012	2.00%								-
74		331	Transmission & Distribution Mains		18,953,054	7,154,728		-	7,154,728	18,978,869	7,164,473	2,040,825
75		333	Services	3.33%	7,496,339	1,060,764	d		1,060,764	7,484,822	1,059,134	-
76			2007	3.33%						-	-	888,035
77			2008	3.33%								-
78			2009	3.33%								-
79			2010	3.33%								-
80			2011	3.33%								-
81			2012	3.33%								-
82		333	Services		7,496,339	1,060,764		-	1,060,764	7,484,822	1,059,134	888,035
83		334	Meters & Meter Installation	8.33%	2,736,866	990,763		-	990,763	2,736,866	990,763	-
84			2007	8.33%								-
85			2008	8.33%								-
86			2009	8.33%								-
87			2010	8.33%								-
88			2011	8.33%								-
89			2012	8.33%								-
90		334	Meters & Meter Installation		2,736,866	990,763		-	990,763	2,736,866	990,763	-
91		335	Hydrants	2.00%	1,224,985	235,514			235,514	1,215,940	233,775	-

PLANT IN SERVICE

Line No.	NARUC ACCT #		Dep Rates Decision No. 71308 Depr.	Dec. No. 71308 12/31/2006	Dec. No. 71308 Accum Dep INCLUDES GO ALLOCATION		CCWC's Adjustment to Remove General Office Accumulated Depreciation: REMOVE GO ALLOCATION	Corrected 1/1/2007 Accum Deprec Beginning Balance	Adjusted 1/1/2007 Plant Beginning Balance	Adjusted 1/1/2007 Accum Deprec Beginning Balance	2007 Additions
92		2007	2.00%								298,184
93		2008	2.00%								-
94		2009	2.00%								-
95		2010	2.00%								-
96		2011	2.00%								-
97		2012	2.00%								-
98	335	**Subtotal Hydrants**		1,224,985	235,514		-	235,514	1,215,940	233,775	298,184
99	336	Backflow Prevention Devices	0.00%	-							-
100	3 339	Other Plant & Misc. Equipment	6.67%	1,717,229	135,824	c	138	135,962	(108,156)	(8,417)	-
101		2007	6.67%						-	-	222,843
102		2008	6.67%						-		-
103		2009	6.67%								-
104		2010	6.67%								-
105		2011	6.67%								-
106		2012	6.67%								-
107	339	**Subtotal Other Plant & Misc. Equipment**		1,717,229	135,824		138	135,962	(108,156)	(8,417)	222,843
108	340	Office Furniture & Equipment	6.67%	272,173	392,544		(346,586)	45,958	272,173	45,958	-
109		2007	6.67%								12,058
110		2008	6.67%								-
111		2009	6.67%								-
112		2010	6.67%								-
113		2011	6.67%								-
114		2012	6.67%								-
115	340	**Subtotal Office Furniture & Equipment**		272,173	392,544		(346,586)	45,958	272,173	45,958	12,058
116	341	Transportation Equipment	20.00%	535,315	80,998		(20,362)	60,636	535,315	60,636	-
117		2007	20.00%								65,258
118		2008	20.00%								-
119		2009	20.00%								-
120		2010	20.00%								-
121		2011	20.00%								-
122		2012	20.00%								-
123	341	**Subtotal Transportation Equipment**		535,315	80,998		(20,362)	60,636	535,315	60,636	65,258
124	342	Stores Equipment	1	-	34,980	e		34,980	-	-	-
125	343	Tools, Ship & Garage Equipment	5.00%	149,365	7,700		(7,700)	-	149,365	-	-
126		2007	5.00%								7,739
127		2008	5.00%								-
128		2009	5.00%								-
129		2010	5.00%								-
130		2011	5.00%								-
131		2012	5.00%								-
132	343	**Subtotal Tools, Ship & Garage E**	0	149,365	7,700		(7,700)	-	149,365	-	7,739
133	344	Laboratory Equipment	10.00%	-	187	e	(162)	25	-	25	-
134	345	Power Operated Equipment	5.00%	-	9,970	e	(9,970)	-	-	-	-
135		2007	5.00%							-	-
136		2008	5.00%								-

PLANT IN SERVICE

Line No.	NARUC ACCT #		Dep Rates Decision No. 71308 Depr.	Dec. No. 71308 12/31/2006	Dec. No. 71308 Accum Dep INCLUDES GO ALLOCATION		CCWC's Adjustment to Remove General Office Accumulated Depreciation: REMOVE GO ALLOCATION	Corrected 1/1/2007 Accum Deprec Beginning Balance	Adjusted 1/1/2007 Plant Beginning Balance	Adjusted 1/1/2007 Accum Deprec Beginning Balance	2007 Additions
137		2009	5.00%								-
138		2010	5.00%								-
139		2011	5.00%								-
140		2012	5.00%								-
141	345	**Subtotal Power Operated Equipment**		-	9,970		(9,970)	-	-	-	-
142	346	Communication Equipment	10.00%	39,105	7,505		(6,622)	883	39,105	883	-
143		2007	10.00%								4,222
144		2008	10.00%								-
145		2009	10.00%								-
146		2010	10.00%								-
147		2011	10.00%								-
148		2012	10.00%								-
149	346	**Subtotal Communication Equipment**		39,105	7,505		(6,622)	883	39,105	883	4,222
150	3 347	Miscellaneous Equipment	10.00%	-	31,899	e		31,899	-	-	-
151		2007	10.00%	-	-			-		-	-
152		2008	10.00%								-
153		2009	10.00%								-
154		2010	10.00%								-
155		2011	10.00%								-
156		2012	10.00%								-
157	347	Subtotal Miscellaneious Eq		-	31,899		-	31,899	-	-	-
158	348	**Other Tangible Plant**	10.00%	-	-						-
159		SUBTOTAL PLANT IN SERVICE		50,252,591	13,845,069		(487,750)	13,357,320	50,252,591	14,159,429	6,858,678
160											
2		Total Authorized Plant in Service		50,252,591	13,845,069	-			50,252,591	14,159,429	6,858,678
3										-	
4		Company		51,020,715	-						8,138,679
5											
6		Staff More/(Less)		(768,124)	13,845,069	-			50,252,591	14,159,429	(1,280,001)

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PLANT IN SERVICE

NARUC ACCT #		2007 Retirements	2007 Adjustments	2007 Dep	Plant Balance 2007	Accum Dep 2007	2008 Additions	2008 Retirements	2008 Adjustments	2008 Dep Exp	Plant Balance 2008	Accum Dep 2008	2009 Additions	2009 Retirements
301	Organization	-	-	-	-	-				-	-	-		
302	Franchises	-	-	-	-	-				-	-	-		
303	Land and Land Rights	-	-	-	1,554,592	-				-	1,554,592	-		
304	Structures & Improvements	-	-	50,387	1,513,128	403,068	-	-	(22)	50,387	1,513,150	453,455	-	-
	2007	-	-	439	26,359	439	-	-	-	878	26,359	1,317	-	-
	2008	-	-	-	-	-	159,983	-	-	2,664	159,983	2,664	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	6,010	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	0	0	0	-	-	-	0	0
304	**Subtotal Structures & Improvem**	-	-	50,826	1,539,487	403,507	159,983	-	(22)	53,929	1,699,492	457,436	6,010	-
305	**Collecting and Impounding Rese**	-	-	25,011	1,000,441	332,225	-	-	-	25,011	1,000,441	357,236	-	-
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
305	**Subtotal Collecting and Impoun**	-	-	25,011	1,000,441	332,225	-	-	-	25,011	1,000,441	357,236	-	-
306	Lakes, Rivers, Other Intakes	-	-	-	-	-				-	-	-		
307	**Wells**	-	-	5,316	159,627	81,752	-	-	-	5,316	159,627	87,067	-	-
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
307	**Subtotal Wells**	-	-	5,316	159,627	81,752	-	-	-	5,316	159,627	87,067	-	-
308	Infiltration Galleries & Tunnels	-	-	-	-	-				-	-	-		
309	Supply Mains	-	-	44,031	2,201,526	718,812				44,031	2,201,526	762,842		
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
309	Subtotal Supply Mains	-	-	44,031	2,201,526	718,812	-	-	-	44,031	2,201,526	762,842	-	-
310	Power Generation Equipment	-	-	-	-	-				-	-	-		
311	Pumping Equipment	-	-	426,704	3,413,631	2,320,430	-	27,624		424,977	3,386,007	2,717,783	-	20,955
	2007	-	-	75,740	1,211,840	75,740	-	-	-	151,480	1,211,840	227,220	-	-
	2008	-	-	-	-	-	804,971	-	-	50,311	804,971	50,311	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	468,725	-

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PLANT IN SERVICE

NARUC ACCT #		2007 Retirements	2007 Adjustments	2007 Dep	Plant Balance 2007	Accum Dep 2007	2008 Additions	2008 Retirements	2008 Adjustments	2008 Dep Exp	Plant Balance 2008	Accum Dep 2008	2009 Additions	2009 Retirements
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
311	Subtotal Pumbing Equipment	-	-	502,444	4,625,471	2,396,170	804,971	27,624	-	626,768	5,402,818	2,995,314	468,725	20,955
320	Water Treatment Plant	-	-	193,245	5,803,154	487,625	-	37,668		192,618	5,765,486	642,575	-	-
	2007	1,072	-	6,475	388,911	5,403				12,951	388,911	18,354		
	2008	-	-	-	-	-	76,342			1,271	76,342	1,271		
	2009	-	-	-	-	-				-	-	-	226,944	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
320	Subtotal Water Treatment Plant	1,072	-	199,720	6,192,065	493,028	76,342	37,668	-	206,840	6,230,739	662,200	226,944	-
330.1	Storage Tanks	5,420	-	73,309	3,299,508	1,080,870	-	17,093		73,059	3,282,415	1,136,837		
	2007	-	-	18,743	1,688,599	18,743	-	-		37,487	1,688,599	56,230		
	2008	-	-	-	-	-	20,906			232	20,906	232	-	-
	2009	-	-	-	-	-				-	-	-		
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
330.1	Subtotal Storage Tanks	5,420	-	92,053	4,988,107	1,099,614	20,906	17,093	-	110,778	4,991,920	1,193,299	-	-
331	Transmission & Distribution Mai	-	-	379,577	18,978,869	7,544,050	-	24,396	52,345	379,333	18,902,128	7,898,988	-	3,831
	2007	20,188	-	20,206	2,020,637	18				40,413	2,020,637	40,431		
	2008	-	-	-	-	-	1,844,923			18,449	1,844,923	18,449		
	2009	-	-	-	-	-				-	-	-	832,027	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
331	Transmission & Distribution Mai	20,188	-	399,784	20,999,506	7,544,069	1,844,923	24,396	52,345	438,195	22,767,688	7,957,868	832,027	3,831
333	Services	-	-	249,245	7,484,822	1,308,379	-	206,177	(3,433)	245,812	7,282,078	1,348,014	-	114,215
	2007	-	-	14,786	888,035	14,786				29,572	888,035	44,357		
	2008	-	-	-	-	-	1,241,157			20,665	1,241,157	20,665		
	2009	-	-	-	-	-				-	-	-	718,240	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
333	Services	-	-	264,030	8,372,857	1,323,165	1,241,157	206,177	(3,433)	296,049	9,411,270	1,413,037	718,240	114,215
334	Meters & Meter Installation	-	-	227,981	2,736,866	1,218,744	-			227,981	2,736,866	1,446,725	-	
	2007	-	-	-	-	-	-			-	-	-		
	2008	-	-	-	-	-	118,996			4,956	118,996	4,956		
	2009	-	-	-	-	-				-	-	-	21,977	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
334	Meters & Meter Installation	-	-	227,981	2,736,866	1,218,744	118,996	-	-	232,937	2,855,862	1,451,681	21,977	-
335	Hydrants	-	-	24,319	1,215,940	258,094	-		-	24,319	1,215,940	282,413	-	49,580

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PLANT IN SERVICE

NARUC ACCT #		2007 Retirements	2007 Adjustments	2007 Dep	Plant Balance 2007	Accum Dep 2007	2008 Additions	2008 Retirements	2008 Adjustments	2008 Dep Exp	Plant Balance 2008	Accum Dep 2008	2009 Additions	2009 Retirements
	2007	-	-	2,982	298,184	2,982				5,964	298,184	8,946		
	2008	-	-	-	-	-	240,440		2,413	2,404	238,027	2,404		
	2009	-	-	-	-	-				-	-	-	203,025	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
335	**Subtotal Hydrants**	-	-	27,301	1,514,124	261,076	240,440	-	2,413	32,687	1,752,151	293,763	203,025	49,580
336	Backflow Prevention Devices	-	-	-	-	-				-	-	-		
339	Other Plant & Misc. Equipment	-	-	(7,214)	(108,156)	(15,631)				(7,214)	(108,156)	(22,845)		
	2007	-	-	7,432	222,843	7,432	-			14,864	222,843	22,295	-	
	2008	-	-	-	-	-				-	-	-		
	2009	-	-	-	-	-				-	-	-	12,307	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
339	**Subtotal Other Plant & Misc. Eq**	-	-	218	114,687	(8,199)	-	-	-	7,650	114,687	(549)	12,307	-
340	Office Furniture & Equipment	5,200	-	-	266,973	40,758	-		313	-	266,660	40,758	-	2,266
	2007	-	-	402	12,058	402				804	12,058	1,206		
	2008	-	-	-	-	-	145		-	5	145	5		
	2009	-	-	-	-	-				-	-	-	3,782	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
340	**Subtotal Office Furniture & Equi**	5,200	-	402	279,031	41,160	145	-	313	809	278,863	41,969	3,782	2,266
341	Transportation Equipment	55,375	-	101,526	479,940	106,787	-	45,865	(31,522)	91,402	465,597	152,323		
	2007	-	-	6,526	65,258	6,526				13,052	65,258	19,577		
	2008	-	-	-	-	-	17,080			1,708	17,080	1,708		
	2009	-	-	-	-	-				-	-	-		
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
341	**Subtotal Transportation Equipm**	55,375	-	108,051	545,198	113,312	17,080	45,865	(31,522)	106,161	547,935	173,608	-	-
342	Stores Equipment	-	-	-	-	-				-	-	-		
343	Tools, Ship & Garage Equipment	6,861	-	7,297	142,504	436	-	-		7,125	142,504	7,561		
	2007	-	-	193	7,739	193				387	7,739	580		
	2008	-	-	-	-	-	19,502			488	19,502	488		
	2009	-	-	-	-	-				-	-	-		
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
343	**Subtotal Tools, Ship & Garage E**	6,861	-	7,490	150,243	629	19,502	-	-	8,000	169,745	8,629	-	-
344	Laboratory Equipment	-	-	-	-	25				-	-	25		
345	Power Operated Equipment	-	-	-	-	-	-	-		-	-	-		
	2007	-	-	-	-	-	-			-	-	-		
	2008	-	-	-	-	-	-			-	-	-		

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PLANT IN SERVICE

NARUC ACCT #		2007 Retirements	2007 Adjustments	**2007 Dep**	Plant Balance 2007	**Accum Dep 2007**	2008 Additions	2008 Retirements	2008 Adjustments	**2008 Dep Exp**	Plant Balance 2008	**Accum Dep 2008**	2009 Additions	2009 Retirements
	2009	-	-	-	-	-	-			-	-	-		
	2010	-	-	-	-	-	-			-	-	-		
	2011	-	-	-	-	-	-			-	-	-		
	2012	-	-	-	-	-	-			-	-	-		
345	**Subtotal Power Operated Equipı**	-	-	-	-	-	-	-	-	-	-	-	-	-
346	Communication Equipment	-	-	3,911	39,105	4,794				3,911	39,105	8,704		
	2007	-	-	211	4,222	211				422	4,222	633		
	2008	-	-	-	-	-				-	-	-		
	2009	-	-	-	-	-				-	-	-		
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
346	**Subtotal Communication E(**	-	-	4,122	43,327	5,005	-	-	-	4,333	43,327	9,337	-	-
347	Miscellaneous Equipment	-	-	-	-	-				-	-	-	-	
	2007	-	-	-	-	-				-	-	-		
	2008	-	-	-	-	-	-			-	-	-		
	2009	-	-	-	-	-				-	-	-	-	
	2010	-	-	-	-	-				-	-	-		
	2011	-	-	-	-	-				-	-	-		
	2012	-	-	-	-	-				-	-	-		
347	Subtotal Miscellaneious Eq	-	-	-	-	-	-	-	-	-	-	-	-	-
348	**Other Tangible Plant**	-	-	-	-	-	-	-		-	-	-	-	-
	SUBTOTAL PLANT IN SERVICE	94,115	(1)	1,958,778	57,017,154	16,024,092	4,544,444	358,822	20,093	2,199,491	61,182,682	17,864,762	2,493,036	190,846
	Total Authorized Plant in Servi	94,115	(1)	1,958,778	57,017,154	16,024,092	4,544,444	358,822	20,093	2,199,491	61,182,682	17,864,762	2,493,036	190,846
							1							
	Company	94,113			59,065,283		4,544,445	358,823	20,093		63,230,809		2,504,629	2,309,848
	Staff More/(Less)	2	(1)	1,958,778	(2,048,129)	16,024,092	(1)	(1)	(0)	2,199,491	(2,048,127)	17,864,762	(11,593)	(2,119,002)

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NARUC ACCT #		2009 Adjustments	2009 Dep Exp	Plant Balance 2009	Accum Dep 2009	2010 Additions	2010 Retirements	2010 Adjustments	2010 Dep Exp	Plant Balance 2010	Accum Dep 2010	2011 Additions	2011 Retirements	2011 Adjustments
301	Organization		-	-	-	-			-	-	-			
302	Franchises		-	-	-	-			-	-	-			
303	Land and Land Rights	-	-	1,554,592	-	-			-	1,554,592	-			
304	Structures & Improvements	-	50,388	1,513,150	503,843	-	-	-	50,388	1,513,150	554,231	-	-	-
	2007	-	878	26,359	2,194	-	-	-	878	26,359	3,072	-	-	-
	2008	-	5,327	159,983	7,991	-	-	-	5,327	159,983	13,319	-	-	-
	2009	-	100	6,010	100	-	-	-	200	6,010	300	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	25,885	-	-
	2012	0	-	-	-	-	0	0	-	-	-	0	0	0
304	Subtotal Structures & Improvem	-	56,693	1,705,502	514,129	-	-	-	56,793	1,705,502	570,922	25,885	-	-
305	Collecting and Impounding Rese	-	25,011	1,000,441	382,247	-	-	-	25,011	1,000,441	407,259	-	-	-
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
305	Subtotal Collecting and Impounc	-	25,011	1,000,441	382,247	-	-	-	25,011	1,000,441	407,259	-	-	-
306	Lakes, Rivers, Other Intakes		-	-	-	-			-	-	-			
307	Wells	-	5,316	159,627	92,383	-	-	-	5,316	159,627	97,698	-	-	-
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
307	Subtotal Wells	-	5,316	159,627	92,383	-	-	-	5,316	159,627	97,698	-	-	-
308	Infiltration Galleries & Tunnels		-	-	-	-			-	-	-			
309	Supply Mains		44,031	2,201,526	806,873	-			44,031	2,201,526	850,904			
	2007	-	-	-	-	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
309	Subtotal Supply Mains	-	44,031	2,201,526	806,873	-	-	-	44,031	2,201,526	850,904	-	-	-
310	Power Generation Equipment		-	-	-	-			-	-	-			
311	Pumping Equipment	-	421,941	3,365,052	3,118,769	-		-	246,283	3,365,052	3,365,052	-		
	2007	-	151,480	1,211,840	378,700	-	-	-	151,480	1,211,840	530,180	-	-	-
	2008	-	100,621	804,971	150,932	-	-	-	100,621	804,971	251,553	-	-	-
	2009	-	29,295	468,725	29,295	-	-	-	58,591	468,725	87,886	-	-	-

PLANT IN SERVICE

NARUC ACCT #		2009 Adjustments	2009 Dep Exp	Plant Balance 2009	Accum Dep 2009	2010 Additions	2010 Retirements	2010 Adjustments	2010 Dep Exp	Plant Balance 2010	Accum Dep 2010	2011 Additions	2011 Retirements	2011 Adjustments
	2010	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-	-	37,782	-	-
	2012	-	-	-	-	-	-	-	-	-	-	-	-	-
311	Subtotal Pumbing Equipment	-	703,338	5,850,588	3,677,697	-	-	-	556,975	5,850,588	4,234,671	37,782	-	-
320	Water Treatment Plant	-	191,991	5,765,486	834,565	-			191,991	5,765,486	1,026,556	-	8,041	
	2007		12,951	388,911	31,305	-			12,951	388,911	44,256			
	2008		2,542	76,342	3,813	-			2,542	76,342	6,355			
	2009	-	3,779	226,944	3,779	-			7,557	226,944	11,336			
	2010		-	-	-	-			-	-	-	37,208		
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
320	Subtotal Water Treatment Plant	-	211,262	6,457,683	873,462	-	-	-	215,041	6,457,683	1,088,503	37,208	8,041	-
330.1	Storage Tanks	-	72,870	3,282,415	1,209,706	-			72,870	3,282,415	1,282,576			
	2007	-	37,487	1,688,599	93,717	-			37,487	1,688,599	131,204			
	2008		464	20,906	696	-			464	20,906	1,160			
	2009	-	-	-	-	-			-	-	-			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
330.1	Subtotal Storage Tanks	-	110,821	4,991,920	1,304,120	-	-	-	110,821	4,991,920	1,414,940	-	-	-
331	Transmission & Distribution Mai	-	378,004	18,898,297	8,273,161	-	916		377,957	18,897,381	8,650,202	-	217,897	
	2007		40,413	2,020,637	80,844	-			40,413	2,020,637	121,257			
	2008		36,898	1,844,923	55,348	-			36,898	1,844,923	92,246			
	2009	-	8,320	832,027	8,320	-			16,641	832,027	24,961			
	2010		-	-	-	16,340			163	16,340	163			
	2011		-	-	-	-			-	-	-	28,618		
	2012		-	-	-	-			-	-	-			
331	Transmission & Distribution Mair	-	463,636	23,595,884	8,417,673	16,340	916	-	472,072	23,611,308	8,888,829	28,618	217,897	-
333	Services	-	240,592	7,167,863	1,474,391	-	144,043	-	236,292	7,023,820	1,566,639	-		
	2007		29,572	888,035	73,929	-			29,572	888,035	103,500			
	2008		41,331	1,241,157	61,996	-			41,331	1,241,157	103,326			
	2009	-	11,959	718,240	11,959	-	-		23,917	718,240	35,876			
	2010		-	-	-	408,788			6,806	408,788	6,806	-	-	
	2011		-	-	-	-			-	-	-	627,477		
	2012		-	-	-	-			-	-	-			
333	Services	-	323,452	10,015,295	1,622,274	408,788	144,043	-	337,917	10,280,040	1,816,148	627,477	-	-
334	Meters & Meter Installation	-	227,981	2,736,866	1,674,706	-			227,981	2,736,866	1,902,687	-	40,496	
	2007		-	-	-	-			-	-	-			
	2008		9,912	118,996	14,869	-			9,912	118,996	24,781			
	2009	-	915	21,977	915	-			1,831	21,977	2,746			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-	-		
	2012		-	-	-	-			-	-	-	82,281		
334	Meters & Meter Installation	-	238,809	2,877,839	1,690,490	-	-	-	239,724	2,877,839	1,930,214	82,281	40,496	-
335	Hydrants	-	23,823	1,166,360	256,656	-	1,744		23,310	1,164,616	278,221	-	10,828	

PLANT IN SERVICE

NARUC ACCT #		2009 Adjustments	2009 Dep Exp	Plant Balance 2009	Accum Dep 2009	2010 Additions	2010 Retirements	2010 Adjustments	2010 Dep Exp	Plant Balance 2010	Accum Dep 2010	2011 Additions	2011 Retirements	2011 Adjustments
	2007		5,964	298,184	14,909	-			5,964	298,184	20,873			
	2008		4,761	238,027	7,165	-			4,761	238,027	11,925			
	2009	-	2,030	203,025	2,030	-		-	4,061	203,025	6,091			
	2010		-	-	-	45,930			459	45,930	459			
	2011		-	-	-	-			-	-	-	92,006		
	2012		-	-	-	-			-	-	-			
335	**Subtotal Hydrants**	-	36,577	1,905,596	280,760	45,930	1,744	-	38,554	1,949,782	317,570	92,006	10,828	-
336	Backflow Prevention Devices		-	-	-	-			-	-	-			
339	Other Plant & Misc. Equipment		(7,214)	(108,156)	(30,059)	-			(7,214)	(108,156)	(37,273)			
	2007		14,864	222,843	37,159	-			14,864	222,843	52,023			
	2008		-	-	-	-			-	-	-			
	2009		410	12,307	410	-			821	12,307	1,231			
	2010		-	-	-	38,743			1,292	38,743	1,292			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
339	**Subtotal Other Plant & Misc. Eq**	-	8,060	126,994	7,511	38,743	-	-	9,763	165,737	17,273	-	-	-
340	Office Furniture & Equipment	-	-	264,394	38,492	-		-	-	264,394	38,492	-		
	2007		804	12,058	2,011	-			804	12,058	2,815			
	2008		10	145	15	-			10	145	24			
	2009	-	126	3,782	126	-			252	3,782	378			
	2010		-	-	-	-		(1)	-	1	-			
	2011		-	-	-	-			-	-	-	24,687		
	2012		-	-	-	-			-	-	-			
340	**Subtotal Office Furniture & Equi**	-	940	280,379	40,643	-	-	(1)	1,066	280,380	41,710	24,687	-	-
341	Transportation Equipment		93,119	465,597	245,442	-		33,031	93,119	432,566	338,562		20,243	-
	2007		13,052	65,258	32,629	-			13,052	65,258	45,681			
	2008		3,416	17,080	5,124	-			3,416	17,080	8,540			
	2009		-	-	-	-			-	-	-			
	2010		-	-	-	-		-	-	-	-			-
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
341	**Subtotal Transportation Equipm**	-	109,587	547,935	283,195	-	-	33,031	109,587	514,904	392,782	-	20,243	-
342	Stores Equipment		-	-	-	-			-	-	-			
343	Tools, Ship & Garage Equipment		7,125	142,504	14,686	-			7,125	142,504	21,811		1,911	
	2007		387	7,739	967	-			387	7,739	1,354			
	2008		975	19,502	1,463	-			975	19,502	2,438			
	2009		-	-	-	-			-	-	-			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
343	**Subtotal Tools, Ship & Garage E**	-	8,487	169,745	17,116	-	-	-	8,487	169,745	25,603	-	1,911	-
344	Laboratory Equipment		-	-	25	-			-	-	25			
345	Power Operated Equipment		-	-	-	-			-	-	-			
	2007		-	-	-	-			-	-	-			
	2008		-	-	-	-			-	-	-			

PLANT IN SERVICE

NARUC ACCT #		2009 Adjustments	2009 Dep Exp	Plant Balance 2009	Accum Dep 2009	2010 Additions	2010 Retirements	2010 Adjustments	2010 Dep Exp	Plant Balance 2010	Accum Dep 2010	2011 Additions	2011 Retirements	2011 Adjustments
	2009		-	-	-	-			-	-	-			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
345	**Subtotal Power Operated Equip**	-	-	-	-	-	-	-	-	-	-	-	-	-
346	Communication Equipment		3,911	39,105	12,615	-			3,911	39,105	16,525			
	2007		422	4,222	1,056	-			422	4,222	1,478			
	2008		-	-	-	-			-	-	-			
	2009		-	-	-	-			-	-	-			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
346	**Subtotal Communication E**	-	4,333	43,327	13,670	-	-	-	4,333	43,327	18,003	-	-	-
347	Miscellaneous Equipment		-	-	-	-			-	-	-			
	2007		-	-	-	-			-	-	-			
	2008		-	-	-	-			-	-	-			
	2009		-	-	-	-			-	-	-			
	2010		-	-	-	-			-	-	-			
	2011		-	-	-	-			-	-	-			
	2012		-	-	-	-			-	-	-			
347	Subtotal Miscellaneious Eq	-	-	-	-	-	-	-	-	-	-	-	-	-
348	**Other Tangible Plant**		-	-	-	-	-		-	-	-	-	-	
	SUBTOTAL PLANT IN SERVICE	(1)	2,350,351	63,484,872	20,024,267	509,800	146,702	33,029	2,235,488	63,814,940	22,113,053	955,943	299,415	(1)
	Total Authorized Plant in Servi	(1)	2,350,351	63,484,872	20,024,267	509,800	146,702	33,029	2,235,488	63,814,940	22,113,053	955,943	299,415	(1)
	Company	27,797		63,397,794		509,800	146,703	33,029		63,727,861		955,944	299,416	
		-				-								
	Staff More/(Less)	(27,798)	2,350,351	87,078	20,024,267	-	(1)	-	2,235,488	87,079	22,113,053	(1)	(1)	(1)

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PLANT IN SERVICE

NARUC ACCT #		2011 Dep Exp	Plant Balance 2011	Accum Dep 2011	2012 Additions	2012 Retirements	2012 Adjustments	2012 Dep Exp	Plant Balance 2012	Accum Dep 2012
301	Organization	-	-	-				-	-	-
302	Franchises	-	-	-				-	-	-
303	Land and Land Rights	-	1,554,592	-				-	1,554,592	-
304	Structures & Improvements	50,388	1,513,150	604,619	-	-	-	50,388	1,513,150	655,007
	2007	878	26,359	3,950	-	-	-	878	26,359	4,828
	2008	5,327	159,983	18,646	-	-	-	5,327	159,983	23,973
	2009	200	6,010	500	-	-	-	200	6,010	700
	2010	-	-	-	-	-	-	-	-	-
	2011	431	25,885	431	-	-	-	862	25,885	1,293
	2012	-	-	-	47408	0	0	789	47,408	789
304	**Subtotal Structures & Improvem**	57,224	1,731,387	628,146	47,408	-	-	58,445	1,778,795	686,591
305	**Collecting and Impounding Rese**	25,011	1,000,441	432,270	-	-	-	25,011	1,000,441	457,281
	2007	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-
	2012	-	-	-	6,970	-	-	87	6,970	87
305	**Subtotal Collecting and Impoun**	25,011	1,000,441	432,270	6,970	-	-	25,098	1,007,411	457,368
306	Lakes, Rivers, Other Intakes	-	-	-				-	-	-
307	**Wells**	5,316	159,627	103,014	-	-	-	5,316	159,627	108,329
	2007	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-
307	**Subtotal Wells**	5,316	159,627	103,014	-	-	-	5,316	159,627	108,329
308	Infiltration Galleries & Tunnels	-	-	-				-	-	-
309	Supply Mains	44,031	2,201,526	894,934				44,031	2,201,526	938,965
	2007	-	-	-	-	-	-	-	-	-
	2008	-	-	-	-	-	-	-	-	-
	2009	-	-	-	-	-	-	-	-	-
	2010	-	-	-	-	-	-	-	-	-
	2011	-	-	-	-	-	-	-	-	-
	2012	-	-	-	-	-	-	-	-	-
309	Subtotal Supply Mains	44,031	2,201,526	894,934	-	-	-	44,031	2,201,526	938,965
310	Power Generation Equipment	-	-	-				-	-	-
311	Pumping Equipment	[redacted]	3,365,052	3,365,052	-			-	3,365,052	3,365,052
	2007	151,480	1,211,840	681,660	-	-	-	151,480	1,211,840	833,140
	2008	100,621	804,971	352,175	-	-	-	100,621	804,971	452,796
	2009	58,591	468,725	146,477	-	-	-	58,591	468,725	205,067

PLANT IN SERVICE

NARUC ACCT #		2011 Dep Exp	Plant Balance 2011	Accum Dep 2011	2012 Additions	2012 Retirements	2012 Adjustments	2012 Dep Exp	Plant Balance 2012	Accum Dep 2012
	2010	-	-	-	-	-	-	-	-	-
	2011	2,361	37,782	2,361	-	-	-	4,723	37,782	7,084
	2012	-	-	-	87,676	-	-	5,480	87,676	5,480
311	Subtotal Pumbing Equipment	313,053	5,888,370	4,547,725	87,676	-	-	320,895	5,976,046	4,868,619
320	Water Treatment Plant	191,857	5,757,445	1,210,372	-			191,723	5,757,445	1,402,095
	2007	12,951	388,911	57,206				12,951	388,911	70,157
	2008	2,542	76,342	8,898				2,542	76,342	11,440
	2009	7,557	226,944	18,893				7,557	226,944	26,450
	2010	620	37,208	620				1,239	37,208	1,859
	2011	-	-	-				-	-	-
	2012	-	-	-	71,190			1,185	71,190	1,185
320	Subtotal Water Treatment Plant	215,526	6,486,850	1,295,988	71,190	-	-	217,197	6,558,040	1,513,186
330.1	Storage Tanks	72,870	3,282,415	1,355,445				72,870	3,282,415	1,428,315
	2007	37,487	1,688,599	168,691				37,487	1,688,599	206,178
	2008	464	20,906	1,624				464	20,906	2,089
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-				-	-	-
330.1	Subtotal Storage Tanks	110,821	4,991,920	1,525,761	-	-	-	110,821	4,991,920	1,636,582
331	Transmission & Distribution Mai	375,769	18,679,484	8,808,074	-			373,590	18,679,484	9,181,663
	2007	40,413	2,020,637	161,669				40,413	2,020,637	202,082
	2008	36,898	1,844,923	129,145				36,898	1,844,923	166,043
	2009	16,641	832,027	41,601				16,641	832,027	58,242
	2010	327	16,340	490				327	16,340	817
	2011	286	28,618	286				572	28,618	859
	2012	-	-	-	977,835			9,778	977,835	9,778
331	Transmission & Distribution Mair	470,333	23,422,029	9,141,265	977,835	-	-	478,219	24,399,864	9,619,484
333	Services	233,893	7,023,820	1,800,532				233,893	7,023,820	2,034,425
	2007	29,572	888,035	133,072				29,572	888,035	162,644
	2008	41,331	1,241,157	144,657				41,331	1,241,157	185,987
	2009	23,917	718,240	59,793				23,917	718,240	83,711
	2010	13,613	408,788	20,419				13,613	408,788	34,032
	2011	10,447	627,477	10,447				20,895	627,477	31,342
	2012	-	-	-				-	-	-
333	Services	352,773	10,907,517	2,168,921	-	-	-	363,220	10,907,517	2,532,141
334	Meters & Meter Installation	226,294	2,696,370	2,088,485				224,608	2,696,370	2,313,093
	2007	-	-	-				-	-	-
	2008	9,912	118,996	34,693				9,912	118,996	44,606
	2009	1,831	21,977	4,577				1,831	21,977	6,407
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	3,427	82,281	3,427				6,854	82,281	10,281
334	Meters & Meter Installation	241,464	2,919,624	2,131,182	-	-	-	243,205	2,919,624	2,374,387
335	Hydrants	23,184	1,153,788	290,577				23,076	1,153,788	313,653

PLANT IN SERVICE

NARUC ACCT #		2011 Dep Exp	Plant Balance 2011	Accum Dep 2011	2012 Additions	2012 Retirements	2012 Adjustments	2012 Dep Exp	Plant Balance 2012	Accum Dep 2012
	2007	5,964	298,184	26,837				5,964	298,184	32,800
	2008	4,761	238,027	16,686				4,761	238,027	21,447
	2009	4,061	203,025	10,151				4,061	203,025	14,212
	2010	919	45,930	1,378				919	45,930	2,297
	2011	920	92,006	920				1,840	92,006	2,760
	2012	-	-	-				-	-	-
335	**Subtotal Hydrants**	39,807	2,030,960	346,549	-	-	-	40,619	2,030,960	387,168
336	Backflow Prevention Devices	-	-	-				-	-	-
339	Other Plant & Misc. Equipment	(7,214)	(108,156)	(44,487)	-			(7,214)	(108,156)	(51,701)
	2007	14,864	222,843	66,886				14,864	222,843	81,750
	2008	-	-	-				-	-	-
	2009	821	12,307	2,052				821	12,307	2,873
	2010	2,584	38,743	3,876				2,584	38,743	6,460
	2011	-	-	-				-	-	-
	2012	-	-	-	19,005			634	19,005	634
339	**Subtotal Other Plant & Misc. Equ**	11,055	165,737	28,328	19,005	-	-	11,688	184,742	40,017
340	Office Furniture & Equipment	-	264,394	38,492				-	264,394	38,492
	2007	804	12,058	3,619				804	12,058	4,423
	2008	10	145	34				10	145	44
	2009	252	3,782	631				252	3,782	883
	2010	0	1	0				0	1	0
	2011	823	24,687	823				1,647	24,687	2,470
	2012	-	-	-				-	-	-
340	**Subtotal Office Furniture & Equi**	1,890	305,067	43,599	-	-	-	2,713	305,067	46,312
341	Transportation Equipment	67,036	412,323	385,355		77,348		26,968	334,975	334,975
	2007	13,052	65,258	58,732				6,526	65,258	65,258
	2008	3,416	17,080	11,956				3,416	17,080	15,372
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-				-	-	-
341	**Subtotal Transportation Equipm**	83,504	494,661	456,043	-	77,348	-	36,910	417,313	415,605
342	Stores Equipment	-	-	-				-	-	-
343	Tools, Ship & Garage Equipment	7,077	140,593	26,978	-			7,030	140,593	34,007
	2007	387	7,739	1,741				387	7,739	2,128
	2008	975	19,502	3,413				975	19,502	4,388
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-	22,827			571	22,827	571
343	**Subtotal Tools, Ship & Garage E**	8,439	167,834	32,132	22,827	-	-	8,962	190,661	41,094
344	Laboratory Equipment	-	-	25				-	-	25
345	Power Operated Equipment	-	-	-				-	-	-
	2007	-	-	-				-	-	-
	2008	-	-	-				-	-	-

PLANT IN SERVICE

NARUC ACCT #		2011 Dep Exp	Plant Balance 2011	Accum Dep 2011	2012 Additions	2012 Retirements	2012 Adjustments	2012 Dep Exp	Plant Balance 2012	Accum Dep 2012
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-				-	-	-
345	**Subtotal Power Operated Equip**	-	-	-	-	-	-	-	-	-
346	Communication Equipment	3,911	39,105	20,436				3,911	39,105	24,346
	2007	422	4,222	1,900				422	4,222	2,322
	2008	-	-	-				-	-	-
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-				-	-	-
346	**Subtotal Communication E**	4,333	43,327	22,335	-	-	-	4,333	43,327	26,668
347	Miscellaneous Equipment	-	-	-				-	-	-
	2007	-	-	-				-	-	-
	2008	-	-	-				-	-	-
	2009	-	-	-				-	-	-
	2010	-	-	-				-	-	-
	2011	-	-	-				-	-	-
	2012	-	-	-				-	-	-
347	Subtotal Miscellaneous Eq	-	-	-	-	-	-	-	-	-
348	**Other Tangible Plant**	-	-	-	-	-		-	-	-
	SUBTOTAL PLANT IN SERVICE	1,984,579	64,471,468	23,798,217	1,232,910	77,347	(1)	1,971,670	65,627,031	25,692,540
	Total Authorized Plant in Servi	1,984,579	64,471,468	23,798,217	1,232,910	77,347	(1)	1,971,670	65,627,031	25,692,540
	Company		64,384,388		1,232,912	-	-		65,617,300	25,734,123
	Staff More/(Less)	1,984,579	87,080		(2)	77,347			9,731	(41,583)

REBUTTAL EXHIBIT SLH-3R

Response to data request RUCO 3.01 a.

COMPANY: CHAPARRAL CITY WATER COMPANY
DOCKET NO: W-02113A-13-0118

Response provided by: Sheryl L. Hubbard
Title: Director, Regulatory & Rates

Address: 2355 W. Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027

Company Response Number: RUCO 3.01

Q: Plant Additions and Deletions - This is a follow-up to Staff data request 3.28 which asked the following:

"Refer to Schedules B-2 pages 3.2 through 3.5 and provide a list that breaks out the components and amounts that comprise the plant additions and deletions by year since the last Rate Case."

The Company responded as follows:

"We have plant additions and deletions from Jan 2011 through Dec 2012. See attached schedule labeled "STF GB 3.28 Plant Additions and Deletions.xls".

Please provide RUCO with the following information:

a. The balances of the plant accounts by line item (e.g. account 307 wells), and accumulated depreciation balances by plant account line item from the last rate case, Decision No. 71308, dated October, 21, 2009.
b. Please provide RUCO an excel schedule that shows the Plant additions and deletions by plant account for the prior years 2007, 2008, 2009, and 2010.
c. Please provide RUCO with a detailed excel transaction sub ledger for each plant addtion from b. above.

A: a. The balances of the plant accounts and accumulated depreciation by plant account line item from the last rate case, Decision No. 71308 is attached and labeled "RUCO 3.01 a. Plant and Accum Depr (Dec 71308).xls".

b. The Company is still waiting for a response to its request to Golden State Water Company for assistance in providing the plant additions and deletions by plant account for the prior years 2007, 2008, 2009, and 2010. This information will be provided as a supplement to this response as soon as it is received.

c. The Company is still waiting for a response to its request to Golden State Water Company for assistance in providing the subledger detail for each plant addition requested in b. above. This information will be provided as a supplement to this response as soon as it is received.

Chaparral City Water Company
Test Year Ended December 31, 2012
Authorized Plant in Service in Decision 71309

Response to Data Request No. RUCO 3.01 a. (page 1 of 2)

Line No.	Sub. Account	Description	CCWC Plant in Service	General Office Allocation	Total Approved Dec. 71309
1					
2					
3					
4	301	Organization	$ -	$ 658	$ 658
5	302	Franchises	-	26,769	26,769
6	303	Land and Land Rights	1,551,858		1,551,858
7	304	Structures & Improvements	1,529,642	232,113	1,761,755
8	305	Collecting and Impounding Reservoirs	-		-
9	306	Lakes, Rivers, Other Intakes	-		-
10	307	Wells	159,627		159,627
11	308	Infiltration Galleries & Tunnels	-		-
12	309	Supply Mains	-		-
13	310	Power Generation Equipment	-		-
14	311	Pumping Equipment	1,588,246	(37)	1,588,209
15	320	Water Treatment Equipment	5,786,640		5,786,640
16	320.1	Water Treatment Plants			-
17	320.2	Solution Chemical Feeders			-
18	330	Distribution Reservoirs & Standpipes	6,512,148		6,512,148
19	330.1	Storage Tanks			-
20	330.2	Pressure Tanks			-
21	331	Transmission & Distribution Mains	18,953,054		18,953,054
22	333	Services	7,496,339		7,496,339
23	334	Meters & Meter Installation	2,736,866		2,736,866
24	335	Hydrants	1,224,985		1,224,985
25	336	Backflow Prevention Devices	-		-
26	339	Other Plant & Misc. Equipment	1,717,229	1,085	1,718,314
27	340	Office Furniture & Equipment	272,173	570,751	842,924
28	340.1	Computers & Software			-
29	341	Transportation Equipment	535,315	11,149	546,464
30	342	Stores Equipment	-		-
31	343	Tools, Ship & Garage Equipment	149,365	16,226	165,591
32	344	Laboratory Equipment	-	162	162
33	345	Power Operated Equipment	-	9,970	9,970
34	346	Communication Equipment	39,105	6,622	45,727
35	347	Miscellaneous Equipment	-		-
36	348	Other Tangible Plant	-		-
37		Total Plant in Service	$ 50,252,592	$ 875,469	$ 51,128,062

Chaparral City Water Company
Test Year Ended December 31, 2012
Authorized Accumulated Depreciation in Decision 71309

Response to Data Request No. RUCO 3.01 a. (page 2 of 2)

Line No.	Sub. Account	Description	CCWC Accumulated Depreciation	General Office Allocation	Total Approved Dec. 71309
1					
2					
3					
4	301	Organization	$ -		$ -
5	302	Franchises	-	2,308	2,308
6	303	Land and Land Rights	6,487		6,487
7	304	Structures & Improvements	357,558	94,177	451,735
8	305	Collecting and Impounding Reservoirs	2,374		2,374
9	306	Lakes, Rivers, Other Intakes	-		-
10	307	Wells	95,163		95,163
11	308	Infiltration Galleries & Tunnels	-		-
12	309	Supply Mains	-		-
13	310	Power Generation Equipment	-		-
14	311	Pumping Equipment	856,652		856,652
15	320	Water Treatment Equipment	290,634		290,634
16	320.1	Water Treatment Plants			-
17	320.2	Solution Chemical Feeders			-
18	330	Distribution Reservoirs & Standpipes	2,100,724		2,100,724
19	330.1	Storage Tanks			-
20	330.2	Pressure Tanks			-
21	331	Transmission & Distribution Mains	7,108,277		7,108,277
22	333	Services	1,030,511		1,030,511
23	334	Meters & Meter Installation	974,609		974,609
24	335	Hydrants	224,574		224,574
25	336	Backflow Prevention Devices	-		-
26	339	Other Plant & Misc. Equipment	104,073	(138)	103,935
27	340	Office Furniture & Equipment	45,373	346,586	391,959
28	340.1	Computers & Software			-
29	341	Transportation Equipment	60,636	20,362	80,998
30	342	Stores Equipment	-		-
31	343	Tools, Ship & Garage Equipment	34,980	7,700	42,680
32	344	Laboratory Equipment	25	162	187
33	345	Power Operated Equipment	-	9,970	9,970
34	346	Communication Equipment	883	6,622	7,505
35	347	Miscellaneous Equipment	63,788		63,788
36	348	Other Tangible Plant	-		-
37		Total Accumulated Depreciation	$ 13,357,323	$ 487,750	$ 13,845,073

REBUTTAL EXHIBIT SLH-4R

Response to data request RUCO 8.04

COMPANY: CHAPARRAL CITY WATER COMPANY
DOCKET NO: W-02113A-13-0118

Response provided by: Sheryl L. Hubbard
Title: Director, Regulatory & Rates

Address: 2355 W. Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027

Company Response Number: RUCO 8.04 Page 1 of 3

Q. Corporate Allocation – Please fully explain and describe the At-Risk Compensation function at the Corporate level.

A. The At-Risk Compensation function at the Corporate level includes the Short-term incentive ("STI") and the Mid-term incentive ("MTI").

EPCOR Utilities Inc.'s ("EUI") STI program is designed to provide employees a competitive incentive that reflects EUI (Corporate) and Business Unit ("BU") performance and that of the individual. Target payout levels under the STI program are expressed as a percentage of salary and generally align with the median of EPCOR's competitors for positions with similar responsibilities.

The STI program is based on a 10 percent relative weighting for the financial performance (net income/earnings) measure, and the remaining 90 percent of total performance is accounted for in Corporate-specific performance measures. The 10 percent weighting to the financial performance measure brings EUI in line with other regulated utilities in Alberta, as well as with the Alberta regulator's determination that "... a 10 percent earning component of a short term incentive plan appropriately balances incentives of the utility to be more efficient, which benefits consumers in the long run, while at the same time recognizing that the utility benefits from increased net earnings in the short term."

The specific financial performance target is corporate net income, which is comprised of net income measured at the EUI level which includes the net income contributions from all of EUI's subsidiaries with threshold performance set at 90% of target net income and stretch performance is set at 110% of target net income.

The second measure, which accounts for 90% of the overall weighting, is related to specific activities within the business unit. The BU activity measures focus on three broad categories of activities in the areas of Health and Safety, Operational Efficiency and Customer Service. Each category is weighted equally at 30% and total to a relative weighting of 90%. The purpose of this measure is to drive performance to engage and focus all employees on improving the business unit's performance as a utility service provider.

COMPANY: CHAPARRAL CITY WATER COMPANY
DOCKET NO: W-02113A-13-0118

Response provided by: Sheryl L. Hubbard
Title: Director, Regulatory & Rates

Address: 2355 W. Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027

Company Response Number: RUCO 8.04

Corporate performance is measured based on actual performance relative to target performance. Points are awarded based on the weighting assigned to each measure. Actual performance must achieve threshold performance (50% of target) in each metric to be awarded points. Actual performance that meets the target level of performance will be awarded 100% of the points related to that measure. Performance that exceeds target will be awarded up to 150% of the points related to that metric. The maximum number of points that can be awarded for any metric is 150% of the target number of points for the measure.

The points awarded for each performance measure will be summed up to arrive at an overall point total. The overall point total will be used to determine the STI payout amount. The STI payout for an overall point total of 100 points or greater will be 100% of target STI payout.

An illustrative example of how the STI payout amounts will be calculated is shown below.

Short Term Incentive Illustrative Example

A	B	C	D	E	F	G
Corporate and BU Performance Measure	Relative Weighting	Threshold Points (50% of Target)	Target Points (100% of Target)	Maximum Points (150% of Target)	Actual Performance Rating	Actual Points (%/Points)
1 Corporate Financial Performance	10%	5	10	15	Target	10
2 Health and Safety	30%	15	30	45	Threshold	15
3 Operational Efficiency	30%	15	30	45	At Target	30
4 Customer Service	30%	15	30	45	Above Target	36
5 Total	100%	50	100	150		91 point (91% of Target)

The Mid-term Incentive ("MTI") program incents senior management to invest capital to achieve the benefits of scale economies and to increase the borrowing capacity and access to capital by strengthening EPCOR's credit ratings.

COMPANY: CHAPARRAL CITY WATER COMPANY
DOCKET NO: W-02113A-13-0118

Response provided by: Sheryl L. Hubbard
Title: Director, Regulatory & Rates

Address: 2355 W. Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027

Company Response Number: RUCO 8.04 Page 3 of 3

The key structural and eligibility features of EPCOR's MTI program are:
~ Target awards are designed to ensure the Target Total Direct Compensation (base salary, target STI, and target MTI) paid to EPCOR executive and management are in line with EPCOR's competitors in order to attract, retain and engage key leadership personnel to support EPCOR's long-term objectives.
~ The program applies to all directors, vice presidents, and senior vice presidents.
~ MTI participation and eligibility is reviewed annually by EPCOR's Board of Directors and approved by the Board each year for the following three-year period.
~Payouts are based on achieving or exceeding pre-set compounded targets for performance over a three-year period.
~ Eligible payouts will be made in cash at the end of three year cycle based on the results of the last three years' compounded performance results.

The level of MTI Target Payouts for participating employees is set as a percentage of base salary. MTI Target payouts range from 20% to 100% of base salary for Director, VP and Executive positions as set forth in the table below.

MTI Performance Category and Payout Percentage

A	B
MTI Performance Category	Mid Term Incentive Payout (% of Target)
1 Below Threshold	0%
2 Threshold	50%
3 Target	100%
4 Stretch	200%

REBUTTAL EXHIBIT SLH-5R

Correction to ACC Staff's Depreciation Calculation

Chaparral City Water Company
Docket No. W-02113A-13-0118
Test Year Ended December 31, 2012

Schedule GWB-16

OPERATING INCOME ADJUSTMENT #4 - DEPRECIATION EXPENSE

LINE NO.	ACCT. NO.	DESCRIPTION	[A] PLANT BALANCE	[B] FULLY DEPRECIATED	[C] DEPRECIABLE AMOUNT	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE
1	*PLANT IN SERVICE:*						
2	303	Other Intangible Plant	$ 1,282,734		$ 1,282,734	0.00%	-
3	303	Land and Land Rights	271,857		271,857	0.00%	-
4	304	Structures and Improvements - Pumping	190,044		190,044	3.33%	6,328
5	304	Structures and Improvements - Treatment	593,063		593,063	3.33%	19,749
6	304	Structures and Improvements - T & D	169,971		169,971	3.33%	5,660
7	304	Structures & Improvements - General	865,096		865,096	3.33%	28,808
8	305	Collecting and Impounding Reservoirs	1,002,159		1,002,159	2.50%	25,054
9	307	Wells	953,001		953,001	3.33%	31,735
10	309	Supply Mains	2,201,526		2,201,526	2.00%	44,031
11	311	Pumping Equipment & Other Pumping Plant	5,976,046	(3,365,052)	2,610,994	12.50%	326,374
12	320.1	Water Treatment Equipment	6,853,337		6,853,337	3.33%	228,216
13	330	Reservoirs and Tanks	-		-	0.00%	-
14	330.1	Storage Tanks	5,847,156		5,847,156	2.22%	129,807
15	331	Transmission and Distribution Mains	24,977,173		24,977,173	2.00%	499,543
16	333	Services	10,989,193		10,989,193	3.33%	365,940
17	334	Meters	2,947,898		2,947,898	8.33%	245,560
18	335	Hydrants	2,041,483		2,041,483	2.00%	40,830
19	339	Other Transmission & Distribution Plant	151,460		151,460	6.67%	10,102
20	339	Other Transmission & Distribution Plant	143,521		143,521	6.67%	9,573
21	340	Office Furniture and Equipment, Computers, Software, Peripherals	305,068	(a)	305,068	6.67%	20,348
22	341	Transportation Equipment	426,950	(400,233)	26,717	20.00%	5,343
23	343	Power Operated Equipment & Tool, Shop and Garage Equipment	270,590		270,590	5.00%	13,530
24	345	Power Operated Equipment	-		-	5.00%	-
25	346	Communication Equipment	98,498		98,498	10.00%	9,850
26	347	Other General Plant	0		0	10.00%	0
27		Company's reconciling Adjustment	5,253		5,253		-
28		Total Utility Plant in Service	68,563,078	(3,765,285)	64,797,793		2,066,381
29		Less: Non Depreciable Plant					
30		Other Intangible Plant			$ 1,554,591 (b)		
31		Net Depreciable Plant and Depreciation Amounts			$ 63,243,202		$ 2,066,381
32							
33		Amortization of CIAC			$ 14,991,871	3.2674% (c)	$ 489,838
34		Staff Recommended Depreciation Expense					$ 1,576,543
35		Deferred CAP Amortization					$ 15,641
36		Amortization of Gains on FHSD Settlement					$ (76,000)
							$ 1,516,184
37		Company Proposed Depreciation Expense					$ 2,014,048
38					Staff Adjustment (CORRECTED BY CCWC)		$ (497,864)
39		Staff Adjustment			ACC Staff's Original Adjustment		$ (511,261)
40		Reduction to ACC Staff's Proposed Adjustment #4				Difference	$ 13,397

	References:
Col [A]	Schedule GWB-4
Col [B]	Fully Depreciated Plant, per Testimony
Col [C]	Col [A] less Col [B]
Col [D]	Proposed Rates per Staff Engineering
Col [E]	Col [A] times Col [B]

(a) Removed $264,394 deemed fully depreciated in error by ACC Staff.
(b) Added Account 303 Land & Land Rights of $271,857 which is also non-depreciable.
(c) Increase from ACC Staff's original composite rate of 3.2477 due to correction of non-depreciable total.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
JEFFREY W. STUCK
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

REBUTTAL TESTIMONY
OF
JEFFREY W. STUCK
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

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EXECUTIVE SUMMARY

Jeffrey W. Stuck responds to the testimony of ACC Staff regarding water loss adjustments and also to RUCO regarding tank maintenance expenditures.

The water loss reduction efforts undertaken by EPCOR Water (USA) Inc. which began in October 2012 have, and continue, to positively affect the water loss ratio of the CCWC. Included is testimony that CCWC's 2013 water loss ratio has been declining and is currently at 13.37%, which is a 1.13% reduction. This testimony supports requiring the CCWC to make compliance filings updating staff on a regular basis to the progress being made to reduce water loss levels. This approach should be used in lieu of reductions in operating expense to provide the necessary time to correct some of the operational issues that are contributing to current water loss levels.

In response to RUCO's recommended disallowance of tank maintenance expenses, additional information is provided that supports the tank maintenance expense request included in the direct testimony. Previous decisions by the Commission have been referenced where this approach was approved and is now being successfully implemented in EPCOR Water (USA) Inc.'s water districts.

Mr. Stuck also updates the post test year plant projects completed by the Company in 2013.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Jeffrey W. Stuck. My business address is 15626 N. Del Webb Boulevard, Sun City, AZ, and my business phone is 623-445-3125.

Q. ARE YOU THE SAME JEFFREY W. STUCK WHO PROVIDED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

II WATER LOSSES

Q. HAVE YOU REVIEWED STAFF'S TESTIMONY RELATING TO WATER LOSS FOR CCWC?

A. Yes, I have.

Q. DO YOU AGREE WITH ITS RECOMMENDATIONS TO REDUCE THE PRODUCTION EXPENSES (PURCHASED WATER, FUEL AND POWER, AND CHEMICALS) BASED ON TEST YEAR WATER LOSS LEVELS?

A. No.

Q. PLEASE EXPLAIN WHY IT IS IMPROPER TO REDUCE PRODUCTION EXPENSES FOR CHAPARRAL CITY WATER COMPANY BASED ON TEST YEAR WATER LOSS DATA.

A. EPCOR Water (USA) Inc. acquired and took over operations of the Chaparral City Water Company ("CCWC") on June 1, 2011. In October 2012, the current EPCOR operations management team assumed responsibility for the operation of the system. The compliance filing submitted by the previous owners showed water losses in an allowable range. As provided in my direct testimony in this case, I reviewed those historic water loss reports for the CCWC which reflected a water loss ratio significantly below 10%, but was unable to replicate the numbers submitted to the Arizona Corporation Commission ("ACC") by the former owners of CCWC. In October 2012, I compiled the 2012 water sales and production values and recalculated the water loss ratio and computed a rolling 12-month water loss of 14.5% for calendar year 2012.

Q. HOW DID THE OPERATIONS MANAGEMENT TEAM RESPOND TO THIS FINDING?

A. The CCWC operations team immediately began work to undertake actions to reduce the water loss ratio, and we continue that work today. We have employed traditional leak detection techniques and modified techniques that were developed by EPCOR Water (USA) Inc. in our Mohave Water (in the Bullhead City area of the state) and Havasu Water (in the Lake Havasu City area of the state) Districts. The modified leak detection technique differs from traditional acoustic leak detection and has proven to be invaluable and highly accurate in tracing leaking service lines that historically went undetected under traditional leak detection techniques. The physical conditions in the CCWC territory are similar to those that you find in the Bullhead City (Mohave Water) and Lake Havasu City EPCOR service territories. These conditions include significant elevation changes with various bury depths for service lines. As a result, leaks often do not surface and coupled with the soil conditions, the leaks also do not always send a reliable return in the traditional acoustic leak detection measurements. The modified technique we have developed allows us to listen for leaks on specific service lines and the success rate in

locating leaks has improved dramatically. Valve replacements are another focus for water loss reduction in the CCWC territory. Properly operating valves are a key component to executing the modified leak detection technique described above and in directly reducing water loss by allowing good shutdowns in instances of water main and service line breaks. We have also evaluated the age of customer meters in the CCWC service territory and found that there are many meters that are 20-30 years old. Industry data shows that customer meters will under-register usage after approximately 10-12 years. In response to this, we have also begun implementation of an aged customer meter replacement program. We also began annual testing and calibration of all water production meters in 2013. These activities have proven successful in reducing water loss ratios in other EPCOR. districts and they are working in CCWC as well.

Q. WHAT ARE THE WATER LOSS RATIOS FOR THE TEST YEAR IN THIS CASE AND CURRENTLY?

A. My direct testimony for this case filed on April 26, 2013 showed the 12-month rolling average water loss ratio for the test year was 14.5%. We have been implementing the strategies discussed above for 15 months and the CCWC water loss ratio in December 2013 has been reduced to 13.37%. This is not only a reduction from the water loss ratio at the time of filing but is also showing the water loss to be reduced from the 13.9% that was reported in the ACC Staff's Engineering report. This shows a downward trend and demonstrates the activities CCWC is implementing are working.

Q. WHAT IS EPCOR'S POLICY REGARDING WATER LOSS IN ITS OPERATING DISTRICTS?

A. EPCOR Water (USA) Inc. agrees with ACC Staff that a water loss ratio of 10% or less is an appropriate objective; however, we do not agree that reducing water production

expenses when the ratio is greater than 10% is necessarily the appropriate means of achieving that rate.

Q. IS IT YOUR OPINION THAT REQUIRING COMPLIANCE FILINGS FOR CCWC IS A MORE EFFECTIVE APPROACH TO CURBING HIGH WATER LOSSES THAN REDUCING PRODUCTION EXPENSES?

A. I believe the approach of requiring the Company to make compliance filings related to its plans to reduce water loss is the appropriate approach in this case. You can see that the water loss reduction techniques discussed here are having a positive impact in reducing the water loss ratios and will allow the Company, as a new owner, the necessary time to evaluate the most effective means to address the water losses under the supervision of ACC Staff. The Company strongly believes that the use of compliance monitoring by the ACC Staff is the appropriate course of action here given the Company's efforts to reduce water loss.

Q. IN PRIOR CASES, WHAT WAS THE ACC STAFF'S GOAL IN RECOMMENDING THE COMPLIANCE MONITORING?

A. The Commission summarized the ACC Staff's motivation in Decision No. 71410 at page 61 where it stated:

"Staff believes that its recommendation provides an opportunity for the Company to provide a detailed report demonstrating that water loss reduction to less than 10 percent is cost prohibitive and not cost effective; that water loss reduction is part of the Company's routine maintenance program; and that the Company has an obligation to properly maintain its system."

Q. HAS CCWC DEMONSTRATED THAT IT IS, IN FACT, TAKING MEASURES TO REDUCE ITS WATER LOSSES?

A. Yes.

Q. ARE THERE OTHER COMPELLING REASONS TO ALLOW CCWC MORE TIME TO RESPOND TO THE HIGH WATER LOSSES AT THIS TIME?

A. Yes. As of the end of the test year in this case, EPCOR Water only had ownership of CCWC for nineteen months and had already implemented a program to respond to the high water losses. To reduce production-related expense recovery at this time is not only punitive to a responsible corporate entity, but it sends the wrong message to a new, responsible owner.

III <u>TANK MAINTENANCE</u>

Q. HAVE YOU REVIEWED RUCO'S WITNESS'S RECOMMENDATION PERTAINING TO CCWC'S REQUEST FOR TANK MAINTENANCE EXPENSE?

A. Yes, I have reviewed the direct testimony provided by Mr. Michlik regarding CCWC's request for tank maintenance expense.

Q. DO YOU AGREE WITH RUCO'S RECOMMENDATION ON THE TANK MAINTENANCE EXPENSE REQUEST?

A. No. In a previous rate case in which this same tank maintenance approach was ultimately approved, RUCO supported the Company's approach. Decision No. 71410 (issued December 8, 2009, at page 36), noted the following regarding RUCO's position: *"RUCO supports the Company's request, based on its review of estimates the Company has received, but not accepted, through a request for proposals process. RUCO states that any future imprudent or unreasonable expenditure incurred by the Company in connection with the program could be addressed in a future rate case proceeding to*

insure that ratepayers are not harmed by the Company being overcharged for work that is not needed."

In a subsequent ACC Decision, Decision No. 72047 (issued January 6, 2011, at page 57), RUCO did not object to the normalization adjustment proposed by the ACC Staff for tank maintenance expense for the Sun City Water District which has a similar basis to the request in the present case.

RUCO's position in both of these cases is supportive of the Company's approach to maintaining storage tanks, and I am confident that the tank maintenance expense proposed in my direct testimony is appropriate for CCWC. RUCO has not provided any reasonable support for their new position on CCWC's request for known and measurable tank maintenance expenses. The districts in the two dockets referred to above have been using this approach as approved in Decision Nos. 71410 and 72047 and are successfully maintaining these critical assets in a manner that extends their useful life and greatly improves service reliability.

IV <u>POST TEST YEAR PLANT ADDITIONS</u>

Q. HAVE YOU REVIEWED STAFF'S AND RUCO'S TESTIMONY THAT PERTAINS TO POST TEST YEAR PLANT ADDITIONS (PTYPA) FOR CCWC?

A. Yes, I have. And, because Mr. Crooks is no longer with the Company, I will be adopting his testimony regarding post test year plant and will be responding to the ACC Staff's and RUCO's testimony on that subject matter.

Q. DO YOU AGREE WITH THEIR RECOMMENDATION THAT POST TEST YEAR PLANT SHOULD BE LIMITED TO PLANT COMPLETED BEFORE JULY 31, 2013?

A. No, I do not. I see that ACC Staff has recommended inclusion of post test year plant through July 2013 and that RUCO has suggested inclusion of only capital projects classified as Investment Projects, or IP projects, and the exclusion of recurring capital projects, as post test year plant through July 2013. Recurring capital projects include investment in service line replacements, meter replacements, valve replacements and other commonly recurring capital projects.

Q. WHAT TIME PERIOD WOULD YOU RECOMMEND BE CONSIDERED FOR POST TEST YEAR PLANT IN THIS CASE?

A. I believe that inclusion of post test year plant should be allowed for projects completed by December 31, 2013 in this case.

Q. WHY DO YOU FEEL DECEMBER 31, 2013 IS THE APPROPRIATE TIME FRAME FOR POST TEST YEAR PLANT IN THIS CASE?

A. There were many post test year plant projects contained in Mr. Crooks direct testimony that are critical projects for water quality compliance, system reliability and maintaining customer service levels and which were not completed until the second half of 2013. These projects have now been completed and the costs for these projects are known and measurable.

Q. PLEASE DESCRIBE THE ADDITIONAL PROJECTS RELATED TO THE SHEA WATER TREATMENT PLANT.

A. The Shea Water Treatment Plant ("SWTP") improvements included many critical projects. First, the Company replaced the pneumatically operated valves that work together to allow for the proper and efficient operation of the plant. This project was completed in December 2013. In addition, a modular trailer was installed to provide office space for operators responsible for the SWTP. This modular trailer was installed

in the fall of 2013 at the SWTP, which now allows the operators to be in a different room than the plant laboratory. Variable Frequency Drives were also installed on two high service pumps at the SWTP. Both pumps that move water from the SWTP to Zone 1 of the distribution system were replaced. These pumps were old and experiencing vibration issues. Finally, three new blowers were purchased and installed at the SWTP to replace the existing, aged blowers. Air is critical and central to the operation of the SWTP both in terms of scouring the filter beds as part of the treatment process as well as operating all of the pneumatic process control valves. CCWC also replaced production meters at the well 10 site and at the SWTP to allow for accurate measurement of water deliveries. Finally, the Supervisory Control and Data Acquisition (SCADA) system was upgraded from old and outdated PLC and radio communication networks to improve system control and reliability.

Q. PLEASE DESCRIBE THE ADDITIONAL POST TEST YEAR PROJECTS THAT ARE NOW COMPLETE.

A. These projects include critical work in recurring projects consisting of meter, services, valves, hydrants, mains, vehicles, tools and equipment. CCWC replaced 261 broken or leaking service lines, 844 aged or broken customer meters, 20 valves, 30 hydrants, and rebuilt 8 Pressure Reducing Valves (PRV) that were undersized, leaking and causing pressure fluctuations in the distribution system. A new backhoe was purchased in December 2013 which is a critical piece of equipment in completing repairs and replacements to buried infrastructure. CCWC replaced 200 feet of main that was causing water quality and pressure issues and also experienced three large main breaks in 2013 that required extensive repaving after repairs to restore major thoroughfares in the Town of Fountain Hills.

The last post test year project pertained to the installation of a rechlorination system at Reservoir 5. This was installed to ensure adequate chlorine residuals can be maintained at the farther reaches of the distribution system and to allow reduction of chlorine use at the SWTP. This project will also assist the system in meeting the US EPA Stage 2 Disinfection Byproducts regulation.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
JAKE LENDERKING
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

REBUTTAL TESTIMONY
OF
JAKE LENDERKING
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
January 21, 2014

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EXECUTIVE SUMMARY

Jake Lenderking testifies that:
Chaparral City Water Company ("CCWC") should be allowed to recover costs associated with the deferred Central Arizona Project ("CAP") charges.

CCWC agrees with ACC Staff's position and its adjustment to purchased water expense, while disagreeing with RUCO's position.

Mr. Lenderking included a Plan of Administration which shows details of the calculations for the proposed Sustainable Water Surcharge ("SWS") for cost recovery of CAP expenses.

CCWC has filed Best Management Practices ("BMPs") relating to water conservation and attaches the BMPs.

INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Jake Lenderking. My business address is 2355 W Pinnacle Peak Rd., Suite 300, Phoenix, Arizona 85027, and my business phone is (623) 445 - 2410.

Q. ARE YOU THE SAME JAKE LENDERKING WHO PROVIDED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

I PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. The purpose of my testimony is to respond to RUCO's recommendation to remove the amortization of deferred Central Arizona Project ("CAP") charges from cost recovery, its adjustment to purchased water expense, its recommendations regarding the Sustainable Water Surcharge ("SWS"), and its recommendations for CCWC to file Best Management Practices ("BMPs") relating to water conservation.

II DEFERRAL OF CAP CAPITAL CHARGES

Q. HAVE YOU REVIEWED RUCO'S TESTIMONY REGARDING THE TREATMENT OF THE DEFERRED CAPITAL CHARGES?

A. Yes.

Q. DO YOU AGREE WITH RUCO'S RECOMMENDATION REGARDING DEFERRED CAPITAL CHARGES?

A. No. RUCO questions the amount of the additional allocation that is needed and used and recommends the removal of the capital charges from rate base. The Company firmly believes that the allocation is needed to continue to meet the needs of its customers now

and in the future; it is not prudent for a water utility to have only enough water supply to meet the needs of its customers in any single year; customer demand goes up and down. In fact, variability in customer demand swings as much as 22.5% in just two years. It is also not prudent for the utility to pay for an allocation and not be allowed to recover the associated costs. The prior owner came to the same conclusion. In fact, the prior owner applied for and was awarded the additional allocation by the Arizona Department of Water Resources. The Company therefore seeks to include the full unamortized balance of deferred capital costs to be included in rate base. Company witness Ms. Sheryl L. Hubbard discusses this further in her rebuttal testimony.

III PURCHASED WATER EXPENSE ADJUSTMENT

Q. HAVE YOU REVIEWED RUCO'S AND THE ACC STAFF'S ADJUSTMENTS TO PURCHASED WATER EXPENSE?

A. Yes.

Q. ARE YOU IN AGREEMENT WITH THE ACC STAFF'S ADJUSTMENT?

A. Yes. The ACC Staff applied the 2014 CAP water rates which the Company is currently paying for CCWC's allocation and proposed an adjustment to reflect that level of expense to the purchased water expense.

Q. DOES CCWC AGREE WITH RUCO'S ADJUSTMENT FOR PURCHASED WATER EXPENSE?

A. No. RUCO attempts to use the June 6, 2013 rate schedule in its calculations to average CAP prices; however it appears that RUCO erroneously used an older published CAP rate schedule while citing it to be the June 6, 2013 schedule. The correct June 6, 2013 rate schedule is attached in Exhibit JCL-1. Using the CAP prices that the Company is actually paying is appropriate. The Company agrees with Staff's adjustment. Company

witness Ms. Sandra L. Murrey is sponsoring ADJ #SM-1R in the Company's rebuttal filing, which is a comparable adjustment to the ACC Staff's purchased water expense adjustment.

IV SUSTAINABLE WATER SURCHARGE MECHANISM

Q. HAVE YOU REVIEWED THE ACC STAFF'S AND RUCO'S TESTIMONY REGARDING CCWC'S REQUEST FOR THE SUSTAINABLE WATER SURCHARGE ("SWS") MECHANISM?

A. Yes.

Q. DO YOU AGREE WITH THEIR POSITIONS?

A. I agree with the ACC Staff's position and disagree with RUCO's position.

Q. PLEASE EXPLAIN.

A. RUCO recommends the denial of the SWS mechanism and instead recommends using an erroneously created average CAP water price to arrive at its recommended purchased water expense. The Company disagrees with RUCO. The ACC Staff and the Company are in agreement that the adjusted test year purchased water expense should be expensed. The SWS Mechanism will be used to pass through increases or decreases in costs above or below the adjusted purchased water expense which is reflective of purchased CAP water.

Q. HAS RUCO MADE ANY OTHER STATEMENTS REGARDING THE PROPOSED SWS MECHANISM?

A. Yes. If approved, RUCO recommends that the SWS mechanism follow a similar approach as used in the settlement with Vail Water Company.

Q. DOES COMMISSION STAFF HAVE A RECOMMENDATION REGARDING THE SWS MECHANISM?

A. Yes, Staff recommends that the Company file a Plan of Administration.

Q. HAS THE COMPANY PREPARED A PLAN OF ADMINISTRATION FOR ITS PROPOSED SURCHARGE MECHANISM?

A. Yes. The Company has prepared a proposed Plan of Administration ("Plan") for the SWS mechanism. It is attached in Exhibit JCL-2.

Q. PLEASE BRIEFLY EXPLAIN THE SWS MECHANISM PLAN.

A. Certainly. The Plan outlines the calculations used in implementing the SWS Mechanism. Its uses the Vail Water Company's Plan of Administration as a template, however changes have been made due to the differing circumstances between the two utilities.

Q. PLEASE EXPLAIN WHY CHANGES WERE MADE AND PROVIDE A BRIEF DESCRIPTION OF THEM.

A. The Company has been using CAP water for some time, both for direct treatment and delivery and underground storage, where it appears that the Vail Water Company was not using CAP water at the time of its application.

The Company's parent, EPCOR Water USA ("EPCOR"), has several other water districts which use CAP water that already have pass-through mechanisms for CAP-related expense. EPCOR staff, who will be administering the SWS Mechanism, has direct experience in implementing CAP expense recovery mechanisms and has gained knowledge and skill over the years. The Company's Plan reflects that knowledge. Further, the Company mimicked the Sun City and Sun City West Groundwater Saving Fee mechanisms for ease of preparing the calculations for submittal and ease of review

and subsequent approval by Staff. Lastly, the Company's proposed mechanism provides greater detail than the Vail Water Company Plan of Administration.

Q. DOES RUCO MAKE ANY OTHER REQUESTS REGARDING THE APPROVAL OF THE SWS SURCHARGE? PLEASE PROVIDE THE COMPANY'S RESPONSE TO THE REQUESTS.

A. RUCO requests that the adjustment to purchased water expense "be removed, as all expense will flow through the adjustor mechanism." The Company disagrees. As described earlier in my testimony the SWS Mechanism will only account for changes in CAP associated costs above or below the adjusted test year expense.

RUCO requests that a component in the calculation be included for customer growth. The Company disagrees. We are requesting a simple adjustor mechanism that allows for the change in costs to be accounted for. We are worried that adding additional complexity to the mechanism will make it difficult to file and difficult to review by Staff. Today, we have several well-functioning adjustor mechanisms for CAP water; the SWS Mechanism is modeled after two of them. In those mechanisms, actual usage and customer levels are used to determine the surcharge/surcredit rates which are then applied to the customer/sales in the upcoming year. Reconciliations of recoverable costs to actual revenue collections are performed that account for changes in customer levels and sales volumes.

RUCO also requests that consideration is given to a further reduction to the Company's return on equity ("ROE") if a SWS Mechanism is approved. The Company disagrees with RUCO's recommendation. CCWC has experienced increasing purchased water expenses that have not been included in its rates to customers since the last rate case and

should not now be penalized for proposing a mechanism that allows for complete recovery of this vital expense.

Lastly, RUCO asks that a rate case expense recovery surcharge be established. I am not sure why this RUCO proposal is linked to CAP water expense. The Company opposes this proposal as unnecessary.

Q. ARE THERE ANY OTHER REASONS WHY THE SWS MECHANISM SHOULD BE ADOPTED?

A. Yes. The SWS Mechanism will reflect actual CAP-related expenses after they have occurred; the expenses are not projected. When CAP prices remain flat or go down the surcharge reflects that activity, benefiting the customers. Further, the SWS Mechanism provides a true and accurate price signal to customers and reduces potential rate shock to recover large price increases in the future.

V <u>WATER CONSERVATION</u>

Q. HAVE YOU REVIEWED RUCO'S TESTIMONY REGARDING CONSERVATION EXPENSE?

A. Yes.

Q. WHAT DOES RUCO RECOMMEND?

A. RUCO recommends the removal of the adjustment because Best Management Practices ("BMPs) were not filed.

Q. HAS CCWC FILED BMPS WITH THE COMMISSION?

A. Yes. The Company filed 10 water conservation BMPs on August 22, 2013. The filing, including the BMPs, is attached in Exhibit JCL-3.

Q. WHAT IS THE ACC STAFF'S POSITION REGARDING CONSERVATION EXPENSE AND THE BMPS.

A. The ACC Staff has not proposed an adjustment to remove the Company's request for the water conservation expenses and the ACC Staff recommends approval of the BMPs.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

Exhibit JCL – 1

CAWCD June 6, 2013 approved rate schedule

Approved
June 6, 2013

CENTRAL ARIZONA PROJECT
FINAL 2014 - 2015 RATE SCHEDULE

DELIVERY RATES FOR VARIOUS CLASSES OF WATER SERVICE

Units = $/ acre-foot

(The Letter Designations in the Formulas Refer to the Rate Components Shown Below)

	2012	2013	Firm 2014	Advisory 2015
Municipal and Industrial				
Long Term Subcontract (B+C) [1]	$ 122	$ 129	**$ 146**	$ 157
Non-Subcontract (A+B+C)	137	144	**166**	178
Recharge (A+B+C) [2]	137	144	**166**	178
AWBA Interstate Recharge (A+B+C+D) [3]	165	168	**189**	202
Federal (B+C)	$ 122	$ 129	**$ 146**	$ 157
Agricultural				
Settlement Pool (C) [4]	$ 49	$ 53	**$ 67**	$ 74
Agricultural Incentives [4]				
Meet Settlement Pool Goals	(4)	(6)	**(14)**	(17)
Meet AWBA/CAGRD GSF Goals	(1)	(1)	**(2)**	(2)
Meet Recovery Goals	(1)	(1)	**(2)**	(2)

RATE COMPONENTS

Units = $/acre-foot

	2012	2013	Firm 2014	Advisory 2015
Capital Charges				
(A) Municipal and Industrial - Long Term Subcontract [5]	$ 15	$ 15	**$ 20**	$ 21
Delivery Charges				
(B) Fixed OM&R [6]	$ 73	$ 76	**$ 79**	$ 83
(C) Pumping Energy Rate 1 [7]	49	53	**67**	74
(D) Property Tax Equivalency [8]	28	**24**	**23**	24

Long-Term Municipal and Industrial (M&I) Subcontract: M&I subcontractors.
Non-Subcontract: M&I users who are not subcontractors and the CAGRD.
Recharge (AWBA/CAGRD and M&I Underground Water Storage): The Arizona Water Banking Authority, M&I subcontractors, BOR and other Arizona entities who have valid Arizona Department of Water Resources permits and accrue long-term recharge/storage credits from this activity.

DIRECT UNDERGROUND WATER STORAGE

Units = $/acre-foot

	2012	2013	Firm 2014	Advisory 2015
Underground Water Storage O&M [9]				
Phoenix AMA	$ 8	$ 8	**$ 8**	$ 9
Tucson AMA	15	15	**15**	15
Underground Water Storage Capital Charge [10]				
Phoenix AMA	$ 15	$ 15	**$ 15**	$ 15
Tucson AMA	9	9	**9**	9

Approved
June 6, 2013

CENTRAL ARIZONA PROJECT
FINAL 2014 - 2015 RATE SCHEDULE

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ASSESSMENT RATES

Units = $/acre-foot

	2011/12	2012/13	Firm 2013/14	Advisory 2014/15
Phoenix Active Management Area				
Water & Replenishment Component [11]	$ 140	$ 137	**$ 160**	$ 173
Administrative Component [12]	42	44	**45**	45
Infrastructure & Water Rights Component [13]	170	204	**245**	294
Replenishment Reserve Charge [14]	51	52	**58**	63
Total Assessment Rate ($/AF)	$ 403	$ 437	**$ 508**	$ 575
Pinal Active Management Area				
Water & Replenishment Component [11]	$ 116	$ 117	**$ 140**	$ 153
Administrative Component [12]	42	44	**45**	45
Infrastructure & Water Rights Component [13]	170	204	**245**	294
Replenishment Reserve Charge [14]	53	56	**65**	70
Total Assessment Rate ($/AF)	$ 381	$ 421	**$ 495**	$ 562
Tucson Active Management Area				
Water & Replenishment Component [11]	$ 155	$ 161	**$ 183**	$ 195
Administrative Component [12]	42	44	**45**	45
Infrastructure & Water Rights Component [13]	170	204	**245**	294
Replenishment Reserve Charge [14]	60	65	**75**	80
Total Assessment Rate ($/AF)	$ 427	$ 474	**$ 548**	$ 614
Contract Replenishment Tax - Scottsdale [15]				
Cost of Water	$ 137	$ 137	**$ 144**	$ 166
Cost of Transportation	0	0	**0**	0
Cost of Replenishment	0	0	**0**	0
Administrative Component [12]	42	44	**45**	45
Total Tax Rate ($/AF)	$ 179	$ 181	**$ 189**	$ 211

ENROLLMENT & ACTIVATION FEES

Units = $/Housing Unit

Enrollment Fee [16]	$ 138	$ 165	**$ 198**	$ 237
Activation Fee [16]	$ 136	$ 163	**$ 196**	$ 235

ANNUAL MEMBERSHIP DUES

Member Land Annual Membership Dues ($/Lot) [17]				
Phoenix Active Management Area	$ 6.88	$ 9.87	**$ 13.19**	$ 17.91
Pinal Active Management Area	$ 0.90	$ 1.29	**$ 1.74**	$ 2.41
Tucson Active Management Area	$ 4.34	$ 6.24	**$ 8.38**	$ 11.53
Member Service Area Annual Membership Dues ($/AF) [17]	$ 10.35	$ 14.88	**$ 20.08**	$ 27.91

Approved
June 6, 2013

CENTRAL ARIZONA PROJECT
FINAL 2014 - 2015 RATE SCHEDULE

NOTES:

1) Does not include the Capital Charge.
2) This rate applies to all recharge customers. Rules regarding the eligibility for and use of this class are shown on page 1.
3) The rate is obtained by adding the Fixed OM&R component, the Pumping Energy Rate 1 component, the M&I Capital Charge and an equivalency tax component.
4) Rate is the Pumping Energy Rate 1 component. Incentives may be earned for meeting delivery goals in three areas. Any incentives earned are applied to Settlement Pool deliveries.
5) For M&I subcontract water, the Capital Charge is paid on full allocation regardless of amount delivered and not included in delivery rates.
6) Fixed O&M costs divided by projected total water volumes plus components to fund capital replacements and a rate stabilization reserve. This amount is collected on all ordered water whether delivered or not.
7) Applies to all water deliveries. The calculation is pumping energy costs divided by projected volumes. This amount is collected only for water actually delivered as opposed to scheduled.
8) The rate is based upon the tax levy for the previous elapsed tax year divided by the average water deliveries (excluding Federal deliveries and water storage credits) for the three previous completed delivery years (e.g., for 2012, the tax equivalency is the levy for the 2010-2011 tax year divided by the average water deliveries for 2008, 2009 and 2010). The Provisional and Advisory Rates are estimates.
9) Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.
10) Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, the CAGRD, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.
11) The Water & Replenishment Component is designed to cover the projected annual costs of satisfying replenishment obligations, including the purchase of long-term storage credits (LTSC) and the purchase and replenishment of water and effluent. The total volume of water to be purchased and replenished includes a sufficient volume to offset losses incurred during the replenishment process (generally 1% to 2.5%). For the Phoenix Active Management Area (AMA), replenishment is planned to be accomplished at direct underground storage facilities (USFs) and groundwater savings facilities (GSFs). For the Pinal AMA, replenishment is planned to be accomplished at GSFs. For the Tucson AMA, replenishment is planned to be accomplished at USFs.
12) The Administrative Component is designed to cover all CAGRD administrative costs, except labor related costs associated with the acquisition of water rights and infrastructure. A $2/AF has been added to this component to help fund the CAGRD conservation program.
13) The Infrastructure & Water Rights Component is designed to generate funds to purchase long-term rights to water, and construct additional infrastructure facilities as the need arises.
14) The Replenishment Reserve Charge is designed to cover costs associated with establishing a replenishment reserve of LTSCs as required by statutes. Water will be stored at a combination of USFs and GSFs in the Phoenix AMA, and at USFs the Tucson AMA. In the Pinal AMA, LTSCs will be purchased from CAP in accordance with Board policy adopted on October 6, 2005. This charge will be levied as provided in ARS Sections 48-3774.01 and 48-3780.01.
15) The components of the Contract Replenishment Tax - Scottsdale reflect the provisions in the Water Availability Status Contract to Replenish Groundwater between CAWCD and Scottsdale. The rates reflect the assumption that Non-Subcontract CAP water will be available to meet the associated contract replenishment obligations.
16) The Enrollment Fee and Activation Fee reflect the fees established pursuant to the CAGRD Enrollment Fee and Activation Fee Policy adopted by the Board on May 1, 2008. A $2 per housing unit is included in the Enrollment Fee to help fund CAGRD's conservation program.
17) The Annual Membership Dues for Member Lands and Member Service Areas reflect the fees established pursuant to ARS Sections 48-3772.A.8. and 48-3779 as well as the Policy on Collection of CAGRD Annual Membership Dues adopted by the Board on April 7, 2011.

Exhibit JCL – 2

Plan of Administration for the Sustainable Water Surcharge Mechanism

Sustainable Water Surcharge Mechanism
Plan of Administration

This Plan of Administration ("Plan") relates to the administration of Chaparral City Water Company's ("CCWC" or the "Company") Central Arizona Project ("CAP') water Surcharge known as the Sustainable Water Surcharge ("SWS"). The purpose of the Plan is to describe how CCWC will administer the SWS if approved by the Arizona Corporation Commission in Docket No. W-02113A-13-0118.

I. Overview

CCWC is a public service corporation providing water utility service in Maricopa County, Arizona pursuant to a Certificate of Convenience and Necessity granted by the Arizona Corporation Commission. CCWC is dependent on CAP water to deliver to its customers. The SWS mechanism has been closely modeled after two other current surcharge mechanisms known as Groundwater Saving Fee mechanisms which EPCOR successfully implements for its Sun City Water and Sun City Water districts.

II. General Description - Surcharge

The purpose of the SWS mechanism is to recover the difference in costs of CAP water and the costs or credits associated with underground storage and recovery of CAP water from the adjusted 2012 test year costs as approved in this case, Docket No. W-02113A-13-0118. Under the Company's proposed SWS mechanism, the Company will make annual filings (by January 31 each year) to adjust the SWS rate. The SWS rate will be billed on a per thousand gallons sold basis similar to a commodity rate for all customers. The SWS will appear on customers' bills as a separate line item labeled "Sustainable Water Surcharge." This rate will be adjusted annually (effective March 1) to true up the previous year's activity and reflect the current year's costs.

III. Components of the SWS Mechanism

The SWS Mechanism will include the following:

- Section 1 - Prior Year Under/(Over) Recovery – This section accounts for the under/(over) recovery of the prior year's costs through the surcharge. It encompasses all of the previous year's revenues and expense and shows the calculation of the under/(over) collection as well as the calculation to either (credit) or charge customers for the (over)/under collection in the previous y ear. It is supported by a sheet

showing monthly revenue/expense calculations and a sheet outlining the previous year's customer consumption by month. The end result of the calculations in Section 1 is a per thousand gallons rate which reflects (over)/under recovery of the previous year's actual expense.

- Section 2 – Estimated Payments/Expense for the Applicable Year – This section estimates the payments and credits that will occur in the applicable year. It includes the cost of the CAP water associated with the expected delivery of the scheduled amount of CAP water in that year, the capital charge for the entire allocation of 8,909 acre feet as required by the CAP Subcontract, and the cost or (credit) associated with storing CAP water underground.

- Section 3 – Total Estimated Increased Expense – This section uses the total from Section 2 and removes the amount of CAP expense approved in this rate case to arrive at a total estimated increased expense.

- Section 4 – Current Year Per Kgal Calculation – This section uses the total from Section 3 and divides it across the projected consumption (to be the test year consumption of 1,784,344 kgals in the first year of the SWS) to arrive at a per thousand gallons rate for the current year's expenses.

- Section 5 – Total Monthly Surcharge Per Kgal – This section sums the two components of the SWS, the previously (over)/under collected amount per kgal rate and the current year per kgal rate – it sums Sections 1 and 4.

V. Reporting

The Company shall file its first surcharge request by January 31, 2015 to be effective on March 1 2015.

On or before January 31 of each year thereafter CCWC will submit to the Commission as a compliance item a report showing its collections under the SWS that includes a calculation of

any under/(over) recovery with detail showing each component's contribution to the change in balance from the prior year. This will be in a form similar to the attached exhibit.

Chaparral City Water Company
SUSTAINABLE WATER SURCHARGE UPDATE

2015 Proposed Rates

Total Monthly Sustainable Water Surcharge:

Chaparral City Water Company -

per 1,000 gallons	$	0.0473

Chaparral City Water Company
Sustainable Water Surcharge Update

Recovery Target and Tariff Calculations
Data as of 12/31/14

					Chaparral City Water Co.	
1 - Under/(Over) Recovery						
2014 Annual Costs				$ 1,165,214		
2014 Surcharge Revenues				$ -		
CAP Expense In Base Rates				$ (1,165,214)		
2014 (Over) Under Collected					$ -	
Projected Consumption (kgals)					1,784,344	a
Monthly Rate per 1,000 gal. - Previous Years					**$ -**	
2 - Estimated Payments/Expense for 2015						
	2015		Acre Feet			
CAP Payments	Rates		Allocation			
M&I Delivery Rate	$ 157		6,861 b	$ 1,077,177		
Capital Charge Rate	$ 21		8,909 c	$ 187,089		
Storage (Credit) or Expense	$ (16)		917 d	$ (14,672)		
Total				$ 1,249,594		
3 - Total Estimated Increased Expense						
Projected 2015 Expense Recovery Total				$ 1,249,594		
CAP Expense In Base Rates				$ (1,165,214)		
Difference				$ 84,380		
4 - Current Year Per Kgal Calculation						
Total 2015 Recovery Target					$ 84,380	
Projected Consumption (kgals)					1,784,344	a
Monthly Rate per 1,000 gal. - Current					**$ 0.0473**	
5 - Total Monthly Charge Per Kgal						
Monthly Rate per 1,000 gal. - TOTAL					**$ 0.0473**	

a 2012 test year deliveries.
b Total acre feet ordered for 2015.
c Total allocation.
d All 600 acre feet are scheduled to be stored at the MWD GSF and earn a credit of $16 per acre foot.

Chaparral City Water Company Sustainable Water Surcharge Reconciliation

2014 Revenue and Expense

2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
Surcharge Revenue *	-	-	-	-	-	-	-	-	-	-	-	-	-
M&I	83,476	83,476	83,476	83,476	83,476	83,476	83,476	83,476	83,476	83,476	83,476	83,476	1,001,706
Cap Charges					89,090					89,090	-		178,180
Underground Storage (Credit) or Expense	-	-	(1,834)	(1,834)	(1,834)	(1,834)	(1,834)	(1,834)	(1,834)	(1,834)	-	-	(14,672)
CAP Credit for prior year	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expense / Annual Costs	83,476	83,476	81,642	81,642	170,732	81,642	81,642	81,642	81,642	170,732	83,476	83,476	1,165,214

* Note - The surcharge will not be in effect in 2014, thus no revenues are shown. In future years this field will be populated with actual surcharge revenues.

Chaparral City Water Company
GROUNDWATER SAVINGS FEE

Billing Determinants	2014 January	February	March	April	May	June	July	August	September	October	November	December	TOTAL 2014
Consumption:													
Commercial													-
Irrigation													-
Total Consumption	-	-	-	-	-	-	-	-	-	-	-	-	-

Note - The first annual surcharge calculation is to be based on the test year consumption of 1,784,344 kgals. Subsequent years' calculations will be based on the previous year's actual consumption and this table will display the actual monthly consumption.

Exhibit JCL – 3

BMP filing dated August 22, 2013

ORIGINAL

0000147555

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BEFORE THE ARIZONA CORPORATION COMMISSION

2013 AUG 22 P 4: 22

AZ CORP COMMISSION
DOCKET CONTROL

BOB STUMP
CHAIRMAN

GARY PIERCE
COMMISSIONER

BRENDA BURNS
COMMISSIONER

SUSAN BITTER SMITH
COMMISSIONER

BOB BURNS
COMMISSIONER

Arizona Corporation Commission
DOCKETED
AUG 22 2013
nR

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118 **SUPPLEMENT TO APPLICATION**

Through this filing, Chaparral City Water Company ("CCWC") submits the following draft BMP tariffs attached as Exhibit 1:

1. Local and/or Regional Messaging Program Tariff – BMP 1.1
2. Youth Conservation Education Program Tariff – BMP 2.2
3. New Homeowner Landscape Information Tariff – BMP 2.3
4. Residential Audit Program Tariff – BMP 3.1
5. Residential Interior Retrofit Program Tariff – BMP 3.4
6. Customer High Water Use Inquiry Resolution Tariff – BMP 3.6
7. Customer High Water Use Notification Tariff – BMP 3.7
8. Leak Detection Program Tariff – BMP 4.1
9. Water System Tampering Tariff – BMP 5.2
10. Meter Repair and/or Replacement Tariff – BMP 4.2

CCWC is submitting these tariffs in conjunction with its request for the implementation of a System Improvement Benefits ("SIB") mechanism. Mr. Jake Lenderking will sponsor these tariffs as part of his testimony in this proceeding. Except for the Meter Repair and/or Replacement Tariff for BMP 4.2, which has been slightly

revised based on discussions with Commission Staff, each of these drafts tariffs are the versions pre-approved by the Commission.

CCWC requests that the Commission approve these tariffs as part of an order authorizing CCWC to implement a SIB mechanism.

RESPECTFULLY SUBMITTED this 22nd day of August, 2013.

LEWIS AND ROCA, LLP

By _____
Thomas H. Campbell
Michael T. Hallam
40 N. Central Avenue
Phoenix, Arizona 85004
Attorneys Chaparral City Water Company

ORIGINAL and thirteen (13) copies
of the foregoing filed
this 22nd day of August, 2013, with:

The Arizona Corporation Commission
Utilities Division – Docket Control
1200 W. Washington Street
Phoenix, Arizona 85007

Copy of the foregoing hand-delivered
this 22nd day of August, 2013, to:

Steve Olea
Utilities Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Lyn Farmer
Chief Administrative Law Judge, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Janice Alward, Chief Counsel
Legal Department
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Copy of the foregoing mailed
this 22nd day of August, 2013, to

Daniel W. Pozefsky, Chief Counsel
Residential Utility Consumer Office
1110 West Washington, Suite 220
Phoenix, Arizona 85007

Andrew J. McGuire
David A. Pennartz
Landon W. Loveland
Gust Rosenfeld, P.L.C.
One East Washington, Suite 1600
Phoenix, AZ 85004
Attorneys for Town of Fountain Hills

Jayne Williams

EXHIBIT 1

Local and/or Regional Messaging Program Tariff – BMP 1.1

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Local and/or Regional Messaging Program Tariff – BMP 1.1

PURPOSE

A program for the Company to actively participate in a water conservation campaign with local or regional advertizing (Modified Non-Per Capita Conservation Program BMP Category 1: Public Awareness/Public Relations 1.1: Local and/or Regional Messaging Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company or designated representative shall actively participate in water conservation campaign with local and/or regional advertising.

2. The campaign shall promote ways for customers to save water.

3. The Company shall facilitate the campaign through one or more of the following avenues (not an all inclusive list):

    a. Television commercials
    b. Radio commercials
    c. Websites
    d. Promotional materials
    e. Vehicle signs
    f. Bookmarks
    g. Magnets

4. The Company shall keep a record of the following information and make it available to the Commission upon request:
    a. A description of the messaging program implemented and program dates.
    b. The number of customers reached (or an estimate).
    c. Costs of Program implementation.

Youth Conservation Education Program Tariff – BMP 2.2

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Youth Conservation Education Program Tariff – BMP 2.2

PURPOSE

A program for the Company to promote water conservation by increasing students' understanding of water resources and the need to conserve (Modified Non-Per Capita Conservation Program BMP Category 2: Conservation Education and Training 2.2: Youth Conservation Education Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company or designated representative shall work with schools in its service area to increase students' understanding of water resources and to promote water conservation.

2. The Company shall provide a combination of instructional assistance, education materials, teacher education, classroom presentations, and field trips to water related facilities.

3. The Company shall provide the following teacher resources.
   a. Offer Project WET (Water Education for Teachers) workshops to teachers twice yearly. In lieu of Project WET the Company may market its Water Conservation Assembly Program to all schools within its service area. The Water Conservation Assembly Program will focus on teaching students about water resources and water conservation. The assembly itself will be an interactive water conservation discussion.
   b. Provide free resource materials and information upon request.
   c. Provide in-classroom presentations upon request.

4. The Company shall make available free take home educational materials for elementary school students.

5. The Company shall keep a record of the following information and make it available upon request.
   a. A description of the youth conservation education process implemented.
   b. The number of students reached (or an estimate).
   c. A description of the written water conservation material provided free to students.
   d. Costs of the Youth Conservation Education Program implementation.

New Homeowner Landscape Information Tariff – BMP 2.3

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

New Homeowner Landscape Information Tariff – BMP 2.3

PURPOSE

A program for the Company to promote the conservation of water by providing a landscape information package for the purpose of educating its new customers about low water use landscaping (Modified Non-Per Capita Conservation Program BMP Category 2: Conservation Education and Training 2.3: New Homeowner Landscape Information).

REQUIREMENTS:

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. Upon establishment of water service the Company shall offer and make available upon request a free "Homeowner Landscape Packet" to each new customer in the Company's service area. The packet will include at a minimum: a cover letter describing the water conservation expectations for all customers in the Company's service area, applicable rate tariffs, a basic interior/exterior water saving pamphlet, xeriscape landscape information, a list of low water use trees, plants, shrubs, etc., watering guidelines, and a rain water harvesting pamphlet.

2. Upon customer request, the Company shall provide:
   a. On-site consultations on low water use landscaping and efficient watering practices.
   b. A summary of water saving options.

3. The Company shall keep a record of the number of packets provided to new customers and make it available to the Commission upon request.

Residential Audit Program Tariff – BMP 3.1

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Residential Audit Program Tariff – BMP 3.1

PURPOSE

A program for the Company to promote water conservation by providing customers with information on performing water audits to determine conservation opportunities at their residence (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services 3.1: Residential Audit Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company shall offer self-audit information.

2. The Company or designated representative shall provide all customers that request them with a self–audit kit.

3. The kit shall include detailed instructions and tools for completing the water audit including information on how to check their water meter. The audit kit shall include but not be limited to information on checking the following components: irrigation system, pool, water features, toilets, faucets and shower.

4. If requested, the Company shall assist the customer in a self-water audit and assist the customer in determining what might be causing high water usage as well as supply customer with information regarding water conservation and landscape watering guidelines. As part of the water audit, and if requested to do so by the customer, the Company shall confirm the accuracy of the customer meter (applicable meter testing fees shall apply).

5. The Company shall keep a record of the following information and make it available to the Commission upon request:
    a. A description of the water conservation material provided in the kit.
    b. The number of kits provided to customers.
    c. Implementation costs of the Residential Audit Program.

Residential Interior Retrofit Program Tariff – BMP 3.4

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Residential Interior Retrofit Program Tariff – BMP 3.4

PURPOSE

A program for the Company to promote water conservation by providing residential customers free or low cost plumbing fixtures for their residence (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services 3.4: Residential Interior Retrofit Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company or designated representative shall provide to residential customers that request them that live in homes built prior to the adoption of the 1990 Uniform Plumbing Code free or low cost low water use fixtures such as faucets, faucet aerators, low flow shower heads, toilets and toilet dams. The Company must offer the fixtures/fixture retrofits to all residential customers meeting the above criteria unless the Company can demonstrate that targeting certain portions of its water service area is likely to yield the highest participation and/or potential water savings.

2. The fixtures or retrofit kit shall include detailed instructions for installing the retrofit fixtures.

3. The Company shall select appropriate communications channels to advertize the program.

4. The Company shall keep a record of the following information and make it available to the Commission upon request:
    a. A description of the Residential Interior Retrofit Program including a description of the fixtures provided to customers and estimated water savings as a result of Program implementation.
    b. The number of retrofit fixtures requested by customers and the number of fixtures provided.
    c. Costs of the Residential Interior Retrofit Program.

Customer High Water Use Inquiry Resolution Tariff – BMP 3.6

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Customer High Water Use Inquiry Resolution Tariff – BMP 3.6

PURPOSE

A program for the Company to assist its customers with their high water-use inquiries and complaints (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services 3.6: Customer High Water Use Inquiry Resolution).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company shall handle high water use inquiries as calls are received.

2. Calls shall be taken by a customer service representative who has been trained on typical causes of high water consumption as well as leak detection procedures that customers can perform themselves.

3. Upon request by the customer or when the Company determines it is warranted, a trained Field Technician shall be sent to the customer's residence to verify consumption and conduct a leak detection inspection and further assist the customer with water conservation measures.

4. The Company shall follow up on every customer inquiry or complaint and keep a record of inquiries and follow-up activities. The Company shall make this information available to the Commission upon request.

Customer High Water Use Notification Tariff – BMP 3.7

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Customer High Water Use Notification Tariff – BMP 3.7

PURPOSE

A program for the Company to monitor and notify customers when water use seems to be abnormally high and provide information that could benefit those customers and promote water conservation (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services Program 3.7: Customer High Water Use Notification).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company shall track water usage for each customer and notify the customer if water use seems excessive for that particular billing for that time of the year.

2. The Company shall identify customers with high consumption, verify the high consumption, and investigate each instance to determine the possible cause.

3. The Company shall contact the high water use customers via telephone, email, by mail or in person. The Company shall contact the customer as soon as practical in order to minimize the possible loss of water. The customer will not be required to do anything to receive this notification.

4. In the notification the Company shall explain some of the most common water usage problems and common solutions and points of contact for dealing with the issues.

5. In the notification, the customer will be reminded of possible high water-consumption occurrences, such as:
   a. Leaks, running toilets, or valves or flappers that need to be replaced.
   b. Irrigation system valves or sprinkler heads which may be leaking.
   c. Sprinklers that may be watering the house, sidewalk, or street, etc. increasing irrigation requirements.
   d. Leaking pool or spas and possible leaks around pumps.
   e. More people in the home than usual taking baths and showers.
   f. Doing more loads of laundry than usual.
   g. Doing a landscape project or starting a new lawn.
   h. Washing vehicles more often than usual.

6. The Company shall offer water conservation information that could benefit the customer, such as, but not limited to, audit programs, publications, and rebate programs.

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

7. The Company shall assist the customer in determining what might be causing the high water usage as well as offer the customer information regarding water conservation and landscape watering guidelines. The Company shall confirm the accuracy of the customer meter if requested to do so by the customer (applicable meter testing fees shall apply).

8. The type of notification, the timing of the notification (i.e., how long after high water use was discovered by the Company), and the criteria used for determining which customers are notified shall be recorded. The Company shall make this information available to the Commission upon request.

Leak Detection Program Tariff – BMP 4.1

Meter Repair and/or Replacement Tariff – BMP 4.2

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

Meter Repair and/or Replacement Tariff – BMP 4.2

PURPOSE

A program for the Company to systematically assess all in-service water meters (including Company production meters) in its water service area to identify under-registering meters and to repair or replace them (Modified Non-Per Capita Conservation Program Best Management Practice Category 4: Physical System Evaluation and Improvement 4.2 Meter Repair and/or Replacement Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company will test, repair, or replace water meters in accordance with its meter testing and replacement guidelines, which include, but are not limited to, usage and length of time in service, as appropriate and necessary to maintain acceptable water meter accuracy.

2. The Company will test all meters that have caused a meter reading complaint to be filed with the Arizona Corporation Commission.

3. Meters larger than 2-inch shall be tested for one of the following reasons:
   a. A meter reading complaint is filed with the Company by a customer or Arizona Corporation Commission Staff,
   b. A meter has been in service for five years.

4. The test will be accomplished by one of the following:
   a. Having the meter pulled and having a Company Technician physically inspect each meter and its fittings for leaks, registers which may have become loose or are not properly attached to the meter and could be under-registering or other broken parts which need repair.
   b. Utilizing equipment to verify that all electronic components are within manufacturer specifications and are operating properly.

5. In addition, meters shall be randomly selected for flow testing utilizing a flow through detector testing meter.

6. All replacement water meters shall register in gallons:
   a. All new 1-inch and smaller meters that are installed will register usage in 1 gallon increments,
   b. All new 1-1/2-inch through 4-inch meters that are installed will register in 10 gallon increments, and
   c. All new 6-inch and larger meters that are installed will register in 100 gallon increments.

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

7. The Company shall keep records on the number of meters that were replaced and make this information available to the Commission upon request.

Water System Tampering Tariff – BMP 5.2

Company: _____ Decision No.: _____

Phone: _____ Effective Date: _____

WATER SYSTEM TAMPERING TARIFF – BMP 5.2

PURPOSE

The purpose of this tariff is to promote the conservation of groundwater by enabling the Company to bring an action for damages or to enjoin any activity against a person who tampers with the water system.

REQUIREMENTS:

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission, specifically Arizona Administrative Code ("AAC") R14-2-410 and the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. In support of the Company's water conservation goals, the Company may bring an action for damages or to enjoin any activity against a person who: (1) makes a connection or reconnection with property owned or used by the Company to provide utility service without the Company's authorization or consent; (2) prevents a Company meter or other device used to determine the charge for utility services from accurately performing its measuring function; (3) tampers with property owned or used by the Company; or (4) uses or receives the Company's services without the authorization or consent of the Company and knows or has reason to know of the unlawful diversion, tampering or connection. If the Company's action is successful, the Company may recover as damages three times the amount of actual damages.

2. Compliance with the provisions of this tariff will be a condition of service.

3. The Company shall make available to all its customers a complete copy of this tariff and AAC R14-2-410. The customers shall follow and abide by this tariff.

4. If a customer is connected to the Company water system and the Company discovers that the customer has taken any of the actions listed in No. 1 above, the Company may terminate service per AAC R14-2-410.

5. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
SANDRA L. MURREY
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

REBUTTAL TESTIMONY
OF
SANDRA L. MURREY
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

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III REBUTTAL SCHEDULES 1
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EXECUTIVE SUMMARY

Sandra L. Murrey testifies as follows:

Sponsored Rebuttal Schedules

Ms. Murrey sponsors the following schedules in this case:

- Schedule C-1 Rebuttal: Adjusted Test Year Income Statement
- Schedule C-2 Rebuttal: Income Statement Pro Forma Adjustments
- Schedule C-3 Rebuttal: Computation of Gross Revenue Conversion Factor

Adjusted Operating Income and Operating Expense

CCWC's rebuttal position for Adjusted Operating Income and Expense is:

	Chaparral City Water Company
Adjusted TY Operating Income	$ 865,297
Adjusted TY Operating Expense	$ 8,149,688

Operating Income Adjustments

The Company's position on ACC Staff's proposed recommendations:

- Oppose Excess Water Loss (Staff Adj #1),
- Oppose Intercompany Support Services (Staff Adj #2),
- Accept Purchased Water Expense (Staff Adj #3),
- Revised Depreciation Expense (Staff Adj #4),
- Revised Property Taxes (Staff Adj #5),
- Revised Income Tax (Staff Adj #6)

The Company's position on RUCO's proposed recommendations:

- Oppose Declining Usage Expense (RUCO Adj #1),
- Oppose Incentive Pay (RUCO Adj #2),

- Oppose Purchased Water Expense (RUCO Adj #3),
- Revised Corporate Allocation (RUCO Adj #4),
- Oppose Conservation Expense (RUCO Adj #5),
- Oppose Tank Maintenance Expense (RUCO Adj #6),
- Oppose Depreciation Expense (RUCO Adj #7),
- Revised Property Tax Expense (RUCO Adj #8),
- Revised Income Tax Expense (RUCO Adj #9)

Company Rebuttal Income Statement Adjustments

- Adj SM – 1R Purchased Water Expense
- Adj SLH – 2R Depreciation Expense on Revised PTYPA
- Adj SLH – 3R Corporate Allocation Expense
- Adj SLH – 4R Annualize Depreciation / CIAC
- Adj SM – 5R Annualize Property Tax
- Adj SM – 6R Federal and State Income Taxes
- Adj SM – 7R Interest Synchronization

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Sandra L. Murrey. My business address is 2355 West Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027, and my office phone number is 623-445-2490.

Q. ARE YOU THE SAME SANDRA L. MURREY WHO PROVIDED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. I will respond to Staff's and RUCO's testimony concerning several adjustments to the Company proposed operating expenses. The purpose of my rebuttal testimony is set forth in my Executive Summary.

III REBUTTAL SCHEDULES

Q. PLEASE IDENTIFY THE REBUTTAL SCHEDULES YOU ARE SPONSORING?

A. I am sponsoring the following rebuttal schedules.

- Schedule C-1 Rebuttal: Adjusted Test Year Income Statement
- Schedule C-2 Rebuttal: Income Statement Pro Forma Adjustments
- Schedule C-3 Rebuttal: Computation of Gross Revenue Conversion Factor

IV OPERATING EXPENSES ADJUSTMENTS

Q. HAVE YOU REVIEWED STAFF'S AND RUCO'S RECOMMENDED ADJUSTMENTS TO OPERATING EXPENSES?

A. Yes, I have. The Company will be proposing several rebuttal Income Statement adjustments, as outlined below, in response to Staff's and RUCO's recommended adjustments. In the next few pages of my testimony, I will address the recommendations made by Staff and then move on to RUCO's recommendations.

- Adj SM – 1R Purchased Water Expense
- Adj SLH – 2R Depreciation Expense on Revised PTYPA
- Adj SLH – 3R Corporate Allocation Expense
- Adj SLH – 4R Annualize Depreciation / CIAC
- Adj SM – 5R Annualize Property Tax
- Adj SM – 6R Federal and State Income Taxes
- Adj SM – 7R Interest Synchronization

Q. STAFF'S INCOME STATEMENT ADJUSTMENT NO. 1 RECOMMENDS A DECREASE OF $64,428 FOR COSTS RELATING TO EXCESS WATER LOSS. DOES THE COMPANY ACCEPT THIS ADJUSTMENT?

A. No. Staff is recommending this adjustment as a result of the Company's water loss of 13.9% during the test year which is above the recommended threshold amount of 10%. The Company agrees that the water loss is above the recommended level and has put forth substantial efforts to reduce water loss. As discussed by Mr. Jeffrey W. Stuck, it is unfair to reduce operating expenses for costs incurred to provide safe and reliable water service to our customers when efforts are in place to correct the water loss problems. Please refer to the rebuttal testimony of Mr. Stuck for more details on the Company's efforts to reduce water losses.

Q. BOTH STAFF AND RUCO PROPOSE AN ADJUSTMENT TO THE COMPANY'S COPORATE ALLOCATION EXPENSE. WILL YOU BE ADDRESSING THE COMPANY'S POSITION?

A. No. Ms. Hubbard will address issues regarding the proposed Corporate Allocation Expense in her rebuttal testimony.

Q. BOTH STAFF AND RUCO PROPOSE AN ADJUSTMENT TO THE COMPANY'S PURCHASED WATER EXPENSE. PLEASE DESCRIBE THEIR ADJUSTMENTS AND WHETHER THE COMPANY ACCEPTS THEIR POSITIONS.

A. Both Staff and RUCO have proposed an increase to Purchased Water Expense in the amounts of $90,524 and $87,678, respectively. Staff's proposal is based on updated rates provided by Central Arizona Water Conservation District (CAWCD) whereas RUCO's proposed increase is based on a five-year average of charges of CAP from 2013 through 2018 rate schedules based on the Company's original CAP Allocation of 6,978 acre feet ("a.f.") plus one-half of the additional CAP allocation of 1,931 a.f. or 7,943.5 a.f.

The Company does not agree with RUCO's position for a couple of reasons. Mainly, RUCO is not applying the Capital Charge to the Company's entire CAP allocation of 8,909 a.f. Also, it is counter-intuitive to apply RUCO's methodology of using a five year average when the actual 2014 rates are now available. Even though the five-year average comes up with slightly higher rates ($146.20 vs. $146.00 in M&I Charges; and $20.80 vs. $20.00 in Capital Charges), it is more effective to use the actual firm rates for the year 2014 as determined by CAWCD.

The Company accepts Staff's proposed income statement adjustment #3 of $90,524 which incorporates the most recent CAWCD CAP water charges for 2014. Please see the Company's rebuttal adjustment SM-1R on Schedule C-2 Rebuttal.

Q. DOES THE COMPANY HAVE ANY OTHER RESPONSES TO THE ISSUES RAISED BY RUCO CONCERNING THE COMPANY'S PURCHASED WATER EXPENSE OR PROPOSED SURCHARGE MECHANISM?

A. Yes. The Company's position on all purchased water-related issues are described in detail in the rebuttal testimony of Mr. Jake Lenderking.

Q. BOTH STAFF AND RUCO PROPOSE AN ADJUSTMENT TO THE COMPANY'S DEPRECIATION EXPENSE. WILL YOU BE ADDRESSING THE COMPANY'S POSITION?

A. No. Ms. Hubbard will address issues regarding the proposed Depreciation Expense adjustments in her rebuttal testimony.

Q. BOTH STAFF AND RUCO PROPOSE AN ADJUSTMENT TO THE COMPANY'S PROPERTY TAX EXPENSE. PLEASE DESCRIBE THEIR ADJUSTMENTS AND WHETHER THE COMPANY ACCEPTS THEIR POSITIONS.

A. The driving factor for the proposed adjustments is the different Assessment Ratios that are proposed by the parties. Staff recommends using a three year average (2014 through 2016) Assessment Ratio of 18.5 percent; whereas, RUCO proposes a property tax assessment ratio of 19.0 percent based on House Bill 2001. The Company agrees with RUCO's position and will adjust the Assessment Ratio to 19.0 percent consistent with the value listed in HB2001 section 42-15001 for the period "beginning from and after

December 31, 2013 through December 31, 2014". Please see the Company's rebuttal adjustment SM-5R on Schedule C-2 Rebuttal.

Q. BOTH STAFF AND RUCO PROPOSE AN ADJUSTMENT TO THE COMPANY'S INCOME TAX EXPENSE. PLEASE DESCRIBE THEIR ADJUSTMENTS AND WHETHER THE COMPANY ACCEPTS THEIR POSITIONS.

A. Staff and RUCO both use a tax rate of 6.5% as contained in HB 2001 for the taxable years beginning from and after December 31, 2013 through December 31, 2014. The Company is in agreement with their position and will update the tax rate to 6.5% in the calculation of CCWC's proposed state income tax expense. Please see the Company's rebuttal adjustment SM-6R on Schedule C-2 Rebuttal.

Q. RUCO ADJ #1 PROPOSES A REVERSAL OF THE COMPANY'S DECLINING USAGE ADJUSTMENT. WILL YOU BE ADDRESSING THE COMPANY'S POSITION ON THIS ISSUE?

A. No. Ms. Hubbard will address issues regarding RUCO's proposed Declining Usage Adjustment in her rebuttal testimony.

Q. RUCO ADJ# 2 PROPOSES A DECREASE TO LABOR TO REMOVE 50% OF INCENTIVE PAY. PLEASE DESCRIBE THEIR ADJUSTMENT AND WHETHER THE COMPANY ACCEPTS THEIR POSITION.

A. RUCO Adj #2 recommends a $14,090 decrease to labor. RUCO claims that incentive compensation programs can provide benefits to both shareholders and ratepayers, and based on that claim, the 50 percent allocation to shareholders should be removed. The Company does not agree with RUCO's position. The incentive program used by CCWC is part of the employees' base salary. The management incentive program contains

metrics designed to incent employees to 1) work safely by requiring achievement of an annual OSHA Recordable Incident Rate ("ORIR") of 2.87, 2) provide excellent customer service by setting goals for customer satisfaction of 85% combined with a billing accuracy target of 99.8% and metrics for the call center to answer customer calls 80% of the time within 30 seconds, and 3) achieve a target for capital investments to be completed on time and at or under budget. Each of these 3 targets is weighted at 30 percent with the remaining 10 percent based upon achieving a financial target focused on earning the authorized rate of return. For field/operations employees, the targets are slightly different and are weighted at 40% for Safety, 40% for Customer Satisfaction and the remaining 20% has operational efficiency metrics such as decreased absenteeism, meter reading accuracy, and standard operating procedures depending on the functional group.

Q. IS ANY PORTION OF THE INCENTIVE COMPENSATION PROGRAM FINANCIALLY DRIVEN?

A. Financial targets are only included in the incentive program for management employees. As stated above, 10% of the current incentive program is based on financial performance. The Company opposes disallowance of any of the employees' incentive compensation but has quantified the financial component paid to be $2,818 which has been recorded in CCWC's labor expense.

Q. RUCO'S INCOME STATEMENT ADJUSTMENT NO. 5 PROPOSES REMOVAL OF THE COMPANY'S WATER CONSERVATION PROGRAM EXPENSES OF $7,079. DOES THE COMPANY ACCEPT THEIR POSITION?

A. No. Please refer to the rebuttal testimony of Mr. Jake Lenderking for more details as to why these costs are justified.

Q. RUCO'S INCOME STATEMENT ADJUSTMENT NO. 6 PROPOSES REMOVAL OF THE COMPANY'S TANK MAINTENANCE EXPENSES OF $202,184. DOES THE COMPANY ACCEPT THEIR POSITION?

A. No. RUCO states that the major problem with the Company's tank maintenance proposal is the ***known and measureable standard***. The Company does not agree with RUCO's position. Please refer to the rebuttal testimony of Mr. Stuck for more details as to why these costs are known and measurable and justified.

Q. HAS THE COMPANY MADE CONFORMING CHANGES TO THE INTEREST SYNCHRONIZATION CALCULATION?

A. Yes. The Company has a conforming adjustment to interest synchronization based on rate base rebuttal adjustments. Please see Company's rebuttal adjustment SM-7R on Schedule C-2 Rebuttal.

Q. ARE THERE OTHER ADJUSTMENTS THAT YOU HAVE NOT ADDRESSED HERE?

A. No. I believe that all income statement adjustments have been addressed.

Q. DOES YOUR SILENCE ON ANY ISSUE RAISED BY ANY PARTY IN TESTIMONY INDICATE YOUR ACCEPTANCE OF THEIR POSITION?

A. No.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
THOMAS J. BOURASSA
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

REBUTTAL TESTIMONY
OF
THOMAS J. BOURASSA
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
January 21, 2014

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EXECUTIVE SUMMARY

Thomas J. Bourassa testifies as follows:

Mr. Bourassa reports on the updated results of his cost of service study for CCWC using CCWC's rebuttal proposed rate base, revenue and expenses, and rate design. He also reports the results using the ACC Staff and RUCO proposed rate bases, revenue and expenses, and rate designs.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive, Phoenix, Arizona 85029.

Q. ARE YOU THE SAME THOMAS J. BOURASSA WHO PROVIDED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

II PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. The purpose of my testimony is to report on the results of my cost of service study for CCWC's rebuttal proposed rate base, revenue and expenses, and rate design. I also report the cost of service study using the ACC Staff and RUCO proposed rate base, revenue and expenses, and rate designs and respond to the ACC Staff witness, Katrin Stukov, regarding the COSS methodology and allocation factors used in the study.

III REBUTTAL COST OF SERVICE STUDY

A Rebuttal Updates to Cost of Service Study

Q. HAVE YOU UPDATED YOUR COST OF SERVICE STUDY?

A. Yes. I have updated my cost of service study to reflect the changes to rate base, revenues and expenses contained in the Company's rebuttal filing. As shown on Rebuttal Schedule G-2, page 1, the returns provided at proposed rates continue to vary substantially between the various customer classes. While all the returns are positive, the residential classes provide returns below the 9.86 percent requested in the instant case at

8.42 percent. The commercial and irrigation customer classes continue to provide much higher returns at 16.18 percent and 23.67 percent, respectively. This indicates that the commercial and irrigation customer classes continue to subsidize the residential customer class under the rebuttal proposed rates.

B <u>Response to the ACC Staff Testimony</u>

Q. ARE ACC STAFF AND THE COMPANY IN AGREEMENT ON THE COST ALLOCATION FACTORS UTILIZED IN THE COST OF SERVICE STUDY?

A. Yes.[1] The ACC Staff also finds the Company's cost of service study is consistent with the methodology generally accepted in the industry and that the cost allocation factors were developed appropriately.[2]

IV <u>COST OF SERVICE STUDY RESULTS UNDER THE ACC STAFF'S AND RUCO'S RECOMMENDATIONS</u>

Q. PLEASE COMMENT ON THE ACC STAFF'S COSS RESULTS AS CONTAINED IN ACC STAFF SCHEDULE G-2.

A. I have reviewed the ACC Staff's COSS results reflecting the ACC Staff proposed rate base, revenues and expenses, and proposed rates and find the results are consistent with the methodology and the cost allocation factors contained in my study. The ACC Staff COSS results, as shown on the ACC Staff Schedule G-2, indicate that all of the returns from the various customer classes are positive. The residential class provides a return of 6.52 percent. Like the Company's results, the return provided by the residential class is below the overall return of 8.00 percent recommended by ACC Staff. Also, similar to the Company's proposed rates, the commercial and irrigation customer classes provide much higher returns at 14.84 percent and 21.8 percent, respectively.

---

[1] See Direct Testimony of Katrin Stukov ("Stukov Dt.") at 4.
[2] *Id.*

Q. HAVE YOU PREPARED A SCHEDULE TO SHOW THE RESULTS OF A COST OF SERVICE STUDY USING THE RUCO'S RECOMMENDATIONS?

A. Yes. Rebuttal Exhibit TJB-RB1 shows the cost of service study results using the RUCO's recommended rate base, revenues and expenses, and rate design. The RUCO's COSS results indicate that all of the returns from the various customer classes are positive. The residential class provides a return of 7.36 percent. Similar to the Company, the return provided by the residential class is below the overall return of 8.70 percent recommended by RUCO. The commercial and irrigation customer classes continue to provide much higher returns at 14.68 percent and 21.51 percent, respectively.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS CASE?

A. Yes.

Chaparral City Water Company
Docket No. W-02113A-13-0118

THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF SERVICE)

January 21, 2014

EXHIBIT TJB-RB1

Chaparral City Water Company - RUCO Direct
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Returns at RUCO Proposed Rates by Class

Line No.		Totals	Residential	Commercial	Irrigation	Hydrant
1	Water Revenues	$ 10,590,722	$ 8,616,529	$ 773,548	$ 1,159,167	$ 41,479
2	Revenue Annualizations/Declining Usage	43,711	32,576	11,135	-	-
3	Misc. Revenues[1]	99,329	92,661	2,940	3,590	139
4	Reconciliation H-1 to C-1[1]	(16,009)	(14,934)	(474)	(579)	(22)
5	Total Revenues	$ 10,717,753	$ 8,726,831	$ 787,149	$ 1,162,178	$ 41,595
6						
7	Operating Expenses[2]	$ 5,232,801	$ 4,428,336	$ 315,077	$ 472,959	$ 16,429
8	Depreciation and					
9	Amortization[2]	1,893,012	1,658,438	107,649	117,211	9,713
10	Property Tax[3]	254,521	207,241	18,693	27,599	988
11	Income Tax[4]	1,183,082	847,687	127,086	203,313	4,996
12	Total Operating Expenses	$ 8,563,416	$ 7,141,703	$ 568,506	$ 821,081	$ 32,126
13	Operating Income	$ 2,154,338	$ 1,585,129	$ 218,644	$ 341,097	$ 9,469
14	Interest Expense[5]	270,139	235,087	16,244	17,297	1,512
15	Net Income	$ 1,884,199	$ 1,350,042	$ 202,400	$ 323,800	$ 7,957
16	Rate Base[6]	$ 24,762,495	$ 21,549,390	$ 1,488,976	$ 1,585,520	$ 138,609
17	Return on Rate Base[7]	8.70%	7.36%	14.68%	21.51%	6.83%
18						
19	**Percent of Total Customers**		93.29%	2.96%	3.61%	0.14%
20						
21	**Indicated Monthly Minimums and Single-Tier Commody Rates for 3/4 Inch Meter**					
22		Sched. G-8, pg 4A	Sched. G-8, pg 4B	Sched. G-8, pg 4C	Sched. G-8, pg 4D	Sched. G-8, pg 4E
23		All Classes	Residential	Commercial	Irrigation	Hydrant
24	Monthly Minimums	$ 20.20	$ 19.92	$ 20.62	$ 24.20	$ 15.80
25	Single-Tier Commodity Rate	$ 3.510	$ 3.716	$ 3.088	$ 2.557	$ 5.689
26						
27						

28 [1] Allocated based on customer counts.
29 [2] Operating Expenses and Depreciation computations are shown on Schedule G-4, Page 2.
30 [3] Property Taxes allocation based on Revenues
31 [4] Income Tax from Schedule C-1, at proposed rates. Income Taxes allocated based on taxable income
32 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
33 [6] Rate Base computations are shown on Schedule G-3, Page 1
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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY

OF

PAULINE M. AHERN, CRRA
PRINCIPAL
AUS CONSULTANTS

ON BEHALF OF

CHAPARRAL CITY WATER COMPANY

JANUARY 21, 2014

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EXECUTIVE SUMMARY
CHAPARRAL CITY WATER COMPANY
DOCKET NO. W-02113A-13-0118

Ms. Ahern's rebuttal testimony responds to certain aspects of the direct testimony of ACC Staff Witness John A. Cassidy and RUCO Witness David C. Parcell on the following issues:

Capital Structure

Ms. Ahern provides evidence that Mr. Cassidy's recommended hypothetical capital structure of 40% debt and 60% equity is inappropriate for ratemaking purposes for Chaparral City Water Company because it is:

1) inconsistent with the capital structure ratios upon which the Company's current rates are based;

2) use of Mr. Cassidy's capital structure ratios and recommended return on common equity of 9.3% results in an insufficient and punitive return on common equity of 0.65%; and,

3) a common equity cost rate of 7.65% implies a financial risk premium of 1.65 basis points, significantly lower than the average downward financial risk adjustments proposed (92 basis points) and / or adopted (46 basis points) in representative Commission decisions since 2006. The implied 7.65% common equity cost rate is derived below.

Description	Weight (%) (1)	Cost (1)	Weighted Cost (1)	Pretax Weighted Cost
Staff Recommended Structure				
Debt	40.0%	5.9%	2.4%	2.4%
Common Equity	60.0	9.3	5.6	9.1 (2)
Weighted Average Cost of Capital			8.0%	11.5%
Company Proposed Structure (Revised)				
Debt	14.45%	5.97%	0.86%	0.86
Common Equity	85.55	7.65 (5)	6.55 (5)	10.5 (3)
Weighted Average Cost of Capital			7.41%	11.5% (4)

Notes:

(1) From Schedule JAC-1.

(2) Assuming a company-provided effective composite Federal and State income tax rate of 38.29%, the pretax weighted cost of common equity based upon Staff Witness Cassidy's recommended 9.3% common equity cost rate and hypothetical capital structure is: 9.1%. 9.1% = 9.3 %/(1 + 0.3829).

(3) Pretax weighted cost rate of common equity equals the pretax overall weighted cost rate (11.5%) based upon Staff Witness Cassidy's recommended 9.3% common equity cost rate and hypothetical capital structure minus the weighted cost rate of debt based upon Chaparral City Water Company's proposed capital structure, 0.86%. 11.5% - 0.86% = 10.5%.

(4) Pretax weighted overall cost of capital based upon Staff Witness Cassidy's proposed overall rate of return.

(5) Weighted cost of common equity calculated as the pretax weighted cost of common equity, 6.55%, divided by Chaparral City Water Company's proposed capital structure ratio, 85.55%. 7.65% = 6.55% / 85.55%.

In addition, Ms. Ahern's rebuttal testimony provides evidence that the Company's proposed capital structure ratios and financial metrics are consistent with Standard & Poor's ("S&P") guidelines for a public utility with bonds rated in the BBB category (Moody's Baa).

Common Equity Cost Rate

Ms. Ahern also provides evidence that both Mr. Cassidy's and Mr. Parcell's Discounted Cash Flow model results, 9.3% and 8.70%, respectively, significantly understate the investors' required return when applied to an original cost less depreciation rate base, i.e., book value. In addition, Ms. Ahern's rebuttal testimony provides evidence in support of the exclusive reliance upon security analysts' forecasts of growth in earnings per share ("EPS") in contrast to the various historical and projected growth rates used by both Mr. Cassidy and Mr. Parcell. As noted in Ms. Ahern's testimony, these forecasts are reasonable indicators of investor expectations and are more accurate than forecasts that rely on historical growth. Mr. Cassidy's and Mr. Parcell's cost of common equity analyses will be discussed in further detail below.

Credit Risk Adjustment

As noted in her rebuttal testimony, Ms. Ahern explains that neither Mr. Cassidy nor Mr. Parcell included an adjustment to reflect the greater credit risk of the Company, as evidenced by its likely bond rating of Moody's Baa1 / S&P BBB+ as indicated by its financial metrics, notwithstanding the level of common equity. An indication of the magnitude of such an adjustment is 0.32 basis points.

Business Risk Adjustment

Ms. Ahern also explains that neither Mr. Cassidy nor Mr. Parcell included an adjustment to reflect the greater business risk of the Company, as evidenced by its smaller size relative to the water utilities upon whose market data their respective recommended common equity cost rates were based. Based on her analysis, Ms. Ahern supports a conservative adjustment of 40 basis points based on the size of the Company.

Mr. Cassidy's Common Equity Cost Rate

Ms. Ahern provides evidence that Mr. Cassidy's exclusive reliance upon the common equity cost rate Discounted Cash Flow Model ("DCF") is inconsistent with the Efficient Market Hypothesis ("EMH") upon which the DCF is predicated. Consistent with the EMH, multiple cost of common equity models should be relied upon.

Thus, Mr. Cassidy's exclusion of the Capital Asset Pricing Model ("CAPM") in this proceeding is not only inconsistent with Staff's previous position but with the EMH upon which his DCF analysis is predicated. Ms. Ahern provides evidence that the rationale Mr. Cassidy used for not relying upon a CAPM analysis in this proceeding is applicable as well to the DCF model when he stated that "forecasted dividend yield [have] fallen to new lows" resulting in abnormally low DCF cost of common equity estimates.

Likewise, Mr. Cassidy's rationale for using a group of sample utilities, that a group of utilities can reduce the sampling error in the estimation of common equity cost rate, can also be applied to the use of multiple models which also reduces the sampling error from the application of a single cost of common equity model, e.g. the DCF.

Ms. Ahern's testimony, both this rebuttal and her direct, provide evidence that upward credit risk and business risk adjustments to the common equity cost rate based upon the market data of the sample utilities is necessary, due to Chaparral's likely bond rating and small size as discussed below. Mr. Cassidy did not include such adjustments.

Properly including these adjustments, coupled with a properly applied CAPM analysis and a properly applied DCF analysis based upon Mr. Cassidy's DCF results in a 10.42% common equity cost rate, only slightly lower than her updated common equity cost rate of 10.50% discussed below.

Mr. Parcell's Common Equity Cost Rate

Ms. Ahern's rebuttal testimony also provides evidence which indicates that Mr. Parcell's application of the Capital Asset Pricing Model ("CAPM") is flawed in several respects and therefore should not be relied upon. Mr. Parcell's CAPM is flawed because:

1) He has incorrectly relied upon an historical risk-free rate despite the fact that both ratemaking and the cost of capital are prospective;

2) He has incorrectly calculated his market equity risk premium by relying upon:

    a. The actually achieved, or non-market based, rates of return on book common equity for a proxy for the market, the S&P 500;

    b. A geometric mean historical market equity risk premium;

    c. The historical total return on U.S. Treasury securities; and,

    d. Not employing a prospective or forward-looking equity risk premium.

3) He has not incorporated an empirical CAPM (ECAPM) analysis despite the fact that empirical evidence indicates that the low-beta securities earn returns higher than the CAPM predicts and high-beta securities earn less.

As stated above, Ms. Ahern's testimony, both this rebuttal and her direct, provide evidence that upward credit risk and business risk adjustments to the common equity cost rate based upon the market data of the sample utilities is necessary, due to Chaparral's likely bond rating and small size as discussed below. Mr. Parcell did not include such adjustments.

Properly including these adjustments, coupled with a properly applied CAPM analysis as well as Mr. Parcell's DCF and Comparable Earnings ("CE") analyses results in a 10.59% common equity cost rate, only slightly higher than her updated common equity cost rate of 10.50% discussed below.

Updated Common Equity Cost Rate

Finally, Ms. Ahern's rebuttal testimony provides an updated common equity cost rate of 10.50% applicable to the Company in the current economic and capital market environment.

CHAPARRAL CITY WATER COMPANY

Rebuttal Testimony of

Pauline M. Ahern

Introduction

Q. Please state your name, occupation and business address.

A. My name is Pauline M. Ahern. I am a Principal of AUS Consultants. My business address is 155 Gaither Drive, Suite A, Mt. Laurel, New Jersey 08054.

Q. Are you the same Pauline M. Ahern who provided direct testimony in this case?

A. Yes.

Purpose

Q. What is the purpose of your testimony?

A. The purpose is to provide testimony on behalf of Chaparral City Water Company ("CCWC" or "the Company") in rebuttal to certain aspects of the direct testimony of John A. Cassidy, Witness for the Staff of the Arizona Corporation Commission (the "ACC" or "the Commission") and the prepared testimony of David C. Parcell, witness for the Residential Utility Consumers Office ("RUCO"). With regard to Mr. Cassidy's testimony, I will address his proposed hypothetical capital structure ratios and his application of the Discounted Cash Flow Model ("DCF"). With regard to Mr. Parcell's testimony, I will address his applications of the DCF, the Capital Asset Pricing Model ("CAPM") and Comparable Earnings Analysis ("CE"). I will also address the failure of both Mr. Cassidy and Mr. Parcell to reflect both the greater credit risk faced by the Company and the greater risk of the

Company's small size relative to their respective proxy utilities. Finally, I will respond to comments on the Company's testimony by both Mr. Cassidy and Mr. Parcell.

Q. Have you prepared an exhibit which supports your rebuttal testimony?

A. Yes. It has been designated as Exhibit PMA-2 and consists of Schedules 1 through 11.

Review of Analysis of ACC Staff Witness John A. Cassidy

Q. Do you agree with Mr. Cassidy's recommended hypothetical capital structure consisting of 40% debt ratio and 60% common equity ratio?

A. No. Mr. Cassidy states on page 9, lines 12 - 13 and 20 – 21 of his direct testimony that he is recommending a hypothetical capital structure "to give recognition to CCWC's reduced exposure to financial risk relative to Staff's proxy group of Companies" and that such a capital structure "encourages CCWC to move towards a more balanced capital structure going forward." Such reasoning is incorrect for four reasons. First, Staff, to the best of my knowledge, has not recommended a hypothetical capital structure. Second, also to the best of my knowledge, Chaparral has historically been regulated based upon its actual capital structure. Third, Staff's hypothetical capital structure results in the opportunity to earn an insufficient actual return on common equity based upon the Company's actual balance of financing which is inconsistent with the *Hope*[1] and *Bluefield*[2] cases resulting in an implied downward financial risk adjustment which far exceeds adopted financial risk reductions by the Commission. Fourth,

---

[1] Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

[2] Bluefield Water Works Improvement Co. v. Public Serv. Comm'n, 252 U.S. 679 (1922).

Mr. Cassidy's proposed hypothetical capital structure does not encourage CCWC to move toward what he terms "a more balanced capital structure" going forward.

Q. You mention that Staff, to the best of you knowledge, has not recommended hypothetical capital structures. Please comment.

A. A review of several representative Commission decisions[3] from 2006 through 2013 reveals that Staff has not recently recommended a hypothetical capital structure. Notably, in Decision No. 71308 dated October 21, 2009 relative to CCWC's last rate case, Staff recommended the use of CCWC's actual capital structure which was adopted by the ACC. As was discussed in my direct testimony at page 19, line 19 through page 20, line 9 and will be discussed below, smaller companies need to maintain a higher equity ratio as mitigation, but not elimination, of the added risk due to their small size.

In fact, as recently as December 31, 2012, Mr. Cassidy submitted testimony indicating that a hypothetical cap structure should not be used even when the company in the case had proposed the use of such a hypothetical structure:

> **Q. Does Staff consider the use of a hypothetical pro forma capital structure to be appropriate in this proceeding?**
>
> A. No. As discussed below, Staff recommends a financial risk adjustment to the ROE to appropriately address Rio Rico's use of an equity-rich, uneconomical capital structure. Staff's financial risk adjustment is calculated based on financial theory; therefore, it is preferred over use of a subjectively derived hypothetical capital structure.[4]

---

[3] Decision No. 73996, Docket No. WS-02676A-12-0196, July 30, 2013; Decision No. 72551, Docket Nos. W-20465A-09-0441, W-20454-09-0413, W-02465A-09-0414, W-02453A-09-0414, and W-20454A-09-0414, April 7, 2011, Decision No. 72059, Docket No. WS-02676A-09-257, January 6, 2011, Decision No. 71865, Docket No. SW-02361A-08-0609, June 1, 2010, Decision No. 71308, Docket No. W-02113A-07-0551, October 21, 2009, Decision No. SW-02519A-06-0015, June 28, 2007, and Decision No. 69164, Docket No. SW-02361A-05-0657, December 5, 2006.

[4] Direct Testimony of John A. Cassidy at 8 (December 31, 2012) (Docket No. WS-02676A-12-0196) (admitted as Exhibit S-1).

Q. What capital structure has been historically adopted in arriving at CCWC's allowed overall rate of return?

A. To the best of my knowledge, CCWC's actual capital structure ratios have been historically adopted for ratemaking purposes. Clearly, CCWC's current authorized rate of return is based upon the Company's actual capital structure ratios as found in Decision No. 71308 in Docket No. W-02113A-07-0551 dated October 21, 2009. In that proceeding, Staff recommended a common equity ratio of 75.6% which was adopted by the ACC. Staff originally recommended a 180 basis point downward financial risk adjustment to its unadjusted recommended common equity cost rate of 11.8%, resulting in a 10.0% recommended common equity cost rate, with David C. Parcell (the RUCO witness in this proceeding) filing surrebuttal testimony adopting Staff's direct testimony. In his surrebuttal testimony, Mr. Parcell also recommended a 10.0% common equity cost rate without regard to a downward financial risk adjustment as he states on page 12, lines 14 – 16 of his surrebuttal testimony. In addition, he also recommended a capital structure comprised of 24.4% debt and 75.6% equity. Ultimately the ACC adopted Staff's recommended capital structure ratios and a 9.9% common equity cost rate implying a financial risk adjustment of 0.1%. There is no compelling reason in this proceeding for the ACC to depart from authorizing CCWC's proposed actual capital structure ratios.

Q. What is the return on common equity on CCWC's proposed capital structure ratios implied in Mr. Cassidy's recommended overall rate of return and hypothetical capital structure?

A. Mr. Cassidy's recommended cost of common equity of 9.3% violates the economic principle of opportunity cost, meaning the return given up or foregone

by investing in one investment as opposed to an alternative investment of comparable risk. Mr. Cassidy's recommended common equity cost rate of 9.3% is applied to a hypothetical capital structure which contains significantly greater financial risk than CCWC's proposed capital structure. When the resultant before-income tax weighted overall rate of return is applied to CCWC's proposed capital structure, the opportunity to earn a return on common equity for CCWC is only 7.65% based upon a company-provided income tax rate of 38.29%, as derived in Schedule 1. A common equity cost rate of 7.65% provides an equity risk premium of but 168 basis points relative to CCWC's embedded cost of debt of 5.97% as requested in this proceeding. Such a low equity risk premium demonstrates how Mr. Cassidy's recommendation violates the economic principle of opportunity cost, when compared with the historical and projected equity risk premiums for the Standard & Poor's ("S&P") equity risk premium relative to Moody's A-rated public utility bonds of 4.16% and 5.24% as well as the beta adjusted equity risk premium of 4.41% shown on pages 19 and 22 of Schedule 11. An equity risk premium of 1.68% is especially egregious when compared with the Predictive Risk Premium Model™ derived equity risk premium for the proxy group of nine water companies of 9.92% as can be derived from page 14 of Schedule 11.

Moreover, an opportunity to earn an implied common equity cost of 7.65% on CCWC's actual mix of capital financing of its rate base results in an effective downward financial risk adjustment of 1.65 basis points from Mr. Cassidy's recommended 9.3% cost rate. A financial risk adjustment of 1.65 basis points is significantly larger than either the average adjustment of 92 basis points

recommended by Staff in the dockets listed in footnote 3 or the average adjustment adopted by the ACC of 46 basis points in those same dockets.

In view of the foregoing, with an effective authorized return on common equity of 7.65%, there is no incentive for an investor to invest in CCWC if he/she would have to forego the risk-adjusted return of 9.3% or more on alternative investments of comparable risk because it provides an inadequate equity risk premium for CCWC and reflects a downward financial risk adjustment far greater than either that proposed by Staff or adopted by the ACC in recent rate cases.

Q. Why do you believe that Mr. Cassidy's proposed capital structure does not encourage CCWC to move toward what he terms "a more balanced capital structure" going forward?

A. Mr. Cassidy's proposed capital structure does not encourage CCWC to move toward what he terms "a more balanced capital structure" going forward precisely because it provides for an implied opportunity for CCWC to earn only 7.65% on its proposed financing mix (capital structure) and hence, its rate base. As discussed immediately above, no incentive for an investor to invest in CCWC results as well as an inadequate return on common equity which will result in slow, if any growth, in retained earnings. When compared with the average expected return on common equity of 9.9% as published by *Value Line Investment Survey ("Value Line")* discussed below, the 7.65% definitely provides no incentive for an investor to invest in CCWC which is clearly more risky based upon its likely bond / credit rating of Baa1/BBB+ as discussed in my prepared testimony at page 19, line 18 through page 20, line 9 and below in this testimony, as well as based upon its smaller size relative to other water utilities as

discussed in my prepared testimony at page 16, line 24 through page 18, line 8 and again on page 44, line 4 through 46, line 7 as well below in this testimony.

Q. Why are CCWC's proposed common equity ratios appropriate for ratemaking purposes?

A. CCWC's proposed common equity ratios are appropriate because, in my opinion, they are consistent with S&P's financial metrics for a public utility with a BBB (equivalent to a Moody's Baa) bond rating. Although S&P states that its metrics are not intended to be precise indications or guarantees of ratings opinions, they can be used to provide insight into the likely bond rating of CCWC. To that end, in my opinion, CCWC's financial metrics are consistent with S&P's financial metrics for a public utility assigned a "Modest" financial risk profile. As shown on Schedule 2, CCWC's Funds From Operations ("FFO") relative to total debt averaged 44.00% for the five years ended 2012, which is consistent with a "Intermediate" S&P financial risk profile which is from 30% - 45% as shown in Table 2 on page 4 of Schedule 3 of Exhibit PMA-1. Both CCWC's total debt / Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") of 1.20 times and total debt / total capital ratio of 21.40% for the five years ended 2012 are consistent with a "Minimal" S&P financial risk profile for which S&P indicates total debt / EBITDA of less than 1.5 times and total debt / total capital less than 25%, also on Table 2 on page 4 of Schedule 3 of Exhibit PMA-1. Table 1 on page 2, presents S&P's Business and Financial Risk Profile Matrix which can provide insight into a likely bond rating for a public utility, given its financial risk profile. In my opinion, given CCWC's small size discussed above and later in this testimony, coupled with its inability to earn its authorized return on common equity, its business profile would be "Satisfactory", at best. Table 1 on

page 2 of Schedule 3 of Exhibit PMA-1 indicates that the likely bond rating for a public utility with a "Satisfactory" business profile and an "Intermediate" financial risk profile is BBB, the equivalent of Moody's Baa2. If CCWC were assigned a financial risk profile of "Modest" by S&P, a BBB+ bond rating (or Moody's Baa1) is indicated in Table 1.

In view of the foregoing, my opinion expressed in my direct testimony at page 19, line 19 through page 20, line 8 is that CCWC's likely bond rating would be in the BBB (S&P) / Baa (Moody's) rating categories. However, because S&P links a subsidiary's bond / credit ratings to the credit quality of the parent as discussed on page 43, line 6 – 16, it is my opinion that CCWC's likely bond rating would specifically be Baa1 by Moody's and BBB+ by S&P. In addition, it is also my opinion that an upward credit risk adjustment is necessary to reflect the lower credit risk, *i.e.,* Baa1, of CCWC relative to the A1 / A2 average Moody's bond rating of the proxy group of nine water companies as shown on page 16 of Schedule 11, my updated common equity cost rate analysis. This credit risk adjustment will be discussed subsequently.

<u>Common Equity Cost Rate</u>

Q. Do you agree with Mr. Cassidy's recommended common equity cost rate of 9.3%?

A. No. Mr. Cassidy's common equity cost rate of 9.3% is based upon exclusive reliance upon the results of his DCF analyses. Mr. Cassidy chose to not use the CAPM in this proceeding. Mr. Cassidy discusses his reasons for not using a CAPM analysis on page 3, line 24 through page 4, line 15, concluding that because the "low interest rate environment engineered by the Fed has compelled investors to seek out higher yields on investment wherever they may be found,

resulting in the equity markets having recently achieved new all-time highs"[4] (footnote omitted) and "forecasted dividend yields falling to new lows.[5] (footnote omitted)", the CAPM provides abnormally low cost of common equity estimates and should not be relied upon. However, because forecasted dividend yields have fallen to new lows due to high market valuations, the same can be said for the DCF, namely that it should not be relied upon exclusively in today's capital market and economic environment. However, using informed expert judgment relative to the CAPM's components, it is possible to use a properly applied CAPM analysis which reflects more normal economic and capital market conditions as I have done in both my prepared testimony and updated common equity cost rate analysis discussed at the end of this testimony.

In addition, as stated in my prepared testimony at page 8, lines 19 – 23, "[j]ust as the use of the of the market data for the proxy group adds reliability to the informed expert judgment used in arriving at a recommended common equity cost rate, the use of multiple common equity cost rate models also adds reliability when arriving at a recommended common equity cost rate." This is another way of saying that sampling error from the application of a single cost of common equity model, *e.g.*, the DCF, can be reduced through the use of multiple models. Mr. Cassidy agrees that the use of a proxy or sample group reduces "the sample error resulting from random fluctuations in the market at the time the information is gathered", yet he did not apply this concept when relying exclusively upon the DCF model, albeit, two versions of the DCF.

Moreover, by placing exclusive weight on the results of the application of the DCF, Mr. Cassidy's methodology is inconsistent with the Efficient Market Hypothesis ("EMH") upon which the DCF is predicated. Giving exclusive weight

to a DCF derived cost rate also exacerbates the DCF's tendency to understate the investors' true required return in the current market environment where market-to-book ratios significantly exceed one. . In addition, such a cost rate does not adequately reflect the additional risk experienced by CCWC due to its greater credit risk and small size relative to the companies in its proxy group.

Q. Why is placing exclusive weight on the DCF inconsistent with the EMH?

A. The DCF model utilized by Mr. Cassidy is market-based and therefore based upon the EMH since market prices are employed in its application. As discussed on page 23, line 10 through page 25, line 7 of my prepared testimony, the CAPM and Risk Premium Model ("RPM") are also based on the EMH, pioneered by Eugene F. Fama[5] in 1970 and the foundation of modern investment theory. According to the EMH, an efficient market is one in which security prices reflect all relevant information all the time. This implies that prices adjust instantaneously to new information, thus reflecting the intrinsic fundamental economic value of a security.[6]

The "semistrong" form of the EMH is generally held to be true because the use of insider information often enables investors to "outperform the market" and earn excessive returns in the short-run. The generally-accepted "semistrong" form of the EMH means that all perceived risks, based upon publicly available information, are taken into account by investors in the prices they pay for

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5 Fama, Eugene F., "Efficient Capital Markets: A Review of Theory and Empirical Work" (Journal of Finance, May 1970) 383-417.

6 Brigham, Eugene F., Financial Management – Theory and Practice, 5th Ed. (The Dryden Press, 1985) 225.

securities. In addition, investors are aware of such information, including bond ratings, discussions about companies by bond rating agencies and investment analysts, as well as the various cost of common equity methodologies (models) discussed in the financial literature and utilized in ratemaking. This means that no single common equity cost rate model should be relied upon exclusively in determining a common equity cost rate and that the results of multiple cost of common equity cost rate models should be taken into account.

In addition, the academic literature indicates the need to rely upon multiple, independent cost of common equity models in arriving at a recommended common equity cost rate.

Q. Please describe this academic literature.

A. Representative academic literature states the following. For example, Morin[7] states:

> Each methodology requires the exercise of considerable judgment on the reasonableness of the assumptions underlying the methodology and on the reasonableness of the proxies used to validate a theory. *The inability of the DCF model to account for changes in relative market valuation, discussed below, is a vivid example of the potential shortcomings of the DCF model when applied to a given company.* Similarly, the inability of the CAPM to account for variables that affect security returns other than beta tarnishes its use. (Italics added)
>
> No one individual method provides the necessary level of precision for determining a fair return, but each method provides useful evidence to facilitate the exercise of an informed judgment. Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data.

* * *

[7] Roger A. Morin, New Regulatory Finance (Public Utility Reports, Inc., 2006) 428-431.

The financial literature supports the use of multiple methods. Professor Eugene Brigham, a widely respected scholar and finance academician, asserts:[1(footnote omitted)]

> Three methods typically are used: (1) the Capital Asset Pricing Model (CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-yield-plus-risk-premium approach. These methods are not mutually exclusive – no method dominates the others, and all are subject to error when used in practice. Therefore, when faced with the task of estimating a company's cost of equity, we generally use all three methods and then choose among them on the basis of our confidence in the data used for each in the specific case at hand.

Another prominent finance scholar, Professor Stewart Myers, in an early pioneering article on regulatory finance, stated:[2(footnote omitted)]

> Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, only a fool throws away useful information. That means you should not use any one model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data.

Reliance on multiple tests recognizes that no single methodology produces a precise definitive estimate of the cost of equity. As stated in Bonbright, Danielsen, and Kamerschen (1988), '*no single or group test or technique is conclusive*.' Only a fool discards relevant evidence. (Italics in original) (Morin, p. 430)

* * *

While it is certainly appropriate to use the DCF methodology to estimate the cost of equity, there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies. Sole reliance on the DCF model ignores the capital market evidence and financial theory formalized in the CAPM and other risk premium methods. The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity. *It is not a superior methodology that supplants other financial theory and market evidence. The broad usage of the DCF methodology in regulatory proceedings in contrast to its virtual disappearance in academic textbooks does not make it superior to other methods. The same is true of the Risk Premium and CAPM methodologies.* (Italics added)

Brigham and Gapenski[8] state:

> In *practical* work, *it is often best to use all three methods* – CAPM, bond yield plus risk premium, and DCF – and then apply judgment when the methods produce different results. People experienced in estimating equity capital costs recognize that both careful analysis and some very fine judgments are required. It would be nice to pretend that these judgments are unnecessary and to specify an easy, precise way of determining the exact cost of equity capital. Unfortunately, this is not possible. Finance is in large part a matter of judgment, and we simply must face this fact. (Italics in original)

Finally, Brigham and Daves[9] reiterate Brigham and Gapenski's comments when they state:

> Recent surveys found that the CAPM approach is by far the most widely used method. Although most firms use more than one method, almost 74 percent of respondents in one survey, and 85 percent in the other, used the CAPM.[12 (footnote omitted)]
>
> * * *
>
> Approximately 16 percent now use the DCF approach, down from 31 percent in 1982. The bond-yield-plus-risk-premium is used primarily by companies that are not publicly traded.
>
> People experienced in estimating the cost of equity recognize that both careful analysis and sound judgment are required. It would be nice to pretend that judgment is unnecessary and to specify an easy, precise way of determining the exact cost of equity capital. Unfortunately, this is not possible – finance is in large part a matter of judgment, and we simply must face this fact.

In view of all of the foregoing, it is clear that investors are or should be aware of all of the models available for use in determining a common equity cost rate. Thus, implicit in the EMH is the assumption that, collectively, investors consider them all. Hence, Mr. Cassidy's exclusive reliance upon the DCF model

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[8] Brigham, Eugene F. and Gapenski, Louis C., Financial Management – Theory and Practice 4th Edition, (The Dryden Press, 1985) 256.

[9] Brigham, Eugene F. and Daves, Phillip R., Intermediate Financial Management, (Thomson-Southwestern, 2007) 332-333.

is at odds with the very foundation, *i.e.*, the EMH, upon which the DCF is predicated. In addition, absent empirical evidence to the contrary, there is no evidence, under the EMH, that investors place exclusive weight upon the DCF to the exclusion of other models such as the CAPM and RPM.

Q. You previously mentioned the DCF's tendency to understate the investors' true required return in a market environment where market-to-book ratios significantly exceed one. Why does the DCF model mis-specify investors' required return rates when the market value of common stock differs significantly from its book value?

A. Market prices form the basis of investment decisions and investors' expected rates of return. Nonetheless, in most jurisdictions, including Arizona[10], a regulated utility is limited to earning a return on its net book value (depreciated original cost) rate base. When the market value of assets diverges significantly from their book value, a market-based DCF cost rate applied to the book value of common equity, *i.e.*, rate base, will not produce investors' expected returns.[11] In this regard, I agree with Dr. Morin's explanation in New Regulatory Finance, (2006):[12]

> The third reason and perhaps most important for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors' expected return only when stock price and book value are reasonably similar, that is when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks understates the investor's expected return when the market-to-book (M/B) ratio of a given stock exceeds unity. This was particularly relevant in the

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[10] Although Arizona is a fair-value rate base state, in this proceeding CCWC is maintaining that its book value rate base is equal to its fair value rate base. Therefore, the authorized return on common equity will be applied to CCWC's book value rate base.

[11] Market values can diverge from book values for a myriad of reasons including, but not limited to, EPS and DPS expectations, merger / acquisition expectations, interest rates, etc.

[12] Roger A. Morin, New Regulatory Finance (Public Utility Reports, Inc., 2006) 434.

> capital market environment of the 1990s and 2000s where utility stocks were trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates that investor's return when the stock's M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the regulator, that is, a utility's earnings are limited to earnings on a book value rate base.

Despite the turmoil in capital markets over the last several years, utility stocks continue to trade at market-to-book ratios well above unity. Indeed, as shown on page 2 of Schedule 8 of Exhibit___ (DCP-1), *i.e.,* the average market-to-book ratios of water utilities ranged from 141% to 276% from 1992 - 2012.

Mathematically, the DCF model understates investors' required return rate when market value exceeds book value and overstates them when market value is less than book value because, in many instances, market prices reflect investors' assessments of long-range market price growth potentials (consistent with the infinite investment horizon implicit in the standard regulatory version of the DCF model) not fully reflected in analysts' shorter range forecasts of future growth for earnings per share (EPS) and dividends per share (DPS) and other accounting proxies. This indicates the need to better match market prices with investors' longer range growth expectations which are embedded in those prices. The understatement/overstatement of investors' required return rate associated with the application of the market price-based DCF model to the book value of common equity clearly illustrates why reliance upon a single common equity cost rate model should be avoided.

Thus, a mismatch results in the application of the DCF model as market prices reflect long range expectations of growth in market prices (consistent with the presumed infinite investment horizon of the standard DCF model), while the

short range forecasts of growth in accounting proxies, *i.e.,* EPS and DPS, do not reflect the full measure of growth (market price appreciation) expected in per share market value.

Therefore, in an attempt to emulate investor behavior, neither the DCF nor any single common equity cost rate model should be relied upon exclusively in determining a cost rate of common equity and the results of multiple costs of common equity models should be evaluated. Moreover, as previously discussed, the use of multiple cost of common equity models adds reliability to the estimation of the investor-required cost of common equity by moderating potentially abnormal results from any single model.

Q. Can the understatement of Mr. Cassidy's single-stage DCF results of 8.10% be demonstrated mathematically when applied to a depreciated original cost rate base or book value?

A. Yes. Mr. Cassidy's single-stage DCF result of 8.10% equity cost rate is based upon an average dividend yield for his sample water utilities of 2.9% plus a growth rate of 5.2%. However, as demonstrated on Schedule 3, CCWC would have no realistic opportunity to actually earn Mr. Cassidy's market-based rate of return. In this example, the average market price per share is $25.49 and the average book value per share is $11.58. Under these circumstances, Mr. Cassidy's 8.10%, market-based cost rate implies an annual return of $2.065 consisting of $0.739 in dividends and $1.326 in growth (market-price appreciation). However, application of the 8.10% return rate to book value ($11.58), produces an opportunity to earn a total annual return of just $0.938. With annual dividends of $0.739, the utility could reasonably expect market-price appreciation of $0.199, or only 0.78%. In other words, there is no possible way

to achieve the expected growth of $1.326 (5.2%) related to an average market price of $25.49 absent a huge cut in annual cash dividends. Of course, if the converse situation exists (market prices substantially below their book values), a market-based DCF cost rate applied to the book value of common equity would overstate the cost rate.

Consideration of multiple cost of common equity models is always appropriate, but especially when, in view of all of the foregoing, at this time the traditional application of the DCF mis-specifies investors' required return. The DCF mis-specifies, specifically understating investors' required return, because of the confluence of recently rising market prices, the use of accounting measures as proxies for capital appreciation in the DCF, the recent dramatic rise in actual and forecasted interest rates discussed below. The magnitude of this understatement can be found in the difference between the 5.20% growth in market values, *i.e.,* growth in EPS, shown in column 1 on Schedule 3 and the growth in market value of 0.78%, shown in column 2, when the 8.1% single-stage DCF cost rate is applied to book value, or up to approximately 442 basis points. Coupled with the added reliability and accuracy that the use of multiple cost of common equity models provides in the estimation of the cost of common equity, it is more imperative than ever to not give exclusive, primary or even simply greater reliance to the DCF analysis at this time

Q. Do you have any comments upon Mr. Cassidy's applications of the single-stage and multi-stage DCF?

A. Yes. My comments relate specifically to his development of the growth rate for his single-stage DCF and the first stage of his multi-stage DCF.

Although I do not agree with the need to apply a multi-stage DCF for reasons given in my prepared direct testimony at page 25, line 21 through page 26, line 24, given my updated common equity cost rate analysis presented in Schedule 11, Mr. Cassidy's multi-stage DCF result of 9.3% is a reasonable DCF result at this time. It is slightly greater than my average DCF result shown on page 2 and within the range of the results of my cost of common equity models. Although reasonable relative to my DCF analysis, a DCF cost rate of 9.3% still mis-specifies the investor required return as discussed above. Consistent with the *Hope* decision, it is not the methodology, but rather the end result which must not be unjust or unreasonable. As *Hope* states:

> Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint.

Therefore, although I do not agree with the application of a multi-stage DCF model, at this time, Mr. Cassidy's multi-stage DCF results cannot be said to be unreasonable based upon *Hope* and the range of the results of my updated common equity cost rate analysis.

Q. Please comment on Mr. Cassidy's development of his single-stage DCF growth rate.

A. On Schedule JAC-5, Mr. Cassidy presents 10-year historical growth rates in dividends per share ("DPS") and earnings per share ("EPS") as well as projected growth in DPS and EPS, all sourced as coming from *Value Line*, while Schedule JAC-6 presents Mr. Cassidy's derivation of his sustainable growth. Ultimately, Mr. Cassidy relied upon an average of historical and projected DPS growth, historical and projected EPS growth, and historical and projected sustainable

growth. More correctly, Mr. Cassidy should have relied exclusively upon projected EPS growth.

Q. Please comment on Mr. Cassidy's use of DPS and sustainable growth.

A. DCF theory indicates that an investor buys a stock for an expected total return rate composed of cash flows received in the form of dividends plus appreciation in market price, or as Morin[13] states: "dividends, rather than earnings, constitute the source of value." Nevertheless, as noted on page 24, line 6 - 12 of my direct testimony:

> Over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant, but not sole, influence on market prices than dividend expectations. Thus, the use of earnings growth rates in a DCF analysis provides a better matching between investors' market appreciation expectations and the growth rate component of the DCF. Earnings expectations have a significant influence on market prices and their appreciation or the "growth" experienced by investors.[12] (footnote omitted)

Morin corroborates this concept when he states[14]:

> This does not mean that earnings are unimportant for they provide the basis for paying dividends.

In fact, Morin states the following as well[15]:

> Because of the dominance of institutional investors and their influence on individual investors, analysts' forecasts of long-run growth rates provide a sound basis for estimating required returns. Financial analysts exert a strong influence on the expectations of many investors who do not possess the resources to make their own forecasts, that is, they are a cause of g. The accuracy of these forecasts in the sense of whether they turn out to be correct is not at issue here, as long as they reflect widely held expectations. As long as the forecasts are typical and/or influential in that they are consistent with current stock price levels, they are relevant. The use of analysts' forecasts in the DCF model is sometimes

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[13] Morin 252.
[14] Morin 252
[15] Morin 298

> denounced on the grounds that it is difficult to forecast earnings and dividends for only one year, let alone for longer time periods. This objection is unfounded, however, because it is present investor expectations that are being priced; it is the consensus forecast that is embedded in price and therefore in required return, and not the future as it will turn out to be.
>
> * * *
>
> Published studies in the academic literature demonstrate that growth forecasts made by security analysts represent an appropriate source of DCF growth rates, are reasonable indicators of investor expectations and are more accurate than forecasts based on historical growth. These studies show that investors rely on analysts' forecasts to a greater extent than on historic data only.

Dr. Myron Gordon, the "father" of the standard regulatory version of the DCF model widely utilized throughout the U. S. in rate base / rate of return regulation, who has recognized the significance of analysts" forecasts of growth in EPS. In addition, studies performed by Cragg and Malkiel[16] demonstrate that analysts' forecasts are superior to historical growth rate extrapolations.

Finally, notwithstanding Mr. Cassidy's citation on page 35, lines 20 – 27 of his direct testimony from Jeremy Siegel's book "Stocks For the Long Run", Dr. Siegel actually supports the use of earnings growth forecasts when valuing stocks when he states[17]:

> For the equity holder, the source of future cash flows is the earnings of firms.
>
> * * *
>
> Some people argue that shareholders most value stocks' cash dividends. But this is not necessarily true.
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> * * *
>
> Since the price of a stock depends primarily on the present discounted value of all expected future dividends, it appears that

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[16] John G. Cragg and Burton G. Malkiel, Expectations and the Structure of Share Prices (University of Chicago Press, 1982) Chapter 4.

[17] Jeremy J. Siegel. Stocks for the Long Run, (McGraw-Hill 2002) 90 – 94.

> dividend policy is crucial to determining the value of the stock. However this is not generally true.
>
> * * *
>
> Since stock prices are the present value of future dividends, it would seem natural to assume that economic growth would be an important factor influencing future dividends and hence stock prices. However, this is not necessarily so. The determinants of stock prices are earnings and dividends on a *per-share* basis. Although economic growth may influence *aggregate* earnings and dividends favorably, economic growth does not necessarily increase the growth of per-share earnings of dividends. It is earnings per share (EPS) that is important to Wall Street because per-share data, not aggregate earnings or dividends, are the basis of investor returns. (Italics in original)

Mr. Cassidy's citation from Dr. Siegel on page 35 of his direct testimony is relative to the use of dividends as the cash flows which are discounted to present value at the discount rate to determine stock prices and not the use of earnings. The paragraph cited by Mr. Cassidy is silent about what growth rate should be used in determining that discount rate (cost of common equity). Thus, Mr. Cassidy's use of Dr. Siegel's citation as support for the use of DPS growth in a DCF analysis is invalid.

In view of all of the foregoing, Mr. Cassidy should more correctly have relied upon earnings per share growth projections in his DCF analyses.

Q. Do you agree with Mr. Cassidy's inclusion of sustainable growth in determining the growth rate component of his DCF analysis?

A. No. Mr. Cassidy's partial reliance upon the sustainable growth methodology for determining the growth rate component for his DCF analyses is based upon historical and expected retention of earnings as well as the historical and projected increase in common share balances as discussed on page 20, line 17 through page 21, line 17 of his direct testimony and derived in Schedule JAC-6.

The sustainable growth methodology is inherently circular because it relies upon either a historical or an expected return on book common equity which is then used in a DCF analysis to establish a common equity cost rate related to the market value of the common stock which, if authorized as the allowed return in a regulatory proceeding, will become the expected return on book common equity. Thus, the resultant allowed DCF derived return on book common equity, Mr. Cassidy's recommended 9.3%, if authorized, is lower than the expected average *Value Line* ROE of 9.9% for his sample water utilities (as derived from his electronic workpapers), used to derive that cost rate based upon sample water utilities' market data. I again agree with Morin[18] who states the following:

> There are three problems in the practical application of the sustainable growth method. The first is that it may be even more difficult to estimate what b, r, s and v investors have in mind than it is to estimate what g is they envisage. It would appear far more economical and expeditious to use available growth forecasts and obtain g directly instead of relying on four individual forecasts of the determinants of such growth. *It seems only logical that the measurement and forecasting errors inherent in using four different variables to predict growth far exceed the forecasting error inherent in the direct forecast of growth itself.*
>
> *Second,* there *is a potential element of circularity in estimating g by a forecast of b and ROE for the utility being regulated, since ROE is determined in large part by regulation. To estimate what ROE resides in the minds of investors is equivalent to estimating the market's assessment of the outcome of regulatory hearings.* Expected ROE is exactly what regulatory commissions set in determining an allowed rate of return. In other words, the method requires an estimate of return on equity before it can even be implemented. *Common sense would dictate the inconsistency of a return on equity recommendation that is different than the expected ROE that the method assumes the utility will earn forever.* For example, using an expected return on equity of 11% to determine the growth rate and using the growth rate to recommend a return

[18] Morin 306 - 307

> on equity of 9% is inconsistent. *It is not reasonable to assume that this regulatory utility company is expected to earn 11% forever, but recommend a 9% return on equity. The only way this utility can earn 11% is that rates be set by the regulator so that the utility will, in fact, earn 11%....*
>
> Third, the *empirical* finance literature discussed earlier demonstrates that the sustainable growth method of determining growth is not as significantly correlated to measures of value, such as stock price and price/earnings ratios, as other historical measures or analysts' growth forecasts. *Other proxies for growth such as historical growth rates and analysts' growth forecasts outperform retention growth estimates.* (Italics added)

In view of the foregoing, it is clear that Mr. Cassidy's use of sustainable growth in his application of the DCF is circular and ignores the basic principle of rate base / rate of return regulation, namely, that the cost of equity which will be authorized in this proceeding will be applied to the jurisdictional <u>book value</u> rate base of CCWC and become the allowed future earned return on book common equity, *i.e.*, the expected return on equity component of the sustainable growth method.

Q. Do you have any further comments regarding Mr. Cassidy's derivation of growth for his DCF analysis?

A. Yes. A review of his electronic workpapers reveals that Mr. Cassidy calculated his DPS, EPS and sustainable growth rates, rather than using the comparable DPS and EPS growth rates or components for sustainable growth published by *Value Line* in each water company's *Ratings & Report.* It is unnecessary for Mr. Cassidy to calculate such growth rates since they are readily available from *Value Line* which is investor influencing and publicly available online or print subscription or free in public libraries throughout the U.S. Moreover, *Value Line* calculates its growth rates from one 3-year base period to another 3-year base period in order

to mitigate possible aberrations in the accounting data it relies upon in any single year. *Value Line*[19] states:

> In an attempt to eliminate short-term fluctuations that may distort results, Value Line uses a three-year base period and an ending period when calculating growth rates. Investors often try to calculate a growth rate from one starting year to one ending year, and then can't understand why the number they get is not the same as the one published by Value Line. If they used a three-year base period (2099-2011) and three-year ending period, (2015-2017), they would get the same results we do.

In view of all of the foregoing, Mr. Cassidy should more correctly have relied upon the projected 5-year EPS growth rates as published in *Value Line*'s *Ratings & Reports* for each of his sample water utilities.

Q. What would Mr. Cassidy's DCF (single-stage and multi-stage) results be had he correctly relied exclusively upon *Value Line*'s published 5-year projected growth in EPS for his sample water utilities.

A. As shown on page 1 of Schedule 4, in his single, or constant, growth DCF result would have been 8.8% and his multi-stage growth DCF result would remain 9.3%, for an average DCF result of 9.1%. When Mr. Cassidy's "economic assessment adjustment" of 60 basis points is added, a common equity cost rate of 9.7% results. However, this 9.7% common equity cost rate is still understated because it does not reflect any additional risk of the Company due to its greater credit risk and smaller relative size as will be discussed below.

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[19] *Complete Overview – The Value Line Investment Survey*, Value Line Inc., 2013 12.

Credit Risk

Q. Does your correction to Mr. Cassidy's common equity cost rate analysis adequately reflect the greater credit risk of the Company relative to the water utilities?

A. No. As discussed previously in this testimony and in my prepared testimony at page 43, lines 6-26, if CCWC's bonds were rated, it is my opinion that they would be rated Baa1 by Moody's. Since the water utilities have been assigned an A1/A2 bond rating by Moody's as shown on page 16 of Schedule 11. Therefore, an indication of the magnitude of such an adjustment is one-third of a recent spread of 0.48% shown on page 17 of Schedule 11 (0.32% = 0.48% * (5/6)).

Business Risk Adjustment

Q. Does your correction to Mr. Cassidy's common equity cost rate analysis adequately reflect the risk implications of the Company's small size relative to the water utilities?

A. No. As discussed previously, company size is a significant element of business risk for which investors expect to be compensated through greater returns. Smaller companies are simply less able to cope with significant events which affect sales, revenues and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a much larger company with a larger, more diverse, customer base. Moreover, smaller companies are generally less diverse in their operations and have less financial flexibility. In addition, extreme weather conditions, i.e., prolonged droughts or extremely wet

weather, will have a greater affect upon a small operating water utility than upon the much larger, more geographically diverse holding companies.

Further evidence of the risk effects of size include the fact that investors demand greater returns to compensate for the lack of marketability and liquidity of the securities of smaller firms. It is a generally-accepted financial principle that the risk of any investment is directly related to the assets in which the capital is invested. The Commission should focus on the risk and return on the common equity investment in the Company's jurisdictional rate base because it is the Company's rates which will be set in this proceeding. The fair rate of return must relate to where capital is invested. In other words, that it is the use of funds invested and not the source of those funds which gives rise to the risk of any investment. Therefore, the relevant risk reflected in the cost of capital must be that of the Company, including the impact of its small size on common equity cost rate. As noted above, the Company is significantly smaller than the average water group company based upon total capitalization.

Consistent with the financial principle of risk and return discussed above, such increased risk due to small size must be taken into account in the allowed rate of return on common equity.

Q. Does the financial literature support the basic financial principle that it is the use of the funds invested which gives rise to the risk of the investment, not the source of the funds?

A. Yes. As Richard A. Brealey and Stewart C. Myers state in Principles of Corporate Finance[20]:

> *But the company cost of capital rule can also get a firm into trouble if the new* projects *are more or less risky than its existing business. Each project should be evaluated at its own opportunity cost of capital.* This is a clear implication of the value-additivity principle introduced in Chapter 7. For a firm composed of assets A and B, the firm value is
>
> Firm Value = PV (AB) = PV (A) + PV(B) = sum of separate asset values
>
> Here PV(A) and PV(B) are valued just as if they were mini-firms in which stockholders could invest directly ...If the firm considers investing in a third project C, it should also value C as if C were a mini-firm. *That* is, the firm should discount the cash flows of C at the expected rate of return that investors would demand to make a separate investment in C. *The true cost of capital depends on the use to which the capital is put.* (Italics added to first paragraph, italics in original text in last paragraph)

In addition, Haim Levy and Marshall Sarnat[21] state:

> The cost of capital and the discount rate are two concepts which are used throughout the book interchangeably. However, there is a distinction between the *firm's* cost of capital and specific *project's* cost of capital. (Italics contained in original text.)
>
> In any case where the risk profile of the individual projects differ from that of the firm, an adjustment should be made in the required discount rate, to reflect this deviation in the risk profile.

It is fundamental that individual investors expect a return commensurate with the risk associated with where their capital is invested. Hence, the Company must be viewed on its own merits. As *Bluefield* so clearly states:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the

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[20] Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book Company, 1996) 204-205.

[21] Haim Levy and Marshall Sarnat, Capital Investments and Decisions, 5th Ed. (Prentice/Hall International, 1986) 464-465.

same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; . . .

Bluefield is clear, then, that it is the "risks and uncertainties" surrounding the property employed for the "convenience of the public" which determines the appropriate level of rates and not the source of the capital financing that property. In this proceeding, the property employed "for the convenience of the public" is the rate base of the Company. Therefore, it is the total investment risk of the Company and its rate base alone that is relevant.

Q. Please compare the size of the Company with that of the companies with Mr. Cassidy's water utilities.

A. As a part of my updated common equity cost rate analysis, Mr. Cassidy's sample water utilities are shown on Schedule 5. Page 25 contains a summary of an indicated small size risk adjustment based upon the Ibbotson® SBBI® Valuation Yearbook – Market Results for Stocks, Bonds, Bills and Inflation – 1926-2012 (SBBI – 2013 Valuation) size premium study, while page 26 contains a summary of the market capitalizations based upon each water company's market prices at December 31, 2013. As shown, the Company is significantly smaller than the average water utility based upon market capitalization as shown below:

Table 1

	Market Capitalization (1) ($ millions)	Times Greater than Town of Hampton ($ Millions)
ACC Witness Mr. Cassidy's Sample Water Utilities	$1,107.309	17.9x
Chaparral City Water Co.	61.983	

(1) From page 1 of Schedule 5.

The Company has no common stock which is publicly traded. Consequently, I have assumed that if it did, its common shares would be selling at the same market-to-book value as the average sample water utility. Hence, the Company's market capitalization is estimated to be $57.806 million, based upon the sample water utilities as shown in Table 1 above. In contrast, the market capitalization of the average sample water utility was $1.107 billion, or 17.9 times larger than the Company's estimated market capitalization.

Because of the Company's extremely small estimated market capitalization, relative to the estimated average market capitalization of the sample water utilities, a 4.30% small size risk premium, or the difference between the size premium applicable to the 10th decile in which the Company falls and the 7th decile in which the average sample water utility falls, is justified. In my opinion, although an adjustment of 4.30% is indicated by the SBBI – 2013 Valuation size premium study, an adjustment to common equity cost rate of 40 basis points, represents an extremely conservative and reasonable size premium applicable to the Company based upon its smaller relative size.

In view of the foregoing, an upward adjustment of 0.32 basis points to reflect the Company's greater relative credit risk and a business risk adjustment of 40 basis points, due to its smaller size are necessary. When added to the corrected Mr. Cassidy's cost rate of 9.7%, a risk-adjusted range of common equity cost rate of 10.42%, only slightly lower than my updated common equity cost rate of 10.50% discussed at the end of this testimony.

Review of Analysis of RUCO Witness David C. Parcell

Discounted Cash Flow Model

Q. Please comment upon the applicability of the DCF model in establishing a cost of common equity for the Company.

A. As with any established cost of common equity model, the extent to which the DCF is relied upon should depend upon the extent to which the cost rate results differ from those resulting from the use of other cost of common equity models. As discussed previously, the DCF model has a tendency to mis-specify investors' required return rate when the market value of common stock differs significantly from its book value. The market-based DCF model will result in a total annual dollar return on book common equity equal to the total annual dollar return expected by investors only when market and book values are equal, but market values and book values of common stocks are rarely at unity.

Q. Can the understatement of Mr. Parcell's DCF results of 8.70%, when applied to a depreciated original cost rate base, be demonstrated mathematically?

A. Yes. Mr. Parcell's single-stage DCF result of 8.70% equity cost rate is based upon an average dividend yield for his water utilities of 3.0% plus an growth rate of 5.7%. However, as demonstrated on Schedule 3, CCWC would have no realistic opportunity to actually earn Mr. Parcell's market-based rate of return. In this example, the average per share market price is 726.66 and the average per share book value is $13.57. Under these circumstances, Mr. Parcell's 8.70%, market-based cost rate implies an annual return of $2.319 consisting of $0.800 in dividends and $1.519 in growth (market-price appreciation). However, application of the 8.70% return rate to book value ($13.57), i.e., the equivalent of a utility's depreciated original cost rate base, produces an opportunity to earn a

total annual return of just $1.181. With annual dividends of $0.800, the utility could reasonably expect market-price appreciation of $0.381, or only 1.49%. In other words, there is no possible way to achieve the expected growth of $1.519 (5.7%) related to an average market price of $26.66 absent a huge cut in annual cash dividends. Of course, if the converse situation exists (market prices substantially below their book values), a market-based DCF cost rate applied to the book value of common equity would overstate the cost rate.

The DCF mis-specifies, specifically understating investors' required return, because of the confluence of recently rising market prices, the use of accounting measures as proxies for capital appreciation in the DCF, the recent dramatic rise in actual and forecasted interest rates discussed below. The magnitude of this understatement can be found in the difference between the 5.70% growth in market values, i.e., growth in EPS, shown in column 1 on Schedule 3 and the growth in market value of 1.49%, shown in column 2, when the 8.70% single-stage DCF cost rate is applied to book value, or up to approximately 421 basis points. Coupled with the added reliability and accuracy that the use of multiple cost of common equity models provides in the estimation of the cost of common equity, it is more imperative than ever to not give exclusive, primary or even simply greater reliance to the DCF analysis at this time.

Capital Asset Pricing Model

Q. At page 20 line 28 through page 21, line 2 of Mr. Parcell's direct testimony, he states "...the CAPM is generally superior to the simple RP method because the CAPM specifically recognizes the risk of a particular company or industry, (*i.e.*, beta) whereas the simple RP method assumes the same

COE for all companies exhibiting similar bond ratings or other characteristics." Please comment.

A. Mr. Parcell is incorrect. In his application of the CAPM, he relies upon the yield on 20-year U.S. Treasury bonds as the risk-free rate. By definition, the yield on 20-year U.S. Treasury bonds cannot recognize the risk of a particular company or industry because it reflects the "risk" of the U.S. Government. Moreover, beta is a measure of systematic risk only. As Mr. Parcell notes on page 21, lines 18-19, "Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation to the overall market." Thus, it does not reflect non-systematic or company-specific risks. Moreover, beta measures only a small percentage of the total risk of a particular company because the R^2 (R-Squared) or the correlation coefficients average only 0.2204 for Mr. Parcell's proxy utilities, indicating that the average beta of these utilities reflect only 22.04% of the total risk for the group, as shown on Schedule 6. In contrast, the risk premium method <u>relies upon the use of a company- or proxy group-specific expected bond yield</u>. As shown on Schedule 3 of Exhibit PMA-1, pages 3 through 5, S&P) explains how and why the utility bond rating process takes into account all of the basic components of business and financial risk. In addition, a significant portion of one application of the risk premium method is derived by the use of beta to allocate a total market equity risk premium. In addition, an even greater proportion of company-specific risk is reflected in the use of the Predictive Risk Premium Model™ (PRPM™). These approaches to the risk premium analysis reflect all company-specific risk. In view of the foregoing, Mr. Parcell's comments that his CAPM is somehow superior to the risk premium method because the risk premium method is "simple" are without merit.

Q. Please comment upon Mr. Parcell's CAPM analysis.

A. Mr. Parcell's CAPM analysis is flawed in three respects. First, he has incorrectly relied upon an historical risk-free rate despite the fact that both ratemaking and the cost of capital are prospective. Second, he has incorrectly calculated his market equity risk premium by relying upon: actually achieved, or non-market based, rates of return on book common equity for a proxy for the market, the S&P 500; a geometric mean historical market equity risk premium; the historical total return on U.S. Treasury securities; and, not employing a prospective, or forward-looking equity risk premium. Third, he has not incorporated an empirical CAPM (ECAPM) analysis despite the fact that empirical evidence indicates that the low-beta securities earn returns higher than the CAPM predicts and high-beta securities earn less.

Q. Please comment upon Mr. Parcell's use of historical, i.e., a recent three-month average, yields on 20-year U.S. Treasury Bonds.

A. Mr. Parcell's use of historical yields on 20-year U.S. Treasury bonds ignores the fact that both the cost of capital and ratemaking are prospective, which Mr. Parcell acknowledges himself when he states on page 7, lines 4-6 that "the cost of capital is an opportunity cost and is prospective-looking." The cost of capital, including the cost rate of common equity, is expectational in that it reflects investors' expectations of future capital markets, including an expectation of interest rate levels, as well as risks. In addition, ratemaking is prospective in that the rates set in this proceeding will be in effect for a period of time in the future.

As with forecasts of EPS growth rates, investors are also aware of the accuracy of past forecasts, whether for earnings or dividends growth or for interest rates. However, investors do not have prior knowledge of the accuracy

of the forecasts available to them at the time they make their investment decisions. The accuracy of any forecast only becomes known after some future period of time has elapsed. For example, the accuracy of the current *Blue Chip Financial Forecasts* (*Blue* Chip) January 1, 2014 consensus forecast of the 30-Year U.S. Treasury Bond of 4.40% for the second quarter 2015 (as shown from page 20 of Schedule 11), cannot be known until the end of the second quarter 2015, more than one year into the future. Therefore, consistent with the previously discussed EMH, since investors have such interest rate projections available to them and are aware of the past accuracy of such projections, prospective and not current interest rate projections should be used in cost of common equity analyses. Therefore, an appropriate risk-free rate is the average of the consensus forecasts of approximately 50 economists from Blue Chip Financial Forecasts for the six quarters ending with the second quarter 2015 from the January 1, 2014 issue and the long-range forecasts from the December 1, 2013 issue for 2015-2019 and 2020-2024, or 4.43%, derived in Note 2 on page 24 of Schedule 11.

Q. Please comment upon Mr. Parcell's estimation of the market equity risk premium for his CAPM analysis.

A. Mr. Parcell's derivation of the market equity risk premium for his CAPM analysis is flawed for the following three reasons. First, he incorrectly relied upon achieved rates of return on book common equity. Second, he incorrectly relied in part upon geometric mean historical market returns. Third, he incorrectly relied upon the historical mean total return on U.S. Treasury securities. Fourth, he did not employ a prospective equity risk premium.

Q. Please comment upon Mr. Parcell's use of the rate of return on book common equity for the S&P 500.

A. Mr. Parcell used the actual achieved rates of earnings on book common equity of the S&P 500 Composite for the period 1978-2012 as shown on Schedule 6 of Exhibit__(DCP-1). As discussed above, both the cost of capital and ratemaking are prospective in nature. In addition, the underlying theory of the CAPM requires the use of an expected market return. Therefore, the use of historically achieved earnings on book common equity is inconsistent with both the prospective nature of both the cost of capital and ratemaking as well as with the very theory of the CAPM. In his second CAPM analysis, Mr. Parcell calculates the historical risk premium using either of Ibbotson® SBBI® – 2013 Classic Yearbook – Market Results for Stocks, Bonds, Bills and Inflation – 1926-2012 (SBBI – 2013 Classic) which presents the average total return on large company stocks from 1926-2012, which are appropriately market returns – not returns on book common equity. Thus, Mr. Parcell's two CAPM analyses are a mismatch because he has mixed returns on book common equity with market returns. Moreover, in estimating the total return on the market, whether by returns on book common equity or with market returns, he did not even consider forecasted market returns. This is in total contradiction to his recognition of the need to use an expected total return (page 20, lines 13-15 of his prepared testimony) and his acknowledgement that the cost of capital is prospective (page 7, lines 4-6 of his prepared testimony).

Q. Please comment upon Mr. Parcell's use of the geometric mean historical market return.

A. At lines 9-12 on page 22 of his prepared testimony, Mr. Parcell notes that he has relied upon both the arithmetic and geometric mean returns for the S&P 500 as tabulated by Morningstar, i.e., Ibbotson Associates. Only arithmetic mean return rates and yields are appropriate for cost of capital purposes because ex-post (historical) total returns and equity risk premiums differ in size and direction over time, providing insight into the variance and standard deviation of returns. Because the arithmetic mean captures the prospect for variance in returns and equity risk premiums, it provides the valuable insight needed by investors in estimating *risk* in the future when making a current investment. Absent such valuable insight into the potential variance of returns, investors cannot meaningfully evaluate prospective risk. The geometric mean of ex-post equity risk premiums provides no insight into the potential variance of future returns because the geometric mean relates the change over many periods to a constant rate of change, rather than the year-to-year fluctuations, or variance, *critical to risk analysis* and therefore has little or no value to investors seeking to measure risk. Moreover, from a statistical perspective, stock returns and equity risk premiums are randomly generated. Thus, the arithmetic mean is also expectational, as is the cost of capital and ratemaking as noted above.

The financial literature is quite clear on this point, that risk is measured by the variability of expected returns, i.e., the probability distribution of returns.[22] Pages 56 and 57 of SBBI – 2013 Valuation (see pages 9 and 10 of Schedule 7) explain in detail why the arithmetic mean is the correct mean to use when estimating the cost of capital.

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[22] Eugene F. Brigham, Fundamentals of Financial Management (The Dryden Press, 1989) 639.

In addition, Weston and Brigham[23] provides the standard financial textbook definition of the riskiness of an asset when they state:

> The riskiness of an asset is defined in terms of the likely variability of future returns from the asset. (emphasis added)

And Morin states[24]:

> The geometric mean answers the question of what constant return you would have to achieve in each year to have your investment growth match the return achieved by the stock market. The arithmetic mean answers the question of what growth rate is the best estimate of the future amount of money that will be produced by continually reinvesting in the stock market. It is the rate of return which, compounded over multiple periods, gives the mean of the probability distribution of ending wealth. (emphasis added)

In addition, Brealey and Myers[25] note:

> The proper uses of arithmetic and compound rates of return from past investments are often misunderstood. . . Thus the arithmetic average of the returns correctly measures the opportunity cost of capital for investments. . . *Moral*: If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return. (italics in original)

As previously discussed, investors gain insight into relative riskiness by analyzing expected future *variability*. This is accomplished by the use of the arithmetic mean of a distribution of returns / premiums. Only the arithmetic mean takes into account all of the returns / premiums, hence, providing meaningful insight into the variance and standard deviation of those returns / premiums.

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[23] J. Fred Weston and Eugene F. Brigham, Essentials of Managerial Finance Third Edition (The Dryden Press, 1974) 272.

[24] Morin 133.

[25] Brealey and Myers 146-147.

Q. Can it be demonstrated that the arithmetic mean takes into account all of the returns and therefore, that the arithmetic mean is appropriate to use when estimating the opportunity cost of capital in contrast to the geometric mean?

A. Yes. Pages 1 through 3 of Schedule 7 graphically demonstrate this. Page 1 charts the returns on large company stocks for each and every year, 1926 through 2012 from SBBI – 2013 Valuation. It is clear from looking at the year-to-year variation of these returns, that stock market returns, and hence, equity risk premiums, vary.

The distribution of each and every one of those returns for the entire period from 1926 through 2012 is shown on page 2. There is a clear bell-shaped pattern to the probability distribution of returns, an indication that they are randomly generated and not serially correlated. The arithmetic mean of this distribution of returns considers each and every return in the distribution. In doing so, the arithmetic mean takes into account the standard deviation or likely variance which may be experienced in the future when estimating the rate of return based upon such historical returns. In contrast, page 3 of Schedule 7 demonstrates that when the geometric mean is calculated, only two of the returns are considered, namely the initial and terminal years, which, in this case, are 1926 and 2012. Based upon only those two years, a constant rate of return is calculated by the geometric average. That constant return, graphically, is represented by a flat line, showing no year-to-year variation, over the entire 1926 to 2012 time period, which is obviously far different from reality, based upon the probability distribution of returns shown on page 2 and demonstrated on page 1.

Consequently, only the arithmetic mean takes the standard deviation of returns which is critical to risk analysis into account. The geometric mean is appropriate only when measuring historical performance and should not be used to estimate the investors required rate of return.

Q. Please comment upon Mr. Parcell's use of the historical mean total return on U.S. Treasury securities.

A. Although relying upon Morningstar's (i.e., Ibbotson & Associates) historical returns in his CAPM analysis, Mr. Parcell has ignored Ibbotson Associates' recommendations regarding the use of the income return and not the total return on U.S. Treasury securities in deriving an equity risk premium. As indicated on pages 55 and 56 of the SBBI – 2013 Valuation (pages 8 and 9 of Schedule 7):

> Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather than the total return, is used in the calculation. The total return is comprised of three return components: the income return, the capital appreciation return, and the reinvestment return. The income return is defined as the portion of the total return that results from a periodic cash flow or, in this case, the bond coupon payment. The capital appreciation return results from the price change of a bond over a specific period. Bond prices generally change in reaction to unexpected fluctuations in yields. Reinvestment return is the return on a given month's investment income when reinvested into the same asset class in the subsequent months of the year. The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.[2] (footnote omitted)
>
> * * * *
>
> Anticipated changes in yields are assessed by the market and figured into the price of a bond. Future changes in yields that are not anticipated will cause the price of the bond to adjust accordingly. Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since

an investor can hold a bond to maturity and be entitled to the income return with no capital loss.

Hence, it is appropriate to use the income return and not the total return on long-term U.S. government bonds when calculating a market equity risk premium. Therefore, the correct derivation of the historical market equity risk premium is the difference between the arithmetic mean monthly[26] total return on large company common stocks of 11.83% and the arithmetic mean 1926-2012 income return on long-term government bonds of 5.28% which results in a monthly market equity risk premium of 6.55% as derived in note 1 on page 24 of Schedule 11.

Q. Please comment upon Mr. Parcell's failure to use a prospective or forward-looking market equity risk premium.

A. As noted above, in addition to page 7, lines 4-6, Mr. Parcell clearly states on page 23, lines 9-10 of his prepared testimony that, "the cost of capital is an opportunity cost: the prospective return available to investors from alternative investments of similar risk." Therefore, it is appropriate to also give weight to expected market returns. One way to do so is to use the forecasted market risk premium derived from *Value Line's* average median price appreciation potential and average median expected dividend yield 3-5 years hence of 4.78% as derived in note 1 on page 24 of Schedule 11, coupled with a PRPM™-derived market risk premium of 10.40% also shown in Note 1 on page 24 of Schedule 11. When the Value Line-derived market equity risk premium of 4.78% and the PRPM™-derived market equity risk premium of 10.40%, averaged with the

[26] Monthly arithmetic mean to be consistent with the Predictive Risk Premium Model™ ("PRPM™") use of monthly risk premiums as detailed in Ms. Ahern's prepared testimony.

properly derived historical arithmetic mean monthly equity risk premium of 6.55%, a properly calculated arithmetic mean historical market equity risk premium and prospective market equity risk premiums results in a market equity risk premium of 7.24%.

Q. Did Mr. Parcell incorporate an empirical or ECAPM analysis?

A. No. Mr. Parcell failed to consider that, although numerous tests of the CAPM have confirmed its validity, it has been determined that the empirical Security Market Line (SML) described by the traditional CAPM is not as steeply sloped as the predicted SML.

As discussed in my direct testimony on page 38, lines 13-19, numerous tests of the CAPM have measured the extent to which security returns and betas are related as predicted by the CAPM confirming its validity. However, Morin observes that while the results of these tests support the notion that beta is related to security returns, the empirical Security Market Line (SML) described by the CAPM formula is not as steeply sloped as the predicted SML. Morin[27] states:

> With few exceptions, the empirical studies agree that ... low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.
>
> * * *
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,\beta(R_M - R_F) + (1-x)\ \beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return = 0.0829 +

[27] Morin 175.

0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

$$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$[28]

In view of theory and practical research, both the traditional CAPM and the ECAPM should be used.

Q. Some critics of the ECAPM model claim that using adjusted betas in a traditional CAPM amounts to using an ECAPM. Is such a claim valid?

A. Using adjusted betas in a CAPM analysis is not equivalent to the ECAPM. Betas are adjusted because of the general regression tendency of betas to converge toward 1.0 over time, i.e., over successive calculations of beta. As noted above, numerous studies have determined that the Security Market Line (SML) described by the CAPM formula at any given moment in time is not as steeply sloped as the predicted SML. Morin[29] states:

> Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend [sic], an ECAPM analysis results in double-counting. This argument is erroneous. Fundamentally, the ECAPM is not an adjustment, increase or decrease, in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a

[28] Morin 190.

[29] Morin 191.

> return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary.

Moreover, the slope of the Security Market Line (SML) should not be confused with beta. As Eugene F. Brigham, finance professor emeritus and the author of many financial textbooks states[30] :

> The slope of the SML reflects the degree of risk aversion in the economy – the greater the average investor's aversion to risk, then (1) the steeper is the slope of the line, (2) the greater is the risk premium for any risky asset, and (3) the higher is the required rate of return on risky assets.[12]
>
> [12]Students sometimes confuse beta with the slope of the SML. This is a mistake. As we saw earlier in connection with Figure 6-8, and as is developed further in Appendix 6A, beta does represent the slope of a line, but *not* the Security Market Line. This confusion arises partly because the SML equation is generally written, in this book and throughout the finance literature, as $k_i = R_F + b_i(k_M - R_F)$, and in this form b_i looks like the slope coefficient and $(k_M - R_F)$ the variable. It would perhaps be less confusing if the second term were written $(k_M - R_F)b_i$, but this is not generally done.

Hence, the traditional CAPM understates the cost rate for common equity for companies with betas less than 1.0 and overstates the cost rate for companies with betas greater than 1.0. Consequently, Mr. Parcell erred by not employing the Empirical CAPM (ECAPM).

Q. What would Mr. Parcell's CAPM results be had he utilized the prospective yield on long-term U.S. Treasury bonds, correctly estimated the market equity risk premium based upon arithmetic mean historical returns, including the correct income return on long-term government bonds, and a prospective market equity risk premiums as well as the ECAPM?

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[30] Brigham and Gapenski (1985) 203.

A. Schedule 8 presents the results of the correct application of both the traditional CAPM and the ECAPM for Mr. Parcell's water utilities. Page 1 shows the mean / median traditional CAPM results: 9.42% / 9.98%, while page 2 shows the mean / median ECAPM results: 9.50% / 10.04%. The mean / median traditional CAPM and ECAPM results average: 9.70% / 9.77% for the proxy utilities. Averaging the mean and median results as Mr. Parcell does on page 23, lines 1-3 of his prepared testimony, the CAPM-derived indicated result is 9.74% for the water group. However, this cost rate is still understated because it does not reflect any additional risk of the Company due to its greater credit risk and smaller relative size as will be discussed below.

Clearly, then, Mr. Parcell's CAPM conclusion of 7.25% is grossly understated.

Q. Do you have any final comments on Mr. Parcell's comments as to why his CAPM results are so low, *i.e.*, 7.2% - 7.3%?

A. Yes. Mr. Parcell provides two reasons for his "CAPM results" being lower than his DCF and CE results on page 27, lines 11-26 of his prepared testimony. First, he states that "risk premiums are lower currently than was the case in prior years" on lines 12-13. Second, he states on lines 15-16, that "the level of interest rates on U.S. Treasury bonds (i.e., the risk free rate) has been lower in recent years."

Q. Do you agree with Mr. Parcell that risk premiums are lower currently than in prior years.

A. No. Relative to Mr. Parcell's first points, that risk premiums are lower currently than in prior years, Schedule 9 demonstrates that the long-term market equity

risk premium has actually risen since 2009[31]. Using the PRPM™ to calculate market equity risk premiums based upon the returns on large company common stocks from SBBI – 2013 Valuation from January 1926 through each of the month-ends, September, 2009 – November 2013, it is clear that the market equity risk premium has actually risen from 9.95% in September 2009 to 10.40% in November 2013 as shown on page 1 of Schedule 9.

The PRPM™, which has been recently published in the *Journal of Regulatory Economics (JRE)*[32] was developed from the work of Robert F. Engle who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility (ARCH)[33]" with ARCH standing for autoregressive conditional heteroskedasticity. In other words, volatility changes over time and is related from one period to the next, especially in financial markets. Engle discovered that the volatility (usually measured by variance) in prices and returns also clusters over time, is therefore highly predictable and can be used to predict future levels of risk and risk premiums. In addition, the PRPM™ is not based upon an estimate of investor behavior, but rather upon the evaluation of the results of that behavior, i.e., the variance of historical equity risk premiums. Also, in the derivation of the premiums, greater weight is given to more recent time periods, in contrast to reliance upon the geometric mean equity risk premium which gives equal weight to the first and last

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31 September 2009 was the month in which the Company was last authorized a return on common equity, 9.9% in Docket No. W-02113A-07-0551 prior to Decision No. 71308.

32 "A New Approach for Estimating the Equity Risk Premium for Public Utilities", Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. The Journal of Regulatory Economics (December 2011), 40:261-278.

33 www.nobelprize.org

premiums only and the arithmetic mean premium which gives equal weight to each observed premium. Consequently, the market equity risk premiums derived using the PRPM™, shown on page 1 of Schedule 9 can provide valuable and statistically robust insight into market equity risk premium levels at any given point in time.

In addition, while market equity risk premiums may have been lower in any given recent year, Mr. Parcell did not rely upon recent, short-term, market equity risk premiums in his CAPM analysis. He relied upon the long-term (1926-2012) historical total returns on both large company common stocks and long-term government bonds from SBBI – 2013 Classic consistent with the long-term nature of the cost of common equity. Page 2 of Schedule 9 shows the long-term market equity risk premiums based upon large company common stocks and long-term government bonds from Ibbotson Associates (Morningstar) for 1926-2009, 1926-2010, 1926-2011 and 1926-2012. Although I have previously discussed why the use of the total return on government bonds as well as geometric means are both inappropriate for cost of capital purposes, page 2 of Schedule 9 presents these premiums for informational purposes. Page 2 also presents the correctly derived equity risk premiums based upon the arithmetic mean and the income return on long-term government bonds. It is clear that based upon all of the equity risk premiums, correctly or incorrectly derived, on page 2, that the long-term market equity risk premium is actually higher now than its current 9.9% return on common equity in October 2009.

As to Mr. Parcell's second point that interest rate levels have been lower in recent years and "have remained low and continued to decline for the past four-plus years" (lines 21-22, page 27),. Mr. Parcell also notes that the decline in

Treasury yields is not temporary (lines 18-21, page 27). Again, the cost of common equity is a long-term and prospective concept and looking at recent and expected interest rate levels over short periods of time in the future, i.e., since September 2009 and through 2014, is inconsistent with the concept that rate of return analysts are seeking to determine investors' expectations and requirements over the long term. Mr. Parcell has no basis for stating that because the Federal Reserve System (Federal Reserve) intends to maintain low interest rate levels through at least 2014[34], that these levels reflect investors' long term expectations. Moreover, on page 27, line 17, Mr. Parcell has acknowledged that the level of interest rates is "partially the result of the actions of the Federal Reserve System to stimulate the economy." Therefore, recent interest rate levels and those expected in the near-term future, *i.e.*, through 2014, are not representative of the long-term cost of capital. Page 2 of Schedule 9 corroborates this as it shows that, as measured by the geometric mean, the average total return on long-term government bonds is the same for the years 1926-2012, 5.70%, as it was for the years 1926-2009 with the correct income returns actually dropping from 5.20% for 1926-2009 to 5.10% for 1926-2012. On a correct arithmetic mean basis, the average total return on long-term government bonds are the same 6.10% for 1926-2009 as it was for 1926-2012. Similarly, the correct arithmetic mean income return on long-term government

[34] In its press release of December 18, 2013 regarding its just concluded December Federal Open Market Committee Meeting (FOMC), the Federal Reserve "reaffirmed its expectation that the current exceptionally low target range for the federal funds rate of 0 to ¼ percent will be appropriate at least as long as the unemployment rate remains about 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored."

bonds is the same, 5.2% for 1926-2009 as it was for 1926-2012, as well as for the period in between.

Clearly, then, Mr. Parcell is wrong on both points. The long-term market equity risk premium is not lower now than when the Company received its last authorized return on common equity in the fall of 2009 and, while interest rate levels have been and are expected to remain low in the short-term, long-term interest rate levels are expected to rise in the next few years. Hence, the recent low interest rate environment is anything but temporary.

Q. Do you agree with Mr. Parcell's implicit assertion that the decline in Treasury yields is not temporary?

A. No. As discussed below, in my opinion the end of the low interest rate environment of the last five years or so is coming to a close, sooner, rather than later, and capital cost will continue to rise in general in the months and years to come.

On November 22, 2013, *Value Line* published its Quarterly Forecast for the U.S. Economy. *Value Line* projects interest rates to rise significantly by 2017. Specifically, the yield on the 3-month Treasury Bill is expected to rise from a current (January 3, 2014) 0.07%[35] to 3.0% in 2017;. the yield on long-term Treasury securities to rise from a current (January 3, 2014) 3.93%[36] to 4.5% in 2017; the yield on Aaa Corporate Bonds to rise from 4.56%[37] (January 3, 2014) to 5.5% in 2017; and, the prime rate to rise from a recent (January 3, 2014)

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[35] Federal Reserve Statistical Release, January 6, 2014.
[36] Federal Reserve, January 6, 2014.
[37] Federal Reserve, January 6, 2014.

3.25%[38] to 5.0% in 2017. These are significant anticipated increases in interest rates and indicate increasing capital costs in the next few years.

In my opinion, the end of the low interest rate environment of the last five years or so, a product of intentional Fed policy, is coming to a close sooner rather than later and capital costs will [continue to] rise in general in the months and years to come, certainly during the life of the rates set in this proceeding. Hence, current and short-term consensus forecasted yields are not representative of current expected higher long-term capital costs.

Comparable Earnings Analysis (CE)

Q. Do you have any comments regarding Mr. Parcell's application of the CE?

A. Yes. At page 26, lines 7-8 of his prepared testimony, Mr. Parcell discusses his CEM result of no more than 9.0% to 10.0% for his proxy utilities. As support for his conclusion, he cites recent returns of 9.0% to 11.1% and market-to-book ratios greater than 170% as well as prospective returns of 8.8% to 9.9%, coupled with market-to-book ratios in excess of 170%. He concludes on lines 11-14 on page 26 that "[a]s a result, it is apparent that returns below this level would continue to result in market-to-book ratios of well above 100 percent. An earned return of 9.0% to 10.0% should thus result in a market-to-book ratio of well above 100 percent." By these statements, it is clear that Mr. Parcell believes that a direct relationship exists between market-to-book ratios and the rate of earnings on book common equity. Such a relationship is not supported by either the academic literature nor by an historical analysis of the experience of unregulated companies.

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[38] Federal Reserve January 6, 2014

Q. What does the academic literature say about the relationship between allowed regulatory rates of return on common equity and utility market-to-book ratios?

A. It is very clear from the academic literature that there is no such relationship. Phillips[39] states the following:

> Many question the assumption that market price should equal book value, believing that 'the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of unregulated companies.

Also, as noted in my direct testimony at page 28, lines 1-10, while EPS is a significant factor influencing market prices, it is by no means the only factor that affects market prices. Bonbright[40] recognizes as much when he states:

> In the first place, commissions cannot forecast, except within wide limits, the effect their rate Orders will have on the market prices of the stocks of the companies they regulate. In the second place, *whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market.* Moreover, even if a commission did possess the power of control, any attempt to exercise it . . . would result in harmful, uneconomic shifts in public utility rate levels. (italics added)

Q. Have you performed an analysis to determine the existence of a direct relationship between the market-to-book ratios of unregulated companies and their earned rates of return on book common equity?

A. Yes. Since regulation acts as a surrogate for competition, it is reasonable to look to the competitive environment for evidence of a direct relationship between

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[39] Charles F. Phillips, Jr., The Regulation of Public Utilities – Theory and Practice, 1993, Public Utilities Reports, Inc., Arlington, VA, p. 395.

[40] James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, Principles of Public Utility Rates, 1988, Public Utilities Reports, Inc., Arlington, VA, p. 334.

market-to-book ratios and earned returns on common equity (ROE). To determine if Mr. Parcell's implicit assumption of such a direct relationship has any merit, I observed the market-to-book ratios and the ROEs of the S&P Industrial Index and the S&P 500 Composite Index over a long period of time. On Schedule 10, I have shown the market-to-book ratios, rates of return on book common equity (earnings/book ratios), annual inflation rates, and the earnings/book ratios net of inflation (real rate of earnings) annually for the years 1947 through 2012. In each and every year, the market-to-book ratios of the S&P Industrial Index equaled or exceeded 1.00 times. In 1949, the only year in which the market-to-book ratio was 1.00 (or 100%), the real rate of earnings on book equity, adjusted for deflation, was 18.1% (16.3% + 1.8%). In contrast, in 1961, when the S&P Industrial Index experienced a market-to-book ratio of 2.01 times, the real rate of earnings on book equity for the Index was only 9.1% (9.8% - 0.7%). In 1997, the market-to-book ratio for the Index was 5.88 times, while the average real rate of earnings on book equity was 22.9% (24.6% - 1.7%).

This analysis clearly demonstrates that competitive, unregulated companies have never sold below book value, on average, and have sold at book value in only one year since 1947. The data show that there is no relationship between earnings/book ratios and market-to-book ratios.

Because this lack of a relationship between earnings/book ratios and market-to-book ratios covers a 65-year period, 1947 through 2012, it cannot be validly argued that going forward a relationship would exist between earnings/book ratios and market-to-book ratios. The analysis shown on Schedule 10 coupled with the supportive academic literature, demonstrate the following:

1. that while regulation is a substitute for marketplace competition, it can influence but not directly control market prices, and, hence, market-to-book ratios; and,
2. that the rates of return investors expect to achieve and which influence their willingness to pay market prices well in excess of book values have no meaningful, direct relationship to rates of earnings on book equity.

Q. Do you have any comment upon the proxy groups Mr. Parcell used in his comparable earnings (CE) analysis?

A. Yes. Mr. Parcell used his water utilities as well as the S&P 500 as discussed on pages 24 and 25 of his prepared testimony. Any proxy group selected for a CE analysis should be broad-based in order to obviate any company-specific aberrations and should exclude utilities to avoid circularity since the achieved returns on book common equity of utilities, being a function of the regulatory process, are substantially influenced by regulatory awards. Therefore, the achieved ROEs of utilities are not representative of the returns that could be earned in a truly competitive market. Hence, Mr. Parcell's use of his water proxy utilities in his CE analysis should be rejected.

That leaves his use of the S&P 500 which, in my opinion, is too broad-based to be comparable in total risk to his proxy utilities and hence, the Company. Also, the use of the S&P 500 does not meet the "'corresponding risk' concept discussed in the Bluefield and Hope cases" (Mr. Parcell's prepared testimony, page 23, lines 7-8).

However, given my updated common equity cost rate analysis presented in Schedule 11, the upper end of Mr. Parcell's CE analysis of 10.0% is

reasonable at this time as it is within the range of the results of my DCF, RPM and CAPM analyses. As noted in *Hope*, it is not the methodology, but rather the end result which must not be unjust or unreasonable. As *Hope* states:

> Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint.

Therefore, although Mr. Parcell's CE analysis is flawed, at this time the upper end of his range of CE results cannot be said to be unreasonable based upon *Hope* and the results of my updated common equity cost rate analysis as discussed below.

Corrected Conclusion of Mr. Parcell's Cost of Common Equity

Q. What would Mr. Parcell's conclusion of common equity cost rate be based upon the corrections to his analyses discussed above?

A. Based upon the corrections to Mr. Parcell's CAPM results discussed above, his three analyses produce the following:

	Value Line Water Group
DCF	8.7% (midpoint: 9.43%)
CAPM	9.70% - 9.77% (midpoint 9.74%)
CE	10.0%

NA = Not Applicable

Focusing on the midpoint of the CAPM range and rejecting the lowest common equity cost rate of 8.7% (consistent with Mr. Parcell's rejection of his lowest cost of common equity result), a range of common equity cost rate of

9.74% - 10.00% with a midpoint of 9.87% is indicated. However, this 9.87% still understates the Company's common equity cost rate because it does not reflect any adjustment for the Company's greater credit risk and business risk due to its smaller size relative to the water utilities as will be discussed below.

Adjustment to Reflect Company-Specific Risk

Credit Risk

Q. Does your correction to Mr. Parcell's common equity cost rate analysis adequately reflect the greater credit risk of the Company relative to the water utilities?

A. No. As discussed in my prepared testimony at page 43, lines 6-26, if CCWC's bonds were rated, it is my opinion that they would be rated Baa1 by Moody's. Since the water utilities have been assigned an A1/A2 bond rating by Moody's as shown on page 16 of Schedule 11, therefore, an indication of the magnitude of such an adjustment is five-sixths of a recent spread of 0.48% shown on page 17 of Schedule 11 (0.32% = 0.48% * (5/6)).

Business Risk Adjustment

Q. Does your correction to Mr. Parcell's common equity cost rate analysis adequately reflect the risk implications of the Company's small size relative to the water utilities?

A. No. As discussed previously, company size is a significant element of business risk which must be reflected in the common equity cost rate applicable to CCWC.

Q. Please compare the size of the Company with that of the companies with Mr. Parcell's water utilities.

A. As a part of my updated common equity cost rate analysis, I updated my business risk adjustment based upon CCWC's smaller size. Page 1 of Schedule

5 contains a summary of an indicated small size risk adjustment based upon the SBBI – 2013 Valuation size premium study, while page 2 contains a summary of the market capitalizations based upon each water company's[41] market prices at December 31, 2013. As shown, the Company is significantly smaller than the average water utility based upon market capitalization as shown below:

Table 2

	Market Capitalization (1) ($ millions)	Times Greater than Town of Hampton ($ Millions)
RUCO Witness Mr. Parcell's Water Utilities	$1,712.285	29.6x
Chaparral City Water Co.	57.806	

(1) From page 1 of Schedule 2.

Based upon the water utilities' market-to-book ratio at December 31, 2013, the Company's market capitalization is estimated to be $57.806 million, as shown in Table 2 above. In contrast, the market capitalization of the average water company in the water group was $1.712 billion, or 29.6 times larger than the Company's estimated market capitalization.

Because of the Company's extremely small estimated market capitalization, relative to the estimated average market capitalization of the water group, a 4.31% small size risk premium, or the difference between the size premium applicable to the 10th decile in which the Company falls and the 6th decile in which the average company in the water group falls, is justified. In my opinion, although an adjustment of 4.31% is indicated by the SBBI – 2013

[41] My proxy group of nine water companies is identical to Mr. Parcell's water utilities.

Valuation size premium study, an adjustment to common equity cost rate of 40 basis points, represents an extremely conservative and reasonable size premium which would be applicable to the Company based upon its smaller relative size.

In view of the foregoing, an upward adjustment of 0.32 basis points to reflect the Company's greater relative credit risk and a business risk adjustment of 40 basis points, due to its smaller size are necessary. When added to the corrected RUCO cost rate of 9.87%, a risk-adjusted range of common equity cost rate of 10.59%, only slightly higher than my updated common equity cost rate of 10.50%.

Response to Comments on Company Testimony

ACC Witness Cassidy's Comments

Discounted Cash Flow Model

Q. Mr. Cassidy criticizes your "sole reliance on analysts' forecasts of EPS growth to estimate the dividend growth rate (g) in your single-stage growth DCF analysis on page 33, line 8 through page 36, line 4. Please comment.

A. I have previously addressed the "superiority of analysts" forecasts of EPS growth for use in a DCF analysis, the relevance of the accuracy of such forecasts which is not known until well after the fact, the fact that investors' discount any potential optimism in such forecasts in the stock prices they pay, and the fact that Mr. Cassidy's citation from Dr. Siegel is misplaced with Dr. Siegel actually endorsing the use of analysts' forecasts of EPS in a DCF analysis. Therefore, I will not repeat that discussion here.

Q. Mr. Cassidy also criticizes your use of a 60-day average stock price in your constant growth DCF analysis on page 33, lines 9 – 12. Please comment.

A. Use of an average stock price smoothes out any temporary market aberrations reducing the "sample error resulting from random fluctuations in the market" as Mr. Cassidy notes on page 16, lines 17 – 18 relative to his use of a sample group of water utilities for his DCF analyses. As for the use of average stock prices employing "stale information", it should be noted that Mr. Cassidy's direct testimony was filed on December 18, 2013 using spot market prices from October 23, 2013, nearly two months earlier. In contrast, my updated cost of common equity uses a 60-day average market price through December 31, 2013.

Risk Premium Model ("RPM"), Capital Asset Pricing Model ("CAPM") and Predictive Risk Premium Model™ ("PRPM™")

Q. Mr. Cassidy criticizes your risk-free rate in your RPM, CAPM and PRPM™. Please comment.

A. Since my prepared testimony was filed and in response to rising interest rates throughout the last year, my update reflects the use of forecasted yields based upon an average of the consensus of the approximate 50 economists contributing to *Blue Chip* for the six quarters ending with the second quarter 2015, for 2015 – 2019 and 2020 – 2014 from the January 1, 2014 and December 1, 2013 *Blue Chip*. Mr. Cassidy's comments are limited to his "suggestion" that my cost of equity estimates from the RPM, CAPM and PRPM™ are overstated. As discussed previously, since the cost of capital and ratemaking are both prospective, it is imperative that forecasted interest rates be used in the RPM, CAPM and PRPM™.

Q. Mr. Cassidy also criticizes the fact that you did not disclose the exact weighting of the results of your cost of common equity analysis on page 37, line 11 through page 39, line 7. Please comment.

A. It can be mathematically determined that the indicated common equity cost rate prior to adjustments for credit and business risks of 10.48% is based upon an average of the average results of 10.21% and the median result of 10.75%. (10.48% = (10.21% + 10.75%) / 2). Since the filing of my prepared testimony, I now rely upon the median result of my applications of multiple cost of common equity models consistent with my use of the median DCF result.

Credit and Business Risk Adjustments

Q. Mr. Cassidy also criticizes both your credit and business risk adjustments. Please comment.

A. Once again, since I have previously addressed the need for both of these adjustments, both in this testimony and in my direct testimony, I will not repeat the discussion here.

RUCO Witness Parcell's Comments

Q. On page 29, lines 13 – 21 of his prepared testimony, Mr. Parcell briefly discusses your application of the PRPM™. Please comment.

A. Mr. Parcell's comments are limited to commenting that the PRPM™ is "a relatively new type of risk premium approach" and that its results are a "higher cost of equity result." While the PRPM™ is new relative to the DCF and CAPM, as discussed in my direct testimony at page 29, line 23 through page 30, line 14, the PRPM™ is based upon the work of Robert F. Engle who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility," based, in part, upon Engle's research which culminated in

"Estimating Time Varying Risk Premia in the Term Structure: The ARCH-M Model", *Econometrica*, (Engle, R.F., Lilein, D., & Robins, R) (1987). Hence, the methodology is not "relatively new." In addition, the PRPM™ is in the public domain, having been published twice in academically peer reviewed journals, *The Journal of Regulatory Economics* (December 2011) and *The Electricity Journal* (May 2013).

The PRPM™ has also been presented to a number of utility industry / regulatory / academic groups including the following as noted in Appendix A to my direct testimony: The Edison Electric Institute Cost of Capital Working Group; The NARUC Staff Subcommittee on Accounting and Finance; The National Association of Water Companies Finance/Accounting/Taxation and Rates and Regulations Committees; the NARUC Water Committee; The Wall Street Utility Group; the Indiana Utility Regulatory Commission Cost of Capital Task Force; the Financial Research Institute of the University of Missouri Hot Topic Hotline Webinar; and the Center for Research and Regulated Industries Annual Eastern Conference on two occasions. The PRPM™ also formed the basis of "Comparative Evaluation of the Predictive Risk Premium Model™" (co-authored with Richard A. Michelfelder, Ph.D., Rutgers Univ., Dylan W. D'Ascendis and Frank J. Hanley (both of AUS Consultants, The Electricity Journal, May 2013), a follow-up article to the original "A New Approach for Estimating the Equity Risk Premium for Public Utilities".

In addition, the PRPM™ has been presented in thirty-four (34) rate cases before seventeen (17) regulatory commission during the last two years.

Q. At line 24 on page 30 through line 8 on page 31 of his prepared testimony, Mr. Parcell criticizes your use of the holding period returns published in SBBI – 2013 Valuation. Please comment.

A. Mr. Parcell's criticism of the long-term average holding period returns for the period 1926-2012 is invalid for the reasons given by Ibbotson Associates in its SBBI – 2013 Valuation above, pages 57-59 of SBBI – 2013 Valuation (pages 10 and 11 of Schedule 7). Mr. Parcell states on lines 6 on page 30 of his direct testimony that "[u]se of total returns over the 1926-2012 period, in connection with bond yields over the same long period, seems to imply that "investors in 2013 expect relationships to be the same". More than ever, given the recent deep recession experienced by the U.S. and international markets, unprecedented unemployment, continuing stock market volatility, etc., an appreciation of what can occur over the long historical period of 1926-2012 is necessary for investors in formulating their expectations. At the present time, it is still unclear how rapidly, smoothly or persistently the current fledgling recovery will be. Hence, SBBI – 2013 Valuation's words are more relevant than ever[42]:

> It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market volatility of the 1929-1931 period.
>
> Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. . . . Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect "unusual" events to occur from time to time and their expectations reflect this.

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[42] SBBI - 2013 Valuation 59.

I would also note that Mr. Parcell himself relied upon SBBI 2012 long-term holding period returns in arriving at his conclusion of the expected total return for the S&P 500 for use in his application of the CAPM.

In addition, the use of the long-term arithmetic mean, by both myself and Mr. Parcell in part, is consistent with the long-term investment horizon of utilities' common stock. The typical application of the DCF model used in regulation presumes an infinite, i.e., long-term, investment horizon and a constant growth rate. This presumption of a constant growth rate is no different than the presumption of a constant equity risk premium based upon long-term historical holding period returns. Both must be expectationally constant.

As stated above, the foregoing confirms that the RPM is similar to the DCF model. The use of a very long-term historic mean equity risk premium does not mean that it is actually constant from year to year in order for the model to be valid. The equity risk premium may vary randomly around some average expected value. Therefore, in view of the foregoing and Mr. Parcell's own use of long-term historic mean holding period returns, his criticisms of my use of such returns are unfounded, invalid, and should be disregarded.

Q. **On lines 6-15 on page 30 of his prepared direct testimony, Mr. Parcell obliquely criticizes your use of the income return on U.S. Treasury securities as invalid. Please comment.**

A. As discussed above, SBBI – 2013 Valuation, upon which both Mr. Parcell and I relied in part for our historical market equity risk premium, is very clear that the income return on long-term bonds is appropriate for cost of capital purposes as

stated on pages 55 and 56 in SBBI - 2013 Valuation (pages 8 and 9 of Schedule 7).

Hence, Mr. Parcell's oblique criticism is unsupported and unwarranted.

Credit Risk Adjustment

Q. On page 31, lines 10-26 of his prepared testimony, Mr. Parcell "disagrees" with your credit risk adjustment. Please comment.

A. Mr. Parcell's "disagreement" is unfounded. As discussed on page 19, line 19 through page 20, line 9 of my prepared direct testimony, notwithstanding the Company's debt ratio of 18.83%, it is my opinion that, were its bonds rated by either Moody's or S&P or were it to be assigned a credit rating by S&P CCWC would be rated in the Baa/BBB bond rating category. First, smaller companies have less financial flexibility as they are unable to cope with significant events affecting sales, revenues and earnings. As such, smaller companies need to maintain lower debt ratios (higher equity ratios) as mitigation but not elimination of their increased risk due to size. Second, the bond rating agencies link the bond ratings of subsidiary companies with those of their parent holding companies.

Since EPCOR Water (USA), Inc. ("EPCOR" or "the Parent"), CCWC's parent, has been assigned a credit rating of BBB+ and since Moody's bond/credit ratings are generally analogous to S&P's, CCWC would likely be assigned a BBB+ bond/credit rating by S&P and Baa1 by Moody's. A Moody's bond/credit rating of Baa1 indicates slightly greater credit risk than that of the proxy group, on average, of A1/A2, as shown on page 16 of Schedule 11. Hence, an upward credit adjustment is indeed warranted. An indication of the magnitude of such an

adjustment is five-sixths of a recent three-month average spread of 0.48% shown on page 17 of Schedule 11 (0.32% = 0.48% * (5/6)).

Therefore, Mr. Parcell's "disagreement" is unwarranted.

Business Risk Adjustment

Q. At lines 1-3 on page 31 of his prepared direct testimony, Mr. Parcell "disagrees" with the business risk adjustment to your recommended common equity cost rate based upon CCWC's small size. Do you agree?

A. No. Mr. Parcell has provided no support for his "disagreement". Thus, it should be disregarded. As stated previously in both this testimony and my prepared testimony, CCWC's size is a risk factor which must be taken into account in developing a common equity cost rate for CCWC. To reiterate, the rate of return established by the Commission in this proceeding will be applied to CCWC's jurisdictional rate base. Also, as discussed previously, it is a generally-accepted financial principle that the risk of any investment is directly related to the assets in which the capital is invested. The Commission must focus on the risk and return of an investment in CCWC's jurisdictional rate base alone because it is only CCWC's rates which will be set in this proceeding and it is only CCWC's rate base which serves its customers.

Updated Overall Cost of Capital and Rate of Return on Common Equity

Q. Have you updated you recommended overall rate of return and rate of return on common equity for CCWC?

A. Yes. Page 1 of Schedule 11 shows my updated common equity cost rate recommendation of 10.50%. In arriving at my updated common equity cost rate recommendation, I have applied the same three cost of common equity models in an manner identical to their application in my direct testimony, with the

exception that I relied exclusively upon forecasted interest rates in my risk premium and CAPM analyses.

Q. Does that conclude your rebuttal testimony?

A. Yes.

EXHIBIT A
SCHEDULES

Chaparral City Water Company Cost of Capital Calculation
Return on Common Equity Implied in
ACC Staff Witness Cassidy's Capital Structure
and Weighted Average Cost of Capital

[A]	[B]	[C]	[D]	[E]
Description	Weight (%) (1)	Cost (1)	Weighted Cost (1)	Pre-Tax Weighted Cost
ACC Staff Recommended Structure				
Debt	40.0%	5.9%	2.4%	2.4%
Common Equity	60.0%	9.3%	5.6%	9.1%
Weighted Average Cost of Capital			8.0%	11.5%
Company Proposed Structure - Revised				
Debt	14.45%	5.97%	0.86%	0.86%
Common Equity	85.55%	7.65% (5)	6.55% (5)	10.6%
Weighted Average Cost of Capital			7.41%	11.5%

Notes:
(1) From Schedule JAC-1
(2) Assuming a company-provided effective composite Federal and State income tax rate of 38.29%, the pre-tax weighted cost of common equity based upon ACC Staff Witness Cassidy's recommended 9.3% common equ cost rate and hypothetical capital structure is: 9.1%. 9.1% = 9.3%/(1 + 0.3829)
(3) Pre-tax weighted cost rate of common equity equals the pre-tax overall weighted cost rate (11.5%) based up ACC Staff Witness Cassidy's recommended 9.3% common equity cost rate and hypothetical capital structure minus the weighted cost rate of debt based upon Chaparral City Water Company's proposed capital structure (reviesd) 0.86%. 11.5% - 0.86% = 10.6%.
(4) Pre-tax weighted overall cost of capital based upon ACC Staff Witness Cassidy's proposed overall rate of ret
(5) Weighted cost of common equity calculated as the pre-tax weighted cost of common equity, 6.55%, divided b Chaparral City Water Company's proposed capital structure ratio, 85.55%. 7.65% = 6.55% / 85.55%.

Chaparral City Water Company
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2008 - 2012, INCLUSIVE

	2012	2011	2010	2009	2008	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$ 31.884	$ 28.154	$ 28.602	$ 27.769	$ 28.458	
SHORT-TERM DEBT	-	-	-	1.178	2.440	
TOTAL-CAPITAL EMPLOYED	$ 31.884	$ 28.154	$ 28.602	$ 28.947	$ 30.898	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	5.55 %	6.06 %	5.56 %	5.13 %	5.34 %	
PREFERRED STOCK						
CAPITAL STRUCTURE RATIOS						
BASED ON TOTAL PERMANENT CAPITAL:						5 YEAR
LONG-TERM DEBT	15.48 %	18.83 %	19.74 %	21.52 %	22.09 %	19.53 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	84.52	81.17	80.26	78.48	77.91	80.47
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	15.48 %	18.83 %	19.74 %	24.71 %	28.24 %	21.40 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	84.52	81.17	80.26	75.29	71.76	78.60
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
DIVIDEND PAYOUT RATIO	96.96 %	107.35 %	- %	- %	- %	40.86 %
RATE OF RETURN ON AVERAGE COMMON EQUITY	6.21 %	6.10 %	5.20 %	(1.75) %	(18.39) %	(0.53) %
TOTAL DEBT / EBITDA (3)	1.36 x	1.09 x	1.35 x	3.97 x	(1.77) x	1.20 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	38.00 %	58.00 %	56.00 %	38.00 %	30.00 %	44.00 %
TOTAL DEBT / TOTAL CAPITAL	15.48 %	18.83 %	19.74 %	24.71 %	28.24 %	21.40 %

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of

(3) Total debt as a percentage of EBITDA (Earnings before Interest, Income Taxes, Depreciation and

(4) Funds from Operations (sum of net income, depreciation, amortization, net deferred income tax and

Source of Information: Chaparral City Water Company Audited Financial Statements

Chaparral City Water Company
Example of the Inadequacy of
DCF Return Rate Related to Book Value
When Market Value Exceeds Book Value

Line No.		Based on ACC Staff Witness Cassidy's Sample Water Utilities		Based upon RUCO Witness Parcell's Water Utilities	
		(1) Market Value	(2) Book Value	(3) Market Value	(4) Book Value
1.	Per Share	$ 25.49 (1)	$ 11.58 (1)	$ 26.66 (2)	$ 13.57 (3)
2.	DCF Cost Rate (3)	8.10%	8.10%	8.70%	8.70%
3.	Return in Dollars	$ 2.065	$ 0.938	$ 2.319	$ 1.181
4.	Dividends	$ 0.739 (4)	$ 0.739 (4)	$ 0.800 (5)	$ 0.800 (5)
5.	Growth in Dollars	$ 1.326	$ 0.199	$ 1.519	$ 0.381
6.	Return on Market Value (6)	8.10%	3.68%	9.10%	4.63%
7.	Rate of Growth on Market Value (7)	5.20%	0.78%	5.70%	1.49%

Notes:
(1) Derived from From Schedule JAC-7.
(2) Derived from Exhibit___(DCP-1), Schedule 5, page 1.
(3) From page 26 of Schedule 11 of this Exhibit.
(4) Dividends per share based upon a 2.9% dividend yield. $0.739 = $25.49 * 2.9%.
(5) Dividends per share based upon a 3.0% dividend yield. $0.800 = $26.66 * 3.0%.
(6) Line 3 / market value per share (line 1 column (a)).
(7) Line 6 - average dividend yield.

Chaparral City Water Company Cost of Capital Calculation
Final Cost of Equity Estimates
Sample Water Utilities

[A]	[B]	[C]		[D]		[E]
DCF Method		D_1/P_0 [1]	+	g [2]	=	k
Constant Growth DCF Estimate		2.9%	+	5.9%	=	8.8%
Multi-Stage DCF Estimate					=	9.3%
Average DCF Estimate						**9.1%**

Staff's Estimated Cost of Equity	**9.1%**
Economic Assessment Adjustment	0.6%
Sub-Total	**9.7%**
Financial Risk Adjustment	0.0%
Total	**9.7%**

Earnings Per Share Projected Growth EPS

American States Water	6.0 %
California Water	6.5
Aqua America	8.0
Connecticut Water	5.5
Middlesex Water	4.0
SJW Corp	7.5
York Water	4.0
Average Sample Water Utilities	5.9 %

Source of Information: *Value Line Investment Survey*, October 18, 2013

Chaparral City Water Company Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Company	Current Mkt. Price (P_o)[1]	Projected Dividends[2] (Stage 1 growth) (D_t)				Stage 2 growth[3] (g_n)	Equity Cost Estimate (K)[4]
	10/23/2013	d_1	d_2	d_3	d_4		
American States Water	27.8	0.76	0.81	0.86	0.91	6.5%	9.2%
California Water	21.3	0.65	0.68	0.72	0.77	6.5%	9.5%
Aqua America	25.2	0.59	0.63	0.67	0.71	6.5%	8.8%
Connecticut Water	32.5	1.01	1.07	1.14	1.20	6.5%	9.6%
Middlesex Water	21.1	0.79	0.84	0.88	0.94	6.5%	10.2%
SJW Corp	29.5	0.73	0.78	0.82	0.87	6.5%	8.9%
York Water	21.1	0.58	0.61	0.65	0.69	6.5%	9.2%
						Average	**9.3%**

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where : P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

1 [B] see Schedule JAC-7

2 Derived from Value Line Information using EPS growth rates from page 1 of this Schedule.

3 Average annual growth in GDP 1929 - 2012 in current dollars. (From JAC-9)

4 Internal Rate of Return of Projected Dividends

AMER. STATES WATER NYSE-AWR

RECENT PRICE 26.48 | P/E RATIO 17.9 (Trailing: 17.4 Median: 22.0) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 3 Lowered 8/16/13
SAFETY 2 Raised 7/20/12
TECHNICAL 3 Raised 8/23/13
BETA .70 (1.00 = Market)

High:	14.5	14.5	13.4	17.3	21.9	23.1	21.0	19.4	19.8	18.2	24.1	33.1
Low:	10.1	10.8	10.4	12.2	15.1	16.8	13.5	14.9	15.6	15.3	17.0	24.0

Target Price Range 2016 | 2017 | 2018

2016-18 PROJECTIONS

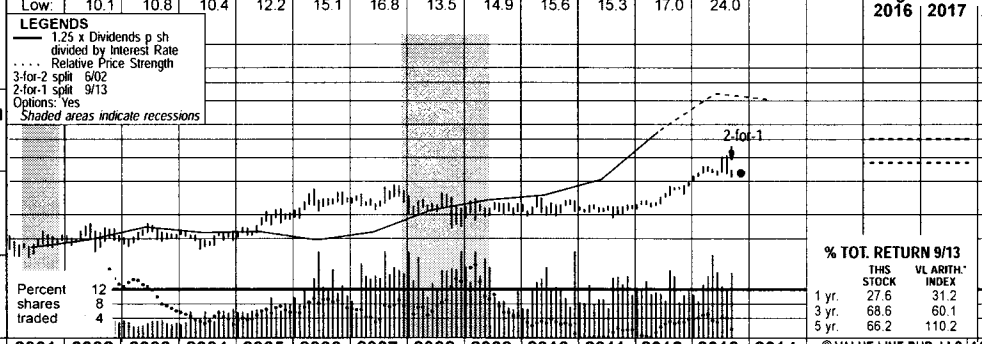
	Price	Gain	Ann'l Total Return
High	40	(+50%)	14%
Low	30	(+15%)	7%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	1	0	0	0	0	2	1	0
Options	1	1	1	0	0	1	4	4	0
to Sell	2	3	1	0	0	0	5	5	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	77	93	98
to Sell	64	59	70
Hld's(000)	24066	24964	24268



% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.6	31.2
3 yr.	68.6	60.1
5 yr.	66.2	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.72	5.51	6.45	6.08	6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.30	12.50	Revenues per sh	12.75
.92	1.02	1.13	1.10	1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.60	2.65	"Cash Flow" per sh	3.20
.52	.54	.60	.64	.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.50	1.55	Earnings per sh A	1.70
.42	.42	.43	.43	.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	Div'd Decl'd per sh B■	.95
1.29	1.56	2.15	1.51	1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.15	2.20	Cap'l Spending per sh	2.10
5.62	5.74	5.91	6.37	6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	11.85	12.50	Book Value per sh	14.25
26.87	26.87	26.87	30.24	30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	39.00	40.00	Common Shs Outst'g C	44.00
14.5	15.5	17.1	15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	Bold figures are		Avg Ann'l P/E Ratio	19.5
.84	.81	.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	Value Line		Relative P/E Ratio	1.30
5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	estimates		Avg Ann'l Div'd Yield	3.1%

CAPITAL STRUCTURE as of 6/30/13
Total Debt $335.8 mill. **Due in 5 Yrs** $10.6 mill.
LT Debt $332.4 mill. **LT Interest** $8.0 mill.
(LT interest earned: 5.2x: total interest coverage: 4.9x) (42% of Cap'l)
Leases, Uncapitalized: Annual rentals $3.0 mill.
Pension Assets-12/12 $107.6 mill. **Oblig.** $163.2 mill.
Pfd Stock None.
Common Stock 38,688,804 shs.
as of 8/6/13 *(Reflects 2-for-1 stock split paid 9/3/13.)*
MARKET CAP: $1.0 billion (Mid Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
212.7	228.0	236.2	268.6	301.4	318.7	361.0	398.9	419.3	466.9	480	500	Revenues ($mill)	560
11.9	16.5	22.5	23.1	28.0	26.8	29.5	41.4	42.0	54.1	58.0	60.0	Net Profit ($mill)	73.0
43.5%	37.4%	47.0%	40.5%	42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	40.0%	40.0%	Income Tax Rate	40.0%
--	--	--	12.2%	8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	2.5%	2.5%	AFUDC % to Net Profit	2.5%
52.0%	47.7%	50.4%	48.6%	46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	43.0%	43.0%	Long-Term Debt Ratio	43.0%
48.0%	52.3%	49.6%	51.4%	53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	57.0%	57.0%	Common Equity Ratio	57.0%
442.3	480.4	532.5	551.6	569.4	577.0	665.0	677.4	749.1	787.0	805	875	Total Capital ($mill)	1025
602.3	664.2	713.2	750.6	776.4	825.3	866.4	855.0	896.5	917.8	940	985	Net Plant ($mill)	1100
4.6%	5.2%	5.4%	6.0%	6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	7.0%	7.0%	Return on Total Cap'l	6.5%
5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.5%	12.0%	Return on Shr. Equity	11.5%
5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.5%	12.0%	Return on Com Equity	11.5%
NMF	1.0%	2.8%	2.7%	3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.0%	6.0%	Retained to Com Eq	5.0%
113%	84%	67%	67%	58%	64%	61%	47%	49%	45%	51%	54%	All Div'ds to Net Prof	56%

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	1.3	23.5	8.5
Other	164.3	160.5	172.6
Current Assets	165.6	184.0	181.1
Accts Payable	37.9	40.6	55.2
Debt Due	.3	3.3	3.4
Other	66.2	49.8	43.8
Current Liab.	104.4	93.7	102.4
Fix. Chg. Cov.	401%	442%	450%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	5.5%	7.5%	2.0%
"Cash Flow"	6.5%	9.0%	6.0%
Earnings	6.5%	11.5%	6.0%
Dividends	3.0%	4.5%	9.0%
Book Value	5.0%	5.5%	2.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	88.4	95.5	111.3	103.7	398.9
2011	94.3	109.8	119.9	95.3	419.3
2012	107.6	114.3	133.5	111.5	466.9
2013	110.5	120.7	135	113.8	480
2014	115	125	140	120	500

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.23	.24	.31	.33	1.11
2011	.19	.34	.42	.17	1.12
2012	.27	.40	.49	.26	1.41
2013	.35	.43	.48	.24	1.50
2014	.33	.42	.55	.30	1.60

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.125	.125	.125	.13	.51
2010	.13	.13	.13	.13	.52
2011	.13	.14	.14	.14	.55
2012	.14	.14	.178	.178	.64
2013	.178	.178	.203		

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 728 employees. Officers & directors own 2.9% of common stock (4/12 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprowls. Inc: CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Nonutility operations are a key component of American States Water. Last year, its nonregulated subsidiary, American States Utilities Services (ASUS), accounted for $0.39 a share, or 28% of the company's share net. This percentage was easily the highest among the eight water utilities that *Value Line* follows.

Estimating future profits from these businesses will be more difficult in the years ahead. The core of the ASUS profits has come from operating and maintaining water services at eight U.S. military bases. Some analysts on Wall Street believe that 2012 was perhaps the peak earnings year for ASUS, but we think that these projections are conservative. True, the company's backlog of new projects isn't large. However, with a substantial number of military facilities yet to be privatized, we believe that ASUS' good reputation with the Department of Defense will greatly help it win a fair share of future contracts. Thus, we think earnings of between $0.40 a share and $0.50 a share from this segment are attainable to the 2016-2018 pull. Since winning contracts is less predictable than its core business, American States earnings might experience greater swings than in the past.

Meanwhile, core regulated operations are doing fine. Due mostly TO a recent rate increase granted to Golden State Water (the main water utility), earnings growth should be somewhere in the 5%-7% range. Indeed,

We're raising our earnings projections again. For the second straight quarter, American States share net exceeded expectations in the June period. As a result, we are nudging the company's earnings-per-share estimates higher by $0.05 in 2013, and $0.10 in 2014, respectively. *(Please note that all figures on the page have been changed to reflect the two-for-one stock split paid on September 3rd.)*

American States' shares offer slightly better-than-average potential long-term returns for a water utility. The current yield is typical for the industry, but dividend growth prospects are higher than the group norm. Moreover, the company is the third-largest water utility we follow, and is the only one that rates an A Financial Strength Rating.

James A. Flood *October 18, 2013*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7¢; '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢) '11, 10¢. Next earnings report due early November. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	90

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AMERICAN WATER NYSE-AWK

RECENT PRICE 40.09 | P/E RATIO 18.0 (Trailing: 19.5 Median: NMF) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 3 Raised 10/4/13
SAFETY 3 New 7/25/08
TECHNICAL 3 Lowered 8/9/13
BETA .65 (1.00 = Market)

	2008	2009	2010	2011	2012	2013
High:	23.7	23.0	25.8	32.8	39.4	43.7
Low:	16.5	16.2	19.4	25.2	31.3	37.0

2016-18 PROJECTIONS

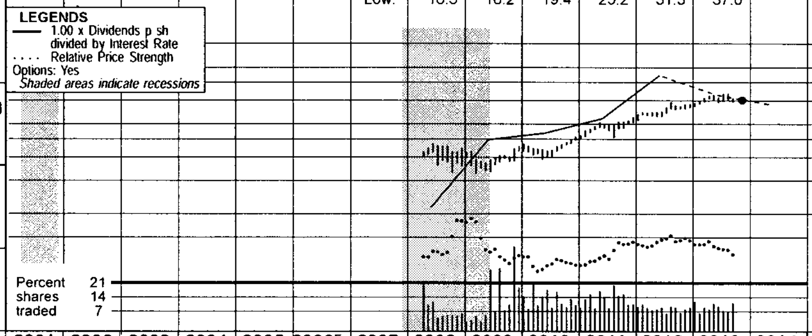
	Price	Gain	Ann'l Total Return
High	60	(+50%)	13%
Low	45	(+10%)	6%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	0	0
Options	4	0	0	0	8	0	3	0	0
to Sell	4	0	0	0	8	0	3	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	188	191	165
to Sell	175	186	209
Hld's(000)	146609	145912	144834



Target Price Range

2016	2017	2018

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	14.4	31.2
3 yr.	93.8	60.1
5 yr.	127.5	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006E	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
--	--	--	--	--	--	--	--	--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.60	17.50	Revenues per sh	20.25
--	--	--	--	--	--	--	--	--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.45	4.70	"Cash Flow" per sh	5.25
--	--	--	--	--	--	--	--	--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.20	2.40	Earnings per sh A	2.90
--	--	--	--	--	--	--	--	--	--	--	.40	.82	.86	.91	.96	1.06	1.20	Div'd Decl'd per sh B■	1.40
--	--	--	--	--	--	--	--	--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.35	5.35	Cap'l Spending per sh	5.50
--	--	--	--	--	--	--	--	--	23.86	28.39	25.64	22.91	23.59	24.11	25.10	26.40	27.50	Book Value per sh D	30.00
--	--	--	--	--	--	--	--	--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.50	180.00	Common Shs Outst'g C	185.00
--	--	--	--	--	--	--	--	--	--	--	18.9	15.6	14.6	16.8	16.7	*Bold figures are*		Avg Ann'l P/E Ratio	18.5
--	--	--	--	--	--	--	--	--	--	--	1.14	1.04	.93	1.05	1.07	*Value Line*		Relative P/E Ratio	1.25
--	--	--	--	--	--	--	--	--	--	--	1.9%	4.2%	3.8%	3.1%	2.7%	*estimates*		Avg Ann'l Div'd Yield	2.7%

2003	2004	2005	2006E	2007	2008	2009	2010	2011	2012	2013	2014		16-18
--	--	--	2093.1	2214.2	2336.9	2440.7	2710.7	2666.2	2876.9	2960	3150	Revenues ($mill)	3750
--	--	--	d155.8	d342.3	187.2	209.9	267.8	304.9	375.0	390	430	Net Profit ($mill)	535
--	--	--	--	--	37.4%	37.9%	40.4%	39.5%	40.7%	40.0%	40.0%	Income Tax Rate	40.0%
--	--	--	--	--	--	--	--	12.5%	6.2%	8.0%	10.0%	AFUDC % to Net Profit	12.0%
--	--	--	56.1%	50.9%	53.1%	56.9%	56.8%	55.7%	53.8%	54.0%	54.0%	Long-Term Debt Ratio	54.5%
--	--	--	43.9%	49.1%	46.9%	43.1%	43.2%	44.2%	46.0%	46.0%	46.0%	Common Equity Ratio	45.5%
--	--	--	8692.8	9245.7	8750.2	9289.0	9561.3	9580.3	9652.7	10300	10800	Total Capital ($mill)	11800
--	--	--	8720.6	9318.0	9991.8	10524	11059	11021	11739	12300	12800	Net Plant ($mill)	14200
--	--	--	NMF	NMF	3.7%	3.8%	4.4%	4.8%	5.5%	5.5%	5.5%	Return on Total Cap'l	6.0%
--	--	--	NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	8.0%	8.5%	Return on Shr. Equity	9.5%
--	--	--	NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	8.0%	8.5%	Return on Com Equity	9.5%
--	--	--	NMF	NMF	3.0%	1.8%	2.8%	3.5%	4.6%	4.5%	4.5%	Retained to Com Eq	4.5%
--	--	--	--	--	34%	65%	56%	52%	45%	48%	50%	All Div'ds to Net Prof	50%

CAPITAL STRUCTURE as of 6/30/13
Total Debt $5761.0 mil. **Due in 5 Yrs** $1034.0 mil.
LT Debt $5180.7 mil. **LT Interest** $301.0 mil.
(Total interest coverage: 4.4x) (53% of Cap'l)

Leases, Uncapitalized: Annual rentals $28.1 mill.
Pension Assets $1157.7 mill **Oblig.** $1621.2 mill.
Pfd Stock $17.6 mill. **Pfd Div'd** $.7 mill

Common Stock 177,964,133 shs. **as of 8/1/13**

MARKET CAP: $7.1 billion (Large Cap)

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	14.2	24.4	20.4
Other	1383.5	475.0	525.4
Current Assets	1397.7	499.4	545.8
Accts Payable	243.7	279.6	178.4
Debt Due	543.9	385.9	580.3
Other	701.5	329.3	290.6
Current Liab.	1489.1	994.8	1049.3
Fix. Chg. Cov.	256%	292%	300%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	--	3.0%	5.0%
"Cash Flow"	--	NMF	6.5%
Earnings	--	--	10.0%
Dividends	--	--	9.0%
Book Value	--	-1.5%	4.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	588.1	671.2	786.9	664.5	2710.7
2011	596.7	668.8	760.9	639.8	2666.2
2012	618.7	745.6	831.8	680.8	2876.9
2013	636.1	724.3	890	709.6	2960
2014	670	775	945	760	3150

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.18	.42	.71	.23	1.53
2011	.23	.42	.73	.32	1.72
2012	.28	.66	.87	.30	2.11
2013	.32	.57	.90	.41	2.20
2014	.35	.65	1.00	.40	2.40

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.20	.20	.21	.21	.82
2010	.21	.21	.22	.22	.86
2011	.22	.23	.23	.23	.91
2012	.23	.23	.25	.25	.96
2013	.25	.25	.28		

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 14 million people in over 30 states and Canada. It's nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 89.1% of 2012 revenues. New Jersey is its biggest market accounting for 22.2% of revenues. Has roughly 7,000 employees. Depreciation rate, 2.6% in '12. BlackRock, Inc., owns 10.3% of the common stock outstanding. Off. & dir. own less than 1% (3/13 Proxy). President & CEO; Jeffry Sterba. Chairman; George Mackenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Telephone: 856-346-8200. Internet: www.amwater.com.

American Water Works continues to do a good job of staying on the right side of regulators. The company must contend with 30 different state regulatory commissions in order to recoup the large sums that it is investing in its individual water systems located throughout the country. The utility's basic formula for success in dealing with regulators has been to keep costs low. This feat has been achieved by improving operating margins and continually reducing expense ratios, a trend we expect to continue. Indeed, effective cost containment makes it much more difficult for state commissions to deny much needed rate increases.

Expansion via acquisitions will remain a key element to American Water's long-term growth. The company should continue to scoop up some of the small water utilities that cash-strapped municipalities are willing to sell. Sixteen purchases were made last year and 10 have already been completed so far in 2013. It is American Water's expertise in integrating these new entities into its existing operations and reducing overhead that is behind its leaner cost structure.

American Water's construction budget should be large but manageable. Capital expenditures will probably be close to $1 billion a year over the next 3- to 5-year period, due to the need to upgrade and repair the company's aging infrastructure. Internally generated funds will probably cover only about 75% of the outlays over this time frame. As a result, American Water will most likely have to issue more debt to make up the difference.

American Water's earnings and dividend growth prospects are good. The combination of efficient operations, inorganic growth, and greater contributions from nonutility businesses should enable annual earnings and dividend increases in the 7% to 10% range (versus about 5% for the industry) for the foreseeable future.

Long-term, income-oriented investors might like these shares. The yield on AWK's stock is close to the industry norm, yet its dividend growth prospects are well above-average. So, even though the stock is currently not timely, it still holds more appeal than most water utilities to the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Excludes nonrecurring losses: '08, $4.62; '09, $2.63; '11, $0.07. Discontinued operations: '06, (4¢); '11, 3¢; '12, (10¢). Next earnings report due late October. Quarterly earnings may not sum due to rounding. (B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available. (C) In millions. (D) Includes intangibles. In 2012: $1.207 billion, $6.82/share. (E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B+
Stock's Price Stability	95
Price Growth Persistence	90
Earnings Predictability	20

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AQUA AMERICA NYSE-WTR

RECENT PRICE 23.97 | P/E RATIO 20.3 (Trailing: 22.7 Median: 24.0) | RELATIVE P/E RATIO 1.15 | DIV'D YLD 2.6% | VALUE LINE

TIMELINESS 3 Lowered 5/24/13
SAFETY 2 Raised 4/20/12
TECHNICAL 3 Raised 9/13/13
BETA .60 (1.00 = Market)

High:	12.0	13.4	14.8	23.4	23.8	21.3	17.6	17.2	18.4	19.0	21.5	28.1
Low:	7.7	9.5	11.3	14.0	16.1	15.1	9.8	12.3	13.2	15.4	16.8	20.6

Target Price Range 2016 | 2017 | 2018

2016-18 PROJECTIONS

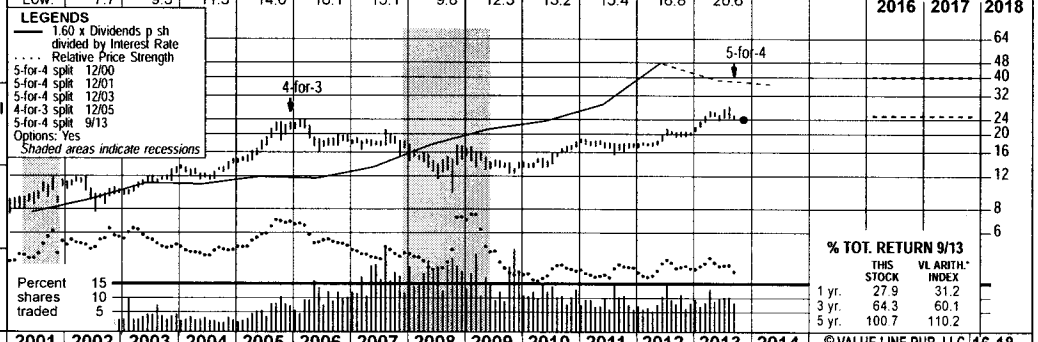
	Price	Gain	Ann'l Total Return
High	40	(+65%)	19%
Low	25	(+5%)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	1	3	2	2	0	0	1	3
to Sell	0	0	2	0	0	0	0	2	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	118	136	141
to Sell	117	116	130
Hld's(000)	83977	82403	82501



% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.9	31.2
3 yr.	64.3	60.1
5 yr.	100.7	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
1.61	1.67	1.93	1.97	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	*4.45*	*4.60*	Revenues per sh	*4.95*
.45	.49	.58	.61	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	*1.60*	*1.70*	"Cash Flow" per sh	*1.85*
.27	.32	.33	.37	.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	*1.15*	*1.25*	Earnings per sh A	*1.45*
.19	.20	.22	.23	.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	*.58*	*.64*	Div'd Decl'd per sh B■	*.85*
.46	.65	.72	.93	.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	*2.15*	*2.15*	Cap'l Spending per sh	*2.15*
2.27	2.57	2.74	3.08	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	*8.90*	*9.60*	Book Value per sh	*11.50*
84.33	90.25	133.50	139.78	142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	*177.50*	*179.50*	Common Shs Outst'g C	*184.00*
17.8	22.5	21.2	18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
1.03	1.17	1.21	1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.40	*Value Line*		Relative P/E Ratio	*1.50*
3.9%	2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	*estimates*		Avg Ann'l Div'd Yield	*2.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $1648.4 mill. **Due in 5 Yrs** $368.3 mill.
LT Debt $1489.8 mill. **LT Interest** $60.0 mill.
(LT interest earned: 5.0x; total interest coverage: 4.1x) (51% of Cap'l)
Pension Assets-12/12 $190.1 mill. **Oblig.** $303.1 mill.
Pfd Stock None
Common Stock 176,463,469 shares
as of 7/26/13 *(Reflects 5-for-4 stock split paid 9/1/13.)*
MARKET CAP: $4.2 billion (Mid Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
367.2	442.0	496.8	533.5	602.5	627.0	670.5	726.1	712.0	757.8	*790*	*830*	Revenues ($mill)	*915*
67.3	80.0	91.2	92.0	95.0	97.9	104.4	124.0	144.8	153.1	*205*	*225*	Net Profit ($mill)	*265*
39.3%	39.4%	38.4%	39.6%	38.9%	39.7%	39.4%	39.2%	32.9%	39.0%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
--	--	--	--	--	--	--	--	2.9%	3.1%	*3.0%*	*3.0%*	AFUDC % to Net Profit	*2.0%*
51.4%	50.0%	52.0%	51.6%	55.4%	54.1%	55.6%	56.6%	52.7%	52.7%	*50.0%*	*50.0%*	Long-Term Debt Ratio	*50.0%*
48.6%	50.0%	48.0%	48.4%	44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	*50.0%*	*50.0%*	Common Equity Ratio	*50.0%*
1355.7	1497.3	1690.4	1904.4	2191.4	2306.6	2495.5	2706.2	2646.8	2929.7	*3150*	*3450*	Total Capital ($mill)	*4230*
1824.3	2069.8	2280.0	2506.0	2792.8	2997.4	3227.3	3469.3	3612.9	3936.2	*4150*	*4350*	Net Plant ($mill)	*4900*
6.4%	6.7%	6.9%	6.4%	5.9%	5.7%	5.6%	5.9%	6.9%	6.6%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
10.2%	10.7%	11.2%	10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	*12.0%*	*12.0%*	Return on Shr. Equity	*12.5%*
10.2%	10.7%	11.2%	10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	*12.0%*	*12.0%*	Return on Com Equity	*12.5%*
4.2%	4.6%	4.9%	3.7%	3.2%	2.8%	2.7%	3.7%	4.6%	4.3%	*6.0%*	*6.0%*	Retained to Com Eq	*5.0%*
59%	57%	56%	63%	67%	70%	72%	65%	60%	61%	*52%*	*52%*	All Div'ds to Net Prof	*59%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	8.2	5.5	4.3
Receivables	81.1	92.9	98.3
Inventory (AvgCst)	11.2	11.8	12.5
Other	220.0	150.7	106.5
Current Assets	320.5	260.9	221.6
Accts Payable	68.3	55.5	47.0
Debt Due	80.4	125.4	158.6
Other	277.0	93.3	101.1
Current Liab.	425.7	274.2	306.7
Fix. Chg. Cov.	367%	398%	*398%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	8.0%	7.5%	*3.5%*
"Cash Flow"	8.5%	8.0%	*4.5%*
Earnings	6.5%	4.5%	*8.0%*
Dividends	7.5%	8.0%	*8.0%*
Book Value	9.0%	7.0%	*6.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	160.5	178.5	207.8	179.3	726.1
2011	163.6	178.3	197.3	172.7	712.0
2012	164.0	191.7	214.6	187.5	757.8
2013	180.0	195.7	*219.3*	*195*	*790*
2014	*190*	*215*	*225*	*200*	*830*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.13	.18	.26	.15	.72
2011	.18	.22	.24	.19	.83
2012	.15	.24	.29	.19	.87
2013	.26	.30	*.34*	*.25*	*1.15*
2014	*.25*	*.32*	*.40*	*.28*	*1.25*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.108	.108	.108	.116	.44
2010	.116	.116	.116	.124	.47
2011	.124	.124	.124	.132	.50
2012	.132	.132	.132	.14	.54
2013	.14	.14	.152		

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Acquired AquaSource, 7/03; Consumers Water, 4/99; and others. Water supply revenues '12: residential, 60.5%; commercial, 16.1%; industrial & other, 23.4%. Officers and directors own 1.4% of the common stock; Blackrock, Inc, 6.3%; State Street Capital Corp., 5.7%; Vanguard Group 5.6% (4/13 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

Aqua America's main long-term strategy is to grow through acquisitions. The United States is filled with thousands of small water utilities that are run by local municipalities. Due to the lack of proper maintenance, many of the facilities are in terrible shape. Since a large number of local governments are financially strapped, they find it more advantageous to sell their water systems to entities that have both greater managerial experience and the financial wherewithal to invest the funds required for the systems to operate properly. Aqua America bought 18 new companies last year and should add a similar number of new utilities in 2013.

Aqua America has been successful driving synergies through acquisitions. Historically, many of the operational benefits promised to shareholders of companies involved in acquisitions never take place. However, Aqua America has proven that it can purchase other water utilities and slash redundant overhead costs to improve operating margins.

Dividend growth prospects are excellent. Last quarter's 9% hike in the quarterly payout (all of our numbers have been adjusted for the recent five-for-four stock split) was much higher than that of a typical utility. Thanks in part to the company's low payout ratio, we estimate that the annual dividend hike will average about 10% for the foreseeable future.

Nonutility operations will play a larger role in the company's future. Aqua America recently completed another extension of its water pipeline in Pennsylvania. The pipeline is used to supply water to natural gas producers drilling in the Marcellus Shale. We expect the company to become much more involved in constructing pipelines because this is a more efficient way of providing the water needed for drilling than by using trucks.

Investors have to pay a slight premium for these shares. The average yield for a water utility is close to 3%. Thus, WTR's payout is about 40 basis points lower than the industry norm. We believe that this is a very reasonable price to pay for the company's robust dividend growth prospects, which should provide better-than-average total returns for a water utility over the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted egs. Excl. nonrec. gains (losses): '99, (9¢); '00, 2¢; '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 3¢. May not sum due to rounding. Next earnings report due late October.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	100

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ARTESIAN RES. CORP. NDQ–ARTNA

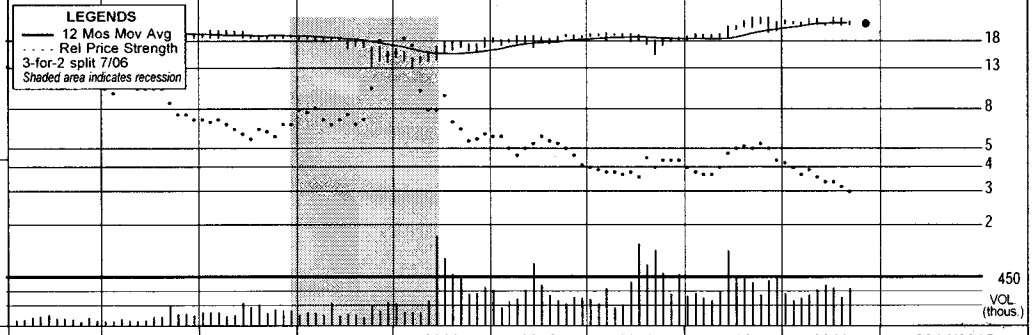
RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	
22.18	22.2	1.15	3.7%	VALUE LINE

	2005	2006	2007	2008	2009	2010	2011	2012	2013	
High	22.62	22.33	20.67	19.31	18.73	19.59	19.99	24.43	24.27	
Low	17.20	17.90	18.26	13.00	12.81	16.43	15.16	18.20	21.52	

RANKS

PERFORMANCE	2	Above Average
Technical	2	Above Average
SAFETY	3	Average
BETA .60		(1.00 = Market)

Financial Strength	B
Price Stability	95
Price Growth Persistence	60
Earnings Predictability	85



© VALUE LINE PUBLISHING LLC	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014/2015
SALES PER SH	7.52	7.77	7.20	7.59	8.11	8.48	7.56	8.10	--	
"CASH FLOW" PER SH	1.56	1.75	1.57	1.65	1.84	1.92	1.64	2.04	--	
EARNINGS PER SH	.81	.97	.90	.86	.97	1.00	.83	1.13	*1.05* A,B	*1.23* C/NA
DIV'DS DECL'D PER SH	.58	.61	.66	.71	.72	.75	.76	.79	--	
CAP'L SPENDING PER SH	3.35	5.08	3.66	6.09	2.32	2.57	1.83	2.36	--	
BOOK VALUE PER SH	9.60	10.15	11.66	11.86	12.15	12.44	13.12	13.57	--	
COMMON SHS OUTST'G (MILL)	6.02	6.09	7.30	7.40	7.51	7.65	8.61	8.71	--	
AVG ANN'L P/E RATIO	24.2	20.3	21.5	20.1	16.4	18.2	22.5	18.3	*21.1*	*18.0/NA*
RELATIVE P/E RATIO	1.28	1.10	1.14	1.21	1.09	1.16	1.41	1.17	--	
AVG ANN'L DIV'D YIELD	2.9%	3.1%	3.4%	4.1%	4.5%	4.1%	4.1%	3.8%	--	
SALES ($MILL)	45.3	47.3	52.5	56.2	60.9	64.9	65.1	70.6	--	*Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.*
OPERATING MARGIN	100.0%	45.6%	45.6%	45.1%	46.9%	46.5%	45.5%	48.7%	--	
DEPRECIATION ($MILL)	4.4	4.6	5.2	5.8	6.6	7.0	7.4	7.9	--	
NET PROFIT ($MILL)	5.0	6.1	6.3	6.4	7.3	7.6	6.7	9.8	--	
INCOME TAX RATE	39.9%	39.0%	39.8%	40.8%	40.1%	40.0%	40.8%	40.2%	--	
NET PROFIT MARGIN	11.1%	12.8%	11.9%	11.4%	11.9%	11.7%	10.4%	14.0%	--	
WORKING CAP'L ($MILL)	d1.8	d8.8	2.5	d20.9	d23.3	d27.9	d11.4	d11.4	--	
LONG-TERM DEBT ($MILL)	92.4	92.1	91.8	107.6	106.0	105.1	106.5	106.3	--	
SHR. EQUITY ($MILL)	57.8	61.8	85.1	87.8	91.2	95.1	113.0	118.2	--	
RETURN ON TOTAL CAP'L	5.3%	5.8%	5.3%	4.7%	5.2%	5.6%	4.6%	5.9%	--	
RETURN ON SHR. EQUITY	8.7%	9.8%	7.4%	7.3%	8.0%	8.0%	6.0%	8.3%	--	
RETAINED TO COM EQ	2.7%	3.8%	2.1%	1.4%	2.1%	2.0%	.5%	2.5%	--	
ALL DIV'DS TO NET PROF	69%	61%	71%	81%	74%	75%	92%	70%	--	

A No. of analysts changing earn. est. in last 4 days: 0 up, 0 down, consensus 5-year earnings growth not available. B Based upon 4 analysts' estimates. C Based upon 4 analysts' estimates.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	1.5%	7.0%
"Cash Flow"	3.0%	24.0%
Earnings	2.0%	36.0%
Dividends	4.5%	4.0%
Book Value	4.5%	3.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/11	14.8	16.5	17.7	16.1	65.1
12/31/12	16.7	17.9	19.0	17.0	70.6
12/31/13	16.3	17.8			
12/31/14					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/10	.22	.24	.38	.16	1.00
12/31/11	.14	.23	.26	.20	.83
12/31/12	.28	.32	.33	.20	1.13
12/31/13	.19	.28	*.34*	*.25*	
12/31/14	*.20*				

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2010	.187	.188	.188	.189	.75
2011	.19	.19	.19	.193	.76
2012	.193	.198	.198	.203	.79
2013	.203	.206	.206	.209	

INSTITUTIONAL DECISIONS

	4Q'12	1Q'13	2Q'13
to Buy	28	32	31
to Sell	32	26	30
Hld's(000)	3052	3036	3029

ASSETS ($mill.)	2011	2012	6/30/13
Cash Assets	.3	.6	.5
Receivables	8.6	8.7	9.1
Inventory	1.5	1.4	1.5
Other	2.9	2.8	1.2
Current Assets	13.3	13.5	12.3
Property, Plant & Equip, at cost	435.0	454.4	--
Accum Depreciation	77.4	83.8	--
Net Property	357.6	370.6	374.8
Other	7.8	7.6	7.6
Total Assets	378.7	391.7	394.7
LIABILITIES ($mill.)			
Accts Payable	2.8	3.5	1.9
Debt Due	13.8	12.6	10.7
Other	8.1	8.8	9.2
Current Liab	24.7	24.9	21.8

LONG-TERM DEBT AND EQUITY as of 6/30/13

Total Debt $116.8 mill. **Due in 5 Yrs.** NA
LT Debt $106.1 mill.
Including Cap. Leases NA (47% of Cap'l)

Leases, Uncapitalized Annual rentals NA

Pension Liability $.4 mill. in '12 vs. $.5 mill. in '11

Pfd Stock None **Pfd Div'd Paid** None

Common Stock 8,781,642 shares (53% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Artesian Resources Corporation, through its subsidiaries, provides water, wastewater, and other services on the Delmarva Peninsula. It distributes and sells water to residential, commercial, industrial, municipal, and utility customers in Delaware, Maryland, and Pennsylvania. The company also offers water for public and private fire protection to customers in its service territories. In addition, it provides contract water and wastewater services, water and sewer service line protection plans, and wastewater management services, as well as design, construction, and engineering services. As of December 31, 2012, the company served approximately 79,000 metered water customers through 1,162 miles of transmission and distribution mains. Has 229 employees. Chairman, C.E.O. & President: Dian C. Taylor. Address: 664 Churchmans Rd., Newark, DE 19702. Tel.: (302) 453-6900. Internet: http://www.artesianwater.com.

J.V.

October 18, 2013

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 9/30/2013

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
0.79%	0.84%	-0.68%	31.05%	63.01%

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CALIFORNIA WATER NYSE-CWT

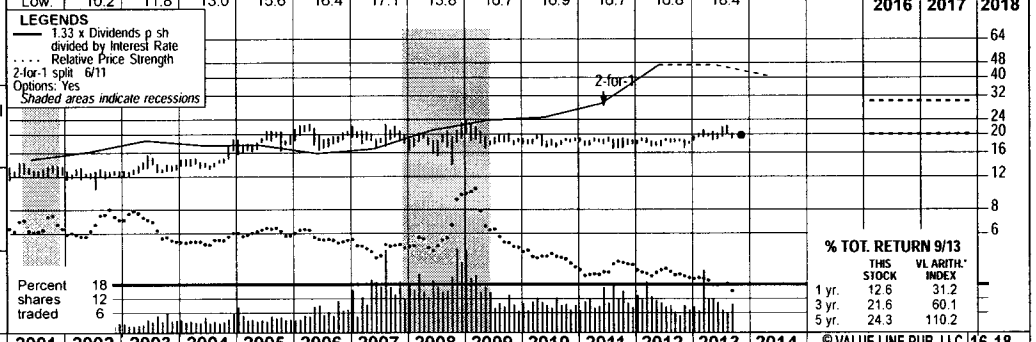
RECENT PRICE 19.73 | P/E RATIO 22.4 (Trailing: 21.2 / Median: 21.0) | RELATIVE P/E RATIO 1.27 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 4 Lowered 10/4/13
SAFETY 3 Lowered 7/27/07
TECHNICAL 3 Lowered 8/23/13
BETA .65 (1.00 = Market)

High:	13.4	15.7	19.0	21.1	22.9	22.7	23.3	24.1	19.8	19.4	19.3	22.3
Low:	10.2	11.8	13.0	15.6	16.4	17.1	13.8	16.7	16.9	16.7	16.8	18.4

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.33 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 6/11
Options: Yes
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+50%)	13%
Low	20	(Nil)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	20	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	54	86	61
to Sell	63	39	57
Hld's(000)	22078	26409	26677

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.6	31.2
3 yr.	21.6	60.1
5 yr.	24.3	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
7.74	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	*12.55*	*14.15*	Revenues per sh	*16.00*
1.46	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	*2.05*	*2.25*	"Cash Flow" per sh	*2.75*
.92	.73	.77	.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	*.80*	*1.05*	Earnings per sh A	*1.35*
.53	.54	.54	.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	*.64*	*.68*	Div'd Decl'd per sh B ■	*.90*
1.30	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	*2.65*	*2.90*	Cap'l Spending per sh	*3.00*
6.50	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	*13.40*	*13.85*	Book Value per sh C	*15.00*
25.24	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	*47.75*	*48.00*	Common Shs Outst'g D	*50.0*
12.6	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	*Value Line*		Relative P/E Ratio	*1.25*
4.6%	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*3.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $507.6 mill. **Due in 5 Yrs** $65.3 mill.

LT Debt $430.7 mill. **LT Interest** $29.5 mill.
(LT interest earned: 6.7x; total int. cov.: 6.0x)
(43% of Cap'l)

Pension Assets-12/12 $202.9 mill.
Oblig. $402.9 mill.

Pfd Stock None

Common Stock 47,734,035 shs.
as of 8/1/13

MARKET CAP: $950 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
277.1	315.6	320.7	334.7	367.1	410.3	449.4	460.4	501.8	560.0	*590*	*650*	Revenues ($mill) E	*800*
19.4	26.0	27.2	25.6	31.2	39.8	40.6	37.7	36.1	42.6	*40.0*	*53.0*	Net Profit ($mill)	*67.0*
39.9%	39.6%	42.4%	37.4%	39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	*34.0%*	*39.0%*	Income Tax Rate	*39.0%*
10.3%	3.2%	3.3%	10.6%	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	*8.0%*	*8.5%*	AFUDC % to Net Profit	*10.0%*
50.2%	48.6%	48.3%	43.5%	42.9%	41.6%	47.1%	52.4%	51.7%	47.8%	*42.0%*	*46.5%*	Long-Term Debt Ratio	*50.0%*
49.1%	50.8%	51.1%	55.9%	56.6%	58.4%	52.9%	47.6%	48.3%	52.2%	*58.0%*	*53.5%*	Common Equity Ratio	*50.0%*
498.4	565.9	568.1	670.1	674.9	690.4	794.9	914.7	931.5	908.2	*1050*	*1125*	Total Capital ($mill)	*1400*
759.5	800.3	862.7	941.5	1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	*1510*	*1575*	Net Plant ($mill)	*1825*
5.6%	6.1%	6.3%	5.2%	5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.5%*
7.8%	8.9%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	*7.0%*	*8.0%*	Return on Shr. Equity	*9.5%*
7.9%	9.0%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	*7.0%*	*8.0%*	Return on Com Equity	*9.5%*
.7%	2.1%	2.1%	1.0%	1.8%	3.8%	3.8%	3.0%	2.3%	3.4%	*1.5%*	*3.0%*	Retained to Com Eq	*3.0%*
91%	77%	78%	86%	77%	61%	60%	66%	71%	62%	*75%*	*62%*	All Div'ds to Net Prof	*67%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	27.2	38.8	38.8
Other	86.7	107.8	125.4
Current Assets	113.9	146.6	164.1
Accts Payable	48.9	46.8	46.7
Debt Due	53.7	136.3	76.9
Other	49.3	59.7	72.6
Current Liab.	151.9	242.8	196.2
Fix. Chg. Cov.	278%	297%	325%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	4.0%	7.0%	*4.5%*
"Cash Flow"	5.5%	7.5%	*4.5%*
Earnings	5.0%	5.5%	*6.5%*
Dividends	1.0%	1.5%	*6.5%*
Book Value	5.0%	4.5%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	90.3	118.3	146.3	105.5	460.4
2011	98.1	131.4	169.3	103.0	501.8
2012	116.8	143.6	178.1	121.5	560.0
2013	111.4	154.6	*190*	*134*	*590*
2014	*135*	*165*	*210*	*140*	*650*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.05	.25	.49	.12	.91
2011	.03	.29	.50	.04	.86
2012	.03	.31	.56	.12	1.02
2013	d.03	.28	*.50*	*.05*	*.80*
2014	*.05*	*.30*	*.55*	*.15*	*1.05*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.148	.148	.148	.148	.59
2010	.149	.149	.149	.149	.60
2011	.154	.154	.154	.154	.62
2012	.1575	.1575	.1575	.1575	.63
2013	.16	.16	.16		

BUSINESS: California Water Service Group provides regulated and nonregulated water service to roughly 471,900 customers in 83 communities in California, Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '12: residential, 66%; business, 18%; public authorities, 4%; industrial, 4%; other 8%. '12 reported depreciation rate: 2.8%. Has 1,131 employees. President, Chairman, and Chief Executive Officer: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwatergroup.com.

This will not be an easy year for the California Water Service Group. As expected, the utility posted its second-consecutive year-over-year negative earnings comparison in the June-ended period. What's more, we expect this trend to continue for the second half of the year.

What's behind the bad earnings? In California, utilities run on three-year regulatory cycles. This means that they can only seek rate relief every third year. Quite often, by the final year of the cycle, expenses have outpaced the higher revenues that were originally permitted.

A major rate case is close to being settled. In mid-2012, California filed a petition with the California Public Utility Commission (CPUC) seeking to raise its rates by 20%. The utility has been in negotiations with the CPUC for months, and it now believes that 95% of the matters involved are resolved. Even though many of California Water's expenses were prudently spent on improving its infrastructure, that doesn't mean that its request will be automatically approved. There is a tremendous amount of political pressure brought upon regulators to keep water customers (i.e. voters) rates low. On balance, we estimate the final decision will be fairly reasonable. The allowed return on equity will most likely be low on a relative basis, but the utility will at least have a good chance of earning it.

All told, earnings should decline sharply in 2013, but rebound in 2014. Due to the aforementioned reasons, we think that California Water's share net will plunge 22% this year. Next year, due mostly to rate relief, we expect the bottom line to snap back, by $0.25, to $1.05 a share.

We think that there are other stocks in the water utility industry that hold greater appeal than California Water. On the plus side, these shares have a yield that is nearly 70 basis points greater than certain of its peers. Moreover, as a result of a large stock issuance earlier this year, the company's finances have improved significantly. However, the utility's subpar dividend growth potential over the next several years and the equity's Below Average Timeliness rank more than offset these positives, in our opinion.

James A. Flood *October 18, 2013*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (4¢); '01, 2¢; '02, 4¢; '11, 4¢. Next earnings report due mid-August.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '12: $18.8 mill., $0.44/sh.
(D) In millions, adjusted for splits.
(E) Excludes non-reg. rev.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	90

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CONNECTICUT WATER NDQ-CTWS

RECENT PRICE 31.35 | P/E RATIO 18.9 (Trailing: 21.5 Median: 23.0) | RELATIVE P/E RATIO 1.07 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 4 Lowered 3/29/13
SAFETY 3 New 1/18/13
TECHNICAL 3 Lowered 10/11/13
BETA .75 (1.00 = Market)

High:	31.1	30.4	29.8	28.2	27.7	25.6	29.0	26.4	27.9	29.1	32.8	32.4
Low:	20.3	24.0	23.8	21.9	20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8

Target Price Range 2016 | 2017 | 2018

2016-18 PROJECTIONS

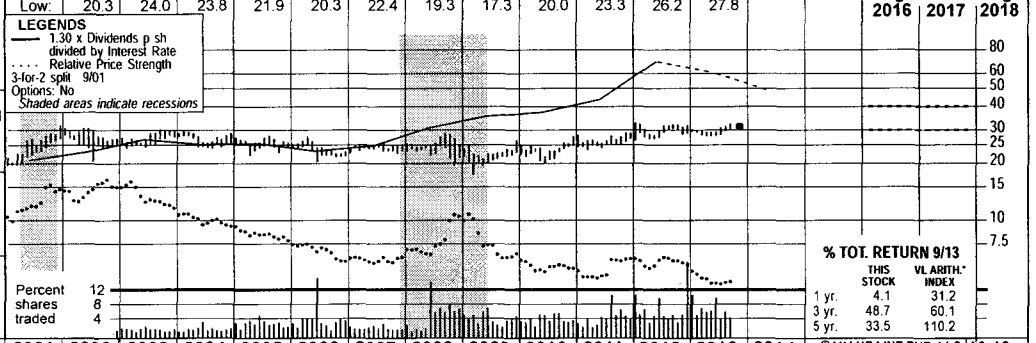
	Price	Gain	Ann'l Total Return
High	40	(+30%)	10%
Low	30	(-5%)	3%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	2	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	48	52	39
to Sell	16	21	39
Hld's(000)	4069	4336	4492



% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.1	31.2
3 yr.	48.7	60.1
5 yr.	33.5	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.67	5.58	5.87	5.70	5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	7.63	*8.65*	*8.90*	Revenues per sh	*11.25*
1.51	1.59	1.65	1.73	1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.10	*2.55*	*2.65*	"Cash Flow" per sh	*2.75*
1.00	1.02	1.03	1.09	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	*1.60*	*1.70*	Earnings per sh A	*1.80*
.77	.78	.79	.79	.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	*.98*	*1.01*	Div'd Decl'd per sh B■	*1.11*
1.99	1.12	1.42	1.43	1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.34	*2.75*	*2.85*	Cap'l Spending per sh	*2.90*
8.26	8.52	8.61	8.92	9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	16.89	*17.25*	*17.80*	Book Value per sh D	*20.40*
6.79	6.80	7.26	7.28	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	10.97	*11.10*	*11.25*	Common Shs Outst'g C	*12.00*
12.9	15.5	18.2	18.2	21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.74	.81	1.04	1.18	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.24	*Value Line*		Relative P/E Ratio	*1.35*
6.0%	4.9%	4.2%	4.0%	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $180.2 mill. **Due in 5 Yrs** $14.8 mill.
LT Debt $178.7 mill. **LT Interest** $7.6 mill.
(Total interest coverage: 8.8x)
(49% of Cap'l)
Leases, Uncapitalized: Annual rentals $.2 mill.
Pension Assets $45.4 mill.
Oblig. $66.5 mill.

Pfd Stock $0.8 mill. **Pfd Divd** NMF

Common Stock 11,003,512 shs.
as of 7/31/13
MARKET CAP: $350 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
47.1	48.5	47.5	46.9	59.0	61.3	59.4	66.4	69.4	83.8	*95.0*	*100*	Revenues ($mill)	*135*
9.2	9.4	7.2	6.7	8.8	9.4	10.2	9.8	9.9	13.6	*17.5*	*19.0*	Net Profit ($mill)	*21.0*
17.9%	22.9%	--	23.5%	32.4%	27.2%	19.5%	35.2%	41.3%	32.0%	*32.0%*	*33.0%*	Income Tax Rate	*35%*
--	--	--	--	--	1.7%	--	--	1.8%	1.7%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*3.0%*
43.5%	42.8%	44.9%	44.4%	47.8%	46.9%	50.6%	49.5%	53.2%	49.0%	*49.5%*	*49.5%*	Long-Term Debt Ratio	*48.5%*
55.9%	56.7%	54.6%	55.1%	51.8%	52.7%	49.1%	50.2%	46.5%	50.8%	*50.5%*	*50.5%*	Common Equity Ratio	*51.5%*
148.9	155.1	172.3	174.1	193.2	196.5	221.3	225.6	254.2	364.6	*375*	*395*	Total Capital ($mill)	*475*
238.9	246.1	247.7	268.1	284.3	302.3	325.2	344.2	362.4	447.9	*470*	*490*	Net Plant ($mill)	*550*
7.5%	7.0%	5.0%	4.9%	5.5%	5.9%	5.5%	5.4%	4.9%	4.8%	*5.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
10.9%	10.6%	7.5%	6.9%	8.7%	9.0%	9.3%	8.6%	8.3%	7.3%	*9.0%*	*9.5%*	Return on Shr. Equity	*8.5%*
11.0%	10.6%	7.6%	7.0%	8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	*9.0%*	*9.5%*	Return on Com Equity	*8.5%*
3.2%	3.1%	.3%	NMF	1.6%	1.9%	2.3%	1.6%	1.4%	2.7%	*3.5%*	*3.5%*	Retained to Com Eq	*3.0%*
71%	71%	95%	105%	82%	79%	76%	81%	83%	62%	*62%*	*59%*	All Div'ds to Net Prof	*62%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	1.0	13.2	7.5
Accounts Receivable	14.9	11.5	12.1
Other	3.0	11.7	13.5
Current Assets	18.9	36.4	33.1
Accts Payable	7.2	10.0	7.3
Debt Due	--	3.0	1.5
Other	23.2	2.9	3.1
Current Liab.	30.4	15.9	11.9
Fix. Chg. Cov.	419%	455%	*460%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	3.5%	6.0%	*6.5%*
"Cash Flow"	2.5%	6.0%	*4.5%*
Earnings	1.5%	6.5%	*5.5%*
Dividends	1.5%	2.0%	*3.5%*
Book Value	5.5%	6.5%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	13.8	15.9	21.0	15.7	66.4
2011	16.0	17.4	20.6	15.4	69.4
2012	18.5	21.3	24.5	19.5	83.8
2013	21.5	22.5	*27.0*	*24.0*	*95.0*
2014	*22.0*	*24.0*	*30.0*	*24.0*	*100*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.12	.27	.54	.20	1.13
2011	.26	.37	.39	.11	1.13
2012	.22	.47	.67	.16	1.53
2013	.24	.39	*.68*	*.29*	*1.60*
2014	*.30*	*.47*	*.68*	*.25*	*1.70*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.222	.222	.228	.228	.90
2010	.228	.228	.233	.233	.922
2011	.233	.233	.238	.238	.942
2012	.238	.238	.2425	.2425	.962
2013	.2425	.2425	.2475		

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). Its largest subsidiary, Connecticut Water, accounted for about 85% of the holding company's net income in 2012, and provides water services to 400,000 people in 55 towns throughout Connecticut and Maine. Acquired The Maine Water Co., 1/12; Biddeford and Saco Water, 12/12. Inc.: CT. Has about 260 employees. Chairman/President/CEO: Eric W. Thornburg. Officers and directors own 2.2% of the common stock; BlackRock, Inc. 6.7%; The Vanguard Group, 5.3%. Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

Connecticut Water Service has finally reached a definitive deal with all of the state's regulators. In September, the Connecticut Public Regulatory Authority (PURA) agreed to a deal that had been reached earlier among Connecticut Water and the state's Attorney General and Consumer Council. PURA was the final hurdle in the approval process, and it didn't alter the agreement in any meaningful way.

Ratepayers will benefit from the settlement. Customers will see their water bills decline over the next two years as Connecticut Water will pass along to them a tax refund it was granted by the IRS for the 2010-2012 period. In addition, the utility agreed not to seek higher rates before October, 2015.

Connecticut Water will benefit too. Permission was granted for the company to establish a Revenue Adjustment Mechanism, which will allow it to keep the tax benefit from the IRS refund going forward. These funds will be allowed to flow through to shareholders until the next time the company seeks higher rates.

The earnings picture looks brighter. Following four static years of earnings, the company enjoyed strong results in 2012, as share net rose 35%. With the new arrangement with regulators in place, we think that Connecticut Water's bottom line will increase close to 5%, both this year and next. Moreover, the company will earn close to its allowed return on equity.

The recent dividend hike was somewhat disappointing. Over the past five- and 10-year periods, Connecticut Water's dividend growth rate averaged only 2.0%, and 1.5%, respectively. Both percentages were among the lowest in the water utility industry. Following the company's solid profits in 2012, along with its improved earning prospects, we had hoped that the most recent quarterly payout to shareholders would have been more generous than the 2% increase declared in August.

We can't find too many reasons to recommend these shares at this juncture. While the stock's yield is slightly higher than the average of its peers, its dividend growth prospects to 2016-2018 are subpar for the group. Furthermore, this equity carries a 4 (Below Average) rank for Timeliness.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Next earnings report due mid-November. Quarterly earnings do no add in '12 due to rounding.
(B) Dividends historically paid in mid-March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.
(D) Includes intangibles. In '12: $31.7 million/$2.89 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	80

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MIDDLESEX WATER NDQ-MSEX

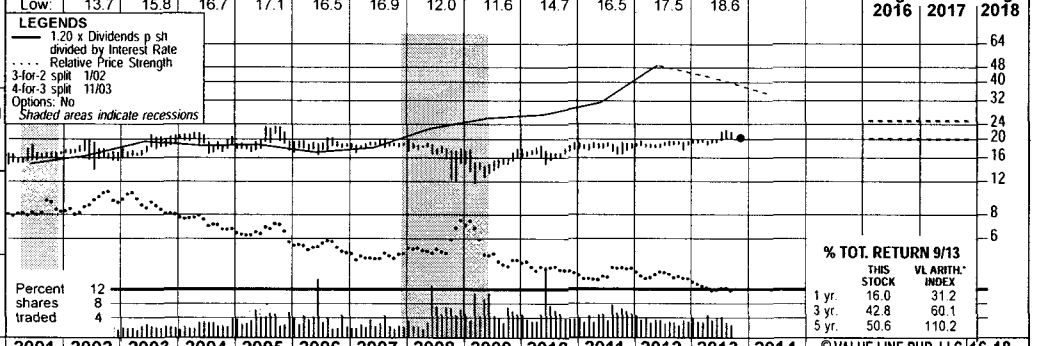
RECENT PRICE 20.31 | P/E RATIO 20.9 (Trailing: 19.7 Median: 22.0) | RELATIVE P/E RATIO 1.19 | DIV'D YLD 3.7% | VALUE LINE

TIMELINESS 2 Raised 6/7/13
SAFETY 2 New 10/21/11
TECHNICAL 3 Lowered 10/18/13
BETA .70 (1.00 = Market)

High:	20.0	21.2	21.8	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5
Low:	13.7	15.8	16.7	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.20 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 1/02
4-for-3 split 11/03
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	25	(+25%)	9%
Low	20	(Nil)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	1	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	1

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	38	38	37
to Sell	28	30	35
Hld's(000)	6696	6579	6489

Percent shares traded 12 8 4

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.0	31.2
3 yr.	42.8	60.1
5 yr.	50.6	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
4.72	4.39	5.35	5.39	5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	*7.50*	*7.70*	Revenues per sh	*9.10*
1.02	1.02	1.19	.99	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	*1.65*	*1.85*	"Cash Flow" per sh	*2.30*
.67	.71	.76	.51	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	*1.00*	*1.05*	Earnings per sh A	*1.15*
.57	.58	.60	.61	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	*.75*	*.76*	Div'd Decl'd per sh B■	*.80*
1.20	2.68	2.33	1.32	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	*1.50*	*1.65*	Cap'l Spending per sh	*2.00*
6.00	6.80	6.95	6.98	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	*11.75*	*12.10*	Book Value per sh D	*12.90*
8.54	9.82	10.00	10.11	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	*16.00*	*16.25*	Common Shs Outst'g C	*17.00*
13.4	15.2	17.6	28.7	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.77	.79	1.00	1.87	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.33	*Value Line*		Relative P/E Ratio	*1.35*
6.3%	5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	*estimates*		Avg Ann'l Div'd Yield	*3.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $166.7 mill. **Due in 5 Yrs** $60.0 mill.
LT Debt $133.5 mill. **LT Interest** $7.0 mill.
(LT interest coverage: 4.1x)
(42% of Cap'l)

Pension Assets-12/12 $37.9 mill.
Oblig. $62.8 mill.
Pfd Stock $3.4 mill. **Pfd Div'd:** $.2 mill.

Common Stock 15,847,729 shs.
as of 7/31/13

MARKET CAP: $325 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
64.1	71.0	74.6	81.1	86.1	91.0	91.2	102.7	102.1	110.4	*120*	*125*	Revenues ($mill)	*155*
6.6	8.4	8.5	10.0	11.8	12.2	10.0	14.3	13.4	14.4	*15.5*	*17.0*	Net Profit ($mill)	*20.0*
32.8%	31.1%	27.6%	33.4%	32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	*34.0%*	*34.0%*	Income Tax Rate	*34.0%*
--	--	--	--	--	--	--	6.8%	6.1%	3.4%	*4.5%*	*4.5%*	AFUDC % to Net Profit	*5.0%*
53.8%	53.8%	55.3%	49.5%	49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	*43.0%*	*43.0%*	Long-Term Debt Ratio	*43.0%*
44.0%	42.5%	44.3%	47.5%	49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	*57.0%*	*57.0%*	Common Equity Ratio	*57.0%*
181.1	214.5	231.7	264.0	268.8	259.4	267.9	310.5	312.5	316.5	*330*	*345*	Total Capital ($mill)	*400*
230.9	262.9	288.0	317.1	333.9	366.3	376.5	405.9	422.2	435.2	*440*	*450*	Net Plant ($mill)	*510*
5.0%	5.1%	5.0%	5.1%	5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
7.9%	8.5%	8.2%	7.5%	8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	*8.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
8.0%	9.0%	8.6%	7.8%	8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	*8.0%*	*8.5%*	Return on Com Equity	*9.0%*
NMF	.9%	.6%	1.3%	1.8%	2.0%	.1%	2.1%	1.0%	1.4%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
106%	90%	94%	84%	79%	78%	98%	75%	87%	83%	*80%*	*73%*	All Div'ds to Net Prof	*70%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	3.1	3.0	3.0
Other	19.8	21.6	23.1
Current Assets	22.9	24.6	26.1
Accts Payable	5.7	3.8	5.1
Debt Due	4.6	11.1	33.2
Other	36.4	41.1	17.6
Current Liab.	46.7	56.0	55.9
Fix. Chg. Cov.	380%	410%	*415%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	1.5%	1.0%	*5.5%*
"Cash Flow"	3.0%	2.0%	*7.0%*
Earnings	3.5%	2.5%	*4.0%*
Dividends	1.5%	1.5%	*1.5%*
Book Value	4.5%	4.0%	*2.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	21.6	26.5	29.6	25.0	102.7
2011	24.0	26.1	28.7	23.3	102.1
2012	23.5	27.4	32.3	27.1	110.4
2013	27.0	29.1	*34.0*	*29.9*	*120*
2014	*30.0*	*30.0*	*35.0*	*30.0*	*125*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.11	.31	.37	.17	.96
2011	.17	.23	.32	.12	.84
2012	.11	.23	.38	.17	.90
2013	.20	.28	*.35*	*.17*	*1.00*
2014	*.17*	*.28*	*.40*	*.20*	*1.05*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.178	.178	.178	.180	.71
2010	.180	.180	.180	.183	.72
2011	.183	.183	.183	.185	.73
2012	.185	.185	.185	.1875	.74
2013	.1875	.1875	.1875		

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 60,000 retail customers, primarily in Middlesex County, New Jersey. In 2012, the Middlesex System accounted for 65% of total revenues. At 12/31/12, the company had 279 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers/directors own 3.1% of the common stock; BlackRock, 6.3%; The Vanguard Group, 5.7% (4/13 proxy). Address: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

Historically, Middlesex Water's dividend increases have been incredibly consistent. Over the past nine years, (from 2003 to 2012), the utility has raised its annual payout by $0.01 a share.

Sometimes predictability isn't a positive. Over the past five and 10 years, respectively, the average dividend hike has been a meager 1.5%. This ranks near the bottom when compared to the other seven water utilities that *Value Line* covers.

Could Middlesex finally break its streak this quarter? Late October is usually the time when the company implements its annual dividend rate hike. With decent earnings comparisons, it's possible that Middlesex could go against convention and raise the payout by more than the traditional one-quarter of a cent per share. We are taking a show-me approach, with our figures representing the usual quarterly increase.

The utility's earnings have been improving. In the June period, Middlesex experienced its fourth-consecutive positive earnings comparison. This was mostly due to the implementation of higher rates in mid-2012, as well a better contract with the borough of Avalon, NJ, a wholesale client.

Performance in the industrial markets has impaired Middlesex. The utility lost a contract to supply water to the borough of Sayreville, NJ this past August. Another setback was the closure of a Hess oil refinery earlier in the year.

The company is targeting the residential market. Despite recently winning a contract to privatize the water system at the Dover Air Force Base in Delaware, Middlesex has budgeted $25 million a year over the next three years to improve the infrastructure of its residential business. We agree with this strategy as the residential market is both more predictable and profitable.

Middlesex shares are ranked to outperform the market in the year ahead. Some investors may also be attracted to the stock's high current yield. Those with a long-term horizon, however, can find other water utilities with higher total-return potential through the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted earnings. May not sum due to rounding. Next earnings report due early November.
(B) Dividends historically paid in mid-Feb., May, Aug., and November.■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.
(D) Intangible assets in 2012: $9.2 million, $0.58 a share.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	80

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SJW CORP. NYSE-SJW

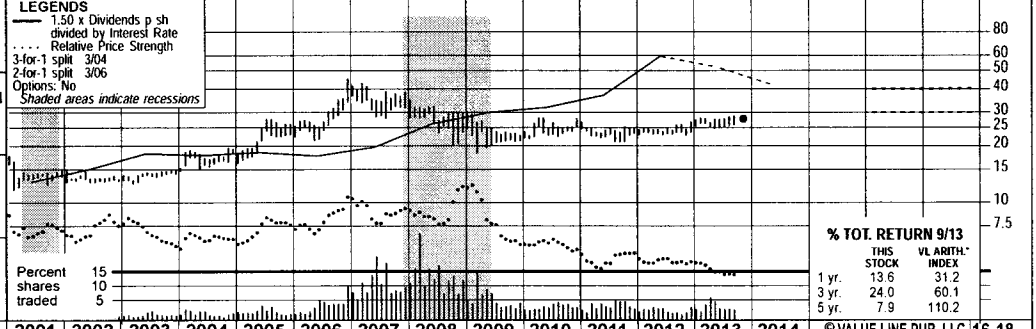
RECENT PRICE 27.72 | P/E RATIO 20.8 (Trailing: 21.7 Median: 23.0) | RELATIVE P/E RATIO 1.18 | DIV'D YLD 2.7% | VALUE LINE

TIMELINESS 1 Raised 8/9/13
SAFETY 3 New 4/22/11
TECHNICAL 4 Lowered 10/18/13
BETA .85 (1.00 = Market)

High:	15.1	15.0	19.6	27.8	45.3	43.0	35.1	30.4	28.2	26.8	26.9	28.9
Low:	12.7	12.6	14.6	16.1	21.2	27.7	20.0	18.2	21.6	20.9	22.6	24.5

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-1 split 3/04
2-for-1 split 3/06
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+45%)	12%
Low	30	(+10%)	5%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	4	0	0	0	0	0	0	0	0
Options	0	1	0	0	0	0	0	0	0
to Sell	0	1	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	34	46	47
to Sell	30	20	28
Hld's(000)	9043	10000	10629

Percent shares traded 15 10 5

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	13.6	31.2
3 yr.	24.0	60.1
5 yr.	7.9	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.79	5.58	6.40	6.74	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	14.05	14.75	Revenues per sh	16.30
1.27	1.26	1.43	1.23	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	3.25	3.50	"Cash Flow" per sh	3.65
.80	.76	.87	.58	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.30	1.40	Earnings per sh A	1.60
.38	.39	.40	.41	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	Div'd Decl'd per sh B■	.90
1.27	1.81	1.77	1.89	2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	5.25	5.20	Cap'l Spending per sh	4.85
7.02	7.53	7.88	7.90	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.40	16.40	Book Value per sh	19.15
19.02	19.01	18.27	18.27	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.25	21.00	Common Shs Outst'g C	23.00
11.2	13.1	15.5	33.1	18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	Bold figures are		Avg Ann'l P/E Ratio	22.0
.65	.68	.88	2.15	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	Value Line		Relative P/E Ratio	1.45
4.3%	3.9%	3.0%	2.1%	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	estimates		Avg Ann'l Div'd Yield	2.6%

CAPITAL STRUCTURE as of 6/30/13
Total Debt $335.8 mill. **Due in 5 Yrs** $21.2 mill.
LT Debt $335.3 mill. **LT Interest** $18.6 mill.
(Total interest coverage: 4.6x) (52% of Cap'l)

Leases, Uncapitalized: Annual rentals $4.7 mill.

Pension Assets $75.5 mill. **Oblig.** $141.0 mill.

Pfd Stock None.

Common Stock 20,137,197 shs. as of7/26/13

MARKET CAP: $550 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
149.7	166.9	180.1	189.2	206.6	220.3	216.1	215.6	239.0	261.5	285	310	Revenues ($mill)	375
16.7	16.0	20.7	22.2	19.3	20.2	15.2	15.8	20.9	22.3	26.0	29.0	Net Profit ($mill)	37.0
36.2%	42.1%	41.6%	40.8%	39.4%	39.5%	40.4%	38.8%	41.1%	41.1%	41.0%	40.0%	Income Tax Rate	40.0%
1.6%	2.1%	1.6%	2.1%	2.7%	2.3%	2.0%	--	2.0%	2.0%	3.0%	4.0%	AFUDC % to Net Profit	5.0%
45.6%	43.7%	42.6%	41.8%	47.7%	46.0%	49.4%	53.7%	56.6%	55.0%	54.5%	54.0%	Long-Term Debt Ratio	51.0%
54.4%	56.3%	57.4%	58.2%	52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	45.5%	46.0%	Common Equity Ratio	49.0%
306.0	328.3	341.2	391.8	453.2	470.9	499.6	550.7	607.9	610.2	685	745	Total Capital ($mill)	900
428.5	456.8	484.8	541.7	645.5	684.2	718.5	785.5	756.2	831.6	890	950	Net Plant ($mill)	1150
6.9%	6.5%	7.6%	7.0%	5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	5.0%	5.0%	Return on Total Cap'l	6.0%
10.0%	8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	8.5%	8.5%	Return on Shr. Equity	8.5%
10.0%	8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	8.5%	8.5%	Return on Com Equity	8.5%
4.7%	3.6%	5.6%	5.2%	3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	3.5%	4.0%	Retained to Com Eq	3.5%
53%	58%	47%	46%	57%	59%	80%	80%	61%	59%	56%	54%	All Div'ds to Net Prof	56%

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	26.7	2.5	4.0
Other	42.2	40.4	44.2
Current Assets	68.9	42.9	48.2
Accts Payable	7.4	8.5	15.9
Debt Due	.8	20.7	.5
Other	20.1	19.9	28.8
Current Liab.	28.3	49.1	45.2
Fix. Chg. Cov.	276%	247%	231%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	5.5%	4.0%	4.0%
"Cash Flow"	6.5%	3.5%	5.0%
Earnings	4.0%	-1.5%	7.5%
Dividends	5.0%	4.0%	4.5%
Book Value	5.5%	3.5%	5.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	40.4	54.1	70.3	50.8	215.6
2011	43.7	59.0	73.9	62.4	239.0
2012	51.1	65.6	82.4	62.4	261.5
2013	50.1	74.2	90.7	70.0	285
2014	60.0	75.0	100	75.0	310

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.055	.24	.44	.11	.84
2011	.03	.29	.44	.35	1.11
2012	.06	.28	.53	.31	1.18
2013	.07	.37	.54	.32	1.30
2014	.10	.35	.60	.35	1.40

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.165	.165	.165	.165	.66
2010	.17	.17	.17	.17	.68
2011	.173	.173	.173	.173	.69
2012	.1775	.1775	.1775	.1775	.71
2013	.1825	.1825	.1825		

BUSINESS: SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 227,000 connections that serve a population of approximately one million people in the San Jose area and 8,700 connections that serve approximately 36,000 residents in a service area in the region between San Antonio and Austin, Texas. The company offers nonregulated water-related services, including water system operations, cash remittances, and maintenance contract services. SJW also owns and operates commercial real estate investments. Has about 375 employees. Chrm.: Charles J. Toeniskoetter. Inc.: CA. Address: 110 W. Taylor Street, San Jose, CA 95110. Tel.: (408) 279-7800. Int: www.sjwater.com.

A final decision on SJW's pending rate case will be delayed. The California Public Utility Commission (CPUC) has had to divert much of its resources to investigate the San Bruno gas pipeline explosion, which killed eight people in 2010.

Meanwhile, 2013 is benefiting from interim rate relief. SJW is seeking substantial rate increases of 21.5% for 2013, 4.9% in 2014, and 12.6% in 2016. Until a final decision is reached on this request, the utility has been allowed to raise rates on an interim basis. Though earnings comparisons won't be impressive in the second half of the year, we still think that the utility's share net can increase 10%, to $1.30

SJW's future is in the hands of regulators. While this statement is true for all utilities, SJW is more vulnerable than most. This is due to the enormous size of the rate hikes that it has petitioned for. Even though we view the company's expenditures as essential to the operations of its system, the sheer size of the requests puts the CPUC in a difficult position. It is politically very hard to raise rate payers' bills by such a large extent without a significant amount of political blow-back.

Therefore, our 2014 profit estimate for the company is pretty tenuous. Earnings should be fine as long as the interim rate relief is in place. Once the CPUC makes a final decision, things could change for the worse. In any case, we should point out that California regulators have been reasonable in the past, and hopefully some sort of deal that satisfies both sides can be reached.

We expect SJW to tap the external markets in the years ahead. The company estimates that it will have to invest $100 million annually through 2016-2018 in order to upgrade its aging infrastructure. Internal cash flow will fall well short of generating sufficient funds to meet these outlays. Thus, there will be dilutive equity offerings and costly debt issuance. Both of these moves will impair the company's earnings growth.

SJW shares now carry our Highest rank (1) for Timeliness. Momentum investors may find this stock of interest, others might be scared off by the possibility of a harsh regulatory decision.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Excludes nonrecurring losses : '03, $1.97; '04, $3.78; '05, $1.09; '06, $16.36; '08, $1.22; '10, 46¢. Next earnings report due late October. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	50
Earnings Predictability	80

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YORK WATER NDQ-YORW

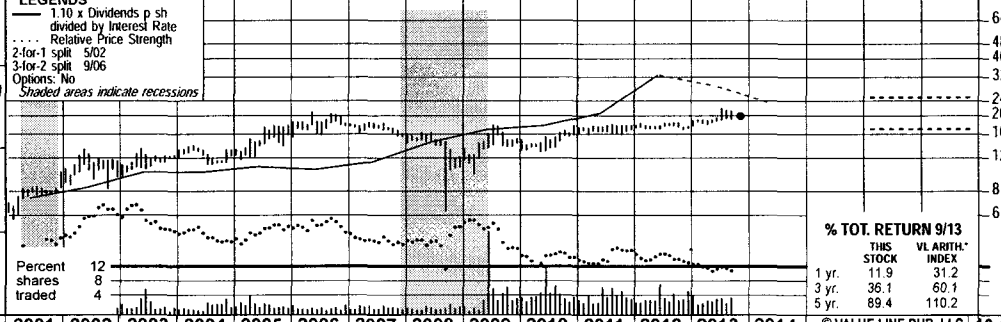
RECENT PRICE 19.90 | P/E RATIO 25.8 (Trailing: 26.5 Median: 25.0) | RELATIVE P/E RATIO 1.47 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 4 Lowered 10/4/13
SAFETY 2 New 7/19/13
TECHNICAL 3 Lowered 8/2/13
BETA .70 (1.00 = Market)

High:	13.4	13.5	14.0	17.9	21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0
Low:	8.2	9.3	11.0	11.7	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/02
3-for-2 split 9/06
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	25	(+25%)	8%
Low	17	(-15%)	Nil

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	4	0	0	4	0	1	5
Options	0	0	0	0	0	0	0	0	0
to Sell	0	1	0	0	0	1	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	26	33	32
to Sell	27	21	26
Hld's(000)	3178	3375	3346

Percent shares traded 12 8 4

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	11.9	31.2
3 yr.	36.1	60.1
5 yr.	89.4	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
--	--	--	--	2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	*3.40*	*3.50*	Revenues per sh	*3.55*
--	--	--	--	.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	*1.20*	*1.30*	"Cash Flow" per sh	*1.40*
--	--	--	--	.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	*.75*	*.85*	Earnings per sh A	*.90*
--	--	--	--	.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	*.55*	*.57*	Div'd Decl'd per sh B	*.65*
--	--	--	--	.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	*.90*	*.80*	Cap'l Spending per sh	*.90*
--	--	--	--	3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	*8.05*	*8.35*	Book Value per sh	*8.60*
--	--	--	--	9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	*13.00*	*13.20*	Common Shs Outst'g C	*14.00*
--	--	--	--	17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
--	--	--	--	.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	*Value Line*		Relative P/E Ratio	*1.50*
--	--	--	--	4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.2%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $84.9 mill. **Due in 5 Yrs** $19.5 mill.
LT Debt $84.9 mill. **LT Interest** $5.2 mill.
(Total interest coverage: 2.9x)
(46% of Cap'l)
Pension Assets 12/12 $22.7 mill.
Oblig. $34.7 mill.

Pfd Stock None

Common Stock 12,912,243 shs.
as of 8/6/13

MARKET CAP: $250 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
20.9	22.5	26.8	28.7	31.4	32.8	37.0	39.0	40.6	41.4	*43.0*	*46.0*	Revenues ($mill)	*50.0*
4.4	4.8	5.8	6.1	6.4	6.4	7.5	8.9	9.1	9.3	*10.2*	*11.3*	Net Profit ($mill)	*12.6*
34.8%	36.7%	36.7%	34.4%	36.5%	36.1%	37.9%	38.5%	35.3%	37.6%	*36.0%*	*36.0%*	Income Tax Rate	*36.0%*
--	--	--	7.2%	3.6%	10.1%	--	1.2%	1.1%	1.1%	*1.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
43.4%	42.5%	44.1%	48.3%	46.5%	54.5%	45.7%	48.3%	47.1%	46.0%	*45.0%*	*45.0%*	Long-Term Debt Ratio	*43.0%*
56.6%	57.5%	55.9%	51.7%	53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	*55.0%*	*55.0%*	Common Equity Ratio	*57.0%*
69.0	83.6	90.3	126.5	125.7	153.4	160.1	176.4	180.2	184.8	*190*	*197*	Total Capital ($mill)	*220*
116.5	140.0	155.3	174.4	191.6	211.4	222.0	228.4	233.0	240.3	*245*	*250*	Net Plant ($mill)	*265*
8.5%	7.6%	8.4%	6.2%	6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	*6.5%*	*7.0%*	Return on Total Cap'l	*7.0%*
11.4%	10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
11.4%	10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	*9.5%*	*10.0%*	Return on Com Equity	*10.0%*
2.6%	2.1%	3.0%	2.2%	1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	*3.0%*	*3.0%*	Retained to Com Eq	*3.0%*
77%	79%	74%	77%	82%	85%	78%	72%	73%	74%	*71%*	*67%*	All Div'ds to Net Prof	*72%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	4.0	4.0	4.2
Accounts Receivable	6.0	6.4	4.0
Other	1.4	1.2	4.0
Current Assets	11.4	11.6	12.2
Accts Payable	1.1	1.1	1.5
Debt Due	.1	.1	--
Other	4.1	4.3	4.0
Current Liab.	5.3	5.5	5.5
Fix. Chg. Cov.	160%	156%	154%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	4.5%	3.5%	*2.0%*
"Cash Flow"	6.5%	6.5%	*4.0%*
Earnings	5.5%	4.5%	*4.0%*
Dividends	1.5%	3.0%	*3.5%*
Book Value	7.0%	6.0%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	9.0	9.7	10.5	9.8	39.0
2011	9.6	10.5	10.5	10.0	40.6
2012	9.6	10.4	11.0	10.4	41.4
2013	10.1	10.7	*11.2*	*11.0*	*43.0*
2014	*10.5*	*11.5*	*12.2*	*11.8*	*46.0*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.15	.18	.21	.17	.71
2011	.17	.19	.19	.16	.71
2012	.15	.17	.22	.18	.72
2013	.17	.18	*.21*	*.19*	*.75*
2014	*.19*	*.21*	*.23*	*.22*	*.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.126	.126	.126	.126	.504
2010	.128	.128	.128	.128	.512
2011	.131	.131	.131	.131	.524
2012	.134	.134	.134	.134	.535
2013	.138	.138	.138	.138	

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2012, the company's average daily availability was 35.0 million gallons and its service territory had an estimated population of 189,000. Has more than 63,000 customers. Residential customers accounted for 63% of 2012 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 103 full-time employees at 12/31/12. President/CEO: Jeffrey R. Hines. Officers/directors own 1.2% of the common stock (3/13 proxy). Address: 130 East Market Street York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

There have been very few surprises at The York Water Company in the recent past. From 2010 through 2012, the company's annual share earnings varied by only $0.01 a share. The dividend was also very predictable, as it rose by just $0.01 a share annually during the same time span.

York is awaiting the outcome of a major rate case. Last May, the utility petitioned Pennsylvania regulators for a 17% rate increase (about $7.1 million in revenues a year). The request was to recoup the $49 million that York has spent since 2010 to modernize and update its aging infrastructure. In addition, along with the help of a large rate increase for wastewater customers, the added funds will help the utility replace 30 miles of pipeline and reduce water leakage for the 190,000 people it services.

We think that the outcome will be relatively reasonable. There is no doubt that the current and projected expenditures by York are essential to keeping the system operating efficiently. However, we should point out that no matter how justified utility spending is, regulators face strong political pressure not to implement significant rate hikes.

Dividend growth should remain relatively modest in the years ahead. Though we think that the company will raise its annual payout by $0.02 a share in 2014, the growth rate over the next three- to five-year period will be slightly on the low side for a water utility.

Finances are in decent shape. The equity-to-total capital ratio is healthy at a solid 54%. Still, our Financial Strength rating for York is an average B+. This metric would be higher if the company's capital base was more substantial.

There is nothing particularly noteworthy about York Water's shares. Both the equity's current yield and dividend growth prospects are in line with those of most of its peers. Moreover, the stock has performed fairly well of late and is now trading at over 25 times our 12 month share-earnings estimate. And finally, according to our proprietary Timeliness Ranking System, York shares should underperform the market averages in the upcoming six- to 12-month period.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Next earnings report due early November.
(B) Dividends historically paid in mid-January, April, July, and October.
(C) In millions, adjusted for splits.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	100

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Chaparral City Water Company
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		1		2	3	4
		Market Capitalization on December 31, 2013 (1) (millions)	(times larger)	Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium for (4)
1.	Chaparral City Water Company					
a.	Based Upon the Proxy Group of Nine Water Companies	$ 57.806		10	6.03%	
b.	Based Upon ACC Staff Witness Cassidy's Sample Water Utilities	$ 61.983		10	6.03%	
2.	Proxy Group of Nine Water Companies	$ 1,712.285	29.6	6	1.72%	4.31%
3.	ACC Staff Witness Cassidy's Sample Water Utilities	$ 1,107.309	17.9	7	1.73%	4.30%

	(A) Decile	(B) Number of Companies (millions)	(C) Recent Total Market Capitalization (millions)	(D) Recent Average Market Capitalization (millions)	(E) Size Premium (Return in Excess of CAPM) (2)
Largest	1	173	$ 10,255,341.469	$ 59,279.430	-0.37%
	2	193	2,219,118.548	$ 11,498.024	0.76%
	3	187	1,072,861.025	$ 5,737.225	0.92%
	4	202	695,897.336	$ 3,445.036	1.14%
	5	205	473,139.360	$ 2,307.997	1.70%
	6	234	377,485.205	$ 1,613.185	1.72%
	7	317	329,504.738	$ 1,039.447	1.73%
	8	329	214,084.258	$ 650.712	2.46%
	9	466	166,708.095	$ 357.743	2.70%
Smallest	10	1068	107,517.520	$ 100.672	6.03%

*From Ibbotson 2013 Valuation Yearbook

Notes:

(1) From Page 26 of this Schedule.
(2) Gleaned from Column (D) on the bottom of this page. The appropriate decile (Column (A)) corresponds to the market capitalization of the proxy group, which is found in Column 1.
(3) Corresponding risk premium to the decile is provided on Column (E) on the bottom of this page.
(4) Line No. 1a Column 3 – Line No. 2 Column 3 and Line No. 1b, Column 3 – Line No. 3 of Column 3 etc.. For example, the 4.31% in Column 4, Line No. 2 is derived as follows 4.31% = 6.03% - 1.72%.

Chaparral City Water Company
Market Capitalization of Chaparral City Water Company and
the Proxy Group of Nine Water Companies and ACC Staff Witness Cassidy's Sample Water Utilities

Company	Exchange	1 Common Stock Shares Outstanding at Fiscal Year End 2012 (millions)	2 Book Value per Share at Fiscal Year End 2012 (1)	3 Total Common Equity at Fiscal Year End 2012 (millions)	4 Closing Stock Market Price on December 31, 2013	5 Market-to-Book Ratio on December 31, 2013 (2)	6 Market Capitalization on December 31, 2013 (3) (millions)
Chaparral City Water Company		NA	NA	$ 26.949 (4)	NA		
Based Upon the Proxy Group of Nine Water Companies						214.5 % (5)	$ 57.806 (6)
Based Upon ACC Staff Witness Cassidy's Sample Water Utilities						230.0	$ 61.983
Proxy Group of Nine Water Companies							
American States Water Co.		38.474	$ 11.815	$ 454.579	$ 28.730	243.2 %	$ 1,105.370
American Water Works Co., Inc.		176.988	$ 25.115	$ 4,444.988	$ 42.260	168.3	$ 7,479.513
Aqua America, Inc.		175.209	$ 7.909	$ 1,385.704	$ 23.590	298.3	$ 4,133.182
Artesian Resources Corp.		7.838	$ 15.078	$ 118.180	$ 22.950	152.2	$ 179.884
California Water Service Group		41.908	$ 11.304	$ 473.712	$ 23.070	204.1	$ 966.823
Connecticut Water Service, Inc.		10.939	$ 17.014	$ 186.121	$ 35.510	208.7	$ 388.461
Middlesex Water Company		15.795	$ 11.499	$ 181.632	$ 20.940	182.1	$ 330.747
SJW Corporation		18.671	$ 14.708	$ 274.604	$ 29.790	202.5	$ 556.196
York Water Company		12.919	$ 7.727	$ 99.825	$ 20.930	270.9	$ 270.387
Average		55.416	$ 13.574	$ 846.594	$ 27.530	214.5 %	$ 1,712.285
ACC Staff Witness Cassidy's Sample Water Utilities		44.845 (7)	$ 11.711 (7)	$ 436.597 (7)	$ 26.080 (7)	230.0 (7)	$ 1,107.309 (7)

NA= Not Available

Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 5 * Column 3.
(4) From Financial Statements of Chaparral City Water Company for Fiscal Year End 2012.
(5) The market-to-book ratio of Chaparral City Water Company on December 31, 2013 is assumed to be equal to the market-to-book ratio of the Proxy Group of Nine Water Companies at December 31, 2013.
(6) Chaparral City Water Company's common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at December 31, 2013 of the Proxy Group of Nine Water Companies, 214.5%, and Chaparral City Water Company's market capitalization on December 31, 2013 would therefore have been $57.806 million.
(5) The market-to-book ratio of Chaparral City Water Company on December 31, 2013 is assumed to be equal to the market-to-book ratio of ACC Staff Witness Cassidy's Sample Water Utilities at December 31, 2013.
(6) Chaparral City Water Company's common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at December 31, 2013 of ACC Staff Witness Cassidy's Sample Water Utilities, 230.0%, and Chaparral City Water Company's market capitalization on December 31, 2013 would therefore have been $61.983 million.

(9) Average for ACC Staff Witness Cassidy's sample water utilities.

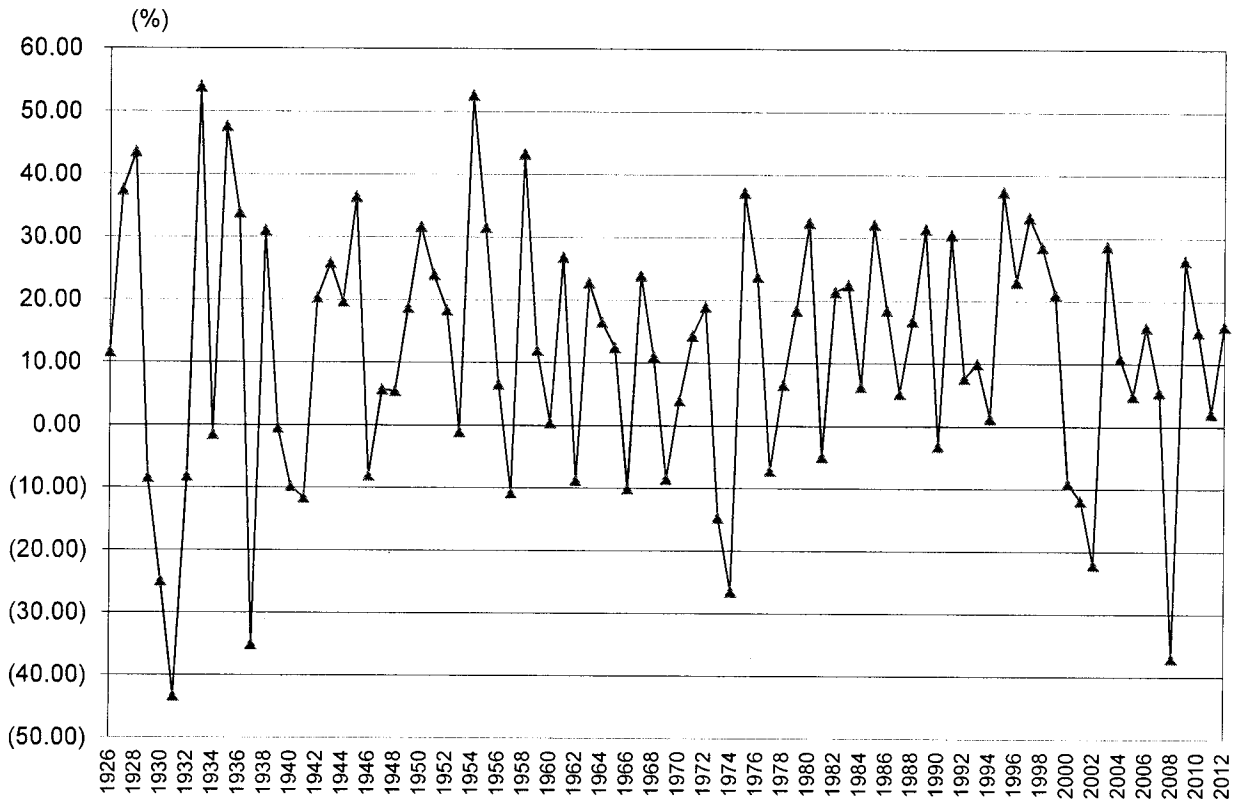
Source of Information: 2012 Annual Forms 10K
yahoo.finance.com

Chaparral City Water Company
R-Squared or Correlation Coefficient for
RUCO Witness Parcell's Water Utilities

RUCO Witness Parcell's Water Utilities	Value Line Adjusted Beta	Unadjusted Beta	R-Squared
American States Water Co.	0.70	0.4522	0.2045
American Water Works	0.65	0.4275	0.1828
Aqua America, Inc.	0.60	0.3914	0.1532
Artesian Resources Corp.	0.60	0.3517	0.1237
California Water Service Group	0.65	0.4831	0.2334
Connecticut Water Service, Inc.	0.75	0.5241	0.2747
Middlesex Water Company	0.70	0.5496	0.3021
SJW Corporation	0.85	0.5494	0.3018
York Water Company	0.70	0.4552	0.2072
Average	0.69	0.4649	0.2204

Source of Information:
Value Line, Inc. December 15, 2013

Large Company Stock Returns
From 1926 to 2012



Source of Information:

Ibbotson® SBBI® - 2013 Valuation Yearbook - Market Results for Stocks Bonds Bills and Inflation - 1926-2012, Morningstar, Inc., 2013 Chicago, IL.

Total Returns on Large Company Stocks
1926 to 2012

Large Company Stocks

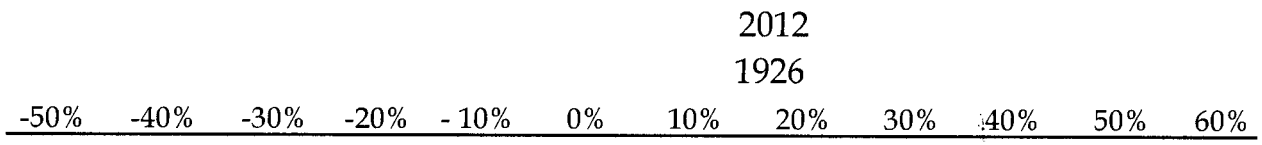
-50%	-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%	50%	60%
						2012					
						2010					
						2006					
					2011	2004	2009				
					2007	1988	2003	1997			
				1990	2005	1986	1999	1995			
				1981	1994	1979	1998	1991			
				1977	1993	1972	1996	1989			
				1969	1992	1971	1983	1985			
				1962	1987	1968	1982	1980			
				1953	1984	1965	1976	1975			
			2001	1946	1978	1964	1967	1955			
			2000	1940	1970	1959	1963	1950			
			1973	1939	1960	1952	1961	1945			
		2002	1966	1934	1956	1949	1951	1938	1958		
	2008	1974	1957	1932	1948	1944	1943	1936	1935	1954	
1931	1937	1930	1941	1929	1947	**1926**	1942	1927	1928	1933	

Arithmetic Mean: $r_A = \sum_{t=1}^{n} r_t / n$

Source : Ibbotson® SBBI ® - 2013 Valuation Yearbook - Market Results for Stocks, Bonds, Bills, and Inflation -1926-2012, p. 183
Morningstar, Inc., 2013 Chicago, IL

Total Returns on Large Company Stocks
1926 to 2012

Large Company Stocks



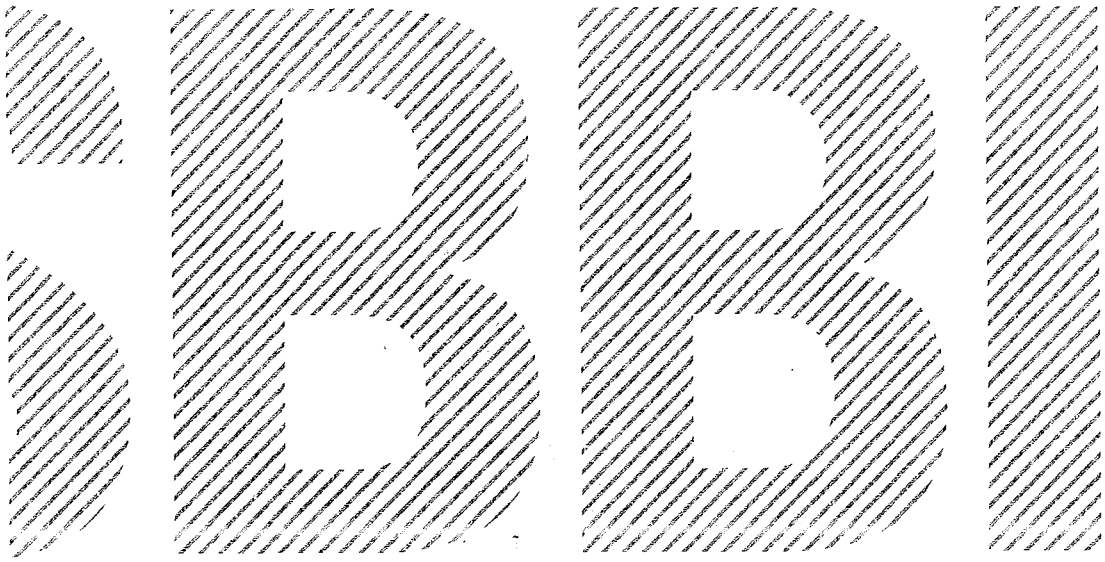
Geometric Mean: $r_G = \left[V_n \ / \ V_0 \right]^{1/n} - 1$

Source : Ibbotson® SBBI ® - 2013 Valuation Yearbook - Market Results for Stocks, Bonds, Bills, and Inflation -1926-2012, pp. 182-183
Morningstar, Inc., 2013 Chicago, IL

Ibbotson® SBBI®

2013 Valuation Yearbook

Market Results for
Stocks, Bonds, Bills, and Inflation
1926–2012



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Chapter 5

The Equity Risk Premium

The expected equity risk premium can be defined as the additional return an investor expects to receive to compensate for the additional risk associated with investing in equities as opposed to investing in riskless assets. It is an essential component in several cost of equity estimation models, including the buildup method, the capital asset pricing model (CAPM), and the Fama-French three factor model. It is important to note that the expected equity risk premium, as it is used in discount rates and cost of capital analysis, is a forward-looking concept. That is, the equity risk premium that is used in the discount rate should be reflective of what investors think the risk premium will be going forward.

Unfortunately, the expected equity risk premium is unobservable in the market and therefore must be estimated. Typically, this estimation is arrived at through the use of historical data. The historical equity risk premium can be calculated by subtracting the long-term average of the income return on the riskless asset (Treasuries) from the long-term average stock market return (measured over the same period as that of the riskless asset). In using a historical measure of the equity risk premium, one assumes that what has happened in the past is representative of what might be expected in the future. In other words, the assumption one makes when using historical data to measure the expected equity risk premium is that the relationship between the returns of the risky asset (equities) and the riskless asset (Treasuries) is stable. The stability of this relationship will be examined later in this chapter.

Since the expected equity risk premium must be estimated, there is much controversy regarding how the estimation should be conducted. A variety of different approaches to calculating the equity risk premium have been utilized over the years. Such studies can be categorized into four groups based on the approaches they have taken. The first group of studies tries to derive the equity risk premium from historical returns between stocks and bonds as was mentioned above. The second group, embracing a supply side model, uses fundamental information such as earnings, dividends, or overall economic productivity to measure the expected equity risk premium. A third group adopts demand side models that derive the expected returns of equities through the payoff demanded by investors for bearing the risk of equity investments.[1] The opinions of financial professionals through broad surveys are relied upon by the fourth and final group.

The range of equity risk premium estimates used in practice is surprisingly large. Using a low equity risk premium estimate as opposed to a high estimate can have a significant impact on the estimated value of a stream of cash flows. This chapter addresses many of the controversies surrounding estimation of the equity risk premium and focuses primarily on the historical calculation but also discusses the supply side model.

Calculating the Historical Equity Risk Premium

In measuring the historical equity risk premium one must make a number of decisions that can impact the resulting figure; some decisions have a greater impact than others. These decisions include selecting the stock market benchmark, the risk-free asset, either an arithmetic or a geometric average, and the time period for measurement. Each of these factors has an impact on the resulting equity risk premium estimate.

The Stock Market Benchmark

The stock market benchmark chosen should be a broad index that reflects the behavior of the market as a whole. Two examples of commonly used indexes are the S&P 500® and the New York Stock Exchange Composite Index. Although the Dow Jones Industrial Average is a popular index, it would be inappropriate for calculating the equity risk premium because it is too narrow.

We use the total return of our large company stock index (currently represented by the S&P 500) as our market benchmark when calculating the equity risk premium. The S&P 500 was selected as the appropriate market benchmark because it is representative of a large sample of companies across a large number of industries. The S&P 500 is also one of the most widely accepted market benchmarks. In short, the S&P 500 is a good measure of the equity market as a

whole. Table 5-1 illustrates the equity risk premium calculation using several different market indices and the income return on three government bonds of different horizons.

Table 5-1: Equity Risk Premium with Different Market Indices

	Equity Risk Premia		
	Long-Horizon (%)	Intermediate-Horizon (%)	Short-Horizon (%)
S&P 500	6.70	7.24	8.24
Total Value-Weighted NYSE	6.49	7.03	8.02
NYSE Deciles 1–2	5.96	6.51	7.50

Data from 1926–2012.

The equity risk premium is calculated by subtracting the arithmetic mean of the government bond income return from the arithmetic mean of the stock market total return. Table 5-2 demonstrates this calculation for the long-horizon equity risk premium.

Table 5-2: Long-Horizon Equity Risk Premium Calculation

	Arithmetic Mean				
Long-Horizon	Market Total Return (%)	–	Risk-Free Rate (%)	=	Equity Risk Premium (%)
S&P 500	11.82	–	5.12	=	6.70
Total Value-Weighted NYSE	11.60	–	5.12	=	6.48
NYSE Deciles 1–2	11.08	–	5.12	=	5.96

Data from 1926–2012.

Data for the New York Stock Exchange is obtained from Morningstar and the Center for Research in Security Prices (CRSP) at the University of Chicago's Graduate School of Business. The "Total" series is a capitalization-weighted index and includes all stocks traded on the New York Stock Exchange except closed-end mutual funds, real estate investment trusts, foreign stocks, and Americus Trusts. Capitalization-weighted means that the weight of each stock in the index, for a given month, is proportionate to its market capitalization (price times number of shares outstanding) at the beginning of that month. The "Decile 1–2" series includes all stocks with capitalizations that rank within the upper 20 percent of companies traded on the New York Stock Exchange, and it is therefore a large-capitalization index. For more information on the Center for Research in Security Pricing data methodology, see Chapter 7.

The resulting equity risk premia vary somewhat depending on the market index chosen. It is expected that using the "Total" series will result in a higher equity risk premium than using the "Decile 1–2" series, since the "Decile 1–2" series is a large-capitalization series. As of September 30, 2012, deciles 1–2 of the New York Stock Exchange contained the largest 285 companies traded on the exchange. The "Total" series includes smaller companies that have had historically higher returns, resulting in a higher equity risk premium.

The higher equity risk premium arrived at by using the S&P 500 as a market benchmark is more difficult to explain. One possible explanation is that the S&P 500 is not restricted to the largest 500 companies; other considerations such as industry composition are taken into account when determining if a company should be included in the index. Some smaller stocks are thus included, which may result in the higher equity risk premium of the index. Another possible explanation would be what is termed the "S&P inclusion effect." It is thought that simply being included among the stocks listed on the S&P 500 augments a company's returns. This is due to the large quantity of institutional funds that flow into companies that are listed in the index.

Comparing the S&P 500 total returns to those of another large-capitalization stock index may help evaluate the potential impact of the "S&P inclusion effect." Prior to March 1957, the S&P index that is used throughout this publication consisted of 90 of the largest stocks. The index composition was then changed to include 500 large-capitalization stocks that, as stated earlier, are not necessarily the 500 largest. Deciles 1–2 of the NYSE contained just over 200 of the largest companies, ranked by market capitalization, in March of 1957. The number of companies included in the deciles of the NYSE fluctuates from quarter to quarter, and by September of 2012, deciles 1–2 contained 285 companies. Though one cannot draw a causal relationship between the change in construction and the correlation of these two indices, this analysis does indicate that the "S&P inclusion effect" does not appear to be very significant in recent periods.

Another possible explanation could be differences in how survivorship is treated when calculating returns. The Center for Research in Security Prices includes the return for a company in the average decile return for the period following the company's removal from the decile,

whether caused by a shift to a different decile portfolio, bankruptcy, or other such reason. On the other hand, the S&P 500 does not make this adjustment. Once a company is no longer included among the S&P 500, its return is dropped from the index. However, this effect may be lessened by the advance announcement of companies being dropped from or added to the S&P 500. In many instances throughout this publication we will present equity risk premia using both the S&P 500 and the NYSE "Deciles 1–2" portfolio to provide a comparison between these large-capitalization benchmarks.

The Market Benchmark and Firm Size

Although not restricted to include only the 500 largest companies, the S&P 500 is considered a large company index. The returns of the S&P 500 are capitalization weighted, which means that the weight of each stock in the index, for a given month, is proportionate to its market capitalization (price times number of shares outstanding) at the beginning of that month. The larger companies in the index therefore receive the majority of the weight. The use of the NYSE "Deciles 1–2" series results in an even purer large company index. Yet many valuation professionals are faced with valuing small companies, which historically have had different risk and return characteristics than large companies. If using a large stock index to calculate the equity risk premium, an adjustment is usually needed to account for the different risk and return characteristics of small stocks. This will be discussed further in Chapter 7 on the size premium.

The Risk-Free Asset

The equity risk premium can be calculated for a variety of time horizons when given the choice of risk-free asset to be used in the calculation. The *2013 Ibbotson® Stocks, Bonds, Bills, and Inflation® Classic Yearbook* provides equity risk premia calculations for short-, intermediate-, and long-term horizons. The short-, intermediate-, and long-horizon equity risk premia are calculated using the income return from a 30-day Treasury bill, a 5-year Treasury bond, and a 20-year Treasury bond, respectively.

Although the equity risk premia of several horizons are available, the long-horizon equity risk premium is preferable for use in most business-valuation settings, even if an investor has a shorter time horizon. Companies are entities that generally have no defined life span; when determining a company's value, it is important to use a long-term discount rate because the life of the company is assumed to be infinite. For this reason, it is appropriate in most cases to use the long-horizon equity risk premium for business valuation.

20-Year versus 30-Year Treasuries

Our methodology for estimating the long-horizon equity risk premium makes use of the income return on a 20-year Treasury bond; however, the Treasury currently does not issue a 20-year bond. The 30-year bond that the Treasury recently began issuing again is theoretically more correct due to the long-term nature of business valuation, yet Ibbotson Associates instead creates a series of returns using bonds on the market with approximately 20 years to maturity. The reason for the use of a 20-year maturity bond is that 30-year Treasury securities have only been issued over the relatively recent past, starting in February of 1977, and were not issued at all through the early 2000s.

The same reason exists for why we do not use the 10-year Treasury bond—a long history of market data is not available for 10-year bonds. We have persisted in using a 20-year bond to keep the basis of the time series consistent.

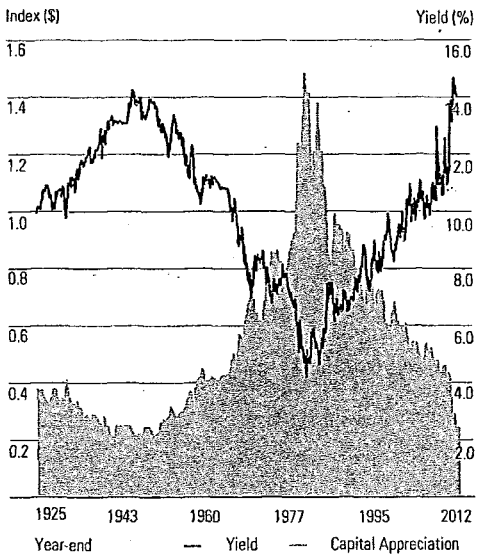
Income Return

Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather than the total return, is used in the calculation. The total return is comprised of three return components: the income return, the capital appreciation return, and the reinvestment return. The income return is defined as the portion of the total return that results from a periodic cash flow or, in this case, the bond coupon payment. The capital appreciation return results from the price change of a bond over a specific period. Bond prices generally change in reaction to unexpected fluctuations in yields. Reinvestment return is the return on a given month's investment income when reinvested into the same asset class in the subsequent months of the year. The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.[2]

Yields have generally risen on the long-term bond over the 1926–2012 period, so it has experienced negative capital appreciation over much of this time. This trend has turned

around since the 1980s, however. Graph 5-1 illustrates the yields on the long-term government bond series compared to an index of the long-term government bond capital appreciation. In general, as yields rose, the capital appreciation index fell, and vice versa. Had an investor held the long-term bond to maturity, he would have realized the yield on the bond as the total return. However, in a constant maturity portfolio, such as those used to measure bond returns in this publication, bonds are sold before maturity (at a capital loss if the market yield has risen since the time of purchase). This negative return is associated with the risk of unanticipated yield changes.

Graph 5-1: Long-term Government Bond Yields versus Capital Appreciation Index



Data from 1925–2012.

For example, if bond yields rise unexpectedly, investors can receive a higher coupon payment from a newly issued bond than from the purchase of an outstanding bond with the former lower-coupon payment. The outstanding lower-coupon bond will thus fail to attract buyers, and its price will decrease, causing its yield to increase correspondingly, as its coupon payment remains the same. The newly priced outstanding bond will subsequently attract purchasers who will benefit from the shift in price and yield; however, those investors who already held the bond will suffer a capital loss due to the fall in price.

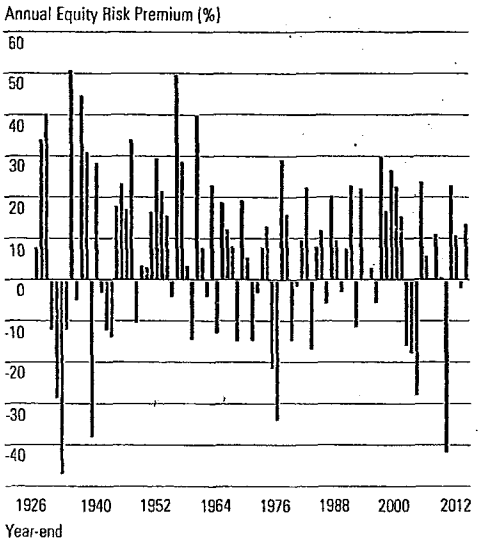
Anticipated changes in yields are assessed by the market and figured into the price of a bond. Future changes in yields that are not anticipated will cause the price of the bond to adjust accordingly. Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.

Arithmetic versus Geometric Means

The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.

The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods. Graph 5-2 shows the realized equity risk premium for each year based on the returns of the S&P 500 and the income return on long-term government bonds. (The actual, observed difference between the return on the stock market and the riskless rate is known as the realized equity risk premium.) There is considerable volatility in the year-by-year statistics. At times the realized equity risk premium is even negative.

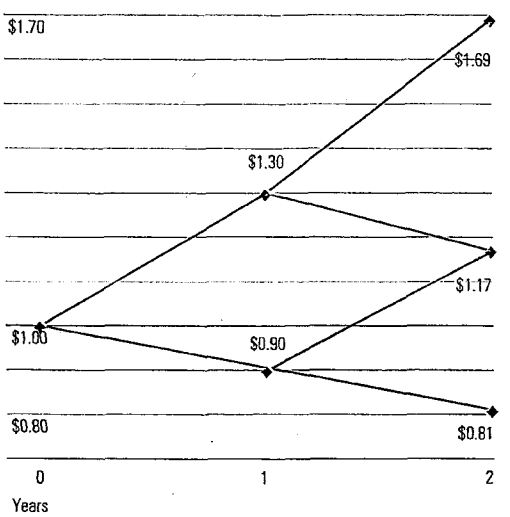
Graph 5-2: Realized Equity Risk Premium Per Year



Data from 1926–2012.

To illustrate how the arithmetic mean is more appropriate than the geometric mean in discounting cash flows, suppose the expected return on a stock is 10 percent per year with a standard deviation of 20 percent. Also assume that only two outcomes are possible each year: +30 percent and –10 percent (i.e., the mean plus or minus one standard deviation). The probability of occurrence for each outcome is equal. The growth of wealth over a two-year period is illustrated in Graph 5-3.

Graph 5-3: Growth of Wealth Example



The most common outcome of $1.17 is given by the geometric mean of 8.2 percent. Compounding the possible outcomes as follows derives the geometric mean:

$$\left[(1+0.30)\times(1-0.10)\right]^{1/2}-1=0.082$$

However, the expected value is predicted by compounding the arithmetic, not the geometric, mean. To illustrate this, we need to look at the probability-weighted average of all possible outcomes:

(0.25 × $1.69) =	$0.4225
+ (0.50 × $1.17) =	$0.5850
+ (0.25 × $0.81) =	$0.2025
Total	$1.2100

Therefore, $1.21 is the probability-weighted expected value. The rate that must be compounded to achieve the terminal value of $1.21 after 2 years is 10 percent, the arithmetic mean:

$$\$1\times(1+0.10)^2=\$1.21$$

The geometric mean, when compounded, results in the median of the distribution:

$$\$1\times(1+0.082)^2=\$1.17$$

The arithmetic mean equates the expected future value with the present value; it is therefore the appropriate discount rate.

Appropriate Historical Time Period

The equity risk premium can be estimated using any historical time period. For the U.S., market data exists at least as far back as the late 1800s. Therefore, it is possible to estimate the equity risk premium using data that covers roughly the past 100 years.

Our equity risk premium covers the time period from 1926 to the present. The original data source for the time series comprising the equity risk premium is the Center for Research in Security Prices. CRSP chose to begin their analysis of market returns with 1926 for two main reasons. CRSP determined that the time period around 1926 was

approximately when quality financial data became available. They also made a conscious effort to include the period of extreme market volatility from the late twenties and early thirties; 1926 was chosen because it includes one full business cycle of data before the market crash of 1929. These are the most basic reasons why our equity risk premium calculation window starts in 1926.

Implicit in using history to forecast the future is the assumption that investors' expectations for future outcomes conform to past results. This method assumes that the price of taking on risk changes only slowly, if at all, over time. This "future equals the past" assumption is most applicable to a random time-series variable. A time-series variable is random if its value in one period is independent of its value in other periods.

Does the Equity Risk Premium Revert to Its Mean Over Time?

Some have argued that the estimate of the equity risk premium is upwardly biased since the stock market is currently priced high. In other words, since there have been several years with extraordinarily high market returns and realized equity risk premia, the expectation is that returns and realized equity risk premia will be lower in the future, bringing the average back to a normalized level. This argument relies on several studies that have tried to determine whether reversion to the mean exists in stock market prices and the equity risk premium.[3] Several academics contradict each other on this topic; moreover, the evidence supporting this argument is neither conclusive nor compelling enough to make such a strong assumption.

Our own empirical evidence suggests that the yearly difference between the stock market total return and the U.S. Treasury bond income return in any particular year is random. Graph 5-2, presented earlier, illustrates the randomness of the realized equity risk premium.

A statistical measure of the randomness of a return series is its serial correlation. Serial correlation (or autocorrelation) is defined as the degree to which the return of a given series is related from period to period. A serial correlation near positive one indicates that returns are predictable from one period to the next period and are positively related. That is, the returns of one period are a good predictor of the returns in the next period. Conversely, a serial correlation near negative one indicates that the returns in one period are inversely related to those of the next period. A serial correlation near zero indicates that the returns are random or unpredictable from one period to the next. Table 5-3 contains the serial correlation of the market total returns, the realized long-horizon equity risk premium, and inflation.

Table 5-3: Interpretation of Annual Serial Correlations

Series	Serial Correlation	Interpretation
Large Company Stock Total Returns	0.01	Random
Equity Risk Premium	0.02	Random
Inflation Rates	0.64	Trend

Data from 1926–2012.

The significance of this evidence is that the realized equity risk premium next year will not be dependent on the realized equity risk premium from this year. That is, there is no discernible pattern in the realized equity risk premium—it is virtually impossible to forecast next year's realized risk premium based on the premium of the previous year. For example, if this year's difference between the riskless rate and the return on the stock market is higher than last year's, that does not imply that next year's will be higher than this year's. It is as likely to be higher as it is lower. The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean) of its past values.

Table 5-4 also indicates that the equity risk premium varies considerably by decade. The complete decades ranged from a high of 17.9 percent in the 1950s to a low of -3.7 percent in the 2000s. This look at historical equity risk premium reveals no observable pattern.

Table 5-4: Long-Horizon Equity Risk Premium by Decade (%)

1920s*	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	03-2012
17.6	2.3	8.0	17.9	4.2	0.3	7.9	12.1	-3.7	4.6

Data from 1926–2012.
*Based on the period 1926–1929.

Finnerty and Leistikow perform more econometrically sophisticated tests of mean reversion in the equity risk premium. Their tests demonstrate that—as we suspected from our simpler tests—the equity risk premium that was realized over 1926 to the present was almost perfectly free of mean reversion and had no statistically identifiable time trends.[4] Lo and MacKinlay conclude, "the rejection of the random walk for weekly returns does not support a mean-reverting model of asset prices."

Choosing an Appropriate Historical Period

The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable.[5] Furthermore, because an average of the realized equity risk premium is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants. The magnitude of how shorter periods can affect the result will be explored later in this chapter.

Some analysts estimate the expected equity risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s, and 1940s contain too many unusual events. This view is suspect because all periods contain "unusual" events. Some of the most unusual events of the last hundred years took place quite recently, including the inflation of the late 1970s and early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, the development of the European Economic Community, the attacks of September 11, 2001 and the more recent liquidity crisis of 2008 and 2009.

It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market volatility of the 1929–1931 period. Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 87-year period starting with 1926 is representative of what can happen: it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect "unusual" events to occur from time to time, and their return expectations reflect this.

A Look at the Historical Results

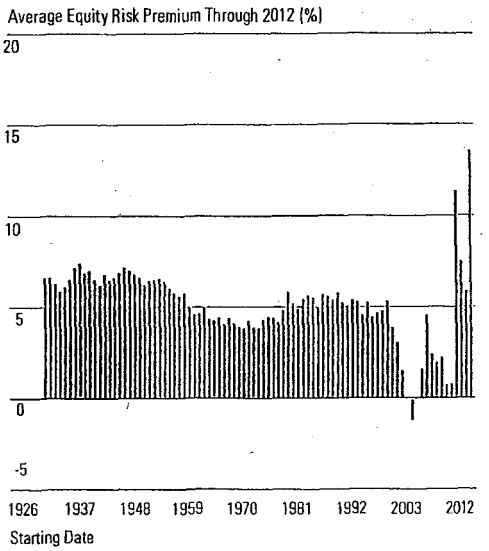
It is interesting to take a look at the realized returns and realized equity risk premium in the context of the above discussion. Table 5-5 shows the average stock market return and the average (arithmetic mean) realized long-horizon equity risk premium over various historical time periods. Similarly, Graph 5-5 shows the average (arithmetic mean) realized equity risk premium calculated through 2012 for different ending dates. The table and the graph both show that using a longer historical period provides a more stable estimate of the equity risk premium. The reason is that any unique period will not be weighted heavily in an average covering a longer historical period. It better represents the probability of these unique events occurring over a long period of time.

Table 5-5: Stock Market Return and Equity Risk Premium Over Time

Length (Yrs.)	Period Dates	Large Company Stock Arithmetic Mean Total Return (%)	Long-Horizon Equity Risk Premium (%)
87	1926–2012	11.8	6.7
80	1933–2012	12.8	7.5
70	1943–2012	12.7	7.1
60	1953–2012	11.9	5.7
50	1963–2012	11.2	4.5
40	1973–2012	11.4	4.2
30	1983–2012	12.3	5.7
20	1993–2012	10.0	4.7
15	1998–2012	6.3	1.6
10	2003–2012	8.8	4.6
5	2008–2012	4.5	0.9

Data from 1926–2012.

Graph 5-4: Equity Risk Premium Using Different Starting Dates



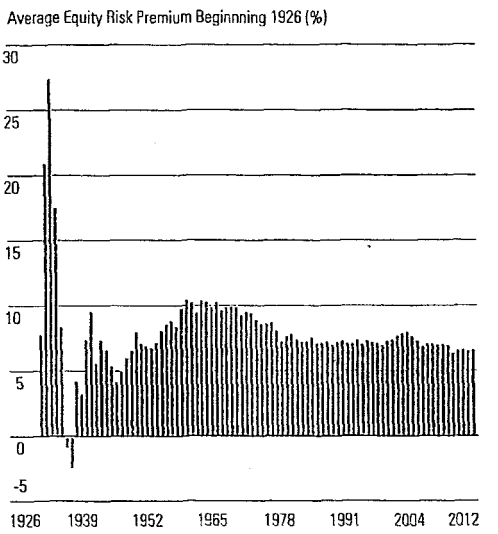
Data from 1926–2012.

Looking carefully at Graph 5-4 will clarify this point. The graph shows the realized equity risk premium for a series of time periods through 2012, starting with 1926. In other words, the first value on the graph represents the average realized equity risk premium over the period 1926–2012. The next value on the graph represents the average realized equity risk premium over the period 1927–2012, and so on, with the last value representing the average over the most recent five years, 2006–2012. Concentrating on the left side of Graph 5-5, one notices that the realized equity risk premium, when measured over long periods of time, is relatively stable. In viewing the graph from left to right, moving from longer to shorter historical periods, one sees that the value of the realized equity risk premium begins to decline significantly. Why does this occur? The reason is that the severe bear market of 1973–1974 is receiving proportionately more weight in the shorter, more recent average. If you continue to follow the line to the right, however, you will also notice that when 1973 and 1974 fall out of the recent average, the realized equity risk premium jumps up by nearly 1.2 percent.

Additionally, use of recent historical periods for estimation purposes can lead to illogical conclusions. As seen in Table 5-5, the bear market in the early 2000's and in 2008 has caused the realized equity risk premium in the shorter historical periods to be lower than the long-term average.

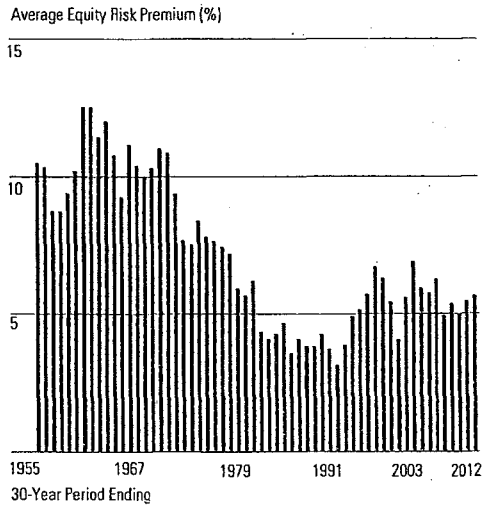
The impact of adding one additional year of data to a historical average is lessened the greater the initial time period of measurement. Short-term averages can be affected considerably by one or more unique observations. On the other hand, long-term averages produce more stable results. A series of graphs looking at the realized equity risk premium will illustrate this effect. Graph 5-5 shows the average (arithmetic mean) realized long-horizon equity risk premium starting in 1926. Each additional point on the graph represents the addition of another year to the average. Although the graph is extremely volatile in the beginning periods, the stability of the long-term average is quite remarkable. Again, the "unique" periods of time will not be weighted heavily in a long-term average, resulting in a more stable estimate.

Graph 5-5: Equity Risk Premium Using Different Ending Dates



Data from 1926–2012.

Graph 5-6: Equity Risk Premium Over 30-Year Periods



Data from 1926–2012.

Some practitioners argue for a shorter historical time period, such as 30 years, as a basis for the equity risk premium estimation. The logic for the use of a shorter period is that historical events and economic scenarios present before this time are unlikely to be repeated. Graph 5-6 shows the equity risk premium measured over 30-year periods, and it appears from the graph that the premium has been trending downwards. The 30-year equity risk premium remained close to 4 percent for several years in the 1980s and 1990s. However, it has fallen and then risen in the most recent 30-year periods.

The key to understanding this result lies again in the years 1973 and 1974. The oil embargo during this period had a tremendous effect on the market. The equity risk premium for these years alone was -21 and -34 percent, respectively. Periods that include the years 1973 and 1974 result in average equity risk premia as low as 3.2 percent. The 2000s have also had an enormous effect on the equity risk premium.

It is difficult to justify such a large divergence in estimates of return over such a short period of time. This does not suggest, however, that the years 1973 and 1974 should be excluded from any estimate of the equity risk premium; rather, it emphasizes the importance of using a long historical period when measuring the equity risk premium in order to obtain a reliable average that is not overly influenced by short-term returns. The same holds true when analyzing the poor performance of the early 2000s and 2008.

Does the Equity Risk Premium Represent Minority or Controlling Interest?

There is quite a bit of confusion among valuation practitioners regarding the use of publicly traded company data to derive the equity risk premium. Is a minority discount implicit in this data? Recall that the equity risk premium is typically derived from the returns of a market index: the S&P 500, the New York Stock Exchange (NYSE), or the NYSE Deciles 1–2. (The size premia that are covered in Chapter 7 are derived from the returns of companies traded on the NYSE, in addition to those on the NYSE Amex and NASDAQ). Both the S&P 500 and the NYSE include a preponderance of companies that are minority held. Does this imply that an equity risk premium (or size premium) derived from these data represents a minority interest premium? This is a critical issue that must be addressed by the valuation professional, since applying a minority discount or a control premium can have a material impact on the ultimate value derived in an appraisal.

Since most companies in the S&P 500 and the NYSE are minority held, some assume that the risk premia derived from these return data represent minority returns and therefore have a minority discount implicit within them. However, this assumption is not correct. The returns that are generated by the S&P 500 and the NYSE represent returns to equity holders. While most of these companies are minority held, there is no evidence that higher rates of return could be earned if these companies were suddenly acquired by majority shareholders. The equity risk premium represents expected premiums that holders of securities of a similar nature can expect to achieve on average into the future. There is no distinction between minority owners and controlling owners.

The discount rate is meant to represent the underlying risk of being in a particular industry or line of business. There are instances when a majority shareholder can acquire a company and improve the cash flows generated by that company. However, this does not necessarily have an impact on the general risk level of the cash flows generated by the company.

When performing discounted cash flow analysis, adjustments for minority or controlling interest value may be more suitably made to the projected cash flows than to the discount rate. Adjusting the expected future cash flows better measures the potential impact a controlling party may have while not overstating or understating the actual risk associated with a particular line of business.

Appraisers need to note the distinction between a publicly traded value and a minority interest value. Most public companies have no majority or controlling owner. There is thus no distinction between owners in this setting. One cannot assume that publicly held companies with no controlling owner have the same characteristics as privately held companies with both a controlling interest owner and a minority interest owner.

Other Equity Risk Premium Issues

There are a number of other issues that are commonly brought up regarding the equity risk premium that, if correct, would reduce its size. These issues include:

1. Survivorship bias in the measurement of the equity risk premium
2. Utility theory models of estimating the equity risk premium
3. Reconciling the discounted cash flow approach to the equity risk premium
4. Over-valuation effects of the market
5. Changes in investor attitudes toward market conditions
6. Supply side models of estimating the equity risk premium

In this section, we will examine each of these issues.

Survivorship

One common problem in working with financial data is properly accounting for survivorship. In working with company-specific historical data, it is important for researchers to include data from companies that failed as well as companies that succeeded before drawing conclusions from elements of that data.

The same argument can be made regarding markets as a whole. The equity risk premium data outlined in this book represent data on the United States stock market. The United States has arguably been the most successful stock market of the twentieth century. That being the case, might equity risk premium statistics based only on U.S. data overstate the returns of equities as a whole because they only focus on one successful market?

In a recent paper, Goetzmann and Jorion study this question by looking at returns from a number of world equity markets over the past century.[6] The Goetzmann-Jorion paper looks at the survivorship bias from several different perspectives. They conclude that once survivorship is taken into consideration the U.S. equity risk premium is overstated by approximately 60 basis points.[7] The non-U.S. equity risk premium was found to contain significantly more survivorship bias.

While the survivorship bias evidence may be compelling on a worldwide basis, one can question its relevance to a purely U.S. analysis. If the entity being valued is a U.S. company, then the relevant data set should be the performance of equities in the U.S. market.

Equity Risk Premium Puzzle

In 1985, Mehra and Prescott published a paper that discussed the equity risk premium from a utility theory perspective. The point that Mehra and Prescott make is that under existing economic theory, economists cannot justify the magnitude of the equity risk premium. The utility theory model employed was incapable of obtaining values consistent with those observed in the market.

This is an interesting point and may be worthy of further study, but it does not do anything to prove that the equity risk premium is too high. It may, on the other hand, indicate that theoretical economic models require further refinement to adequately explain market behavior.

Discounted Cash Flow versus Capital Asset Pricing Model

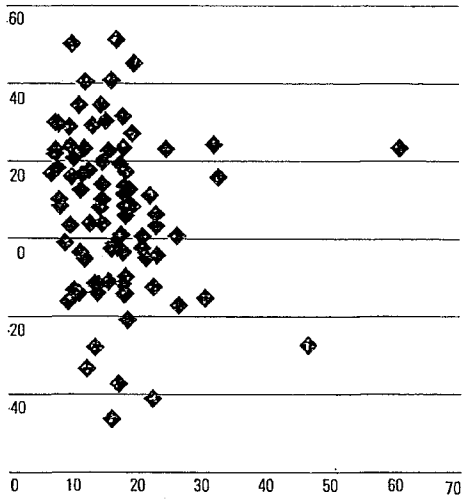
Two of the most commonly used cost of equity models are the discounted cash flow model and the capital asset pricing model. We should be able to reconcile the two models. In its basic form, the discounted cash flow model states that the expected return on equities is the dividend yield plus the expected long-term growth rate. The capital asset pricing model states that the expected return on equities is the risk-free rate plus the equity risk premium.[8]

For the discounted cash flow model we can obtain an estimate of the long-term growth rate for the entire economy by looking at its component parts. Real Gross Domestic Product growth has averaged approximately three percent over long periods of time. Long-term expected inflation is currently in the range of two percent. Combining these two numbers produces an expected long-term growth rate of about five percent. Dividend yields have been between two percent and three percent historically. The discounted cash flow expected equity return is thus between seven percent and eight percent using these assumptions.

If we try to reconcile this expected equity return with that found using the capital asset pricing model, we find a significant discrepancy. The yield on government bonds has averaged around five percent historically. If the two models are to reconcile, the equity risk premium must be in the two to three percent range instead of the seven to eight percent range we have observed historically.

It is not easy to explain why these two models are so difficult to reconcile. While it is possible to modify the assumptions slightly, doing so still does not produce the desired results. One explanation might be that one or both of the models are too simplistic and therefore lack the ability to resolve this inconsistency.

Graph 5-7: Price-Earnings Multiple versus Subsequent Year's Realized Equity Risk Premium



Data from 1926–2012. Source: Historical price/earnings ratios from Standard & Poor's Security Price Index Record and Compustat database.

Market Bubbles

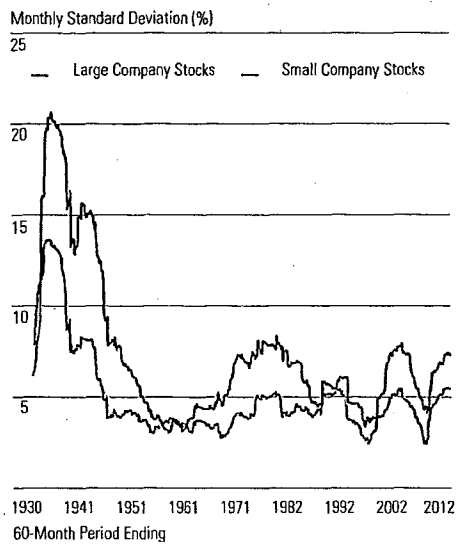
Another criticism of using the historical equity risk premium is that the market is overvalued. This argument is often offered after stock prices have seen a sustained increase. The logic of the argument is that abnormally high market returns drive the historical equity risk premium higher while at the same time driving the expected equity risk premium lower. As evidence of the market being overvalued, one can look at the price/earnings multiple of the market. Graph 5-7 attempts to demonstrate the relationship between the price/earnings multiple and the subsequent period's equity risk premium. If the above argument held, one would expect to find a low equity risk premium associated with a high price/earnings multiple from the prior period. One would also expect a high equity risk premium to be associated with a low price/earnings multiple in the prior period. From the graph there does not seem to be a clear indication of the market being overvalued or undervalued with respect to the next period's realized equity risk premium.

There are yet other problems with this theory. First, the equity risk premium is measured over a long historical time period. Several years of strong market returns have a relatively small impact on the ultimate equity risk premium estimate. Second, we are attempting to forecast a long-term equity risk premium. Even if the market were to underperform over several consecutive time periods, this should not have a significant impact on expected long-term returns. Finally, one ratio does not necessarily tell the whole story. The price/earnings ratio shows the current stock price divided by the historical earnings per share. Stock prices should, on the other hand, incorporate expectations of future earnings growth. A high market price/earnings ratio may indicate that investors expect significant future earnings growth.

Change in Investor Attitudes

There is no law that states that investor attitudes must remain constant over time. With the advent of 401(k) investing and the increase in education of the investing public, the market may have changed. In fact, stock returns have become less volatile over time. Graph 5-8 demonstrates a relative decline in the rolling 60-month standard deviation of both large and small stocks. (Standard deviation is a measure of the returns' volatility or risk.) This may suggest that we have moved into a new market regime in which stocks are less volatile and therefore require a lower risk premium than in the past.[9]

Graph 5-8: Rolling 60-Month Standard Deviation for Large and Small Stocks



Data from January 1926–December 2012.

There are two arguments against this rationale. First, it could easily be argued that we have moved through a series of market regimes during the 87-year history of the equity risk premium calculation window used in this book. Given that markets and investor attitudes have changed over time and the equity risk premium has remained relatively constant, there is no reason to believe that a new market regime will have any greater or lesser impact than any other time period.

A second argument relates to the demand for investments. If investors are more comfortable with the market and with stock investing, they will probably place more money into the market. This influx of funds will increase the demand for stocks, which will ultimately increase, not decrease, the equity risk premium.

Supply Model

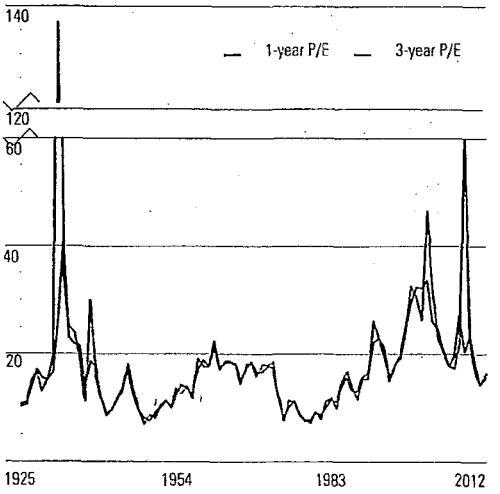
Long-term expected equity returns can be forecasted by the use of supply side models. The supply of stock market returns is generated by the productivity of the corporations in the real economy. Investors should not expect a much higher or lower return than that produced by the companies in the real economy. Thus, over the long run, equity returns should be close to the long-run supply estimate.

Roger G. Ibbotson and Peng Chen forecast the equity risk premium through a supply side model using historical data.[10] They utilized an earnings model as the basis for their supply side estimate; historically, the growth in corporate earnings has been in line with the growth of overall economic productivity. The earnings model breaks historical returns into four pieces, with only three historically being supplied by companies: inflation, income return, and growth in real earnings per share. The growth in the P/E ratio, the fourth piece, is a reflection of investors' changing prediction of future earnings growth. The past supply of corporate growth is forecasted to continue; however, a change in investors' predictions is not. P/E rose dramatically from 1980 through 2001 because people believed that corporate earnings were going to grow faster in the future. This growth of P/E drove a small portion of the rise in equity returns over the same period.

Graph 5-9 illustrates the price-to-earnings ratio calculated using one-year and three-year average earnings from 1926 to 2012. The P/E ratio, using one-year average earnings, was 10.22 at the beginning of 1926 and ended the year 2012 at 16.37—an average increase of 0.54 percent per year. The highest P/E was 136.55 recorded in 1932, while the lowest was 7.07 recorded in 1948.

Ibbotson Associates revised the calculation of the P/E ratio from a one-year to a three-year average earnings for use in equity forecasting. This is because reported earnings are affected not only by the long-term productivity, but also by "one-time" items that do not necessarily have the same consistent impact year after year. The three-year average is more reflective of the long-term trend than the year-by-year numbers. The P/E ratio calculated using the three-year average of earnings had an increase of 0.44 percent per year.

Graph 5-9: Large Company Stocks P/E Ratio



Data from 1926-2012.

The historical P/E growth factor using three-year earnings of 0.44 percent per year is subtracted from the forecast because it is not believed that P/E will continue to increase in the future. The market serves as the cue. The current P/E ratio is the market's best guess for the future of corporate earnings and there is no reason to believe, at this time, that the market will change its mind.

Thus, the supply of equity returns only includes inflation, the growth in real earnings per share, and income return:

$$SR = \left[\left(1+CPI\right)\times\left(1+g_{REPS}\right)-1\right]+Inc+Rinv$$

$$9.39^{*} = \left[\left(1+2.97\%\right)\times\left(1+2.07\%\right)-1\right]+4.06\%+0.21\%$$

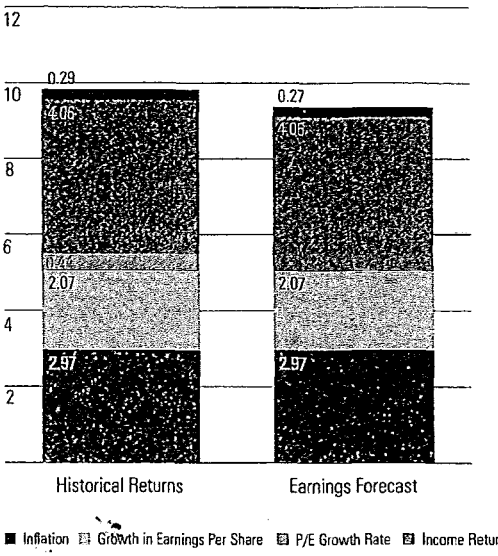
*difference due to rounding

where:

SR = the supply of the equity return;
CPI = Consumer Price Index (inflation);
g_{REPS} = the growth in real earning per share;
Inc = the income return;
Rinv = the reinvestment return.

The forward-looking earnings model calculates the long-term supply of U.S. equity returns to be 9.39 percent.

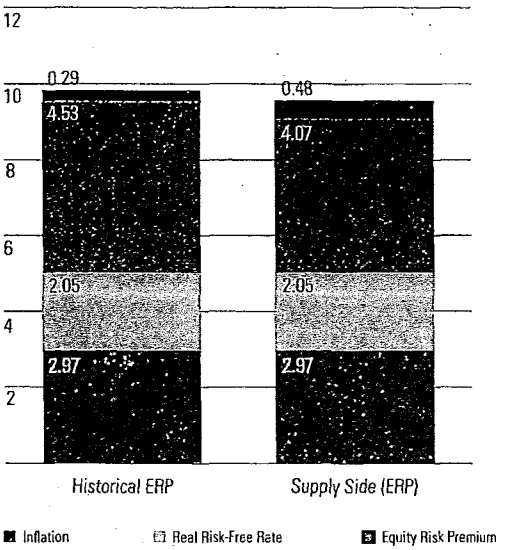
Graph 5-10: Historical and Forecast Equity Returns Based on Earnings Model



Data from 1926–2012. Results add up geometrically, not arithmetically. The darkest shade in the graph represents reinvested returns and an interaction factor between the return components.

Graph 5-10 illustrates the decomposition of historical equity returns from 1926–2012. It also illustrates the historical components that are supplied by companies: inflation, income return, and growth in real earnings per share. Once again the main difference between the historical and forecast equity returns is the exclusion of growth in P/E ratio in the forecasted earnings model.

Graph 5-11: Historical and Supply-Side Equity Risk Premium



Data from 1926–2012. Results add up geometrically, not arithmetically. The darkest shade in the graph represents reinvested returns and an interaction factor between the return components.

Table 5-6: Supply-Side and Historical Equity Risk Premium Over Time

Period Length (Yrs.)	Period Dates	g(P/E)	Arithmetic Average: Supply Side Equity Risk Premium (%)	Arithmetic Average: Historical Equity Risk Premium (%)
87	1926–2012	0.44*	6.11	6.70
86	1926–2011	0.34*	6.08	6.62
85	1926–2010	0.59	5.97	6.72
84	1926–2009	0.94	5.57	6.67
83	1926–2008	0.79	5.53	6.47
82	1926–2007	1.15	5.74	7.06
81	1926–2006	0.75	6.22	7.13
80	1926–2005	0.65	6.29	7.08
79	1926–2004	0.83	6.18	7.17
78	1926–2003	1.09	5.94	7.19
77	1926–2002	1.17	5.65	6.97
76	1926–2001	1.53	5.71	7.43
75	1926–2000	1.49	6.06	7.76
74	1926–1999	1.52	6.32	8.07
73	1926–1998	1.40	6.35	7.97
72	1926–1997	1.20	6.37	7.77
71	1926–1996	0.87	6.46	7.50
70	1926–1995	0.74	6.47	7.37
69	1926–1994	0.59	6.32	7.04
68	1926–1993	0.90	6.17	7.22
67	1926–1992	1.15	5.98	7.29
66	1926–1991	1.12	6.12	7.39
65	1926–1990	0.67	6.36	7.16
64	1926–1989	0.60	6.72	7.45
63	1926–1988	0.32	6.78	7.21

Data from 1926–2012. *Contains earnings estimate(s).

The supply-side equity risk premium is calculated to be 4.09 percent on a geometric basis.

$$SERP = \frac{(1+SR)}{(1+CPI)\times(1+RRf)} - 1$$

$$4.09\%^{*} = \frac{1+9.39\%}{(1+2.97\%)\times(1+2.05\%)} - 1$$

*difference due to rounding

where:

SERP = the supply-side equity risk premium;
SR = the supply of the equity return;
CPI = Consumer Price Index (inflation); and,
RRf = the real risk-free rate.

Graph 5-11 compares the historical equity risk premium, which includes the P/E ratio, to the supply-side equity risk premium calculated from 1926 to 2012 on a geometric basis. Contrary to several recent studies on equity risk premium that declare the forward-looking equity risk premium *to be close to zero, or even negative, Ibbotson and Chen* have found the long-term supply of equity risk premium to be only slightly lower than the straight historical estimate.

The supply-side equity risk premium calculated earlier is a geometric calculation. An arithmetic calculation, as mentioned earlier in the chapter, is most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the buildup approach, the arithmetic calculation is the relevant number. There are several ways to convert the geometric average into an arithmetic average. One method is to assume the returns are independently lognormally distributed over time, where the arithmetic and geometric averages roughly follow the following relationship:

$$R_A = R_G + \frac{\sigma^2}{2}$$

$$6.13\%^{*} = 4.09\% + \frac{20.18\%^2}{2}$$

where:

R_A = the arithmetic average;
R_G = the geometric average;
σ = the standard deviation of equity returns.

As stated in IRS Ruling 59-60, although valuation is a forward-looking process, it must be based on facts available as of the required date of appraisal. Therefore, Ibbotson provides data critical to the valuation process as far back as 1926, such as the historical equity risk premium and size premium presented in Appendix A of this book. Similarly, Table 5-6 presents the supply side equity risk premium, on an arithmetic basis, beginning in 1926 and ending in each of the last 25 years.

As mentioned earlier, one of the key findings of the Ibbotson and Chen study is that P/E increases account for only a small portion of the total return of equity. The reason we present supply side equity risk premium going back only 25 years is because the P/E ratio rose dramatically over this time period, which caused the growth rate in the P/E ratio calculated from 1926 to be relatively high. The subtraction of the P/E growth factor from equity returns has been responsible for the downward adjustment in the supply side equity risk premium compared to the historical estimate. Beyond the last 25 years, the growth factor in the P/E ratio has not been dramatic enough to require an adjustment.

This section has briefly reviewed some of the more common arguments that seek to reduce the equity risk premium. While some of these theories are compelling in an academic framework, most do little to prove that the equity risk premium is too high. When examining these theories, it is important to remember that the equity risk premium data outlined in this book (both the historical and supply side estimates) are from actual market statistics over a long historical time period.

Considerations in Application

The supply-side equity risk premium has gained in popularity since its mainstream publication in 2003, but there have been many questions surrounding the model and its proper application. Any forward-looking model makes assumptions, and the supply model is no different. This section will draw from a more-exhaustive article by Magdalena Mroczek to help address some of the issues that commonly arise.[11]

The Meaning of "Supply Side"

Contrary to popular belief, the supply model does not refer to the economic supply and demand equilibrium of the market. In fact, it is termed the supply-side because it only takes into account company-generated, or company-supplied, returns. While the words "supply" and "demand" might portray images of economic equilibrium, they are really referring to a buildup of total-return components.

Stability of the Supply Model

As stated on Page 67, the supply-side equity risk premium uses a three-year average of earnings in calculating the P/E ratio as opposed to one-year earnings. In order to keep the three-year average earnings consistent with the current year's S&P 500 price, the earnings should be anchored around the same year as price. The average is composed of the prior year (t_{-1}), current year (t_0), and future year (t_{+1}) earnings, creating a price to three-year average earnings (P/3E) ratio.

Since both the current- and future-year earnings are estimates in each initial supply-side calculation, it takes two years of publications for the two earnings to actualize (all estimates are provided by Standard & Poors). For example, when calculating the 2012 supply-side equity risk premium, the earnings for 2012 (t_0) and 2013 (t_{+1}) are estimates. The 2012 supply-side equity risk premium will permanently stabilize in the 2015 Valuation Yearbook when actual earnings will be available for both 2012 and 2013. Therefore, the supply-side equity risk premium should change every year for two years and remain constant going forward.

Size Premium and Industry Risk Premium

The supply-side equity risk premium can be used alongside the size premium and industry risk premium calculated using the traditional historical equity risk premium as an input.

Some may think that the size premium needs to be recalculated as a supply model in order to use it with the supply-side equity risk premium. One way to arrive at this size premium would be to replace the historical equity risk premium with a supply-side equity risk premium when computing the expected returns for each decile. As explained in Chapter 7, size premium is calculated as the difference between a decile's actual return and its CAPM expected return. If the decile's actual return is measured using total returns and the CAPM expected return, as calculated using a supply-side equity risk premium, is in terms of supplied equity returns, then the resulting size premium would overcompensate for this mismatch. These different types of returns can cause high and unreasonable size premia.

One way to overcome the mismatch in return types and overstatement of size premium would be to remove historical P/E growth from each decile size category before computing excess returns based on size. Unfortunately, this, too, has its problems. One of the limitations to the supply model is that it relies on P/E growth measured over a defined starting and ending point. Subtracting P/E growth from each decile would be much more problematic, however, since the deciles are at their smallest membership and thinnest industry composition in 1926, the date when the P/E would be initialized. P/E growth simply cannot be removed from the individual deciles with the same confidence than it can from the overall market.

Computing industry risk premia with a supply-side equity risk premium input suffers from the same return mismatch issue as the size premium; the full information beta is calculated using total returns and the supply-side equity risk premium uses company-supplied returns. The full information beta is a 60-month beta and therefore uses too short of a time span to adjust for growth of P/E in the returns.[12] The supply-side equity risk premium calls for an annual P/E growth adjustment that incorporates three-year average earnings to normalize volatility, but this would not be appropriate to integrate into an industry risk premia calculation.

While it is internally inconsistent to apply a supply-side equity risk premium in a buildup model alongside a traditional size premium and industry premium, it is still the most practical way to apply this forward-looking adjustment to the cost of equity. The adjustment reflects the assumption that the historical P/E growth beginning in the 1980s was unsustainable and is not expected to repeat.

Supply-Side Relative to Historical Equity Risk Premium

A common belief in the industry is that the supply-side model always creates an equity risk premium lower than the historical model, but this is not the case. If investors foresee a future decline in earnings, price would drop in anticipation with no current change in earnings. The P/3E would need to drop below the 1926 P/3E level of 10.65 in order for the supply-side equity risk premium to be greater than the historical model. Looking back at the 87-year history, we can see this occurred 16 times. The supply-side equity risk premium was consistently greater than the historical model between 1977 and 1982 as well as throughout almost half of the 1940s and 1950s. In 1949, the difference between the two peaked when supply-side equity risk premium was 1.52 percent greater than the historical.

This unsustainable P/E growth, which began in the 1980s, is expected to return to historic levels in the future. Therefore, the historical and supply-side equity risk premiums are expected to converge over time.

Taxes and Equity Risk Premium Calculations

All of the risk premium statistics included in this publication are derived from market returns earned by an investor. The investor receives dividends and realizes price appreciation after the corporation has paid its taxes. Therefore, it is implicit that the market return data represents returns after corporate taxes but before personal taxes.

When performing a discounted cash flow analysis, both the discount rate and the cash flows should be on the same tax basis. Most valuation settings rely on after-tax cash flows; the use of an after-tax discount rate would thus be appropriate in most cases. However, there are some instances (usually because of regulatory or legal statute reasons) in which it is necessary to calculate a pre-tax value. In these cases, a pre-tax cost of capital or discount rate should be employed. There is no easy way, however, to accurately modify the return on a market index to a pre-tax basis. This modification would require estimating pre-tax returns for all of the publicly traded companies that comprise the market benchmark.

This presents a problem when a pre-tax discounted cash flow analysis is required. Although not completely correct, the easiest way to convert an after-tax discount rate to a pre-tax discount rate is to divide the after-tax rate by (1 minus the tax rate). This adjustment should be made to the entire discount rate and not to its component parts (i.e., the equity risk premium). Take note that this is a "quick and dirty" way to approximate pre-tax discount rates.

The tax rate to use in this "quick and dirty" method presents yet another problem. As seen in the discussion of the weighted average cost of capital in Chapter 1, companies do not always pay the top marginal tax rate. New research has shown some progress in quantifying the expected future tax rates. See Chapter 1 for more detail.

Endnotes

[1] Ibbotson, Roger G., Jeffrey J. Diermeier, and Laurence B. Siegel. "The Demand for Capital Market Returns: A New Equilibrium Theory," *Financial Analysts Journal*, January/February, vol. 40, no. 1, 1984, pp. 22-33.
Mehra, Rajnish and Edward Prescott. "The Equity Premium: A Puzzle," *Journal of Monetary Economics*, vol. 15, no. 2, 1985, pp. 145–161.

[2] Please note that the appropriate forward-looking measure of the riskless rate is the yield to maturity on the appropriate-horizon government bond. This differs from the riskless rate used to measure the realized equity risk premium historically. Chapter 4 includes a thorough discussion of riskless rate selection in this context.

[3] Fama, Eugene F., and Kenneth R. French."Permanent and Temporary Components of Stock Prices,"*Journal of Political Economy*, April 1988, pp. 246–273.
Poterba, James M., and Lawrence H. Summers. "Mean Reversion in Stock Prices," *Journal of Financial Economics*, October 1988, pp. 27–59.
Lo, Andrew W., and A. Craig MacKinlay. "Stock Market Prices Do Not Follow Random Walks: Evidence from a Simple Specification Test," *The Review of Financial Studies*, Spring 1988, pp. 41–66.
Finnerty, John D., and Dean Leistikow. "The Behavior of Equity and Debt Risk Premiums: Are They Mean Reverting and Downward-Trending?" *The Journal of Portfolio Management*, Summer 1993, pp. 73–84.
Ibbotson, Roger G., and Scott L. Lummer. "The Behavior of Equity and Debt Risk Premiums: Comment," *The Journal of Portfolio Management*, Summer 1994, pp. 98–100.
Finnerty, John D., and Dean Leistikow. "The Behavior of Equity and Debt Risk Premiums: Reply to Comment," *The Journal of Portfolio Management*, Summer 1994, pp. 101–102.

[4] Though the study performed by Finnerty and Leistikow demonstrates that the traditional equity risk premium exhibits no mean reversion or drift, they conclude that, "the processes generating these risk premiums are generally mean-reverting."This conclusion is completely unrelated to their statistical findings and has received some criticism. In addition to examining the traditional equity risk premia, Finnerty and Leistikow include analyses on "real" risk premia as well as separate risk premia for income and capital gains. In their comments on the study, Ibbotson and Lummer show that these "real" risk premia adjust for inflation twice,"creating variables with no economic content." In addition, separating income and capital gains does not shed light on the behavior of the risk premia as a whole.

[5] This assertion is further corroborated by data presented in *Global Investing: The Professional's Guide to the World of Capital Markets* (by Roger G. Ibbotson and Gary P. Brinson and published by McGraw-Hill, New York). Ibbotson and Brinson constructed a stock market total return series back to 1790. Even with some uncertainty about the accuracy of the data before the mid-nineteenth century, the results are remarkable. The real (adjusted for inflation) returns that investors received during the three 50-year periods and one 51-year period between 1790 and 1990 did not differ greatly from one another (that is, in a statistically significant amount). Nor did the real returns differ greatly from the overall 201-year average. This finding implies that because real stock market returns have been reasonably consistent over time, investors can use these past returns as reasonable bases for forming their expectations of future returns.

[6] Goetzmann, William, and Philippe Jorion. "A Century of Global Stock Markets," Working Paper 5901, National Bureau of Economic Research, 1997.

[7] Note that the equity risk premium referred to in the Goetzmann and Jorion paper is not the same as the equity risk premium covered in this publication. Among other differences, their equity risk premium is based on a longer history of data and does not take dividend income or reinvestment into account.

[8] The discounted cash flow model is a modification of the Gordon Growth model, which states that: where P_0 is the price of the security today, D_1 is the dividend from next period, k is the cost of equity, and g is the expected growth rate in dividends. The capital asset pricing model is stated as $k_i = \beta_i$ (ERP)$+r_f$ where k_i is the cost of equity for company i, βi is the beta for company i, ERP is the equity risk premium, and r_f is the risk-free rate. For the market as a whole, the capital asset pricing model can be written as $k = ERP + r_f$ because the market beta, by definition, is 1. For more information on these models, see Chapter 4.

[9] Note that the recent increase in market volatility, particularly in 1998, may also place into question the validity of this argument.

[10] Ibbotson, Roger G., and Peng Chen."Long-Run Stock Returns: Participating in the Real Economy," *Financial Analysts Journal*, January/February, vol. 59, no.1, 2003, pp. 88–98.

[11] Mroczek, Magdalena. "Unraveling the Supply-Side Equity Risk Premum," The Value Examiner, The National Association of Certified Valuators and Analysts, January/February 2012, pp. 19-24.

[12] For more information on full information betas, see Chapter 6.

Chaparral City Water Company
RUCO Witness Parcell's CAPM Cost Rates
Corrected to Reflect a Prospective Risk-Free Rate. Prospective Market Equity Risk Premium and
Properly Calculated Historical Market Equity Risk Premium

	Traditional Capital Asset Pricing Model (1)				ECAPM Results	Average of Traditional CAPM & ECAPM Results
	1	2	3	4	5	6
Company	Risk-Free Rate (2)	Beta (3)	Market Premium (4)	CAPM Rates	ECAPM Rates	
Ruco Witness Parcell's Water Utilities						
American States Water Co.	4.43%	0.70	7.24%	9.50%	10.04%	9.77%
Ameican Water Works Co., Inc.	4.43%	0.65	7.24%	9.14%	9.50%	9.32%
Aqua America, Inc.	4.43%	0.60	7.24%	8.77%	9.50%	9.14%
Artesian Resources Corp.	4.43%	0.60	7.24%	8.77%	9.50%	9.14%
California Water Service Group	4.43%	0.65	7.24%	9.14%	9.77%	9.46%
Connecticut Water Service, Inc.	4.43%	0.75	7.24%	9.86%	10.31%	10.09%
Middlesex Water Company	4.43%	0.70	7.24%	9.50%	10.04%	9.77%
SJW Corporation	4.43%	0.85	7.24%	10.58%	10.86%	10.72%
York Water Company	4.43%	0.70	7.24%	9.50%	10.04%	9.77%
Mean				9.42%	9.98%	9.70%
Median				9.50%	10.04%	9.77%

Notes: (1) Derived using the formula shown in note 3 on page 24 of Schedule 11 of this exhibit.
(2) Derived in note 2 on page 24 ofSchedule 11 of this exhibit.
(3) From page 23 of Schedule 11 of this exhibit.
(4) As derived in note 1 on page 24 of Schedule 11 of this exhibit.

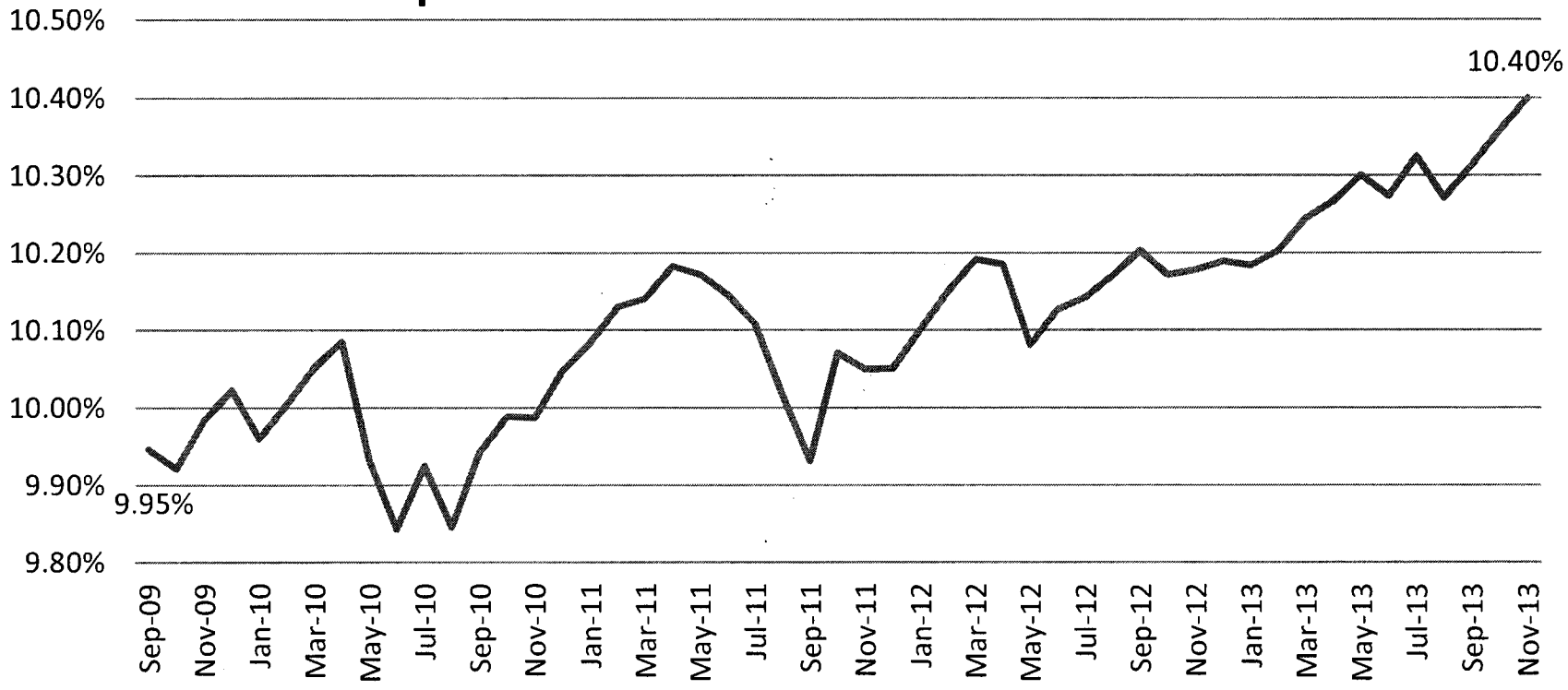
Chaparral City Water Company
RUCO Witness Parcell's CAPM Cost Rates
Corrected to Reflect a Prospective Risk-Free Rate. Prospective Market Equity Risk Premium and
Properly Calculated Historical Market Equity Risk Premium

Empirical Capital Asset Pricing Model (1)

	1	2	3	4
Company	Risk-Free Rate (2)	Beta (3)	Market Premium (4)	CAPM Rates
Ruco Witness Parcell's Water Utilities				
American States Water Co.	4.43%	0.70	7.24%	10.04%
American Water Works Co., Inc.	4.43%	0.65	7.24%	9.77%
Aqua America, Inc.	4.43%	0.60	7.24%	9.50%
Artesian Resources Corp.	4.43%	0.60	7.24%	9.50%
California Water Service Group	4.43%	0.65	7.24%	9.77%
Connecticut Water Service, Inc.	4.43%	0.75	7.24%	10.31%
Middlesex Water Company	4.43%	0.70	7.24%	10.04%
SJW Corporation	4.43%	0.85	7.24%	10.86%
York Water Company	4.43%	0.70	7.24%	10.04%
Mean				9.98%
Median				10.04%

Notes:
(1) Derived using the formula shown in note 4 on page 24 of Schedule 11 of thi exhibit.
(2) Derived in note 2 on page 24 ofSchedule 11 of this exhibi
(3) From page 23 of Schedule 11 of this exhibit.
(4) As derived in note 1 on page 24 of Schedule 11 of this exhibi

Predicted Market Equity Risk Premium from September 2009 to November 2013



Source of Information: 2013® Ibbotson® Market Report

Market Equity Risk Premiums for 1926-2019, 1926-2010, 1926-2011 and 1926-2012

	Geometric Mean		Arithmetic Mean	
1926-2012				
Large Company Stock Total Returns	9.80%		11.80%	
Long-Term Government Bonds				
Total Returns	5.70%		6.10%	
Income Return		5.10%		5.20%
Market Equity Risk Premium	4.10%	4.70%	5.70%	6.60%
1926-2011				
Large Company Stock Total Returns	9.90%		11.90%	
Long-Term Government Bonds				
Total Returns	5.50%		5.90%	
Income Return		5.10%		5.20%
Market Equity Risk Premium	4.40%	4.80%	6.00%	6.70%
1926-2010				
Large Company Stock Total Returns	9.80%		11.80%	
Long-Term Government Bonds				
Total Returns	5.40%		5.80%	
Income Return		5.10%		5.20%
Market Equity Risk Premium	4.40%	4.70%	6.00%	6.60%
1926-2009				
Large Company Stock Total Returns	9.60%		11.70%	
Long-Term Government Bonds				
Total Returns	5.70%		6.10%	
Income Return		5.20%		5.20%
Market Equity Risk Premium	3.90%	4.40%	5.60%	6.50%

Source of Information: Ibbotson® SBBI® 2010, 2011, & 2012 Valuation Yearbooks and 2013 Ibbotson® SBBI® Risk Premia Over Time Report, Morningstar®, Inc., ©2010, 2011, 2012, & 2013

Exhibit PMA-2
Schedule 10R

Market-to-Book Ratios, Earnings / Book Ratios and
Inflation for Standard & Poor's Industrial Index and
the Standard & Poor's 500 Composite Index
from 1947 through 2012

Year	Market-to-Book Ratio (1)		Earnings/ Book Ratio (2)				
	S&P Industrial Index (3)	S&P 500 Composite Index (3)	S&P Industrial Index (3)	S&P 500 Composite Index (3)	Inflation (4)	Earnings / Book Ratio - Net of Inflation	
1947	1.23	NA	13.0 %	NA	9.0 %	4.0 %	NA
1948	1.13	NA	17.3	NA	2.7	14.6	NA
1949	1.00	NA	16.3	NA	(1.8)	18.1	NA
1950	1.16	NA	18.3	NA	5.8	12.5	NA
1951	1.27	NA	14.4	NA	5.9	8.5	NA
1952	1.29	NA	12.7	NA	0.9	11.8	NA
1953	1.21	NA	12.7	NA	0.6	12.1	NA
1954	1.45	NA	13.5	NA	(0.5)	14.0	NA
1955	1.81	NA	16.0	NA	0.4	15.6	NA
1956	1.92	NA	13.7	NA	2.9	10.8	NA
1957	1.71	NA	12.5	NA	3.0	9.5	NA
1958	1.70	NA	9.8	NA	1.8	8.0	NA
1959	1.94	NA	11.2	NA	1.5	9.7	NA
1960	1.82	NA	10.3	NA	1.5	8.8	NA
1961	2.01	NA	9.8	NA	0.7	9.1	NA
1962	1.83	NA	10.9	NA	1.2	9.7	NA
1963	1.94	NA	11.4	NA	1.7	9.7	NA
1964	2.18	NA	12.3	NA	1.2	11.1	NA
1965	2.21	NA	13.2	NA	1.9	11.3	NA
1966	2.00	NA	13.2	NA	3.4	9.8	NA
1967	2.05	NA	12.1	NA	3.0	9.1	NA
1968	2.17	NA	12.6	NA	4.7	7.9	NA
1969	2.10	NA	12.1	NA	6.1	6.0	NA
1970	1.71	NA	10.4	NA	5.5	4.9	NA
1971	1.99	NA	11.2	NA	3.4	7.8	NA
1972	2.16	NA	12.0	NA	3.4	8.6	NA
1973	1.96	NA	14.6	NA	8.8	5.8	NA
1974	1.39	NA	14.8	NA	12.2	2.6	NA
1975	1.34	NA	12.3	NA	7.0	5.3	NA
1976	1.51	NA	14.5	NA	4.8	9.7	NA
1977	1.38	NA	14.6	NA	6.8	7.8	NA
1978	1.25	NA	15.3	NA	9.0	6.3	NA
1979	1.23	NA	17.2	NA	13.3	3.9	NA
1980	1.31	NA	15.6	NA	12.4	3.2	NA
1981	1.24	NA	14.9	NA	8.9	6.0	NA
1982	1.17	NA	11.3	NA	3.9	7.4	NA
1983	1.45	NA	12.2	NA	3.8	8.4	NA
1984	1.46	NA	14.6	NA	4.0	10.6	NA
1985	1.67	NA	12.2	NA	3.8	8.4	NA
1986	2.02	NA	11.5	NA	1.1	10.4	NA
1987	2.50	NA	15.7	NA	4.4	11.3	NA
1988	2.13	NA	19.0	NA	4.4	14.6	NA
1989	2.56	NA	18.5	NA	4.7	13.8	NA
1990	2.63	NA	16.3	NA	6.1	10.2	NA
1991	2.77	NA	10.8	NA	3.1	7.7	NA
1992	3.29	NA	13.0	NA	2.9	10.1	NA
1993	3.72	NA	15.7	NA	2.8	12.9	NA
1994	3.73	NA	23.0	NA	2.7	20.3	NA
1995	4.06	2.64	22.9	16.0 %	2.5	20.4	13.5 %
1996	4.79	3.00	24.8	16.8	3.3	21.5	13.5
1997	5.88	3.53	24.6	16.3	1.7	22.9	14.6
1998	7.13	4.16	21.3	14.5	1.6	19.7	12.9
1999	8.27	4.76	25.2	17.1	2.7	22.5	14.4
2000	7.51	4.51	23.9	16.2	3.4	20.5	12.8
2001	NA	3.50	NA	7.4	1.6	NA	5.8
2002	NA	2.93	NA	8.3	2.4	NA	5.9
2003	NA	2.78	NA	14.1	1.9	NA	12.2
2004	NA	2.91	NA	15.3	3.3	NA	12.0
2005	NA	2.78	NA	16.4	3.4	NA	13.0
2006	NA	2.75 (5)	NA	17.2	2.5	NA	14.7
2007	NA	2.77 (5)	NA	12.8	4.1	NA	8.7
2008	NA	2.02 (5)	NA	2.7	0.1	NA	2.6
2009	NA	1.63 (5)	NA	9.2	2.7	NA	6.5
2010	NA	1.92 (5)	NA	13.0	1.5	NA	11.5
2011	NA	1.89 (5)	NA	13.4	3.0	NA	10.4
2012	NA	1.93 (5)	NA	12.2	1.7	NA	10.5
Average	2.34	2.91	14.9 %	13.3 %	3.7 %	10.9 %	10.9 %

Notes: (1) Market-to-Book Ratio equals average of the high and low market price for the year divided by the average book value.

(2) Earnings/Book equals earnings per share for the year divided by the average book value.

(3) On January 2, 2001 Standard & Poor's released Global Industry Classification Standard (GICS) price indexes for all Standard & Poor's U.S. indexes. As a result, all S&P Indexes have been calculated with a common base of 100 at a start date of December 31, 1994. Also, the GICS industrial sector is not comparable to the former S&P Industrial Index and data for the former S&P Industrial Index was discontinued.

(4) As measured by the Consumer Price Index (CPI).

(5) Ratios are based upon estimated book values using the actual average price and the estimated book value calculated by adding the annual earnings per share to the average book value per share and then subtracting the average dividends per share as provided by Standard & Poor's Statistical Record - Current Statistics.

Source of Information: Standard & Poor's Security Price Index Record, 2000 Edition, p. 40
Standard & Poor's Statistical Service, Current Statistics, March 2013, p. 30
Standard & Poor's Compustat Services, Inc. PC Plus Research Insight Database
Ibbotson SBBI 2013 Valuation Yearbook

Chaparral City Water Company
Brief Summary of Common Equity Cost Rate

No.	Principal Methods	Proxy Group of Nine Water Companies
1.	Discounted Cash Flow Model (DCF) (1)	8.24 %
2.	Risk Premium Model (RPM) (2)	11.44
3.	Capital Asset Pricing Model (CAPM) (3)	9.77
5.	Indicated Common Equity Cost Rate before Adjustment for Business Risks	9.80 %
6.	Credit Risk Adjustment (4)	0.32
7	Business Risk Adjustment (5)	0.40
8.	Indicated Common Equity Cost Rate	10.52 %
9.	Recommended Common Equity Cost Rate	10.50 %

Notes:
(1) From page 2 of this schedule.
(2) From page 13 of this schedule.
(3) From page 23 of this schedule.
(4) Credit risk adjustment to reflect the increased credit risk of CCWC's likely bond rating relative to the proxy group as detailed in Ms. Ahern's testimony.
(5) Business risk adjustment to reflect Chaparral City Water Company's greater business risk due to its small size relative to the proxy group as detailed in Ms. Ahern's testimony.

Chaparral City Water Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for
the Proxy Group of Nine Water Companies

Proxy Group of Nine Water Companies	1 Average Dividend Yield (1)	2 Value Line Projected Five Year Growth in EPS (2)	3 Reuters Mean Consensus Projected Five Year Growth Rate in EPS	4 Zack's Five Year Projected Growth Rate in EPS	5 Yahoo! Finance Projected Five Year Growth in EPS	6 Average Projected Five Year Growth in EPS (3)	7 Adjusted Dividend Yield (4)	8 Indicated Common Equity Cost Rate (5)
American States Water Co.	2.88 %	6.00 %	1.00 %	2.00 %	1.00 %	2.50 %	2.92 %	5.42 %
American Water Works Co., Inc.	2.67	10.00	9.00	7.30	8.05	8.59	2.78	11.37
Aqua America, Inc.	2.50	8.00	7.40	5.60	5.80	6.70	2.58	9.28
Artesian Resources Corp.	3.66	NA	N/A	NA	4.00	4.00	3.73	7.73
California Water Service Group	2.93	6.50	N/A	6.00	6.00	6.17	3.02	9.19
Connecticut Water Service, Inc.	2.99	5.50	N/A	5.00	5.00	5.17	3.07	8.24
Middlesex Water Company	3.57	4.00	N/A	NA	2.70	3.35	3.63	6.98
SJW Corporation	2.58	7.50	N/A	NA	14.00	10.75	2.72	13.47
York Water Company	2.66	4.00	N/A	NA	4.90	4.45	2.72	7.17
Average								8.76 %
Median								8.24 %

NA= Not Available
NMF = Not Meaningful Figure

Notes:

(1) Indicated dividend at 12/31/2013 divided by the average closing price of the last 60 trading days ending 12/31/2013 for each company.
(2) From pages 4 through 12 of this Schedule.
(3) Average of columns 2 through 5 excluding negative growth rates.
(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Co. , 2.88% x (1+(1/2 x 2.50%)) = 2.92%.
(5) Column 6 + column 7.

Source of Information:

Value Line Investment Survey
www.reuters.com Downloaded on 01/02/2014
www.zacks.com Downloaded on 01/02/2014
www.yahoo.com Downloaded on 01/02/2014

Chaparral City Water Company
Example of the Inadequacy of
DCF Return Rate Related to Book Value
When Market Value Exceeds Book Value

Line No.		Based on the Proxy Group of Nine Water Companies (1) Market Value	Based on the Proxy Group of Nine Water Companies (2) Book Value
1.	Per Share	$ 27.530 (1)	$ 13.574 (2)
2.	DCF Cost Rate (3)	8.76%	8.76%
3.	Return in Dollars	$ 2.412	$ 1.189
4.	Dividends	$ 0.831 (4)	$ 0.831 (4)
5.	Growth in Dollars	$ 1.581	$ 0.358
6.	Return on Market Value (5)	8.76%	4.32%
7.	Rate of Growth on Market Value (6)	5.74%	1.30%

Notes:

(1) Average market price of Ms. Ahern's proxy group of water companies as shown in column 4 on page 26 of this Schedule.

(2) Average book value of Ms. Ahern's proxy group of water companies as shown in column 2 on page 26 of this Schedule.

(3) From page 1 of this Schedule.

(4) Dividends per share based upon a 3.02% adjusted dividend yield. $0.831 = $27.530 * 3.02%.

(5) Line 3 / market value per share (line 1 column (a)).

(6) Line 6 - average dividend yield from page 2 of this Schedule.

AMER. STATES WATER NYSE-AWR

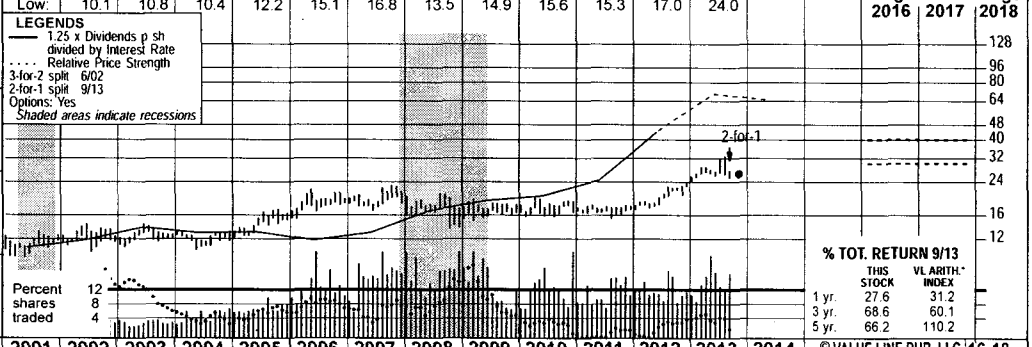
RECENT PRICE 26.48 | P/E RATIO 17.9 (Trailing: 17.4 / Median: 22.0) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 3 Lowered 8/16/13
SAFETY 2 Raised 7/20/12
TECHNICAL 3 Raised 8/23/13
BETA .70 (1.00 = Market)

High:	14.5	14.5	13.4	17.3	21.9	23.1	21.0	19.4	19.8	18.2	24.1	33.1
Low:	10.1	10.8	10.4	12.2	15.1	16.8	13.5	14.9	15.6	15.3	17.0	24.0

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 6/02
2-for-1 split 9/13
Options: Yes
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+50%)	14%
Low	30	(+15%)	7%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	1	0	0	0	0	2	1	0
Options	1	1	1	0	0	1	4	4	0
to Sell	2	3	1	0	0	0	5	5	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	77	93	98
to Sell	64	59	70
Hld's(000)	24066	24964	24268

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.6	31.2
3 yr.	68.6	60.1
5 yr.	66.2	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.72	5.51	6.45	6.08	6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	*12.30*	*12.50*	Revenues per sh	*12.75*
.92	1.02	1.13	1.10	1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	*2.60*	*2.65*	"Cash Flow" per sh	*3.20*
.52	.54	.60	.64	.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	*1.50*	*1.55*	Earnings per sh A	*1.70*
.42	.42	.43	.43	.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	*.76*	*.83*	Div'd Decl'd per sh B■	*.95*
1.29	1.56	2.15	1.51	1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	*2.15*	*2.20*	Cap'l Spending per sh	*2.10*
5.62	5.74	5.91	6.37	6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	*11.85*	*12.50*	Book Value per sh	*14.25*
26.87	26.87	26.87	30.24	30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	*39.00*	*40.00*	Common Shs Outst'g C	*44.00*
14.5	15.5	17.1	15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	*Bold figures are*		Avg Ann'l P/E Ratio	*19.5*
.84	.81	.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	*Value Line*		Relative P/E Ratio	*1.30*
5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.1%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $335.8 mill. **Due in 5 Yrs** $10.6 mill.
LT Debt $332.4 mill. **LT Interest** $8.0 mill.
(LT interest earned: 5.2x: total interest coverage: 4.9x) (42% of Cap'l)
Leases, Uncapitalized: Annual rentals $3.0 mill.
Pension Assets-12/12 $107.6 mill. **Oblig.** $163.2 mill.
Pfd Stock None.
Common Stock 38,688,804 shs.
as of 8/6/13 *(Reflects 2-for-1 stock split paid 9/3/13.)*
MARKET CAP: $1.0 billion (Mid Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
212.7	228.0	236.2	268.6	301.4	318.7	361.0	398.9	419.3	466.9	*480*	*500*	Revenues ($mill)	*560*
11.9	16.5	22.5	23.1	28.0	26.8	29.5	41.4	42.0	54.1	*58.0*	*60.0*	Net Profit ($mill)	*73.0*
43.5%	37.4%	47.0%	40.5%	42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
--	--	--	12.2%	8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
52.0%	47.7%	50.4%	48.5%	46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	*43.0%*	*43.0%*	Long-Term Debt Ratio	*43.0%*
48.0%	52.3%	49.6%	51.4%	53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	*57.0%*	*57.0%*	Common Equity Ratio	*57.0%*
442.3	480.4	532.5	551.6	569.4	577.0	665.0	677.4	749.1	787.0	*805*	*875*	Total Capital ($mill)	*1025*
602.3	664.2	713.2	750.6	776.4	825.3	866.4	855.0	896.5	917.8	*940*	*985*	Net Plant ($mill)	*1100*
4.6%	5.2%	5.4%	6.0%	6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	*7.0%*	*7.0%*	Return on Total Cap'l	*6.5%*
5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	*12.5%*	*12.0%*	Return on Shr. Equity	*11.5%*
5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	*12.5%*	*12.0%*	Return on Com Equity	*11.5%*
NMF	1.0%	2.8%	2.7%	3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	*6.0%*	*6.0%*	Retained to Com Eq	*5.0%*
113%	84%	67%	67%	58%	64%	61%	47%	49%	45%	*51%*	*54%*	All Div'ds to Net Prof	*56%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	1.3	23.5	8.5
Other	164.3	160.5	172.6
Current Assets	165.6	184.0	181.1
Accts Payable	37.9	40.6	55.2
Debt Due	.3	3.3	3.4
Other	66.2	49.8	43.8
Current Liab.	104.4	93.7	102.4
Fix. Chg. Cov.	401%	442%	*450%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	5.5%	7.5%	*2.0%*
"Cash Flow"	6.5%	9.0%	*6.0%*
Earnings	6.5%	11.5%	*6.0%*
Dividends	3.0%	4.5%	*9.0%*
Book Value	5.0%	5.5%	*2.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	88.4	95.5	111.3	103.7	398.9
2011	94.3	109.8	119.9	95.3	419.3
2012	107.6	114.3	133.5	111.5	466.9
2013	110.5	120.7	*135*	*113.8*	*480*
2014	*115*	*125*	*140*	*120*	*500*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.23	.24	.31	.33	1.11
2011	.19	.34	.42	.17	1.12
2012	.27	.40	.49	.26	1.41
2013	.35	.43	*.48*	*.24*	*1.50*
2014	*.33*	*.42*	*.55*	*.30*	*1.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.125	.125	.125	.13	.51
2010	.13	.13	.13	.13	.52
2011	.13	.14	.14	.14	.55
2012	.14	.14	.178	.178	.64
2013	.178	.178	.203		

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 728 employees. Officers & directors own 2.9% of common stock (4/12 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprowls. Inc: CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Nonutility operations are a key component of American States Water. Last year, its nonregulated subsidiary, American States Utilities Services (ASUS), accounted for $0.39 a share, or 28% of the company's share net. This percentage was easily the highest among the eight water utilities that *Value Line* follows.

Estimating future profits from these businesses will be more difficult in the years ahead. The core of the ASUS profits has come from operating and maintaining water services at eight U.S. military bases. Some analysts on Wall Street believe that 2012 was perhaps the peak earnings year for ASUS, but we think that these projections are conservative. True, the company's backlog of new projects isn't large. However, with a substantial number of military facilities yet to be privatized, we believe that ASUS' good reputation with the Department of Defense will greatly help it win a fair share of future contracts. Thus, we think earnings of between $0.40 a share and $0.50 a share from this segment are attainable to the 2016-2018 pull. Since winning contracts is less predictable than its core business, American States earnings might experience greater swings than in the past.

Meanwhile, core regulated operations are doing fine. Due mostly TO a recent rate increase granted to Golden State Water (the main water utility), earnings growth should be somewhere in the 5%-7% range. Indeed,

We're raising our earnings projections again. For the second straight quarter, American States share net exceeded expectations in the June period. As a result, we are nudging the company's earnings-per-share estimates higher by $0.05 in 2013, and $0.10 in 2014, respectively. *(Please note that all figures on the page have been changed to reflect the two-for-one stock split paid on September 3rd.)*

American States' shares offer slightly better-than-average potential long-term returns for a water utility. The current yield is typical for the industry, but dividend growth prospects are higher than the group norm. Moreover, the company is the third-largest water utility we follow, and is the only one that rates an A Financial Strength Rating.

James A. Flood *October 18, 2013*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7¢; '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢) '11, 10¢. Next earnings report due early November. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	90

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AMERICAN WATER NYSE-AWK

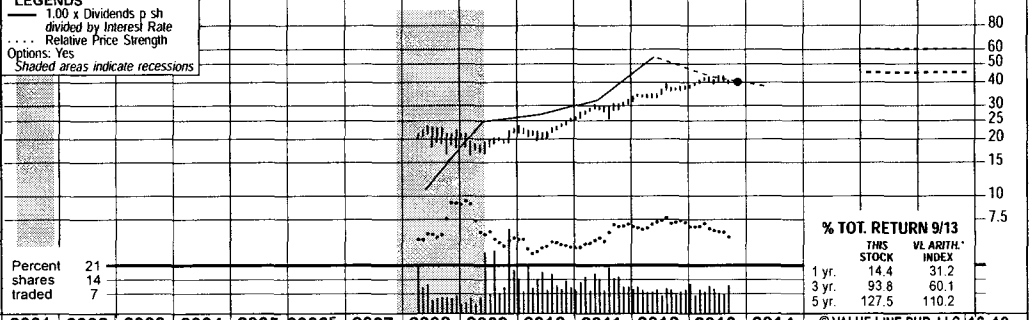
RECENT PRICE 40.09 | P/E RATIO 18.0 (Trailing: 19.5 Median: NMF) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 3 Raised 10/4/13
SAFETY 3 New 7/25/08
TECHNICAL 3 Lowered 8/9/13
BETA .65 (1.00 = Market)

	2008	2009	2010	2011	2012	2013
High:	23.7	23.0	25.8	32.8	39.4	43.7
Low:	16.5	16.2	19.4	25.2	31.3	37.0

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+50%)	13%
Low	45	(+10%)	6%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	0	0
Options	4	0	0	0	8	0	3	0	0
to Sell	4	0	0	0	8	0	3	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	188	191	165
to Sell	175	186	209
Hld's(000)	146609	145912	144834

Percent shares traded 21 14 7

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	14.4	31.2
3 yr.	93.8	60.1
5 yr.	127.5	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006E	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
--	--	--	--	--	--	--	--	--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.60	17.50	Revenues per sh	20.25
--	--	--	--	--	--	--	--	--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.45	4.70	"Cash Flow" per sh	5.25
--	--	--	--	--	--	--	--	--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.20	2.40	Earnings per sh A	2.90
--	--	--	--	--	--	--	--	--	--	--	.40	.82	.86	.91	.96	1.06	1.20	Div'd Decl'd per sh B■	1.40
--	--	--	--	--	--	--	--	--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.35	5.35	Cap'l Spending per sh	5.50
--	--	--	--	--	--	--	--	--	23.86	28.39	25.64	22.91	23.59	24.11	25.10	26.40	27.50	Book Value per sh D	30.00
--	--	--	--	--	--	--	--	--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.50	180.00	Common Shs Outst'g g C	185.00
--	--	--	--	--	--	--	--	--	--	--	18.9	15.6	14.6	16.8	16.7	Bold figures are		Avg Ann'l P/E Ratio	18.5
--	--	--	--	--	--	--	--	--	--	--	1.14	1.04	.93	1.05	1.07	Value Line		Relative P/E Ratio	1.25
--	--	--	--	--	--	--	--	--	--	--	1.9%	4.2%	3.8%	3.1%	2.7%	estimates		Avg Ann'l Div'd Yield	2.7%
						--	--	--	2093.1	2214.2	2336.9	2440.7	2710.7	2666.2	2876.9	2960	3150	Revenues ($mill)	3750
						--	--	--	d155.8	d342.3	187.2	209.9	267.8	304.9	375.0	390	430	Net Profit ($mill)	535
						--	--	--	--	--	37.4%	37.9%	40.4%	39.5%	40.7%	40.0%	40.0%	Income Tax Rate	40.0%
						--	--	--	--	--	--	--	--	12.5%	6.2%	8.0%	10.0%	AFUDC % to Net Profit	12.0%
						--	--	--	56.1%	50.9%	53.1%	56.9%	56.8%	55.7%	53.8%	54.0%	54.0%	Long-Term Debt Ratio	54.5%
						--	--	--	43.9%	49.1%	46.9%	43.1%	43.2%	44.2%	46.0%	46.0%	46.0%	Common Equity Ratio	45.5%
						--	--	--	8692.8	9245.7	8750.2	9289.0	9561.3	9580.3	9652.7	10300	10800	Total Capital ($mill)	11800
						--	--	--	8720.6	9318.0	9991.8	10524	11059	11021	11739	12300	12800	Net Plant ($mill)	14200
						--	--	--	NMF	NMF	3.7%	3.8%	4.4%	4.8%	5.5%	5.5%	5.5%	Return on Total Cap'l	6.0%
						--	--	--	NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	8.0%	8.5%	Return on Shr. Equity	9.5%
						--	--	--	NMF	NMF	4.6%	5.2%	6.5%	7.2%	8.4%	8.0%	8.5%	Return on Com Equity	9.5%
						--	--	--	NMF	NMF	3.0%	1.8%	2.8%	3.5%	4.6%	4.5%	4.5%	Retained to Com Eq	4.5%
						--	--	--	--	--	34%	65%	56%	52%	45%	48%	50%	All Div'ds to Net Prof	50%

CAPITAL STRUCTURE as of 6/30/13
Total Debt $5761.0 mil. **Due in 5 Yrs** $1034.0 mil.
LT Debt $5180.7 mil. **LT Interest** $301.0 mil.
(Total interest coverage: 4.4x) (53% of Cap'l)

Leases, Uncapitalized: Annual rentals $28.1 mill.
Pension Assets $1157.7 mill
Oblig. $1621.2 mill.
Pfd Stock $17.6 mill. **Pfd Div'd** $.7 mill

Common Stock 177,964,133 shs.
as of 8/1/13

MARKET CAP: $7.1 billion (Large Cap)

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	14.2	24.4	20.4
Other	1383.5	475.0	525.4
Current Assets	1397.7	499.4	545.8
Accts Payable	243.7	279.6	178.4
Debt Due	543.9	385.9	580.3
Other	701.5	329.3	290.6
Current Liab.	1489.1	994.8	1049.3
Fix. Chg. Cov.	256%	292%	300%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	--	3.0%	5.0%
"Cash Flow"	--	NMF	6.5%
Earnings	--	--	10.0%
Dividends	--	--	9.0%
Book Value	--	-1.5%	4.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	588.1	671.2	786.9	664.5	2710.7
2011	596.7	668.8	760.9	639.8	2666.2
2012	618.7	745.6	831.8	680.8	2876.9
2013	636.1	724.3	890	709.6	2960
2014	670	775	945	760	3150

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.18	.42	.71	.23	1.53
2011	.23	.42	.73	.32	1.72
2012	.28	.66	.87	.30	2.11
2013	.32	.57	.90	.41	2.20
2014	.35	.65	1.00	.40	2.40

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.20	.20	.21	.21	.82
2010	.21	.21	.22	.22	.86
2011	.22	.23	.23	.23	.91
2012	.23	.23	.25	.25	.96
2013	.25	.25	.28		

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 14 million people in over 30 states and Canada. It's nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 89.1% of 2012 revenues. New Jersey is its biggest market accounting for 22.2% of revenues. Has roughly 7,000 employees. Depreciation rate, 2.6% in '12. BlackRock, Inc., owns 10.3% of the common stock outstanding. Off. & dir. own less than 1% (3/13 Proxy). President & CEO; Jeffry Sterba. Chairman; George Mackenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Telephone: 856-346-8200. Internet: www.amwater.com.

American Water Works continues to do a good job of staying on the right side of regulators. The company must contend with 30 different state regulatory commissions in order to recoup the large sums that it is investing in its individual water systems located throughout the country. The utility's basic formula for success in dealing with regulators has been to keep costs low. This feat has been achieved by improving operating margins and continually reducing expense ratios, a trend we expect to continue. Indeed, effective cost containment makes it much more difficult for state commissions to deny much needed rate increases.

Expansion via acquisitions will remain a key element to American Water's long-term growth. The company should continue to scoop up some of the small water utilities that cash-strapped municipalities are willing to sell. Sixteen purchases were made last year and 10 have already been completed so far in 2013. It is American Water's expertise in integrating these new entities into its existing operations and reducing overhead that is behind its leaner cost structure.

American Water's construction budget should be large but manageable. Capital expenditures will probably be close to $1 billion a year over the next 3- to 5-year period, due to the need to upgrade and repair the company's aging infrastructure. Internally generated funds will probably cover only about 75% of the outlays over this time frame. As a result, American Water will most likely have to issue more debt to make up the difference.

American Water's earnings and dividend growth prospects are good. The combination of efficient operations, inorganic growth, and greater contributions from nonutility businesses should enable annual earnings and dividend increases in the 7% to 10% range (versus about 5% for the industry) for the foreseeable future.

Long-term, income-oriented investors might like these shares. The yield on AWK's stock is close to the industry norm, yet its dividend growth prospects are well above-average. So, even though the stock is currently not timely, it still holds more appeal than most water utilities to the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Excludes nonrecurring losses: '08, $4.62; '09, $2.63; '11, $0.07. Discontinued operations: '06, (4¢); '11, 3¢; '12, (10¢). Next earnings report due late October. Quarterly earnings may not sum due to rounding. (B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available. (C) In millions. (D) Includes intangibles. In 2012: $1.207 billion, $6.82/share. (E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B+
Stock's Price Stability	95
Price Growth Persistence	90
Earnings Predictability	20

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AQUA AMERICA NYSE-WTR

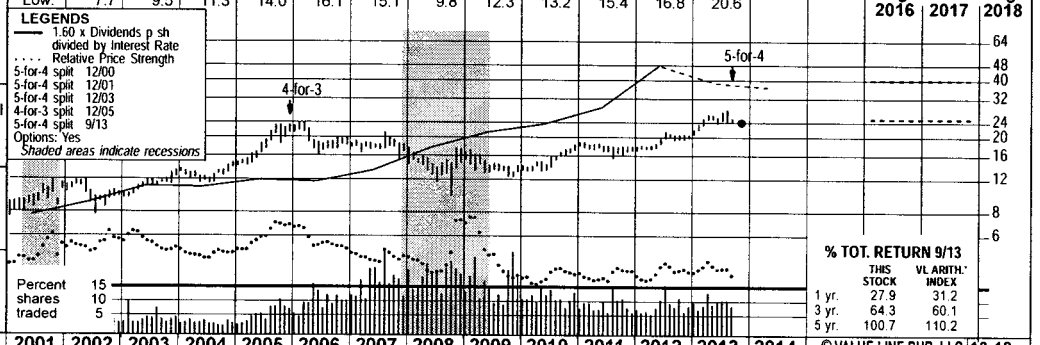
RECENT PRICE 23.97 | P/E RATIO 20.3 (Trailing: 22.7 Median: 24.0) | RELATIVE P/E RATIO 1.15 | DIV'D YLD 2.6% | VALUE LINE

TIMELINESS 3 Lowered 5/24/13
SAFETY 2 Raised 4/20/12
TECHNICAL 3 Raised 9/13/13
BETA .60 (1.00 = Market)

High:	12.0	13.4	14.8	23.4	23.8	21.3	17.6	17.2	18.4	19.0	21.5	28.1
Low:	7.7	9.5	11.3	14.0	16.1	15.1	9.8	12.3	13.2	15.4	16.8	20.6

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.60 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
5-for-4 split 12/00
5-for-4 split 12/01
5-for-4 split 12/03
4-for-3 split 12/05
5-for-4 split 9/13
Options: Yes
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+65%)	19%
Low	25	(+5%)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	1	3	2	2	0	0	1	3
to Sell	0	0	2	0	0	0	0	2	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	118	136	141
to Sell	117	116	130
Hld's(000)	83977	82403	82501

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.9	31.2
3 yr.	64.3	60.1
5 yr.	100.7	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
1.61	1.67	1.93	1.97	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	*4.45*	*4.60*	Revenues per sh	*4.95*
.45	.49	.58	.61	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	*1.60*	*1.70*	"Cash Flow" per sh	*1.85*
.27	.32	.33	.37	.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	*1.15*	*1.25*	Earnings per sh A	*1.45*
.19	.20	.22	.23	.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	*.58*	*.64*	Div'd Decl'd per sh B■	*.85*
.46	.65	.72	.93	.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	*2.15*	*2.15*	Cap'l Spending per sh	*2.15*
2.27	2.57	2.74	3.08	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	*8.90*	*9.60*	Book Value per sh	*11.50*
84.33	90.25	133.50	139.78	142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	*177.50*	*179.50*	Common Shs Outst'g C	*184.00*
17.8	22.5	21.2	18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
1.03	1.17	1.21	1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.40	*Value Line*		Relative P/E Ratio	*1.50*
3.9%	2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	*estimates*		Avg Ann'l Div'd Yield	*2.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $1648.4 mill. **Due in 5 Yrs** $368.3 mill.
LT Debt $1489.8 mill. **LT Interest** $60.0 mill.
(LT interest earned: 5.0x; total interest coverage: 4.1x) (51% of Cap'l)
Pension Assets-12/12 $190.1 mill. **Oblig.** $303.1 mill.
Pfd Stock None
Common Stock 176,463,469 shares as of 7/26/13 *(Reflects 5-for-4 stock split paid 9/1/13.)*
MARKET CAP: $4.2 billion (Mid Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
367.2	442.0	496.8	533.5	602.5	627.0	670.5	726.1	712.0	757.8	*790*	*830*	Revenues ($mill)	*915*
67.3	80.0	91.2	92.0	95.0	97.9	104.4	124.0	144.8	153.1	*205*	*225*	Net Profit ($mill)	*265*
39.3%	39.4%	38.4%	39.6%	38.9%	39.7%	39.4%	39.2%	32.9%	39.0%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
--	--	--	--	--	--	--	--	2.9%	3.1%	*3.0%*	*3.0%*	AFUDC % to Net Profit	*2.0%*
51.4%	50.0%	52.0%	51.6%	55.4%	54.1%	55.6%	56.6%	52.7%	52.7%	*50.0%*	*50.0%*	Long-Term Debt Ratio	*50.0%*
48.6%	50.0%	48.0%	48.4%	44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	*50.0%*	*50.0%*	Common Equity Ratio	*50.0%*
1355.7	1497.3	1690.4	1904.4	2191.4	2306.6	2495.5	2706.2	2646.8	2929.7	*3150*	*3450*	Total Capital ($mill)	*4230*
1824.3	2069.8	2280.0	2506.0	2792.8	2997.4	3227.3	3469.3	3612.9	3936.2	*4150*	*4350*	Net Plant ($mill)	*4900*
6.4%	6.7%	6.9%	6.4%	5.9%	5.7%	5.6%	5.9%	6.9%	6.6%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
10.2%	10.7%	11.2%	10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	*12.0%*	*12.0%*	Return on Shr. Equity	*12.5%*
10.2%	10.7%	11.2%	10.0%	9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	*12.0%*	*12.0%*	Return on Com Equity	*12.5%*
4.2%	4.6%	4.9%	3.7%	3.2%	2.8%	2.7%	3.7%	4.6%	4.3%	*6.0%*	*6.0%*	Retained to Com Eq	*5.0%*
59%	57%	56%	63%	67%	70%	72%	65%	60%	61%	*52%*	*52%*	All Div'ds to Net Prof	*59%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	8.2	5.5	4.3
Receivables	81.1	92.9	98.3
Inventory (AvgCst)	11.2	11.8	12.5
Other	220.0	150.7	106.5
Current Assets	320.5	260.9	221.6
Accts Payable	68.3	55.5	47.0
Debt Due	80.4	125.4	158.6
Other	277.0	93.3	101.1
Current Liab.	425.7	274.2	306.7
Fix. Chg. Cov.	367%	398%	*398%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	8.0%	7.5%	*3.5%*
"Cash Flow"	8.5%	8.0%	*4.5%*
Earnings	6.5%	4.5%	*8.0%*
Dividends	7.5%	8.0%	*8.0%*
Book Value	9.0%	7.0%	*6.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	160.5	178.5	207.8	179.3	726.1
2011	163.6	178.3	197.3	172.7	712.0
2012	164.0	191.7	214.6	187.5	757.8
2013	180.0	195.7	*219.3*	*195*	*790*
2014	*190*	*215*	*225*	*200*	*830*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.13	.18	.26	.15	.72
2011	.18	.22	.24	.19	.83
2012	.15	.24	.29	.19	.87
2013	.26	.30	*.34*	*.25*	*1.15*
2014	*.25*	*.32*	*.40*	*.28*	*1.25*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.108	.108	.108	.116	.44
2010	.116	.116	.116	.124	.47
2011	.124	.124	.124	.132	.50
2012	.132	.132	.132	.14	.54
2013	.14	.14	.152		

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Acquired AquaSource, 7/03; Consumers Water, 4/99; and others. Water supply revenues '12: residential, 60.5%; commercial, 16.1%; industrial & other, 23.4%. Officers and directors own 1.4% of the common stock; Blackrock, Inc, 6.3%; State Street Capital Corp., 5.7%; Vanguard Group 5.6% (4/13 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

Aqua America's main long-term strategy is to grow through acquisitions. The United States is filled with thousands of small water utilities that are run by local municipalities. Due to the lack of proper maintenance, many of the facilities are in terrible shape. Since a large number of local governments are financially strapped, they find it more advantageous to sell their water systems to entities that have both greater managerial experience and the financial wherewithal to invest the funds required for the systems to operate properly. Aqua America bought 18 new companies last year and should add a similar number of new utilities in 2013.

Aqua America has been successful driving synergies through acquisitions. Historically, many of the operational benefits promised to shareholders of companies involved in acquisitions never take place. However, Aqua America has proven that it can purchase other water utilities and slash redundant overhead costs to improve operating margins.

Dividend growth prospects are excellent. Last quarter's 9% hike in the quarterly payout (all of our numbers have been adjusted for the recent five-for-four stock split) was much higher than that of a typical utility. Thanks in part to the company's low payout ratio, we estimate that the annual dividend hike will average about 10% for the foreseeable future.

Nonutility operations will play a larger role in the company's future. Aqua America recently completed another extension of its water pipeline in Pennsylvania. The pipeline is used to supply water to natural gas producers drilling in the Marcellus Shale. We expect the company to become much more involved in constructing pipelines because this is a more efficient way of providing the water needed for drilling than by using trucks.

Investors have to pay a slight premium for these shares. The average yield for a water utility is close to 3%. Thus, WTR's payout is about 40 basis points lower than the industry norm. We believe that this is a very reasonable price to pay for the company's robust dividend growth prospects, which should provide better-than-average total returns for a water utility over the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted egs. Excl. nonrec. gains (losses): '99, (9¢); '00, 2¢; '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 3¢. May not sum due to rounding. Next earnings report due late October.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	100

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ARTESIAN RES. CORP. NDQ--ARTNA

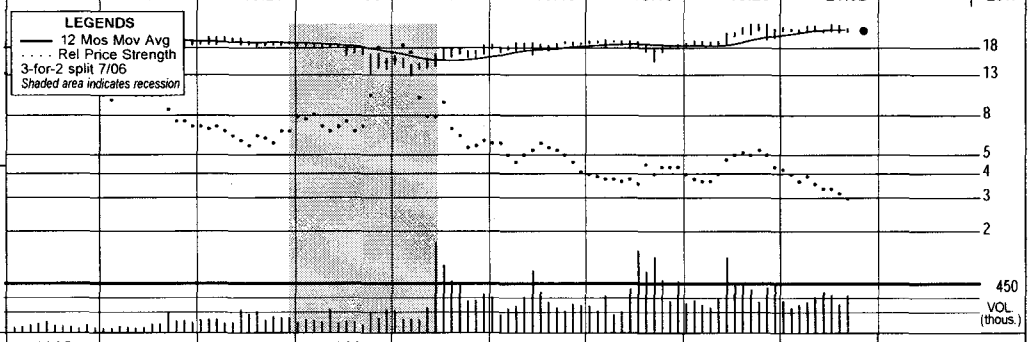
RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	
22.18	22.2	1.15	3.7%	VALUE LINE

RANKS

PERFORMANCE	2	Above Average
Technical	2	Above Average
SAFETY	3	Average
BETA .60		(1.00 = Market)

Financial Strength	B
Price Stability	95
Price Growth Persistence	60
Earnings Predictability	85

22.62	22.33	20.67	19.31	18.73	19.59	19.99	24.43	24.27	High
17.20	17.90	18.26	13.00	12.81	16.43	15.16	18.20	21.52	Low



© VALUE LINE PUBLISHING LLC	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014/2015
SALES PER SH	7.52	7.77	7.20	7.59	8.11	8.48	7.56	8.10	--	
"CASH FLOW" PER SH	1.56	1.75	1.57	1.65	1.84	1.92	1.64	2.04	--	
EARNINGS PER SH	.81	.97	.90	.86	.97	1.00	.83	1.13	*1.05* [A,B]	*1.23* [C]/NA
DIV'DS DECL'D PER SH	.58	.61	.66	.71	.72	.75	.76	.79	--	
CAP'L SPENDING PER SH	3.35	5.08	3.66	6.09	2.32	2.57	1.83	2.36	--	
BOOK VALUE PER SH	9.60	10.15	11.66	11.86	12.15	12.44	13.12	13.57	--	
COMMON SHS OUTST'G (MILL)	6.02	6.09	7.30	7.40	7.51	7.65	8.61	8.71	--	
AVG ANN'L P/E RATIO	24.2	20.3	21.5	20.1	16.4	18.2	22.5	18.3	*21.1*	*18.0/NA*
RELATIVE P/E RATIO	1.28	1.10	1.14	1.21	1.09	1.16	1.41	1.17	--	
AVG ANN'L DIV'D YIELD	2.9%	3.1%	3.4%	4.1%	4.5%	4.1%	4.1%	3.8%	--	
SALES ($MILL)	45.3	47.3	52.5	56.2	60.9	64.9	65.1	70.6	--	*Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.*
OPERATING MARGIN	100.0%	45.6%	45.6%	45.1%	46.9%	46.5%	45.5%	48.7%	--	
DEPRECIATION ($MILL)	4.4	4.6	5.2	5.8	6.6	7.0	7.4	7.9	--	
NET PROFIT ($MILL)	5.0	6.1	6.3	6.4	7.3	7.6	6.7	9.8	--	
INCOME TAX RATE	39.9%	39.0%	39.8%	40.8%	40.1%	40.0%	40.8%	40.2%	--	
NET PROFIT MARGIN	11.1%	12.8%	11.9%	11.4%	11.9%	11.7%	10.4%	14.0%	--	
WORKING CAP'L ($MILL)	d1.8	d8.8	2.5	d20.9	d23.3	d27.9	d11.4	d11.4	--	
LONG-TERM DEBT ($MILL)	92.4	92.1	91.8	107.6	106.0	105.1	106.5	106.3	--	
SHR. EQUITY ($MILL)	57.8	61.8	85.1	87.8	91.2	95.1	113.0	118.2	--	
RETURN ON TOTAL CAP'L	5.3%	5.8%	5.3%	4.7%	5.2%	5.6%	4.6%	5.9%	--	
RETURN ON SHR. EQUITY	8.7%	9.8%	7.4%	7.3%	8.0%	8.0%	6.0%	8.3%	--	
RETAINED TO COM EQ	2.7%	3.8%	2.1%	1.4%	2.1%	2.0%	.5%	2.5%	--	
ALL DIV'DS TO NET PROF	69%	61%	71%	81%	74%	75%	92%	70%	--	

[A]No. of analysts changing earn. est. in last 4 days: 0 up, 0 down, consensus 5-year earnings growth not available. [B]Based upon 4 analysts' estimates. [C]Based upon 4 analysts' estimates.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	1.5%	7.0%
"Cash Flow"	3.0%	24.0%
Earnings	2.0%	36.0%
Dividends	4.5%	4.0%
Book Value	4.5%	3.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/11	14.8	16.5	17.7	16.1	65.1
12/31/12	16.7	17.9	19.0	17.0	70.6
12/31/13	16.3	17.8			
12/31/14					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/10	.22	.24	.38	.16	1.00
12/31/11	.14	.23	.26	.20	.83
12/31/12	.28	.32	.33	.20	1.13
12/31/13	.19	.28	*.34*	*.25*	
12/31/14	*.20*				

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2010	.187	.188	.188	.189	.75
2011	.19	.19	.19	.193	.76
2012	.193	.198	.198	.203	.79
2013	.203	.206	.206	.209	

INSTITUTIONAL DECISIONS

	4Q'12	1Q'13	2Q'13
to Buy	28	32	31
to Sell	32	26	30
Hld's(000)	3052	3036	3029

ASSETS ($mill.)	2011	2012	6/30/13
Cash Assets	.3	.6	.5
Receivables	8.6	8.7	9.1
Inventory	1.5	1.4	1.5
Other	2.9	2.8	1.2
Current Assets	13.3	13.5	12.3
Property, Plant & Equip, at cost	435.0	454.4	--
Accum Depreciation	77.4	83.8	--
Net Property	357.6	370.6	374.8
Other	7.8	7.6	7.6
Total Assets	378.7	391.7	394.7
LIABILITIES ($mill.)			
Accts Payable	2.8	3.5	1.9
Debt Due	13.8	12.6	10.7
Other	8.1	8.8	9.2
Current Liab	24.7	24.9	21.8

LONG-TERM DEBT AND EQUITY as of 6/30/13

Total Debt $116.8 mill. **Due in 5 Yrs.** NA
LT Debt $106.1 mill.
Including Cap. Leases NA
(47% of Cap'l)

Leases, Uncapitalized Annual rentals NA

Pension Liability $.4 mill. in '12 vs. $.5 mill. in '11

Pfd Stock None **Pfd Div'd Paid** None

Common Stock 8,781,642 shares
(53% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Artesian Resources Corporation, through its subsidiaries, provides water, wastewater, and other services on the Delmarva Peninsula. It distributes and sells water to residential, commercial, industrial, municipal, and utility customers in Delaware, Maryland, and Pennsylvania. The company also offers water for public and private fire protection to customers in its service territories. In addition, it provides contract water and wastewater services, water and sewer service line protection plans, and wastewater management services, as well as design, construction, and engineering services. As of December 31, 2012, the company served approximately 79,000 metered water customers through 1,162 miles of transmission and distribution mains. Has 229 employees. Chairman, C.E.O. & President: Dian C. Taylor. Address: 664 Churchmans Rd., Newark, DE 19702. Tel.: (302) 453-6900. Internet: http://www.artesianwater.com.

J.V.

October 18, 2013

TOTAL SHAREHOLDER RETURN
Dividends plus appreciation as of 9/30/2013

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
0.79%	0.84%	-0.68%	31.05%	63.01%

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CALIFORNIA WATER NYSE-CWT

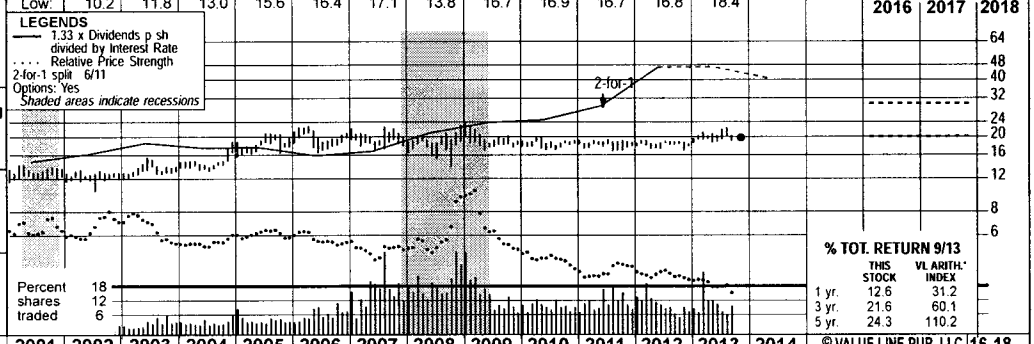
RECENT PRICE 19.73 | P/E RATIO 22.4 (Trailing: 21.2 Median: 21.0) | RELATIVE P/E RATIO 1.27 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 4 Lowered 10/4/13
SAFETY 3 Lowered 7/27/07
TECHNICAL 3 Lowered 8/23/13
BETA .65 (1.00 = Market)

High:	13.4	15.7	19.0	21.1	22.9	22.7	23.3	24.1	19.8	19.4	19.3	22.3
Low:	10.2	11.8	13.0	15.6	16.4	17.1	13.8	16.7	16.9	16.7	16.8	18.4

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.33 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 6/11
Options: Yes
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+50%)	13%
Low	20	(Nil)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	20	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	54	86	61
to Sell	63	39	57
Hld's(000)	22078	26409	26677

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.6	31.2
3 yr.	21.6	60.1
5 yr.	24.3	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
7.74	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.55	14.15	Revenues per sh	16.00
1.46	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.05	2.25	"Cash Flow" per sh	2.75
.92	.73	.77	.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	.80	1.05	Earnings per sh A	1.35
.53	.54	.54	.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.68	Div'd Decl'd per sh B ■	.90
1.30	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.65	2.90	Cap'l Spending per sh	3.00
6.50	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	13.40	13.85	Book Value per sh C	15.00
25.24	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.75	48.00	Common Shs Outst'g D	50.0
12.6	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	Bold figures are		Avg Ann'l P/E Ratio	19.0
.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	Value Line		Relative P/E Ratio	1.25
4.6%	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	estimates		Avg Ann'l Div'd Yield	3.6%

CAPITAL STRUCTURE as of 6/30/13
Total Debt $507.6 mill. **Due in 5 Yrs** $65.3 mill.
LT Debt $430.7 mill. **LT Interest** $29.5 mill.
(LT interest earned: 6.7x; total int. cov.: 6.0x)
(43% of Cap'l)
Pension Assets-12/12 $202.9 mill.
Oblig. $402.9 mill.
Pfd Stock None
Common Stock 47,734,035 shs.
as of 8/1/13
MARKET CAP: $950 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
277.1	315.6	320.7	334.7	367.1	410.3	449.4	460.4	501.8	560.0	590	650	Revenues ($mill) E	800
19.4	26.0	27.2	25.6	31.2	39.8	40.6	37.7	36.1	42.6	40.0	53.0	Net Profit ($mill)	67.0
39.9%	39.6%	42.4%	37.4%	39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	34.0%	39.0%	Income Tax Rate	39.0%
10.3%	3.2%	3.3%	10.6%	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	8.0%	8.5%	AFUDC % to Net Profit	10.0%
50.2%	48.6%	48.3%	43.5%	42.9%	41.6%	47.1%	52.4%	51.7%	47.8%	42.0%	46.5%	Long-Term Debt Ratio	50.0%
49.1%	50.8%	51.1%	55.9%	56.6%	58.4%	52.9%	47.6%	48.3%	52.2%	58.0%	53.5%	Common Equity Ratio	50.0%
498.4	565.9	568.1	670.1	674.9	690.4	794.9	914.7	931.5	908.2	1050	1125	Total Capital ($mill)	1400
759.5	800.3	862.7	941.5	1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	1510	1575	Net Plant ($mill)	1825
5.6%	6.1%	6.3%	5.2%	5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	5.5%	6.0%	Return on Total Cap'l	6.5%
7.8%	8.9%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.0%	8.0%	Return on Shr. Equity	9.5%
7.9%	9.0%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.0%	8.0%	Return on Com Equity	9.5%
.7%	2.1%	2.1%	1.0%	1.8%	3.8%	3.8%	3.0%	2.3%	3.4%	1.5%	3.0%	Retained to Com Eq	3.0%
91%	77%	78%	86%	77%	61%	60%	66%	71%	62%	75%	62%	All Div'ds to Net Prof	67%

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	27.2	38.8	38.8
Other	86.7	107.8	125.4
Current Assets	113.9	146.6	164.1
Accts Payable	48.9	46.8	46.7
Debt Due	53.7	136.3	76.9
Other	49.3	59.7	72.6
Current Liab.	151.9	242.8	196.2
Fix. Chg. Cov.	278%	297%	325%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	4.0%	7.0%	4.5%
"Cash Flow"	5.5%	7.5%	4.5%
Earnings	5.0%	5.5%	6.5%
Dividends	1.0%	1.5%	6.5%
Book Value	5.0%	4.5%	5.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	90.3	118.3	146.3	105.5	460.4
2011	98.1	131.4	169.3	103.0	501.8
2012	116.8	143.6	178.1	121.5	560.0
2013	111.4	154.6	190	134	590
2014	135	165	210	140	650

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.05	.25	.49	.12	.91
2011	.03	.29	.50	.04	.86
2012	.03	.31	.56	.12	1.02
2013	d.03	.28	.50	.05	.80
2014	.05	.30	.55	.15	1.05

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.148	.148	.148	.148	.59
2010	.149	.149	.149	.149	.60
2011	.154	.154	.154	.154	.62
2012	.1575	.1575	.1575	.1575	.63
2013	.16	.16	.16		

BUSINESS: California Water Service Group provides regulated and nonregulated water service to roughly 471,900 customers in 83 communities in California, Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '12: residential, 66%; business, 18%; public authorities, 4%; industrial, 4%; other 8%. '12 reported depreciation rate: 2.8%. Has 1,131 employees. President, Chairman, and Chief Executive Officer: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwatergroup.com.

This will not be an easy year for the California Water Service Group. As expected, the utility posted its second-consecutive year-over-year negative earnings comparison in the June-ended period. What's more, we expect this trend to continue for the second half of the year.

What's behind the bad earnings? In California, utilities run on three-year regulatory cycles. This means that they can only seek rate relief every third year. Quite often, by the final year of the cycle, expenses have outpaced the higher revenues that were originally permitted.

A major rate case is close to being settled. In mid-2012, California filed a petition with the California Public Utility Commission (CPUC) seeking to raise its rates by 20%. The utility has been in negotiations with the CPUC for months, and it now believes that 95% of the matters involved are resolved. Even though many of California Water's expenses were prudently spent on improving its infrastructure, that doesn't mean that its request will be automatically approved. There is a tremendous amount of political pressure brought upon regulators to keep water customers (i.e. voters) rates low. On balance, we estimate the final decision will be fairly reasonable. The allowed return on equity will most likely be low on a relative basis, but the utility will at least have a good chance of earning it.

All told, earnings should decline sharply in 2013, but rebound in 2014. Due to the aforementioned reasons, we think that California Water's share net will plunge 22% this year. Next year, due mostly to rate relief, we expect the bottom line to snap back, by $0.25, to $1.05 a share.

We think that there are other stocks in the water utility industry that hold greater appeal than California Water. On the plus side, these shares have a yield that is nearly 70 basis points greater than certain of its peers. Moreover, as a result of a large stock issuance earlier this year, the company's finances have improved significantly. However, the utility's subpar dividend growth potential over the next several years and the equity's Below Average Timeliness rank more than offset these positives, in our opinion.

James A. Flood *October 18, 2013*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (4¢); '01, 2¢; '02, 4¢; '11, 4¢. Next earnings report due mid-August.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '12: $18.8 mill., $0.44/sh.
(D) In millions, adjusted for splits.
(E) Excludes non-reg. rev.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	90

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CONNECTICUT WATER NDQ-CTWS

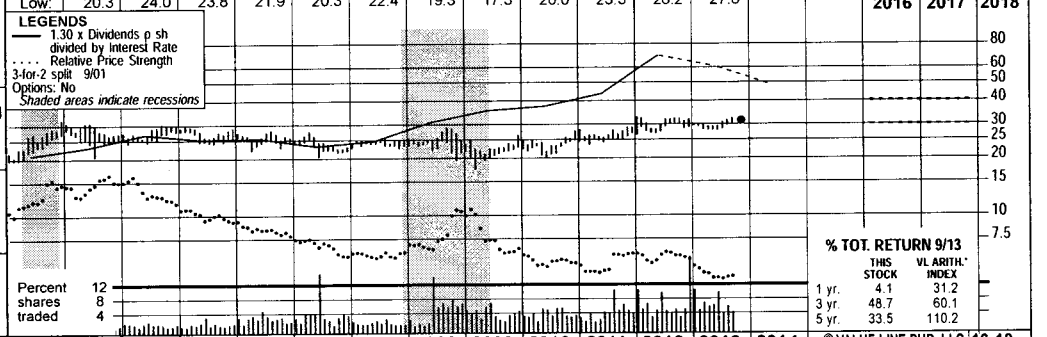
RECENT PRICE 31.35 | P/E RATIO 18.9 (Trailing: 21.5 Median: 23.0) | RELATIVE P/E RATIO 1.07 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 4 Lowered 3/29/13
SAFETY 3 New 1/18/13
TECHNICAL 3 Lowered 10/11/13
BETA .75 (1.00 = Market)

High:	31.1	30.4	29.8	28.2	27.7	25.6	29.0	26.4	27.9	29.1	32.8	32.4
Low:	20.3	24.0	23.8	21.9	20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 9/01
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+30%)	10%
Low	30	(-5%)	3%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	2	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	48	52	39
to Sell	16	21	39
Hld's(000)	4069	4336	4492

Percent shares traded 12 8 4

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.1	31.2
3 yr.	48.7	60.1
5 yr.	33.5	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.67	5.58	5.87	5.70	5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	7.63	*8.65*	*8.90*	Revenues per sh	*11.25*
1.51	1.59	1.65	1.73	1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.10	*2.55*	*2.65*	"Cash Flow" per sh	*2.75*
1.00	1.02	1.03	1.09	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	*1.60*	*1.70*	Earnings per sh A	*1.80*
.77	.78	.79	.79	.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	*.98*	*1.01*	Div'd Decl'd per sh B■	*1.11*
1.99	1.12	1.42	1.43	1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.34	*2.75*	*2.85*	Cap'l Spending per sh	*2.90*
8.26	8.52	8.61	8.92	9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	16.89	*17.25*	*17.80*	Book Value per sh D	*20.40*
6.79	6.80	7.26	7.28	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	10.97	*11.10*	*11.25*	Common Shs Outst'g C	*12.00*
12.9	15.5	18.2	18.2	21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.74	.81	1.04	1.18	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.24	*Value Line*		Relative P/E Ratio	*1.35*
6.0%	4.9%	4.2%	4.0%	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $180.2 mill. **Due in 5 Yrs** $14.8 mill.
LT Debt $178.7 mill. **LT Interest** $7.6 mill.
(Total interest coverage: 8.8x)
(49% of Cap'l)
Leases, Uncapitalized: Annual rentals $.2 mill.
Pension Assets $45.4 mill.
Oblig. $66.5 mill.

Pfd Stock $0.8 mill. **Pfd Divd** NMF

Common Stock 11,003,512 shs.
as of 7/31/13
MARKET CAP: $350 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
47.1	48.5	47.5	46.9	59.0	61.3	59.4	66.4	69.4	83.8	*95.0*	*100*	Revenues ($mill)	*135*
9.2	9.4	7.2	6.7	8.8	9.4	10.2	9.8	9.9	13.6	*17.5*	*19.0*	Net Profit ($mill)	*21.0*
17.9%	22.9%	--	23.5%	32.4%	27.2%	19.5%	35.2%	41.3%	32.0%	*32.0%*	*33.0%*	Income Tax Rate	*35%*
--	--	--	--	--	1.7%	--	--	1.8%	1.7%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*3.0%*
43.5%	42.8%	44.9%	44.4%	47.8%	46.9%	50.6%	49.5%	53.2%	49.0%	*49.5%*	*49.5%*	Long-Term Debt Ratio	*48.5%*
55.9%	56.7%	54.6%	55.1%	51.8%	52.7%	49.1%	50.2%	46.5%	50.8%	*50.5%*	*50.5%*	Common Equity Ratio	*51.5%*
148.9	155.1	172.3	174.1	193.2	196.5	221.3	225.6	254.2	364.6	*375*	*395*	Total Capital ($mill)	*475*
238.9	246.1	247.7	268.1	284.3	302.3	325.2	344.2	362.4	447.9	*470*	*490*	Net Plant ($mill)	*550*
7.5%	7.0%	5.0%	4.9%	5.5%	5.9%	5.5%	5.4%	4.9%	4.8%	*5.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
10.9%	10.6%	7.5%	6.9%	8.7%	9.0%	9.3%	8.6%	8.3%	7.3%	*9.0%*	*9.5%*	Return on Shr. Equity	*8.5%*
11.0%	10.6%	7.6%	7.0%	8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	*9.0%*	*9.5%*	Return on Com Equity	*8.5%*
3.2%	3.1%	.3%	NMF	1.6%	1.9%	2.3%	1.6%	1.4%	2.7%	*3.5%*	*3.5%*	Retained to Com Eq	*3.0%*
71%	71%	95%	105%	82%	79%	76%	81%	83%	62%	*62%*	*59%*	All Div'ds to Net Prof	*62%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	1.0	13.2	7.5
Accounts Receivable	14.9	11.5	12.1
Other	3.0	11.7	13.5
Current Assets	18.9	36.4	33.1
Accts Payable	7.2	10.0	7.3
Debt Due	- -	3.0	1.5
Other	23.2	2.9	3.1
Current Liab.	30.4	15.9	11.9
Fix. Chg. Cov.	419%	455%	*460%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	3.5%	6.0%	*6.5%*
"Cash Flow"	2.5%	6.0%	*4.5%*
Earnings	1.5%	6.5%	*5.5%*
Dividends	1.5%	2.0%	*3.5%*
Book Value	5.5%	6.5%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	13.8	15.9	21.0	15.7	66.4
2011	16.0	17.4	20.6	15.4	69.4
2012	18.5	21.3	24.5	19.5	83.8
2013	21.5	22.5	*27.0*	*24.0*	*95.0*
2014	*22.0*	*24.0*	*30.0*	*24.0*	*100*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.12	.27	.54	.20	1.13
2011	.26	.37	.39	.11	1.13
2012	.22	.47	.67	.16	1.53
2013	.24	.39	*.68*	*.29*	*1.60*
2014	*.30*	*.47*	*.68*	*.25*	*1.70*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.222	.222	.228	.228	.90
2010	.228	.228	.233	.233	.922
2011	.233	.233	.238	.238	.942
2012	.238	.238	.2425	.2425	.962
2013	.2425	.2425	.2475		

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). Its largest subsidiary, Connecticut Water, accounted for about 85% of the holding company's net income in 2012, and provides water services to 400,000 people in 55 towns throughout Connecticut and Maine. Acquired The Maine Water Co., 1/12; Biddeford and Saco Water, 12/12. Inc.: CT. Has about 260 employees. Chairman/President/CEO: Eric W. Thornburg. Officers and directors own 2.2% of the common stock; BlackRock, Inc. 6.7%; The Vanguard Group, 5.3%. Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

Connecticut Water Service has finally reached a definitive deal with all of the state's regulators. In September, the Connecticut Public Regulatory Authority (PURA) agreed to a deal that had been reached earlier among Connecticut Water and the state's Attorney General and Consumer Council. PURA was the final hurdle in the approval process, and it didn't alter the agreement in any meaningful way.

Ratepayers will benefit from the settlement. Customers will see their water bills decline over the next two years as Connecticut Water will pass along to them a tax refund it was granted by the IRS for the 2010-2012 period. In addition, the utility agreed not to seek higher rates before October, 2015.

Connecticut Water will benefit too. Permission was granted for the company to establish a Revenue Adjustment Mechanism, which will allow it to keep the tax benefit from the IRS refund going forward. These funds will be allowed to flow through to shareholders until the next time the company seeks higher rates.

The earnings picture looks brighter. Following four static years of earnings, the company enjoyed strong results in 2012, as share net rose 35%. With the new arrangement with regulators in place, we think that Connecticut Water's bottom line will increase close to 5%, both this year and next. Moreover, the company will earn close to its allowed return on equity.

The recent dividend hike was somewhat disappointing. Over the past five- and 10-year periods, Connecticut Water's dividend growth rate averaged only 2.0%, and 1.5%, respectively. Both percentages were among the lowest in the water utility industry. Following the company's solid profits in 2012, along with its improved earning prospects, we had hoped that the most recent quarterly payout to shareholders would have been more generous than the 2% increase declared in August.

We can't find too many reasons to recommend these shares at this juncture. While the stock's yield is slightly higher than the average of its peers, its dividend growth prospects to 2016-2018 are subpar for the group. Furthermore, this equity carries a 4 (Below Average) rank for Timeliness.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Next earnings report due mid-November. Quarterly earnings do no add in '12 due to rounding.
(B) Dividends historically paid in mid-March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.
(D) Includes intangibles. In '12: $31.7 million/$2.89 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	80

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MIDDLESEX WATER NDQ-MSEX

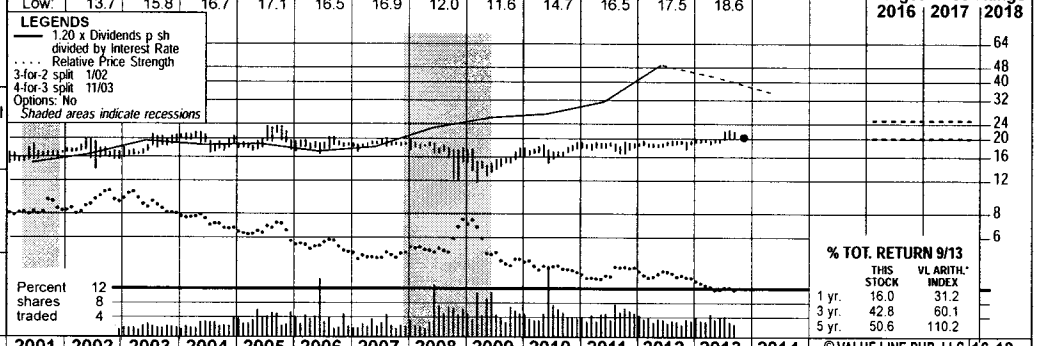
RECENT PRICE 20.31 | P/E RATIO 20.9 (Trailing: 19.7 Median: 22.0) | RELATIVE P/E RATIO 1.19 | DIV'D YLD 3.7% | VALUE LINE

TIMELINESS 2 Raised 6/7/13
SAFETY 2 New 10/21/11
TECHNICAL 3 Lowered 10/18/13
BETA .70 (1.00 = Market)

High:	20.0	21.2	21.8	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5
Low:	13.7	15.8	16.7	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.20 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 1/02
4-for-3 split 11/03
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	25	(+25%)	9%
Low	20	(Nil)	4%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	0	0	0	0	0	1	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	1

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	38	38	37
to Sell	28	30	35
Hld's(000)	6696	6579	6489

Percent shares traded 12 8 4

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.0	31.2
3 yr.	42.8	60.1
5 yr.	50.6	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
4.72	4.39	5.35	5.39	5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	*7.50*	*7.70*	Revenues per sh	*9.10*
1.02	1.02	1.19	.99	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	*1.65*	*1.85*	"Cash Flow" per sh	*2.30*
.67	.71	.76	.51	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	*1.00*	*1.05*	Earnings per sh A	*1.15*
.57	.58	.60	.61	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	*.75*	*.76*	Div'd Decl'd per sh B■	*.80*
1.20	2.68	2.33	1.32	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	*1.50*	*1.65*	Cap'l Spending per sh	*2.00*
6.00	6.80	6.95	6.98	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	*11.75*	*12.10*	Book Value per sh D	*12.90*
8.54	9.82	10.00	10.11	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	*16.00*	*16.25*	Common Shs Outst'g C	*17.00*
13.4	15.2	17.6	28.7	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.77	.79	1.00	1.87	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.33	*Value Line*		Relative P/E Ratio	*1.35*
6.3%	5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	*estimates*		Avg Ann'l Div'd Yield	*3.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $166.7 mill. **Due in 5 Yrs** $60.0 mill.
LT Debt $133.5 mill. **LT Interest** $7.0 mill.
(LT interest coverage: 4.1x)
(42% of Cap'l)

Pension Assets-12/12 $37.9 mill.
Oblig. $62.8 mill.
Pfd Stock $3.4 mill. **Pfd Div'd:** $.2 mill.

Common Stock 15,847,729 shs.
as of 7/31/13

MARKET CAP: $325 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
64.1	71.0	74.6	81.1	86.1	91.0	91.2	102.7	102.1	110.4	*120*	*125*	Revenues ($mill)	*155*
6.6	8.4	8.5	10.0	11.8	12.2	10.0	14.3	13.4	14.4	*15.5*	*17.0*	Net Profit ($mill)	*20.0*
32.8%	31.1%	27.6%	33.4%	32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	*34.0%*	*34.0%*	Income Tax Rate	*34.0%*
--	--	--	--	--	--	--	6.8%	6.1%	3.4%	*4.5%*	*4.5%*	AFUDC % to Net Profit	*5.0%*
53.8%	53.8%	55.3%	49.5%	49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	*43.0%*	*43.0%*	Long-Term Debt Ratio	*43.0%*
44.0%	42.5%	41.3%	47.5%	49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	*57.0%*	*57.0%*	Common Equity Ratio	*57.0%*
181.1	214.5	231.7	264.0	268.8	259.4	267.9	310.5	312.5	316.5	*330*	*345*	Total Capital ($mill)	*400*
230.9	262.9	288.0	317.1	333.9	366.3	376.5	405.9	422.2	435.2	*440*	*450*	Net Plant ($mill)	*510*
5.0%	5.1%	5.0%	5.1%	5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
7.9%	8.5%	8.2%	7.5%	8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	*8.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
8.0%	9.0%	8.6%	7.8%	8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	*8.0%*	*8.5%*	Return on Com Equity	*9.0%*
NMF	.9%	.6%	1.3%	1.8%	2.0%	.1%	2.1%	1.0%	1.4%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
106%	90%	94%	84%	79%	78%	98%	75%	87%	83%	*80%*	*73%*	All Div'ds to Net Prof	*70%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	3.1	3.0	3.0
Other	19.8	21.6	23.1
Current Assets	22.9	24.6	26.1
Accts Payable	5.7	3.8	5.1
Debt Due	4.6	11.1	33.2
Other	36.4	41.1	17.6
Current Liab.	46.7	56.0	55.9
Fix. Chg. Cov.	380%	410%	*415%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	1.5%	1.0%	*5.5%*
"Cash Flow"	3.0%	2.0%	*7.0%*
Earnings	3.5%	2.5%	*4.0%*
Dividends	1.5%	1.5%	*1.5%*
Book Value	4.5%	4.0%	*2.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	21.6	26.5	29.6	25.0	102.7
2011	24.0	26.1	28.7	23.3	102.1
2012	23.5	27.4	32.3	27.1	110.4
2013	27.0	29.1	*34.0*	*29.9*	*120*
2014	*30.0*	*30.0*	*35.0*	*30.0*	*125*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.11	.31	.37	.17	.96
2011	.17	.23	.32	.12	.84
2012	.11	.23	.38	.17	.90
2013	.20	.28	*.35*	*.17*	*1.00*
2014	*.17*	*.28*	*.40*	*.20*	*1.05*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.178	.178	.178	.180	.71
2010	.180	.180	.180	.183	.72
2011	.183	.183	.183	.185	.73
2012	.185	.185	.185	.1875	.74
2013	.1875	.1875	.1875		

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 60,000 retail customers, primarily in Middlesex County, New Jersey. In 2012, the Middlesex System accounted for 65% of total revenues. At 12/31/12, the company had 279 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers/directors own 3.1% of the common stock; BlackRock, 6.3%; The Vanguard Group, 5.7% (4/13 proxy). Address: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

Historically, Middlesex Water's dividend increases have been incredibly consistent. Over the past nine years, (from 2003 to 2012), the utility has raised its annual payout by $0.01 a share.

Sometimes predictability isn't a positive. Over the past five and 10 years, respectively, the average dividend hike has been a meager 1.5%. This ranks near the bottom when compared to the other seven water utilities that *Value Line* covers.

Could Middlesex finally break its streak this quarter? Late October is usually the time when the company implements its annual dividend rate hike. With decent earnings comparisons, it's possible that Middlesex could go against convention and raise the payout by more than the traditional one-quarter of a cent per share. We are taking a show-me approach, with our figures representing the usual quarterly increase.

The utility's earnings have been improving. In the June period, Middlesex experienced its fourth-consecutive positive earnings comparison. This was mostly due to the implementation of higher rates in mid-2012, as well a better contract with the borough of Avalon, NJ, a wholesale client.

Performance in the industrial markets has impaired Middlesex. The utility lost a contract to supply water to the borough of Sayreville, NJ this past August. Another setback was the closure of a Hess oil refinery earlier in the year.

The company is targeting the residential market. Despite recently winning a contract to privatize the water system at the Dover Air Force Base in Delaware, Middlesex has budgeted $25 million a year over the next three years to improve the infrastructure of its residential business. We agree with this strategy as the residential market is both more predictable and profitable.

Middlesex shares are ranked to outperform the market in the year ahead. Some investors may also be attracted to the stock's high current yield. Those with a long-term horizon, however, can find other water utilities with higher total-return potential through the pull to 2016-2018.

James A. Flood *October 18, 2013*

(A) Diluted earnings. May not sum due to rounding. Next earnings report due early November.
(B) Dividends historically paid in mid-Feb., May, Aug., and November.■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.
(D) Intangible assets in 2012: $9.2 million, $0.58 a share.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	80

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SJW CORP. NYSE-SJW

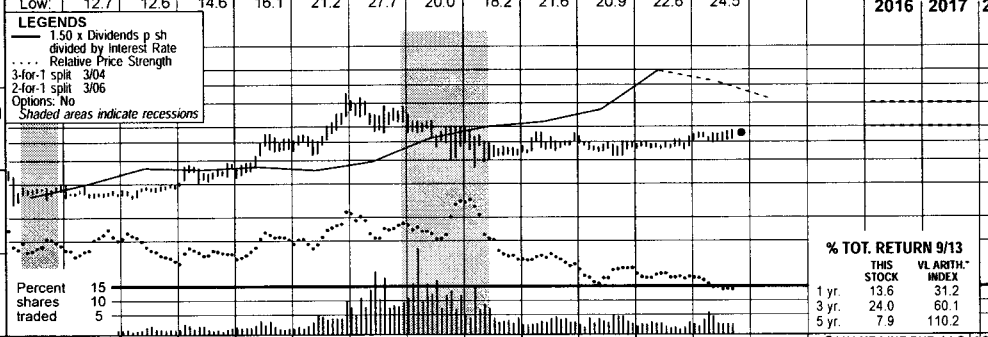
RECENT PRICE 27.72 | P/E RATIO 20.8 (Trailing: 21.7 Median: 23.0) | RELATIVE P/E RATIO 1.18 | DIV'D YLD 2.7% | VALUE LINE

TIMELINESS 1 Raised 8/9/13
SAFETY 3 New 4/22/11
TECHNICAL 4 Lowered 10/18/13
BETA .85 (1.00 = Market)

High:	15.1	15.0	19.6	27.8	45.3	43.0	35.1	30.4	28.2	26.8	26.9	28.9
Low:	12.7	12.6	14.6	16.1	21.2	27.7	20.0	18.2	21.6	20.9	22.6	24.5

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-1 split 3/04
2-for-1 split 3/06
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+45%)	12%
Low	30	(+10%)	5%

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	4	0	0	0	0	0	0	0	0
Options	0	1	0	0	0	0	0	0	0
to Sell	0	1	0	0	0	0	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	34	46	47
to Sell	30	20	28
Hld's(000)	9043	10000	10629

Percent shares traded 15 10 5

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	13.6	31.2
3 yr.	24.0	60.1
5 yr.	7.9	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
5.79	5.58	6.40	6.74	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	*14.05*	*14.75*	Revenues per sh	*16.30*
1.27	1.26	1.43	1.23	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	*3.25*	*3.50*	"Cash Flow" per sh	*3.65*
.80	.76	.87	.58	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	*1.30*	*1.40*	Earnings per sh A	*1.60*
.38	.39	.40	.41	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	*.73*	*.75*	Div'd Decl'd per sh B■	*.90*
1.27	1.81	1.77	1.89	2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	*5.25*	*5.20*	Cap'l Spending per sh	*4.85*
7.02	7.53	7.88	7.90	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	*15.40*	*16.40*	Book Value per sh	*19.15*
19.02	19.01	18.27	18.27	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	*20.25*	*21.00*	Common Shs Outst'g C	*23.00*
11.2	13.1	15.5	33.1	18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	*Bold figures are*		Avg Ann'l P/E Ratio	*22.0*
.65	.68	.88	2.15	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	*Value Line*		Relative P/E Ratio	*1.45*
4.3%	3.9%	3.0%	2.1%	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	*estimates*		Avg Ann'l Div'd Yield	*2.6%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $335.8 mill. **Due in 5 Yrs** $21.2 mill.
LT Debt $335.3 mill. **LT Interest** $18.6 mill.
(Total interest coverage: 4.6x) (52% of Cap'l)

Leases, Uncapitalized: Annual rentals $4.7 mill.

Pension Assets $75.5 mill. **Oblig.** $141.0 mill.

Pfd Stock None.

Common Stock 20,137,197 shs. as of7/26/13

MARKET CAP: $550 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
149.7	166.9	180.1	189.2	206.6	220.3	216.1	215.6	239.0	261.5	*285*	*310*	Revenues ($mill)	*375*
16.7	16.0	20.7	22.2	19.3	20.2	15.2	15.8	20.9	22.3	*26.0*	*29.0*	Net Profit ($mill)	*37.0*
36.2%	42.1%	41.6%	40.8%	39.4%	39.5%	40.4%	38.8%	41.1%	41.1%	*41.0%*	*40.0%*	Income Tax Rate	*40.0%*
1.6%	2.1%	1.6%	2.1%	2.7%	2.3%	2.0%	--	2.0%	2.0%	*3.0%*	*4.0%*	AFUDC % to Net Profit	*5.0%*
45.6%	43.7%	42.6%	41.8%	47.7%	46.0%	49.4%	53.7%	56.6%	55.0%	*54.5%*	*54.0%*	Long-Term Debt Ratio	*51.0%*
54.4%	56.3%	57.4%	58.2%	52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	*45.5%*	*46.0%*	Common Equity Ratio	*49.0%*
306.0	328.3	341.2	391.8	453.2	470.9	499.6	550.7	607.9	610.2	*685*	*745*	Total Capital ($mill)	*900*
428.5	456.8	484.8	541.7	645.5	684.2	718.5	785.5	756.2	831.6	*890*	*950*	Net Plant ($mill)	*1150*
6.9%	6.5%	7.6%	7.0%	5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	*5.0%*	*5.0%*	Return on Total Cap'l	*6.0%*
10.0%	8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	*8.5%*	*8.5%*	Return on Shr. Equity	*8.5%*
10.0%	8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	*8.5%*	*8.5%*	Return on Com Equity	*8.5%*
4.7%	3.6%	5.6%	5.2%	3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	*3.5%*	*4.0%*	Retained to Com Eq	*3.5%*
53%	58%	47%	46%	57%	59%	80%	80%	61%	59%	*56%*	*54%*	All Div'ds to Net Prof	*56%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	26.7	2.5	4.0
Other	42.2	40.4	44.2
Current Assets	68.9	42.9	48.2
Accts Payable	7.4	8.5	15.9
Debt Due	.8	20.7	.5
Other	20.1	19.9	28.8
Current Liab.	28.3	49.1	45.2
Fix. Chg. Cov.	276%	247%	231%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	5.5%	4.0%	*4.0%*
"Cash Flow"	6.5%	3.5%	*5.0%*
Earnings	4.0%	-1.5%	*7.5%*
Dividends	5.0%	4.0%	*4.5%*
Book Value	5.5%	3.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	40.4	54.1	70.3	50.8	215.6
2011	43.7	59.0	73.9	62.4	239.0
2012	51.1	65.6	82.4	62.4	261.5
2013	50.1	74.2	*90.7*	*70.0*	*285*
2014	*60.0*	*75.0*	*100*	*75.0*	*310*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.055	.24	.44	.11	.84
2011	.03	.29	.44	.35	1.11
2012	.06	.28	.53	.31	1.18
2013	.07	.37	*.54*	*.32*	*1.30*
2014	*.10*	*.35*	*.60*	*.35*	*1.40*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.165	.165	.165	.165	.66
2010	.17	.17	.17	.17	.68
2011	.173	.173	.173	.173	.69
2012	.1775	.1775	.1775	.1775	.71
2013	.1825	.1825	.1825		

BUSINESS: SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 227,000 connections that serve a population of approximately one million people in the San Jose area and 8,700 connections that serve approximately 36,000 residents in a service area in the region between San Antonio and Austin, Texas. The company offers nonregulated water-related services, including water system operations, cash remittances, and maintenance contract services. SJW also owns and operates commercial real estate investments. Has about 375 employees. Chrm.: Charles J. Toeniskoetter. Inc.: CA. Address: 110 W. Taylor Street, San Jose, CA 95110. Tel.: (408) 279-7800. Int: www.sjwater.com.

A final decision on SJW's pending rate case will be delayed. The California Public Utility Commission (CPUC) has had to divert much of its resources to investigate the San Bruno gas pipeline explosion, which killed eight people in 2010.

Meanwhile, 2013 is benefiting from interim rate relief. SJW is seeking substantial rate increases of 21.5% for 2013, 4.9% in 2014, and 12.6% in 2016. Until a final decision is reached on this request, the utility has been allowed to raise rates on an interim basis. Though earnings comparisons won't be impressive in the second half of the year, we still think that the utility's share net can increase 10%, to $1.30

SJW's future is in the hands of regulators. While this statement is true for all utilities, SJW is more vulnerable than most. This is due to the enormous size of the rate hikes that it has petitioned for. Even though we view the company's expenditures as essential to the operations of its system, the sheer size of the requests puts the CPUC in a difficult position. It is politically very hard to raise rate payers' bills by such a large extent without a significant amount of political blow-back.

Therefore, our 2014 profit estimate for the company is pretty tenuous. Earnings should be fine as long as the interim rate relief is in place. Once the CPUC makes a final decision, things could change for the worse. In any case, we should point out that California regulators have been reasonable in the past, and hopefully some sort of deal that satisfies both sides can be reached.

We expect SJW to tap the external markets in the years ahead. The company estimates that it will have to invest $100 million annually through 2016-2018 in order to upgrade its aging infrastructure. Internal cash flow will fall well short of generating sufficient funds to meet these outlays. Thus, there will be dilutive equity offerings and costly debt issuance. Both of these moves will impair the company's earnings growth.

SJW shares now carry our Highest rank (1) for Timeliness. Momentum investors may find this stock of interest, others might be scared off by the possibility of a harsh regulatory decision.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Excludes nonrecurring losses : '03, $1.97; '04, $3.78; '05, $1.09; '06, $16.36; '08, $1.22; '10, 46¢. Next earnings report due late October. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	50
Earnings Predictability	80

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YORK WATER NDQ-YORW

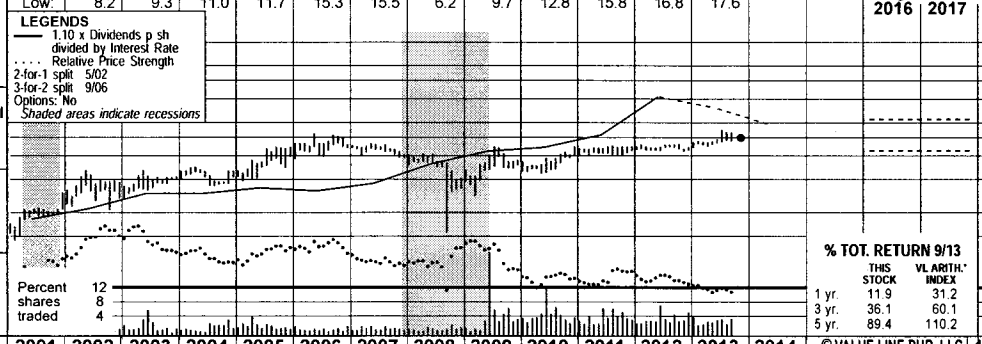
RECENT PRICE 19.90 | P/E RATIO 25.8 (Trailing: 26.5 Median: 25.0) | RELATIVE P/E RATIO 1.47 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 4 Lowered 10/4/13
SAFETY 2 New 7/19/13
TECHNICAL 3 Lowered 8/2/13
BETA .70 (1.00 = Market)

High:	13.4	13.5	14.0	17.9	21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0
Low:	8.2	9.3	11.0	11.7	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6

Target Price Range 2016 | 2017 | 2018

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/02
3-for-2 split 9/06
Options: No
Shaded areas indicate recessions



2016-18 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	25	(+25%)	8%
Low	17	(-15%)	Nil

Insider Decisions

	N	D	J	F	M	A	M	J	J
to Buy	0	0	4	0	0	4	0	1	5
Options	0	0	0	0	0	0	0	0	0
to Sell	0	1	0	0	0	1	0	0	0

Institutional Decisions

	4Q2012	1Q2013	2Q2013
to Buy	26	33	32
to Sell	27	21	26
Hld's(000)	3178	3375	3346

Percent shares traded 12 8 4

% TOT. RETURN 9/13

	THIS STOCK	VL ARITH.* INDEX
1 yr.	11.9	31.2
3 yr.	36.1	60.1
5 yr.	89.4	110.2

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC	16-18
--	--	--	--	2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	*3.40*	*3.50*	Revenues per sh	*3.55*
--	--	--	--	.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	*1.20*	*1.30*	"Cash Flow" per sh	*1.40*
--	--	--	--	.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	*.75*	*.85*	Earnings per sh A	*.90*
--	--	--	--	.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	*.55*	*.57*	Div'd Decl'd per sh B	*.65*
--	--	--	--	.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	*.90*	*.80*	Cap'l Spending per sh	*.90*
--	--	--	--	3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	*8.05*	*8.35*	Book Value per sh	*8.60*
--	--	--	--	9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	*13.00*	*13.20*	Common Shs Outst'g C	*14.00*
--	--	--	--	17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
--	--	--	--	.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	*Value Line*		Relative P/E Ratio	*1.50*
--	--	--	--	4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.2%*

CAPITAL STRUCTURE as of 6/30/13
Total Debt $84.9 mill. **Due in 5 Yrs** $19.5 mill.
LT Debt $84.9 mill. **LT Interest** $5.2 mill.
(Total interest coverage: 2.9x)
(46% of Cap'l)
Pension Assets 12/12 $22.7 mill.
Oblig. $34.7 mill.

Pfd Stock None

Common Stock 12,912,243 shs.
as of 8/6/13

MARKET CAP: $250 million (Small Cap)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		16-18
20.9	22.5	26.8	28.7	31.4	32.8	37.0	39.0	40.6	41.4	*43.0*	*46.0*	Revenues ($mill)	*50.0*
4.4	4.8	5.8	6.1	6.4	6.4	7.5	8.9	9.1	9.3	*10.2*	*11.3*	Net Profit ($mill)	*12.6*
34.8%	36.7%	36.7%	34.4%	36.5%	36.1%	37.9%	38.5%	35.3%	37.6%	*36.0%*	*36.0%*	Income Tax Rate	*36.0%*
--	--	--	7.2%	3.6%	10.1%	--	1.2%	1.1%	1.1%	*1.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
43.4%	42.5%	44.1%	48.3%	46.5%	54.5%	45.7%	48.3%	47.1%	46.0%	*45.0%*	*45.0%*	Long-Term Debt Ratio	*43.0%*
56.6%	57.5%	55.9%	51.7%	53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	*55.0%*	*55.0%*	Common Equity Ratio	*57.0%*
69.0	83.6	90.3	126.5	125.7	153.4	160.1	176.4	180.2	184.8	*190*	*197*	Total Capital ($mill)	*220*
116.5	140.0	155.3	174.4	191.6	211.4	222.0	228.4	233.0	240.3	*245*	*250*	Net Plant ($mill)	*265*
8.5%	7.6%	8.4%	6.2%	6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	*6.5%*	*7.0%*	Return on Total Cap'l	*7.0%*
11.4%	10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
11.4%	10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	*9.5%*	*10.0%*	Return on Com Equity	*10.0%*
2.6%	2.1%	3.0%	2.2%	1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	*3.0%*	*3.0%*	Retained to Com Eq	*3.0%*
77%	79%	74%	77%	82%	85%	78%	72%	73%	74%	*71%*	*67%*	All Div'ds to Net Prof	*72%*

CURRENT POSITION ($MILL.)	2011	2012	6/30/13
Cash Assets	4.0	4.0	4.2
Accounts Receivable	6.0	6.4	4.0
Other	1.4	1.2	4.0
Current Assets	11.4	11.6	12.2
Accts Payable	1.1	1.1	1.5
Debt Due	.1	.1	--
Other	4.1	4.3	4.0
Current Liab.	5.3	5.5	5.5
Fix. Chg. Cov.	160%	156%	154%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18
Revenues	4.5%	3.5%	*2.0%*
"Cash Flow"	6.5%	6.5%	*4.0%*
Earnings	5.5%	4.5%	*4.0%*
Dividends	1.5%	3.0%	*3.5%*
Book Value	7.0%	6.0%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	9.0	9.7	10.5	9.8	39.0
2011	9.6	10.5	10.5	10.0	40.6
2012	9.6	10.4	11.0	10.4	41.4
2013	10.1	10.7	*11.2*	*11.0*	*43.0*
2014	*10.5*	*11.5*	*12.2*	*11.8*	*46.0*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2010	.15	.18	.21	.17	.71
2011	.17	.19	.19	.16	.71
2012	.15	.17	.22	.18	.72
2013	.17	.18	*.21*	*.19*	*.75*
2014	*.19*	*.21*	*.23*	*.22*	*.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2009	.126	.126	.126	.126	.504
2010	.128	.128	.128	.128	.512
2011	.131	.131	.131	.131	.524
2012	.134	.134	.134	.134	.535
2013	.138	.138	.138	.138	

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2012, the company's average daily availability was 35.0 million gallons and its service territory had an estimated population of 189,000. Has more than 63,000 customers. Residential customers accounted for 63% of 2012 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 103 full-time employees at 12/31/12. President/CEO: Jeffrey R. Hines. Officers/directors own 1.2% of the common stock (3/13 proxy). Address: 130 East Market Street York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

There have been very few surprises at The York Water Company in the recent past. From 2010 through 2012, the company's annual share earnings varied by only $0.01 a share. The dividend was also very predictable, as it rose by just $0.01 a share annually during the same time span.

York is awaiting the outcome of a major rate case. Last May, the utility petitioned Pennsylvania regulators for a 17% rate increase (about $7.1 million in revenues a year). The request was to recoup the $49 million that York has spent since 2010 to modernize and update its aging infrastructure. In addition, along with the help of a large rate increase for wastewater customers, the added funds will help the utility replace 30 miles of pipeline and reduce water leakage for the 190,000 people it services.

We think that the outcome will be relatively reasonable. There is no doubt that the current and projected expenditures by York are essential to keeping the system operating efficiently. However, we should point out that no matter how justified utility spending is, regulators face strong political pressure not to implement significant rate hikes.

Dividend growth should remain relatively modest in the years ahead. Though we think that the company will raise its annual payout by $0.02 a share in 2014, the growth rate over the next three- to five-year period will be slightly on the low side for a water utility.

Finances are in decent shape. The equity-to-total capital ratio is healthy at a solid 54%. Still, our Financial Strength rating for York is an average B+. This metric would be higher if the company's capital base was more substantial.

There is nothing particularly noteworthy about York Water's shares. Both the equity's current yield and dividend growth prospects are in line with those of most of its peers. Moreover, the stock has performed fairly well of late and is now trading at over 25 times our 12 month share-earnings estimate. And finally, according to our proprietary Timeliness Ranking System, York shares should underperform the market averages in the upcoming six- to 12-month period.

James A. Flood *October 18, 2013*

(A) Diluted earnings. Next earnings report due early November.
(B) Dividends historically paid in mid-January, April, July, and October.
(C) In millions, adjusted for splits.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	100

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Chaparral City Water Company
Summary of Risk Premium Models for the
Proxy Group of Nine Water Companies

		Proxy Group of Nine Water Companies
Predictive Risk Premium Model ™ (PRPM™) (1)		11.96 %
Risk Premium Using an Adjusted Market Approach (2)		9.88 %
	Average	11.44 %

Notes:
(1) From page 14 of this Schedule.
(2) From page 15 of this Schedule.

Chaparral City Water Company
Derivation of Common Equity Cost Rate
Using the Predictive Risk Premium Model ™ (PRPM ™)
Proxy Group of Nine Water Companies (1)

	American States Water Co.	American Water Works Co., Inc.	Aqua America, Inc.	Artesian Resources Corp.	California Water Service Group	Connecticut Water Service, Inc.	Middlesex Water Company	SJW Corporation	York Water Company
GARCH Coefficient (2)	1.54967044	4.672366633	2.209364726	2.215679502	1.829335805	1.787131195	1.991386732	1.331057125	2.057023898
Average Variance (2)	0.39%	0.34%	0.48%	0.30%	0.31%	0.28%	0.27%	0.42%	0.46%
PRPM™ Derived Risk Premium (2)	7.53%	21.08%	13.40%	8.37%	7.10%	6.27%	6.62%	6.91%	12.00%
Risk-Free Rate (3)	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%
Indicated Cost of Common Equity	11.96%	25.51%	17.83%	12.80%	11.53%	10.70%	11.05%	11.34%	16.43%
								Average	14.35%
								Median	11.96%

Notes:
(1) PRPM™ calculated from first available trading month through November 2013.
(2) Based upon data from CRSP(R) Data © 2012, Center For Research in Security Prices (CRSP(R)), The University of Chicago Booth School of Business.
(3) From note 3 on page 23 of this Schedule.

Chaparral City Water Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Nine Water Companies
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	5.20 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.16 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	5.36 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	(0.04) (3)
5.	Adjusted Prospective Bond Yield	5.32 %
6.	Equity Risk Premium (4)	4.56
7.	Risk Premium Derived Common Equity Cost Rate	9.88 %

Notes:
(1) From note 3 on page 19 of this Schedule.
(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.16% from page 17 of this Schedule.
(3) Adjustment to reflect the A1/A2 Moody's bond rating of the proxy group of nine water companies as shown on page 17 of this Schedule. The 4 basis point adjustment is derived by taking 1/6 of the spread between Aa2 and A2 Public Utility Bonds of 0.22% as shown on page 17 of this Schedule. (1/6 * 0.22% = 0.04%).
(4) From page 18 of this Schedule.

Chaparral City Water Company
Comparison of Bond Ratings, Business Risk and Financial Risk Profiles for the
Proxy Group of Nine Water Companies

	Moody's Bond Rating January 2014		Standard & Poor's Bond Rating January 2014	
Proxy Group of Nine Water Companies	Bond Rating	Numerical Weighting (1)	Bond Rating	Numerical Weighting (1)
American States Water Co. (2)	A2	6.0	A+	5.0
American Water Works Co., Inc. (3)	A1	5.0	A+	5.0
Aqua America, Inc. (4)	NR	- -	AA-	4.0
Artesian Resources Corp.	NR	- -	NR	- -
California Water Service Group (5)	NR	- -	AA-	4.0
Connecticut Water Service, Inc. (6)	NR	- -	A/A-	6.5
Middlesex Water Company	NR	- -	A	6.0
SJW Corporation (7)	NR	- -	A	6.0
York Water Company	NR	- -	A-	7.0
Average	A1/A2	5.5	A+	5.4

Notes:
(1) From Schedule 8, page 5 of Exhibit PMA-1.
(2) Ratings are those of Golden State Water Company.
(3) Ratings are those of Pennsylvania and New Jersey American Water.
(4) Ratings are those of Aqua Pennsylvania, Inc.
(5) Ratings are those of California Water Service Co.
(6) Ratings are those of Connecticut Water Company.
(7) Ratings are those of San Jose Water Co.

Source Information:
Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Moody's
Comparison of Interest Rate Trends
for the Three Months Ending November 2013 (1)

Months	Corporate Bonds	Public Utility Bonds			Spread - Corporate v. Public Utility Bonds			Spread - Public Utility Bonds	
	Aaa Rated	Aa Rated	A Rated	Baa Rated	Aa (Pub. Util.) over Aaa (Corp.)	A (Pub. Util.) over Aaa (Corp.)	Baa (Pub. Util.) over Aaa (Corp.)	A over Aa	Baa over A
November-13	4.63 %	4.56 %	4.77 %	5.24 %					
October-13	4.53	4.48	4.70	5.17					
September-13	4.64	4.58	4.80	5.31					
Average of Last 3 Months	4.60 %	4.54 %	4.76 %	5.24 %	(0.06) %	0.16 %	0.64 %	0.22 %	0.48 %

Notes: (1) All yields are distributed yields.

Source of Information: Mergent Bond Record, December 2013, Vol. 80, No. 12.

Chaparral City Water Company
Judgment of Equity Risk Premium for
the Proxy Group of Nine Water Companies

Line No.		Proxy Group of Nine Water Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	4.41 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	4.70
3.	Average equity risk premium	4.56 %

Notes: (1) From page 19 of this Schedule.
(2) From page 22 of this Schedule.

Chaparral City Water Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
the Proxy Group of Nine Water Companies

Line No.		Proxy Group of Nine Water Companies
	Based on SBBI Valuation Yearbook Data:	
1.	Ibbotson Equity Risk Premium (1)	5.60 %
2.	Ibbotson Equity Risk Premium based on PRPM™ (2)	9.30
	Based on Value Line Summary and Index:	
3.	Equity Risk Premium Based on Value Line Summary and Index (3)	4.01
4.	Conclusion of Equity Risk Premium (4)	6.30 %
5.	Adjusted Value Line Beta (5)	0.70
6	Beta Adjusted Equity Risk Premium	4.41 %

Notes:
(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2013 Valuation Yearbook - Market Results for Stocks, Bonds, Bills, and Inflation minus the arithmetic mean monthly yield of Moody's Aaa and Aa corporate bonds from 1926 - 2012. (11.83% - 6.23% = 5.60%).
(2) The Predictive Risk Premium Model (PRPM™) is discussed in Ms. Ahern's accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM™ is derived by applying the PRPM™ to the monthly risk premiums between Ibbotson large company common stock monthly returns minus the average Aaa and Aa corporate monthly bond yields, from January 1928 through November 2013.
(3) The equity risk premium based on the Value Line Summary and Index is derived from taking the average 3-5 year estimated median total annual market return of 9.21% (described fully in note 1 of page 24 of this Schedule) and subtracting the average consensus forecast of Aaa corporate bonds of 5.20%, as derived below. (9.21% - 5.20% = 4.01%).

First Quarter 2014	4.70
Second Quarter 2014	4.80
Third Quarter 2014	4.90
Fourth Quarter 2014	5.00
First Quarter 2015	5.10
Second Quarter 2015	5.20
2015-2019	5.70
2020-2024	6.20
	5.20

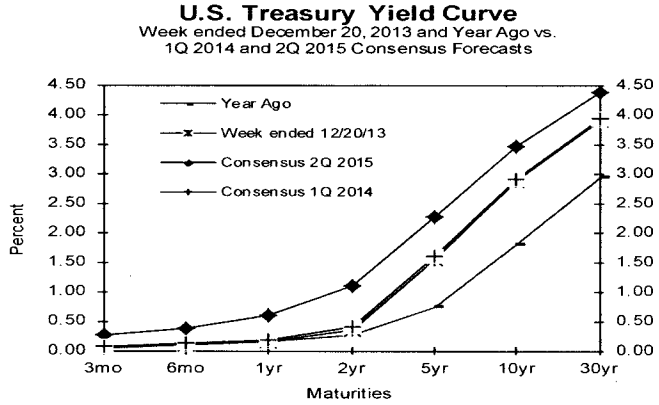
(4) Average of Lines 1, 2, & 3.
(5) Median beta derived from page 23 of this Schedule.

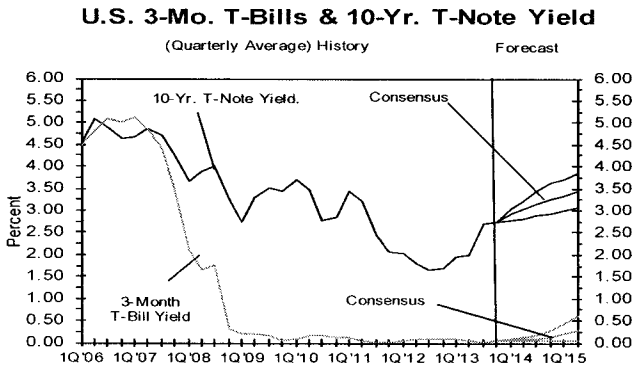
Sources of Information:
Ibbotson® SBBI® 2012 Valuation Yearbook - Market Results for Stocks, Bonds, Bills,
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2013 and January 1, 2014

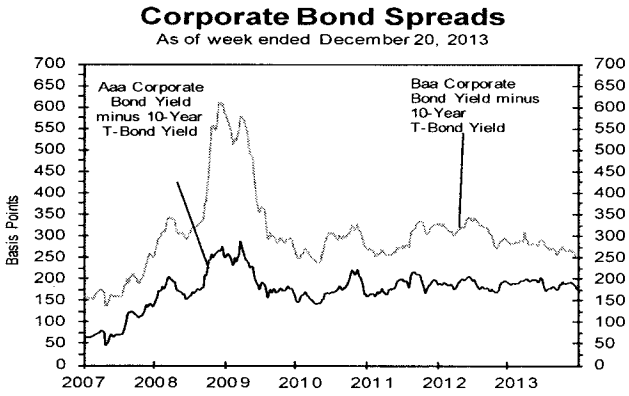
Consensus Forecasts Of U.S. Interest Rates And Key Assumptions[1]

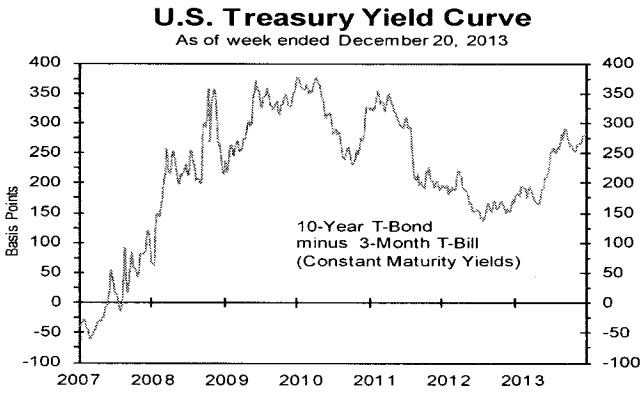
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Q**	1Q	2Q	3Q	4Q	1Q	2Q
Interest Rates	Dec. 20	Dec. 13	Dec. 6	Nov. 29	Nov.	Oct.	Sep.	*4Q 2013*	2014	2014	2014	2014	2015	2015
Federal Funds Rate	0.09	0.09	0.08	0.09	0.08	0.09	0.08	*0.09*	0.1	0.1	0.2	0.2	0.2	0.3
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	*3.25*	3.3	3.3	3.3	3.3	3.3	3.4
LIBOR, 3-mo.	0.24	0.24	0.24	0.24	0.24	0.24	0.25	*0.24*	0.3	0.3	0.3	0.4	0.4	0.5
Commercial Paper, 1-mo.	0.07	0.08	0.05	0.06	0.05	0.07	0.05	*0.06*	0.1	0.1	0.1	0.2	0.2	0.3
Treasury bill, 3-mo.	0.07	0.07	0.06	0.07	0.07	0.05	0.02	*0.06*	0.1	0.1	0.1	0.1	0.2	0.3
Treasury bill, 6-mo.	0.09	0.10	0.10	0.11	0.10	0.08	0.04	*0.09*	0.1	0.1	0.2	0.2	0.3	0.4
Treasury bill, 1 yr.	0.14	0.14	0.13	0.13	0.12	0.12	0.12	*0.13*	0.2	0.2	0.3	0.3	0.5	0.6
Treasury note, 2 yr.	0.34	0.32	0.30	0.29	0.30	0.34	0.40	*0.32*	0.4	0.5	0.6	0.8	0.9	1.1
Treasury note, 5 yr.	1.54	1.51	1.46	1.36	1.37	1.37	1.60	*1.41*	1.6	1.7	1.8	2.0	2.1	2.3
Treasury note, 10 yr.	2.88	2.86	2.84	2.74	2.72	2.62	2.81	*2.73*	2.9	3.0	3.1	3.3	3.3	3.4
Treasury note, 30 yr.	3.89	3.87	3.88	3.82	3.80	3.68	3.79	*3.79*	3.9	4.0	4.1	4.2	4.3	4.4
Corporate Aaa bond	4.64	4.66	4.69	4.62	4.63	4.53	4.64	*4.61*	4.7	4.8	4.9	5.0	5.1	5.2
Corporate Baa bond	5.39	5.40	5.44	5.37	5.38	5.31	5.47	*5.37*	5.5	5.6	5.7	5.8	5.9	6.0
State & Local bonds	4.73	4.74	4.70	4.61	4.60	4.56	4.79	*4.63*	4.7	4.8	4.8	4.9	4.9	5.0
Home mortgage rate	4.47	4.42	4.46	4.29	4.26	4.19	4.49	*4.30*	4.6	4.7	4.8	4.9	5.0	5.1
	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	*4Q**	1Q	2Q	3Q	4Q	1Q	2Q
Key Assumptions	2012	2012	2012	2012	2013	2013	2013	*2013*	2014	2014	2014	2014	2015	2015
Major Currency Index	72.9	73.9	74.0	73.2	74.7	76.4	76.7	*76.4*	76.4	76.8	77.1	77.4	77.5	77.5
Real GDP	3.7	1.2	2.8	0.1	1.1	2.5	4.1	*1.9*	2.5	2.7	2.8	2.9	3.0	3.0
GDP Price Index	2.0	1.8	2.3	1.1	1.3	0.6	2.0	*1.4*	1.7	1.8	1.9	1.9	2.0	2.0
Consumer Price Index	2.3	1.0	2.1	2.2	1.4	0.0	2.6	*0.9*	1.7	1.9	2.1	2.0	2.1	2.1

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Interest rate definitions are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for Fed's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS). **Interest rate data for 4Q 2014 based on historical data through the week ended December 20th. *Data for 4Q 2013 Major Currency Index is based on data through week ended December 20th. Figures for 4Q 2013 Real GDP, GDP Chained Price Index and Consumer Price Index are consensus forecasts based on a special question asked of the panelists' this month*









Long-Range Estimates:

The table below contains results of our semi-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are estimates for the years 2015 through 2019 and averages for the five-year periods 2015-2019 and 2020-2024. Apply these projections cautiously. Few economic, demographic and political forces can be evaluated accurately over such long time spans.

		---------Average For The Year---------					Five-Year Averages	
Interest Rates		**2015**	**2016**	**2017**	**2018**	**2019**	**2015-2019**	**2020-2024**
1. Federal Funds Rate	**CONSENSUS**	**0.4**	**1.7**	**2.9**	**3.6**	**3.9**	**2.5**	**3.7**
	Top 10 Average	0.8	2.6	3.9	4.2	4.5	3.2	4.4
	Bottom 10 Average	0.2	0.8	1.6	2.6	3.1	1.6	2.9
2. Prime Rate	**CONSENSUS**	**3.5**	**4.8**	**6.0**	**6.6**	**6.9**	**5.6**	**6.7**
	Top 10 Average	3.9	5.6	6.9	7.2	7.6	6.2	7.4
	Bottom 10 Average	3.3	4.1	5.0	5.7	6.1	4.8	5.8
3. LIBOR, 3-Mo.	**CONSENSUS**	**0.9**	**2.2**	**3.3**	**4.0**	**4.2**	**2.9**	**4.0**
	Top 10 Average	1.6	3.3	4.6	5.0	5.2	3.9	5.0
	Bottom 10 Average	0.4	1.1	2.0	2.8	3.3	1.9	3.0
4. Commercial Paper, 1-Mo.	**CONSENSUS**	**0.6**	**2.0**	**3.1**	**3.7**	**3.9**	**2.6**	**3.7**
	Top 10 Average	1.0	2.7	3.9	4.3	4.5	3.3	4.3
	Bottom 10 Average	0.3	1.3	2.3	2.9	3.1	2.0	3.0
5. Treasury Bill Yield, 3-Mo.	**CONSENSUS**	**0.5**	**1.7**	**2.9**	**3.5**	**3.7**	**2.5**	**3.6**
	Top 10 Average	1.0	2.7	3.9	4.3	4.5	3.3	4.3
	Bottom 10 Average	0.2	0.8	1.7	2.4	3.0	1.6	2.7
6. Treasury Bill Yield, 6-Mo.	**CONSENSUS**	**0.7**	**2.0**	**3.1**	**3.7**	**3.9**	**2.7**	**3.8**
	Top 10 Average	1.2	2.9	4.1	4.5	4.6	3.5	4.5
	Bottom 10 Average	0.3	1.1	1.9	2.7	3.1	1.8	2.8
7. Treasury Bill Yield, 1-Yr.	**CONSENSUS**	**0.9**	**2.2**	**3.2**	**3.8**	**4.0**	**2.8**	**3.9**
	Top 10 Average	1.5	3.2	4.3	4.7	4.8	3.7	4.6
	Bottom 10 Average	0.4	1.2	2.0	2.8	3.1	1.9	2.9
8. Treasury Note Yield, 2-Yr.	**CONSENSUS**	**1.4**	**2.6**	**3.6**	**4.0**	**4.3**	**3.2**	**4.2**
	Top 10 Average	2.0	3.5	4.5	4.9	5.0	4.0	4.9
	Bottom 10 Average	0.8	1.7	2.4	3.1	3.5	2.3	3.3
10. Treasury Note Yield, 5-Yr.	**CONSENSUS**	**2.3**	**3.3**	**4.1**	**4.4**	**4.6**	**3.7**	**4.4**
	Top 10 Average	2.9	4.0	4.8	5.1	5.3	4.4	5.1
	Bottom 10 Average	1.7	2.6	3.2	3.5	3.7	2.9	3.6
11. Treasury Note Yield, 10-Yr.	**CONSENSUS**	**3.4**	**4.1**	**4.6**	**4.8**	**5.0**	**4.4**	**4.9**
	Top 10 Average	3.9	4.8	5.3	5.6	5.8	5.1	5.6
	Bottom 10 Average	2.8	3.5	3.8	4.0	4.1	3.7	4.0
12. Treasury Bond Yield, 30-Yr.	**CONSENSUS**	**4.3**	**4.7**	**5.2**	**5.5**	**5.6**	**5.0**	**5.5**
	Top 10 Average	4.8	5.5	6.0	6.3	6.5	5.8	6.2
	Bottom 10 Average	3.7	4.0	4.4	4.6	4.7	4.3	4.6
13. Corporate Aaa Bond Yield	**CONSENSUS**	**4.9**	**5.4**	**5.9**	**6.2**	**6.3**	**5.7**	**6.2**
	Top 10 Average	5.6	6.2	6.7	7.0	7.2	6.5	7.0
	Bottom 10 Average	4.2	4.5	4.9	5.2	5.3	4.8	5.3
13. Corporate Baa Bond Yield	**CONSENSUS**	**5.9**	**6.3**	**6.8**	**7.1**	**7.2**	**6.7**	**7.0**
	Top 10 Average	6.5	7.1	7.5	7.9	8.1	7.4	7.9
	Bottom 10 Average	5.1	5.4	5.7	6.1	6.1	5.7	6.0
14. State & Local Bonds Yield	**CONSENSUS**	**4.8**	**5.2**	**5.6**	**5.7**	**5.7**	**5.4**	**5.5**
	Top 10 Average	5.2	5.9	6.3	6.5	6.6	6.1	6.3
	Bottom 10 Average	4.3	4.5	4.8	4.9	4.9	4.7	4.7
15. Home Mortgage Rate	**CONSENSUS**	**5.1**	**5.6**	**6.1**	**6.4**	**6.5**	**5.9**	**6.4**
	Top 10 Average	5.6	6.3	6.9	7.1	7.3	6.6	7.1
	Bottom 10 Average	4.4	5.0	5.3	5.5	5.6	5.2	5.6
A. FRB - Major Currency Index	**CONSENSUS**	**77.8**	**78.4**	**78.8**	**79.1**	**79.2**	**78.7**	**79.7**
	Top 10 Average	81.0	82.3	83.4	84.2	84.4	83.1	84.8
	Bottom 10 Average	74.6	74.3	74.0	73.7	74.0	74.1	74.7
		---------Year-Over-Year, % Change---------					Five-Year Averages	
		2015	**2016**	**2017**	**2018**	**2019**	**2015-2019**	**2020-2024**
B. Real GDP	**CONSENSUS**	**3.0**	**2.9**	**2.7**	**2.6**	**2.5**	**2.7**	**2.4**
	Top 10 Average	3.5	3.3	3.1	2.9	2.9	3.1	2.7
	Bottom 10 Average	2.5	2.5	2.3	2.1	2.2	2.3	2.1
C. GDP Chained Price Index	**CONSENSUS**	**2.0**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
	Top 10 Average	2.5	2.5	2.6	2.5	2.5	2.5	2.5
	Bottom 10 Average	1.5	1.7	1.7	1.7	1.7	1.7	1.7
D. Consumer Price Index	**CONSENSUS**	**2.2**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**
	Top 10 Average	2.6	2.8	2.8	2.8	2.8	2.8	2.8
	Bottom 10 Average	1.7	1.9	1.9	1.9	2.0	1.9	1.9

[Company Name]
Derivation of Mean Equity Risk Premium Based on a Study
Using Holding Period Returns of Public Utilities

		Over A Rated Moody's Public Utility Bonds - AUS Consultants Study (1)
1.	Arithmetic Mean Holding Period Returns on the Standard & Poor's Utility Index 1926-2012 (2):	10.69 %
2.	Arithmetic Mean Yield on Moody's A Rated Public Utility Yields 1926-2012	(6.53)
3.	Historical Equity Risk Premium	4.16 %
4.	Forecasted Equity Risk Premium Based on PRPM™ (3)	5.24
5.	Average of Historical and PRPM™ Equity Risk Premium	4.70 %

Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2012, (AUS Consultants, 2013).

(2) Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

(3) The Predictive Risk Premium Model (PRPM™) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A rated public utility bonds from 1928 - 2012.

Chaparral City Water Company
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	1	2	3	4	5	6
Proxy Group of Nine Water Companies	Value Line Adjusted Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate (3)	ECAPM Cost Rate (4)	Indicated Common Equity Cost Rate (5)
American States Water Co.	0.70	7.24 %	4.43 %	9.50 %	10.04 %	
American Water Works Co., Inc.	0.65	7.24	4.43	9.14	9.77	
Aqua America, Inc.	0.60	7.24	4.43	8.77	9.50	
Artesian Resources Corp.	0.60	7.24	4.43	8.77	9.50	
California Water Service Group	0.65	7.24	4.43	9.14	9.77	
Connecticut Water Service, Inc.	0.75	7.24	4.43	9.86	10.31	
Middlesex Water Company	0.70	7.24	4.43	9.50	10.04	
SJW Corporation	0.85	7.24	4.43	10.58	10.86	
York Water Company	0.70	7.24	4.43	9.50	10.04	
Average	0.69			9.42 %	9.98 %	9.70 %
Median	0.70			9.50 %	10.04 %	9.77 %

See page 24 for notes.

Chaparral City Water Company
Development of the Market-Required Rate of Return on Common Equity Using
the Capital Asset Pricing Model for
the Proxy Group of Nine Water Companies
Adjusted to Reflect a Forecasted Risk-Free Rate and Market Return

Notes:

(1) For reasons explained in Ms. Ahern's direct testimony, from the 13 weeks ending January 3, 2014, Value Line Summary & Index, a forecasted 3-5 year total annual market return of 9.21% can be derived by averaging the 13 weeks ending January 3, 2014 forecasted total 3-5 year total appreciation, converting it into an annual market appreciation and adding the Value Line average forecasted annual dividend yield.

The 3-5 year average total market appreciation of 32% produces a four-year average annual return of 7.19% ($(1.32^{0.25})$ - 1). When the average annual forecasted dividend yield of 2.02% is added, a total average market return of 9.21% (2.02% + 7.19%) is derived.

The 13 weeks ending January 3, 2014 forecasted total market return of 9.21% minus the risk-free rate of 4.43% (developed in Note 2) is 4.78% (9.21% - 4.43%).

The Predictive Risk Premium Model (PRPM™) market equity risk premium of 10.40% is derived by applying the PRPM™ to the monthly equity risk premium of large company common stocks over the income return on long-term U.S. Government Securities from January 1926 through November 2013.

The Morningstar, Inc. (Ibbotson Associates) calculated arithmetic mean monthly market equity risk premium of 6.55% for the period 1926-2012 results from a total market return of 11.83%% less the arithmetic mean income return on long-term U.S. Government Securities of 5.28% (11.83% - 5.28% = 6.55%).

These three expectational risk premiums are then averaged, resulting in a 7.24% market equity risk premium, which is then multiplied by the beta in column 1 of page 23 of this Schedule. ((4.78% + 10.40% + 6.55%)/3).

(2) For reasons explained in Ms. Ahern's direct testimony, the risk-free rate that Ms. Ahern relies upon for her CAPM analysis is the average forecast of 30-year Treasury Note yields per the consensus of nearly 50 economists reported in the Blue Chip Financial Forecasts dated December 1, 2013 & January 1, 2014 (see pages 20 & 21 of this schedule).The estimates are detailed below:

	30-Year Treasury Note Yield
First Quarter 2014	3.90%
Second Quarter 2014	4.00%
Third Quarter 2014	4.10%
Fourth Quarter 2014	4.20%
First Quarter 2015	4.30%
Second Quarter 2015	4.40%
2015 – 2019	5.00%
2020 – 2024	5.50%
Average	4.43%

(3) The traditional Capital Asset Pricing Model (CAPM) is applied using the following formula:

$R_S = R_F + \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

(4) The empirical CAPM is applied using the following formula:

$R_S = R_F + .25 (R_M - R_F) + .75 \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk-Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

Source of Information:
Value Line Summary & Index
Blue Chip Financial Forecasts, December 1, 2013 & January 1, 2014
Value Line Investment Survey, (Standard Edition)
2013 Ibbotson® SBBI® Valuation Yearbook, Morningstar, Inc., 2013, Chicago, IL

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
SUSAN BITTER SMITH
BOB BURNS

IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118

REBUTTAL TESTIMONY
OF
CANDACE COLEMAN
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

REBUTTAL TESTIMONY
OF
CANDACE COLEMAN
ON BEHALF OF
CHAPARRAL CITY WATER COMPANY
JANUARY 21, 2014

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EXECUTIVE SUMMARY iii
I. INTRODUCTION AND QUALIFICATIONS 1
II. SYSTEM IMPROVEMENT BENEFIT (SIB) MECHANISM 2

EXECUTIVE SUMMARY

Candace Coleman testifies that:

Chaparral City Water Company ("CCWC" or "Company") has requested a System Improvement Benefit (SIB) Mechanism in order to reduce regulatory lag and introduce rate gradualism.

CCWC believes that the SIB process will allow for proper scrutiny of projects' prudency and used and useful status. Although this may initially increase the workload on Commission Staff, CCWC believes this workload will decrease as the process is streamlined. CCWC plans to keep detailed records on SIB projects in order to increase the efficiency of the project review process.

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Candace Coleman. My business address is 2355 W Pinnacle Peak Rd., Suite 300, Phoenix, Arizona 85027, and my business phone is (623) 445 -2498.

Q. IN WHAT CAPACITY AND BY WHOM ARE YOU EMPLOYED?

A. I am employed by EPCOR Water Arizona Inc. ("EWAZ") as an Engineer in the Planning Department.

Q. PLEASE DESCRIBE YOUR PRIMARY JOB RESPONSIBILITIES.

A. I am responsible for the planning for EWAZ's water and wastewater systems throughout Arizona and New Mexico. My job includes developing comprehensive planning studies, creating and utilizing hydraulic models for distribution system analyses, and identifying potential system deficiencies caused by issues such as aging infrastructure and water quality.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND EDUCATION.

A. I graduated from the University of California at Berkeley with a Bachelor of Science degree in Chemical Engineering. I am a Registered Professional Engineer in Arizona. I joined EWAZ (then Arizona-American Water Company) in 2006. Before joining EWAZ, I was employed by ATC Associates, where I worked as an environmental engineer and was responsible for managing several underground storage tank remediation projects. Prior to working for ATC Associates, I was employed by Baker Petrolite as a chemical engineer managing chemical application accounts for Shell Oil and Conoco Phillips.

Q. DID YOU PROVIDE DIRECT TESTIMONY IN THIS CASE?

A. No. I will be adopting the portions of the direct testimony of Mr. Ian C. Crooks relating to the SIB Mechanism when the hearings commence in this proceeding.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. The purpose of my testimony in this case is to respond to certain arguments raised by RUCO in its recommendation to deny the Company's request for a SIB Mechanism.

II. SYSTEM IMPROVEMENT BENEFIT (SIB) MECHANISM

Q. RUCO IS CONCERNED THAT CAPITAL IMPROVEMENT COSTS OUTSIDE OF A RATE CASE WILL RESULT IN LESS SCRUTINY OF THE PRUDENCY OF THE EXPENDITURES AND USED AND USEFUL STATUS. DO YOU AGREE?

A. No. In fact, I expect that submissions to support SIB projects may be even more detailed than for non-SIB related projects. As part of its application in this case, CCWC submitted a comprehensive engineering report and project descriptions in the SIB Table I. These tables will be updated at the end of each year (SIB Table II) and each project will be evaluated in detail as part of the requirements laid out in the Commission-approved SIB guidelines.

Q. RUCO TESTIFIES THAT SIB INCREASES THE WORKLOAD ON COMMISSION STAFF. DO YOU BELIEVE THAT THIS WORKLOAD WILL BE REDUCED AS BOTH THE COMPANY AND COMMISSION STAFF BECOME MORE FAMILIAR WITH THE SIB PROCESS?

A. Yes. The SIB Mechanism is a new process for both EPCOR and Commission Staff, and this process will become more efficient as both parties become more accustomed to the process. EPCOR is committed to working with Staff to provide whatever information is

needed in a format that is easy to review. In addition, Staff's support for the SIB Mechanism makes clear that Staff believes it can process these requests in an efficient manner.

Q. RUCO ALSO INDICATES THAT "IF THE COMPANY CANNOT SUPPORT ITS OWN PLANT RECORDS IN THIS RATE CASE, HOW CAN THE COMPANY SUPPORT A SIB?" DO YOU AGREE WITH THIS STATEMENT?

A. No. I understand RUCO's concern about CCWC's difficulty providing plant records in support of plant activity prior to EPCOR's purchase of CCWC, but this is in no way an indication of EPCOR's record keeping now or in the future. CCWC was dependent on assistance from Golden State Water Company to obtain the plant records. And, as a result of extensive work, it is my understanding that CCWC has now provided to RUCO all of the plant records that it seeks. SIB projects will be managed very tightly by the Company, not only for the purpose of updating CCWC's own records, but also because each individual SIB project will be included in the SIB Table II filing at the end of each year.

Q. HAS RUCO RAISED OTHER ARGUMENTS IN OPPOSITION TO THE SIB MECHANISM?

A. Yes, RUCO has raised some of the same arguments that it has raised in the currently pending rehearing proceeding in the Arizona Water Company rate case (Docket No. W-01445A-11-0310) and in other rate cases in which a SIB Mechanism has been recommended. I am not an attorney, so I am not testifying regarding any of the legal issues that RUCO has raised in that proceeding and others regarding the SIB Mechanism. I do note, however, that the Commission rejected those arguments in two Arizona Water Company decisions (Decision Nos. 74081 and 73938).

1 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS CASE?**

2 A. Yes.

Chaparral City Water Company
Test Year Ended December 31, 2012
Computation of Increase in Gross Revenue Requirement

Exhibit
Schedule A-1 Rebuttal
Page 1
Witness: Hubbard

Line No.		
1	Original Cost Rate Base	$ 27,769,023
2		
3	Adjusted Operating Income	$ 865,297
4		
5	Current Rate of Return	3.12%
6		
7	Required Operating Income	$ 2,738,026
8		
9	Required Rate of Return	9.86%
10		
11	Operating Income Deficiency	$ 1,872,729
12		
13	Gross Revenue Conversion Factor	1.6495
14		
15	Increase in Gross Revenue	
16	Requirement	$ 3,089,039
17		

18	Customer	Present	Proposed	Dollar	Percent
19	Classification	Rates	Rates	Increase	Increase
20					
21	Residential	$ 7,232,174	$ 9,760,781	$ 2,528,606	35.0%
22	Commercial	663,937	880,476	216,539	32.6%
23	Sale for Resale	986,694	1,316,237	329,543	33.4%
24	Hydrants	32,846	47,194	14,348	43.7%
25					
26					
27	Total Water Revenues	$ 8,915,651	$ 12,004,688	$ 3,089,037	34.6%
28					
29	Other Revenues	99,329	99,329	-	0.0%
30					
31	Total Revenues	$ 9,014,981	$ 12,104,017	$ 3,089,037	34.3%
32					
33	Total TY Adj Rev from Schedule C-2 Rebuttal	$ 9,014,985	$ 12,104,024	$ 3,089,039	
34	Over / (Under)	$ (5)	$ (7)	$ (2)	

35
36
37
38
39
40
41
42
43
44 Supporting Schedules:
45 B-1 Rebuttal
46 C-1 Rebuttal
47 H-1 Rebuttal
48
49
50 \2013 Chaparral Water Sch. A-F Rebuttal.xls

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Fair Value Rate Base

Exhibit
Schedule B-1 Rebuttal
Page 1
Witness: Hubbard

Line No.			Original Cost Rate Base
1			
2	Gross Utility Plant in Service	$	70,129,636
3			
4	Less:		
5			
6	Accumulated Depreciation		25,695,839
7			
8	Net Utility Plant in Service	$	44,433,797
9			
10	Less:		
11	Advances in Aid of		
12	Construction	$	4,008,916
13	Contributions in Aid of		
14	Construction - Net of Amortization		12,461,921
1	Customer Meter Deposits		1,950
2	Deferred Income Taxes & Credits		1,271,696
3	Investment Tax Credits		-
4	FHSD Settlement		449,580
5			
6	Plus:		
7	Deferred Debits	$	551,668
8	Working Capital Allowance		977,621
9	Utility Plant Acquisition Adjustment		-
10			
11			
12	Total Rate Base	$	27,769,023
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25	Supporting Schedules:		Recap Schedules:
26	B-2 Rebuttal		A-1 Rebuttal
27	B-5 Rebuttal		
28	B-3		
29	E-1		
30			
31			
32			
33			
34	\2013 Chaparral Water Sch. A-F Rebuttal.xls		

Chaparral City Water Company
Test Year Ended December 31, 2012
Original Cost Rate Base Pro Forma Adjustments

Exhibit
Schedule B-2 Rebuttal
Page 1
Witness: Hubbard

Line No.		Company Rebuttal							
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
		Adjusted End of Test Year	ADJ SLH-1R Accept Staff Adj #1 Reclass UPIS from acct 330 to 330.1	ADJ SLH-2R Revised Staff #2 & RUCO #1 Post Test Year Plant	ADJ SLH-3R Revised Staff Adj #3 UPIS and Acc Depr	ADJ SLH-4R Revised Staff #4 & RUCO #5 24 Month Deferral	ADJ SLH-5R Revised Staff #5 & RUCO #6 Working Capital	Total Rebuttal Pro Forma Adjustments	Rebuttal Adjusted End of Test Year
1	Gross Utility								
2	Plant in Service	$ 69,502,064	$ -	$ 695,190	$ 9,731			$ 704,921	$ 70,206,985
3									
4	**Less:**								
5									
6	Accumulated Depreciation	25,734,123		80,647	(41,582)			39,064	25,773,188
7									
8	Net Utility Plant								
9	in Service	$ 43,767,940	$ -	$ 614,544	$ 51,313	$ -	$ -	$ 665,857	$ 44,433,797
10									
11	**Less:**								
12	Advances in Aid of								
13	Construction	4,008,916						-	4,008,916
14	Contributions in Aid of								
15	Construction - Net	12,461,921						-	12,461,921
16									
17									
18	Customer Meter Deposits	1,950						-	1,950
19	Deferred Income Taxes	1,271,696						-	1,271,696
20	Investment Tax Credits	-						-	-
21	FHSD Settlement	449,580						-	449,580
22									
23	**Plus:**								
24	Deferred Debits	686,104				(134,435)		(134,435)	551,668
25	Working Capital Allowance	1,009,341					(31,719)	(31,719)	977,621
26	Utility Plant Acquisition Adjustment	-						-	-
27									
28	Total	$ 27,269,321	$ -	$ 614,544	$ 51,313	$ (134,435)	$ (31,719)	$ 499,702	$ 27,769,023
29									
30									
31									
32									
33									
34									
35	*Supporting Schedules:*							Recap Schedules:	
36	B-3, B-5 Rebuttal							B-1 Rebuttal	
37	E-1								
38									
39									
40	\2013 Chaparral Water Sch. A-F Rebuttal.xls								

Chaparral City Water Company
Test Year Ended December 31, 2012
Rate Base Adjustment SLH-2R (Page 1 of 2)

Exhibit
Schedule B-2 Rebuttal
Page 2
Witness: Hubbard

Line No.

1 In Rebuttal, the Company adjusts the amount of Post Test Year Plant Additions to reflect current amounts.

3 **Post Test Year Plant Additions - Completed and in service through 12/31/2013**

	PROJECT #	DESCRIPTION	NARUC ACCT	Post Test Year Plant Additions	Additional Expenditures[1]	Final Costs Net of Retirements
6	170973, 270980, 270983	Comprehensive Planning Study	339600	$ 132,558	$ 86,874	$ 219,432
7	170974	Well #10 Arsenic Treatment	307000	793,374	284,093	1,077,467
8	170970	Reservoir #2 Rehabilitation	330000	595,860	74,561	670,421
9	270975	Distribution System	331001	53,577	13,387	66,964
10	270976	Shea WTP Filter Media	320000	59,369	13,666	73,035
11	270981	IPT Deployment & Scada & Firewall	346200	59,000	154,768	213,768
12	270982	Tools & Equipment	343000	31,777	189,169	220,946
13	270985	Lotus Reservoir 3	330000	-	-	
14	270987	Crestview Reservoir 7	330000	-	-	
15	270988	Vehicles	341100	9,248	389	9,637
16	279006	ESRI Project (GIS)	346000	-	-	
17	379071	Shea WTP Improvements	320000	350,000	(349,324)	676
18	379072	2013 Recurring Projects - Facilities	330000	650,000	(650,000)	-
19	379101	Hydrants replaced	335000	10,000	45,030	55,030
20	379107	Services replaced	333000	410,000	150,079	560,079
21	379104	Meters replaced	334100	300,000	(181,450)	118,550
22	379670	Distribution Improvements	331001	300,000	825,338	1,125,338
23	379671	Electrical Annual Program	311000	130,000	(130,000)	-
24		Developer-Funded		0	(0)	
25	379105	Structures & Improvements-General	304500	-	168,610	168,610
29	Total			$ 3,884,763		$4,579,953

32 Previous Adjustment for Post Test Year Plant $3,884,763

34 Increase/ (Decrease) to Plant in Service $ 695,190

37 Rebuttal Adjustment to Rate Base $ 695,190

40 [1]Net of Retirement Costs

45 Workpapers & Supporting Documents:
46 Response to Data Request No. RUCO 4.01 1st Supplement

50 \2013 Chaparral Water Sch. A-F Rebuttal.xls

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Adjustment SLH-2R (Page 2 of 2)

Exhibit
Schedule B-2 Rebuttal
Page 3
Witness: Hubbard

Line No.	PROJECT #	DESCRIPTION	NARUC ACCT	Post Test Year Plant Additions	Adjusted Cost to Complete	Rebuttal Post Test Year Plant Additions	Depreciation Rate	Depreciation Expense 1/2-Year
1								
2	**Depreciation on Post Test Year Plant Additions**							
6	170973, 270980, 270983	Comprehensive Planning Study	339600	$ 132,558	$ 86,874	$ 219,432	6.67%	$ 7,318
7	170974	Well #10 Arsenic Treatment	307000	793,374	284,093	1,077,467	3.33%	17,940
8	170970, 170975, 379070	Reservoir #2 Rehabilitation	330000	595,860	74,561	670,421	2.22%	7,442
9	270975	Distribution System	331001	53,577	13,387	66,964	2.00%	670
10	270976	Shea WTP Filter Media	320000	59,369	13,666	73,035	3.33%	1,216
11	270981	IPT Deployment	346200	59,000	154,768	213,768	10.00%	10,689
12	270982	Tools & Equipment	343000	31,777	189,169	220,946	5.00%	5,524
13	270985	Lotus Reservoir 3	330000	-	-	0	2.22%	-
14	270987	Crestview Reservoir 7	330000	-	-	0	2.22%	-
15	270988	Vehicles	341100	9,248	389	9,637	20.00%	964
16	279006	ESRI Project (GIS)	346000	-	-	0	10.00%	-
17	379071	Shea WTP Improvements	320000	350,000	(349,324)	676	3.33%	12
18	379072	Res #1 (Blackbird) coating, floor rebuil/rehab	330000	650,000	(650,000)	-	2.22%	-
19	379101	Hydrants replaced	335000	10,000	45,030	55,030	2.00%	551
20	379107	Services replaced	333000	410,000	150,079	560,079	3.33%	9,326
21	379104	Meters replaced	334100	300,000	(181,450)	118,550	8.33%	4,938
22	379670	Distribution Improvements	331001	300,000	825,338	1,125,338	2.00%	11,254
23	379671	Electrical Annual Program	311000	130,000	(130,000)	-	12.50%	-
24		Developer-Funded		0	(0)	-		-
	379105	Structures & Improvements-General	304500		168,610	168,610	3.33%	2,808
25								
26								
27								
28								
29								
30								
31	Total			$ 3,884,763	$ 695,190	$ 4,579,953		$ 80,647
32								
33								
34	Adjusted Test Year Year Accumulated Depreciation							$ -
35								
36								
37	Increase/(Decrease) Accumulated Depreciation							$ 80,647
38								
39								
40	Rebuttal Adjustment to Rate Base							$ 80,647
41								
42								
43								
44								
45								
46	Workpapers & Supporting Documents:							
47	Response to Data Request No. RUCO 4.01 1st Supplement							
48								
49								
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls							

Chaparral City Water Company
Test Year Ended December 31, 2012
Rate Base Adjustment SLH-3R (Page 1 of 2)

Exhibit
Schedule B-2 Rebuttal
Page 4
Witness: Hubbard

Line No.	Sub. Acct.	Description Company Application	CCWC Sch E-5	Staff's Adj #3 (GWB-7)	Rebuttal Adj to UPIS
1					
2	303100	Other Intangible Plant	$ -	$ -	$ -
3	303600	Land and Land Rights	1,554,591	1,554,591	-
4	304200	Structures and Improvements - Pumping	190,044		
5	304300	Structures and Improvements - Treatmer	593,063		
6	304400	Structures and Improvements - T & D	169,971		
7	304500	Structures & Improvements - General	826,312	1,778,796	(594)
8	305000	Collecting and Impounding Reservoirs	1,019,211	1,007,411	(11,800)
9	307000	Wells	159,628	159,627	(1)
10	309000	Supply Mains	2,201,526	2,201,526	-
11	311000	Pumping Equipment & Other Pumping Plant	5,926,668	5,976,046	49,378
12	320100	Water Treatment Equipment	6,551,094	6,558,040	6,946
13	330000	Reservoirs and Tanks	4,989,253	4,991,920	2,667
14	331001	Transmission and Distribution Mains	24,390,732	24,399,864	9,132
15	333000	Services	10,890,767	10,907,517	16,750
16	334100	Meters	2,916,068	2,919,624	3,556
17	335000	Hydrants	2,019,913	2,030,960	11,047
18	339100	Other Transmission & Distribution Plant	143,521	184,742	41,221
19	340100	Office Furniture and Equipment, Computers, Software, Peripherals	305,068	305,067	(1)
20	341100	Transportation Equipment	494,662	417,313	(77,349)
21	343000	Power Operated Equipment & Tool, Shop and Garage Equipment	190,662	190,661	(1)
22	345000	Power Operated Equipment	-	-	-
23	346200	Communication Equipment	43,326	43,327	1
24	347000	Other General Plant	41,221	-	(41,221)
25	Total		$ 65,617,302	$ 65,627,032	$ 9,731
26					
27					
28					
29	Previous Adjusted Test Year Utility Plant in Service				$ 65,617,302
30					
31					
32	Increase/ (Decrease) to Plant in Service				$ 9,731
33					
34					
35	Rebuttal Increase/ (Decrease) to Rate Base				$ 9,731
36					
37					
38					
39					
40					
41					
42					
43					
44					
45	Workpapers & Supporting Documents:				
46	Rebuttal Workpapers\Accum Depr\[Mary Rimback FULLY DEPRECIATED_Revised by slh.xlsx]1-d RECLASS AN				
47					
48					
49					
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls				

Chaparral City Water Company
Test Year Ended December 31, 2012
Rate Base Adjustment SLH-3R (Page 2 of 2)

Exhibit
Schedule B-2 Rebuttal
Page 5
Witness: Hubbard

Line No.			Company Revised Accum Depr
1	303	Land and Land Rights	$ -
2	304	Structures & Improvements	686,591
3	305	Collecting and Impounding Reservoirs	457,368
4			
5	307	Wells	108,329
6			
7	309	Supply Mains	938,965
8			
9	311	Pumping Equipment & Other Pumping Plant	4,868,619
10	320	Water Treatment Equipment	1,513,186
11	330.1	Reservoirs and Tanks	1,636,582
12	331	Transmission and Distribution Mains	9,619,484
13	333	Services	2,532,141
14	334	Meters	2,374,387
15	335	Hydrants	387,168
16	336	Backflow Prevention Devices	
17	339	Other Plant and Equipment	40,017
18	340	Office Furniture and Equipment	46,312
19	341	Transportation Equipment	415,605
20	342	Stores Equipment	
21	343	Tools, Ship & Garage Equip	41,094
22	344	Laboratory Equipment	25
23	345	Power Operated Equipment	
24	346	Communication Equipment	26,668
25	347	Misc Equip	
26	348	Othe Tangible Plant	
27		Total Plant in Service	$ 25,692,541
28			
29			
30			
31	Previous Adjusted Test Year Accumulated Depreciation		$ 25,734,123
32			
33			
34	Increase/ (Decrease) to Plant in Service		$ (41,582)
35			
36			
37	Rebuttal Adjustment to Rate Base		$ (41,582)
38			
39			
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41			
42			
43			
44			
45	Workpapers & Supporting Documents:		
46	Rebuttal Workpapers\Accum Depr\[Mary Rimback FULLY DEPRECIATED_Revised by slh.xlsx]1-d RECLASS AN		
47			
48			
49			
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls		

Chaparral City Water Company
Test Year Ended December 31, 2012
Rate Base Rejoinder Adjustment SLH-4R

Exhibit
Schedule B-2 Rebuttal
Page 6
Witness: Hubbard

Line No.		
1	24-Month Deferral	
2	Adjust original estimate to reflect actual plant additions during the	
3	test year and the following 12 months	
4		
5		
6	Rebuttal Pro Forma 24-Month Deferral Balance	$ 473,463
7		
8		
9	Adjusted Test Year 24-Month Deferral Balance	$ 607,898
10		
11		
12		
13	Increase/ (Decrease) in 24-Month Deferral	$ (134,435)
14		
15	Adjustment to Rate Base	$ (134,435)
16		
17		
18		
19	In addition to the deferral request, in this application	
20	Chaparral City Water Company requests authority to begin the	
21	amortization of the deferred balance associated with the	
22	24-Month Deferral Request request using individual depreciation	
23	rates (See Income Statement Adj SLH-4R p 2 of 3) to Schedule C-2 Rebuttal Page 6)	3.86%
24		
25	Rebuttal Pro Forma adjustment for Amortization of 24-Month Deferral Balance	
26	associated with Docket No. W-2113A-12-0427.	$ 18,276
27		
28	Adjusted Test Year 24-Month Amortization	$ 23,586
29		
30	Increase/ (Decrease) in Depreciation & Amortization Expense (To Sched C-2 Rebuttal,Adj SLH-4R, p 2 of 3)	$ (5,310)
31		
32	Increase/ (Decrease) in Revenue and/or Expense	$ (5,310)
33		
34		
35		
36		
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41		
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43		
44		
45	Workpapers & Supporting Documents:	
46		
47		
48		
49		
50		

Chaparral City Water Company
Test Year Ended December 31, 2012
Computation of Working Capital

Exhibit
Schedule B-5 Rebuttal
Page 1
Witness: Hubbard

Line No.		
1		
2	Working Cash Requirement	$ (51,536)
3	Required Bank Balances[1]	780,673
4	Material and Supplies Inventories	- [1]
5	Prepayments	248,484
6		
7		
8	Total Working Capital Allowance	$ 977,621
9		
10	Less Company Amount in Original Filing	$ 1,009,341
11		
12	Decrease to Rate Base	$ (31,719)
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
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41		
42		
43	Supporting Schedules:	Recap Schedules:
44	E-1	B-1 Rebuttal
45	Workpapers & Supporting Documents:	
46	[1]Thirteen-month average	
47		
48		
49		
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls	

Chaparral City Water Company
Test Year Ended December 31, 2012
Lead/Lag Study - Cash Working Capital Requirement

Exhibit
Schedule B-6 Rebuttal
Page 1
Witness: Hubbard

Line No.	Description	Proforma Test Year Amount	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days Col. C - Col. D	Lead/Lag Factor Col. E/365	Cash Working Capital Required Col. B * Col. F
1							
2							
3							
4							
5	(A)	(B)	(C)	(D)	(E)	(F)	(G)
6							
7	OPERATING EXPENSES						
8	Labor	$ 1,024,112	34.93	13.09	21.84	0.05983271	$ 61,275
9	Purchased Water	1,156,477	34.93	43.67	(8.74)	-0.0239481	(27,695)
10	Fuel & Power	605,885	34.93	27.86	7.07	0.01936695	11,734
11	Chemicals	119,266	34.93	(79.22)	114.15	0.31273681	37,299
12	Waste Disposal & Other Utilities	7,113	34.93	41.90	(6.97)	-0.0190988	(136)
13	Intercompany Support Services	94,150	34.93	29.99	4.94	0.01353134	1,274
14	Corporate Allocation	442,409	34.93	30.00	4.93	0.01350394	5,974
15	Outside Services	508,106	34.93	88.00	(53.07)	-0.1454002	(73,879)
16	Group Insurance	178,067	34.93	12.00	22.93	0.06281901	11,186
17	Pensions	85,086	34.93	67.98	(33.05)	-0.0905509	(7,705)
18	Regulatory Expense	91,668	34.93	(136.54)	171.47	0.46978248	43,064
19	Insurance Other Than Group	73,025	34.93	(26.14)	61.07	0.16731216	12,218
20	Customer Accounting[1]	346,549	34.93	26.53	8.40	0.02301079	7,974
21	Rents	1,504	34.93	-	34.93	0.09569572	144
22	General Office Expense	164,179	34.93	39.69	(4.76)	-0.013044	(2,142)
23	Miscellaneous	158,553	34.93	(3.22)	38.15	0.10451764	16,572
24	Maintenance Expense	388,614	34.93	17.28	17.65	0.04835325	18,791
25							
26							
27	TAXES						
28	General Taxes-Property[1]	$ 265,484	34.93	213.96	(179.0294)	(0.4905)	$ (130,218)
29	General Taxes-Other	86,320	34.93	3.03	31.8989	0.0874	7,544
30	Income Tax[1]	1,554,059	34.93	37.00	(2.0711)	(0.0057)	(8,818)
31							
32	Interest Expense	233,260	34.93	91.25	(56.32)	-0.154304	(35,993)
33							
34							
35	TOTAL	$ 7,583,888		CASH WORKING CAPITAL REQUIREMENT			$ (51,536)
36							
37							
38	[1]At proposed rates.						
39							
40	\2013 Chaparral Water Sch. A-F Rebuttal.xls						

Chaparral City Water Company
Test Year Ended December 31, 2012
Adjusted Test Year Income Statement

Exhibit
Schedule C-1 Rebuttal
Page 1
Witness: Murrey

Line No.		[A] Test Year Book Results	[B] Total Pro Forma Adjustments	[C] Test Year Adjusted Results	[D] Proposed Rate Increase	[E] Adjusted with Rate Increase
1	**Revenues**					
2	Water Revenues	$ 8,915,656	$ -	$ 8,915,656	$ 3,089,039	$ 12,004,695
3	Other Revenues	99,329	-	99,329		99,329
4						
5		$ 9,014,985	$ -	$ 9,014,985	$ 3,089,039	$ 12,104,024
6	**Operating Expenses**					
7	Labor	$ 1,024,112	$ -	$ 1,024,112		$ 1,024,112
8	Purchased Water	1,065,953	90,524	1,156,477		1,156,477
9	Fuel & Power	605,885	-	605,885		605,885
10	Chemicals	119,266	-	119,266		119,266
11	Waste Disposal	7,113	-	7,113		7,113
12	Intercompany Support Services	94,150	-	94,150		94,150
13	Corporate Allocation	500,330	(57,921)	442,409		442,409
14	Outside Services	508,106	-	508,106		508,106
15	Group Insurance	178,067	-	178,067		178,067
16	Pensions	85,086	-	85,086		85,086
17	Regulatory Expense	91,668	-	91,668		91,668
18	Insurance Other Than Group	73,025	-	73,025		73,025
19	Customer Accounting	318,959	-	318,959	27,590	346,549
20	Rents	1,504	-	1,504		1,504
21	General Office Expense	164,179	-	164,179		164,179
22	Miscellaneous	158,553	-	158,553		158,553
23	Maintenance Expense	388,614	-	388,614		388,614
24	Depreciation & Amortization	2,014,048	1,492	2,015,540		2,015,540
25	General Taxes-Property	251,038	(12,552)	238,486	26,998	265,484
26	General Taxes-Other	86,320	-	86,320		86,320
27	Income Taxes	389,412	2,756	392,168	1,161,891	1,554,059
28						
29	**Total Operating Expenses**	$ 8,125,389	$ 24,299	$ 8,149,688	$ 1,216,479	$ 9,366,168
30	**Utility Operating Income**	$ 889,596	$ (24,299)	$ 865,297	$ 1,872,560	$ 2,737,856
31	**Other Income & Deductions**					
32	Other Income & Deductions	$ -	$ -	$ -		$ -
33	Interest Expense	270,139	(36,879)	233,260		233,260
34	Other Expense	-	-	-		-
35	Gain/Loss Sale of Fixed Assets	-	-	-		-
36	**Total Other Income & Deductions**	$ (270,139)	$ 36,879	$ (233,260)	$ -	$ (233,260)
37	**Net Profit (Loss)**	$ 619,457	$ 12,580	$ 632,037	$ 1,872,560	$ 2,504,597
38						
39						
40						
41						
42						
43						
44	Supporting Schedules:					Recap Schedules:
45	E-2					A-1 Rebuttal
46	C-2 Rebuttal					
47						
48						
49						
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls					

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Pro Forma Adjustments

Exhibit
Schedule C-2 Rebuttal
Page 1
Witness: Murrey

Line No.		[A] Test Year Adjusted Results	[B] ADJ SM-1R Accept Staff #3 Adjust Purchased Water	[C] ADJ SLH -2R Depreciation Expense on Revised PTYPA	[D] ADJ SLH-3R Corporate Allocation Expense	[E] ADJ SLH-4R Annualize Depreciation /CIAC	[F] ADJ SM-5R Annualize Property Taxes	[G] ADJ SM-6R Federal and State Income Taxes	[H] ADJ SM-7R Interest Synchronization	[I] Total Pro Forma Adjustments	[J] Test Year Adjusted Results	[K] Proposed Rate Increase	[L] Adjusted with Rate Increase
1	**Revenues**												
2	Water Revenues	$ 8,915,656								$ -	$ 8,915,656	$ 3,089,039	$ 12,004,695
3	Other Revenues	99,329								-	99,329		99,329
4													-
5		$ 9,014,985	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,014,985	$ 3,089,039	$ 12,104,024
6	**Operating Expenses**												
7	Labor	$ 1,024,112								$ -	$ 1,024,112		$ 1,024,112
8	Purchased Water	1,065,953	90,524							90,524	1,156,477		1,156,477
9	Fuel & Power	605,885								-	605,885		605,885
10	Chemicals	119,266								-	119,266		119,266
11	Waste Disposal	7,113								-	7,113		7,113
12	Intercompany Support Services	94,150								-	94,150		94,150
13	Corporate Allocation	500,330			(57,921)					(57,921)	442,409		442,409
14	Outside Services	508,106								-	508,106		508,106
15	Group Insurance	178,067								-	178,067		178,067
16	Pensions	85,086								-	85,086		85,086
17	Regulatory Expense	91,668								-	91,668		91,668
18	Insurance Other Than Group	73,025								-	73,025		73,025
19	Customer Accounting	318,959								-	318,959	27,590	346,549
20	Rents	1,504								-	1,504		1,504
21	General Office Expense	164,179								-	164,179		164,179
22	Miscellaneous	158,553								-	158,553		158,553
23	Maintenance Expense	388,614								-	388,614		388,614
24	Depreciation & Amortization	2,014,048		13,238		(11,746)				1,492	2,015,540		2,015,540
25	General Taxes-Property	251,038					(12,552)			(12,552)	238,486	26,998	265,484
26	General Taxes-Other	86,320								-	86,320		86,320
27	Income Taxes	389,412						2,756		2,756	392,168	1,161,891	1,554,059
28		-								-	-		-
29	**Total Operating Expenses**	$ 8,125,389	$ 90,524	$ 13,238	$ (57,921)	$ (11,746)	$ (12,552)	$ 2,756	$ -	$ 24,299	$ 8,149,688	$ 1,216,479	$ 9,366,168
30	**Utility Operating Income**	$ 889,596	$ (90,524)	$ (13,238)	$ 57,921	$ 11,746	$ 12,552	$ (2,756)	$ -	$ (24,299)	$ 865,297	$ 1,872,560	$ 2,737,856
31	**Other Income & Deductions**												
32	Other Income & Deductions	$ -								$ -	$ -		$ -
33	Interest Expense	270,139							(36,879)	(36,879)	233,260		233,260
34	Other Expense	-								-	-		-
35	Gain/Loss Sale of Fixed Assets	-									-		-
36	**Total Other Income & Deductions**	$ (270,139)	$ -	$ -	$ -	$ -	$ -	$ -	$ 36,879	$ 36,879	$ (233,260)	$ -	$ (233,260)
37	**Net Profit (Loss)**	$ 619,457	$ (90,524)	$ (13,238)	$ 57,921	$ 11,746	$ 12,552	$ (2,756)	$ 36,879	$ 12,580	$ 632,037	$ 1,872,560	$ 2,504,597
38													
39													
40													
41													
42													
43	Supporting Schedules:												
44	E-6												
45													Recap Schedules:
46	Workpapers & Supporting Documents:												C-1 Rebuttal
47	\2013 Chaparral Water Sch. A-F Rebuttal.x												
48	\Common\Workpapers\2012 Chaparral St												
49													
50													

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Rebuttal Adjustment SM-1R

Exhibit
Schedule C-2 Rebuttal
Page 2
Witness: Murrey

Line No.				
1	Revised Annualized Purchase Water Expense to Reflect More Recent Cost Figures for 2014			
2				
3				
4				
5				
6				Central Arizona Project
7				Per Final 2014-2015 Rate Schedul
8				Approved June 6, 2013
9				
10	Purchased Water Expense (workpaper) - Chaparral City Water		Allocation	2014 Revised Prices
11	Entire CAP Allocation - Capital Costs		8,909	$20
12		Annual Cost		$178,180
13	Scheduled CAP Allocation - M&I Expense		6,861	$146
14		Annual Cost		$1,001,706
15	Storage at MWD		917	($16)
16		Annual Cost		($14,672)
17				
18				
19				
20				
21	Adjusted Test Year Purchased Water Expense			$ 1,165,214
22				
23	Adjusted Test Year Purchased Water Expense			$ 1,074,690
24				
25	Increase/(Decrease) in Purchased Water Expense			$ 90,524
26				
27	Rebuttal Adjustment to Revenue and/or Expense			$ 90,524
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46	Workpapers & Supporting Documents:			
47	\Common\Purchased Water\Purchased Water Proforma Rebuttal.xlsx			
48				
49				
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls			

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Adjustment SLH-2R

Exhibit
Schedule C-2 Rebuttal
Page 3
Witness: Hubbard

Line No.	PROJECT #	DESCRIPTION	NARUC ACCT	Post Test Year Plant Additions	Adjusted Cost to Complete	Rebuttal Post Test Year Plant Additions	Depreciation Rate	Annual Depreciation Expense
1								
2	**Depreciation on Post Test Year Plant Additions**							
3								
4								
5								
6	170973, 270980, 270983	Comprehensive Planning Study	339600	$ 132,558	$ 86,874	$ 219,432	6.67%	$ 14,636
7	170974	Well #10 Arsenic Treatment	307000	$ 793,374	$ 284,093	1,077,467	3.33%	35,880
8	170970, 170975, 379070	Reservoir #2 Rehabilitation	330000	$ 595,860	$ 74,561	670,421	2.22%	14,883
9	270975	Distribution System	331001	$ 53,577	$ 13,387	66,964	2.00%	1,339
10	270976	Shea WTP Filter Media	320000	$ 59,369	$ 13,666	73,035	3.33%	2,432
11	270981	IPT Deployment	346200	$ 59,000	$ 154,768	213,768	10.00%	21,377
12	270982	Tools & Equipment	343000	$ 31,777	$ 189,169	220,946	5.00%	11,047
13	270985	Lotus Reservoir 3	330000	$ -	$ -	0	2.22%	0
14	270987	Crestview Reservoir 7	330000	$ -	$ -	0	2.22%	0
15	270988	Vehicles	341100	$ 9,248	$ 389	9,637	20.00%	1,927
16	279006	ESRI Project (GIS)	346000	$ -	$ -	0	10.00%	0
17	379071	Shea WTP Improvements	320000	$ 350,000	$ (349,324)	676	3.33%	23
18	379072	Res #1 (Blackbird) coating, floor rebuil/rehab	330000	$ 650,000	$ (650,000)	-	2.22%	-
19	379101	Hydrants replaced	335000	$ 10,000	$ 45,030	55,030	2.00%	1,101
20	379107	Services replaced	333000	$ 410,000	$ 150,079	560,079	3.33%	18,651
21	379104	Meters replaced	334100	$ 300,000	$ (181,450)	118,550	8.33%	9,875
22	379670	Distribution Improvements	331001	$ 300,000	$ 825,338	1,125,338	2.00%	22,507
23	379671	Electrical Annual Program	311000	$ 130,000	$ (130,000)	-	12.50%	0
24		Developer-Funded		$ 0	$ (0)	-		0
25	379105	Structures & Improvements-General	304500		$ 168,610	168,610	3.33%	5,615
26								
27								
28								
29								
30								
31	Total			$ 3,884,763	$ 695,190	$ 4,579,953		$ 161,293
32								
33								
34	Adjusted Test Year Year Depreciation Expense							$ 148,055
35								
36								
37	Increase/(Decrease) Depreciation Expense							$ 13,238
38								
39								
40	Rebuttal Adjustment to Revenue and/or Expense							$ 13,238
41								
42								
43								
44								
45								
46	Workpapers & Supporting Documents:							
47	Response to Data Request No. RUCO 4.01 1st Supplement							
48								
49								
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls							

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Rebuttal Adjustment SLH-3R

Exhibit
Schedule C-2 Rebuttal
Page 4
Witness: Hubbard

Line No.					
1					
2	Revise Corporate Allocation				
3					
4	Adjustment to Corporate Allocation identified in response to Data Request No. RUCO 8.03 4th Supplement				
5					
6	Adjusted Test Year Corporate Allocations	$	500,330		
7					
8	Remove One-time expenses - Chaparral City Water		(5,255)		
9					
10					
11	Remove Public & Governmental Affairs Cost Pool		(52,666)		
12					
13					
14					
15	Adjusted Test Year Corporate Allocations - Rebuttal	$	442,409		
16					
17					
18					
19					
20	Adjusted Test Year Corporate Allocation Expense			$	500,330
21					
22	Increase/(Decrease) in Corporate Allocation			$	(57,921)
23					
24	Rebuttal Adjustment to Revenue and/or Expense			$	(57,921)
25					
26					
27					
28					
29					
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36					
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43					
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45					
46					
47	Workpapers & Schedules				
48	Response to Data Request No. RUCO 8.03 4th Supplement				
49	\2013 Chaparral Water Sch. A-F Rebuttal.xls				
50					

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Adjustment SLH-4R (Page 1 of 3)

Exhibit
Schedule C-2 Rebuttal
Page 5
Witness: Hubbard

Line No.							
1	Calculation of Depreciation Expense						
2							
3			Annual	Monthly	Plant	Annual	
4	NARUC		Depr.	Depr.	Balance at	Depreciation	
5	Account	Description	Rate	Rate	12/31/2012	Expense	
6	303100	Other Intangible Plant	0.00%	0.00%	$ -	$ -	
7	303600	Land and Land Rights	0.00%	0.00%	1,554,591	-	
8	304200	Structures and Improvements - Pumping	3.33%	0.28%	-	-	
9	304300	Structures and Improvements - Treatment	3.33%	0.28%	-	-	
10	304400	Structures and Improvements - T & D	3.33%	0.28%	-	-	
11	304500	Structures & Improvements - General	3.33%	0.28%	1,778,796	59,234	
12	305000	Collecting and Impounding Reservoirs	2.50%	0.21%	1,007,411	25,185	
13	307000	Wells	3.33%	0.28%	159,627	5,316	
14	309000	Supply Mains	2.00%	0.17%	2,201,526	44,031	
15	311000	Pumping Equipment & Other Pumping Plant	12.50%	1.04%	5,976,046	747,006	
16	320100	Water Treatment Equipment	3.33%	0.28%	6,558,040	218,383	
17	330000	Reservoirs and Tanks	2.22%	0.19%	4,991,920	110,821	
18	331001	Transmission and Distribution Mains	2.00%	0.17%	24,399,864	487,997	
19	333000	Services	3.33%	0.28%	10,907,517	363,220	
20	334100	Meters & Meter Installation	8.33%	0.69%	2,919,624	243,205	
21	335000	Hydrants	2.00%	0.17%	2,030,960	40,619	
22	339100	Other Plant and Misc. Equipment	6.67%	0.56%	184,742	12,322	
23	340100	Office Furniture and Equipment, Computers	6.67%	0.56%	305,067	20,348	
24	341100	Transportation Equipment	20.00%	1.67%	417,313	83,463	
25	343000	Tools, Shop and Garage Equipment	5.00%	0.42%	190,661	9,533	
26	345000	Power Operated Equipment	5.00%	0.42%	-	-	
27	346200	Communication Equipment	10.00%	0.83%	43,327	4,333	
28	347000	Other General Plant	10.00%	0.83%	-	-	
29		Total			$ 65,627,032	$ 2,475,016	(To page 6)
30							
31		Less: Non-Depreciable Plant (L6 & L7)			$ 1,554,591		
32							
33		Depreciable Plant (L30 - L32)			$ 64,072,441		
34							
35		Composite Depreciation Rate				3.86%	(To page 6)
36							
37							
38							
39							
40							
41							
42							
43							
44							
45	Workpapers & Supporting Documents:						
46	Schedule E-5						
47	Approved in Dec No. 71410 Dec 2009						
48							
49							
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls						

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Rebuttal Adjustment SLH-4R (Page 2 of 3)

Exhibit
Schedule C-2 Rebuttal
Page 6
Witness: Hubbard

Line No.				
1				
2	Adjust Depreciation/Amortization Expense to Reflect Test Year Adjusted Plant:			
3				
4	Annualized Depreciation Expense on Test Year UPIS		$ 2,475,016	(From page 5)
5	Annualized Deferred CAP Amortization		$ 15,641	
6	Annualized Amortization of 24-Month Deferral		$ 18,276	
7	Annualized Amortization of Gain on FHSD Settlement		$ (76,000)	(From page 7)
8				
9				
10	Total Annualized Depreciation and Amortization		$ 2,432,933	
11				
12				
13				
14				
15				
16				
17				
18	Less: Amortization of Contributions			
19	Contributions at TYE 12/31/12	$ (15,167,681)		
20	Rate Base Adjustment (SLH-4) removing CIAC not in Plant in Service at 12/31/12	175,810		
21	Adjusted Contributions at TYE 12/31/12	$ (14,991,871)		
22				
23	Composite Depreciation Rate for District	3.86%		(From page 5)
24	Amortization of CIAC (Ln21 X Ln23)		$ (578,686)	
25				
26	Total Depreciation Expense less Amortization of Contributions		$ 1,854,247	
27				
28	Adjusted Test Year Depreciation and Amortization Expense		$ 1,865,993	
29				
30	Increase/(Decrease) in Depreciation and Amortization Expense		$ (11,746)	
31				
32	Rebuttal Adjustment to Revenue and/or Expense		$ (11,746)	
33				
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45				
46	Workpapers & Supporting Documents:			
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49	\2013 Chaparral Water Sch. A-F Rebuttal.xls			
50				

Line No.

1
2 Adjust Depreciation/Amortization Expense to Reflect Commission-ordered Sharing of Settlement with Fountain Hills
3 Sanitation District
4
5 In Decision No. 72258, issued April 7, 2011, the Commission ordered Chaparral City Water Company to share proceeds
6 received in settlement of a Well Transfer Agreement between the Company and the Fountain Hills Sanitation District.
7
8

9	Settlement Proceeds from Well Transfer Agreement	$ 1,520,000	
10			
11	Percentage of Proceeds to be Shared with Customers	50.0%	
12			
13	Settlement Proceeds Allocated to Customers	$ 760,000	
14			
15	Authorized Amortization Period in Years	10	
16			
17	Annual Amortization of Settlement Proceeds	$ 76,000	
18			
19			
20			
21	Allocated Settlement Proceeds	$ (76,000)	(To page 6)

22
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46 Workpapers & Supporting Documents:
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50 \2013 Chaparral Water Sch. A-F Rebuttal.xls

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Rebuttal Adjustment SM-5R

Exhibit
Schedule C-2 Rebuttal
Page 8
Witness: Murrey

Line No.		[A] Property Tax Expense	[B] Property Tax Expense For Conversion Factor
1			
2	Adjust Property Taxes to Reflect Proposed Revenues:		
3			
4	Adjusted Revenues in Year Ended December 2012	$ 9,014,985	$ 9,014,985
5	Adjusted Revenues in Year Ended December 2012	9,014,985	9,014,985
6	Proposed Revenues	9,014,985	12,104,024
7	Average of Three Year's of Revenue	$ 9,014,985	$ 10,044,665
8	Average of Three Year's of Revenue, times 2	$ 18,029,971	$ 20,089,330
9	Add:		
10	Construction Work in Progress at 10%	161,294	161,294
11	Deduct:		
12	Net Book Value of Transportation Equipment	$ -	$ -
13			
14	Full Cash Value	$ 18,191,265	$ 20,250,624
15	Assessment Ratio (For 2014 per HB 2001)	19.0%	19.0%
16	Assessed Value	$ 3,456,340	$ 3,847,619
17	Property Tax Rate	6.90%	6.90%
18			
19	Property Tax	238,486	265,484
20	Tax on Parcels	-	-
21			
22	Adjusted Test Year Property Taxes at Present Rates (Line 19+Line 20, Col [A])	$ 238,486	
23	Adjusted Test Year Property Taxes	251,038	
24	Adjustment to Revenue and/or Expense (To Sch C-2 Rebuttal, Col [F])	$ (12,552)	
25			
26	Adjusted Test Year Property Taxes at Proposed Rates (Line 19+Line 20, Col [B])		$ 265,484
27	Adjusted Test Year Property Taxes at Present Rates (Line 21, Col [A])		238,486
28	Additional Property Taxes on Proposed Revenues (To Sch C-2 Rebuttal, Col [K])		$ 26,998
29			
30			
31			
32	CALCULATION OF PROPERTY TAX FACTOR TO COMPUTE G ROSS REVENUE CONVERSION FACTOR (SCHEDULE C-3 REBUTTAL):		
33			
34	Increase in Property Tax Due to Increase in Revenue Requirement (Line 28, Col [B])		$ 26,998
35			
36	Increase in Revenue Requirement (From Sch. A-1 Rebuttal)		$ 3,089,039
37			
38	Increase in Property Tax Per Dollar Increase in Revenue (Line 33/Line 35)		0.87%
39			
40			
41			
42			
43			
44	Workpapers & Supporting Documents:		
45			
46			
47			
48			
49			
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls		

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Revised Adjustment SLM-6R

Exhibit
Schedule C-2 Rebuttal
Page 9
Witness: Murrey

Line No.			Test Year Adjusted Results	Adjusted with Rate Increase
1				
2	Calculation of Income Taxes at Proposed Rates			
3				
4				
5	Operating Income Before Inc. Taxes		$ 1,257,465	$ 4,291,916
6	Interest Expense		233,260	233,260
7	Arizona Taxable Income		$ 1,024,205	$ 4,058,656
8				
9	Less Arizona Income Tax		$ 66,573	$ 263,813
10	Arizona Income Tax Rate =	6.500%		
11				
12	Federal Income Before Taxes		$ 1,024,205	$ 4,058,656
13	Less Arizona Income Taxes		66,573	263,813
14	Federal Taxable Income		$ 957,632	$ 3,794,843
15				
23	Federal Income Taxes	34.000%	$ 325,595	$ 1,290,247
24				
25				
26	Total Income Tax		$ 392,168	$ 1,554,059
27				
28	Tax Rate		38.29%	38.29%
29				
30	Effective Income Tax Rates			
31	State		6.500%	6.500%
32	Federal		31.79%	31.79%
33				
34				
35	Test Year Income Taxes, Per Books		$ 389,412	
36	Increase in Income Taxes		$ 2,756	
37				
38	Rebuttal Adjustment to Revenues and/or Expense		$ 2,756	
39				
40	Test Year Income Taxes, Adjusted			$ 392,168
41	Increase in Income Taxes			1,161,891
42				
43	Rebuttal Adjustment to Revenue and/or Expense			$ 1,161,891
44				
45				
46				
47				
48				
49	Workpapers & Supporting Documents:			
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls			

Chaparral City Water Company
Test Year Ended December 31, 2012
Income Statement Rebuttal Adjustment SLM-7R

Exhibit
Schedule C-2 Rebuttal
Page 10
Witness: Murrey

Line No.			
1			
2	Interest Synchronization with Rate Base		
3			
4	Original Cost Rate Base (Sch. B-1 Rebuttal, Ln. 12)		$ 27,769,023
5	Weighted Cost of Debt from Schedule D-1 Rebuttal		0.84%
6	Synchronized Interest Expense		$ 233,260
7			
8	Test Year Interest Expense	$ 270,139	
9			
10	Adjusted Test Year Interest Expense		$ 270,139
11			
12	Increase/(Decrease) in Interest Expense		$ (36,879)
13			
14	Rebuttal Adjustment to Revenue and/or Expense		$ (36,879)
15			
16			
17			
18			
19			
20			
21			
22			
23			
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46	Workpapers & Supporting Documents:		
47			
48			
49			
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls		

Chaparral City Water Company
Test Year Ended December 31, 2012
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3 Rebuttal
Page 1
Witness: Murrey

Line No.	Description					Percentage of Incremental Gross Revenues
1	Federal Income Taxes					31.79%
2						
3	State Income Taxes					6.50%
4				Combined	38.29%	
5	Property Taxes	Effective Rate =	0.87%	One Minus Combined	61.71%	0.54%
6						
7	Bad Debt Expense	Effective Rate =	0.89%	One Minus Combined	61.71%	0.55%
8						
9	Total Tax Percentage					39.38%
10						
11	Operating Income % = 100% - Tax Percentage					60.62%
12						
13						
14						
15	1	= Gross Revenue Conversion Factor				
16	Operating Income %					1.6495
17						
18						
19						
20						
21						
22						
23						
24						
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43	Supporting Schedules:				Recap Schedules:	
44					A-1 Rebuttal	
45						
46						
47						
48						
49						
50	\2013 Chaparral Water Sch. A-F Rebuttal.xls					

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Cost of Capital

Exhibit
Schedule D-1 Rebuttal
Page 1
Witness: Hubbard

Line No.	Item of Capital	End of Test Year Dollar Amount	Percent of Total	Cost Rate	Weighted Cost	End of Projected Year Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Long-Term Debt	$ 4,545,000	14.45%	5.97%	0.86%	$ 4,545,000	14.11%	5.97%	0.84%
2									
3	Short-Term Debt	$ -	0.00%	0.00%	0.00%	$ -		0.00%	0.00%
4									
5	Stockholder's Equity	$ 26,901,228	85.55%	10.50%	8.98%	$ 27,665,533	85.89%	10.50%	9.02%
6									
7	Totals	$ 31,446,228	100.00%		9.84%	$ 32,210,533	100.00%		9.86%

Supporting Schedules:
D-2 Rebuttal

Recap Schedules:
A-1 Rebuttal

\2013 Chaparral Water Sch. A-F Rebuttal.xls

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Long Term Debt
Test Year - Chaparral City Water Company

Exhibit
Schedule D-2 Rebuttal
Page 1
Witness: Hubbard

Line No.	Long-Term Debt	End of Test Year Amount Outstanding	Annual Cost	Interest Rate	End of Projected Year Amount Outstanding	Annual Cost	Interest Rate
1	IDA Bonds						
2	-Series 1997A	$ 4,205,000	$ 227,070	5.400%	$ 3,875,000	$ 209,250	5.400%
3	-Series 1997B	730,000	38,690	5.300%	670,000	35,510	5.300%
4	Amortization of Debt Issue Costs	0	26,501	0.00%	-	26,501	0.00%
5							
6							
7							
8							
9							
10							
11	Totals	$ 4,935,000	$ 292,261	5.92%	$ 4,545,000	$ 271,261	5.97%
12							
13							
14	Common Equity						
15	Common Stock	$ 4,603,140			$ 4,603,140		
16	Paid in Capital	4,047,492 (a)			4,047,492		
17	Retained Earnings	18,250,597			19,014,902		
18		$ 26,901,228		11.05%	$ 27,665,533		10.50%
19							
20							
21							
22	Short-Term Debt						
23	Intercompany Payable	$ 135,057	$ 972	0.72%	$ -	$ -	0.72%
24							
25							
26	Totals	$ 135,057	$ 972	0.72%	$ -	$ -	0.00%
27							
28							
29							
30							
31	(a) - 2012 Audit adjustment to Contributed Capital recorded after rate case filing						
32							
33							
34							
35	Supporting Schedules:					Recap Schedules:	
36	E-1					D-1 Rebuttal	
37							
38	Workpapers & Supporting Documents:						
39	\Common\Cost of Debt\#57 - 2012 CCWC 2863 LT Debt.xls						
40	\Common\Workpapers\Downloads\13-Month Balances by Account - 2012.xlsx						
41	\2013 Chaparral Water Sch. A-F Rebuttal.xls						

Chaparral City Water Company
Docket No. W-02113A-13-0118

THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF SERVICE)

January 21, 2014

COST OF SERVICE
G SCHEDULES

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Returns at Present Rates by Class

Exhibit
Rebuttal Shedule G-1
Page 1
Witness: Bourassa

Line No.		Totals	Residential	Commercial	Irrigation	Hydrant
1	Water Revenues	$ 8,958,295	$ 7,271,313	$ 665,426	$ 988,711	$ 32,846
2	Revenue Annualizations/Declining Usage	(28,986)	(38,405)	9,419	-	-
3	Misc. Revenues[1]	99,329	92,661	2,940	3,590	139
4	Reconciliation H-1 to C-1[1]	(13,654)	(12,737)	(404)	(493)	(19)
5	Total Revenues	$ 9,014,985	$ 7,312,831	$ 677,381	$ 991,808	$ 32,965
6						
7	Operating Expenses[2]	$ 5,503,494	$ 4,662,590	$ 331,143	$ 491,982	$ 17,779
8	Depreciation and					
9	Amortization[2]	2,015,540	1,765,050	114,930	125,179	10,380
10	Property Tax[3]	238,486	193,457	17,920	26,238	872
11	Income Tax[4]	392,168	187,105	76,357	127,697	1,010
12	Total Operating Expenses	$ 8,149,688	$ 6,808,202	$ 540,350	$ 771,095	$ 30,041
13	Operating Income	$ 865,297	$ 504,629	$ 137,031	$ 220,712	$ 2,924
14	Interest Expense[5]	233,260	203,082	13,970	14,910	1,297
15	Net Income	$ 632,037	$ 301,547	$ 123,061	$ 205,802	$ 1,627
16	Rate Base[6]	$ 27,769,023	$ 24,176,405	$ 1,663,142	$ 1,775,037	$ 154,440
17	Return on Rate Base[7]	3.12%	2.09%	8.24%	12.43%	1.89%
18						
19	**Percent of Total Customers**		93.29%	2.96%	3.61%	0.14%
20						
21						
22						
23						
24						
25						

26 [1] Allocated based on customer counts.
27 2 Operating Expenses and Depreciation computations are shown on Rebuttal Shedule G-4, Page 1.
28 [3] Property Taxes allocation based on Revenues.
29 [4] Income Tax from Schedule C-1, at present rates. Income Taxes allocated based on taxable income.
30 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
31 6 Rate Base computations are shown on Rebuttal Shedule G-3, Page 1
32 [7] Operating Income Divided by Rate Base
33
34

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Returns at Proposed Rates by Class

Line No.		Totals	Residential	Commercial	Irrigation	Hydrant
1	Water Revenues	$ 12,057,629	$ 9,813,480	$ 878,701	$ 1,318,254	$ 47,194
2	Revenue Annualizations/Declining Usage	(39,029)	(51,712)	12,683	-	-
3	Misc. Revenues[1]	99,329	92,661	2,940	3,590	139
4	Reconciliation H-1 to C-1[1]	(13,805)	(12,878)	(409)	(499)	(19)
5	Total Revenues	$ 12,104,124	$ 9,841,550	$ 893,916	$ 1,321,345	$ 47,313
6						
7	Operating Expenses[2]	$ 5,531,084	$ 4,688,328	$ 331,959	$ 492,979	$ 17,818
8	Depreciation and					
9	Amortization[2]	2,015,540	1,765,050	114,930	125,179	10,380
10	Property Tax[3]	265,484	215,859	19,607	28,982	1,038
11	Income Tax[4]	1,554,059	1,136,891	158,306	252,438	6,425
12	Total Operating Expenses	$ 9,366,167	$ 7,806,127	$ 624,802	$ 899,577	$ 35,661
13	Operating Income	$ 2,737,957	$ 2,035,423	$ 269,114	$ 421,768	$ 11,653
14	Interest Expense[5]	233,260	203,082	13,970	14,910	1,297
15	Net Income	$ 2,504,697	$ 1,832,341	$ 255,143	$ 406,858	$ 10,355
16	Rate Base[6]	$ 27,769,023	$ 24,176,405	$ 1,663,142	$ 1,775,037	$ 154,440
17	Return on Rate Base[7]	9.86%	8.42%	16.18%	23.76%	7.55%
18						
19	**Percent of Total Customers**		93.29%	2.96%	3.61%	0.14%
20						
21	**Indicated Monthly Minimums and Single-Tier Commody Rates for 3/4 Inch Meter**					
22		Sched. G-8, pg 4A	Sched. G-8, pg 4B	Sched. G-8, pg 4C	Sched. G-8, pg 4D	Sched. G-8, pg 4E
23		All Classes	Residential	Commercial	Irrigation	Hydrant
24	Monthly Minimums	$ 23.49	$ 23.13	$ 24.15	$ 28.46	$ 18.51
25	Single-Tier Commodity Rate	$ 3.889	$ 4.124	$ 3.411	$ 2.793	$ 6.457
26						
27						

28 [1] Allocated based on customer counts.
29 2 Operating Expenses and Depreciation computations are shown on Rebuttal Shedule G-4, Page 2.
30 [3] Property Taxes allocation based on Revenues
31 [4] Income Tax from Schedule C-1, at proposed rates. Income Taxes allocated based on taxable income
32 [5] Interest Synchronized Interest Expense. Allocation based on Rate Base
33 6 Rate Base computations are shown on Rebuttal Shedule G-3, Page 1
34 [7] Operating Income Divided by Rate Base
35

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Allocation of Assets to Customer Classes

Exhibit
Rebuttal Shedule G-3
Page 1
Witness: Bourassa

Line No.		Totals	Residential	Commercial	Irrigation	Hydrant
1						
2						
3						
4	Plant, Minus Accumulated Depreciation, Advances and Contributions in Aid, Meter Deposits, and Deferred Income Tax (from Rebuttal Shedule G-5, Page 1)					
5	Commodity	$ 1,586,175	$ 1,238,617	$ 123,109	$ 220,810	$ 3,640
6	Demand	14,432,069	12,585,154	869,386	889,795	87,734
7	Customer	2,167,752	2,022,217	64,170	78,341	3,025
8	Service	8,925,153	7,724,653	582,942	559,087	58,472
9	Meter	657,873	605,765	23,535	27,004	1,569
10	Total	$ 27,769,023	$ 24,176,405	$ 1,663,142	$ 1,775,037	$ 154,440
11						
12						
13						
14	**Summary**					
15	Net Rate Base	$ 27,769,023	$ 24,176,405	$ 1,663,142	$ 1,775,037	$ 154,440
16	% of Net Rate Base	100.00%	87.06%	5.99%	6.39%	0.56%
17						
18						
19						
20						

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity Demand Method
Allocation of Expenses to Customer Classes - Present Rates

Exhibit
Rebuttal Shedule G-4
Page 1
Witness: Bourassa

Line No.		Adjusted Per C-1	Residential	Commercial	Irrigation	Hydrant	Totals
	Operation and Maintenance Expense (from Rebuttal Shedule G-6, Page 1)						
1	Commodity	$ 2,425,112	$ 1,893,728	$ 188,221	$ 337,597	$ 5,565	$ 2,425,112
2	Demand	1,690,565	1,474,218	101,839	104,230	10,277	1,690,565
3	Customer	1,387,818	1,294,644	41,082	50,155	1,937	1,387,818
4	Service	-	-	-	-	-	-
5	Meter	-	-	-	-	-	-
6	Totals	$ 5,503,494	$ 4,662,590	$ 331,143	$ 491,982	$ 17,779	$ 5,503,494
7							
8	Depreciaton Expense on Plant (from Rebuttal Shedule G-6, Page 2)						
9	Commodity	120,617	$ 94,188	$ 9,362	$ 16,791	$ 277	$ 120,617
10	Demand	1,118,729	975,562	67,392	68,974	6,801	1,118,729
11	Customer	141,242	131,760	4,181	5,104	197	141,242
12	Service	381,871	330,506	24,942	23,921	2,502	381,871
13	Meter	253,080	233,034	9,054	10,388	604	253,080
14	Totals	$ 2,015,540	$ 1,765,050	$ 114,930	$ 125,179	$ 10,380	$ 2,015,540
15							
16	Operation and Maintenance Expense and Depreciation Expense						
17	Commodity	$ 2,545,729	$ 1,987,916	$ 197,583	$ 354,388	$ 5,842	$ 2,545,729
18	Demand	2,809,294	2,449,780	169,231	173,204	17,078	2,809,294
19	Customer	1,529,060	1,426,404	45,263	55,259	2,134	1,529,060
20	Service	381,871	330,506	24,942	23,921	2,502	381,871
21	Meter	253,080	233,034	9,054	10,388	604	253,080
22	Total	$ 7,519,034	$ 6,427,640	$ 446,073	$ 617,161	$ 28,159	$ 7,519,034
23							
24	Total Expenses (excluding Income Tax and						
25	Property Taxes)	$ 7,519,034	$ 6,427,640	$ 446,073	$ 617,161	$ 28,159	$ 7,519,034
26							
27	Property Taxes, Allocated on Schedules G-1 & G-2	$ -					
28	Income Tax, Allocated on Schedules G-1 & G-2	-					
29	Total Expenses	$ 7,519,034					
30							

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity Demand Method
Allocation of Expenses to Customer Classes - Proposed Rates

Exhibit
Rebuttal Shedule G-4
Page 2
Witness: Bourassa

Line No.		At Proposed C-1	Residential	Commercial	Irrigation	Hydrant	Totals
1							
2	Operation and Maintenance Expense (from Rebuttal Shedule G-6, Page 1)						
3	Commodity	$ 2,425,112	$ 1,893,728	$ 188,221	$ 337,597	$ 5,565	$ 2,425,112
4	Demand	1,690,565	1,474,218	101,839	104,230	10,277	1,690,565
5	Customer	1,415,408	1,320,382	41,899	51,152	1,975	1,415,408
6	Service	-	-	-	-	-	-
7	Meter	-	-	-	-	-	-
8	Totals	$ 5,531,084	$ 4,688,328	$ 331,959	$ 492,979	$ 17,818	$ 5,531,084
9							
10	Depreciaton Expense on Plant (from Rebuttal Shedule G-6, Page 3.2)						
11	Commodity	$ 120,617	$ 94,188	$ 9,362	$ 16,791	$ 277	$ 120,617
12	Demand	1,118,729	975,562	67,392	68,974	6,801	1,118,729
13	Customer	141,242	131,760	4,181	5,104	197	141,242
14	Service	381,871	330,506	24,942	23,921	2,502	381,871
15	Meter	253,080	233,034	9,054	10,388	604	253,080
16	Totals	$ 2,015,540	$ 1,765,050	$ 114,930	$ 125,179	$ 10,380	$ 2,015,540
17							
18	Operation and Maintenance Expense and Depreciation Expense						
19	Commodity	$ 2,545,729	$ 1,987,916	$ 197,583	$ 354,388	$ 5,842	$ 2,545,729
20	Demand	2,809,294	2,449,780	169,231	173,204	17,078	2,809,294
21	Customer	1,556,650	1,452,141	46,080	56,256	2,172	1,556,650
22	Service	381,871	330,506	24,942	23,921	2,502	381,871
23	Meter	253,080	233,034	9,054	10,388	604	253,080
24	Total	$ 7,546,624	$ 6,453,378	$ 446,890	$ 618,158	$ 28,198	$ 7,546,624
25							
26	Total Expenses (excluding Income Tax and						
27	Property Taxes)	$ 7,546,624	$ 6,453,378	$ 446,890	$ 618,158	$ 28,198	$ 7,546,624
28							
29	Property Taxes, Allocated on Schedules G-1 & G-2	$ -					
30	Income Tax, Allocated on Schedules G-1 & G-2	-					
31	Total Expenses	**$ 7,546,624**					
32							
33							
34							

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity Demand Method
Allocation of Rate Base by Function

Exhibit
Rebuttal Shedule G-5
Page 1
Witness: Bourassa

Line No.		Adjusted Per B-2	Demand	Commodity	Customer	Meter	Service	Totals
1								
2	**Rate Base**							
3	Plant minus (Accumulated Depreciation	$ 27,769,023	$ 14,432,069	$ 1,586,175	$ 2,167,752	$ 657,873	$ 8,925,153	$ 27,769,023
4	Contributions in Aid of Construction							
5	Advances in Aid of Construction,							
6	Meter Deposits and Deferred Income Tax)							
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

Chaparral City Water Company
Test Year Ended December 31, 2012
Allocation of Plant, Less Contributions and Advances in Aid of
Construction , Meter Deposits and Accumulated Depreciation to Functions

Exhibit
Rebuttal Shedule G-5
Page 2
Witness: Bourassa

Line No.	Account No.	Description	Adjusted Original Cost Plant	Adjusted Accumulated Depreciation	Total Net Plant Values	Demand	Commodity	Customer	Meters	Services
1										
2										
3										
4	**Intangible**									
5	301	Organization	$ -	$ -	$ -	-	-	-	-	-
6	302	Franchises	-	-	-	-	-	-	-	-
7	303.1	Other Intangible Plant	1,282,734	-	1,282,734	1,154,461	128,273	-	-	-
8	**Subtotal Intangible**		1,282,734	-	1,282,734	1,154,461	128,273	-	-	-
9										
10	**Source of Supply & Pumping Plant**									
11	303	Land and Land Rights	$ 271,857		$ 271,857	$ 244,671	$ 27,186	$ -	$ -	$ -
12	304	Structures and Improvements	1,947,406	686,591	1,260,815	1,134,734	126,082	-	-	-
13	305	Collecting and Impounding Res.	1,007,411	460,176	547,236	492,512	54,724	-	-	-
14	306	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-
15	307	Wells and Springs	1,237,094	126,269	1,110,825	999,743	111,083	-	-	-
16	308	Infiltration Galleries and Tunnels	-	-	-	-	-	-	-	-
17	309	Supply Mains	2,201,526	938,965	1,262,561	1,136,305	126,256	-	-	-
18	310	Power Generation Equipment	-	-	-	-	-	-	-	-
19	311	Electric Pumping Equipment	5,976,046	4,868,619	1,107,427	996,684	110,743	-	-	-
20	**Subtotal Source of Supply & Pumping Plant**		$ 12,641,340	$ 7,080,619	$ 5,560,721	$ 5,004,649	$ 556,072	$ -	$ -	$ -
21										
22	**Water Treatment**									
23	320	Water Treatment Equipment	$ 6,631,751	$ 1,514,414	$ 5,117,337	$ 4,605,603	$ 511,734	$ -	$ -	$ -
24	**Subtotal Water Treatment**		$ 6,631,751	$ 1,514,414	$ 5,117,337	$ 4,605,603	$ 511,734	$ -	$ -	$ -
25										
26	**Transmission and Distribution Plant**									
27	330	Distribution Reservoirs & Standpipe	$ 5,662,341	$ 1,644,024	$ 4,018,317	$ 3,616,485	$ 401,832	$ -	$ -	$ -
28	331	Transmission and Distribution Mains	25,592,166	9,631,408	15,960,758	14,364,682	1,596,076	-	-	-
29	333	Services	11,467,596	2,541,467	8,926,129	-	-	-	-	8,926,129
30	334	Meters	3,038,174	2,379,325	658,849	-	-	-	658,849	-
31	335	Hydrants	2,085,990	387,719	1,698,271	-	-	1,698,271	-	-
32	336	Backflow Prevention Devices	-	-	-	-	-	-	-	-
33	339	Other Plant and Miscellaneous Equip.	404,174	47,335	356,839	89,210	-	267,629	-	-
34	**Subtotal Transmission and Distribution Plant**		$ 48,250,441	$ 16,631,279	$ 31,619,162	$ 18,070,377	$ 1,997,907	$ 1,965,901	$ 658,849	$ 8,926,129
35										
36	**General Plant**									
37	340	Office Furniture and Fixtures	$ 305,067	$ 46,312	$ 258,755	$ 64,689	$ -	$ 194,066	$ -	$ -
38	341	Transportation Equipment	426,950	416,569	10,381	2,595	-	7,785	-	-
39	342	Stores Equipment	-	-	-	-	-	-	-	-
40	343	Tools and Work Equipment	220,945	46,618	174,327	156,894	17,433	-	-	-
41	344	Laboratory Equipment	-	-	-	-	-	-	-	-
42	345	Power Operated Equipment	190,662	25	190,637	171,573	19,064	-	-	-
43	346	Communications Equipment	257,095	37,357	219,738	197,764	21,974	-	-	-
44				-						
45				-						

Chaparral City Water Company
Test Year Ended December 31, 2012
Allocation of Plant, Less Contributions and Advances in Aid of
Construction , Meter Deposits and Accumulated Depreciation to Functions

Exhibit
Rebuttal Shedule G-5
Page 2.1
Witness: Bourassa

Line No.	Account No.	Description	Adjusted Original Cost Plant	Accumulated Depreciation	Total Net Plant Values	Demand	Commodity	Customer	Meters	Services
1		**General Plant Continued**								
2	347	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3	347	Miscellaneous Equipment	-	-	-	-	-	-	-	-
4	Rounding		-	(7)	7	6	1	-	-	-
5	**Subtotal General Plant**		$ 1,400,719	$ 546,875	$ 853,844	$ 593,522	$ 58,471	$ 201,852	$ -	$ -
6	Total Plant		$ 70,206,985	$ 25,773,187	$ 44,433,798	$ 29,428,611	$ 3,252,458	$ 2,167,752	$ 658,849	$ 8,926,129
7										
8	Contributions in Aid of Construction, Net		(14,991,871)	2,529,950	(12,461,921)	(11,215,729)	(1,246,192)	-	-	-
9	Advances in Aid of Construction		(4,008,916)		(4,008,916)	(3,608,025)	(400,892)	-	-	-
10	Meter Deposits		(1,950)		(1,950)	-	-	-	(975)	(975)
11	Deferred Income Tax		(1,271,696)		(1,271,696)	(1,144,526)	(127,170)	-	-	-
12	FHSD Settlement		(449,580)		(449,580)	(404,622)	(44,958)	-	-	-
13	Deferred Reg Assets		686,104		551,668	496,501	55,167	-	-	-
14	Working Capital		1,009,341		977,621	879,858	97,762	-	-	-
15	Rounding		-	-	-			-		
16	Totals		$ 51,178,415	$ 28,303,137	$ 27,769,023	$ 14,432,069	$ 1,586,175	$ 2,167,752	$ 657,873	$ 8,925,153
17	Rate Bases (Plant -(AIAC, CIAC, Meter Deposits & Accum. Depr.)				$ 27,769,023	$ 14,432,069	$ 1,586,175	$ 2,167,752	$ 657,873	$ 8,925,153

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Allocation of Expenses to Functions
At Present Rates

Exhibit
Rebuttal Shedule G-6
Page 1
Witness: Bourassa

Line No.	Description	Adjusted per C-1	Demand	Commodity	Customer	Meters	Services	Totals
1	Labor	$ 1,024,112	$ 409,645	$ 204,822	$ 409,645	$ -	$ -	$ 1,024,112
2	Purchased Water	1,156,477	-	1,156,477	-	-	-	1,156,477
3	Fuel & Power	605,885	-	605,885	-	-	-	605,885
4	Chemicals	119,266	-	119,266	-	-	-	119,266
5	Waste Disposal	7,113	6,402	711	-	-	-	7,113
6	Intercompany Support Services	94,150	37,660	18,830	37,660	-	-	94,150
7	Corporate Allocation	442,409	176,964	88,482	176,964	-	-	442,409
8	Outside Services	508,106	406,485	101,621	-	-	-	508,106
9	Group Insurance	178,067	160,260	17,807	-	-	-	178,067
10	Pensions	85,086	34,035	17,017	34,035	-	-	85,086
11	Regulatory Expense	91,668	82,501	9,167	-	-	-	91,668
12	Insurance Other Than Group	73,025	65,723	7,303	-	-	-	73,025
13	Customer Accounting	318,959	-	-	318,959	-	-	318,959
14	Rents	1,504	-	-	1,504	-	-	1,504
15	General Office Expense	164,179	-	-	164,179	-	-	164,179
16	Miscellaneous	158,553	-	-	158,553	-	-	158,553
17	Maintenance Expense	388,614	310,891	77,723	-	-	-	388,614
18	Depreciation & Amortization[1]	2,015,540	1,118,729	120,617	141,242	253,080	381,871	2,015,540
19	General Taxes-Other	86,320	-	-	86,320	-	-	86,320
20								
21								
22	Property Taxes, Allocated on Schedules G-1 & G-2							
23	Income Tax, Allocated on Schedules G-1 & G-2							
24								
25	Total	$ 7,519,034	$ 2,809,294	$ 2,545,729	$ 1,529,060	$ 253,080	$ 381,871	$ 7,519,034
26								
27	**By Class[2]**		Demand	Commodity	Customer	Meters	Services	Totals
28	Residential							
29	Commercial							
30	Irrigation							
31	Hydrant							
32	Totals							
33								
34	See Rebuttal Shedule G-7, page 2.2 for allocation factors.							
35	1 Depreciation allocation computed on Rebuttal Shedule G-6, Page 3.1 and 3.2							
36	2 See Rebuttal Shedule G-5, page 1 for allocations by class.							
37								
38								

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Allocation of Expenses to Functions
At Proposed Rates

Exhibit
Rebuttal Shedule G-6
Page 2
Witness: Bourassa

Line No.	Description	At Proposed Per C-1	Demand	Commodity	Customer	Meters	Services	Totals
1	Labor	$ 1,024,112	$ 409,645	$ 204,822	$ 409,645	$ -	$ -	$ 1,024,112
2	Purchased Water	1,156,477	-	1,156,477	-	-	-	1,156,477
3	Fuel & Power	605,885	-	605,885	-	-	-	605,885
4	Chemicals	119,266	-	119,266	-	-	-	119,266
5	Waste Disposal	7,113	6,402	711	-	-	-	7,113
6	Intercompany Support Services	94,150	37,660	18,830	37,660	-	-	94,150
7	Corporate Allocation	442,409	176,964	88,482	176,964	-	-	442,409
8	Outside Services	508,106	406,485	101,621	-	-	-	508,106
9	Group Insurance	178,067	160,260	17,807	-	-	-	178,067
10	Pensions	85,086	34,035	17,017	34,035	-	-	85,086
11	Regulatory Expense	91,668	82,501	9,167	-	-	-	91,668
12	Insurance Other Than Group	73,025	65,723	7,303	-	-	-	73,025
13	Customer Accounting	346,549	-	-	346,549	-	-	346,549
14	Rents	1,504	-	-	1,504	-	-	1,504
15	General Office Expense	164,179	-	-	164,179	-	-	164,179
16	Miscellaneous	158,553	-	-	158,553	-	-	158,553
17	Maintenance Expense	388,614	310,891	77,723	-	-	-	388,614
18	Depreciation & Amortization[1]	2,015,540	1,118,729	120,617	141,242	253,080	381,871	2,015,540
19	General Taxes-Other	86,320	-	-	86,320	-	-	86,320
20								
21								
22	Property Taxes, Allocated on Schedules G-1 & G-2							
23	Income Tax, Allocated on Schedules G-1 & G-2							
24								
25	Total	$ 7,546,624	$ 2,809,294	$ 2,545,729	$ 1,556,650	$ 253,080	$ 381,871	$ 7,546,624
26								
27	**By Class[2]**		Demand	Commodity	Customer	Meters	Services	Totals
28	Residential							
29	Commercial							
30	Irrigation							
31	Hydrant							
32	Totals							
33								
34	See Rebuttal Shedule G-7, page 2.2 for allocation factors.							
35	1 Depreciation allocation computed on Rebuttal Shedule G-6, Page 3.1 and 3.2							
36	2 See Rebuttal Shedule G-4, page 2 for allocations by class.							
37								
38								

Chaparral City Water Company
Test Year Ended December 31, 2012
Allocation of Depreciation Expense to Functions

Exhibit
Rebuttal Shedule G-6
Page 3.1
Witness: Bourassa

Line No.	Account No.	Description	Adjusted Original Cost	Depreciation Rate	Depr./Amort. Expense	Allocation Factor Ref.	Demand	Commodity	Customer	Meters	Services
1	**Intangible**										
2	301	Organization	$ -		$ -		$ -	$ -	$ -	$ -	$ -
3	302	Franchises	-		-		-	-	-	-	-
4	303.1	Other Intangible Plant	1,282,734		-		-	-	-	-	-
5	**Subtotal Intangible**		$ 1,282,734		$ -		$ -	$ -	$ -	$ -	$ -
6											
7		**Source of Supply & Pumping Plant**									
8	303	Land and Land Rights	$ 271,857	0.000%	$ -		$ -	$ -	$ -	$ -	$ -
9	304	Structures and Improvements	1,947,406	3.330%	64,849		58,364	6,485	-	-	-
10	305	Collecting and Impounding Res.	1,007,411	2.500%	25,185		22,667	2,519	-	-	-
11	306	Lakes, Rivers, Other Intakes	-	2.500%	-		-	-	-	-	-
12	307	Wells and Springs	1,237,094	3.330%	41,195		37,076	4,120	-	-	-
13	308	Infiltration Galleries and Tunnels	-	6.670%	-		-	-	-	-	-
14	309	Supply Mains	2,201,526	2.000%	44,031		39,627	4,403	-	-	-
15	310	Power Generation Equipment	-	5.000%	-		-	-	-	-	-
16	311	Electric Pumping Equipment	5,976,046	12.500%	747,006		672,305	74,701	-	-	-
17	**Subtotal Source of Supply & Pumping Plant**		$ 12,641,340		$ 922,265		$ 830,039	$ 92,227	$ -	$ -	$ -
18											
19	**Water Treatment**										
20	320	Water Treatment Equipment	6,631,751	3.330%	220,837		198,754	22,084	-	-	-
21	**Subtotal Water Treatment**		$ 6,631,751		$ 220,837		$ 198,754	$ 22,084	$ -	$ -	$ -
22											
23	**Transmission and Distribution Plant**										
24	330	Distribution Reservoirs & Standpipe	$ 5,662,341	2.220%	$ 125,704		$ 113,134	$ 12,570	$ -	$ -	$ -
25	331	Transmission and Distribution Mains	25,592,166	2.000%	511,843		460,659	51,184	-	-	-
26	333	Services	11,467,596	3.330%	381,871		-	-	-	-	381,871
27	334	Meters	3,038,174	8.330%	253,080		-	-	-	253,080	-
28	335	Hydrants	2,085,990	2.000%	41,720		-	-	41,720	-	-
29	336	Backflow Prevention Devices	-	6.670%	-		-	-	-	-	-
30	339	Other Plant and Miscellaneous Equipment	404,174	6.670%	26,958		6,740	-	20,219	-	-
31	**Subtotal Transmission and Distribution Plant**		$ 48,250,441		$ 1,341,176		$ 580,532	$ 63,755	$ 61,939	$ 253,080	$ 381,871
32											
33	**General Plant**										
34	340	Office Furniture and Fixtures	$ 305,067	6.670%	$ 20,348		$ 5,087	$ -	$ 15,261	$ -	$ -
35	341	Transportation Equipment	426,950	20.000%	85,390		21,348	-	64,043	-	-
36	342	Stores Equipment	-	4.000%	-		-	-	-	-	-
37	343	Tools and Work Equipment	220,945	5.000%	11,047		9,943	1,105	-	-	-
38	344	Laboratory Equipment	-	10.000%	-		-	-	-	-	-
39	345	Power Operated Equipment	190,662	5.000%	9,533		8,580	953	-	-	-
40	346	Communications Equipment	257,095	10.000%	25,710		23,139	2,571	-	-	-

Chaparral City Water Company
Test Year Ended December 31, 2012
Allocation of Depreciation Expense to Functions

Exhibit
Rebuttal Shedule G-6
Page 3.2
Witness: Bourassa

Line No.	Account No.	Description	Original Cost	Depreciatior Rate	Depr./Amort. Expense	Allocation Factor Ref.	Demand	Commodity	Customer	Meters	Services
1	**General Plant Continued**										
2	347	Miscellaneous Equipment	-	10.00%	-		-	-	-	-	-
3	348	Other Tangible Plant	-	10.00%	-		-	-	-	-	-
4	**Subtotal General Plant**		$ 1,400,719		$ 152,028		$ 68,095	$ 4,629	$ 79,303	$ -	$ -
5	**Total Plant**		$ 70,206,985		$ 2,636,307		$ 1,677,420	$ 182,694	$ 141,242	$ 253,080	$ 381,871
6											
7											
8	Less:	Amortization of Contributions - Gross	$ (14,991,871)	3.86%	$ (578,686)		(520,818)	(57,869)	-	-	-
9		Deferred CAP Amortization			15,641		14,077	1,564	-	-	-
10		24 Month Deferral Amortization			18,276		16,448	1,828	-	-	-
11		Amortization of Gain on FHSD Settlement			(76,000)		(68,400)	(7,600)	-	-	-
12		Rounding			2		2	0	-	-	-
13											
14	Total Depreciation Expense		(14,991,871)		$ 2,015,540		$ 1,118,729	$ 120,617	$ 141,242	$ 253,080	$ 381,871
15											
16											
17											
18											
19											

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Commodity - Demand Method Functions Factors

Exhibit
Rebuttal Shedule G-7
Page 1
Witness: Bourassa

Line No.	Class	Demand	Commodity	Customer	Meters	Services
1						
2	Class	Demand	Commodity	Customer	Meters	Services
3	Residential	0.872	0.781	0.933	0.921	0.865
4	Commercial	0.060	0.078	0.030	0.036	0.065
5	Irrigation	0.062	0.139	0.036	0.041	0.063
6	Hydrant	0.006	0.002	0.001	0.002	0.007
7						
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31						
32						
33	SUPPORTING SCHEDULES					
34	G-7, page 3					

Chaparral City Water Company
Test Year Ended December 31, 2012
COMMODITY - DEMAND METHOD FUNCTION FACTORS
Plant and Depreciation Expense Allocations Functions

Exhibit
Rebuttal Shedule G-7
Page 2.1
Witness: Bourassa

Line No.	Acct	Description	Demand	Commodity	Customer	Meters	Services
1							
2	Acct	Description	Demand	Commodity	Customer	Meters	Services
3	301	Organization	0.90	0.10			
4	302	Franchises	0.90	0.10			
5	303.1	Other Intangible Plant	0.90	0.10			
6	303	Land and Land Rights	0.90	0.10			
7	304	Structures and Improvements	0.90	0.10			
8	305	Collecting and Impounding Res.	0.90	0.10			
9	306	Lakes, Rivers, Other Intakes	0.90	0.10			
10	307	Wells and Springs	0.90	0.10			
11	308	Infiltration Galleries and Tunnels	0.90	0.10			
12	309	Supply Mains	0.90	0.10			
13	310	Power Generation Equipment	0.90	0.10			
14	311	Electric Pumping Equipment	0.90	0.10			
15	320	Water Treatment Equipment	0.90	0.10			
16	330	Distribution Reservoirs & Standpipe	0.90	0.10			
17	331	Transmission and Distribution Mains	0.90	0.10			
18	333	Services					1.00
19	334	Meters				1.00	
20	335	Hydrants			1.00		
21	336	Backflow Prevention Devices	0.90	0.10			
22	339	Other Plant and Miscellaneous Equipment	0.25		0.75		
23	340	Office Furniture and Fixtures	0.25		0.75		
24	341	Transportation Equipment	0.25		0.75		
25	342	Stores Equipment	0.90	0.10			
26	343	Tools and Work Equipment	0.90	0.10			
27	344	Laboratory Equipment	0.90	0.10			
28	345	Power Operated Equipment	0.90	0.10			
29	346	Communications Equipment	0.90	0.10			
30	347	Miscellaneous Equipment	0.90	0.10			
31	348	Other Tangible Plant	0.90	0.10			
32	Rounding		0.90	0.10			
33	Contributions in Aid of Construction, Net		0.90	0.10			
34	Advances in Aid of Construction		0.90	0.10			
35	Meter Deposits					0.50	0.50
36	Deferred Income Tax		0.90	0.10			
37	FHSD Settlement		0.90	0.10			
38	Deferred Reg Assets		0.90	0.10			
39	Working Capital		0.90	0.10			
40	Amortization of Contributions - Gross		0.90	0.10			
41	Deferred CAP Amortization		0.90	0.10			
42	24 Month Deferral Amortization		0.90	0.10			
43	Amortization of Gain on FHSD Settlement		0.90	0.10			

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Expense Allocation Factors

Exhibit
Rebuttal Shedule G-7
Page 2.2
Witness: Bourassa

Line No.	Expense Type	Demand	Commodity	Customer	Meters	Services
1						
2	Labor	0.40	0.20	0.40	-	-
3	Purchased Water	-	1.00	-	-	-
4	Fuel & Power	-	1.00	-	-	-
5	Chemicals	-	1.00	-	-	-
6	Waste Disposal	0.90	0.10	-	-	-
7	Intercompany Support Services	0.40	0.20	0.40	-	-
8	Corporate Allocation	0.40	0.20	0.40	-	-
9	Outside Services	0.80	0.20	-	-	-
10	Group Insurance	0.90	0.10	-	-	-
11	Pensions	0.40	0.20	0.40	-	-
12	Regulatory Expense	0.90	0.10	-	-	-
13	Insurance Other Than Group	0.90	0.10			
14	Customer Accounting	-	-	1.00	-	-
15	Rents	-	-	1.00	-	-
16	General Office Expense	-	-	1.00	-	-
17	Miscellaneous	-	-	1.00	-	-
18	Maintenance Expense	0.80	0.20	-	-	-
19	Depreciation & Amortization		See Rebuttal Shedule G-7, page 2.1			
20	General Taxes-Other	-	-	1.00	-	-
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Development of Class Allocation Factors

Exhibit
Rebuttal Shedule G-7
Page 3.1
Witness: Bourassa

COMMODITY ALLOCATION FACTOR

Meter Size	Class	(a) Total Gallons (in 1,000's) In Test Year	Percent of Total
3/4"	Residential	780,557	44.06%
3/4"	Commercial	13,563	0.77%
3/4"	Irrigation	29,343	1.66%
3/4"	Hydrant	1,188	0.07%
1"	Residential	558,066	31.50%
1"	Commercial	25,542	1.44%
1"	Irrigation	58,684	3.31%
1"	Hydrant	80	0.00%
1-1/2"	Residential	9,916	0.56%
1-1/2"	Commercial	29,432	1.66%
1-1/2"	Irrigation	49,305	2.78%
1-1/2"	Hydrant	119	0.01%
2"	Residential	32,873	1.86%
2"	Commercial	49,296	2.78%
2"	Irrigation	60,421	3.41%
2"	Hydrant	14	0.00%
3"	Residential	1,818	0.10%
3"	Commercial	3,017	0.17%
3"	Irrigation	-	0.00%
3"	Hydrant	2,744	0.15%
4"	Residential	-	0.00%
4"	Commercial	9,058	0.51%
4"	Irrigation	17,917	1.01%
6"	Residential	-	0.00%
6"	Commercial	7,574	0.43%
6"	Irrigation	30,920	1.75%
Totals		1,771,447	100.00%

DEMAND ALLOCATION FACTOR

Meter Size	Class	Number of Meters and/or Services	Equivalent Weight	Equivalent Number of Meters and/or Services	Percent of Total
3/4"	Residential	8,308	1.50	12,462	45.77%
3/4"	Commercial	118	1.50	177	0.65%
3/4"	Irrigation	155	1.50	233	0.85%
3/4"	Hydrant	6	1.50	9	0.03%
1"	Residential	4,327	2.50	10,818	39.73%
1"	Commercial	144	2.50	360	1.32%
1"	Irrigation	210	2.50	525	1.93%
1"	Hydrant	1	2.50	3	0.01%
1-1/2"	Residential	25	5.00	125	0.46%
1-1/2"	Commercial	67	5.00	335	1.23%
1-1/2"	Irrigation	74	5.00	370	1.36%
1-1/2"	Hydrant	2	5.00	10	0.04%
2"	Residential	38	8.00	304	1.12%
2"	Commercial	65	8.00	520	1.91%
2"	Irrigation	47	8.00	376	1.38%
2"	Hydrant	2	8.00	16	0.06%
3"	Residential	2	16.00	32	0.12%
3"	Commercial	3	16.00	48	0.18%
3"	Irrigation	-	16.00	-	0.00%
3"	Hydrant	8	16.00	128	0.47%
4"	Residential	-	25.00	-	0.00%
4"	Commercial	4	25.00	100	0.37%
4"	Irrigation	5	25.00	125	0.46%
6"	Residential	-	50.00	-	0.00%
6"	Commercial	2	50.00	100	0.37%
6"	Irrigation	1	50.00	50	0.18%
Totals		13,614		27,225	100.00%

Class	(a) Total Gallons (in 1,000's) In Test Year	Percent of Total
Residential	1,383,230	78.088%
Commercial	137,482	7.761%
Irrigation	246,590	13.921%
Hydrant	4,065	0.229%
Total	1,771,367	100.000%

Class	Equivalent Number of Meters and/or Services	Percent of Total
Residential	23,741	87.203%
Commercial	1,640	6.024%
Irrigation	1,679	6.165%
Hydrant	166	0.608%
Total	27,225	100.000%

(a) Includes customer and gallons sold annualization.

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Development of Class Allocation Factors

Exhibit
Rebuttal Shedule G-7
Page 3.2
Witness: Bourassa

CUSTOMER ALLOCATION FACTOR

Meter Size	Class	Number of Meters	Percent of Total
3/4"	Residential	8,308	61.03%
3/4"	Commercial	118	0.87%
3/4"	Irrigation	155	1.14%
3/4"	Hydrant	6	0.04%
1"	Residential	4,327	31.78%
1"	Commercial	144	1.06%
1"	Irrigation	210	1.54%
1"	Hydrant	1	0.01%
1-1/2"	Residential	25	0.18%
1-1/2"	Commercial	67	0.49%
1-1/2"	Irrigation	74	0.54%
1-1/2"	Hydrant	2	0.01%
2"	Residential	38	0.28%
2"	Commercial	65	0.48%
2"	Irrigation	47	0.35%
2"	Hydrant	2	0.01%
3"	Residential	2	0.01%
3"	Commercial	3	0.02%
3"	Irrigation	-	0.00%
3"	Hydrant	8	0.06%
4"	Residential	-	0.00%
4"	Commercial	4	0.03%
4"	Irrigation	5	0.04%
6"	Residential	-	0.00%
6"	Commercial	2	0.01%
6"	Irrigation	1	0.01%
Totals		13,614	100.00%

Class	Number of Meters	Percent of Total
Residential	12,700	93.286%
Commercial	403	2.960%
Irrigation	492	3.614%
Hydrant	19	0.140%
Total	13,614	100.000%

SERVICES ALLOCATION FACTOR (b)

Meter Size	Class	Number of Services	Install-ation Cost	Dollar Weighted Number Services	Percent of Total
3/4"	Residential	8,308	445.00	3,697,060	57.83%
3/4"	Commercial	118	445.00	52,510	0.82%
3/4"	Irrigation	155	445.00	68,975	1.08%
3/4"	Hydrant	6	445.00	2,670	0.04%
1"	Residential	4,327	495.00	2,141,865	33.50%
1"	Commercial	144	495.00	71,280	1.11%
1"	Irrigation	210	495.00	103,950	1.63%
1"	Hydrant	1	495.00	495	0.01%
1-1/2"	Residential	25	550.00	13,750	0.22%
1-1/2"	Commercial	67	550.00	36,850	0.58%
1-1/2"	Irrigation	74	550.00	40,700	0.64%
1-1/2"	Hydrant	2	550.00	1,100	0.02%
2"	Residential	38	830.00	31,540	0.49%
2"	Commercial	65	830.00	53,950	0.84%
2"	Irrigation	47	830.00	39,010	0.61%
2"	Hydrant	2	830.00	1,660	0.03%
3"	Residential	2	1,165.00	2,330	0.04%
3"	Commercial	3	1,165.00	3,495	0.05%
3"	Irrigation	0	1,165.00	-	0.00%
3"	Hydrant	8	1,165.00	9,320	0.15%
4"	Residential	0	1,490.00	-	0.00%
4"	Commercial	4	1,490.00	5,960	0.09%
4"	Irrigation	5	1,490.00	7,450	0.12%
6"	Residential	0	2,330.00	-	0.00%
6"	Commercial	2	2,330.00	4,660	0.07%
6"	Irrigation	1	2,330.00	2,330	0.04%
Totals		13,614		$ 6,392,910	100.00%

Class	Dollar Weighted Number Services	Percent of Total
Residential	5,886,545	92.079%
Commercial	228,705	3.577%
Irrigation	262,415	4.105%
Hydrant	15,245	0.238%
Total	6,392,910	100.000%

(b) Meter and Service Line cost from Arizona Corporation Commission Memo of February 21, 2008 from Marlin Scott, Jr.. Meter costs based on compound meters. Cost of service line and meter is based on costs allowed for a compound meter installation.

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study, Using Commodity-Demand Method
Development of Class Allocation Factors

Exhibit
Rebuttal Shedule G-7
Page 3.3
Witness: Bourassa

METER ALLOCATION FACTOR (b)

Meter Size		Number of Meters	Meter Cost	Weighted Dollars of Meters	Percent of Total
3/4"	Residential	8,308	255.00	2,118,540	51.34%
3/4"	Commercial	118	255.00	30,090	0.73%
3/4"	Irrigation	155	255.00	39,525	0.96%
3/4"	Hydrant	6	255.00	1,530	0.04%
1"	Residential	4,327	315.00	1,363,005	33.03%
1"	Commercial	144	315.00	45,360	1.10%
1"	Irrigation	210	315.00	66,150	1.60%
1"	Hydrant	1	315.00	315	0.01%
1-1/2"	Residential	25	525.00	13,125	0.32%
1-1/2"	Commercial	67	525.00	35,175	0.85%
1-1/2"	Irrigation	74	525.00	38,850	0.94%
1-1/2"	Hydrant	2	525.00	1,050	0.03%
2"	Residential	38	1,890.00	71,820	1.74%
2"	Commercial	65	1,890.00	122,850	2.98%
2"	Irrigation	47	1,890.00	88,830	2.15%
2"	Hydrant	2	1,890.00	3,780	0.09%
3"	Residential	2	2,545.00	5,090	0.12%
3"	Commercial	3	2,545.00	7,635	0.19%
3"	Irrigation	0	2,545.00	0	0.00%
3"	Hydrant	8	2,545.00	20,360	0.49%
4"	Residential	0	3,645.00	0	0.00%
4"	Commercial	4	3,645.00	14,580	0.35%
4"	Irrigation	5	3,645.00	18,225	0.44%
6"	Residential	0	6,920.00	0	0.00%
6"	Commercial	2	6,920.00	13,840	0.34%
6"	Irrigation	1	6,920.00	6,920	0.17%
Totals		13,614		$ 4,126,645	100.00%

Class	Weighted Dollars of Meters	Percent of Total
Residential	3,571,580	86.549%
Commercial	269,530	6.531%
Irrigation	258,500	6.264%
Hydrant	27,035	0.655%
Total	4,126,645	100.000%

(b) Meter and Service Line cost from Arizona Corporation Commission Memo of February 21, 2008 from Marlin Scott, Jr.. Meter costs based on compound meters. Cost of service line and meter is based on costs allowed for a compound meter installation.

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses
ALL CUSTOMER CLASSES

Exhibit
Rebuttal Shedule G-8
Page 1A
Witness: Bourassa

Line No.						Customer	Service	Meter
1	**CUSTOMER CHARGE:**							
2	Return on Rate Base	9.86%				213,735	879,998	64,865
3	Misc. Revenues (From Sched G-2, page1)					(99,329)		
4	Customer, Services and Meter Expenses (From Sch. G-4. Page 2)					1,556,650	381,871	253,080
5	Property Taxes (From Sched. G-2, page 1)					265,484		
6	Income Taxes (From Sched. G-2, page 1)					1,554,059		
7	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					3,490,599	1,261,869	317,945
8								
9	**Customer Charge**							
10	Number of Bills =	13,614	times 12 months			163,368		
11								
12	**Charge per Bill**					$ 21.37		
13	(Customer Revenue Requirement divided by Annualized Number of Bills)							
14								
15	**Service Line and Meter Charge**							
16	Equivalent 5/8 Meters		27,225	times	12	months	326,694	326,694
17								
18	**Charge per Equivalent Meter**						$ 3.86	$ 0.97
19								
20								
21	**CUSTOMER CHARGE:**							
22	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)							
23	Charge per Bill						$ 21.37	
24	Charge per Equivalent Service Line						3.86	
25	Charge per Equivalent Meter						0.97	
26	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
27	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 26.20	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge
ALL CUSTOMER CLASSES

Exhibit
Rebuttal Shedule G-8
Page 2A
Witness: Bourassa

Line No.			
1	**DEMAND CHARGE:**		
2			
3	Return on Rate Base	9.86%	1,422,966
4	Demand Expenses (From Rebuttal Shedule G-4, Page 2)		2,809,294
5			
6	Totals		4,232,260
7	Total Revenue Requirement / Demand Component		
8	Equivalent Number of 5/8 Meters billings		326,694
9	Demand Charge for 5/8 Inch Meter		$ 12.95
10			
11			

12	Demand Charge Per Equivalent	5/8" Demand Charge	Meter Ratio	Demand Charge
13	5/8 Inch Meter	$ 12.95	1.0	$ 12.95
14	3/4 Inch Meter	12.95	1.5	19.43
15	1 Inch Meter	12.95	2.5	32.39
16	1 1/2 Inch Meter	12.95	5.0	64.77
17	2 Inch Meter	12.95	8.0	103.64
18	3 Inch Meter	12.95	16.0	207.28
19	4 Inch Meter	12.95	25.0	323.87
20	6 Inch Meter	12.95	50.0	647.74
21	8 Inch Meter	12.95	80.0	1,036.39
22	10 Inch Meter	12.95	115.0	1,489.80
23	12 Inch Meter	12.95	215.0	2,785.29

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
ALL CUSTOMER CLASSES

Exhibit
Rebuttal Shedule G-8
Page 3A
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	**Single Tier Rate Design with All Customer and Demand Costs Recovered in the Monthly Minimum**						
2							
3	Return on Rate Base	9.86%	156,393	213,735	879,998	64,865	1,422,966
4	Less: Miscellaneous Revenues			(99,329)			
5							
6	Expenses (From Sch. G-4. Page 2)		2,545,729	1,556,650	381,871	253,080	2,809,294
7	Property Taxes (From Sched. G-2, page 1)			265,484			
8	Income Taxes (From Sched. G-2, page 1)			1,554,059			
9	Total Revenue Requirement by function		2,702,122	3,490,599	1,261,869	317,945	4,232,260
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		1,771,447				
11	Computed Commodity Rate (line 9 divided by line10)		$ 1.5254				
12	Annualized Number of Bills			163,368			
13	Equivalent Meters and Service Lines				326,694	326,694	326,694
14	Customer Charge (line 9 divided by line 12)			$ 21.37			
15	Meter, Service Line & Demand Charge (line 9 divided by line 13)				$ 3.86	$ 0.97	$ 12.95
16	Total Monthly Minimum Charge for a 5/8 Inch Meter						
17	(Sum of Customer, Service, Meter and Demand Charge on lines 14 & 15)						$ 39.16
18							
19			5/8" Monthly	Meter	Demand		
20	Monthly Minimum		Minimum	Ratio	Charge		
21	5/8 Inch Meter		$ 39.16	1.0	$ 39.16		
22	3/4 Inch Meter		39.16	1.5	58.74		
23	1 Inch Meter		39.16	2.5	97.89		
24	1 1/2 Inch Meter		39.16	5.0	195.79		
25	2 Inch Meter		39.16	8.0	313.26		
26	3 Inch Meter		39.16	16.0	626.51		
27	4 Inch Meter		39.16	25.0	978.93		
28	6 Inch Meter		39.16	50.0	1,957.85		
29	8 Inch Meter		39.16	80.0	3,132.56		
30	10 Inch Meter		39.16	115.0	4,503.06		
31	12 Inch Meter		39.16	215.0	8,418.77		
32							
33							

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
ALL CUSTOMER CLASSES

Exhibit
Rebuttal Shedule G-8
Page 4A
Witness: Bourassa

Line No.					
1	**Single Tier Rate Design with Some Customer and Demand Costs Recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4		Total		Commodity Portion of	
5		Rev. Req.	%	Rev. Req.	
6	Customer, Service, and Meter Costs	$ 5,070,413	45%	$ 2,281,686	
7	Demand Costs	4,232,260	45%	1,904,517	
8	Commodity Costs	2,702,122	100%	2,702,122	
9	Total Costs to be Collected via Commodity			$ 6,888,325	
10	Gallons Sold			1,771,447	
11					
12	Commodity Charge (per 1,000 gallons)(line 9 divided by line10)			**$ 3.889**	
13					
14	Revenue Requirement Collected via Monthly Minimum				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 12,004,795	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge (line 9)			(6,888,325)	
19	Balance to be Recovered through Monthly Minimum			$ 5,116,470	42.62%
20					Percent revenue recovery
21					from monthly mins
22	Number of Equivalent 5/8 Inch Meter Billings			326,694	
23					
24	Computed Monthly Minimum 5/8 Inch Meter (line 19 divided by line 22)			**$ 15.66**	
25					
26					
27		5/8"	Meter	Monthly	
28	Meter Size	Minimum	Ratio	Minimum	
29	5/8 Inch Meter	$ 15.66	1.0	$ 15.66	
30	3/4 Inch Meter	15.66	1.5	23.49	
31	1 Inch Meter	15.66	2.5	39.15	
32	1 1/2 Inch Meter	15.66	5.0	78.31	
33	2 Inch Meter	15.66	8.0	125.29	
34	3 Inch Meter	15.66	16.0	250.58	
35	4 Inch Meter	15.66	25.0	391.53	
36	6 Inch Meter	15.66	50.0	783.07	
37	8 Inch Meter	15.66	80.0	1,252.91	
38	10 Inch Meter	15.66	115.0	1,801.06	
39	12 Inch Meter	15.66	215.0	3,367.19	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses
RESIDENTIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 1B
Witness: Bourassa

Line No.						Customer	Service	Meter
1	Return on Rate Base	9.86%				199,386	761,632	59,727
2	Misc. Revenues (From Sched G-2, page1)					(92,661)		
3	Customer, Services and Meter Expenses (From Sch. G-4. Page 2)					1,452,141	330,506	233,034
4	Property Taxes (From Sched. G-2, page 1)					215,859		
5	Income Taxes (From Sched. G-2, page 1)					1,136,891		
6	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					2,911,616	1,092,138	292,761
7								
8	**Customer Charge**							
9	Number of Bills =	12,700	times 12 months			152,400		
10								
11	**Charge per Bill**					$ 19.11		
12	(Customer Revenue Requirement divided by Annualized Number of Bills)							
13								
14	**Service Line and Meter Charge**							
15	Equivalent 5/8 Meters		23,741	times	12	months	284,886	284,886
16								
17	**Charge per Equivalent Meter**						$ 3.83	$ 1.03
18								
19								
20	**CUSTOMER CHARGE:**							
21	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)							
22	Charge per Bill						$ 19.11	
23	Charge per Equivalent Service Line						3.83	
24	Charge per Equivalent Meter						1.03	
25	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
26	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 23.97	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge
RESIDENTIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 2B
Witness: Bourassa

Line No.	DEMAND CHARGE:		
1			
2	Return on Rate Base 9.86%		1,240,865
3	Demand Expenses (From Rebuttal Shedule G-4, Page 2)		2,449,780
4			
5	Totals		3,690,645
6	Total Revenue Requirement / Demand Component		
7	Equivalent Number of 5/8 Meters billings		284,886
8	Demand Charge for 5/8 Inch Meter		$ 12.95
9			
10		5/8" Demand	Meter	Demand
11	Demand Charge Per Equivalent	Charge	Ratio	Charge
12	5/8 Inch Meter	$ 12.95	1.0	$ 12.95
13	3/4 Inch Meter	12.95	1.5	19.43
14	1 Inch Meter	12.95	2.5	32.39
15	1 1/2 Inch Meter	12.95	5.0	64.77
16	2 Inch Meter	12.95	8.0	103.64
17	3 Inch Meter	12.95	16.0	207.28
18	4 Inch Meter	12.95	25.0	323.87
19	6 Inch Meter	12.95	50.0	647.74
20	8 Inch Meter	12.95	80.0	1,036.39
21	10 Inch Meter	12.95	115.0	1,489.80
22	12 Inch Meter	12.95	215.0	2,785.29

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
RESIDENTIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 3B
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	**Single Tier Rate Design with All Customer and Demand Costs Recovered in the Monthly Minimum**						
2							
3	Return on Rate Base	9.86%	122,125	199,386	761,632	59,727	1,240,865
4	Less: Miscellaneous Revenues			(92,661)			
5							
6	Expenses (From Sch. G-4. Page 2)		1,987,916	1,452,141	330,506	233,034	2,449,780
7	Property Taxes (From Sched. G-2, page 1)			215,859			
8	Income Taxes (From Sched. G-2, page 1)			1,136,891			
9	Total Revenue Requirement by function		2,110,040	2,911,616	1,092,138	292,761	3,690,645
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		1,383,230				
11	Computed Commodity Rate (line 9 divided by line10)		$ 1.5254				
12	Annualized Number of Bills			152,400			
13	Equivalent Meters and Service Lines				284,886	284,886	284,886
14	Customer Charge (line 9 divided by line 12)			$ 19.11			
15	Meter, Service Line & Demand Charge (line 9 divided by line 13)				$ 3.83	$ 1.03	$ 12.95
16	Total Monthly Minimum Charge for a 5/8 Inch Meter						
17	(Sum of Customer, Service, Meter and Demand Charge on lines 14 & 15)						$ 36.92
18							

19		5/8" Monthly	Meter	Demand
20	Monthly Minimum	Minimum	Ratio	Charge
21	5/8 Inch Meter	$ 36.92	1.0	$ 36.92
22	3/4 Inch Meter	36.92	1.5	55.38
23	1 Inch Meter	36.92	2.5	92.30
24	1 1/2 Inch Meter	36.92	5.0	184.61
25	2 Inch Meter	36.92	8.0	295.37
26	3 Inch Meter	36.92	16.0	590.74
27	4 Inch Meter	36.92	25.0	923.03
28	6 Inch Meter	36.92	50.0	1,846.06
29	8 Inch Meter	36.92	80.0	2,953.69
30	10 Inch Meter	36.92	115.0	4,245.93
31	12 Inch Meter	36.92	215.0	7,938.05
32				
33				

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
RESIDENTIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 4B
Witness: Bourassa

Line No.		Total Rev. Req.	%	Commodity Portion of Rev. Req.	
1	**Single Tier Rate Design with Some Customer and Demand Costs Recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4					
5					
6	Customer, Service, and Meter Costs	$ 4,296,515	45%	$ 1,933,432	
7	Demand Costs	3,690,645	45%	1,660,790	
8	Commodity Costs	2,110,040	100%	2,110,040	
9	Total Costs to be Collected via Commodity			$ 5,704,262	
10	Gallons Sold			1,383,230	
11					
12	Commodity Charge (per 1,000 gallons)(line 9 divided by line10)			**$ 4.124**	
13					
14	Revenue Requirement Collected via Monthly Minimum				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 10,097,201	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge (line 9)			(5,704,262)	
19	Balance to be Recovered through Monthly Minimum			$ 4,392,938	43.51%
20					Percent revenue recovery
21					from monthly mins
22	Number of Equivalent 5/8 Inch Meter Billings			284,886	
23					
24	Computed Monthly Minimum 5/8 Inch Meter (line 19 divided by line 22)			**$ 15.42**	
25					
26					
27		5/8"	Meter	Monthly	
28	Meter Size	Minimum	Ratio	Minimum	
29	5/8 Inch Meter	$ 15.42	1.0	$ 15.42	
30	3/4 Inch Meter	15.42	1.5	23.13	
31	1 Inch Meter	15.42	2.5	38.55	
32	1 1/2 Inch Meter	15.42	5.0	77.10	
33	2 Inch Meter	15.42	8.0	123.36	
34	3 Inch Meter	15.42	16.0	246.72	
35	4 Inch Meter	15.42	25.0	385.50	
36	6 Inch Meter	15.42	50.0	771.00	
37	8 Inch Meter	15.42	80.0	1,233.60	
38	10 Inch Meter	15.42	115.0	1,773.30	
39	12 Inch Meter	15.42	215.0	3,315.30	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses
COMMERCIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 1C
Witness: Bourassa

Line No.						Customer	Service	Meter
1	Return on Rate Base	9.86%				6,327	57,477	2,321
2	Misc. Revenues (From Sched G-2, page1)					(2,940)		
3	Customer, Services and Meter Expenses (From Sch. G-4. Page 2)					46,080	24,942	9,054
4	Property Taxes (From Sched. G-2, page 1)					19,607		
5	Income Taxes (From Sched. G-2, page 1)					158,306		
6	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					227,379	82,418	11,374
7								
8	**Customer Charge**							
9	Number of Bills =	403	times 12 months			4,836		
10								
11	**Charge per Bill**					$ 47.02		
12	(Customer Revenue Requirement divided by Annualized Number of Bills)							
13								
14	**Service Line and Meter Charge**							
15	Equivalent 5/8 Meters		1,640	times	12	months	19,680	19,680
16								
17	**Charge per Equivalent Meter**						$ 4.19	$ 0.58
18								
19								
20	**CUSTOMER CHARGE:**							
21	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)							
22	Charge per Bill						$ 47.02	
23	Charge per Equivalent Service Line						4.19	
24	Charge per Equivalent Meter						0.58	
25	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
26	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 51.78	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge
COMMERCIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 2C
Witness: Bourassa

Line No.	DEMAND CHARGE:		
1			
2	Return on Rate Base 9.86%		85,719
3	Demand Expenses (From Rebuttal Shedule G-4, Page 2)		169,231
4			
5	Totals		254,951
6	Total Revenue Requirement / Demand Component		
7	Equivalent Number of 5/8 Meters billings		19,680
8	Demand Charge for 5/8 Inch Meter		$ 12.95
9			
10		5/8" Demand	Meter	Demand
11	Demand Charge Per Equivalent	Charge	Ratio	Charge
12	5/8 Inch Meter	$ 12.95	1.0	$ 12.95
13	3/4 Inch Meter	12.95	1.5	19.43
14	1 Inch Meter	12.95	2.5	32.39
15	1 1/2 Inch Meter	12.95	5.0	64.77
16	2 Inch Meter	12.95	8.0	103.64
17	3 Inch Meter	12.95	16.0	207.28
18	4 Inch Meter	12.95	25.0	323.87
19	6 Inch Meter	12.95	50.0	647.74
20	8 Inch Meter	12.95	80.0	1,036.39
21	10 Inch Meter	12.95	115.0	1,489.80
22	12 Inch Meter	12.95	215.0	2,785.29

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
COMMERCIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 3C
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	**Single Tier Rate Design with All Customer and Demand Costs Recovered in the Monthly Minimum**						
2							
3	Return on Rate Base	9.86%	12,138	6,327	57,477	2,321	85,719
4	Less: Miscellaneous Revenues			(2,940)			
5							
6	Expenses (From Sch. G-4. Page 2)		197,583	46,080	24,942	9,054	169,231
7	Property Taxes (From Sched. G-2, page 1)			19,607			
8	Income Taxes (From Sched. G-2, page 1)			158,306			
9	Total Revenue Requirement by function		209,721	227,379	82,418	11,374	254,951
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		137,482				
11	Computed Commodity Rate (line 9 divided by line10)		$ 1.5254				
12	Annualized Number of Bills			4,836			
13	Equivalent Meters and Service Lines				19,680	19,680	19,680
14	Customer Charge (line 9 divided by line 12)			$ 47.02			
15	Meter, Service Line & Demand Charge (line 9 divided by line 13)				$ 4.19	$ 0.58	$ 12.95
16	Total Monthly Minimum Charge for a 5/8 Inch Meter						
17	(Sum of Customer, Service, Meter and Demand Charge on lines 14 & 15)						$ 64.74
18							
19			5/8" Monthly	Meter	Demand		
20	Monthly Minimum		Minimum	Ratio	Charge		
21	5/8 Inch Meter		$ 64.74	1.0	$ 64.74		
22	3/4 Inch Meter		64.74	1.5	97.11		
23	1 Inch Meter		64.74	2.5	161.85		
24	1 1/2 Inch Meter		64.74	5.0	323.69		
25	2 Inch Meter		64.74	8.0	517.91		
26	3 Inch Meter		64.74	16.0	1,035.82		
27	4 Inch Meter		64.74	25.0	1,618.47		
28	6 Inch Meter		64.74	50.0	3,236.93		
29	8 Inch Meter		64.74	80.0	5,179.09		
30	10 Inch Meter		64.74	115.0	7,444.94		
31	12 Inch Meter		64.74	215.0	13,918.80		
32							
33							

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
COMMERCIAL CLASS

Exhibit
Rebuttal Shedule G-8
Page 4C
Witness: Bourassa

Line No.		Total Rev. Req.	%	Commodity Portion of Rev. Req.	
1	**Single Tier Rate Design with Some Customer and Demand Costs Recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4					
5					
6	Customer, Service, and Meter Costs	$ 321,171	45%	$ 144,527	
7	Demand Costs	254,951	45%	114,728	
8	Commodity Costs	209,721	100%	209,721	
9	Total Costs to be Collected via Commodity			$ 468,976	
10	Gallons Sold			137,482	
11					
12	Commodity Charge (per 1,000 gallons)(line 9 divided by line10)			**$ 3.411**	
13					
14	Revenue Requirement Collected via Monthly Minimum				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 785,843	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge (line 9)			(468,976)	
19	Balance to be Recovered through Monthly Minimum			$ 316,867	40.32%
20					Percent revenue recovery
21					from monthly mins
22	Number of Equivalent 5/8 Inch Meter Billings			19,680	
23					
24	Computed Monthly Minimum 5/8 Inch Meter (line 19 divided by line 22)			**$ 16.10**	
25					
26					
27		5/8"	Meter	Monthly	
28	Meter Size	Minimum	Ratio	Minimum	
29	5/8 Inch Meter	$ 16.10	1.0	$ 16.10	
30	3/4 Inch Meter	16.10	1.5	24.15	
31	1 Inch Meter	16.10	2.5	40.25	
32	1 1/2 Inch Meter	16.10	5.0	80.50	
33	2 Inch Meter	16.10	8.0	128.81	
34	3 Inch Meter	16.10	16.0	257.62	
35	4 Inch Meter	16.10	25.0	402.52	
36	6 Inch Meter	16.10	50.0	805.05	
37	8 Inch Meter	16.10	80.0	1,288.08	
38	10 Inch Meter	16.10	115.0	1,851.61	
39	12 Inch Meter	16.10	215.0	3,461.71	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses
IRRIGATION CLASS

Exhibit
Rebuttal Shedule G-8
Page 1D
Witness: Bourassa

Line No.						Customer	Service	Meter
1	**CUSTOMER CHARGE:**							
2	Return on Rate Base	9.86%				7,724	55,125	2,663
3	Misc. Revenues (From Sched G-2, page1)					(3,590)		
4	Customer, Services and Meter Expenses (From Sch. G-4. Page 2)					56,256	23,921	10,388
5	Property Taxes (From Sched. G-2, page 1)					28,982		
6	Income Taxes (From Sched. G-2, page 1)					252,438		
7	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					341,810	79,046	13,051
8								
9	**Customer Charge**							
10	Number of Bills =	492	times 12 months			5,904		
11								
12	**Charge per Bill**					$ 57.89		
13	(Customer Revenue Requirement divided by Annualized Number of Bills)							
14								
15	**Service Line and Meter Charge**							
16	Equivalent 5/8 Meters		1,679	times	12	months	20,142	20,142
17								
18	**Charge per Equivalent Meter**						$ 3.92	$ 0.65
19								
20								
21	**CUSTOMER CHARGE:**							
22	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)							
23	Charge per Bill						$ 57.89	
24	Charge per Equivalent Service Line						3.92	
25	Charge per Equivalent Meter						0.65	
26	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
27	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 62.47	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge
IRRIGATION CLASS

Exhibit
Rebuttal Shedule G-8
Page 2D
Witness: Bourassa

Line No.			
1	**DEMAND CHARGE:**		
2			
3	Return on Rate Base 9.86%		87,732
4	Demand Expenses (From Rebuttal Shedule G-4, Page 2)		173,204
5			
6	Totals		260,936
7	Total Revenue Requirement / Demand Component		
8	Equivalent Number of 5/8 Meters billings		20,142
9	Demand Charge for 5/8 Inch Meter		$ 12.95

Line No.	Demand Charge Per Equivalent	5/8" Demand Charge	Meter Ratio	Demand Charge
10				
11				
12				
13	5/8 Inch Meter	$ 12.95	1.0	$ 12.95
14	3/4 Inch Meter	12.95	1.5	19.43
15	1 Inch Meter	12.95	2.5	32.39
16	1 1/2 Inch Meter	12.95	5.0	64.77
17	2 Inch Meter	12.95	8.0	103.64
18	3 Inch Meter	12.95	16.0	207.28
19	4 Inch Meter	12.95	25.0	323.87
20	6 Inch Meter	12.95	50.0	647.74
21	8 Inch Meter	12.95	80.0	1,036.39
22	10 Inch Meter	12.95	115.0	1,489.80
23	12 Inch Meter	12.95	215.0	2,785.29

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
IRRIGATION CLASS

Exhibit
Rebuttal Shedule G-8
Page 3D
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	**Single Tier Rate Design with All Customer and Demand Costs Recovered in the Monthly Minimum**						
2							
3	Return on Rate Base	9.86%	21,771	7,724	55,125	2,663	87,732
4	Less: Miscellaneous Revenues			(3,590)			
5							
6	Expenses (From Sch. G-4. Page 2)		354,388	56,256	23,921	10,388	173,204
7				28,982			
8	Income Taxes (From Sched. G-2, page 1)			252,438			
9	Total Revenue Requirement by function		376,159	341,810	79,046	13,051	260,936
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		246,590				
11	Computed Commodity Rate (line 9 divided by line10)		$ 1.5254				
12	Annualized Number of Bills			5,904			
13	Equivalent Meters and Service Lines				20,142	20,142	20,142
14	Customer Charge (line 9 divided by line 12)			$ 57.89			
15	Meter, Service Line & Demand Charge (line 9 divided by line 13)				$ 3.92	$ 0.65	$ 12.95
16	Total Monthly Minimum Charge for a 5/8 Inch Meter						
17	(Sum of Customer, Service, Meter and Demand Charge on lines 14 & 15)						$ 75.42
18							

	Monthly Minimum	5/8" Monthly Minimum	Meter Ratio	Demand Charge
19				
20				
21	5/8 Inch Meter	$ 75.42	1.0	$ 75.42
22	3/4 Inch Meter	75.42	1.5	113.13
23	1 Inch Meter	75.42	2.5	188.55
24	1 1/2 Inch Meter	75.42	5.0	377.11
25	2 Inch Meter	75.42	8.0	603.37
26	3 Inch Meter	75.42	16.0	1,206.75
27	4 Inch Meter	75.42	25.0	1,885.55
28	6 Inch Meter	75.42	50.0	3,771.09
29	8 Inch Meter	75.42	80.0	6,033.75
30	10 Inch Meter	75.42	115.0	8,673.52
31	12 Inch Meter	75.42	215.0	16,215.70
32				
33				

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
IRRIGATION CLASS

Exhibit
Rebuttal Shedule G-8
Page 4D
Witness: Bourassa

Line No.					
1	**Single Tier Rate Design with Some Customer and Demand Costs Recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4		Total		Commodity Portion of	
5		Rev. Req.	%	Rev. Req.	
6	Customer, Service, and Meter Costs	$ 433,907	45%	$ 195,258	
7	Demand Costs	260,936	45%	117,421	
8	Commodity Costs	376,159	100%	376,159	
9	Total Costs to be Collected via Commodity			$ 688,839	
10	Gallons Sold			246,590	
11					
12	Commodity Charge (per 1,000 gallons)(line 9 divided by line10)			**$ 2.793**	
13					
14	Revenue Requirement Collected via Monthly Minimum				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 1,071,002	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge (line 9)			(688,839)	
19	Balance to be Recovered through Monthly Minimum			$ 382,163	35.68%
20					Percent revenue recovery
21					from monthly mins
22	Number of Equivalent 5/8 Inch Meter Billings			20,142	
23					
24	Computed Monthly Minimum 5/8 Inch Meter (line 19 divided by line 22)			**$ 18.97**	
25					
26					
27		5/8"	Meter	Monthly	
28	Meter Size	Minimum	Ratio	Minimum	
29	5/8 Inch Meter	$ 18.97	1.0	$ 18.97	
30	3/4 Inch Meter	18.97	1.5	28.46	
31	1 Inch Meter	18.97	2.5	47.43	
32	1 1/2 Inch Meter	18.97	5.0	94.87	
33	2 Inch Meter	18.97	8.0	151.79	
34	3 Inch Meter	18.97	16.0	303.58	
35	4 Inch Meter	18.97	25.0	474.34	
36	6 Inch Meter	18.97	50.0	948.67	
37	8 Inch Meter	18.97	80.0	1,517.88	
38	10 Inch Meter	18.97	115.0	2,181.95	
39	12 Inch Meter	18.97	215.0	4,079.29	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Customer, Service, Meter
Using Function Costs and Expenses
HYDRANT CLASS

Exhibit
Rebuttal Shedule G-8
Page 1E
Witness: Bourassa

Line No.						Customer	Service	Meter
1	**CUSTOMER CHARGE:**							
2	Return on Rate Base	9.86%				298	5,765	155
3	Misc. Revenues (From Sched G-2, page1)					(139)		
4	Customer, Services and Meter Expenses (From Sch. G-4. Page 2)					2,172	2,502	604
5	Property Taxes (From Sched. G-2, page 1)					1,038		
6	Income Taxes (From Sched. G-2, page 1)					6,425		
7	Total Revenue Requirement / Customer, Meter & Service (Line 13+15+16+17)					9,795	8,267	758
8								
9	**Customer Charge**							
10	Number of Bills =	19	times 12 months			228		
11								
12	**Charge per Bill**					$ 42.96		
13	(Customer Revenue Requirement divided by Annualized Number of Bills)							
14								
15	**Service Line and Meter Charge**							
16	Equivalent 5/8 Meters	166	times	12	months		1,986	1,986
17								
18	**Charge per Equivalent Meter**						$ 4.16	$ 0.38
19								
20								
21	**CUSTOMER CHARGE:**							
22	Monthly Minimum for 5/8 Inch Meter (with no water included in Minimum or Demand Charge)							
23	Charge per Bill						$ 42.96	
24	Charge per Equivalent Service Line						4.16	
25	Charge per Equivalent Meter						0.38	
26	(Service and Meter Revenue Requirement divided by Annual Equivalent Meters)							
27	Monthly Minimum for 5/8 Inch Meter, **WITHOUT** Demand Charge Included						$ 47.50	

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation of Monthly Minimums for Demand Charge
HYDRANT CLASS

Exhibit
Rebuttal Shedule G-8
Page 2E
Witness: Bourassa

Line No.			
1	**DEMAND CHARGE:**		
1			
2	Return on Rate Base	9.86%	8,650
3	Demand Expenses (From Rebuttal Shedule G-4, Page 2)		17,078
4			
5	Totals		25,728
6	Total Revenue Requirement / Demand Component		
7	Equivalent Number of 5/8 Meters billings		1,986
8	Demand Charge for 5/8 Inch Meter		$ 12.95
9			

10		5/8" Demand	Meter	Demand
11	Demand Charge Per Equivalent	Charge	Ratio	Charge
12	5/8 Inch Meter	$ 12.95	1.0	$ 12.95
13	3/4 Inch Meter	12.95	1.5	19.43
14	1 Inch Meter	12.95	2.5	32.39
15	1 1/2 Inch Meter	12.95	5.0	64.77
16	2 Inch Meter	12.95	8.0	103.64
17	3 Inch Meter	12.95	16.0	207.28
18	4 Inch Meter	12.95	25.0	323.87
19	6 Inch Meter	12.95	50.0	647.74
20	8 Inch Meter	12.95	80.0	1,036.38
21	10 Inch Meter	12.95	115.0	1,489.80
22	12 Inch Meter	12.95	215.0	2,785.28

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
HYDRANT CLASS

Exhibit
Rebuttal Shedule G-8
Page 3E
Witness: Bourassa

Line No.			Commodity	Customer	Service	Meter	Demand
1	**Single Tier Rate Design with All Customer and Demand Costs Recovered in the Monthly Minimum**						
2							
3	Return on Rate Base	9.86%	359	298	5,765	155	8,650
4	Less: Miscellaneous Revenues			(139)			
5							
6	Expenses (From Sch. G-4. Page 2)		5,842	2,172	2,502	604	17,078
7	Property Taxes (From Sched. G-2, page 1)			1,038			
8	Income Taxes (From Sched. G-2, page 1)			6,425			
9	Total Revenue Requirement by function		6,201	9,795	8,267	758	25,728
10	Gallons Sold (in 1,000's)(Zero Gallons in Minimum) (G-7, page 3)		4,065				
11	Computed Commodity Rate (line 9 divided by line10)		$ 1.5254				
12	Annualized Number of Bills			228			
13	Equivalent Meters and Service Lines				1,986	1,986	1,986
14	Customer Charge (line 9 divided by line 12)			$ 42.96			
15	Meter, Service Line & Demand Charge (line 9 divided by line 13)				$ 4.16	$ 0.38	$ 12.95
16	Total Monthly Minimum Charge for a 5/8 Inch Meter						
17	(Sum of Customer, Service, Meter and Demand Charge on lines 14 & 15)						$ 60.46
18							
19			5/8" Monthly	Meter	Demand		
20	Monthly Minimum		Minimum	Ratio	Charge		
21	5/8 Inch Meter		$ 60.46	1.0	$ 60.46		
22	3/4 Inch Meter		60.46	1.5	90.69		
23	1 Inch Meter		60.46	2.5	151.15		
24	1 1/2 Inch Meter		60.46	5.0	302.30		
25	2 Inch Meter		60.46	8.0	483.68		
26	3 Inch Meter		60.46	16.0	967.35		
27	4 Inch Meter		60.46	25.0	1,511.49		
28	6 Inch Meter		60.46	50.0	3,022.98		
29	8 Inch Meter		60.46	80.0	4,836.76		
30	10 Inch Meter		60.46	115.0	6,952.84		
31	12 Inch Meter		60.46	215.0	12,998.79		
32							
33							

Chaparral City Water Company
Test Year Ended December 31, 2012
Cost of Service Study Using Commodity / Demand Method
Computation Monthly Minimums and Commodity Charge
HYDRANT CLASS

Exhibit
Rebuttal Shedule G-8
Page 4E
Witness: Bourassa

Line No.					
1	**Single Tier Rate Design with Some Customer and Demand Costs Recovered via the Commodity Rate**				
2					
3	Revenue Requirements Collected via Commodity Charge				
4		Total		Commodity Portion of	
5		Rev. Req.	%	Rev. Req.	
6	Customer, Service, and Meter Costs	$ 18,820	45%	$ 8,469	
7	Demand Costs	25,728	45%	11,578	
8	Commodity Costs	6,201	100%	6,201	
9	Total Costs to be Collected via Commodity			$ 26,248	
10	Gallons Sold			4,065	
11					
12	Commodity Charge (per 1,000 gallons)(line 9 divided by line10)			**$ 6.457**	
13					
14	Revenue Requirement Collected via Monthly Minimum				
15					
16	Monthly Minimum 5/8 Meter				
17	Total Revenue Requirement			$ 50,749	
18	Less: Portion of Revenue Requirement Collected via Commodity Charge (line 9)			(26,248)	
19	Balance to be Recovered through Monthly Minimum			$ 24,502	48.28%
20					Percent revenue recovery
21					from monthly mins
22	Number of Equivalent 5/8 Inch Meter Billings			1,986	
23					
24	Computed Monthly Minimum 5/8 Inch Meter (line 19 divided by line 22)			**$ 12.34**	
25					
26					
27		5/8"	Meter	Monthly	
28	Meter Size	Minimum	Ratio	Minimum	
29	5/8 Inch Meter	$ 12.34	1.0	$ 12.34	
30	3/4 Inch Meter	12.34	1.5	18.51	
31	1 Inch Meter	12.34	2.5	30.84	
32	1 1/2 Inch Meter	12.34	5.0	61.69	
33	2 Inch Meter	12.34	8.0	98.70	
34	3 Inch Meter	12.34	16.0	197.39	
35	4 Inch Meter	12.34	25.0	308.43	
36	6 Inch Meter	12.34	50.0	616.86	
37	8 Inch Meter	12.34	80.0	986.97	
38	10 Inch Meter	12.34	115.0	1,418.77	
39	12 Inch Meter	12.34	215.0	2,652.49	

Chaparral City Water Company
Test Year Ended December 31, 2012
Comparison of Proposed Rates to Computed Costs
For a 3/4-Inch Residential Meter (With Required Operating Margin)

Exhibit
Rebuttal Shedule G-9
Page 1
Witness: Bourassa

Column Number-->		(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Revenues									(Col. 2 - Col. 8) Total Revenues minus Total Charges & Costs
Line No.	Water Usage	Monthly Minimum	Commodity	Total	Demand Charges	Customer Charges	Service Line Charges	Meter Charges	Commodity Charges	Total Charges & Costs	
1	0	$ 22.20	$ -	$ 22.20	$ 12.95	$ 21.37	$ 3.86	$ 0.97	0	$ 39.16	$ (16.96)
2	1,000	22.20	3.09	25.29	12.95	21.37	3.86	0.97	1.525	40.68	(15.39)
3	2,000	22.20	6.19	28.39	12.95	21.37	3.86	0.97	3.051	42.21	(13.82)
4	3,000	22.20	9.28	31.48	12.95	21.37	3.86	0.97	4.576	43.73	(12.26)
5	4,000	22.20	13.25	35.45	12.95	21.37	3.86	0.97	6.102	45.26	(9.81)
6	5,000	22.20	17.21	39.41	12.95	21.37	3.86	0.97	7.627	46.78	(7.37)
7	6,000	22.20	21.18	43.38	12.95	21.37	3.86	0.97	9.152	48.31	(4.93)
8	7,000	22.20	25.15	47.35	12.95	21.37	3.86	0.97	10.678	49.83	(2.49)
9	8,000	22.20	29.12	51.32	12.95	21.37	3.86	0.97	12.203	51.36	(0.04)
10	9,000	22.20	33.08	55.28	12.95	21.37	3.86	0.97	13.728	52.89	2.40
11	10,000	22.20	37.93	60.13	12.95	21.37	3.86	0.97	15.254	54.41	5.72
12	12,000	22.20	47.61	69.81	12.95	21.37	3.86	0.97	18.305	57.46	12.35
13	14,000	22.20	57.30	79.50	12.95	21.37	3.86	0.97	21.355	60.51	18.99
14	16,000	22.20	66.99	89.19	12.95	21.37	3.86	0.97	24.406	63.56	25.62
15	18,000	22.20	76.67	98.87	12.95	21.37	3.86	0.97	27.457	66.61	32.26
16	20,000	22.20	86.36	108.56	12.95	21.37	3.86	0.97	30.508	69.66	38.89
17	25,000	22.20	110.57	132.77	12.95	21.37	3.86	0.97	38.134	77.29	55.48
18	30,000	22.20	134.79	156.99	12.95	21.37	3.86	0.97	45.761	84.92	72.07
19	35,000	22.20	159.00	181.20	12.95	21.37	3.86	0.97	53.388	92.55	88.66
20	40,000	22.20	183.22	205.42	12.95	21.37	3.86	0.97	61.015	100.17	105.25
21	45,000	22.20	207.44	229.64	12.95	21.37	3.86	0.97	68.642	107.80	121.84
22	50,000	22.20	231.65	253.85	12.95	21.37	3.86	0.97	76.269	115.43	138.42
23	60,000	22.20	280.08	302.28	12.95	21.37	3.86	0.97	91.523	130.68	171.60
24	70,000	22.20	328.51	350.71	12.95	21.37	3.86	0.97	106.776	145.93	204.78
25	80,000	22.20	376.94	399.14	12.95	21.37	3.86	0.97	122.030	161.19	237.96
26	90,000	22.20	425.37	447.57	12.95	21.37	3.86	0.97	137.284	176.44	271.13
27	100,000	22.20	473.80	496.00	12.95	21.37	3.86	0.97	152.538	191.69	304.31

Chaparral City Water Company
Test Year Ended December 31, 2012
Summary of Revenues by Customer Classification - Present & Proposed Rates

Line No.	Customer Classification	Revenues in Test Year: Test Year Revenues	Revenues in Test Year: Annualized Present Rates	Proposed Rates	Proposed Increase: Amount	Proposed Increase: %
1						
2	Residential	$ 7,271,312.75	$ 7,232,174.42	$ 9,760,780.75	$ 2,528,606.33	34.96%
3						
4	Commercial	$ 665,425.53	$ 663,936.85	$ 880,475.85	$ 216,539.00	32.61%
5						
6	Irrigation	$ 988,711.41	$ 986,694.41	$ 1,316,237.49	$ 329,543.08	33.40%
7						
8	Hydrants	$ 32,845.52	$ 32,845.52	$ 47,193.81	$ 14,348.29	43.68%
9						
10						
11						
12						
13						
14	Total Revenue	$ 8,958,295.21	$ 8,915,651.20	$ 12,004,687.90	$ 3,089,036.70	34.65%
15						
16						
17			----------Pro Forma Adjustments From Schedule C-2 Rebuttal----------			
18			Add Customer	Declining		Annualized
19		From Schedule	Annualization from	Usage	Misc Revenue	Present
20		H-2 Rebuttal	Schedule C-2 Rebuttal	Adjustment	Adjustments	Rates
21	Residential	$ 7,271,312.75	$27,555	$ (65,960.00)	$ (733.33)	$ 7,232,174.42
22	Commercial	$ 665,425.53	$9,419		$ (10,907.68)	$ 663,936.85
23	Irrigation	$ 988,711.41			$ (2,017.00)	$ 986,694.41
24	Hydrants	$ 32,845.52				$ 32,845.52
25	Fire Sprinklers and Standpipe					
26	Total Revenue	$ 8,958,295.21	$ 36,974.00	$ (65,960.00)	$ (13,658.01)	$ 8,915,651.20
27						
28						
29	Increase in Gross Revenue from Sch A-1 Rebuttal	$ 3,044,003.05	$ 12,812.00	$ (22,855.00)	$ (253.99)	$ 3,089,038.88
30	**Percentage Increase**					**34.65%**
31						
32						
33			----------Pro Forma Adjustments at Overall % Increase ----------			
34		Proposed Rates	Add Customer	Declining		Annualized
35		From Schedule	Annualization from	Usage	Misc Revenue	Proposed
36		H-2 Rebuttal	Schedule C-2 Rebuttal	Adjustment	Adjustments	Rates
37	Residential	$ 9,813,479.75	$ 37,103.00	$ (88,815.00)	$ (987.00)	$ 9,760,780.75
38	Commercial	$ 878,700.85	$ 12,683.00		$ (10,908.00)	$ 880,475.85
39	Irrigation	$ 1,318,254.49			$ (2,017.00)	$ 1,316,237.49
40	Hydrants	$ 47,193.81				$ 47,193.81
41	Fire Sprinklers and Standpipe	$ -				
42	Total Revenue	$ 12,057,628.90	$ 49,786.00	$ (88,815.00)	$ (13,912.00)	$ 12,004,687.90

Chaparral City Water Company
Test Year Ended December 31, 2012
Analysis of Revenue by Detailed Class

Line No.	Rate Schedule	Description	Last Block Consumption	Average Number of Customers	Average Consumption	Median Consumption	Revenues Present Rates	Revenues Proposed Rates	Increase Amount	Increase %
1	F and S .75RC	Chaparral Residential 3/4" Meter	257,709	8,308	7,870	12,000	$ 3,963,926.72	$ 5,334,752.28	$ 1,370,825.56	34.58%
2	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter	78,870	4,327	10,780	16,000	$ 3,124,975.19	$ 4,212,236.11	$ 1,087,260.92	34.79%
3	F1.5RC	Chaparral Residential 1-1/2" Meter	24	25	33,407	53,000	$ 46,895.82	$ 62,850.12	$ 15,954.30	34.02%
4	F2RC	Chaparral Residential 2" Meter	7,329	38	71,775	56,000	$ 142,486.33	$ 191,118.66	$ 48,632.33	34.13%
5	F3RC	Chaparral Residential 3" Meter	109	2	82,636	99,000	$ 9,183.33	$ 12,522.58	$ 3,339.25	36.36%
6	F4RC - no active accounts	Chaparral Residential 4" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
7	F6RC - no active accounts	Chaparral Residential 6" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
8	F8RC - no active accounts	Chaparral Residential 8" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
9	F10RC - no active accounts	Chaparral Residential 10" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
10	F12RC - no active accounts	Chaparral Residential 12" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
11	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter	7,833	118	9,645	32,000	$ 69,087.42	$ 92,565.95	$ 23,478.53	33.98%
13	F1CC and S1CC	Chaparral Commercial 1" Meter	11,905	144	14,836	49,000	$ 130,496.64	$ 175,649.99	$ 45,153.35	34.60%
14	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter	12,171	67	36,607	116,000	$ 139,530.39	$ 186,976.06	$ 47,445.67	34.00%
15	F2CC AND S2CC	Chaparral Commercial 2" Meter	15,417	65	63,293	129,000	$ 224,598.00	$ 301,432.96	$ 76,834.96	34.21%
16	F3CC	Chaparral Commercial 3" Meter	-	3	73,585	141,000	$ 16,181.52	$ 21,687.31	$ 5,505.79	34.03%
17	F4C, S4C	Chaparral Commercial 4" Meter	607	4	188,750	289,000	$ 40,503.82	$ 54,253.69	$ 13,749.87	33.95%
18	F6C,S6C	Chaparral Commercial 6" Meter	606	2	360,667	326,000	$ 35,792.94	$ 46,134.89	$ 10,341.95	28.89%
19	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
20	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
21	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter	-	-	-	-	$ -	$ -	$ -	0.00%
22	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		155	15,737	36,000	$ 117,781.05	$ 157,891.27	$ 40,110.22	34.05%
23	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		210	27,300	106,000	$ 272,946.20	$ 365,703.37	$ 92,757.17	33.98%
24	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		74	55,484	146,000	$ 194,990.53	$ 261,550.83	$ 66,560.30	34.14%
25	F2I_C , S2I_C	Chaparral Irrigation 2" Meter		47	106,496	206,000	$ 229,741.25	$ 307,857.18	$ 78,115.93	34.00%
26	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		-	-	-	$ -	$ -	$ -	0.00%
27	F4I_C	Chaparral Irrigation 4" Meter		5	293,721	2,122,000	$ 69,818.49	$ 93,679.33	$ 23,860.84	34.18%
28	F6I_C	Chaparral Irrigation 6" Meter		1	2,576,667	11,078,000	$ 98,123.20	$ 131,572.51	$ 33,449.31	34.09%
29	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		-	-	-	$ -	$ -	$ -	0.00%
30	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		-	-	-	$ -	$ -	$ -	0.00%
31	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		-	-	-	$ -	$ -	$ -	0.00%
32	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		6	15,632	50,000	$ 4,756.18	$ 6,402.30	$ 1,646.12	34.61%
33	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		1	5,333	5,000	$ 638.30	$ 872.86	$ 234.56	36.75%
34	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		2	4,444	9,000	$ 1,840.20	$ 2,475.69	$ 635.49	34.53%
35	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		2	583	-	$ 2,256.11	$ 2,899.36	$ 643.25	28.51%
36	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		8	28,212	109,000	$ 25,133.95	$ 34,543.60	$ 9,409.65	37.44%
37	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		-	-	-	$ -	$ -	$ -	0.00%
38	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		-	-	-	$ -	$ -	$ -	0.00%
39	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		-	-	-	$ -	$ -	$ -	0.00%
40	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		-	-	-	$ -	$ -	$ -	0.00%
41	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		-	-	-	$ -	$ -	$ -	0.00%
42	FS - All Meter Sizes	Chaparral Fire Sprinklers		-	-	-	$ -	$ -	$ -	0.00%
43	SP2	Standpipe Water Service - 2" Meter		-	-	-	$ -	$ -	$ -	0.00%
44	LIDFH.75 and LIDSH.75	Low Income Discount - .75" Meter		-	-	-	$ -	$ -	$ -	0.00%
45	LIDFH1 and LIDSH1	Low Income Discount - 1" Meter		-	-	-	$ -	$ -	$ -	0.00%
46	Total Chaparral Water - Billed Revenues		392,580	13,614	4,083,460	15,185,000	$ 8,961,683.58	$ 12,057,628.90	$ 3,095,945.32	34.55%
47										
48		Annual Low Income Discount	$22,500							
49										
50		Surcharge Price per kgal	$0.0573							
51							Test Year	Proposed	Increase	Increase
52							Revenues	Rates	Amount	%
53										
54		Total Residential		12,700	206,468		7,287,467	9,813,480	2,526,012	34.66%
55		Total Commercial		403	747,383		656,191	878,701	222,510	33.91%
56		Total Irrigation/ Miscellaneous		492	3,075,405		983,401	1,318,254	334,854	34.05%
57		Total Hydrant		19	54,204		34,625	47,194	12,569	36.30%
58		Fire Sprinklers and Standpipe		-	-		-	-	-	0.00%
59										
60	Total Chaparral Water - Billed Revenues			13,614	4,083,460		8,961,684	12,057,629	3,095,945	34.55%

Chaparral City Water Company
Test Year Ended December 31, 2012
Changes in Representative Rate Schedules

Line No.	Rate Schedule	Description	Block	Monthly Usage Charge Present Rate	Monthly Usage Charge Proposed Rate	Commodity Charge Present Rate	Commodity Charge Proposed Rate	Change
1	F and S .75RC	Chaparral Residential 3/4" Meter	First 3,000 gals.	$ 16.50	$ 22.20	$ 2.31	$ 3.0926	$ 0.7826
2			3,001 to 9,000 gals.			$ 2.96	$ 3.9678	$ 1.0078
3			Over 9,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
4	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter	First24,000 gals.	$ 27.50	$ 37.03	$ 2.96	$ 3.9678	$ 1.0078
5			Over 24,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
6	F1.5RC	Chaparral Residential 1-1/2" Meter	First 60,000 gals.	$ 55.00	$ 74.06	$ 2.96	$ 3.9678	$ 1.0078
7			Over 60,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
8	F2RC	Chaparral Residential 2" Meter	First 100,000 gals.	$ 88.00	$ 118.49	$ 2.96	$ 3.9678	$ 1.0078
9			Over 100,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
10	F3RC	Chaparral Residential 3" Meter	First 225,000 gals.	$ 176.00	$ 236.98	$ 2.96	$ 3.9678	$ 1.0078
11			Over 225,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
12	F4RC - no active accounts.	Chaparral Residential 4" Meter	First 350,000 gals.	$ 275.00	$ 370.29	$ 2.96	$ 3.9678	$ 1.0078
13			Over 350,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
14	F6RC - no active accounts	Chaparral Residential 6" Meter	First 725,000 gals.	$ 550.00	$ 740.58	$ 2.96	$ 3.9678	$ 1.0078
15			Over 725,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
16	F8RC - no active accounts	Chaparral Residential 8" Meter	First 1,125,000 gals.	$ 880.00	$ 1,184.92	$ 2.96	$ 3.9678	$ 1.0078
17			Over 1,125,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
18	F10RC - no active accounts	Chaparral Residential 10" Meter	First 1,500,000 gals.	$ 1,265.00	$ 1,703.32	$ 2.96	$ 3.9678	$ 1.0078
19			Over 1,500,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
20	F12RC - no active accounts	Chaparral Residential 12" Meter	First 2,250,000 gals.	$ 2,365.00	$ 3,184.47	$ 2.96	$ 3.9678	$ 1.0078
21			Over 2,250,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
22	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter	First 9,000 gals.	$ 16.50	$ 22.22	$ 2.96	$ 3.9678	$ 1.0078
23			Over 9,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
24	F1CC and S1CC	Chaparral Commercial 1" Meter	First24,000 gals.	$ 27.50	$ 37.03	$ 2.96	$ 3.9678	$ 1.0078
25			Over 24,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
26	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter	First 60,000 gals.	$ 55.00	$ 74.06	$ 2.96	$ 3.9678	$ 1.0078
27			Over 60,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
28	F2CC AND S2CC	Chaparral Commercial 2" Meter	First 100,000 gals.	$ 88.00	$ 118.49	$ 2.96	$ 3.9678	$ 1.0078
29			Over 100,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
30	F3CC	Chaparral Commercial 3" Meter	First 225,000 gals.	$ 176.00	$ 236.98	$ 2.96	$ 3.9678	$ 1.0078
31			Over 225,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
32	F4C, S4C	Chaparral Commercial 4" Meter	First 350,000 gals.	$ 275.00	$ 370.29	$ 2.96	$ 3.9678	$ 1.0078
33			Over 350,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
34	F6C,S6C	Chaparral Commercial 6" Meter	First 725,000 gals.	$ 550.00	$ 740.58	$ 2.96	$ 3.9678	$ 1.0078
35			Over 725,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
36	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter	First 1,125,000 gals.	$ 880.00	$ 1,184.92	$ 2.96	$ 3.9678	$ 1.0078
37			Over 1,125,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
38	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter	First 1,500,000 gals.	$ 1,265.00	$ 1,703.32	$ 2.96	$ 3.9678	$ 1.0078
39			Over 1,500,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
40	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter	First 2,250,000 gals.	$ 2,365.00	$ 3,184.47	$ 2.96	$ 3.9678	$ 1.0078
41			Over 2,250,000 gals.			$ 3.61	$ 4.8431	$ 1.2331
42	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter	All Usage	$ 16.50	$ 22.22	$ 2.96	$ 3.9678	$ 1.0078
43								
44	F1I_C , S1I_C	Chaparral Irrigation 1" Meter	All Usage	$ 27.50	$ 37.03	$ 2.96	$ 3.9678	$ 1.0078
45								
46	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter	All Usage	$ 55.00	$ 74.06	$ 2.96	$ 3.9678	$ 1.0078
47								
48	F2I_C , S2I_C	Chaparral Irrigation 2" Meter	All Usage	$ 88.00	$ 118.49	$ 2.96	$ 3.9678	$ 1.0078
49								
50	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter	All Usage	$ 176.00	$ 236.98	$ 2.96	$ 3.9678	$ 1.0078
51								

Line No.	Rate Schedule	Description	Block	Monthly Usage Charge Present Rate	Monthly Usage Charge Proposed Rate	Commodity Charge Present Rate	Commodity Charge Proposed Rate	Change
52	F4I_C	Chaparral Irrigation 4" Meter	All Usage	$ 275.00	$ 370.29	$ 2.96	$ 3.9678	$ 1.0078
53								
54	F6I_C	Chaparral Irrigation 6" Meter	All Usage	$ 550.00	$ 740.58	$ 2.96	$ 3.9678	$ 1.0078
55								
56	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter	All Usage	$ 880.00	$ 1,184.92	$ 2.96	$ 3.9678	$ 1.0078
57								
58	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter	All Usage	$ 1,265.00	$ 1,703.32	$ 2.96	$ 3.9678	$ 1.0078
59								
60	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter	All Usage	$ 2,365.00	$ 3,184.47	$ 2.96	$ 3.9678	$ 1.0078
61								
62	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter	All Usage	$ 16.50	$ 22.22	$ 2.96	$ 3.9678	$ 1.0078
63								
64	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter	All Usage	$ 27.50	$ 37.03	$ 2.96	$ 3.9678	$ 1.0078
65								
66	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter	All Usage	$ 55.00	$ 74.06	$ 2.96	$ 3.9678	$ 1.0078
67								
68	F2H_C, S2H_C	Chaparral Hydrant 2" Meter	All Usage	$ 88.00	$ 118.49	$ 2.96	$ 3.9678	$ 1.0078
69								
70	F3H_C, S3H_C	Chaparral Hydrant 3" Meter	All Usage	$ 176.00	$ 236.98	$ 2.96	$ 3.9678	$ 1.0078
71								
72	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter	All Usage	$ 275.00	$ 370.29	$ 2.96	$ 3.9678	$ 1.0078
73								
74	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter	All Usage	$ 550.00	$ 740.58	$ 2.96	$ 3.9678	$ 1.0078
75								
76	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter	All Usage	$ 880.00	$ 1,184.92	$ 2.96	$ 3.9678	$ 1.0078
77								
78	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter	All Usage	$ 1,265.00	$ 1,703.32	$ 2.96	$ 3.9678	$ 1.0078
79								
80	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter	All Usage	$ 2,365.00	$ 3,184.47	$ 2.96	$ 3.9678	$ 1.0078
81								
82	FS - All Meter Sizes	Chaparral Fire Sprinklers	All Usage	$ 10.00	$ 13.47	$ 2.96	$ 3.9678	$ 1.0078
83								
84	SP2	Standpipe Water Service - 2" Meter	All Usage	$ -	$ -	$ 2.96	$ 3.9678	$ 1.0078
85								
86	LIDFH.75 and LIDSH.75	Low Income Discount (FH and SD)	First 3,000 gals.	$ -	$ 14.70	$ -	$ 3.0926	$ 3.0926
87			3,001 to 9,000 gals.				$ 3.9678	$ 3.9678
88			Over 9,000 gals.				$ 4.8431	$ 4.8431
89	LIDFH1 and LIDSH1	Low Income Discount (FH and SD)	First 3,000 gals.	$ -	$ 29.53	$ -	$ 3.0926	$ 3.0926
90			3,001 to 9,000 gals.				$ 3.9678	$ 3.9678
91			Over 9,000 gals.				$ 4.8431	$ 4.8431

		Present	Proposed
91	Service Charges		
92	Establishment of Service		
93	Regular Hours	$ 25.00	$ 60.00
94	After Hours	$ 35.00	$ 90.00
95	Re-establishment of Service per A.A.C. R14-2-403.D (same customer, same location within 12 months)	*	*
96	Reconnection of Service (delinquent)	$ 35.00	$ 60.00
97	Reconnection of Service (delinquent / after-hours)	$ 50.00	$ 90.00
98	Water Meter Test (If Correct)	$ 35.00	$ 30.00
99	Water Meter Relocation at Customer Request (per A.A.C. R14-2-405.B)	Cost ***	Cost ***
100	Meter Re-Read (If Correct)	$ 25.00	$ 10.00
101	NSF Check Charge	$ 25.00	$ 25.00
102	Late Fee Charge (per month)	1.50%	1.50%
103	Deferred Payment Finance Charge (per month)	1.50%	1.50%
104	Service Call - After Hours(per A.A.C. R14-2-403D)	refer to charges above	refer to charges above
105	Deposit Requirements Residential	**	**
106	Deposit Requirements Non-Residential	**	**
107	Deposit Interest (per A.A.C. Rule 14-2-403.B)	6% per annum	6% per annum
108			
109	*	Monthly minimum charge multiplied by the number of months disconnected from the water system.	
110	**	Residential - two times the average bill. Non-residential - two and one-half times the estimated maximum bill.	
111	***	Per Company Tariff Sheet No. 8.	
112			
113			
114			
115			

		Present Rates			Proposed Rates		
		Service Line Charge	Meter Installation Charge	Total Charge	Service Line Charge	Meter Installation Charge	Total Charge
116	Service Line and Meter Installation Charges						
117	Refundable per A.A. C. Rule 14-2-405.B:						
118	5/8 x 3/4-inch Meter	$ 385.00	$ 135.00	$ 520.00	$ 385.00	$ 135.00	$ 520.00
119	3/4-inch Meter	$ 385.00	$ 215.00	$ 600.00	$ 385.00	$ 195.00	$ 580.00
120	1-inch Meter	$ 435.00	$ 255.00	$ 690.00	$ 435.00	$ 234.00	$ 669.00
121	1 1/2-inch Meter	$ 470.00	$ 465.00	$ 935.00	$ 470.00	$ 367.00	$ 837.00
122	2-inch Turbine Meter	$ 630.00	$ 965.00	$ 1,595.00	At Cost	At Cost	At Cost
123	2-inch Compound Meter	$ 630.00	$ 1,690.00	$ 2,320.00	At Cost	At Cost	At Cost
124	3-inch Turbine Meter	$ 805.00	$ 1,470.00	$ 2,275.00	At Cost	At Cost	At Cost
125	3-inch Compound Meter	$ 845.00	$ 2,265.00	$ 3,110.00	At Cost	At Cost	At Cost
126	4-inch Turbine Meter	$ 1,170.00	$ 2,350.00	$ 3,520.00	At Cost	At Cost	At Cost
127	4-inch Compound Meter	$ 1,230.00	$ 3,245.00	$ 4,475.00	At Cost	At Cost	At Cost
128	6-inch Turbine Meter	$ 1,730.00	$ 4,545.00	$ 6,275.00	At Cost	At Cost	At Cost
129	6-inch Compound Meter	$ 1,770.00	$ 6,280.00	$ 8,050.00	At Cost	At Cost	At Cost
130	8-inch or Larger	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
131							
132	Fire Sprinkler:						
133	2" Meter and Valve			Cost			Cost
134	4" Meter and Valve			Cost			Cost
135	6" Meter and Valve			Cost			Cost
136	8" Meter and Valve			Cost			Cost
137							
138	Main Extensions (per R14-2-406)						
139							
140							

141 AN APPLICANT FOR WATER SERVICE SHALL PAY TO THE COMPANY, AS A REFUNDABLE ADVANCE IN AID OF CONSTRUCTION THE FULL COST TO PROVIDE THE NEW SERVICE LINE AND METER.
142
143 IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM IT CUSTOMERS A PROPORTIONATE SHARE
144 OF ANY PRIVILEGE, SALES,USE, AND FRANCHISE TAX. PER COMMISSION RULE 14-2-409D(5).
145
146 ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS, AND ALL APPLICABLE TAXES, INCLUDING
147 ALL GROSS-UP TAXES FOR INCOME TAXES, IF APPLICABLE.

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
Page 1
Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Proposed Rates	Proposed Increase Amount	%
1	F and S .75RC	Chaparral Residential 3/4" Meter		1,000	$18.81	$25.29	$ 6.48	34.46%
2	F and S .75RC	Chaparral Residential 3/4" Meter		2,000	$21.12	$28.38	$ 7.26	34.40%
3	F and S .75RC	Chaparral Residential 3/4" Meter		3,000	$23.43	$31.48	$ 8.05	34.35%
4	F and S .75RC	Chaparral Residential 3/4" Meter		4,000	$26.39	$35.45	$ 9.06	34.31%
5	F and S .75RC	Chaparral Residential 3/4" Meter		5,000	$29.35	$39.41	$ 10.06	34.29%
6	F and S .75RC	Chaparral Residential 3/4" Meter		6,000	$32.31	$43.38	$ 11.07	34.26%
7	F and S .75RC	Chaparral Residential 3/4" Meter		7,000	$35.27	$47.35	$ 12.08	34.25%
8	F and S .75RC	Chaparral Residential 3/4" Meter		8,000	$38.23	$51.32	$ 13.09	34.23%
9	F and S .75RC	Chaparral Residential 3/4" Meter		9,000	$41.19	$55.28	$ 14.09	34.22%
10	F and S .75RC	Chaparral Residential 3/4" Meter		10,000	$44.80	$60.13	$ 15.33	34.21%
11	F and S .75RC	Chaparral Residential 3/4" Meter		11,000	$48.41	$64.97	$ 16.56	34.21%
12	F and S .75RC	Chaparral Residential 3/4" Meter		12,000	$52.02	$69.81	$ 17.79	34.21%
13	F and S .75RC	Chaparral Residential 3/4" Meter		13,000	$55.63	$74.66	$ 19.03	34.20%
14	F and S .75RC	Chaparral Residential 3/4" Meter		14,000	$59.24	$79.50	$ 20.26	34.20%
15	F and S .75RC	Chaparral Residential 3/4" Meter		15,000	$62.85	$84.34	$ 21.49	34.20%
16	F and S .75RC	Chaparral Residential 3/4" Meter		16,000	$66.46	$89.19	$ 22.73	34.19%
17	F and S .75RC	Chaparral Residential 3/4" Meter		17,000	$70.07	$94.03	$ 23.96	34.19%
18	F and S .75RC	Chaparral Residential 3/4" Meter		18,000	$73.68	$98.87	$ 25.19	34.19%
19	F and S .75RC	Chaparral Residential 3/4" Meter		19,000	$77.29	$103.71	$ 26.42	34.19%
20	F and S .75RC	Chaparral Residential 3/4" Meter		20,000	$80.90	$108.56	$ 27.66	34.19%
21	F and S .75RC	Chaparral Residential 3/4" Meter		21,000	$84.51	$113.40	$ 28.89	34.19%
22	F and S .75RC	Chaparral Residential 3/4" Meter		22,000	$88.12	$118.24	$ 30.12	34.19%
23	F and S .75RC	Chaparral Residential 3/4" Meter		23,000	$91.73	$123.09	$ 31.36	34.18%
24	F and S .75RC	Chaparral Residential 3/4" Meter		24,000	$95.34	$127.93	$ 32.59	34.18%
25	F and S .75RC	Chaparral Residential 3/4" Meter		25,000	$98.95	$132.77	$ 33.82	34.18%
26	F and S .75RC	Chaparral Residential 3/4" Meter		26,000	$102.56	$137.62	$ 35.06	34.18%
27	F and S .75RC	Chaparral Residential 3/4" Meter		27,000	$106.17	$142.46	$ 36.29	34.18%
28	F and S .75RC	Chaparral Residential 3/4" Meter		28,000	$109.78	$147.30	$ 37.52	34.18%
29	F and S .75RC	Chaparral Residential 3/4" Meter		29,000	$113.39	$152.15	$ 38.76	34.18%
30	F and S .75RC	Chaparral Residential 3/4" Meter		30,000	$117.00	$156.99	$ 39.99	34.18%
31	F and S .75RC	Chaparral Residential 3/4" Meter		31,000	$120.61	$161.83	$ 41.22	34.18%
32	F and S .75RC	Chaparral Residential 3/4" Meter		32,000	$124.22	$166.67	$ 42.45	34.18%
33	F and S .75RC	Chaparral Residential 3/4" Meter		33,000	$127.83	$171.52	$ 43.69	34.18%
34	F and S .75RC	Chaparral Residential 3/4" Meter		34,000	$131.44	$176.36	$ 44.92	34.18%
35	F and S .75RC	Chaparral Residential 3/4" Meter		35,000	$135.05	$181.20	$ 46.15	34.18%
36	F and S .75RC	Chaparral Residential 3/4" Meter		36,000	$138.66	$186.05	$ 47.39	34.18%
37	F and S .75RC	Chaparral Residential 3/4" Meter		37,000	$142.27	$190.89	$ 48.62	34.17%
38	F and S .75RC	Chaparral Residential 3/4" Meter		38,000	$145.88	$195.73	$ 49.85	34.17%
39	F and S .75RC	Chaparral Residential 3/4" Meter		39,000	$149.49	$200.58	$ 51.09	34.17%
40	F and S .75RC	Chaparral Residential 3/4" Meter		40,000	$153.10	$205.42	$ 52.32	34.17%
41	F and S .75RC	Chaparral Residential 3/4" Meter		41,000	$156.71	$210.26	$ 53.55	34.17%
42	F and S .75RC	Chaparral Residential 3/4" Meter		42,000	$160.32	$215.11	$ 54.79	34.17%
43	F and S .75RC	Chaparral Residential 3/4" Meter		43,000	$163.93	$219.95	$ 56.02	34.17%
44	F and S .75RC	Chaparral Residential 3/4" Meter		44,000	$167.54	$224.79	$ 57.25	34.17%
45	F and S .75RC	Chaparral Residential 3/4" Meter		45,000	$171.15	$229.63	$ 58.48	34.17%
46	F and S .75RC	Chaparral Residential 3/4" Meter		46,000	$174.76	$234.48	$ 59.72	34.17%
47	F and S .75RC	Chaparral Residential 3/4" Meter		47,000	$178.37	$239.32	$ 60.95	34.17%
48	F and S .75RC	Chaparral Residential 3/4" Meter		48,000	$181.98	$244.16	$ 62.18	34.17%
49	F and S .75RC	Chaparral Residential 3/4" Meter		49,000	$185.59	$249.01	$ 63.42	34.17%
50	F and S .75RC	Chaparral Residential 3/4" Meter		50,000	$189.20	$253.85	$ 64.65	34.17%
51	F and S .75RC	Chaparral Residential 3/4" Meter		51,000	$192.81	$258.69	$ 65.88	34.17%
52	F and S .75RC	Chaparral Residential 3/4" Meter		52,000	$196.42	$263.54	$ 67.12	34.17%
53	F and S .75RC	Chaparral Residential 3/4" Meter		53,000	$200.03	$268.38	$ 68.35	34.17%
54	F and S .75RC	Chaparral Residential 3/4" Meter		54,000	$203.64	$273.22	$ 69.58	34.17%
55	F and S .75RC	Chaparral Residential 3/4" Meter		55,000	$207.25	$278.07	$ 70.82	34.17%
56								
57	F and S .75RC	Chaparral Residential 3/4" Meter	Average:	7,870	$37.85	$50.80	$ 12.96	34.23%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		1,000	$30.46	$41.00	$ 10.54	34.59%
2	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		2,000	$33.42	$44.96	$ 11.54	34.54%
3	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		3,000	$36.38	$48.93	$ 12.55	34.50%
4	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		4,000	$39.34	$52.90	$ 13.56	34.47%
5	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		5,000	$42.30	$56.87	$ 14.57	34.44%
6	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		6,000	$45.26	$60.84	$ 15.58	34.41%
7	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		7,000	$48.22	$64.80	$ 16.58	34.39%
8	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		8,000	$51.18	$68.77	$ 17.59	34.37%
9	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		9,000	$54.14	$72.74	$ 18.60	34.35%
10	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		10,000	$57.10	$76.71	$ 19.61	34.34%
11	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		11,000	$60.06	$80.67	$ 20.61	34.32%
12	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		12,000	$63.02	$84.64	$ 21.62	34.31%
13	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		13,000	$65.98	$88.61	$ 22.63	34.30%
14	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		14,000	$68.94	$92.58	$ 23.64	34.29%
15	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		15,000	$71.90	$96.55	$ 24.65	34.28%
16	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		16,000	$74.86	$100.51	$ 25.65	34.27%
17	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		17,000	$77.82	$104.48	$ 26.66	34.26%
18	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		18,000	$80.78	$108.45	$ 27.67	34.25%
19	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		19,000	$83.74	$112.42	$ 28.68	34.25%
20	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		20,000	$86.70	$116.39	$ 29.69	34.24%
21	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		21,000	$89.66	$120.35	$ 30.69	34.23%
22	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		22,000	$92.62	$124.32	$ 31.70	34.23%
23	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		23,000	$95.58	$128.29	$ 32.71	34.22%
24	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		24,000	$98.54	$132.26	$ 33.72	34.22%
25	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		25,000	$102.15	$137.10	$ 34.95	34.21%
26	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		26,000	$105.76	$141.94	$ 36.18	34.21%
27	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		27,000	$109.37	$146.79	$ 37.42	34.21%
28	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		28,000	$112.98	$151.63	$ 38.65	34.21%
29	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		29,000	$116.59	$156.47	$ 39.88	34.21%
30	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		30,000	$120.20	$161.32	$ 41.12	34.21%
31	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		31,000	$123.81	$166.16	$ 42.35	34.20%
32	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		32,000	$127.42	$171.00	$ 43.58	34.20%
33	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		33,000	$131.03	$175.84	$ 44.81	34.20%
34	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		34,000	$134.64	$180.69	$ 46.05	34.20%
35	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		35,000	$138.25	$185.53	$ 47.28	34.20%
36	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		36,000	$141.86	$190.37	$ 48.51	34.20%
37	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		37,000	$145.47	$195.22	$ 49.75	34.20%
38	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		38,000	$149.08	$200.06	$ 50.98	34.20%
39	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		39,000	$152.69	$204.90	$ 52.21	34.20%
40	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		40,000	$156.30	$209.75	$ 53.45	34.19%
41	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		41,000	$159.91	$214.59	$ 54.68	34.19%
42	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		42,000	$163.52	$219.43	$ 55.91	34.19%
43	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		43,000	$167.13	$224.28	$ 57.15	34.19%
44	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		44,000	$170.74	$229.12	$ 58.38	34.19%
45	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		45,000	$174.35	$233.96	$ 59.61	34.19%
46	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		46,000	$177.96	$238.80	$ 60.84	34.19%
47	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		47,000	$181.57	$243.65	$ 62.08	34.19%
48	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		48,000	$185.18	$248.49	$ 63.31	34.19%
49	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		49,000	$188.79	$253.33	$ 64.54	34.19%
50	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		50,000	$192.40	$258.18	$ 65.78	34.19%
51	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		51,000	$196.01	$263.02	$ 67.01	34.19%
52	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		52,000	$199.62	$267.86	$ 68.24	34.19%
53	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		53,000	$203.23	$272.71	$ 69.48	34.19%
54	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		54,000	$206.84	$277.55	$ 70.71	34.19%
55	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter		55,000	$210.45	$282.39	$ 71.94	34.18%
56								
57	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter	Average:	10,780	$59.41	$79.80	$ 20.39	34.33%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1.5RC	Chaparral Residential 1-1/2" Meter		4,000	$66.84	$89.93	$ 23.09	34.54%
2	F1.5RC	Chaparral Residential 1-1/2" Meter		8,000	$78.68	$105.80	$ 27.12	34.47%
3	F1.5RC	Chaparral Residential 1-1/2" Meter		12,000	$90.52	$121.67	$ 31.15	34.41%
4	F1.5RC	Chaparral Residential 1-1/2" Meter		16,000	$102.36	$137.54	$ 35.18	34.37%
5	F1.5RC	Chaparral Residential 1-1/2" Meter		20,000	$114.20	$153.41	$ 39.21	34.34%
6	F1.5RC	Chaparral Residential 1-1/2" Meter		24,000	$126.04	$169.29	$ 43.25	34.31%
7	F1.5RC	Chaparral Residential 1-1/2" Meter		28,000	$137.88	$185.16	$ 47.28	34.29%
8	F1.5RC	Chaparral Residential 1-1/2" Meter		32,000	$149.72	$201.03	$ 51.31	34.27%
9	F1.5RC	Chaparral Residential 1-1/2" Meter		36,000	$161.56	$216.90	$ 55.34	34.25%
10	F1.5RC	Chaparral Residential 1-1/2" Meter		40,000	$173.40	$232.77	$ 59.37	34.24%
11	F1.5RC	Chaparral Residential 1-1/2" Meter		44,000	$185.24	$248.64	$ 63.40	34.23%
12	F1.5RC	Chaparral Residential 1-1/2" Meter		48,000	$197.08	$264.51	$ 67.43	34.22%
13	F1.5RC	Chaparral Residential 1-1/2" Meter		52,000	$208.92	$280.39	$ 71.47	34.21%
14	F1.5RC	Chaparral Residential 1-1/2" Meter		56,000	$220.76	$296.26	$ 75.50	34.20%
15	F1.5RC	Chaparral Residential 1-1/2" Meter		60,000	$232.60	$312.13	$ 79.53	34.19%
16	F1.5RC	Chaparral Residential 1-1/2" Meter		64,000	$232.60	$312.13	$ 79.53	34.19%
17	F1.5RC	Chaparral Residential 1-1/2" Meter		68,000	$232.60	$312.13	$ 79.53	34.19%
18	F1.5RC	Chaparral Residential 1-1/2" Meter		72,000	$232.60	$312.13	$ 79.53	34.19%
19	F1.5RC	Chaparral Residential 1-1/2" Meter		76,000	$232.60	$312.13	$ 79.53	34.19%
20	F1.5RC	Chaparral Residential 1-1/2" Meter		80,000	$232.60	$312.13	$ 79.53	34.19%
21	F1.5RC	Chaparral Residential 1-1/2" Meter		84,000	$232.60	$312.13	$ 79.53	34.19%
22	F1.5RC	Chaparral Residential 1-1/2" Meter		88,000	$232.60	$312.13	$ 79.53	34.19%
23	F1.5RC	Chaparral Residential 1-1/2" Meter		92,000	$232.60	$312.13	$ 79.53	34.19%
24	F1.5RC	Chaparral Residential 1-1/2" Meter		96,000	$232.60	$312.13	$ 79.53	34.19%
25	F1.5RC	Chaparral Residential 1-1/2" Meter		100,000	$232.60	$312.13	$ 79.53	34.19%
26	F1.5RC	Chaparral Residential 1-1/2" Meter		104,000	$247.04	$331.50	$ 84.46	34.19%
27	F1.5RC	Chaparral Residential 1-1/2" Meter		108,000	$261.48	$350.87	$ 89.39	34.19%
28	F1.5RC	Chaparral Residential 1-1/2" Meter		112,000	$275.92	$370.24	$ 94.32	34.19%
29	F1.5RC	Chaparral Residential 1-1/2" Meter		116,000	$290.36	$389.62	$ 99.26	34.18%
30	F1.5RC	Chaparral Residential 1-1/2" Meter		120,000	$304.80	$408.99	$ 104.19	34.18%
31	F1.5RC	Chaparral Residential 1-1/2" Meter		124,000	$319.24	$428.36	$ 109.12	34.18%
32	F1.5RC	Chaparral Residential 1-1/2" Meter		128,000	$333.68	$447.73	$ 114.05	34.18%
33	F1.5RC	Chaparral Residential 1-1/2" Meter		132,000	$348.12	$467.11	$ 118.99	34.18%
34	F1.5RC	Chaparral Residential 1-1/2" Meter		136,000	$362.56	$486.48	$ 123.92	34.18%
35	F1.5RC	Chaparral Residential 1-1/2" Meter		140,000	$377.00	$505.85	$ 128.85	34.18%
36	F1.5RC	Chaparral Residential 1-1/2" Meter		144,000	$391.44	$525.22	$ 133.78	34.18%
37	F1.5RC	Chaparral Residential 1-1/2" Meter		148,000	$405.88	$544.60	$ 138.72	34.18%
38	F1.5RC	Chaparral Residential 1-1/2" Meter		152,000	$420.32	$563.97	$ 143.65	34.18%
39	F1.5RC	Chaparral Residential 1-1/2" Meter		156,000	$434.76	$583.34	$ 148.58	34.18%
40	F1.5RC	Chaparral Residential 1-1/2" Meter		160,000	$449.20	$602.71	$ 153.51	34.17%
41	F1.5RC	Chaparral Residential 1-1/2" Meter		164,000	$463.64	$622.08	$ 158.44	34.17%
42	F1.5RC	Chaparral Residential 1-1/2" Meter		168,000	$478.08	$641.46	$ 163.38	34.17%
43	F1.5RC	Chaparral Residential 1-1/2" Meter		172,000	$492.52	$660.83	$ 168.31	34.17%
44	F1.5RC	Chaparral Residential 1-1/2" Meter		176,000	$506.96	$680.20	$ 173.24	34.17%
45	F1.5RC	Chaparral Residential 1-1/2" Meter		180,000	$521.40	$699.57	$ 178.17	34.17%
46	F1.5RC	Chaparral Residential 1-1/2" Meter		184,000	$535.84	$718.95	$ 183.11	34.17%
47	F1.5RC	Chaparral Residential 1-1/2" Meter		188,000	$550.28	$738.32	$ 188.04	34.17%
48	F1.5RC	Chaparral Residential 1-1/2" Meter		192,000	$564.72	$757.69	$ 192.97	34.17%
49	F1.5RC	Chaparral Residential 1-1/2" Meter		196,000	$579.16	$777.06	$ 197.90	34.17%
50	F1.5RC	Chaparral Residential 1-1/2" Meter		200,000	$593.60	$796.43	$ 202.83	34.17%
51	F1.5RC	Chaparral Residential 1-1/2" Meter		204,000	$608.04	$815.81	$ 207.77	34.17%
52	F1.5RC	Chaparral Residential 1-1/2" Meter		208,000	$622.48	$835.18	$ 212.70	34.17%
53	F1.5RC	Chaparral Residential 1-1/2" Meter		212,000	$636.92	$854.55	$ 217.63	34.17%
54	F1.5RC	Chaparral Residential 1-1/2" Meter		216,000	$651.36	$873.92	$ 222.56	34.17%
55	F1.5RC	Chaparral Residential 1-1/2" Meter		220,000	$665.80	$893.30	$ 227.50	34.17%
56								
57	F1.5RC	Chaparral Residential 1-1/2" Meter	Average:	33,407	$153.88	$206.61	$ 52.73	34.26%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F2RC	Chaparral Residential 2" Meter		5,000	$102.80	$138.33	$ 35.53	34.56%
2	F2RC	Chaparral Residential 2" Meter		10,000	$117.60	$158.17	$ 40.57	34.50%
3	F2RC	Chaparral Residential 2" Meter		15,000	$132.40	$178.01	$ 45.61	34.45%
4	F2RC	Chaparral Residential 2" Meter		20,000	$147.20	$197.85	$ 50.65	34.41%
5	F2RC	Chaparral Residential 2" Meter		25,000	$162.00	$217.69	$ 55.69	34.38%
6	F2RC	Chaparral Residential 2" Meter		30,000	$176.80	$237.53	$ 60.73	34.35%
7	F2RC	Chaparral Residential 2" Meter		35,000	$191.60	$257.37	$ 65.77	34.32%
8	F2RC	Chaparral Residential 2" Meter		40,000	$206.40	$277.21	$ 70.81	34.31%
9	F2RC	Chaparral Residential 2" Meter		45,000	$221.20	$297.04	$ 75.84	34.29%
10	F2RC	Chaparral Residential 2" Meter		50,000	$236.00	$316.88	$ 80.88	34.27%
11	F2RC	Chaparral Residential 2" Meter		55,000	$250.80	$336.72	$ 85.92	34.26%
12	F2RC	Chaparral Residential 2" Meter		60,000	$265.60	$356.56	$ 90.96	34.25%
13	F2RC	Chaparral Residential 2" Meter		65,000	$280.40	$376.40	$ 96.00	34.24%
14	F2RC	Chaparral Residential 2" Meter		70,000	$295.20	$396.24	$ 101.04	34.23%
15	F2RC	Chaparral Residential 2" Meter		75,000	$310.00	$416.08	$ 106.08	34.22%
16	F2RC	Chaparral Residential 2" Meter		80,000	$324.80	$435.92	$ 111.12	34.21%
17	F2RC	Chaparral Residential 2" Meter		85,000	$339.60	$455.76	$ 116.16	34.20%
18	F2RC	Chaparral Residential 2" Meter		90,000	$354.40	$475.60	$ 121.20	34.20%
19	F2RC	Chaparral Residential 2" Meter		95,000	$369.20	$495.44	$ 126.24	34.19%
20	F2RC	Chaparral Residential 2" Meter		100,000	$384.00	$515.28	$ 131.28	34.19%
21	F2RC	Chaparral Residential 2" Meter		105,000	$402.05	$539.49	$ 137.44	34.19%
22	F2RC	Chaparral Residential 2" Meter		110,000	$420.10	$563.71	$ 143.61	34.18%
23	F2RC	Chaparral Residential 2" Meter		115,000	$438.15	$587.92	$ 149.77	34.18%
24	F2RC	Chaparral Residential 2" Meter		120,000	$456.20	$612.14	$ 155.94	34.18%
25	F2RC	Chaparral Residential 2" Meter		125,000	$474.25	$636.35	$ 162.10	34.18%
26	F2RC	Chaparral Residential 2" Meter		130,000	$492.30	$660.57	$ 168.27	34.18%
27	F2RC	Chaparral Residential 2" Meter		135,000	$510.35	$684.78	$ 174.43	34.18%
28	F2RC	Chaparral Residential 2" Meter		140,000	$528.40	$709.00	$ 180.60	34.18%
29	F2RC	Chaparral Residential 2" Meter		145,000	$546.45	$733.21	$ 186.76	34.18%
30	F2RC	Chaparral Residential 2" Meter		150,000	$564.50	$757.43	$ 192.93	34.18%
31	F2RC	Chaparral Residential 2" Meter		155,000	$582.55	$781.64	$ 199.09	34.18%
32	F2RC	Chaparral Residential 2" Meter		160,000	$600.60	$805.86	$ 205.26	34.18%
33	F2RC	Chaparral Residential 2" Meter		165,000	$618.65	$830.08	$ 211.43	34.18%
34	F2RC	Chaparral Residential 2" Meter		170,000	$636.70	$854.29	$ 217.59	34.17%
35	F2RC	Chaparral Residential 2" Meter		175,000	$654.75	$878.51	$ 223.76	34.17%
36	F2RC	Chaparral Residential 2" Meter		180,000	$672.80	$902.72	$ 229.92	34.17%
37	F2RC	Chaparral Residential 2" Meter		185,000	$690.85	$926.94	$ 236.09	34.17%
38	F2RC	Chaparral Residential 2" Meter		190,000	$708.90	$951.15	$ 242.25	34.17%
39	F2RC	Chaparral Residential 2" Meter		195,000	$726.95	$975.37	$ 248.42	34.17%
40	F2RC	Chaparral Residential 2" Meter		200,000	$745.00	$999.58	$ 254.58	34.17%
41	F2RC	Chaparral Residential 2" Meter		205,000	$763.05	$1,023.80	$ 260.75	34.17%
42	F2RC	Chaparral Residential 2" Meter		210,000	$781.10	$1,048.01	$ 266.91	34.17%
43	F2RC	Chaparral Residential 2" Meter		215,000	$799.15	$1,072.23	$ 273.08	34.17%
44	F2RC	Chaparral Residential 2" Meter		220,000	$817.20	$1,096.44	$ 279.24	34.17%
45	F2RC	Chaparral Residential 2" Meter		225,000	$835.25	$1,120.66	$ 285.41	34.17%
46	F2RC	Chaparral Residential 2" Meter		230,000	$853.30	$1,144.87	$ 291.57	34.17%
47	F2RC	Chaparral Residential 2" Meter		235,000	$871.35	$1,169.09	$ 297.74	34.17%
48	F2RC	Chaparral Residential 2" Meter		240,000	$889.40	$1,193.31	$ 303.91	34.17%
49	F2RC	Chaparral Residential 2" Meter		245,000	$907.45	$1,217.52	$ 310.07	34.17%
50	F2RC	Chaparral Residential 2" Meter		250,000	$925.50	$1,241.74	$ 316.24	34.17%
51	F2RC	Chaparral Residential 2" Meter		255,000	$943.55	$1,265.95	$ 322.40	34.17%
52	F2RC	Chaparral Residential 2" Meter		260,000	$961.60	$1,290.17	$ 328.57	34.17%
53	F2RC	Chaparral Residential 2" Meter		265,000	$979.65	$1,314.38	$ 334.73	34.17%
54	F2RC	Chaparral Residential 2" Meter		270,000	$997.70	$1,338.60	$ 340.90	34.17%
55	F2RC	Chaparral Residential 2" Meter		275,000	$1,015.75	$1,362.81	$ 347.06	34.17%
56								
57	F2RC	Chaparral Residential 2" Meter	Average:	71,775	$300.45	$347.61	$ 47.16	15.70%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F3RC	Chaparral Residential 3" Meter		15,000	$220.40	$296.50	$ 76.10	34.53%
2	F3RC	Chaparral Residential 3" Meter		30,000	$264.80	$356.02	$ 91.22	34.45%
3	F3RC	Chaparral Residential 3" Meter		45,000	$309.20	$415.54	$ 106.34	34.39%
4	F3RC	Chaparral Residential 3" Meter		60,000	$353.60	$475.05	$ 121.45	34.35%
5	F3RC	Chaparral Residential 3" Meter		75,000	$398.00	$534.57	$ 136.57	34.31%
6	F3RC	Chaparral Residential 3" Meter		90,000	$442.40	$594.09	$ 151.69	34.29%
7	F3RC	Chaparral Residential 3" Meter		105,000	$486.80	$653.61	$ 166.81	34.27%
8	F3RC	Chaparral Residential 3" Meter		120,000	$531.20	$713.12	$ 181.92	34.25%
9	F3RC	Chaparral Residential 3" Meter		135,000	$575.60	$772.64	$ 197.04	34.23%
10	F3RC	Chaparral Residential 3" Meter		150,000	$620.00	$832.16	$ 212.16	34.22%
11	F3RC	Chaparral Residential 3" Meter		165,000	$664.40	$891.68	$ 227.28	34.21%
12	F3RC	Chaparral Residential 3" Meter		180,000	$708.80	$951.20	$ 242.40	34.20%
13	F3RC	Chaparral Residential 3" Meter		195,000	$753.20	$1,010.71	$ 257.51	34.19%
14	F3RC	Chaparral Residential 3" Meter		210,000	$797.60	$1,070.23	$ 272.63	34.18%
15	F3RC	Chaparral Residential 3" Meter		225,000	$842.00	$1,129.75	$ 287.75	34.17%
16	F3RC	Chaparral Residential 3" Meter		240,000	$896.15	$1,202.39	$ 306.24	34.17%
17	F3RC	Chaparral Residential 3" Meter		255,000	$950.30	$1,275.04	$ 324.74	34.17%
18	F3RC	Chaparral Residential 3" Meter		270,000	$1,004.45	$1,347.69	$ 343.24	34.17%
19	F3RC	Chaparral Residential 3" Meter		285,000	$1,058.60	$1,420.33	$ 361.73	34.17%
20	F3RC	Chaparral Residential 3" Meter		300,000	$1,112.75	$1,492.98	$ 380.23	34.17%
21	F3RC	Chaparral Residential 3" Meter		315,000	$1,166.90	$1,565.62	$ 398.72	34.17%
22	F3RC	Chaparral Residential 3" Meter		330,000	$1,221.05	$1,638.27	$ 417.22	34.17%
23	F3RC	Chaparral Residential 3" Meter		345,000	$1,275.20	$1,710.92	$ 435.72	34.17%
24	F3RC	Chaparral Residential 3" Meter		360,000	$1,329.35	$1,783.56	$ 454.21	34.17%
25	F3RC	Chaparral Residential 3" Meter		375,000	$1,383.50	$1,856.21	$ 472.71	34.17%
26	F3RC	Chaparral Residential 3" Meter		390,000	$1,437.65	$1,928.85	$ 491.20	34.17%
27	F3RC	Chaparral Residential 3" Meter		405,000	$1,491.80	$2,001.50	$ 509.70	34.17%
28	F3RC	Chaparral Residential 3" Meter		420,000	$1,545.95	$2,074.15	$ 528.20	34.17%
29	F3RC	Chaparral Residential 3" Meter		435,000	$1,600.10	$2,146.79	$ 546.69	34.17%
30	F3RC	Chaparral Residential 3" Meter		450,000	$1,654.25	$2,219.44	$ 565.19	34.17%
31	F3RC	Chaparral Residential 3" Meter		465,000	$1,708.40	$2,292.08	$ 583.68	34.17%
32	F3RC	Chaparral Residential 3" Meter		480,000	$1,762.55	$2,364.73	$ 602.18	34.17%
33	F3RC	Chaparral Residential 3" Meter		495,000	$1,816.70	$2,437.38	$ 620.68	34.16%
34	F3RC	Chaparral Residential 3" Meter		510,000	$1,870.85	$2,510.02	$ 639.17	34.16%
35	F3RC	Chaparral Residential 3" Meter		525,000	$1,925.00	$2,582.67	$ 657.67	34.16%
36	F3RC	Chaparral Residential 3" Meter		540,000	$1,979.15	$2,655.31	$ 676.16	34.16%
37	F3RC	Chaparral Residential 3" Meter		555,000	$2,033.30	$2,727.96	$ 694.66	34.16%
38	F3RC	Chaparral Residential 3" Meter		570,000	$2,087.45	$2,800.61	$ 713.16	34.16%
39	F3RC	Chaparral Residential 3" Meter		585,000	$2,141.60	$2,873.25	$ 731.65	34.16%
40	F3RC	Chaparral Residential 3" Meter		600,000	$2,195.75	$2,945.90	$ 750.15	34.16%
41	F3RC	Chaparral Residential 3" Meter		615,000	$2,249.90	$3,018.54	$ 768.64	34.16%
42	F3RC	Chaparral Residential 3" Meter		630,000	$2,304.05	$3,091.19	$ 787.14	34.16%
43	F3RC	Chaparral Residential 3" Meter		645,000	$2,358.20	$3,163.84	$ 805.64	34.16%
44	F3RC	Chaparral Residential 3" Meter		660,000	$2,412.35	$3,236.48	$ 824.13	34.16%
45	F3RC	Chaparral Residential 3" Meter		675,000	$2,466.50	$3,309.13	$ 842.63	34.16%
46	F3RC	Chaparral Residential 3" Meter		690,000	$2,520.65	$3,381.77	$ 861.12	34.16%
47	F3RC	Chaparral Residential 3" Meter		705,000	$2,574.80	$3,454.42	$ 879.62	34.16%
48	F3RC	Chaparral Residential 3" Meter		720,000	$2,628.95	$3,527.07	$ 898.12	34.16%
49	F3RC	Chaparral Residential 3" Meter		735,000	$2,683.10	$3,599.71	$ 916.61	34.16%
50	F3RC	Chaparral Residential 3" Meter		750,000	$2,737.25	$3,672.36	$ 935.11	34.16%
51	F3RC	Chaparral Residential 3" Meter		765,000	$2,791.40	$3,745.00	$ 953.60	34.16%
52	F3RC	Chaparral Residential 3" Meter		780,000	$2,845.55	$3,817.65	$ 972.10	34.16%
53	F3RC	Chaparral Residential 3" Meter		795,000	$2,899.70	$3,890.30	$ 990.60	34.16%
54	F3RC	Chaparral Residential 3" Meter		810,000	$2,953.85	$3,962.94	$ 1,009.09	34.16%
55	F3RC	Chaparral Residential 3" Meter		825,000	$3,008.00	$4,035.59	$ 1,027.59	34.16%
56								
57	F3RC	Chaparral Residential 3" Meter	Average:	82,636	$465.87	$625.82	$ 159.95	34.33%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F4RC - no active accounts.	Chaparral Residential 4" Meter		7,000	$295.72	$398.06	$ 102.34	34.61%
2	F4RC - no active accounts.	Chaparral Residential 4" Meter		14,000	$316.44	$425.84	$ 109.40	34.57%
3	F4RC - no active accounts.	Chaparral Residential 4" Meter		21,000	$337.16	$453.61	$ 116.45	34.54%
4	F4RC - no active accounts.	Chaparral Residential 4" Meter		28,000	$357.88	$481.39	$ 123.51	34.51%
5	F4RC - no active accounts.	Chaparral Residential 4" Meter		35,000	$378.60	$509.16	$ 130.56	34.49%
6	F4RC - no active accounts.	Chaparral Residential 4" Meter		42,000	$399.32	$536.94	$ 137.62	34.46%
7	F4RC - no active accounts.	Chaparral Residential 4" Meter		49,000	$420.04	$564.71	$ 144.67	34.44%
8	F4RC - no active accounts.	Chaparral Residential 4" Meter		56,000	$440.76	$592.49	$ 151.73	34.42%
9	F4RC - no active accounts.	Chaparral Residential 4" Meter		63,000	$461.48	$620.26	$ 158.78	34.41%
10	F4RC - no active accounts.	Chaparral Residential 4" Meter		70,000	$482.20	$648.04	$ 165.84	34.39%
11	F4RC - no active accounts.	Chaparral Residential 4" Meter		77,000	$502.92	$675.81	$ 172.89	34.38%
12	F4RC - no active accounts.	Chaparral Residential 4" Meter		84,000	$523.64	$703.59	$ 179.95	34.36%
13	F4RC - no active accounts.	Chaparral Residential 4" Meter		91,000	$544.36	$731.36	$ 187.00	34.35%
14	F4RC - no active accounts.	Chaparral Residential 4" Meter		98,000	$565.08	$759.14	$ 194.06	34.34%
15	F4RC - no active accounts.	Chaparral Residential 4" Meter		105,000	$585.80	$786.91	$ 201.11	34.33%
16	F4RC - no active accounts.	Chaparral Residential 4" Meter		112,000	$606.52	$814.69	$ 208.17	34.32%
17	F4RC - no active accounts.	Chaparral Residential 4" Meter		119,000	$627.24	$842.46	$ 215.22	34.31%
18	F4RC - no active accounts.	Chaparral Residential 4" Meter		126,000	$647.96	$870.24	$ 222.28	34.30%
19	F4RC - no active accounts.	Chaparral Residential 4" Meter		133,000	$668.68	$898.01	$ 229.33	34.30%
20	F4RC - no active accounts.	Chaparral Residential 4" Meter		140,000	$689.40	$925.79	$ 236.39	34.29%
21	F4RC - no active accounts.	Chaparral Residential 4" Meter		147,000	$710.12	$953.56	$ 243.44	34.28%
22	F4RC - no active accounts.	Chaparral Residential 4" Meter		154,000	$730.84	$981.33	$ 250.49	34.27%
23	F4RC - no active accounts.	Chaparral Residential 4" Meter		161,000	$751.56	$1,009.11	$ 257.55	34.27%
24	F4RC - no active accounts.	Chaparral Residential 4" Meter		168,000	$772.28	$1,036.88	$ 264.60	34.26%
25	F4RC - no active accounts.	Chaparral Residential 4" Meter		175,000	$793.00	$1,064.66	$ 271.66	34.26%
26	F4RC - no active accounts.	Chaparral Residential 4" Meter		182,000	$813.72	$1,092.43	$ 278.71	34.25%
27	F4RC - no active accounts.	Chaparral Residential 4" Meter		189,000	$834.44	$1,120.21	$ 285.77	34.25%
28	F4RC - no active accounts.	Chaparral Residential 4" Meter		196,000	$855.16	$1,147.98	$ 292.82	34.24%
29	F4RC - no active accounts.	Chaparral Residential 4" Meter		203,000	$875.88	$1,175.76	$ 299.88	34.24%
30	F4RC - no active accounts.	Chaparral Residential 4" Meter		210,000	$896.60	$1,203.53	$ 306.93	34.23%
31	F4RC - no active accounts.	Chaparral Residential 4" Meter		217,000	$917.32	$1,231.31	$ 313.99	34.23%
32	F4RC - no active accounts.	Chaparral Residential 4" Meter		224,000	$938.04	$1,259.08	$ 321.04	34.22%
33	F4RC - no active accounts.	Chaparral Residential 4" Meter		231,000	$958.76	$1,286.86	$ 328.10	34.22%
34	F4RC - no active accounts.	Chaparral Residential 4" Meter		238,000	$979.48	$1,314.63	$ 335.15	34.22%
35	F4RC - no active accounts.	Chaparral Residential 4" Meter		245,000	$1,000.20	$1,342.41	$ 342.21	34.21%
36	F4RC - no active accounts.	Chaparral Residential 4" Meter		252,000	$1,020.92	$1,370.18	$ 349.26	34.21%
37	F4RC - no active accounts.	Chaparral Residential 4" Meter		259,000	$1,041.64	$1,397.96	$ 356.32	34.21%
38	F4RC - no active accounts.	Chaparral Residential 4" Meter		266,000	$1,062.36	$1,425.73	$ 363.37	34.20%
39	F4RC - no active accounts.	Chaparral Residential 4" Meter		273,000	$1,083.08	$1,453.51	$ 370.43	34.20%
40	F4RC - no active accounts.	Chaparral Residential 4" Meter		280,000	$1,103.80	$1,481.28	$ 377.48	34.20%
41	F4RC - no active accounts.	Chaparral Residential 4" Meter		287,000	$1,124.52	$1,509.06	$ 384.54	34.20%
42	F4RC - no active accounts.	Chaparral Residential 4" Meter		294,000	$1,145.24	$1,536.83	$ 391.59	34.19%
43	F4RC - no active accounts.	Chaparral Residential 4" Meter		301,000	$1,165.96	$1,564.61	$ 398.65	34.19%
44	F4RC - no active accounts.	Chaparral Residential 4" Meter		308,000	$1,186.68	$1,592.38	$ 405.70	34.19%
45	F4RC - no active accounts.	Chaparral Residential 4" Meter		315,000	$1,207.40	$1,620.16	$ 412.76	34.19%
46	F4RC - no active accounts.	Chaparral Residential 4" Meter		322,000	$1,228.12	$1,647.93	$ 419.81	34.18%
47	F4RC - no active accounts.	Chaparral Residential 4" Meter		329,000	$1,248.84	$1,675.71	$ 426.87	34.18%
48	F4RC - no active accounts.	Chaparral Residential 4" Meter		336,000	$1,269.56	$1,703.48	$ 433.92	34.18%
49	F4RC - no active accounts.	Chaparral Residential 4" Meter		343,000	$1,290.28	$1,731.26	$ 440.98	34.18%
50	F4RC - no active accounts.	Chaparral Residential 4" Meter		350,000	$1,311.00	$1,759.03	$ 448.03	34.17%
51	F4RC - no active accounts.	Chaparral Residential 4" Meter		357,000	$1,336.27	$1,792.93	$ 456.66	34.17%
52	F4RC - no active accounts.	Chaparral Residential 4" Meter		364,000	$1,361.54	$1,826.83	$ 465.29	34.17%
53	F4RC - no active accounts.	Chaparral Residential 4" Meter		371,000	$1,386.81	$1,860.74	$ 473.93	34.17%
54	F4RC - no active accounts.	Chaparral Residential 4" Meter		378,000	$1,412.08	$1,894.64	$ 482.56	34.17%
55	F4RC - no active accounts.	Chaparral Residential 4" Meter		385,000	$1,437.35	$1,928.54	$ 491.19	34.17%
56								
57	F4RC - no active accounts.	Chaparral Residential 4" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F6RC - no active accounts	Chaparral Residential 6" Meter		25,000	$624.00	$839.77	$ 215.77	34.58%
2	F6RC - no active accounts	Chaparral Residential 6" Meter		50,000	$698.00	$938.97	$ 240.97	34.52%
3	F6RC - no active accounts	Chaparral Residential 6" Meter		75,000	$772.00	$1,038.16	$ 266.16	34.48%
4	F6RC - no active accounts	Chaparral Residential 6" Meter		100,000	$846.00	$1,137.36	$ 291.36	34.44%
5	F6RC - no active accounts	Chaparral Residential 6" Meter		125,000	$920.00	$1,236.56	$ 316.56	34.41%
6	F6RC - no active accounts	Chaparral Residential 6" Meter		150,000	$994.00	$1,335.75	$ 341.75	34.38%
7	F6RC - no active accounts	Chaparral Residential 6" Meter		175,000	$1,068.00	$1,434.95	$ 366.95	34.36%
8	F6RC - no active accounts	Chaparral Residential 6" Meter		200,000	$1,142.00	$1,534.14	$ 392.14	34.34%
9	F6RC - no active accounts	Chaparral Residential 6" Meter		225,000	$1,216.00	$1,633.34	$ 417.34	34.32%
10	F6RC - no active accounts	Chaparral Residential 6" Meter		250,000	$1,290.00	$1,732.54	$ 442.54	34.31%
11	F6RC - no active accounts	Chaparral Residential 6" Meter		275,000	$1,364.00	$1,831.73	$ 467.73	34.29%
12	F6RC - no active accounts	Chaparral Residential 6" Meter		300,000	$1,438.00	$1,930.93	$ 492.93	34.28%
13	F6RC - no active accounts	Chaparral Residential 6" Meter		325,000	$1,512.00	$2,030.12	$ 518.12	34.27%
14	F6RC - no active accounts	Chaparral Residential 6" Meter		350,000	$1,586.00	$2,129.32	$ 543.32	34.26%
15	F6RC - no active accounts	Chaparral Residential 6" Meter		375,000	$1,660.00	$2,228.52	$ 568.52	34.25%
16	F6RC - no active accounts	Chaparral Residential 6" Meter		400,000	$1,734.00	$2,327.71	$ 593.71	34.24%
17	F6RC - no active accounts	Chaparral Residential 6" Meter		425,000	$1,808.00	$2,426.91	$ 618.91	34.23%
18	F6RC - no active accounts	Chaparral Residential 6" Meter		450,000	$1,882.00	$2,526.10	$ 644.10	34.22%
19	F6RC - no active accounts	Chaparral Residential 6" Meter		475,000	$1,956.00	$2,625.30	$ 669.30	34.22%
20	F6RC - no active accounts	Chaparral Residential 6" Meter		500,000	$2,030.00	$2,724.50	$ 694.50	34.21%
21	F6RC - no active accounts	Chaparral Residential 6" Meter		525,000	$2,104.00	$2,823.69	$ 719.69	34.21%
22	F6RC - no active accounts	Chaparral Residential 6" Meter		550,000	$2,178.00	$2,922.89	$ 744.89	34.20%
23	F6RC - no active accounts	Chaparral Residential 6" Meter		575,000	$2,252.00	$3,022.08	$ 770.08	34.20%
24	F6RC - no active accounts	Chaparral Residential 6" Meter		600,000	$2,326.00	$3,121.28	$ 795.28	34.19%
25	F6RC - no active accounts	Chaparral Residential 6" Meter		625,000	$2,400.00	$3,220.48	$ 820.48	34.19%
26	F6RC - no active accounts	Chaparral Residential 6" Meter		650,000	$2,474.00	$3,319.67	$ 845.67	34.18%
27	F6RC - no active accounts	Chaparral Residential 6" Meter		675,000	$2,548.00	$3,418.87	$ 870.87	34.18%
28	F6RC - no active accounts	Chaparral Residential 6" Meter		700,000	$2,622.00	$3,518.06	$ 896.06	34.17%
29	F6RC - no active accounts	Chaparral Residential 6" Meter		725,000	$2,696.00	$3,617.26	$ 921.26	34.17%
30	F6RC - no active accounts	Chaparral Residential 6" Meter		725,000	$2,786.25	$3,738.34	$ 952.09	34.17%
31	F6RC - no active accounts	Chaparral Residential 6" Meter		750,000	$2,950.50	$3,958.61	$ 1,008.11	34.17%
32	F6RC - no active accounts	Chaparral Residential 6" Meter		775,000	$3,114.75	$4,178.88	$ 1,064.13	34.16%
33	F6RC - no active accounts	Chaparral Residential 6" Meter		800,000	$3,279.00	$4,399.15	$ 1,120.15	34.16%
34	F6RC - no active accounts	Chaparral Residential 6" Meter		825,000	$3,443.25	$4,619.43	$ 1,176.18	34.16%
35	F6RC - no active accounts	Chaparral Residential 6" Meter		850,000	$3,607.50	$4,839.70	$ 1,232.20	34.16%
36	F6RC - no active accounts	Chaparral Residential 6" Meter		875,000	$3,771.75	$5,059.97	$ 1,288.22	34.15%
37	F6RC - no active accounts	Chaparral Residential 6" Meter		900,000	$3,936.00	$5,280.24	$ 1,344.24	34.15%
38	F6RC - no active accounts	Chaparral Residential 6" Meter		925,000	$4,100.25	$5,500.52	$ 1,400.27	34.15%
39	F6RC - no active accounts	Chaparral Residential 6" Meter		950,000	$4,264.50	$5,720.79	$ 1,456.29	34.15%
40	F6RC - no active accounts	Chaparral Residential 6" Meter		975,000	$4,428.75	$5,941.06	$ 1,512.31	34.15%
41	F6RC - no active accounts	Chaparral Residential 6" Meter		1,000,000	$4,593.00	$6,161.33	$ 1,568.33	34.15%
42	F6RC - no active accounts	Chaparral Residential 6" Meter		1,025,000	$4,757.25	$6,381.61	$ 1,624.36	34.14%
43	F6RC - no active accounts	Chaparral Residential 6" Meter		1,050,000	$4,921.50	$6,601.88	$ 1,680.38	34.14%
44	F6RC - no active accounts	Chaparral Residential 6" Meter		1,075,000	$5,085.75	$6,822.15	$ 1,736.40	34.14%
45	F6RC - no active accounts	Chaparral Residential 6" Meter		1,100,000	$5,250.00	$7,042.43	$ 1,792.43	34.14%
46	F6RC - no active accounts	Chaparral Residential 6" Meter		1,125,000	$5,414.25	$7,262.70	$ 1,848.45	34.14%
47	F6RC - no active accounts	Chaparral Residential 6" Meter		1,150,000	$5,578.50	$7,482.97	$ 1,904.47	34.14%
48	F6RC - no active accounts	Chaparral Residential 6" Meter		1,175,000	$5,742.75	$7,703.24	$ 1,960.49	34.14%
49	F6RC - no active accounts	Chaparral Residential 6" Meter		1,200,000	$5,907.00	$7,923.52	$ 2,016.52	34.14%
50	F6RC - no active accounts	Chaparral Residential 6" Meter		1,225,000	$6,071.25	$8,143.79	$ 2,072.54	34.14%
51	F6RC - no active accounts	Chaparral Residential 6" Meter		1,250,000	$6,235.50	$8,364.06	$ 2,128.56	34.14%
52	F6RC - no active accounts	Chaparral Residential 6" Meter		1,275,000	$6,399.75	$8,584.33	$ 2,184.58	34.14%
53	F6RC - no active accounts	Chaparral Residential 6" Meter		1,300,000	$6,564.00	$8,804.61	$ 2,240.61	34.13%
54	F6RC - no active accounts	Chaparral Residential 6" Meter		1,325,000	$6,728.25	$9,024.88	$ 2,296.63	34.13%
55	F6RC - no active accounts	Chaparral Residential 6" Meter		1,350,000	$6,892.50	$9,245.15	$ 2,352.65	34.13%
56								
57	F6RC - no active accounts	Chaparral Residential 6" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Proposed Rates	Proposed Increase Amount	%
1	F8RC - no active accounts	Chaparral Residential 8" Meter		25,000	$954.00	$1,284.12	$ 330.12	34.60%
2	F8RC - no active accounts	Chaparral Residential 8" Meter		50,000	$1,028.00	$1,383.31	$ 355.31	34.56%
3	F8RC - no active accounts	Chaparral Residential 8" Meter		75,000	$1,102.00	$1,482.51	$ 380.51	34.53%
4	F8RC - no active accounts	Chaparral Residential 8" Meter		100,000	$1,176.00	$1,581.70	$ 405.70	34.50%
5	F8RC - no active accounts	Chaparral Residential 8" Meter		125,000	$1,250.00	$1,680.90	$ 430.90	34.47%
6	F8RC - no active accounts	Chaparral Residential 8" Meter		150,000	$1,324.00	$1,780.10	$ 456.10	34.45%
7	F8RC - no active accounts	Chaparral Residential 8" Meter		175,000	$1,398.00	$1,879.29	$ 481.29	34.43%
8	F8RC - no active accounts	Chaparral Residential 8" Meter		200,000	$1,472.00	$1,978.49	$ 506.49	34.41%
9	F8RC - no active accounts	Chaparral Residential 8" Meter		225,000	$1,546.00	$2,077.68	$ 531.68	34.39%
10	F8RC - no active accounts	Chaparral Residential 8" Meter		250,000	$1,620.00	$2,176.88	$ 556.88	34.38%
11	F8RC - no active accounts	Chaparral Residential 8" Meter		275,000	$1,694.00	$2,276.08	$ 582.08	34.36%
12	F8RC - no active accounts	Chaparral Residential 8" Meter		300,000	$1,768.00	$2,375.27	$ 607.27	34.35%
13	F8RC - no active accounts	Chaparral Residential 8" Meter		325,000	$1,842.00	$2,474.47	$ 632.47	34.34%
14	F8RC - no active accounts	Chaparral Residential 8" Meter		350,000	$1,916.00	$2,573.66	$ 657.66	34.32%
15	F8RC - no active accounts	Chaparral Residential 8" Meter		375,000	$1,990.00	$2,672.86	$ 682.86	34.31%
16	F8RC - no active accounts	Chaparral Residential 8" Meter		400,000	$2,064.00	$2,772.06	$ 708.06	34.31%
17	F8RC - no active accounts	Chaparral Residential 8" Meter		425,000	$2,138.00	$2,871.25	$ 733.25	34.30%
18	F8RC - no active accounts	Chaparral Residential 8" Meter		450,000	$2,212.00	$2,970.45	$ 758.45	34.29%
19	F8RC - no active accounts	Chaparral Residential 8" Meter		475,000	$2,286.00	$3,069.64	$ 783.64	34.28%
20	F8RC - no active accounts	Chaparral Residential 8" Meter		500,000	$2,360.00	$3,168.84	$ 808.84	34.27%
21	F8RC - no active accounts	Chaparral Residential 8" Meter		525,000	$2,434.00	$3,268.04	$ 834.04	34.27%
22	F8RC - no active accounts	Chaparral Residential 8" Meter		550,000	$2,508.00	$3,367.23	$ 859.23	34.26%
23	F8RC - no active accounts	Chaparral Residential 8" Meter		575,000	$2,582.00	$3,466.43	$ 884.43	34.25%
24	F8RC - no active accounts	Chaparral Residential 8" Meter		600,000	$2,656.00	$3,565.62	$ 909.62	34.25%
25	F8RC - no active accounts	Chaparral Residential 8" Meter		625,000	$2,730.00	$3,664.82	$ 934.82	34.24%
26	F8RC - no active accounts	Chaparral Residential 8" Meter		650,000	$2,804.00	$3,764.02	$ 960.02	34.24%
27	F8RC - no active accounts	Chaparral Residential 8" Meter		675,000	$2,878.00	$3,863.21	$ 985.21	34.23%
28	F8RC - no active accounts	Chaparral Residential 8" Meter		700,000	$2,952.00	$3,962.41	$ 1,010.41	34.23%
29	F8RC - no active accounts	Chaparral Residential 8" Meter		725,000	$3,026.00	$4,061.60	$ 1,035.60	34.22%
30	F8RC - no active accounts	Chaparral Residential 8" Meter		750,000	$3,100.00	$4,160.80	$ 1,060.80	34.22%
31	F8RC - no active accounts	Chaparral Residential 8" Meter		775,000	$3,174.00	$4,260.00	$ 1,086.00	34.22%
32	F8RC - no active accounts	Chaparral Residential 8" Meter		800,000	$3,248.00	$4,359.19	$ 1,111.19	34.21%
33	F8RC - no active accounts	Chaparral Residential 8" Meter		825,000	$3,322.00	$4,458.39	$ 1,136.39	34.21%
34	F8RC - no active accounts	Chaparral Residential 8" Meter		850,000	$3,396.00	$4,557.58	$ 1,161.58	34.20%
35	F8RC - no active accounts	Chaparral Residential 8" Meter		875,000	$3,470.00	$4,656.78	$ 1,186.78	34.20%
36	F8RC - no active accounts	Chaparral Residential 8" Meter		900,000	$3,544.00	$4,755.98	$ 1,211.98	34.20%
37	F8RC - no active accounts	Chaparral Residential 8" Meter		925,000	$3,618.00	$4,855.17	$ 1,237.17	34.19%
38	F8RC - no active accounts	Chaparral Residential 8" Meter		950,000	$3,692.00	$4,954.37	$ 1,262.37	34.19%
39	F8RC - no active accounts	Chaparral Residential 8" Meter		975,000	$3,766.00	$5,053.56	$ 1,287.56	34.19%
40	F8RC - no active accounts	Chaparral Residential 8" Meter		1,000,000	$3,840.00	$5,152.76	$ 1,312.76	34.19%
41	F8RC - no active accounts	Chaparral Residential 8" Meter		1,025,000	$3,914.00	$5,251.96	$ 1,337.96	34.18%
42	F8RC - no active accounts	Chaparral Residential 8" Meter		1,050,000	$3,988.00	$5,351.15	$ 1,363.15	34.18%
43	F8RC - no active accounts	Chaparral Residential 8" Meter		1,075,000	$4,062.00	$5,450.35	$ 1,388.35	34.18%
44	F8RC - no active accounts	Chaparral Residential 8" Meter		1,100,000	$4,136.00	$5,549.54	$ 1,413.54	34.18%
45	F8RC - no active accounts	Chaparral Residential 8" Meter		1,150,000	$4,300.25	$5,769.82	$ 1,469.57	34.17%
46	F8RC - no active accounts	Chaparral Residential 8" Meter		1,175,000	$4,390.50	$5,890.89	$ 1,500.39	34.17%
47	F8RC - no active accounts	Chaparral Residential 8" Meter		1,200,000	$4,480.75	$6,011.97	$ 1,531.22	34.17%
48	F8RC - no active accounts	Chaparral Residential 8" Meter		1,225,000	$4,571.00	$6,133.05	$ 1,562.05	34.17%
49	F8RC - no active accounts	Chaparral Residential 8" Meter		1,250,000	$4,661.25	$6,254.12	$ 1,592.87	34.17%
50	F8RC - no active accounts	Chaparral Residential 8" Meter		1,275,000	$4,751.50	$6,375.20	$ 1,623.70	34.17%
51	F8RC - no active accounts	Chaparral Residential 8" Meter		1,300,000	$4,841.75	$6,496.28	$ 1,654.53	34.17%
52	F8RC - no active accounts	Chaparral Residential 8" Meter		1,325,000	$4,932.00	$6,617.35	$ 1,685.35	34.17%
53	F8RC - no active accounts	Chaparral Residential 8" Meter		1,350,000	$5,022.25	$6,738.43	$ 1,716.18	34.17%
54	F8RC - no active accounts	Chaparral Residential 8" Meter		1,375,000	$5,112.50	$6,859.51	$ 1,747.01	34.17%
55	F8RC - no active accounts	Chaparral Residential 8" Meter		1,400,000	$5,202.75	$6,980.58	$ 1,777.83	34.17%
56								
57	F8RC - no active accounts	Chaparral Residential 8" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F10RC - no active accounts	Chaparral Residential 10" Meter		50,000	$1,413.00	$1,901.71	$ 488.71	34.59%
2	F10RC - no active accounts	Chaparral Residential 10" Meter		100,000	$1,561.00	$2,100.11	$ 539.11	34.54%
3	F10RC - no active accounts	Chaparral Residential 10" Meter		150,000	$1,709.00	$2,298.50	$ 589.50	34.49%
4	F10RC - no active accounts	Chaparral Residential 10" Meter		200,000	$1,857.00	$2,496.89	$ 639.89	34.46%
5	F10RC - no active accounts	Chaparral Residential 10" Meter		250,000	$2,005.00	$2,695.28	$ 690.28	34.43%
6	F10RC - no active accounts	Chaparral Residential 10" Meter		300,000	$2,153.00	$2,893.67	$ 740.67	34.40%
7	F10RC - no active accounts	Chaparral Residential 10" Meter		350,000	$2,301.00	$3,092.07	$ 791.07	34.38%
8	F10RC - no active accounts	Chaparral Residential 10" Meter		400,000	$2,449.00	$3,290.46	$ 841.46	34.36%
9	F10RC - no active accounts	Chaparral Residential 10" Meter		450,000	$2,597.00	$3,488.85	$ 891.85	34.34%
10	F10RC - no active accounts	Chaparral Residential 10" Meter		500,000	$2,745.00	$3,687.24	$ 942.24	34.33%
11	F10RC - no active accounts	Chaparral Residential 10" Meter		550,000	$2,893.00	$3,885.63	$ 992.63	34.31%
12	F10RC - no active accounts	Chaparral Residential 10" Meter		600,000	$3,041.00	$4,084.03	$ 1,043.03	34.30%
13	F10RC - no active accounts	Chaparral Residential 10" Meter		650,000	$3,189.00	$4,282.42	$ 1,093.42	34.29%
14	F10RC - no active accounts	Chaparral Residential 10" Meter		700,000	$3,337.00	$4,480.81	$ 1,143.81	34.28%
15	F10RC - no active accounts	Chaparral Residential 10" Meter		750,000	$3,485.00	$4,679.20	$ 1,194.20	34.27%
16	F10RC - no active accounts	Chaparral Residential 10" Meter		800,000	$3,633.00	$4,877.59	$ 1,244.59	34.26%
17	F10RC - no active accounts	Chaparral Residential 10" Meter		850,000	$3,781.00	$5,075.99	$ 1,294.99	34.25%
18	F10RC - no active accounts	Chaparral Residential 10" Meter		900,000	$3,929.00	$5,274.38	$ 1,345.38	34.24%
19	F10RC - no active accounts	Chaparral Residential 10" Meter		950,000	$4,077.00	$5,472.77	$ 1,395.77	34.24%
20	F10RC - no active accounts	Chaparral Residential 10" Meter		1,000,000	$4,225.00	$5,671.16	$ 1,446.16	34.23%
21	F10RC - no active accounts	Chaparral Residential 10" Meter		1,050,000	$4,373.00	$5,869.55	$ 1,496.55	34.22%
22	F10RC - no active accounts	Chaparral Residential 10" Meter		1,100,000	$4,521.00	$6,067.95	$ 1,546.95	34.22%
23	F10RC - no active accounts	Chaparral Residential 10" Meter		1,150,000	$4,669.00	$6,266.34	$ 1,597.34	34.21%
24	F10RC - no active accounts	Chaparral Residential 10" Meter		1,200,000	$4,817.00	$6,464.73	$ 1,647.73	34.21%
25	F10RC - no active accounts	Chaparral Residential 10" Meter		1,250,000	$4,965.00	$6,663.12	$ 1,698.12	34.20%
26	F10RC - no active accounts	Chaparral Residential 10" Meter		1,300,000	$5,113.00	$6,861.51	$ 1,748.51	34.20%
27	F10RC - no active accounts	Chaparral Residential 10" Meter		1,350,000	$5,261.00	$7,059.91	$ 1,798.91	34.19%
28	F10RC - no active accounts	Chaparral Residential 10" Meter		1,400,000	$5,409.00	$7,258.30	$ 1,849.30	34.19%
29	F10RC - no active accounts	Chaparral Residential 10" Meter		1,450,000	$5,557.00	$7,456.69	$ 1,899.69	34.19%
30	F10RC - no active accounts	Chaparral Residential 10" Meter		1,500,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
31	F10RC - no active accounts	Chaparral Residential 10" Meter		1,550,000	$5,885.50	$7,897.24	$ 2,011.74	34.18%
32	F10RC - no active accounts	Chaparral Residential 10" Meter		1,600,000	$6,066.00	$8,139.39	$ 2,073.39	34.18%
33	F10RC - no active accounts	Chaparral Residential 10" Meter		1,650,000	$6,246.50	$8,381.54	$ 2,135.04	34.18%
34	F10RC - no active accounts	Chaparral Residential 10" Meter		1,700,000	$6,427.00	$8,623.70	$ 2,196.70	34.18%
35	F10RC - no active accounts	Chaparral Residential 10" Meter		1,750,000	$6,607.50	$8,865.85	$ 2,258.35	34.18%
36	F10RC - no active accounts	Chaparral Residential 10" Meter		1,800,000	$6,788.00	$9,108.00	$ 2,320.00	34.18%
37	F10RC - no active accounts	Chaparral Residential 10" Meter		1,850,000	$6,968.50	$9,350.16	$ 2,381.66	34.18%
38	F10RC - no active accounts	Chaparral Residential 10" Meter		1,900,000	$7,149.00	$9,592.31	$ 2,443.31	34.18%
39	F10RC - no active accounts	Chaparral Residential 10" Meter		1,950,000	$7,329.50	$9,834.46	$ 2,504.96	34.18%
40	F10RC - no active accounts	Chaparral Residential 10" Meter		2,000,000	$7,510.00	$10,076.62	$ 2,566.62	34.18%
41	F10RC - no active accounts	Chaparral Residential 10" Meter		2,050,000	$7,690.50	$10,318.77	$ 2,628.27	34.18%
42	F10RC - no active accounts	Chaparral Residential 10" Meter		2,100,000	$7,871.00	$10,560.92	$ 2,689.92	34.18%
43	F10RC - no active accounts	Chaparral Residential 10" Meter		2,150,000	$8,051.50	$10,803.07	$ 2,751.57	34.17%
44	F10RC - no active accounts	Chaparral Residential 10" Meter		2,200,000	$8,232.00	$11,045.23	$ 2,813.23	34.17%
45	F10RC - no active accounts	Chaparral Residential 10" Meter		2,250,000	$8,412.50	$11,287.38	$ 2,874.88	34.17%
46	F10RC - no active accounts	Chaparral Residential 10" Meter		2,300,000	$8,593.00	$11,529.53	$ 2,936.53	34.17%
47	F10RC - no active accounts	Chaparral Residential 10" Meter		2,350,000	$8,773.50	$11,771.69	$ 2,998.19	34.17%
48	F10RC - no active accounts	Chaparral Residential 10" Meter		2,400,000	$8,954.00	$12,013.84	$ 3,059.84	34.17%
49	F10RC - no active accounts	Chaparral Residential 10" Meter		2,450,000	$9,134.50	$12,255.99	$ 3,121.49	34.17%
50	F10RC - no active accounts	Chaparral Residential 10" Meter		2,500,000	$9,315.00	$12,498.15	$ 3,183.15	34.17%
51	F10RC - no active accounts	Chaparral Residential 10" Meter		2,550,000	$9,495.50	$12,740.30	$ 3,244.80	34.17%
52	F10RC - no active accounts	Chaparral Residential 10" Meter		2,600,000	$9,676.00	$12,982.45	$ 3,306.45	34.17%
53	F10RC - no active accounts	Chaparral Residential 10" Meter		2,650,000	$9,856.50	$13,224.61	$ 3,368.11	34.17%
54	F10RC - no active accounts	Chaparral Residential 10" Meter		2,700,000	$10,037.00	$13,466.76	$ 3,429.76	34.17%
55	F10RC - no active accounts	Chaparral Residential 10" Meter		2,750,000	$10,217.50	$13,708.91	$ 3,491.41	34.17%
56								
57	F10RC - no active accounts	Chaparral Residential 10" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F12RC - no active accounts	Chaparral Residential 12" Meter		75,000	$2,587.00	$3,482.06	$ 895.06	34.60%
2	F12RC - no active accounts	Chaparral Residential 12" Meter		150,000	$2,809.00	$3,779.65	$ 970.65	34.55%
3	F12RC - no active accounts	Chaparral Residential 12" Meter		225,000	$3,031.00	$4,077.24	$ 1,046.24	34.52%
4	F12RC - no active accounts	Chaparral Residential 12" Meter		300,000	$3,253.00	$4,374.82	$ 1,121.82	34.49%
5	F12RC - no active accounts	Chaparral Residential 12" Meter		375,000	$3,475.00	$4,672.41	$ 1,197.41	34.46%
6	F12RC - no active accounts	Chaparral Residential 12" Meter		450,000	$3,697.00	$4,970.00	$ 1,273.00	34.43%
7	F12RC - no active accounts	Chaparral Residential 12" Meter		525,000	$3,919.00	$5,267.59	$ 1,348.59	34.41%
8	F12RC - no active accounts	Chaparral Residential 12" Meter		600,000	$4,141.00	$5,565.18	$ 1,424.18	34.39%
9	F12RC - no active accounts	Chaparral Residential 12" Meter		675,000	$4,363.00	$5,862.76	$ 1,499.76	34.37%
10	F12RC - no active accounts	Chaparral Residential 12" Meter		750,000	$4,585.00	$6,160.35	$ 1,575.35	34.36%
11	F12RC - no active accounts	Chaparral Residential 12" Meter		825,000	$4,807.00	$6,457.94	$ 1,650.94	34.34%
12	F12RC - no active accounts	Chaparral Residential 12" Meter		900,000	$5,029.00	$6,755.53	$ 1,726.53	34.33%
13	F12RC - no active accounts	Chaparral Residential 12" Meter		975,000	$5,251.00	$7,053.12	$ 1,802.12	34.32%
14	F12RC - no active accounts	Chaparral Residential 12" Meter		1,050,000	$5,473.00	$7,350.70	$ 1,877.70	34.31%
15	F12RC - no active accounts	Chaparral Residential 12" Meter		1,125,000	$5,695.00	$7,648.29	$ 1,953.29	34.30%
16	F12RC - no active accounts	Chaparral Residential 12" Meter		1,200,000	$5,917.00	$7,945.88	$ 2,028.88	34.29%
17	F12RC - no active accounts	Chaparral Residential 12" Meter		1,275,000	$6,139.00	$8,243.47	$ 2,104.47	34.28%
18	F12RC - no active accounts	Chaparral Residential 12" Meter		1,350,000	$6,361.00	$8,541.06	$ 2,180.06	34.27%
19	F12RC - no active accounts	Chaparral Residential 12" Meter		1,425,000	$6,583.00	$8,838.64	$ 2,255.64	34.26%
20	F12RC - no active accounts	Chaparral Residential 12" Meter		1,500,000	$6,805.00	$9,136.23	$ 2,331.23	34.26%
21	F12RC - no active accounts	Chaparral Residential 12" Meter		1,575,000	$7,027.00	$9,433.82	$ 2,406.82	34.25%
22	F12RC - no active accounts	Chaparral Residential 12" Meter		1,650,000	$7,249.00	$9,731.41	$ 2,482.41	34.24%
23	F12RC - no active accounts	Chaparral Residential 12" Meter		1,725,000	$7,471.00	$10,029.00	$ 2,558.00	34.24%
24	F12RC - no active accounts	Chaparral Residential 12" Meter		1,800,000	$7,693.00	$10,326.58	$ 2,633.58	34.23%
25	F12RC - no active accounts	Chaparral Residential 12" Meter		1,875,000	$7,915.00	$10,624.17	$ 2,709.17	34.23%
26	F12RC - no active accounts	Chaparral Residential 12" Meter		1,950,000	$8,137.00	$10,921.76	$ 2,784.76	34.22%
27	F12RC - no active accounts	Chaparral Residential 12" Meter		2,025,000	$8,359.00	$11,219.35	$ 2,860.35	34.22%
28	F12RC - no active accounts	Chaparral Residential 12" Meter		2,100,000	$8,581.00	$11,516.94	$ 2,935.94	34.21%
29	F12RC - no active accounts	Chaparral Residential 12" Meter		2,175,000	$8,803.00	$11,814.52	$ 3,011.52	34.21%
30	F12RC - no active accounts	Chaparral Residential 12" Meter		2,250,000	$9,025.00	$12,112.11	$ 3,087.11	34.21%
31	F12RC - no active accounts	Chaparral Residential 12" Meter		2,325,000	$9,295.75	$12,475.34	$ 3,179.59	34.20%
32	F12RC - no active accounts	Chaparral Residential 12" Meter		2,400,000	$9,566.50	$12,838.57	$ 3,272.07	34.20%
33	F12RC - no active accounts	Chaparral Residential 12" Meter		2,475,000	$9,837.25	$13,201.80	$ 3,364.55	34.20%
34	F12RC - no active accounts	Chaparral Residential 12" Meter		2,550,000	$10,108.00	$13,565.03	$ 3,457.03	34.20%
35	F12RC - no active accounts	Chaparral Residential 12" Meter		2,625,000	$10,378.75	$13,928.26	$ 3,549.51	34.20%
36	F12RC - no active accounts	Chaparral Residential 12" Meter		2,700,000	$10,649.50	$14,291.49	$ 3,641.99	34.20%
37	F12RC - no active accounts	Chaparral Residential 12" Meter		2,775,000	$10,920.25	$14,654.72	$ 3,734.47	34.20%
38	F12RC - no active accounts	Chaparral Residential 12" Meter		2,850,000	$11,191.00	$15,017.95	$ 3,826.95	34.20%
39	F12RC - no active accounts	Chaparral Residential 12" Meter		2,925,000	$11,461.75	$15,381.18	$ 3,919.43	34.20%
40	F12RC - no active accounts	Chaparral Residential 12" Meter		3,000,000	$11,732.50	$15,744.41	$ 4,011.91	34.19%
41	F12RC - no active accounts	Chaparral Residential 12" Meter		3,075,000	$12,003.25	$16,107.64	$ 4,104.39	34.19%
42	F12RC - no active accounts	Chaparral Residential 12" Meter		3,150,000	$12,274.00	$16,470.87	$ 4,196.87	34.19%
43	F12RC - no active accounts	Chaparral Residential 12" Meter		3,225,000	$12,544.75	$16,834.10	$ 4,289.35	34.19%
44	F12RC - no active accounts	Chaparral Residential 12" Meter		3,300,000	$12,815.50	$17,197.33	$ 4,381.83	34.19%
45	F12RC - no active accounts	Chaparral Residential 12" Meter		3,375,000	$13,086.25	$17,560.56	$ 4,474.31	34.19%
46	F12RC - no active accounts	Chaparral Residential 12" Meter		3,450,000	$13,357.00	$17,923.79	$ 4,566.79	34.19%
47	F12RC - no active accounts	Chaparral Residential 12" Meter		3,525,000	$13,627.75	$18,287.02	$ 4,659.27	34.19%
48	F12RC - no active accounts	Chaparral Residential 12" Meter		3,600,000	$13,898.50	$18,650.25	$ 4,751.75	34.19%
49	F12RC - no active accounts	Chaparral Residential 12" Meter		3,675,000	$14,169.25	$19,013.48	$ 4,844.23	34.19%
50	F12RC - no active accounts	Chaparral Residential 12" Meter		3,750,000	$14,440.00	$19,376.71	$ 4,936.71	34.19%
51	F12RC - no active accounts	Chaparral Residential 12" Meter		3,825,000	$14,710.75	$19,739.94	$ 5,029.19	34.19%
52	F12RC - no active accounts	Chaparral Residential 12" Meter		3,900,000	$14,981.50	$20,103.17	$ 5,121.67	34.19%
53	F12RC - no active accounts	Chaparral Residential 12" Meter		3,975,000	$15,252.25	$20,466.40	$ 5,214.15	34.19%
54	F12RC - no active accounts	Chaparral Residential 12" Meter		4,050,000	$15,523.00	$20,829.63	$ 5,306.63	34.19%
55	F12RC - no active accounts	Chaparral Residential 12" Meter		4,125,000	$15,793.75	$21,192.86	$ 5,399.11	34.19%
56								
57	F12RC - no active accounts	Chaparral Residential 12" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		1,000	$19.46	$26.19	$ 6.73	34.56%
2	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		2,000	$22.42	$30.15	$ 7.73	34.49%
3	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		3,000	$25.38	$34.12	$ 8.74	34.44%
4	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		4,000	$28.34	$38.09	$ 9.75	34.40%
5	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		5,000	$31.30	$42.06	$ 10.76	34.37%
6	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		6,000	$34.26	$46.02	$ 11.76	34.34%
7	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		7,000	$37.22	$49.99	$ 12.77	34.32%
8	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		8,000	$40.18	$53.96	$ 13.78	34.30%
9	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		9,000	$43.14	$57.93	$ 14.79	34.28%
10	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		10,000	$46.75	$62.77	$ 16.02	34.27%
11	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		11,000	$50.36	$67.61	$ 17.25	34.26%
12	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		12,000	$53.97	$72.46	$ 18.49	34.25%
13	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		13,000	$57.58	$77.30	$ 19.72	34.25%
14	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		14,000	$61.19	$82.14	$ 20.95	34.24%
15	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		15,000	$64.80	$86.99	$ 22.19	34.24%
16	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		16,000	$68.41	$91.83	$ 23.42	34.23%
17	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		17,000	$72.02	$96.67	$ 24.65	34.23%
18	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		18,000	$75.63	$101.52	$ 25.89	34.23%
19	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		19,000	$79.24	$106.36	$ 27.12	34.22%
20	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		20,000	$82.85	$111.20	$ 28.35	34.22%
21	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		21,000	$86.46	$116.04	$ 29.58	34.22%
22	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		22,000	$90.07	$120.89	$ 30.82	34.22%
23	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		23,000	$93.68	$125.73	$ 32.05	34.21%
24	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		24,000	$97.29	$130.57	$ 33.28	34.21%
25	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		25,000	$100.90	$135.42	$ 34.52	34.21%
26	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		26,000	$104.51	$140.26	$ 35.75	34.21%
27	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		27,000	$108.12	$145.10	$ 36.98	34.21%
28	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		28,000	$111.73	$149.95	$ 38.22	34.20%
29	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		29,000	$115.34	$154.79	$ 39.45	34.20%
30	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		30,000	$118.95	$159.63	$ 40.68	34.20%
31	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		31,000	$122.56	$164.48	$ 41.92	34.20%
32	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		32,000	$126.17	$169.32	$ 43.15	34.20%
33	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		33,000	$129.78	$174.16	$ 44.38	34.20%
34	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		34,000	$133.39	$179.00	$ 45.61	34.20%
35	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		35,000	$137.00	$183.85	$ 46.85	34.20%
36	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		36,000	$140.61	$188.69	$ 48.08	34.19%
37	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		37,000	$144.22	$193.53	$ 49.31	34.19%
38	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		38,000	$147.83	$198.38	$ 50.55	34.19%
39	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		39,000	$151.44	$203.22	$ 51.78	34.19%
40	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		40,000	$155.05	$208.06	$ 53.01	34.19%
41	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		41,000	$158.66	$212.91	$ 54.25	34.19%
42	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		42,000	$162.27	$217.75	$ 55.48	34.19%
43	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		43,000	$165.88	$222.59	$ 56.71	34.19%
44	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		44,000	$169.49	$227.44	$ 57.95	34.19%
45	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		45,000	$173.10	$232.28	$ 59.18	34.19%
46	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		46,000	$176.71	$237.12	$ 60.41	34.19%
47	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		47,000	$180.32	$241.96	$ 61.64	34.19%
48	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		48,000	$183.93	$246.81	$ 62.88	34.19%
49	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		49,000	$187.54	$251.65	$ 64.11	34.18%
50	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		50,000	$191.15	$256.49	$ 65.34	34.18%
51	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		51,000	$194.76	$261.34	$ 66.58	34.18%
52	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		52,000	$198.37	$266.18	$ 67.81	34.18%
53	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		53,000	$201.98	$271.02	$ 69.04	34.18%
54	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		54,000	$205.59	$275.87	$ 70.28	34.18%
55	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter		55,000	$209.20	$280.71	$ 71.51	34.18%
56								
57	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter	Average:	9,645	$45.47	$61.05	$ 15.58	34.27%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1CC and S1CC	Chaparral Commercial 1" Meter		5,000	$39.34	$52.90	$ 13.56	34.47%
2	F1CC and S1CC	Chaparral Commercial 1" Meter		10,000	$51.18	$68.77	$ 17.59	34.37%
3	F1CC and S1CC	Chaparral Commercial 1" Meter		15,000	$63.02	$84.64	$ 21.62	34.31%
4	F1CC and S1CC	Chaparral Commercial 1" Meter		20,000	$74.86	$100.51	$ 25.65	34.27%
5	F1CC and S1CC	Chaparral Commercial 1" Meter		25,000	$86.70	$116.39	$ 29.69	34.24%
6	F1CC and S1CC	Chaparral Commercial 1" Meter		30,000	$98.54	$132.26	$ 33.72	34.22%
7	F1CC and S1CC	Chaparral Commercial 1" Meter		35,000	$112.98	$151.63	$ 38.65	34.21%
8	F1CC and S1CC	Chaparral Commercial 1" Meter		40,000	$127.42	$171.00	$ 43.58	34.20%
9	F1CC and S1CC	Chaparral Commercial 1" Meter		45,000	$141.86	$190.37	$ 48.51	34.20%
10	F1CC and S1CC	Chaparral Commercial 1" Meter		50,000	$156.30	$209.75	$ 53.45	34.19%
11	F1CC and S1CC	Chaparral Commercial 1" Meter		55,000	$170.74	$229.12	$ 58.38	34.19%
12	F1CC and S1CC	Chaparral Commercial 1" Meter		60,000	$185.18	$248.49	$ 63.31	34.19%
13	F1CC and S1CC	Chaparral Commercial 1" Meter		65,000	$199.62	$267.86	$ 68.24	34.19%
14	F1CC and S1CC	Chaparral Commercial 1" Meter		70,000	$214.06	$287.23	$ 73.17	34.18%
15	F1CC and S1CC	Chaparral Commercial 1" Meter		75,000	$228.50	$306.61	$ 78.11	34.18%
16	F1CC and S1CC	Chaparral Commercial 1" Meter		80,000	$242.94	$325.98	$ 83.04	34.18%
17	F1CC and S1CC	Chaparral Commercial 1" Meter		85,000	$257.38	$345.35	$ 87.97	34.18%
18	F1CC and S1CC	Chaparral Commercial 1" Meter		90,000	$271.82	$364.72	$ 92.90	34.18%
19	F1CC and S1CC	Chaparral Commercial 1" Meter		95,000	$286.26	$384.10	$ 97.84	34.18%
20	F1CC and S1CC	Chaparral Commercial 1" Meter		100,000	$300.70	$403.47	$ 102.77	34.18%
21	F1CC and S1CC	Chaparral Commercial 1" Meter		105,000	$315.14	$422.84	$ 107.70	34.18%
22	F1CC and S1CC	Chaparral Commercial 1" Meter		110,000	$329.58	$442.21	$ 112.63	34.17%
23	F1CC and S1CC	Chaparral Commercial 1" Meter		115,000	$344.02	$461.59	$ 117.57	34.17%
24	F1CC and S1CC	Chaparral Commercial 1" Meter		120,000	$358.46	$480.96	$ 122.50	34.17%
25	F1CC and S1CC	Chaparral Commercial 1" Meter		125,000	$372.90	$500.33	$ 127.43	34.17%
26	F1CC and S1CC	Chaparral Commercial 1" Meter		130,000	$387.34	$519.70	$ 132.36	34.17%
27	F1CC and S1CC	Chaparral Commercial 1" Meter		135,000	$401.78	$539.07	$ 137.29	34.17%
28	F1CC and S1CC	Chaparral Commercial 1" Meter		140,000	$416.22	$558.45	$ 142.23	34.17%
29	F1CC and S1CC	Chaparral Commercial 1" Meter		145,000	$430.66	$577.82	$ 147.16	34.17%
30	F1CC and S1CC	Chaparral Commercial 1" Meter		150,000	$445.10	$597.19	$ 152.09	34.17%
31	F1CC and S1CC	Chaparral Commercial 1" Meter		155,000	$459.54	$616.56	$ 157.02	34.17%
32	F1CC and S1CC	Chaparral Commercial 1" Meter		160,000	$473.98	$635.94	$ 161.96	34.17%
33	F1CC and S1CC	Chaparral Commercial 1" Meter		165,000	$488.42	$655.31	$ 166.89	34.17%
34	F1CC and S1CC	Chaparral Commercial 1" Meter		170,000	$502.86	$674.68	$ 171.82	34.17%
35	F1CC and S1CC	Chaparral Commercial 1" Meter		175,000	$517.30	$694.05	$ 176.75	34.17%
36	F1CC and S1CC	Chaparral Commercial 1" Meter		180,000	$531.74	$713.42	$ 181.68	34.17%
37	F1CC and S1CC	Chaparral Commercial 1" Meter		185,000	$546.18	$732.80	$ 186.62	34.17%
38	F1CC and S1CC	Chaparral Commercial 1" Meter		190,000	$560.62	$752.17	$ 191.55	34.17%
39	F1CC and S1CC	Chaparral Commercial 1" Meter		195,000	$575.06	$771.54	$ 196.48	34.17%
40	F1CC and S1CC	Chaparral Commercial 1" Meter		200,000	$589.50	$790.91	$ 201.41	34.17%
41	F1CC and S1CC	Chaparral Commercial 1" Meter		205,000	$603.94	$810.29	$ 206.35	34.17%
42	F1CC and S1CC	Chaparral Commercial 1" Meter		210,000	$618.38	$829.66	$ 211.28	34.17%
43	F1CC and S1CC	Chaparral Commercial 1" Meter		215,000	$632.82	$849.03	$ 216.21	34.17%
44	F1CC and S1CC	Chaparral Commercial 1" Meter		220,000	$647.26	$868.40	$ 221.14	34.17%
45	F1CC and S1CC	Chaparral Commercial 1" Meter		225,000	$661.70	$887.78	$ 226.08	34.17%
46	F1CC and S1CC	Chaparral Commercial 1" Meter		230,000	$676.14	$907.15	$ 231.01	34.17%
47	F1CC and S1CC	Chaparral Commercial 1" Meter		235,000	$690.58	$926.52	$ 235.94	34.17%
48	F1CC and S1CC	Chaparral Commercial 1" Meter		240,000	$705.02	$945.89	$ 240.87	34.17%
49	F1CC and S1CC	Chaparral Commercial 1" Meter		245,000	$719.46	$965.26	$ 245.80	34.17%
50	F1CC and S1CC	Chaparral Commercial 1" Meter		250,000	$733.90	$984.64	$ 250.74	34.16%
51	F1CC and S1CC	Chaparral Commercial 1" Meter		255,000	$748.34	$1,004.01	$ 255.67	34.16%
52	F1CC and S1CC	Chaparral Commercial 1" Meter		260,000	$762.78	$1,023.38	$ 260.60	34.16%
53	F1CC and S1CC	Chaparral Commercial 1" Meter		265,000	$777.22	$1,042.75	$ 265.53	34.16%
54	F1CC and S1CC	Chaparral Commercial 1" Meter		270,000	$791.66	$1,062.13	$ 270.47	34.16%
55	F1CC and S1CC	Chaparral Commercial 1" Meter		275,000	$806.10	$1,081.50	$ 275.40	34.16%
56								
57	F1CC and S1CC	Chaparral Commercial 1" Meter	Average:	14,836	$71.41	$95.90	$ 24.48	34.28%
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		6,000	$72.76	$97.86	$ 25.10	34.50%
2	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		12,000	$90.52	$121.67	$ 31.15	34.41%
3	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		18,000	$108.28	$145.48	$ 37.20	34.35%
4	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		24,000	$126.04	$169.29	$ 43.25	34.31%
5	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		30,000	$143.80	$193.09	$ 49.29	34.28%
6	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		36,000	$161.56	$216.90	$ 55.34	34.25%
7	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		42,000	$179.32	$240.71	$ 61.39	34.23%
8	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		48,000	$197.08	$264.51	$ 67.43	34.22%
9	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		54,000	$214.84	$288.32	$ 73.48	34.20%
10	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		60,000	$232.60	$312.13	$ 79.53	34.19%
11	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		66,000	$254.26	$341.19	$ 86.93	34.19%
12	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		72,000	$275.92	$370.24	$ 94.32	34.19%
13	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		78,000	$297.58	$399.30	$ 101.72	34.18%
14	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		84,000	$319.24	$428.36	$ 109.12	34.18%
15	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		90,000	$340.90	$457.42	$ 116.52	34.18%
16	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		96,000	$362.56	$486.48	$ 123.92	34.18%
17	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		102,000	$384.22	$515.54	$ 131.32	34.18%
18	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		108,000	$405.88	$544.60	$ 138.72	34.18%
19	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		114,000	$427.54	$573.65	$ 146.11	34.18%
20	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		120,000	$449.20	$602.71	$ 153.51	34.17%
21	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		126,000	$470.86	$631.77	$ 160.91	34.17%
22	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		132,000	$492.52	$660.83	$ 168.31	34.17%
23	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		138,000	$514.18	$689.89	$ 175.71	34.17%
24	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		144,000	$535.84	$718.95	$ 183.11	34.17%
25	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		150,000	$557.50	$748.00	$ 190.50	34.17%
26	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		156,000	$579.16	$777.06	$ 197.90	34.17%
27	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		162,000	$600.82	$806.12	$ 205.30	34.17%
28	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		168,000	$622.48	$835.18	$ 212.70	34.17%
29	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		174,000	$644.14	$864.24	$ 220.10	34.17%
30	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		180,000	$665.80	$893.30	$ 227.50	34.17%
31	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		186,000	$687.46	$922.35	$ 234.89	34.17%
32	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		192,000	$709.12	$951.41	$ 242.29	34.17%
33	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		198,000	$730.78	$980.47	$ 249.69	34.17%
34	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		204,000	$752.44	$1,009.53	$ 257.09	34.17%
35	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		210,000	$774.10	$1,038.59	$ 264.49	34.17%
36	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		216,000	$795.76	$1,067.65	$ 271.89	34.17%
37	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		222,000	$817.42	$1,096.70	$ 279.28	34.17%
38	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		228,000	$839.08	$1,125.76	$ 286.68	34.17%
39	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		234,000	$860.74	$1,154.82	$ 294.08	34.17%
40	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		240,000	$882.40	$1,183.88	$ 301.48	34.17%
41	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		246,000	$904.06	$1,212.94	$ 308.88	34.17%
42	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		252,000	$925.72	$1,242.00	$ 316.28	34.17%
43	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		258,000	$947.38	$1,271.05	$ 323.67	34.17%
44	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		264,000	$969.04	$1,300.11	$ 331.07	34.17%
45	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		270,000	$990.70	$1,329.17	$ 338.47	34.16%
46	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		276,000	$1,012.36	$1,358.23	$ 345.87	34.16%
47	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		282,000	$1,034.02	$1,387.29	$ 353.27	34.16%
48	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		288,000	$1,055.68	$1,416.35	$ 360.67	34.16%
49	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		294,000	$1,077.34	$1,445.41	$ 368.07	34.16%
50	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		300,000	$1,099.00	$1,474.46	$ 375.46	34.16%
51	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		306,000	$1,120.66	$1,503.52	$ 382.86	34.16%
52	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		312,000	$1,142.32	$1,532.58	$ 390.26	34.16%
53	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		318,000	$1,163.98	$1,561.64	$ 397.66	34.16%
54	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		324,000	$1,185.64	$1,590.70	$ 405.06	34.16%
55	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter		330,000	$1,207.30	$1,619.76	$ 412.46	34.16%
56								
57	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter	Average:	36,607	$163.36	$219.31	$ 55.95	34.25%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F2CC AND S2CC	Chaparral Commercial 2" Meter		5,000	$102.80	$138.33	$ 35.53	34.56%
2	F2CC AND S2CC	Chaparral Commercial 2" Meter		10,000	$117.60	$158.17	$ 40.57	34.50%
3	F2CC AND S2CC	Chaparral Commercial 2" Meter		15,000	$132.40	$178.01	$ 45.61	34.45%
4	F2CC AND S2CC	Chaparral Commercial 2" Meter		20,000	$147.20	$197.85	$ 50.65	34.41%
5	F2CC AND S2CC	Chaparral Commercial 2" Meter		25,000	$162.00	$217.69	$ 55.69	34.38%
6	F2CC AND S2CC	Chaparral Commercial 2" Meter		30,000	$176.80	$237.53	$ 60.73	34.35%
7	F2CC AND S2CC	Chaparral Commercial 2" Meter		35,000	$191.60	$257.37	$ 65.77	34.32%
8	F2CC AND S2CC	Chaparral Commercial 2" Meter		40,000	$206.40	$277.21	$ 70.81	34.31%
9	F2CC AND S2CC	Chaparral Commercial 2" Meter		45,000	$221.20	$297.04	$ 75.84	34.29%
10	F2CC AND S2CC	Chaparral Commercial 2" Meter		50,000	$236.00	$316.88	$ 80.88	34.27%
11	F2CC AND S2CC	Chaparral Commercial 2" Meter		55,000	$250.80	$336.72	$ 85.92	34.26%
12	F2CC AND S2CC	Chaparral Commercial 2" Meter		60,000	$265.60	$356.56	$ 90.96	34.25%
13	F2CC AND S2CC	Chaparral Commercial 2" Meter		65,000	$280.40	$376.40	$ 96.00	34.24%
14	F2CC AND S2CC	Chaparral Commercial 2" Meter		70,000	$295.20	$396.24	$ 101.04	34.23%
15	F2CC AND S2CC	Chaparral Commercial 2" Meter		75,000	$310.00	$416.08	$ 106.08	34.22%
16	F2CC AND S2CC	Chaparral Commercial 2" Meter		80,000	$324.80	$435.92	$ 111.12	34.21%
17	F2CC AND S2CC	Chaparral Commercial 2" Meter		85,000	$339.60	$455.76	$ 116.16	34.20%
18	F2CC AND S2CC	Chaparral Commercial 2" Meter		90,000	$354.40	$475.60	$ 121.20	34.20%
19	F2CC AND S2CC	Chaparral Commercial 2" Meter		95,000	$369.20	$495.44	$ 126.24	34.19%
20	F2CC AND S2CC	Chaparral Commercial 2" Meter		100,000	$384.00	$515.28	$ 131.28	34.19%
21	F2CC AND S2CC	Chaparral Commercial 2" Meter		105,000	$402.05	$539.49	$ 137.44	34.19%
22	F2CC AND S2CC	Chaparral Commercial 2" Meter		110,000	$420.10	$563.71	$ 143.61	34.18%
23	F2CC AND S2CC	Chaparral Commercial 2" Meter		115,000	$438.15	$587.92	$ 149.77	34.18%
24	F2CC AND S2CC	Chaparral Commercial 2" Meter		120,000	$456.20	$612.14	$ 155.94	34.18%
25	F2CC AND S2CC	Chaparral Commercial 2" Meter		125,000	$474.25	$636.35	$ 162.10	34.18%
26	F2CC AND S2CC	Chaparral Commercial 2" Meter		130,000	$492.30	$660.57	$ 168.27	34.18%
27	F2CC AND S2CC	Chaparral Commercial 2" Meter		135,000	$510.35	$684.78	$ 174.43	34.18%
28	F2CC AND S2CC	Chaparral Commercial 2" Meter		140,000	$528.40	$709.00	$ 180.60	34.18%
29	F2CC AND S2CC	Chaparral Commercial 2" Meter		145,000	$546.45	$733.21	$ 186.76	34.18%
30	F2CC AND S2CC	Chaparral Commercial 2" Meter		150,000	$564.50	$757.43	$ 192.93	34.18%
31	F2CC AND S2CC	Chaparral Commercial 2" Meter		155,000	$582.55	$781.64	$ 199.09	34.18%
32	F2CC AND S2CC	Chaparral Commercial 2" Meter		160,000	$600.60	$805.86	$ 205.26	34.18%
33	F2CC AND S2CC	Chaparral Commercial 2" Meter		165,000	$618.65	$830.08	$ 211.43	34.18%
34	F2CC AND S2CC	Chaparral Commercial 2" Meter		170,000	$636.70	$854.29	$ 217.59	34.17%
35	F2CC AND S2CC	Chaparral Commercial 2" Meter		175,000	$654.75	$878.51	$ 223.76	34.17%
36	F2CC AND S2CC	Chaparral Commercial 2" Meter		180,000	$672.80	$902.72	$ 229.92	34.17%
37	F2CC AND S2CC	Chaparral Commercial 2" Meter		185,000	$690.85	$926.94	$ 236.09	34.17%
38	F2CC AND S2CC	Chaparral Commercial 2" Meter		190,000	$708.90	$951.15	$ 242.25	34.17%
39	F2CC AND S2CC	Chaparral Commercial 2" Meter		195,000	$726.95	$975.37	$ 248.42	34.17%
40	F2CC AND S2CC	Chaparral Commercial 2" Meter		200,000	$745.00	$999.58	$ 254.58	34.17%
41	F2CC AND S2CC	Chaparral Commercial 2" Meter		205,000	$763.05	$1,023.80	$ 260.75	34.17%
42	F2CC AND S2CC	Chaparral Commercial 2" Meter		210,000	$781.10	$1,048.01	$ 266.91	34.17%
43	F2CC AND S2CC	Chaparral Commercial 2" Meter		215,000	$799.15	$1,072.23	$ 273.08	34.17%
44	F2CC AND S2CC	Chaparral Commercial 2" Meter		220,000	$817.20	$1,096.44	$ 279.24	34.17%
45	F2CC AND S2CC	Chaparral Commercial 2" Meter		225,000	$835.25	$1,120.66	$ 285.41	34.17%
46	F2CC AND S2CC	Chaparral Commercial 2" Meter		230,000	$853.30	$1,144.87	$ 291.57	34.17%
47	F2CC AND S2CC	Chaparral Commercial 2" Meter		235,000	$871.35	$1,169.09	$ 297.74	34.17%
48	F2CC AND S2CC	Chaparral Commercial 2" Meter		240,000	$889.40	$1,193.31	$ 303.91	34.17%
49	F2CC AND S2CC	Chaparral Commercial 2" Meter		245,000	$907.45	$1,217.52	$ 310.07	34.17%
50	F2CC AND S2CC	Chaparral Commercial 2" Meter		250,000	$925.50	$1,241.74	$ 316.24	34.17%
51	F2CC AND S2CC	Chaparral Commercial 2" Meter		255,000	$943.55	$1,265.95	$ 322.40	34.17%
52	F2CC AND S2CC	Chaparral Commercial 2" Meter		260,000	$961.60	$1,290.17	$ 328.57	34.17%
53	F2CC AND S2CC	Chaparral Commercial 2" Meter		265,000	$979.65	$1,314.38	$ 334.73	34.17%
54	F2CC AND S2CC	Chaparral Commercial 2" Meter		270,000	$997.70	$1,338.60	$ 340.90	34.17%
55	F2CC AND S2CC	Chaparral Commercial 2" Meter		275,000	$1,015.75	$1,362.81	$ 347.06	34.17%
56								
57	F2CC AND S2CC	Chaparral Commercial 2" Meter	Average:	36,607	$196.36	$263.74	$ 67.39	34.32%
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F3CC	Chaparral Commercial 3" Meter		15000	$220.40	$296.50	$ 76.10	34.53%
2	F3CC	Chaparral Commercial 3" Meter		30000	$264.80	$356.02	$ 91.22	34.45%
3	F3CC	Chaparral Commercial 3" Meter		45000	$309.20	$415.54	$ 106.34	34.39%
4	F3CC	Chaparral Commercial 3" Meter		60000	$353.60	$475.05	$ 121.45	34.35%
5	F3CC	Chaparral Commercial 3" Meter		75000	$398.00	$534.57	$ 136.57	34.31%
6	F3CC	Chaparral Commercial 3" Meter		90000	$442.40	$594.09	$ 151.69	34.29%
7	F3CC	Chaparral Commercial 3" Meter		105000	$486.80	$653.61	$ 166.81	34.27%
8	F3CC	Chaparral Commercial 3" Meter		120000	$531.20	$713.12	$ 181.92	34.25%
9	F3CC	Chaparral Commercial 3" Meter		135000	$575.60	$772.64	$ 197.04	34.23%
10	F3CC	Chaparral Commercial 3" Meter		150000	$620.00	$832.16	$ 212.16	34.22%
11	F3CC	Chaparral Commercial 3" Meter		165000	$664.40	$891.68	$ 227.28	34.21%
12	F3CC	Chaparral Commercial 3" Meter		180000	$708.80	$951.20	$ 242.40	34.20%
13	F3CC	Chaparral Commercial 3" Meter		195000	$753.20	$1,010.71	$ 257.51	34.19%
14	F3CC	Chaparral Commercial 3" Meter		210000	$797.60	$1,070.23	$ 272.63	34.18%
15	F3CC	Chaparral Commercial 3" Meter		225000	$842.00	$1,129.75	$ 287.75	34.17%
16	F3CC	Chaparral Commercial 3" Meter		240000	$896.15	$1,202.39	$ 306.24	34.17%
17	F3CC	Chaparral Commercial 3" Meter		255000	$950.30	$1,275.04	$ 324.74	34.17%
18	F3CC	Chaparral Commercial 3" Meter		270000	$1,004.45	$1,347.69	$ 343.24	34.17%
19	F3CC	Chaparral Commercial 3" Meter		285000	$1,058.60	$1,420.33	$ 361.73	34.17%
20	F3CC	Chaparral Commercial 3" Meter		300000	$1,112.75	$1,492.98	$ 380.23	34.17%
21	F3CC	Chaparral Commercial 3" Meter		315000	$1,166.90	$1,565.62	$ 398.72	34.17%
22	F3CC	Chaparral Commercial 3" Meter		330000	$1,221.05	$1,638.27	$ 417.22	34.17%
23	F3CC	Chaparral Commercial 3" Meter		345000	$1,275.20	$1,710.92	$ 435.72	34.17%
24	F3CC	Chaparral Commercial 3" Meter		360000	$1,329.35	$1,783.56	$ 454.21	34.17%
25	F3CC	Chaparral Commercial 3" Meter		375000	$1,383.50	$1,856.21	$ 472.71	34.17%
26	F3CC	Chaparral Commercial 3" Meter		390000	$1,437.65	$1,928.85	$ 491.20	34.17%
27	F3CC	Chaparral Commercial 3" Meter		405000	$1,491.80	$2,001.50	$ 509.70	34.17%
28	F3CC	Chaparral Commercial 3" Meter		420000	$1,545.95	$2,074.15	$ 528.20	34.17%
29	F3CC	Chaparral Commercial 3" Meter		435000	$1,600.10	$2,146.79	$ 546.69	34.17%
30	F3CC	Chaparral Commercial 3" Meter		450000	$1,654.25	$2,219.44	$ 565.19	34.17%
31	F3CC	Chaparral Commercial 3" Meter		465000	$1,708.40	$2,292.08	$ 583.68	34.17%
32	F3CC	Chaparral Commercial 3" Meter		480000	$1,762.55	$2,364.73	$ 602.18	34.17%
33	F3CC	Chaparral Commercial 3" Meter		495000	$1,816.70	$2,437.38	$ 620.68	34.16%
34	F3CC	Chaparral Commercial 3" Meter		510000	$1,870.85	$2,510.02	$ 639.17	34.16%
35	F3CC	Chaparral Commercial 3" Meter		525000	$1,925.00	$2,582.67	$ 657.67	34.16%
36	F3CC	Chaparral Commercial 3" Meter		540000	$1,979.15	$2,655.31	$ 676.16	34.16%
37	F3CC	Chaparral Commercial 3" Meter		555000	$2,033.30	$2,727.96	$ 694.66	34.16%
38	F3CC	Chaparral Commercial 3" Meter		570000	$2,087.45	$2,800.61	$ 713.16	34.16%
39	F3CC	Chaparral Commercial 3" Meter		585000	$2,141.60	$2,873.25	$ 731.65	34.16%
40	F3CC	Chaparral Commercial 3" Meter		600000	$2,195.75	$2,945.90	$ 750.15	34.16%
41	F3CC	Chaparral Commercial 3" Meter		615000	$2,249.90	$3,018.54	$ 768.64	34.16%
42	F3CC	Chaparral Commercial 3" Meter		630000	$2,304.05	$3,091.19	$ 787.14	34.16%
43	F3CC	Chaparral Commercial 3" Meter		645000	$2,358.20	$3,163.84	$ 805.64	34.16%
44	F3CC	Chaparral Commercial 3" Meter		660000	$2,412.35	$3,236.48	$ 824.13	34.16%
45	F3CC	Chaparral Commercial 3" Meter		675000	$2,466.50	$3,309.13	$ 842.63	34.16%
46	F3CC	Chaparral Commercial 3" Meter		690000	$2,520.65	$3,381.77	$ 861.12	34.16%
47	F3CC	Chaparral Commercial 3" Meter		705000	$2,574.80	$3,454.42	$ 879.62	34.16%
48	F3CC	Chaparral Commercial 3" Meter		720000	$2,628.95	$3,527.07	$ 898.12	34.16%
49	F3CC	Chaparral Commercial 3" Meter		735000	$2,683.10	$3,599.71	$ 916.61	34.16%
50	F3CC	Chaparral Commercial 3" Meter		750000	$2,737.25	$3,672.36	$ 935.11	34.16%
51	F3CC	Chaparral Commercial 3" Meter		765000	$2,791.40	$3,745.00	$ 953.60	34.16%
52	F3CC	Chaparral Commercial 3" Meter		780000	$2,845.55	$3,817.65	$ 972.10	34.16%
53	F3CC	Chaparral Commercial 3" Meter		795000	$2,899.70	$3,890.30	$ 990.60	34.16%
54	F3CC	Chaparral Commercial 3" Meter		810000	$2,953.85	$3,962.94	$ 1,009.09	34.16%
55	F3CC	Chaparral Commercial 3" Meter		825000	$3,008.00	$4,035.59	$ 1,027.59	34.16%
56								
57	F3CC	Chaparral Commercial 3" Meter	Average:	73,585	$393.81	$528.96	$ 135.15	34.32%
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Schedule H-4 Rebuttal
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F4C, S4C	Chaparral Commercial 4" Meter		7,000	$295.72	$398.06	$ 102.34	34.61%
2	F4C, S4C	Chaparral Commercial 4" Meter		14,000	$316.44	$425.84	$ 109.40	34.57%
3	F4C, S4C	Chaparral Commercial 4" Meter		21,000	$337.16	$453.61	$ 116.45	34.54%
4	F4C, S4C	Chaparral Commercial 4" Meter		28,000	$357.88	$481.39	$ 123.51	34.51%
5	F4C, S4C	Chaparral Commercial 4" Meter		35,000	$378.60	$509.16	$ 130.56	34.49%
6	F4C, S4C	Chaparral Commercial 4" Meter		42,000	$399.32	$536.94	$ 137.62	34.46%
7	F4C, S4C	Chaparral Commercial 4" Meter		49,000	$420.04	$564.71	$ 144.67	34.44%
8	F4C, S4C	Chaparral Commercial 4" Meter		56,000	$440.76	$592.49	$ 151.73	34.42%
9	F4C, S4C	Chaparral Commercial 4" Meter		63,000	$461.48	$620.26	$ 158.78	34.41%
10	F4C, S4C	Chaparral Commercial 4" Meter		70,000	$482.20	$648.04	$ 165.84	34.39%
11	F4C, S4C	Chaparral Commercial 4" Meter		77,000	$502.92	$675.81	$ 172.89	34.38%
12	F4C, S4C	Chaparral Commercial 4" Meter		84,000	$523.64	$703.59	$ 179.95	34.36%
13	F4C, S4C	Chaparral Commercial 4" Meter		91,000	$544.36	$731.36	$ 187.00	34.35%
14	F4C, S4C	Chaparral Commercial 4" Meter		98,000	$565.08	$759.14	$ 194.06	34.34%
15	F4C, S4C	Chaparral Commercial 4" Meter		105,000	$585.80	$786.91	$ 201.11	34.33%
16	F4C, S4C	Chaparral Commercial 4" Meter		112,000	$606.52	$814.69	$ 208.17	34.32%
17	F4C, S4C	Chaparral Commercial 4" Meter		119,000	$627.24	$842.46	$ 215.22	34.31%
18	F4C, S4C	Chaparral Commercial 4" Meter		126,000	$647.96	$870.24	$ 222.28	34.30%
19	F4C, S4C	Chaparral Commercial 4" Meter		133,000	$668.68	$898.01	$ 229.33	34.30%
20	F4C, S4C	Chaparral Commercial 4" Meter		140,000	$689.40	$925.79	$ 236.39	34.29%
21	F4C, S4C	Chaparral Commercial 4" Meter		147,000	$710.12	$953.56	$ 243.44	34.28%
22	F4C, S4C	Chaparral Commercial 4" Meter		154,000	$730.84	$981.33	$ 250.49	34.27%
23	F4C, S4C	Chaparral Commercial 4" Meter		161,000	$751.56	$1,009.11	$ 257.55	34.27%
24	F4C, S4C	Chaparral Commercial 4" Meter		168,000	$772.28	$1,036.88	$ 264.60	34.26%
25	F4C, S4C	Chaparral Commercial 4" Meter		175,000	$793.00	$1,064.66	$ 271.66	34.26%
26	F4C, S4C	Chaparral Commercial 4" Meter		182,000	$813.72	$1,092.43	$ 278.71	34.25%
27	F4C, S4C	Chaparral Commercial 4" Meter		189,000	$834.44	$1,120.21	$ 285.77	34.25%
28	F4C, S4C	Chaparral Commercial 4" Meter		196,000	$855.16	$1,147.98	$ 292.82	34.24%
29	F4C, S4C	Chaparral Commercial 4" Meter		203,000	$875.88	$1,175.76	$ 299.88	34.24%
30	F4C, S4C	Chaparral Commercial 4" Meter		210,000	$896.60	$1,203.53	$ 306.93	34.23%
31	F4C, S4C	Chaparral Commercial 4" Meter		217,000	$917.32	$1,231.31	$ 313.99	34.23%
32	F4C, S4C	Chaparral Commercial 4" Meter		224,000	$938.04	$1,259.08	$ 321.04	34.22%
33	F4C, S4C	Chaparral Commercial 4" Meter		231,000	$958.76	$1,286.86	$ 328.10	34.22%
34	F4C, S4C	Chaparral Commercial 4" Meter		238,000	$979.48	$1,314.63	$ 335.15	34.22%
35	F4C, S4C	Chaparral Commercial 4" Meter		245,000	$1,000.20	$1,342.41	$ 342.21	34.21%
36	F4C, S4C	Chaparral Commercial 4" Meter		252,000	$1,020.92	$1,370.18	$ 349.26	34.21%
37	F4C, S4C	Chaparral Commercial 4" Meter		259,000	$1,041.64	$1,397.96	$ 356.32	34.21%
38	F4C, S4C	Chaparral Commercial 4" Meter		266,000	$1,062.36	$1,425.73	$ 363.37	34.20%
39	F4C, S4C	Chaparral Commercial 4" Meter		273,000	$1,083.08	$1,453.51	$ 370.43	34.20%
40	F4C, S4C	Chaparral Commercial 4" Meter		280,000	$1,103.80	$1,481.28	$ 377.48	34.20%
41	F4C, S4C	Chaparral Commercial 4" Meter		287,000	$1,124.52	$1,509.06	$ 384.54	34.20%
42	F4C, S4C	Chaparral Commercial 4" Meter		294,000	$1,145.24	$1,536.83	$ 391.59	34.19%
43	F4C, S4C	Chaparral Commercial 4" Meter		301,000	$1,165.96	$1,564.61	$ 398.65	34.19%
44	F4C, S4C	Chaparral Commercial 4" Meter		308,000	$1,186.68	$1,592.38	$ 405.70	34.19%
45	F4C, S4C	Chaparral Commercial 4" Meter		315,000	$1,207.40	$1,620.16	$ 412.76	34.19%
46	F4C, S4C	Chaparral Commercial 4" Meter		322,000	$1,228.12	$1,647.93	$ 419.81	34.18%
47	F4C, S4C	Chaparral Commercial 4" Meter		329,000	$1,248.84	$1,675.71	$ 426.87	34.18%
48	F4C, S4C	Chaparral Commercial 4" Meter		336,000	$1,269.56	$1,703.48	$ 433.92	34.18%
49	F4C, S4C	Chaparral Commercial 4" Meter		343,000	$1,290.28	$1,731.26	$ 440.98	34.18%
50	F4C, S4C	Chaparral Commercial 4" Meter		350,000	$1,311.00	$1,759.03	$ 448.03	34.17%
51	F4C, S4C	Chaparral Commercial 4" Meter		357,000	$1,336.27	$1,792.93	$ 456.66	34.17%
52	F4C, S4C	Chaparral Commercial 4" Meter		364,000	$1,361.54	$1,826.83	$ 465.29	34.17%
53	F4C, S4C	Chaparral Commercial 4" Meter		371,000	$1,386.81	$1,860.74	$ 473.93	34.17%
54	F4C, S4C	Chaparral Commercial 4" Meter		378,000	$1,412.08	$1,894.64	$ 482.56	34.17%
55	F4C, S4C	Chaparral Commercial 4" Meter		385,000	$1,437.35	$1,928.54	$ 491.19	34.17%
56								
57	F4C, S4C	Chaparral Commercial 4" Meter	Average:	188,750	$833.70	$1,119.22	$ 285.52	34.25%
58								
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F6C,S6C	Chaparral Commercial 6" Meter		25,000	$624.00	$839.77	$ 215.77	34.58%
2	F6C,S6C	Chaparral Commercial 6" Meter		50,000	$698.00	$938.97	$ 240.97	34.52%
3	F6C,S6C	Chaparral Commercial 6" Meter		75,000	$772.00	$1,038.16	$ 266.16	34.48%
4	F6C,S6C	Chaparral Commercial 6" Meter		100,000	$846.00	$1,137.36	$ 291.36	34.44%
5	F6C,S6C	Chaparral Commercial 6" Meter		125,000	$920.00	$1,236.56	$ 316.56	34.41%
6	F6C,S6C	Chaparral Commercial 6" Meter		150,000	$994.00	$1,335.75	$ 341.75	34.38%
7	F6C,S6C	Chaparral Commercial 6" Meter		175,000	$1,068.00	$1,434.95	$ 366.95	34.36%
8	F6C,S6C	Chaparral Commercial 6" Meter		200,000	$1,142.00	$1,534.14	$ 392.14	34.34%
9	F6C,S6C	Chaparral Commercial 6" Meter		225,000	$1,216.00	$1,633.34	$ 417.34	34.32%
10	F6C,S6C	Chaparral Commercial 6" Meter		250,000	$1,290.00	$1,732.54	$ 442.54	34.31%
11	F6C,S6C	Chaparral Commercial 6" Meter		275,000	$1,364.00	$1,831.73	$ 467.73	34.29%
12	F6C,S6C	Chaparral Commercial 6" Meter		300,000	$1,438.00	$1,930.93	$ 492.93	34.28%
13	F6C,S6C	Chaparral Commercial 6" Meter		325,000	$1,512.00	$2,030.12	$ 518.12	34.27%
14	F6C,S6C	Chaparral Commercial 6" Meter		350,000	$1,586.00	$2,129.32	$ 543.32	34.26%
15	F6C,S6C	Chaparral Commercial 6" Meter		375,000	$1,660.00	$2,228.52	$ 568.52	34.25%
16	F6C,S6C	Chaparral Commercial 6" Meter		400,000	$1,734.00	$2,327.71	$ 593.71	34.24%
17	F6C,S6C	Chaparral Commercial 6" Meter		425,000	$1,808.00	$2,426.91	$ 618.91	34.23%
18	F6C,S6C	Chaparral Commercial 6" Meter		450,000	$1,882.00	$2,526.10	$ 644.10	34.22%
19	F6C,S6C	Chaparral Commercial 6" Meter		475,000	$1,956.00	$2,625.30	$ 669.30	34.22%
20	F6C,S6C	Chaparral Commercial 6" Meter		500,000	$2,030.00	$2,724.50	$ 694.50	34.21%
21	F6C,S6C	Chaparral Commercial 6" Meter		525,000	$2,104.00	$2,823.69	$ 719.69	34.21%
22	F6C,S6C	Chaparral Commercial 6" Meter		550,000	$2,178.00	$2,922.89	$ 744.89	34.20%
23	F6C,S6C	Chaparral Commercial 6" Meter		575,000	$2,252.00	$3,022.08	$ 770.08	34.20%
24	F6C,S6C	Chaparral Commercial 6" Meter		600,000	$2,326.00	$3,121.28	$ 795.28	34.19%
25	F6C,S6C	Chaparral Commercial 6" Meter		625,000	$2,400.00	$3,220.48	$ 820.48	34.19%
26	F6C,S6C	Chaparral Commercial 6" Meter		650,000	$2,474.00	$3,319.67	$ 845.67	34.18%
27	F6C,S6C	Chaparral Commercial 6" Meter		675,000	$2,548.00	$3,418.87	$ 870.87	34.18%
28	F6C,S6C	Chaparral Commercial 6" Meter		700,000	$2,622.00	$3,518.06	$ 896.06	34.17%
29	F6C,S6C	Chaparral Commercial 6" Meter		725,000	$2,696.00	$3,617.26	$ 921.26	34.17%
30	F6C,S6C	Chaparral Commercial 6" Meter		725,000	$2,786.25	$3,738.34	$ 952.09	34.17%
31	F6C,S6C	Chaparral Commercial 6" Meter		750,000	$2,950.50	$3,958.61	$ 1,008.11	34.17%
32	F6C,S6C	Chaparral Commercial 6" Meter		775,000	$3,114.75	$4,178.88	$ 1,064.13	34.16%
33	F6C,S6C	Chaparral Commercial 6" Meter		800,000	$3,279.00	$4,399.15	$ 1,120.15	34.16%
34	F6C,S6C	Chaparral Commercial 6" Meter		825,000	$3,443.25	$4,619.43	$ 1,176.18	34.16%
35	F6C,S6C	Chaparral Commercial 6" Meter		850,000	$3,607.50	$4,839.70	$ 1,232.20	34.16%
36	F6C,S6C	Chaparral Commercial 6" Meter		875,000	$3,771.75	$5,059.97	$ 1,288.22	34.15%
37	F6C,S6C	Chaparral Commercial 6" Meter		900,000	$3,936.00	$5,280.24	$ 1,344.24	34.15%
38	F6C,S6C	Chaparral Commercial 6" Meter		925,000	$4,100.25	$5,500.52	$ 1,400.27	34.15%
39	F6C,S6C	Chaparral Commercial 6" Meter		950,000	$4,264.50	$5,720.79	$ 1,456.29	34.15%
40	F6C,S6C	Chaparral Commercial 6" Meter		975,000	$4,428.75	$5,941.06	$ 1,512.31	34.15%
41	F6C,S6C	Chaparral Commercial 6" Meter		1,000,000	$4,593.00	$6,161.33	$ 1,568.33	34.15%
42	F6C,S6C	Chaparral Commercial 6" Meter		1,025,000	$4,757.25	$6,381.61	$ 1,624.36	34.14%
43	F6C,S6C	Chaparral Commercial 6" Meter		1,050,000	$4,921.50	$6,601.88	$ 1,680.38	34.14%
44	F6C,S6C	Chaparral Commercial 6" Meter		1,075,000	$5,085.75	$6,822.15	$ 1,736.40	34.14%
45	F6C,S6C	Chaparral Commercial 6" Meter		1,100,000	$5,250.00	$7,042.43	$ 1,792.43	34.14%
46	F6C,S6C	Chaparral Commercial 6" Meter		1,125,000	$5,414.25	$7,262.70	$ 1,848.45	34.14%
47	F6C,S6C	Chaparral Commercial 6" Meter		1,150,000	$5,578.50	$7,482.97	$ 1,904.47	34.14%
48	F6C,S6C	Chaparral Commercial 6" Meter		1,175,000	$5,742.75	$7,703.24	$ 1,960.49	34.14%
49	F6C,S6C	Chaparral Commercial 6" Meter		1,200,000	$5,907.00	$7,923.52	$ 2,016.52	34.14%
50	F6C,S6C	Chaparral Commercial 6" Meter		1,225,000	$6,071.25	$8,143.79	$ 2,072.54	34.14%
51	F6C,S6C	Chaparral Commercial 6" Meter		1,250,000	$6,235.50	$8,364.06	$ 2,128.56	34.14%
52	F6C,S6C	Chaparral Commercial 6" Meter		1,275,000	$6,399.75	$8,584.33	$ 2,184.58	34.14%
53	F6C,S6C	Chaparral Commercial 6" Meter		1,300,000	$6,564.00	$8,804.61	$ 2,240.61	34.13%
54	F6C,S6C	Chaparral Commercial 6" Meter		1,325,000	$6,728.25	$9,024.88	$ 2,296.63	34.13%
55	F6C,S6C	Chaparral Commercial 6" Meter		1,350,000	$6,892.50	$9,245.15	$ 2,352.65	34.13%
56								
57	F6C,S6C	Chaparral Commercial 6" Meter	Average:	360,667	$1,617.57	$2,171.64	$ 554.07	34.25%
58								
59								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		25,000	$954.00	$1,284.12	$ 330.12	34.60%
2	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		50,000	$1,028.00	$1,383.31	$ 355.31	34.56%
3	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		75,000	$1,102.00	$1,482.51	$ 380.51	34.53%
4	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		100,000	$1,176.00	$1,581.70	$ 405.70	34.50%
5	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		125,000	$1,250.00	$1,680.90	$ 430.90	34.47%
6	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		150,000	$1,324.00	$1,780.10	$ 456.10	34.45%
7	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		175,000	$1,398.00	$1,879.29	$ 481.29	34.43%
8	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		200,000	$1,472.00	$1,978.49	$ 506.49	34.41%
9	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		225,000	$1,546.00	$2,077.68	$ 531.68	34.39%
10	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		250,000	$1,620.00	$2,176.88	$ 556.88	34.38%
11	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		275,000	$1,694.00	$2,276.08	$ 582.08	34.36%
12	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		300,000	$1,768.00	$2,375.27	$ 607.27	34.35%
13	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		325,000	$1,842.00	$2,474.47	$ 632.47	34.34%
14	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		350,000	$1,916.00	$2,573.66	$ 657.66	34.32%
15	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		375,000	$1,990.00	$2,672.86	$ 682.86	34.31%
16	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		400,000	$2,064.00	$2,772.06	$ 708.06	34.31%
17	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		425,000	$2,138.00	$2,871.25	$ 733.25	34.30%
18	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		450,000	$2,212.00	$2,970.45	$ 758.45	34.29%
19	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		475,000	$2,286.00	$3,069.64	$ 783.64	34.28%
20	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		500,000	$2,360.00	$3,168.84	$ 808.84	34.27%
21	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		525,000	$2,434.00	$3,268.04	$ 834.04	34.27%
22	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		550,000	$2,508.00	$3,367.23	$ 859.23	34.26%
23	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		575,000	$2,582.00	$3,466.43	$ 884.43	34.25%
24	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		600,000	$2,656.00	$3,565.62	$ 909.62	34.25%
25	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		625,000	$2,730.00	$3,664.82	$ 934.82	34.24%
26	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		650,000	$2,804.00	$3,764.02	$ 960.02	34.24%
27	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		675,000	$2,878.00	$3,863.21	$ 985.21	34.23%
28	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		700,000	$2,952.00	$3,962.41	$ 1,010.41	34.23%
29	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		725,000	$3,026.00	$4,061.60	$ 1,035.60	34.22%
30	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		750,000	$3,100.00	$4,160.80	$ 1,060.80	34.22%
31	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		775,000	$3,174.00	$4,260.00	$ 1,086.00	34.22%
32	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		800,000	$3,248.00	$4,359.19	$ 1,111.19	34.21%
33	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		825,000	$3,322.00	$4,458.39	$ 1,136.39	34.21%
34	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		850,000	$3,396.00	$4,557.58	$ 1,161.58	34.20%
35	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		875,000	$3,470.00	$4,656.78	$ 1,186.78	34.20%
36	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		900,000	$3,544.00	$4,755.98	$ 1,211.98	34.20%
37	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		925,000	$3,618.00	$4,855.17	$ 1,237.17	34.19%
38	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		950,000	$3,692.00	$4,954.37	$ 1,262.37	34.19%
39	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		975,000	$3,766.00	$5,053.56	$ 1,287.56	34.19%
40	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,000,000	$3,840.00	$5,152.76	$ 1,312.76	34.19%
41	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,025,000	$3,914.00	$5,251.96	$ 1,337.96	34.18%
42	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,050,000	$3,988.00	$5,351.15	$ 1,363.15	34.18%
43	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,075,000	$4,062.00	$5,450.35	$ 1,388.35	34.18%
44	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,100,000	$4,136.00	$5,549.54	$ 1,413.54	34.18%
45	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,150,000	$4,300.25	$5,769.82	$ 1,469.57	34.17%
46	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,175,000	$4,390.50	$5,890.89	$ 1,500.39	34.17%
47	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,200,000	$4,480.75	$6,011.97	$ 1,531.22	34.17%
48	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,225,000	$4,571.00	$6,133.05	$ 1,562.05	34.17%
49	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,250,000	$4,661.25	$6,254.12	$ 1,592.87	34.17%
50	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,275,000	$4,751.50	$6,375.20	$ 1,623.70	34.17%
51	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,300,000	$4,841.75	$6,496.28	$ 1,654.53	34.17%
52	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,325,000	$4,932.00	$6,617.35	$ 1,685.35	34.17%
53	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,350,000	$5,022.25	$6,738.43	$ 1,716.18	34.17%
54	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,375,000	$5,112.50	$6,859.51	$ 1,747.01	34.17%
55	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter		1,400,000	$5,202.75	$6,980.58	$ 1,777.83	34.17%
56								
57	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		50,000	$1,413.00	$1,901.71	$ 488.71	34.59%
2	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		100,000	$1,561.00	$2,100.11	$ 539.11	34.54%
3	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		150,000	$1,709.00	$2,298.50	$ 589.50	34.49%
4	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		200,000	$1,857.00	$2,496.89	$ 639.89	34.46%
5	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		250,000	$2,005.00	$2,695.28	$ 690.28	34.43%
6	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		300,000	$2,153.00	$2,893.67	$ 740.67	34.40%
7	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		350,000	$2,301.00	$3,092.07	$ 791.07	34.38%
8	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		400,000	$2,449.00	$3,290.46	$ 841.46	34.36%
9	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		450,000	$2,597.00	$3,488.85	$ 891.85	34.34%
10	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		500,000	$2,745.00	$3,687.24	$ 942.24	34.33%
11	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		550,000	$2,893.00	$3,885.63	$ 992.63	34.31%
12	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		600,000	$3,041.00	$4,084.03	$ 1,043.03	34.30%
13	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		650,000	$3,189.00	$4,282.42	$ 1,093.42	34.29%
14	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		700,000	$3,337.00	$4,480.81	$ 1,143.81	34.28%
15	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		750,000	$3,485.00	$4,679.20	$ 1,194.20	34.27%
16	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		800,000	$3,633.00	$4,877.59	$ 1,244.59	34.26%
17	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		850,000	$3,781.00	$5,075.99	$ 1,294.99	34.25%
18	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		900,000	$3,929.00	$5,274.38	$ 1,345.38	34.24%
19	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		950,000	$4,077.00	$5,472.77	$ 1,395.77	34.24%
20	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,000,000	$4,225.00	$5,671.16	$ 1,446.16	34.23%
21	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,050,000	$4,373.00	$5,869.55	$ 1,496.55	34.22%
22	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,100,000	$4,521.00	$6,067.95	$ 1,546.95	34.22%
23	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,150,000	$4,669.00	$6,266.34	$ 1,597.34	34.21%
24	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,200,000	$4,817.00	$6,464.73	$ 1,647.73	34.21%
25	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,250,000	$4,965.00	$6,663.12	$ 1,698.12	34.20%
26	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,300,000	$5,113.00	$6,861.51	$ 1,748.51	34.20%
27	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,350,000	$5,261.00	$7,059.91	$ 1,798.91	34.19%
28	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,400,000	$5,409.00	$7,258.30	$ 1,849.30	34.19%
29	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,450,000	$5,557.00	$7,456.69	$ 1,899.69	34.19%
30	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,500,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
31	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,550,000	$5,885.50	$7,897.24	$ 2,011.74	34.18%
32	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,600,000	$6,066.00	$8,139.39	$ 2,073.39	34.18%
33	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,650,000	$6,246.50	$8,381.54	$ 2,135.04	34.18%
34	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,700,000	$6,427.00	$8,623.70	$ 2,196.70	34.18%
35	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,750,000	$6,607.50	$8,865.85	$ 2,258.35	34.18%
36	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,800,000	$6,788.00	$9,108.00	$ 2,320.00	34.18%
37	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,850,000	$6,968.50	$9,350.16	$ 2,381.66	34.18%
38	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,900,000	$7,149.00	$9,592.31	$ 2,443.31	34.18%
39	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		1,950,000	$7,329.50	$9,834.46	$ 2,504.96	34.18%
40	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,000,000	$7,510.00	$10,076.62	$ 2,566.62	34.18%
41	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,050,000	$7,690.50	$10,318.77	$ 2,628.27	34.18%
42	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,100,000	$7,871.00	$10,560.92	$ 2,689.92	34.18%
43	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,150,000	$8,051.50	$10,803.07	$ 2,751.57	34.17%
44	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,200,000	$8,232.00	$11,045.23	$ 2,813.23	34.17%
45	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,250,000	$8,412.50	$11,287.38	$ 2,874.88	34.17%
46	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,300,000	$8,593.00	$11,529.53	$ 2,936.53	34.17%
47	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,350,000	$8,773.50	$11,771.69	$ 2,998.19	34.17%
48	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,400,000	$8,954.00	$12,013.84	$ 3,059.84	34.17%
49	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,450,000	$9,134.50	$12,255.99	$ 3,121.49	34.17%
50	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,500,000	$9,315.00	$12,498.15	$ 3,183.15	34.17%
51	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,550,000	$9,495.50	$12,740.30	$ 3,244.80	34.17%
52	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,600,000	$9,676.00	$12,982.45	$ 3,306.45	34.17%
53	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,650,000	$9,856.50	$13,224.61	$ 3,368.11	34.17%
54	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,700,000	$10,037.00	$13,466.76	$ 3,429.76	34.17%
55	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter		2,750,000	$10,217.50	$13,708.91	$ 3,491.41	34.17%
56								
57	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		75,000	$2,587.00	$3,482.06	$ 895.06	34.60%
2	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		150,000	$2,809.00	$3,779.65	$ 970.65	34.55%
3	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		225,000	$3,031.00	$4,077.24	$ 1,046.24	34.52%
4	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		300,000	$3,253.00	$4,374.82	$ 1,121.82	34.49%
5	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		375,000	$3,475.00	$4,672.41	$ 1,197.41	34.46%
6	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		450,000	$3,697.00	$4,970.00	$ 1,273.00	34.43%
7	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		525,000	$3,919.00	$5,267.59	$ 1,348.59	34.41%
8	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		600,000	$4,141.00	$5,565.18	$ 1,424.18	34.39%
9	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		675,000	$4,363.00	$5,862.76	$ 1,499.76	34.37%
10	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		750,000	$4,585.00	$6,160.35	$ 1,575.35	34.36%
11	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		825,000	$4,807.00	$6,457.94	$ 1,650.94	34.34%
12	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		900,000	$5,029.00	$6,755.53	$ 1,726.53	34.33%
13	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		975,000	$5,251.00	$7,053.12	$ 1,802.12	34.32%
14	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,050,000	$5,473.00	$7,350.70	$ 1,877.70	34.31%
15	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,125,000	$5,695.00	$7,648.29	$ 1,953.29	34.30%
16	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,200,000	$5,917.00	$7,945.88	$ 2,028.88	34.29%
17	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,275,000	$6,139.00	$8,243.47	$ 2,104.47	34.28%
18	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,350,000	$6,361.00	$8,541.06	$ 2,180.06	34.27%
19	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,425,000	$6,583.00	$8,838.64	$ 2,255.64	34.26%
20	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,500,000	$6,805.00	$9,136.23	$ 2,331.23	34.26%
21	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,575,000	$7,027.00	$9,433.82	$ 2,406.82	34.25%
22	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,650,000	$7,249.00	$9,731.41	$ 2,482.41	34.24%
23	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,725,000	$7,471.00	$10,029.00	$ 2,558.00	34.24%
24	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,800,000	$7,693.00	$10,326.58	$ 2,633.58	34.23%
25	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,875,000	$7,915.00	$10,624.17	$ 2,709.17	34.23%
26	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		1,950,000	$8,137.00	$10,921.76	$ 2,784.76	34.22%
27	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,025,000	$8,359.00	$11,219.35	$ 2,860.35	34.22%
28	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,100,000	$8,581.00	$11,516.94	$ 2,935.94	34.21%
29	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,175,000	$8,803.00	$11,814.52	$ 3,011.52	34.21%
30	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,250,000	$9,025.00	$12,112.11	$ 3,087.11	34.21%
31	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,325,000	$9,295.75	$12,475.34	$ 3,179.59	34.20%
32	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,400,000	$9,566.50	$12,838.57	$ 3,272.07	34.20%
33	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,475,000	$9,837.25	$13,201.80	$ 3,364.55	34.20%
34	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,550,000	$10,108.00	$13,565.03	$ 3,457.03	34.20%
35	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,625,000	$10,378.75	$13,928.26	$ 3,549.51	34.20%
36	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,700,000	$10,649.50	$14,291.49	$ 3,641.99	34.20%
37	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,775,000	$10,920.25	$14,654.72	$ 3,734.47	34.20%
38	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,850,000	$11,191.00	$15,017.95	$ 3,826.95	34.20%
39	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		2,925,000	$11,461.75	$15,381.18	$ 3,919.43	34.20%
40	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,000,000	$11,732.50	$15,744.41	$ 4,011.91	34.19%
41	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,075,000	$12,003.25	$16,107.64	$ 4,104.39	34.19%
42	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,150,000	$12,274.00	$16,470.87	$ 4,196.87	34.19%
43	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,225,000	$12,544.75	$16,834.10	$ 4,289.35	34.19%
44	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,300,000	$12,815.50	$17,197.33	$ 4,381.83	34.19%
45	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,375,000	$13,086.25	$17,560.56	$ 4,474.31	34.19%
46	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,450,000	$13,357.00	$17,923.79	$ 4,566.79	34.19%
47	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,525,000	$13,627.75	$18,287.02	$ 4,659.27	34.19%
48	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,600,000	$13,898.50	$18,650.25	$ 4,751.75	34.19%
49	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,675,000	$14,169.25	$19,013.48	$ 4,844.23	34.19%
50	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,750,000	$14,440.00	$19,376.71	$ 4,936.71	34.19%
51	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,825,000	$14,710.75	$19,739.94	$ 5,029.19	34.19%
52	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,900,000	$14,981.50	$20,103.17	$ 5,121.67	34.19%
53	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		3,975,000	$15,252.25	$20,466.40	$ 5,214.15	34.19%
54	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		4,050,000	$15,523.00	$20,829.63	$ 5,306.63	34.19%
55	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter		4,125,000	$15,793.75	$21,192.86	$ 5,399.11	34.19%
56								
57	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
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Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		1,000	$19.46	$26.19	$ 6.73	34.58%
2	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		2,000	$22.42	$30.15	$ 7.73	34.48%
3	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		3,000	$25.38	$34.12	$ 8.74	34.44%
4	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		4,000	$28.34	$38.09	$ 9.75	34.40%
5	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		5,000	$31.30	$42.06	$ 10.76	34.38%
6	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		6,000	$34.26	$46.02	$ 11.76	34.33%
7	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		7,000	$37.22	$49.99	$ 12.77	34.31%
8	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		8,000	$40.18	$53.96	$ 13.78	34.30%
9	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		9,000	$43.14	$57.93	$ 14.79	34.28%
10	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		10,000	$46.10	$61.90	$ 15.80	34.27%
11	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		11,000	$49.06	$65.86	$ 16.80	34.24%
12	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		12,000	$52.02	$69.83	$ 17.81	34.24%
13	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		13,000	$54.98	$73.80	$ 18.82	34.23%
14	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		14,000	$57.94	$77.77	$ 19.83	34.23%
15	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		15,000	$60.90	$81.73	$ 20.83	34.20%
16	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		16,000	$63.86	$85.70	$ 21.84	34.20%
17	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		17,000	$66.82	$89.67	$ 22.85	34.20%
18	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		18,000	$69.78	$93.64	$ 23.86	34.19%
19	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		19,000	$72.74	$97.61	$ 24.87	34.19%
20	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		20,000	$75.70	$101.57	$ 25.87	34.17%
21	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		21,000	$78.66	$105.54	$ 26.88	34.17%
22	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		22,000	$81.62	$109.51	$ 27.89	34.17%
23	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		23,000	$84.58	$113.48	$ 28.90	34.17%
24	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		24,000	$87.54	$117.45	$ 29.91	34.17%
25	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		25,000	$90.50	$121.41	$ 30.91	34.15%
26	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		26,000	$93.46	$125.38	$ 31.92	34.15%
27	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		27,000	$96.42	$129.35	$ 32.93	34.15%
28	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		28,000	$99.38	$133.32	$ 33.94	34.15%
29	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		29,000	$102.34	$137.28	$ 34.94	34.14%
30	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		30,000	$105.30	$141.25	$ 35.95	34.14%
31	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		31,000	$108.26	$145.22	$ 36.96	34.14%
32	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		32,000	$111.22	$149.19	$ 37.97	34.14%
33	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		33,000	$114.18	$153.16	$ 38.98	34.14%
34	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		34,000	$117.14	$157.12	$ 39.98	34.13%
35	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		35,000	$120.10	$161.09	$ 40.99	34.13%
36	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		36,000	$123.06	$165.06	$ 42.00	34.13%
37	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		37,000	$126.02	$169.03	$ 43.01	34.13%
38	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		38,000	$128.98	$173.00	$ 44.02	34.13%
39	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		39,000	$131.94	$176.96	$ 45.02	34.12%
40	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		40,000	$134.90	$180.93	$ 46.03	34.12%
41	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		41,000	$137.86	$184.90	$ 47.04	34.12%
42	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		42,000	$140.82	$188.87	$ 48.05	34.12%
43	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		43,000	$143.78	$192.83	$ 49.05	34.11%
44	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		44,000	$146.74	$196.80	$ 50.06	34.11%
45	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		45,000	$149.70	$200.77	$ 51.07	34.11%
46	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		46,000	$152.66	$204.74	$ 52.08	34.12%
47	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		47,000	$155.62	$208.71	$ 53.09	34.12%
48	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		48,000	$158.58	$212.67	$ 54.09	34.11%
49	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		49,000	$161.54	$216.64	$ 55.10	34.11%
50	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		50,000	$164.50	$220.61	$ 56.11	34.11%
51	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		51,000	$167.46	$224.58	$ 57.12	34.11%
52	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		52,000	$170.42	$228.54	$ 58.12	34.10%
53	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		53,000	$173.38	$232.51	$ 59.13	34.10%
54	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		54,000	$176.34	$236.48	$ 60.14	34.10%
55	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter		55,000	$179.30	$240.45	$ 61.15	34.10%
56								
57	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter	Average:	15,737	$63.08	$84.66	$ 21.58	34.21%
58								
59								
60								

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		1,000	$30.46	$41.00	$ 10.54	34.60%
2	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		2,000	$33.42	$44.96	$ 11.54	34.53%
3	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		3,000	$36.38	$48.93	$ 12.55	34.50%
4	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		4,000	$39.34	$52.90	$ 13.56	34.47%
5	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		5,000	$42.30	$56.87	$ 14.57	34.44%
6	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		6,000	$45.26	$60.84	$ 15.58	34.42%
7	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		7,000	$48.22	$64.80	$ 16.58	34.38%
8	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		8,000	$51.18	$68.77	$ 17.59	34.37%
9	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		9,000	$54.14	$72.74	$ 18.60	34.36%
10	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		10,000	$57.10	$76.71	$ 19.61	34.34%
11	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		11,000	$60.06	$80.67	$ 20.61	34.32%
12	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		12,000	$63.02	$84.64	$ 21.62	34.31%
13	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		13,000	$65.98	$88.61	$ 22.63	34.30%
14	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		14,000	$68.94	$92.58	$ 23.64	34.29%
15	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		15,000	$71.90	$96.55	$ 24.65	34.28%
16	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		16,000	$74.86	$100.51	$ 25.65	34.26%
17	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		17,000	$77.82	$104.48	$ 26.66	34.26%
18	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		18,000	$80.78	$108.45	$ 27.67	34.25%
19	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		19,000	$83.74	$112.42	$ 28.68	34.25%
20	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		20,000	$86.70	$116.39	$ 29.69	34.24%
21	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		21,000	$89.66	$120.35	$ 30.69	34.23%
22	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		22,000	$92.62	$124.32	$ 31.70	34.23%
23	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		23,000	$95.58	$128.29	$ 32.71	34.22%
24	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		24,000	$98.54	$132.26	$ 33.72	34.22%
25	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		25,000	$101.50	$136.22	$ 34.72	34.21%
26	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		26,000	$104.46	$140.19	$ 35.73	34.20%
27	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		27,000	$107.42	$144.16	$ 36.74	34.20%
28	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		28,000	$110.38	$148.13	$ 37.75	34.20%
29	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		29,000	$113.34	$152.10	$ 38.76	34.20%
30	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		30,000	$116.30	$156.06	$ 39.76	34.19%
31	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		31,000	$119.26	$160.03	$ 40.77	34.19%
32	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		32,000	$122.22	$164.00	$ 41.78	34.18%
33	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		33,000	$125.18	$167.97	$ 42.79	34.18%
34	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		34,000	$128.14	$171.94	$ 43.80	34.18%
35	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		35,000	$131.10	$175.90	$ 44.80	34.17%
36	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		36,000	$134.06	$179.87	$ 45.81	34.17%
37	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		37,000	$137.02	$183.84	$ 46.82	34.17%
38	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		38,000	$139.98	$187.81	$ 47.83	34.17%
39	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		39,000	$142.94	$191.77	$ 48.83	34.16%
40	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		40,000	$145.90	$195.74	$ 49.84	34.16%
41	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		41,000	$148.86	$199.71	$ 50.85	34.16%
42	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		42,000	$151.82	$203.68	$ 51.86	34.16%
43	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		43,000	$154.78	$207.65	$ 52.87	34.16%
44	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		44,000	$157.74	$211.61	$ 53.87	34.15%
45	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		45,000	$160.70	$215.58	$ 54.88	34.15%
46	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		46,000	$163.66	$219.55	$ 55.89	34.15%
47	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		47,000	$166.62	$223.52	$ 56.90	34.15%
48	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		48,000	$169.58	$227.49	$ 57.91	34.15%
49	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		49,000	$172.54	$231.45	$ 58.91	34.14%
50	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		50,000	$175.50	$235.42	$ 59.92	34.14%
51	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		51,000	$178.46	$239.39	$ 60.93	34.14%
52	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		52,000	$181.42	$243.36	$ 61.94	34.14%
53	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		53,000	$184.38	$247.32	$ 62.94	34.14%
54	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		54,000	$187.34	$251.29	$ 63.95	34.14%
55	F1I_C , S1I_C	Chaparral Irrigation 1" Meter		55,000	$190.30	$255.26	$ 64.96	34.14%
56								
57	F1I_C , S1I_C	Chaparral Irrigation 1" Meter	Average:	27,300	$108.31	$145.35	$ 37.04	34.20%

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
Page 23
Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		4,000	$66.84	$89.93	$ 23.09	34.55%
2	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		8,000	$78.68	$105.80	$ 27.12	34.47%
3	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		12,000	$90.52	$121.67	$ 31.15	34.41%
4	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		16,000	$102.36	$137.54	$ 35.18	34.37%
5	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		20,000	$114.20	$153.41	$ 39.21	34.33%
6	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		24,000	$126.04	$169.29	$ 43.25	34.31%
7	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		28,000	$137.88	$185.16	$ 47.28	34.29%
8	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		32,000	$149.72	$201.03	$ 51.31	34.27%
9	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		36,000	$161.56	$216.90	$ 55.34	34.25%
10	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		40,000	$173.40	$232.77	$ 59.37	34.24%
11	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		44,000	$185.24	$248.64	$ 63.40	34.23%
12	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		48,000	$197.08	$264.51	$ 67.43	34.21%
13	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		52,000	$208.92	$280.39	$ 71.47	34.21%
14	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		56,000	$220.76	$296.26	$ 75.50	34.20%
15	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		60,000	$232.60	$312.13	$ 79.53	34.19%
16	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		64,000	$244.44	$328.00	$ 83.56	34.18%
17	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		68,000	$256.28	$343.87	$ 87.59	34.18%
18	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		72,000	$268.12	$359.74	$ 91.62	34.17%
19	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		76,000	$279.96	$375.61	$ 95.65	34.17%
20	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		80,000	$291.80	$391.48	$ 99.68	34.16%
21	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		84,000	$303.64	$407.36	$ 103.72	34.16%
22	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		88,000	$315.48	$423.23	$ 107.75	34.15%
23	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		92,000	$327.32	$439.10	$ 111.78	34.15%
24	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		96,000	$339.16	$454.97	$ 115.81	34.15%
25	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		100,000	$351.00	$470.84	$ 119.84	34.14%
26	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		104,000	$362.84	$486.71	$ 123.87	34.14%
27	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		108,000	$374.68	$502.58	$ 127.90	34.14%
28	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		112,000	$386.52	$518.46	$ 131.94	34.14%
29	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		116,000	$398.36	$534.33	$ 135.97	34.13%
30	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		120,000	$410.20	$550.20	$ 140.00	34.13%
31	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		124,000	$422.04	$566.07	$ 144.03	34.13%
32	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		128,000	$433.88	$581.94	$ 148.06	34.12%
33	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		132,000	$445.72	$597.81	$ 152.09	34.12%
34	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		136,000	$457.56	$613.68	$ 156.12	34.12%
35	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		140,000	$469.40	$629.56	$ 160.16	34.12%
36	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		144,000	$481.24	$645.43	$ 164.19	34.12%
37	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		148,000	$493.08	$661.30	$ 168.22	34.12%
38	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		152,000	$504.92	$677.17	$ 172.25	34.11%
39	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		156,000	$516.76	$693.04	$ 176.28	34.11%
40	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		160,000	$528.60	$708.91	$ 180.31	34.11%
41	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		164,000	$540.44	$724.78	$ 184.34	34.11%
42	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		168,000	$552.28	$740.65	$ 188.37	34.11%
43	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		172,000	$564.12	$756.53	$ 192.41	34.11%
44	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		176,000	$575.96	$772.40	$ 196.44	34.11%
45	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		180,000	$587.80	$788.27	$ 200.47	34.11%
46	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		184,000	$599.64	$804.14	$ 204.50	34.10%
47	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		188,000	$611.48	$820.01	$ 208.53	34.10%
48	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		192,000	$623.32	$835.88	$ 212.56	34.10%
49	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		196,000	$635.16	$851.75	$ 216.59	34.10%
50	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		200,000	$647.00	$867.63	$ 220.63	34.10%
51	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		204,000	$658.84	$883.50	$ 224.66	34.10%
52	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		208,000	$670.68	$899.37	$ 228.69	34.10%
53	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		212,000	$682.52	$915.24	$ 232.72	34.10%
54	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		216,000	$694.36	$931.11	$ 236.75	34.10%
55	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter		220,000	$706.20	$946.98	$ 240.78	34.10%
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57	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter	Average:	55,484	$219.23	$294.21	$ 74.98	34.20%
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		5,000	$102.80	$138.33	$ 35.53	34.56%
2	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		10,000	$117.60	$158.17	$ 40.57	34.50%
3	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		15,000	$132.40	$178.01	$ 45.61	34.45%
4	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		20,000	$147.20	$197.85	$ 50.65	34.41%
5	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		25,000	$162.00	$217.69	$ 55.69	34.38%
6	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		30,000	$176.80	$237.53	$ 60.73	34.35%
7	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		35,000	$191.60	$257.37	$ 65.77	34.32%
8	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		40,000	$206.40	$277.21	$ 70.81	34.31%
9	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		45,000	$221.20	$297.04	$ 75.84	34.29%
10	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		50,000	$236.00	$316.88	$ 80.88	34.27%
11	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		55,000	$250.80	$336.72	$ 85.92	34.26%
12	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		60,000	$265.60	$356.56	$ 90.96	34.25%
13	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		65,000	$280.40	$376.40	$ 96.00	34.24%
14	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		70,000	$295.20	$396.24	$ 101.04	34.23%
15	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		75,000	$310.00	$416.08	$ 106.08	34.22%
16	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		80,000	$324.80	$435.92	$ 111.12	34.21%
17	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		85,000	$339.60	$455.76	$ 116.16	34.20%
18	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		90,000	$354.40	$475.60	$ 121.20	34.20%
19	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		95,000	$369.20	$495.44	$ 126.24	34.19%
20	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		100,000	$384.00	$515.28	$ 131.28	34.19%
21	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		105,000	$398.80	$535.12	$ 136.32	34.18%
22	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		110,000	$413.60	$554.95	$ 141.35	34.18%
23	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		115,000	$428.40	$574.79	$ 146.39	34.17%
24	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		120,000	$443.20	$594.63	$ 151.43	34.17%
25	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		125,000	$458.00	$614.47	$ 156.47	34.16%
26	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		130,000	$472.80	$634.31	$ 161.51	34.16%
27	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		135,000	$487.60	$654.15	$ 166.55	34.16%
28	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		140,000	$502.40	$673.99	$ 171.59	34.15%
29	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		145,000	$517.20	$693.83	$ 176.63	34.15%
30	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		150,000	$532.00	$713.67	$ 181.67	34.15%
31	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		155,000	$546.80	$733.51	$ 186.71	34.15%
32	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		160,000	$561.60	$753.35	$ 191.75	34.14%
33	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		165,000	$576.40	$773.19	$ 196.79	34.14%
34	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		170,000	$591.20	$793.02	$ 201.82	34.14%
35	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		175,000	$606.00	$812.86	$ 206.86	34.14%
36	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		180,000	$620.80	$832.70	$ 211.90	34.13%
37	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		185,000	$635.60	$852.54	$ 216.94	34.13%
38	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		190,000	$650.40	$872.38	$ 221.98	34.13%
39	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		195,000	$665.20	$892.22	$ 227.02	34.13%
40	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		200,000	$680.00	$912.06	$ 232.06	34.13%
41	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		205,000	$694.80	$931.90	$ 237.10	34.12%
42	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		210,000	$709.60	$951.74	$ 242.14	34.12%
43	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		215,000	$724.40	$971.58	$ 247.18	34.12%
44	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		220,000	$739.20	$991.42	$ 252.22	34.12%
45	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		225,000	$754.00	$1,011.26	$ 257.26	34.12%
46	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		230,000	$768.80	$1,031.10	$ 262.30	34.12%
47	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		235,000	$783.60	$1,050.93	$ 267.33	34.12%
48	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		240,000	$798.40	$1,070.77	$ 272.37	34.11%
49	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		245,000	$813.20	$1,090.61	$ 277.41	34.11%
50	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		250,000	$828.00	$1,110.45	$ 282.45	34.11%
51	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		255,000	$842.80	$1,130.29	$ 287.49	34.11%
52	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		260,000	$857.60	$1,150.13	$ 292.53	34.11%
53	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		265,000	$872.40	$1,169.97	$ 297.57	34.11%
54	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		270,000	$887.20	$1,189.81	$ 302.61	34.11%
55	F2I_C, S2I_C	Chaparral Irrigation 2" Meter		275,000	$902.00	$1,209.65	$ 307.65	34.11%
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57	F2I_C, S2I_C	Chaparral Irrigation 2" Meter	Average:	106,496	$403.23	$541.05	$ 137.82	34.18%
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
Page 25
Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		15000	$187.84	$252.86	$ 65.02	34.61%
2	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		30000	$199.68	$268.73	$ 69.05	34.58%
3	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		45000	$211.52	$284.60	$ 73.08	34.55%
4	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		60000	$223.36	$300.47	$ 77.11	34.52%
5	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		75000	$235.20	$316.34	$ 81.14	34.50%
6	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		90000	$247.04	$332.21	$ 85.17	34.48%
7	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		105000	$258.88	$348.08	$ 89.20	34.46%
8	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		120000	$270.72	$363.95	$ 93.23	34.44%
9	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		135000	$282.56	$379.83	$ 97.27	34.42%
10	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		150000	$294.40	$395.70	$ 101.30	34.41%
11	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		165000	$306.24	$411.57	$ 105.33	34.39%
12	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		180000	$318.08	$427.44	$ 109.36	34.38%
13	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		195000	$329.92	$443.31	$ 113.39	34.37%
14	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		210000	$341.76	$459.18	$ 117.42	34.36%
15	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		225000	$353.60	$475.05	$ 121.45	34.35%
16	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		240000	$365.44	$490.93	$ 125.49	34.34%
17	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		255000	$377.28	$506.80	$ 129.52	34.33%
18	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		270000	$389.12	$522.67	$ 133.55	34.32%
19	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		285000	$400.96	$538.54	$ 137.58	34.31%
20	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		300000	$412.80	$554.41	$ 141.61	34.31%
21	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		315000	$424.64	$570.28	$ 145.64	34.30%
22	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		330000	$436.48	$586.15	$ 149.67	34.29%
23	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		345000	$448.32	$602.03	$ 153.71	34.28%
24	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		360000	$460.16	$617.90	$ 157.74	34.28%
25	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		375000	$472.00	$633.77	$ 161.77	34.27%
26	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		390000	$483.84	$649.64	$ 165.80	34.27%
27	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		405000	$495.68	$665.51	$ 169.83	34.26%
28	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		420000	$507.52	$681.38	$ 173.86	34.26%
29	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		435000	$519.36	$697.25	$ 177.89	34.25%
30	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		450000	$531.20	$713.12	$ 181.92	34.25%
31	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		465000	$543.04	$729.00	$ 185.96	34.24%
32	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		480000	$554.88	$744.87	$ 189.99	34.24%
33	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		495000	$566.72	$760.74	$ 194.02	34.24%
34	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		510000	$578.56	$776.61	$ 198.05	34.23%
35	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		525000	$590.40	$792.48	$ 202.08	34.23%
36	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		540000	$602.24	$808.35	$ 206.11	34.22%
37	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		555000	$614.08	$824.22	$ 210.14	34.22%
38	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		570000	$625.92	$840.10	$ 214.18	34.22%
39	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		585000	$637.76	$855.97	$ 218.21	34.21%
40	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		600000	$649.60	$871.84	$ 222.24	34.21%
41	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		615000	$661.44	$887.71	$ 226.27	34.21%
42	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		630000	$673.28	$903.58	$ 230.30	34.21%
43	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		645000	$685.12	$919.45	$ 234.33	34.20%
44	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		660000	$696.96	$935.32	$ 238.36	34.20%
45	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		675000	$708.80	$951.20	$ 242.40	34.20%
46	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		690000	$720.64	$967.07	$ 246.43	34.20%
47	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		705000	$732.48	$982.94	$ 250.46	34.19%
48	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		720000	$744.32	$998.81	$ 254.49	34.19%
49	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		735000	$756.16	$1,014.68	$ 258.52	34.19%
50	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		750000	$768.00	$1,030.55	$ 262.55	34.19%
51	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		765000	$779.84	$1,046.42	$ 266.58	34.18%
52	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		780000	$791.68	$1,062.29	$ 270.61	34.18%
53	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		795000	$803.52	$1,078.17	$ 274.65	34.18%
54	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		810000	$815.36	$1,094.04	$ 278.68	34.18%
55	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter		825000	$827.20	$1,109.91	$ 282.71	34.18%
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57	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F4I_C	Chaparral Irrigation 4" Meter		7,000	$295.72	$398.06	$ 102.34	34.61%
2	F4I_C	Chaparral Irrigation 4" Meter		14,000	$316.44	$425.84	$ 109.40	34.57%
3	F4I_C	Chaparral Irrigation 4" Meter		21,000	$337.16	$453.61	$ 116.45	34.54%
4	F4I_C	Chaparral Irrigation 4" Meter		28,000	$357.88	$481.39	$ 123.51	34.51%
5	F4I_C	Chaparral Irrigation 4" Meter		35,000	$378.60	$509.16	$ 130.56	34.49%
6	F4I_C	Chaparral Irrigation 4" Meter		42,000	$399.32	$536.94	$ 137.62	34.46%
7	F4I_C	Chaparral Irrigation 4" Meter		49,000	$420.04	$564.71	$ 144.67	34.44%
8	F4I_C	Chaparral Irrigation 4" Meter		56,000	$440.76	$592.49	$ 151.73	34.42%
9	F4I_C	Chaparral Irrigation 4" Meter		63,000	$461.48	$620.26	$ 158.78	34.41%
10	F4I_C	Chaparral Irrigation 4" Meter		70,000	$482.20	$648.04	$ 165.84	34.39%
11	F4I_C	Chaparral Irrigation 4" Meter		77,000	$502.92	$675.81	$ 172.89	34.38%
12	F4I_C	Chaparral Irrigation 4" Meter		84,000	$523.64	$703.59	$ 179.95	34.36%
13	F4I_C	Chaparral Irrigation 4" Meter		91,000	$544.36	$731.36	$ 187.00	34.35%
14	F4I_C	Chaparral Irrigation 4" Meter		98,000	$565.08	$759.14	$ 194.06	34.34%
15	F4I_C	Chaparral Irrigation 4" Meter		105,000	$585.80	$786.91	$ 201.11	34.33%
16	F4I_C	Chaparral Irrigation 4" Meter		112,000	$606.52	$814.69	$ 208.17	34.32%
17	F4I_C	Chaparral Irrigation 4" Meter		119,000	$627.24	$842.46	$ 215.22	34.31%
18	F4I_C	Chaparral Irrigation 4" Meter		126,000	$647.96	$870.24	$ 222.28	34.30%
19	F4I_C	Chaparral Irrigation 4" Meter		133,000	$668.68	$898.01	$ 229.33	34.30%
20	F4I_C	Chaparral Irrigation 4" Meter		140,000	$689.40	$925.79	$ 236.39	34.29%
21	F4I_C	Chaparral Irrigation 4" Meter		147,000	$710.12	$953.56	$ 243.44	34.28%
22	F4I_C	Chaparral Irrigation 4" Meter		154,000	$730.84	$981.33	$ 250.49	34.27%
23	F4I_C	Chaparral Irrigation 4" Meter		161,000	$751.56	$1,009.11	$ 257.55	34.27%
24	F4I_C	Chaparral Irrigation 4" Meter		168,000	$772.28	$1,036.88	$ 264.60	34.26%
25	F4I_C	Chaparral Irrigation 4" Meter		175,000	$793.00	$1,064.66	$ 271.66	34.26%
26	F4I_C	Chaparral Irrigation 4" Meter		182,000	$813.72	$1,092.43	$ 278.71	34.25%
27	F4I_C	Chaparral Irrigation 4" Meter		189,000	$834.44	$1,120.21	$ 285.77	34.25%
28	F4I_C	Chaparral Irrigation 4" Meter		196,000	$855.16	$1,147.98	$ 292.82	34.24%
29	F4I_C	Chaparral Irrigation 4" Meter		203,000	$875.88	$1,175.76	$ 299.88	34.24%
30	F4I_C	Chaparral Irrigation 4" Meter		210,000	$896.60	$1,203.53	$ 306.93	34.23%
31	F4I_C	Chaparral Irrigation 4" Meter		217,000	$917.32	$1,231.31	$ 313.99	34.23%
32	F4I_C	Chaparral Irrigation 4" Meter		224,000	$938.04	$1,259.08	$ 321.04	34.22%
33	F4I_C	Chaparral Irrigation 4" Meter		231,000	$958.76	$1,286.86	$ 328.10	34.22%
34	F4I_C	Chaparral Irrigation 4" Meter		238,000	$979.48	$1,314.63	$ 335.15	34.22%
35	F4I_C	Chaparral Irrigation 4" Meter		245,000	$1,000.20	$1,342.41	$ 342.21	34.21%
36	F4I_C	Chaparral Irrigation 4" Meter		252,000	$1,020.92	$1,370.18	$ 349.26	34.21%
37	F4I_C	Chaparral Irrigation 4" Meter		259,000	$1,041.64	$1,397.96	$ 356.32	34.21%
38	F4I_C	Chaparral Irrigation 4" Meter		266,000	$1,062.36	$1,425.73	$ 363.37	34.20%
39	F4I_C	Chaparral Irrigation 4" Meter		273,000	$1,083.08	$1,453.51	$ 370.43	34.20%
40	F4I_C	Chaparral Irrigation 4" Meter		280,000	$1,103.80	$1,481.28	$ 377.48	34.20%
41	F4I_C	Chaparral Irrigation 4" Meter		287,000	$1,124.52	$1,509.06	$ 384.54	34.20%
42	F4I_C	Chaparral Irrigation 4" Meter		294,000	$1,145.24	$1,536.83	$ 391.59	34.19%
43	F4I_C	Chaparral Irrigation 4" Meter		301,000	$1,165.96	$1,564.61	$ 398.65	34.19%
44	F4I_C	Chaparral Irrigation 4" Meter		308,000	$1,186.68	$1,592.38	$ 405.70	34.19%
45	F4I_C	Chaparral Irrigation 4" Meter		315,000	$1,207.40	$1,620.16	$ 412.76	34.19%
46	F4I_C	Chaparral Irrigation 4" Meter		322,000	$1,228.12	$1,647.93	$ 419.81	34.18%
47	F4I_C	Chaparral Irrigation 4" Meter		329,000	$1,248.84	$1,675.71	$ 426.87	34.18%
48	F4I_C	Chaparral Irrigation 4" Meter		336,000	$1,269.56	$1,703.48	$ 433.92	34.18%
49	F4I_C	Chaparral Irrigation 4" Meter		343,000	$1,290.28	$1,731.26	$ 440.98	34.18%
50	F4I_C	Chaparral Irrigation 4" Meter		350,000	$1,311.00	$1,759.03	$ 448.03	34.17%
51	F4I_C	Chaparral Irrigation 4" Meter		357,000	$1,331.72	$1,786.81	$ 455.09	34.17%
52	F4I_C	Chaparral Irrigation 4" Meter		364,000	$1,352.44	$1,814.58	$ 462.14	34.17%
53	F4I_C	Chaparral Irrigation 4" Meter		371,000	$1,373.16	$1,842.36	$ 469.20	34.17%
54	F4I_C	Chaparral Irrigation 4" Meter		378,000	$1,393.88	$1,870.13	$ 476.25	34.17%
55	F4I_C	Chaparral Irrigation 4" Meter		385,000	$1,414.60	$1,897.91	$ 483.31	34.17%
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57	F4I_C	Chaparral Irrigation 4" Meter	Average:	293,721	$1,144.41	$1,535.73	$ 391.31	34.19%
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F6I_C	Chaparral Irrigation 6" Meter		50,000	$698.00	$938.97	$ 240.97	34.52%
2	F6I_C	Chaparral Irrigation 6" Meter		100,000	$846.00	$1,137.36	$ 291.36	34.44%
3	F6I_C	Chaparral Irrigation 6" Meter		150,000	$994.00	$1,335.75	$ 341.75	34.38%
4	F6I_C	Chaparral Irrigation 6" Meter		200,000	$1,142.00	$1,534.14	$ 392.14	34.34%
5	F6I_C	Chaparral Irrigation 6" Meter		250,000	$1,290.00	$1,732.54	$ 442.54	34.31%
6	F6I_C	Chaparral Irrigation 6" Meter		300,000	$1,438.00	$1,930.93	$ 492.93	34.28%
7	F6I_C	Chaparral Irrigation 6" Meter		350,000	$1,586.00	$2,129.32	$ 543.32	34.26%
8	F6I_C	Chaparral Irrigation 6" Meter		400,000	$1,734.00	$2,327.71	$ 593.71	34.24%
9	F6I_C	Chaparral Irrigation 6" Meter		450,000	$1,882.00	$2,526.10	$ 644.10	34.22%
10	F6I_C	Chaparral Irrigation 6" Meter		500,000	$2,030.00	$2,724.50	$ 694.50	34.21%
11	F6I_C	Chaparral Irrigation 6" Meter		600,000	$2,326.00	$3,121.28	$ 795.28	34.19%
12	F6I_C	Chaparral Irrigation 6" Meter		700,000	$2,622.00	$3,518.06	$ 896.06	34.17%
13	F6I_C	Chaparral Irrigation 6" Meter		800,000	$2,918.00	$3,914.85	$ 996.85	34.16%
14	F6I_C	Chaparral Irrigation 6" Meter		900,000	$3,214.00	$4,311.63	$ 1,097.63	34.15%
15	F6I_C	Chaparral Irrigation 6" Meter		1,000,000	$3,510.00	$4,708.42	$ 1,198.42	34.14%
16	F6I_C	Chaparral Irrigation 6" Meter		1,100,000	$3,806.00	$5,105.20	$ 1,299.20	34.14%
17	F6I_C	Chaparral Irrigation 6" Meter		1,200,000	$4,102.00	$5,501.98	$ 1,399.98	34.13%
18	F6I_C	Chaparral Irrigation 6" Meter		1,300,000	$4,398.00	$5,898.77	$ 1,500.77	34.12%
19	F6I_C	Chaparral Irrigation 6" Meter		1,400,000	$4,694.00	$6,295.55	$ 1,601.55	34.12%
20	F6I_C	Chaparral Irrigation 6" Meter		1,500,000	$4,990.00	$6,692.34	$ 1,702.34	34.11%
21	F6I_C	Chaparral Irrigation 6" Meter		1,600,000	$5,286.00	$7,089.12	$ 1,803.12	34.11%
22	F6I_C	Chaparral Irrigation 6" Meter		1,700,000	$5,582.00	$7,485.90	$ 1,903.90	34.11%
23	F6I_C	Chaparral Irrigation 6" Meter		1,800,000	$5,878.00	$7,882.69	$ 2,004.69	34.10%
24	F6I_C	Chaparral Irrigation 6" Meter		1,900,000	$6,174.00	$8,279.47	$ 2,105.47	34.10%
25	F6I_C	Chaparral Irrigation 6" Meter		2,000,000	$6,470.00	$8,676.26	$ 2,206.26	34.10%
26	F6I_C	Chaparral Irrigation 6" Meter		2,100,000	$6,766.00	$9,073.04	$ 2,307.04	34.10%
27	F6I_C	Chaparral Irrigation 6" Meter		2,200,000	$7,062.00	$9,469.82	$ 2,407.82	34.10%
28	F6I_C	Chaparral Irrigation 6" Meter		2,300,000	$7,358.00	$9,866.61	$ 2,508.61	34.09%
29	F6I_C	Chaparral Irrigation 6" Meter		2,400,000	$7,654.00	$10,263.39	$ 2,609.39	34.09%
30	F6I_C	Chaparral Irrigation 6" Meter		2,500,000	$7,950.00	$10,660.18	$ 2,710.18	34.09%
31	F6I_C	Chaparral Irrigation 6" Meter		2,600,000	$8,246.00	$11,056.96	$ 2,810.96	34.09%
32	F6I_C	Chaparral Irrigation 6" Meter		2,700,000	$8,542.00	$11,453.74	$ 2,911.74	34.09%
33	F6I_C	Chaparral Irrigation 6" Meter		2,800,000	$8,838.00	$11,850.53	$ 3,012.53	34.09%
34	F6I_C	Chaparral Irrigation 6" Meter		2,900,000	$9,134.00	$12,247.31	$ 3,113.31	34.08%
35	F6I_C	Chaparral Irrigation 6" Meter		3,000,000	$9,430.00	$12,644.10	$ 3,214.10	34.08%
36	F6I_C	Chaparral Irrigation 6" Meter		3,100,000	$9,726.00	$13,040.88	$ 3,314.88	34.08%
37	F6I_C	Chaparral Irrigation 6" Meter		3,200,000	$10,022.00	$13,437.66	$ 3,415.66	34.08%
38	F6I_C	Chaparral Irrigation 6" Meter		3,300,000	$10,318.00	$13,834.45	$ 3,516.45	34.08%
39	F6I_C	Chaparral Irrigation 6" Meter		3,400,000	$10,614.00	$14,231.23	$ 3,617.23	34.08%
40	F6I_C	Chaparral Irrigation 6" Meter		3,500,000	$10,910.00	$14,628.02	$ 3,718.02	34.08%
41	F6I_C	Chaparral Irrigation 6" Meter		3,600,000	$11,206.00	$15,024.80	$ 3,818.80	34.08%
42	F6I_C	Chaparral Irrigation 6" Meter		3,700,000	$11,502.00	$15,421.58	$ 3,919.58	34.08%
43	F6I_C	Chaparral Irrigation 6" Meter		3,800,000	$11,798.00	$15,818.37	$ 4,020.37	34.08%
44	F6I_C	Chaparral Irrigation 6" Meter		3,900,000	$12,094.00	$16,215.15	$ 4,121.15	34.08%
45	F6I_C	Chaparral Irrigation 6" Meter		4,000,000	$12,390.00	$16,611.94	$ 4,221.94	34.08%
46	F6I_C	Chaparral Irrigation 6" Meter		4,100,000	$12,686.00	$17,008.72	$ 4,322.72	34.07%
47	F6I_C	Chaparral Irrigation 6" Meter		4,200,000	$12,982.00	$17,405.50	$ 4,423.50	34.07%
48	F6I_C	Chaparral Irrigation 6" Meter		4,300,000	$13,278.00	$17,802.29	$ 4,524.29	34.07%
49	F6I_C	Chaparral Irrigation 6" Meter		4,400,000	$13,574.00	$18,199.07	$ 4,625.07	34.07%
50	F6I_C	Chaparral Irrigation 6" Meter		4,500,000	$13,870.00	$18,595.86	$ 4,725.86	34.07%
51	F6I_C	Chaparral Irrigation 6" Meter		4,600,000	$14,166.00	$18,992.64	$ 4,826.64	34.07%
52	F6I_C	Chaparral Irrigation 6" Meter		4,700,000	$14,462.00	$19,389.42	$ 4,927.42	34.07%
53	F6I_C	Chaparral Irrigation 6" Meter		4,800,000	$14,758.00	$19,786.21	$ 5,028.21	34.07%
54	F6I_C	Chaparral Irrigation 6" Meter		4,900,000	$15,054.00	$20,182.99	$ 5,128.99	34.07%
55	F6I_C	Chaparral Irrigation 6" Meter		5,000,000	$15,350.00	$20,579.78	$ 5,229.78	34.07%
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57	F6I_C	Chaparral Irrigation 6" Meter	Average:	2,576,667	$8,176.93	$10,964.38	$ 2,787.44	34.09%
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		25,000	$954.00	$1,284.12	$ 330.12	34.60%
2	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		50,000	$1,028.00	$1,383.31	$ 355.31	34.56%
3	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		75,000	$1,102.00	$1,482.51	$ 380.51	34.53%
4	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		100,000	$1,176.00	$1,581.70	$ 405.70	34.50%
5	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		125,000	$1,250.00	$1,680.90	$ 430.90	34.47%
6	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		150,000	$1,324.00	$1,780.10	$ 456.10	34.45%
7	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		175,000	$1,398.00	$1,879.29	$ 481.29	34.43%
8	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		200,000	$1,472.00	$1,978.49	$ 506.49	34.41%
9	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		225,000	$1,546.00	$2,077.68	$ 531.68	34.39%
10	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		250,000	$1,620.00	$2,176.88	$ 556.88	34.38%
11	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		275,000	$1,694.00	$2,276.08	$ 582.08	34.36%
12	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		300,000	$1,768.00	$2,375.27	$ 607.27	34.35%
13	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		325,000	$1,842.00	$2,474.47	$ 632.47	34.34%
14	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		350,000	$1,916.00	$2,573.66	$ 657.66	34.32%
15	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		375,000	$1,990.00	$2,672.86	$ 682.86	34.31%
16	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		400,000	$2,064.00	$2,772.06	$ 708.06	34.31%
17	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		425,000	$2,138.00	$2,871.25	$ 733.25	34.30%
18	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		450,000	$2,212.00	$2,970.45	$ 758.45	34.29%
19	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		475,000	$2,286.00	$3,069.64	$ 783.64	34.28%
20	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		500,000	$2,360.00	$3,168.84	$ 808.84	34.27%
21	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		525,000	$2,434.00	$3,268.04	$ 834.04	34.27%
22	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		550,000	$2,508.00	$3,367.23	$ 859.23	34.26%
23	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		575,000	$2,582.00	$3,466.43	$ 884.43	34.25%
24	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		600,000	$2,656.00	$3,565.62	$ 909.62	34.25%
25	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		625,000	$2,730.00	$3,664.82	$ 934.82	34.24%
26	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		650,000	$2,804.00	$3,764.02	$ 960.02	34.24%
27	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		675,000	$2,878.00	$3,863.21	$ 985.21	34.23%
28	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		700,000	$2,952.00	$3,962.41	$ 1,010.41	34.23%
29	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		725,000	$3,026.00	$4,061.60	$ 1,035.60	34.22%
30	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		750,000	$3,100.00	$4,160.80	$ 1,060.80	34.22%
31	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		775,000	$3,174.00	$4,260.00	$ 1,086.00	34.22%
32	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		800,000	$3,248.00	$4,359.19	$ 1,111.19	34.21%
33	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		825,000	$3,322.00	$4,458.39	$ 1,136.39	34.21%
34	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		850,000	$3,396.00	$4,557.58	$ 1,161.58	34.20%
35	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		875,000	$3,470.00	$4,656.78	$ 1,186.78	34.20%
36	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		900,000	$3,544.00	$4,755.98	$ 1,211.98	34.20%
37	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		925,000	$3,618.00	$4,855.17	$ 1,237.17	34.19%
38	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		950,000	$3,692.00	$4,954.37	$ 1,262.37	34.19%
39	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		975,000	$3,766.00	$5,053.56	$ 1,287.56	34.19%
40	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,000,000	$3,840.00	$5,152.76	$ 1,312.76	34.19%
41	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,025,000	$3,914.00	$5,251.96	$ 1,337.96	34.18%
42	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,050,000	$3,988.00	$5,351.15	$ 1,363.15	34.18%
43	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,075,000	$4,062.00	$5,450.35	$ 1,388.35	34.18%
44	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,100,000	$4,136.00	$5,549.54	$ 1,413.54	34.18%
45	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,150,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
46	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,175,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
47	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,200,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
48	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,225,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
49	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,250,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
50	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,275,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
51	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,300,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
52	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,325,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
53	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,350,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
54	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,375,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
55	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter		1,400,000	$4,210.00	$5,648.74	$ 1,438.74	34.17%
56								
57	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		50,000	$1,413.00	$1,901.71	$ 488.71	34.59%
2	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		100,000	$1,561.00	$2,100.11	$ 539.11	34.54%
3	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		150,000	$1,709.00	$2,298.50	$ 589.50	34.49%
4	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		200,000	$1,857.00	$2,496.89	$ 639.89	34.46%
5	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		250,000	$2,005.00	$2,695.28	$ 690.28	34.43%
6	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		300,000	$2,153.00	$2,893.67	$ 740.67	34.40%
7	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		350,000	$2,301.00	$3,092.07	$ 791.07	34.38%
8	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		400,000	$2,449.00	$3,290.46	$ 841.46	34.36%
9	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		450,000	$2,597.00	$3,488.85	$ 891.85	34.34%
10	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		500,000	$2,745.00	$3,687.24	$ 942.24	34.33%
11	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		550,000	$2,893.00	$3,885.63	$ 992.63	34.31%
12	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		600,000	$3,041.00	$4,084.03	$ 1,043.03	34.30%
13	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		650,000	$3,189.00	$4,282.42	$ 1,093.42	34.29%
14	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		700,000	$3,337.00	$4,480.81	$ 1,143.81	34.28%
15	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		750,000	$3,485.00	$4,679.20	$ 1,194.20	34.27%
16	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		800,000	$3,633.00	$4,877.59	$ 1,244.59	34.26%
17	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		850,000	$3,781.00	$5,075.99	$ 1,294.99	34.25%
18	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		900,000	$3,929.00	$5,274.38	$ 1,345.38	34.24%
19	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		950,000	$4,077.00	$5,472.77	$ 1,395.77	34.24%
20	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,000,000	$4,225.00	$5,671.16	$ 1,446.16	34.23%
21	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,050,000	$4,373.00	$5,869.55	$ 1,496.55	34.22%
22	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,100,000	$4,521.00	$6,067.95	$ 1,546.95	34.22%
23	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,150,000	$4,669.00	$6,266.34	$ 1,597.34	34.21%
24	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,200,000	$4,817.00	$6,464.73	$ 1,647.73	34.21%
25	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,250,000	$4,965.00	$6,663.12	$ 1,698.12	34.20%
26	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,300,000	$5,113.00	$6,861.51	$ 1,748.51	34.20%
27	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,350,000	$5,261.00	$7,059.91	$ 1,798.91	34.19%
28	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,400,000	$5,409.00	$7,258.30	$ 1,849.30	34.19%
29	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,450,000	$5,557.00	$7,456.69	$ 1,899.69	34.19%
30	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,500,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
31	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,550,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
32	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,600,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
33	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,650,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
34	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,700,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
35	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,750,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
36	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,800,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
37	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,850,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
38	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,900,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
39	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		1,950,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
40	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,000,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
41	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,050,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
42	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,100,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
43	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,150,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
44	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,200,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
45	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,250,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
46	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,300,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
47	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,350,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
48	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,400,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
49	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,450,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
50	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,500,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
51	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,550,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
52	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,600,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
53	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,650,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
54	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,700,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
55	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter		2,750,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
56								
57	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		75,000	$2,587.00	$3,482.06	$ 895.06	34.60%
2	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		150,000	$2,809.00	$3,779.65	$ 970.65	34.55%
3	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		225,000	$3,031.00	$4,077.24	$ 1,046.24	34.52%
4	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		300,000	$3,253.00	$4,374.82	$ 1,121.82	34.49%
5	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		375,000	$3,475.00	$4,672.41	$ 1,197.41	34.46%
6	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		450,000	$3,697.00	$4,970.00	$ 1,273.00	34.43%
7	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		525,000	$3,919.00	$5,267.59	$ 1,348.59	34.41%
8	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		600,000	$4,141.00	$5,565.18	$ 1,424.18	34.39%
9	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		675,000	$4,363.00	$5,862.76	$ 1,499.76	34.37%
10	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		750,000	$4,585.00	$6,160.35	$ 1,575.35	34.36%
11	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		825,000	$4,807.00	$6,457.94	$ 1,650.94	34.34%
12	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		900,000	$5,029.00	$6,755.53	$ 1,726.53	34.33%
13	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		975,000	$5,251.00	$7,053.12	$ 1,802.12	34.32%
14	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,050,000	$5,473.00	$7,350.70	$ 1,877.70	34.31%
15	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,125,000	$5,695.00	$7,648.29	$ 1,953.29	34.30%
16	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,200,000	$5,917.00	$7,945.88	$ 2,028.88	34.29%
17	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,275,000	$6,139.00	$8,243.47	$ 2,104.47	34.28%
18	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,350,000	$6,361.00	$8,541.06	$ 2,180.06	34.27%
19	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,425,000	$6,583.00	$8,838.64	$ 2,255.64	34.26%
20	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,500,000	$6,805.00	$9,136.23	$ 2,331.23	34.26%
21	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,575,000	$7,027.00	$9,433.82	$ 2,406.82	34.25%
22	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,650,000	$7,249.00	$9,731.41	$ 2,482.41	34.24%
23	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,725,000	$7,471.00	$10,029.00	$ 2,558.00	34.24%
24	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,800,000	$7,693.00	$10,326.58	$ 2,633.58	34.23%
25	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,875,000	$7,915.00	$10,624.17	$ 2,709.17	34.23%
26	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		1,950,000	$8,137.00	$10,921.76	$ 2,784.76	34.22%
27	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,025,000	$8,359.00	$11,219.35	$ 2,860.35	34.22%
28	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,100,000	$8,581.00	$11,516.94	$ 2,935.94	34.21%
29	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,175,000	$8,803.00	$11,814.52	$ 3,011.52	34.21%
30	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,250,000	$9,025.00	$12,112.11	$ 3,087.11	34.21%
31	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,325,000	$9,247.00	$12,409.70	$ 3,162.70	34.20%
32	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,400,000	$9,469.00	$12,707.29	$ 3,238.29	34.20%
33	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,475,000	$9,691.00	$13,004.88	$ 3,313.88	34.20%
34	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,550,000	$9,913.00	$13,302.46	$ 3,389.46	34.19%
35	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,625,000	$10,135.00	$13,600.05	$ 3,465.05	34.19%
36	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,700,000	$10,357.00	$13,897.64	$ 3,540.64	34.19%
37	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,775,000	$10,579.00	$14,195.23	$ 3,616.23	34.18%
38	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,850,000	$10,801.00	$14,492.82	$ 3,691.82	34.18%
39	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		2,925,000	$11,023.00	$14,790.40	$ 3,767.40	34.18%
40	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,000,000	$11,245.00	$15,087.99	$ 3,842.99	34.18%
41	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,075,000	$11,467.00	$15,385.58	$ 3,918.58	34.17%
42	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,150,000	$11,689.00	$15,683.17	$ 3,994.17	34.17%
43	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,225,000	$11,911.00	$15,980.76	$ 4,069.76	34.17%
44	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,300,000	$12,133.00	$16,278.34	$ 4,145.34	34.17%
45	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,375,000	$12,355.00	$16,575.93	$ 4,220.93	34.16%
46	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,450,000	$12,577.00	$16,873.52	$ 4,296.52	34.16%
47	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,525,000	$12,799.00	$17,171.11	$ 4,372.11	34.16%
48	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,600,000	$13,021.00	$17,468.70	$ 4,447.70	34.16%
49	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,675,000	$13,243.00	$17,766.28	$ 4,523.28	34.16%
50	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,750,000	$13,465.00	$18,063.87	$ 4,598.87	34.15%
51	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,825,000	$13,687.00	$18,361.46	$ 4,674.46	34.15%
52	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,900,000	$13,909.00	$18,659.05	$ 4,750.05	34.15%
53	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		3,975,000	$14,131.00	$18,956.64	$ 4,825.64	34.15%
54	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		4,050,000	$14,353.00	$19,254.22	$ 4,901.22	34.15%
55	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter		4,125,000	$14,575.00	$19,551.81	$ 4,976.81	34.15%
56								
57	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		1,000	$19.46	$26.19	$ 6.73	34.56%
2	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		2,000	$22.42	$30.15	$ 7.73	34.49%
3	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		3,000	$25.38	$34.12	$ 8.74	34.44%
4	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		4,000	$28.34	$38.09	$ 9.75	34.40%
5	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		5,000	$31.30	$42.06	$ 10.76	34.37%
6	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		6,000	$34.26	$46.02	$ 11.76	34.34%
7	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		7,000	$37.22	$49.99	$ 12.77	34.32%
8	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		8,000	$40.18	$53.96	$ 13.78	34.30%
9	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		9,000	$43.14	$57.93	$ 14.79	34.28%
10	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		10,000	$46.10	$61.90	$ 15.80	34.26%
11	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		11,000	$49.06	$65.86	$ 16.80	34.25%
12	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		12,000	$52.02	$69.83	$ 17.81	34.24%
13	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		13,000	$54.98	$73.80	$ 18.82	34.23%
14	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		14,000	$57.94	$77.77	$ 19.83	34.22%
15	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		15,000	$60.90	$81.73	$ 20.83	34.21%
16	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		16,000	$63.86	$85.70	$ 21.84	34.20%
17	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		17,000	$66.82	$89.67	$ 22.85	34.20%
18	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		18,000	$69.78	$93.64	$ 23.86	34.19%
19	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		19,000	$72.74	$97.61	$ 24.87	34.19%
20	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		20,000	$75.70	$101.57	$ 25.87	34.18%
21	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		21,000	$78.66	$105.54	$ 26.88	34.17%
22	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		22,000	$81.62	$109.51	$ 27.89	34.17%
23	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		23,000	$84.58	$113.48	$ 28.90	34.17%
24	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		24,000	$87.54	$117.45	$ 29.91	34.16%
25	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		25,000	$90.50	$121.41	$ 30.91	34.16%
26	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		26,000	$93.46	$125.38	$ 31.92	34.15%
27	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		27,000	$96.42	$129.35	$ 32.93	34.15%
28	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		28,000	$99.38	$133.32	$ 33.94	34.15%
29	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		29,000	$102.34	$137.28	$ 34.94	34.15%
30	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		30,000	$105.30	$141.25	$ 35.95	34.14%
31	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		31,000	$108.26	$145.22	$ 36.96	34.14%
32	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		32,000	$111.22	$149.19	$ 37.97	34.14%
33	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		33,000	$114.18	$153.16	$ 38.98	34.14%
34	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		34,000	$117.14	$157.12	$ 39.98	34.13%
35	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		35,000	$120.10	$161.09	$ 40.99	34.13%
36	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		36,000	$123.06	$165.06	$ 42.00	34.13%
37	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		37,000	$126.02	$169.03	$ 43.01	34.13%
38	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		38,000	$128.98	$173.00	$ 44.02	34.13%
39	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		39,000	$131.94	$176.96	$ 45.02	34.12%
40	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		40,000	$134.90	$180.93	$ 46.03	34.12%
41	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		41,000	$137.86	$184.90	$ 47.04	34.12%
42	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		42,000	$140.82	$188.87	$ 48.05	34.12%
43	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		43,000	$143.78	$192.83	$ 49.05	34.12%
44	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		44,000	$146.74	$196.80	$ 50.06	34.12%
45	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		45,000	$149.70	$200.77	$ 51.07	34.11%
46	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		46,000	$152.66	$204.74	$ 52.08	34.11%
47	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		47,000	$155.62	$208.71	$ 53.09	34.11%
48	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		48,000	$158.58	$212.67	$ 54.09	34.11%
49	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		49,000	$161.54	$216.64	$ 55.10	34.11%
50	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		50,000	$164.50	$220.61	$ 56.11	34.11%
51	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		51,000	$167.46	$224.58	$ 57.12	34.11%
52	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		52,000	$170.42	$228.54	$ 58.12	34.11%
53	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		53,000	$173.38	$232.51	$ 59.13	34.11%
54	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		54,000	$176.34	$236.48	$ 60.14	34.10%
55	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter		55,000	$179.30	$240.45	$ 61.15	34.10%
56								
57	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter	Average:	15,632	$62.77	$84.24	$ 21.47	34.21%
58								
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60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
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Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		4,000	$39.34	$52.90	$ 13.56	34.47%
2	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		8,000	$51.18	$68.77	$ 17.59	34.37%
3	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		12,000	$63.02	$84.64	$ 21.62	34.31%
4	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		16,000	$74.86	$100.51	$ 25.65	34.27%
5	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		20,000	$86.70	$116.39	$ 29.69	34.24%
6	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		24,000	$98.54	$132.26	$ 33.72	34.22%
7	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		28,000	$110.38	$148.13	$ 37.75	34.20%
8	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		32,000	$122.22	$164.00	$ 41.78	34.18%
9	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		36,000	$134.06	$179.87	$ 45.81	34.17%
10	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		40,000	$145.90	$195.74	$ 49.84	34.16%
11	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		44,000	$157.74	$211.61	$ 53.87	34.15%
12	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		48,000	$169.58	$227.49	$ 57.91	34.15%
13	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		52,000	$181.42	$243.36	$ 61.94	34.14%
14	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		56,000	$193.26	$259.23	$ 65.97	34.13%
15	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		60,000	$205.10	$275.10	$ 70.00	34.13%
16	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		64,000	$216.94	$290.97	$ 74.03	34.12%
17	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		68,000	$228.78	$306.84	$ 78.06	34.12%
18	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		72,000	$240.62	$322.71	$ 82.09	34.12%
19	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		76,000	$252.46	$338.58	$ 86.12	34.11%
20	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		80,000	$264.30	$354.46	$ 90.16	34.11%
21	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		84,000	$276.14	$370.33	$ 94.19	34.11%
22	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		88,000	$287.98	$386.20	$ 98.22	34.11%
23	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		92,000	$299.82	$402.07	$ 102.25	34.10%
24	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		96,000	$311.66	$417.94	$ 106.28	34.10%
25	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		100,000	$323.50	$433.81	$ 110.31	34.10%
26	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		104,000	$335.34	$449.68	$ 114.34	34.10%
27	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		108,000	$347.18	$465.56	$ 118.38	34.10%
28	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		112,000	$359.02	$481.43	$ 122.41	34.09%
29	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		116,000	$370.86	$497.30	$ 126.44	34.09%
30	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		120,000	$382.70	$513.17	$ 130.47	34.09%
31	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		124,000	$394.54	$529.04	$ 134.50	34.09%
32	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		128,000	$406.38	$544.91	$ 138.53	34.09%
33	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		132,000	$418.22	$560.78	$ 142.56	34.09%
34	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		136,000	$430.06	$576.65	$ 146.59	34.09%
35	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		140,000	$441.90	$592.53	$ 150.63	34.09%
36	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		144,000	$453.74	$608.40	$ 154.66	34.09%
37	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		148,000	$465.58	$624.27	$ 158.69	34.08%
38	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		152,000	$477.42	$640.14	$ 162.72	34.08%
39	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		156,000	$489.26	$656.01	$ 166.75	34.08%
40	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		160,000	$501.10	$671.88	$ 170.78	34.08%
41	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		164,000	$512.94	$687.75	$ 174.81	34.08%
42	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		168,000	$524.78	$703.63	$ 178.85	34.08%
43	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		172,000	$536.62	$719.50	$ 182.88	34.08%
44	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		176,000	$548.46	$735.37	$ 186.91	34.08%
45	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		180,000	$560.30	$751.24	$ 190.94	34.08%
46	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		184,000	$572.14	$767.11	$ 194.97	34.08%
47	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		188,000	$583.98	$782.98	$ 199.00	34.08%
48	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		192,000	$595.82	$798.85	$ 203.03	34.08%
49	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		196,000	$607.66	$814.73	$ 207.07	34.08%
50	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		200,000	$619.50	$830.60	$ 211.10	34.08%
51	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		204,000	$631.34	$846.47	$ 215.13	34.07%
52	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		208,000	$643.18	$862.34	$ 219.16	34.07%
53	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		212,000	$655.02	$878.21	$ 223.19	34.07%
54	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		216,000	$666.86	$894.08	$ 227.22	34.07%
55	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter		220,000	$678.70	$909.95	$ 231.25	34.07%
56								
57	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter	Average:	5,333	$43.29	$58.19	$ 14.90	34.43%
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59								
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		4,000	$66.84	$89.93	$ 23.09	34.54%
2	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		8,000	$78.68	$105.80	$ 27.12	34.47%
3	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		12,000	$90.52	$121.67	$ 31.15	34.41%
4	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		16,000	$102.36	$137.54	$ 35.18	34.37%
5	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		20,000	$114.20	$153.41	$ 39.21	34.34%
6	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		24,000	$126.04	$169.29	$ 43.25	34.31%
7	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		28,000	$137.88	$185.16	$ 47.28	34.29%
8	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		32,000	$149.72	$201.03	$ 51.31	34.27%
9	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		36,000	$161.56	$216.90	$ 55.34	34.25%
10	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		40,000	$173.40	$232.77	$ 59.37	34.24%
11	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		44,000	$185.24	$248.64	$ 63.40	34.23%
12	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		48,000	$197.08	$264.51	$ 67.43	34.22%
13	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		52,000	$208.92	$280.39	$ 71.47	34.21%
14	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		56,000	$220.76	$296.26	$ 75.50	34.20%
15	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		60,000	$232.60	$312.13	$ 79.53	34.19%
16	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		64,000	$244.44	$328.00	$ 83.56	34.18%
17	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		68,000	$256.28	$343.87	$ 87.59	34.18%
18	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		72,000	$268.12	$359.74	$ 91.62	34.17%
19	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		76,000	$279.96	$375.61	$ 95.65	34.17%
20	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		80,000	$291.80	$391.48	$ 99.68	34.16%
21	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		84,000	$303.64	$407.36	$ 103.72	34.16%
22	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		88,000	$315.48	$423.23	$ 107.75	34.15%
23	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		92,000	$327.32	$439.10	$ 111.78	34.15%
24	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		96,000	$339.16	$454.97	$ 115.81	34.15%
25	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		100,000	$351.00	$470.84	$ 119.84	34.14%
26	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		104,000	$362.84	$486.71	$ 123.87	34.14%
27	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		108,000	$374.68	$502.58	$ 127.90	34.14%
28	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		112,000	$386.52	$518.46	$ 131.94	34.13%
29	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		116,000	$398.36	$534.33	$ 135.97	34.13%
30	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		120,000	$410.20	$550.20	$ 140.00	34.13%
31	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		124,000	$422.04	$566.07	$ 144.03	34.13%
32	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		128,000	$433.88	$581.94	$ 148.06	34.12%
33	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		132,000	$445.72	$597.81	$ 152.09	34.12%
34	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		136,000	$457.56	$613.68	$ 156.12	34.12%
35	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		140,000	$469.40	$629.56	$ 160.16	34.12%
36	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		144,000	$481.24	$645.43	$ 164.19	34.12%
37	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		148,000	$493.08	$661.30	$ 168.22	34.12%
38	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		152,000	$504.92	$677.17	$ 172.25	34.11%
39	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		156,000	$516.76	$693.04	$ 176.28	34.11%
40	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		160,000	$528.60	$708.91	$ 180.31	34.11%
41	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		164,000	$540.44	$724.78	$ 184.34	34.11%
42	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		168,000	$552.28	$740.65	$ 188.37	34.11%
43	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		172,000	$564.12	$756.53	$ 192.41	34.11%
44	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		176,000	$575.96	$772.40	$ 196.44	34.11%
45	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		180,000	$587.80	$788.27	$ 200.47	34.10%
46	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		184,000	$599.64	$804.14	$ 204.50	34.10%
47	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		188,000	$611.48	$820.01	$ 208.53	34.10%
48	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		192,000	$623.32	$835.88	$ 212.56	34.10%
49	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		196,000	$635.16	$851.75	$ 216.59	34.10%
50	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		200,000	$647.00	$867.63	$ 220.63	34.10%
51	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		204,000	$658.84	$883.50	$ 224.66	34.10%
52	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		208,000	$670.68	$899.37	$ 228.69	34.10%
53	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		212,000	$682.52	$915.24	$ 232.72	34.10%
54	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		216,000	$694.36	$931.11	$ 236.75	34.10%
55	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter		220,000	$706.20	$946.98	$ 240.78	34.10%
56								
57	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter	Average:	4,444	$68.15	$91.69	$ 23.54	34.53%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		4,000	$99.84	$134.36	$ 34.52	34.58%
2	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		8,000	$111.68	$150.23	$ 38.55	34.52%
3	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		12,000	$123.52	$166.11	$ 42.59	34.48%
4	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		16,000	$135.36	$181.98	$ 46.62	34.44%
5	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		20,000	$147.20	$197.85	$ 50.65	34.41%
6	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		24,000	$159.04	$213.72	$ 54.68	34.38%
7	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		28,000	$170.88	$229.59	$ 58.71	34.36%
8	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		32,000	$182.72	$245.46	$ 62.74	34.34%
9	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		36,000	$194.56	$261.33	$ 66.77	34.32%
10	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		40,000	$206.40	$277.21	$ 70.81	34.31%
11	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		44,000	$218.24	$293.08	$ 74.84	34.29%
12	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		48,000	$230.08	$308.95	$ 78.87	34.28%
13	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		52,000	$241.92	$324.82	$ 82.90	34.27%
14	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		56,000	$253.76	$340.69	$ 86.93	34.26%
15	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		60,000	$265.60	$356.56	$ 90.96	34.25%
16	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		64,000	$277.44	$372.43	$ 94.99	34.24%
17	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		68,000	$289.28	$388.31	$ 99.03	34.23%
18	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		72,000	$301.12	$404.18	$ 103.06	34.22%
19	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		76,000	$312.96	$420.05	$ 107.09	34.22%
20	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		80,000	$324.80	$435.92	$ 111.12	34.21%
21	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		84,000	$336.64	$451.79	$ 115.15	34.21%
22	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		88,000	$348.48	$467.66	$ 119.18	34.20%
23	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		92,000	$360.32	$483.53	$ 123.21	34.20%
24	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		96,000	$372.16	$499.40	$ 127.24	34.19%
25	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		100,000	$384.00	$515.28	$ 131.28	34.19%
26	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		104,000	$395.84	$531.15	$ 135.31	34.18%
27	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		108,000	$407.68	$547.02	$ 139.34	34.18%
28	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		112,000	$419.52	$562.89	$ 143.37	34.17%
29	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		116,000	$431.36	$578.76	$ 147.40	34.17%
30	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		120,000	$443.20	$594.63	$ 151.43	34.17%
31	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		124,000	$455.04	$610.50	$ 155.46	34.16%
32	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		128,000	$466.88	$626.38	$ 159.50	34.16%
33	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		132,000	$478.72	$642.25	$ 163.53	34.16%
34	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		136,000	$490.56	$658.12	$ 167.56	34.16%
35	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		140,000	$502.40	$673.99	$ 171.59	34.15%
36	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		144,000	$514.24	$689.86	$ 175.62	34.15%
37	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		148,000	$526.08	$705.73	$ 179.65	34.15%
38	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		152,000	$537.92	$721.60	$ 183.68	34.15%
39	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		156,000	$549.76	$737.48	$ 187.72	34.14%
40	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		160,000	$561.60	$753.35	$ 191.75	34.14%
41	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		164,000	$573.44	$769.22	$ 195.78	34.14%
42	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		168,000	$585.28	$785.09	$ 199.81	34.14%
43	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		172,000	$597.12	$800.96	$ 203.84	34.14%
44	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		176,000	$608.96	$816.83	$ 207.87	34.14%
45	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		180,000	$620.80	$832.70	$ 211.90	34.13%
46	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		184,000	$632.64	$848.57	$ 215.93	34.13%
47	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		188,000	$644.48	$864.45	$ 219.97	34.13%
48	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		192,000	$656.32	$880.32	$ 224.00	34.13%
49	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		196,000	$668.16	$896.19	$ 228.03	34.13%
50	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		200,000	$680.00	$912.06	$ 232.06	34.13%
51	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		204,000	$691.84	$927.93	$ 236.09	34.13%
52	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		208,000	$703.68	$943.80	$ 240.12	34.12%
53	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		212,000	$715.52	$959.67	$ 244.15	34.12%
54	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		216,000	$727.36	$975.55	$ 248.19	34.12%
55	F2H_C, S2H_C	Chaparral Hydrant 2" Meter		220,000	$739.20	$991.42	$ 252.22	34.12%
56								
57	F2H_C, S2H_C	Chaparral Hydrant 2" Meter	Average:	583	$ 89.73	$ 120.81	$ 31.08	34.64%
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		4,000	$187.84	$252.86	$ 65.02	34.61%
2	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		8,000	$199.68	$268.73	$ 69.05	34.58%
3	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		12,000	$211.52	$284.60	$ 73.08	34.55%
4	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		16,000	$223.36	$300.47	$ 77.11	34.52%
5	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		20,000	$235.20	$316.34	$ 81.14	34.50%
6	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		24,000	$247.04	$332.21	$ 85.17	34.48%
7	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		28,000	$258.88	$348.08	$ 89.20	34.46%
8	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		32,000	$270.72	$363.95	$ 93.23	34.44%
9	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		36,000	$282.56	$379.83	$ 97.27	34.42%
10	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		40,000	$294.40	$395.70	$ 101.30	34.41%
11	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		44,000	$306.24	$411.57	$ 105.33	34.39%
12	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		48,000	$318.08	$427.44	$ 109.36	34.38%
13	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		52,000	$329.92	$443.31	$ 113.39	34.37%
14	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		56,000	$341.76	$459.18	$ 117.42	34.36%
15	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		60,000	$353.60	$475.05	$ 121.45	34.35%
16	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		64,000	$365.44	$490.93	$ 125.49	34.34%
17	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		68,000	$377.28	$506.80	$ 129.52	34.33%
18	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		72,000	$389.12	$522.67	$ 133.55	34.32%
19	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		76,000	$400.96	$538.54	$ 137.58	34.31%
20	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		80,000	$412.80	$554.41	$ 141.61	34.31%
21	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		84,000	$424.64	$570.28	$ 145.64	34.30%
22	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		88,000	$436.48	$586.15	$ 149.67	34.29%
23	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		92,000	$448.32	$602.03	$ 153.71	34.28%
24	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		96,000	$460.16	$617.90	$ 157.74	34.28%
25	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		100,000	$472.00	$633.77	$ 161.77	34.27%
26	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		104,000	$483.84	$649.64	$ 165.80	34.27%
27	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		108,000	$495.68	$665.51	$ 169.83	34.26%
28	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		112,000	$507.52	$681.38	$ 173.86	34.26%
29	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		116,000	$519.36	$697.25	$ 177.89	34.25%
30	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		120,000	$531.20	$713.12	$ 181.92	34.25%
31	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		124,000	$543.04	$729.00	$ 185.96	34.24%
32	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		128,000	$554.88	$744.87	$ 189.99	34.24%
33	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		132,000	$566.72	$760.74	$ 194.02	34.24%
34	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		136,000	$578.56	$776.61	$ 198.05	34.23%
35	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		140,000	$590.40	$792.48	$ 202.08	34.23%
36	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		144,000	$602.24	$808.35	$ 206.11	34.22%
37	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		148,000	$614.08	$824.22	$ 210.14	34.22%
38	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		152,000	$625.92	$840.10	$ 214.18	34.22%
39	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		156,000	$637.76	$855.97	$ 218.21	34.21%
40	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		160,000	$649.60	$871.84	$ 222.24	34.21%
41	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		164,000	$661.44	$887.71	$ 226.27	34.21%
42	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		168,000	$673.28	$903.58	$ 230.30	34.21%
43	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		172,000	$685.12	$919.45	$ 234.33	34.20%
44	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		176,000	$696.96	$935.32	$ 238.36	34.20%
45	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		180,000	$708.80	$951.20	$ 242.40	34.20%
46	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		184,000	$720.64	$967.07	$ 246.43	34.20%
47	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		188,000	$732.48	$982.94	$ 250.46	34.19%
48	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		192,000	$744.32	$998.81	$ 254.49	34.19%
49	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		196,000	$756.16	$1,014.68	$ 258.52	34.19%
50	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		200,000	$768.00	$1,030.55	$ 262.55	34.19%
51	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		204,000	$779.84	$1,046.42	$ 266.58	34.18%
52	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		208,000	$791.68	$1,062.29	$ 270.61	34.18%
53	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		212,000	$803.52	$1,078.17	$ 274.65	34.18%
54	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		216,000	$815.36	$1,094.04	$ 278.68	34.18%
55	F3H_C, S3H_C	Chaparral Hydrant 3" Meter		220,000	$827.20	$1,109.91	$ 282.71	34.18%
56								
57	F3H_C, S3H_C	Chaparral Hydrant 3" Meter	Average:	28,212	$ 259.51	$ 348.92	$ 89.42	34.46%
58								
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Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		7,000	$295.72	$398.06	$ 102.34	34.61%
2	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		14,000	$316.44	$425.84	$ 109.40	34.57%
3	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		21,000	$337.16	$453.61	$ 116.45	34.54%
4	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		28,000	$357.88	$481.39	$ 123.51	34.51%
5	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		35,000	$378.60	$509.16	$ 130.56	34.49%
6	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		42,000	$399.32	$536.94	$ 137.62	34.46%
7	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		49,000	$420.04	$564.71	$ 144.67	34.44%
8	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		56,000	$440.76	$592.49	$ 151.73	34.42%
9	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		63,000	$461.48	$620.26	$ 158.78	34.41%
10	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		70,000	$482.20	$648.04	$ 165.84	34.39%
11	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		77,000	$502.92	$675.81	$ 172.89	34.38%
12	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		84,000	$523.64	$703.59	$ 179.95	34.36%
13	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		91,000	$544.36	$731.36	$ 187.00	34.35%
14	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		98,000	$565.08	$759.14	$ 194.06	34.34%
15	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		105,000	$585.80	$786.91	$ 201.11	34.33%
16	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		112,000	$606.52	$814.69	$ 208.17	34.32%
17	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		119,000	$627.24	$842.46	$ 215.22	34.31%
18	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		126,000	$647.96	$870.24	$ 222.28	34.30%
19	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		133,000	$668.68	$898.01	$ 229.33	34.30%
20	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		140,000	$689.40	$925.79	$ 236.39	34.29%
21	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		147,000	$710.12	$953.56	$ 243.44	34.28%
22	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		154,000	$730.84	$981.33	$ 250.49	34.27%
23	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		161,000	$751.56	$1,009.11	$ 257.55	34.27%
24	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		168,000	$772.28	$1,036.88	$ 264.60	34.26%
25	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		175,000	$793.00	$1,064.66	$ 271.66	34.26%
26	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		182,000	$813.72	$1,092.43	$ 278.71	34.25%
27	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		189,000	$834.44	$1,120.21	$ 285.77	34.25%
28	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		196,000	$855.16	$1,147.98	$ 292.82	34.24%
29	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		203,000	$875.88	$1,175.76	$ 299.88	34.24%
30	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		210,000	$896.60	$1,203.53	$ 306.93	34.23%
31	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		217,000	$917.32	$1,231.31	$ 313.99	34.23%
32	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		224,000	$938.04	$1,259.08	$ 321.04	34.22%
33	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		231,000	$958.76	$1,286.86	$ 328.10	34.22%
34	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		238,000	$979.48	$1,314.63	$ 335.15	34.22%
35	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		245,000	$1,000.20	$1,342.41	$ 342.21	34.21%
36	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		252,000	$1,020.92	$1,370.18	$ 349.26	34.21%
37	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		259,000	$1,041.64	$1,397.96	$ 356.32	34.21%
38	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		266,000	$1,062.36	$1,425.73	$ 363.37	34.20%
39	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		273,000	$1,083.08	$1,453.51	$ 370.43	34.20%
40	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		280,000	$1,103.80	$1,481.28	$ 377.48	34.20%
41	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		287,000	$1,124.52	$1,509.06	$ 384.54	34.20%
42	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		294,000	$1,145.24	$1,536.83	$ 391.59	34.19%
43	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		301,000	$1,165.96	$1,564.61	$ 398.65	34.19%
44	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		308,000	$1,186.68	$1,592.38	$ 405.70	34.19%
45	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		315,000	$1,207.40	$1,620.16	$ 412.76	34.19%
46	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		322,000	$1,228.12	$1,647.93	$ 419.81	34.18%
47	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		329,000	$1,248.84	$1,675.71	$ 426.87	34.18%
48	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		336,000	$1,269.56	$1,703.48	$ 433.92	34.18%
49	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		343,000	$1,290.28	$1,731.26	$ 440.98	34.18%
50	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		350,000	$1,311.00	$1,759.03	$ 448.03	34.17%
51	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		357,000	$1,331.72	$1,786.81	$ 455.09	34.17%
52	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		364,000	$1,352.44	$1,814.58	$ 462.14	34.17%
53	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		371,000	$1,373.16	$1,842.36	$ 469.20	34.17%
54	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		378,000	$1,393.88	$1,870.13	$ 476.25	34.17%
55	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter		385,000	$1,414.60	$1,897.91	$ 483.31	34.17%
56								
57	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		50,000	$698.00	$938.97	$ 240.97	34.52%
2	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		100,000	$846.00	$1,137.36	$ 291.36	34.44%
3	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		150,000	$994.00	$1,335.75	$ 341.75	34.38%
4	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		200,000	$1,142.00	$1,534.14	$ 392.14	34.34%
5	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		250,000	$1,290.00	$1,732.54	$ 442.54	34.31%
6	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		300,000	$1,438.00	$1,930.93	$ 492.93	34.28%
7	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		350,000	$1,586.00	$2,129.32	$ 543.32	34.26%
8	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		400,000	$1,734.00	$2,327.71	$ 593.71	34.24%
9	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		450,000	$1,882.00	$2,526.10	$ 644.10	34.22%
10	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		500,000	$2,030.00	$2,724.50	$ 694.50	34.21%
11	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		600,000	$2,326.00	$3,121.28	$ 795.28	34.19%
12	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		700,000	$2,622.00	$3,518.06	$ 896.06	34.17%
13	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		800,000	$2,918.00	$3,914.85	$ 996.85	34.16%
14	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		900,000	$3,214.00	$4,311.63	$ 1,097.63	34.15%
15	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,000,000	$3,510.00	$4,708.42	$ 1,198.42	34.14%
16	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,100,000	$3,806.00	$5,105.20	$ 1,299.20	34.14%
17	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,200,000	$4,102.00	$5,501.98	$ 1,399.98	34.13%
18	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,300,000	$4,398.00	$5,898.77	$ 1,500.77	34.12%
19	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,400,000	$4,694.00	$6,295.55	$ 1,601.55	34.12%
20	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,500,000	$4,990.00	$6,692.34	$ 1,702.34	34.11%
21	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,600,000	$5,286.00	$7,089.12	$ 1,803.12	34.11%
22	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,700,000	$5,582.00	$7,485.90	$ 1,903.90	34.11%
23	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,800,000	$5,878.00	$7,882.69	$ 2,004.69	34.10%
24	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		1,900,000	$6,174.00	$8,279.47	$ 2,105.47	34.10%
25	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,000,000	$6,470.00	$8,676.26	$ 2,206.26	34.10%
26	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,100,000	$6,766.00	$9,073.04	$ 2,307.04	34.10%
27	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,200,000	$7,062.00	$9,469.82	$ 2,407.82	34.10%
28	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,300,000	$7,358.00	$9,866.61	$ 2,508.61	34.09%
29	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,400,000	$7,654.00	$10,263.39	$ 2,609.39	34.09%
30	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,500,000	$7,950.00	$10,660.18	$ 2,710.18	34.09%
31	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,600,000	$8,246.00	$11,056.96	$ 2,810.96	34.09%
32	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,700,000	$8,542.00	$11,453.74	$ 2,911.74	34.09%
33	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,800,000	$8,838.00	$11,850.53	$ 3,012.53	34.09%
34	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		2,900,000	$9,134.00	$12,247.31	$ 3,113.31	34.08%
35	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,000,000	$9,430.00	$12,644.10	$ 3,214.10	34.08%
36	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,100,000	$9,726.00	$13,040.88	$ 3,314.88	34.08%
37	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,200,000	$10,022.00	$13,437.66	$ 3,415.66	34.08%
38	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,300,000	$10,318.00	$13,834.45	$ 3,516.45	34.08%
39	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,400,000	$10,614.00	$14,231.23	$ 3,617.23	34.08%
40	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,500,000	$10,910.00	$14,628.02	$ 3,718.02	34.08%
41	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,600,000	$11,206.00	$15,024.80	$ 3,818.80	34.08%
42	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,700,000	$11,502.00	$15,421.58	$ 3,919.58	34.08%
43	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,800,000	$11,798.00	$15,818.37	$ 4,020.37	34.08%
44	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		3,900,000	$12,094.00	$16,215.15	$ 4,121.15	34.08%
45	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,000,000	$12,390.00	$16,611.94	$ 4,221.94	34.08%
46	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,100,000	$12,686.00	$17,008.72	$ 4,322.72	34.07%
47	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,200,000	$12,982.00	$17,405.50	$ 4,423.50	34.07%
48	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,300,000	$13,278.00	$17,802.29	$ 4,524.29	34.07%
49	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,400,000	$13,574.00	$18,199.07	$ 4,625.07	34.07%
50	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,500,000	$13,870.00	$18,595.86	$ 4,725.86	34.07%
51	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,600,000	$14,166.00	$18,992.64	$ 4,826.64	34.07%
52	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,700,000	$14,462.00	$19,389.42	$ 4,927.42	34.07%
53	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,800,000	$14,758.00	$19,786.21	$ 5,028.21	34.07%
54	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		4,900,000	$15,054.00	$20,182.99	$ 5,128.99	34.07%
55	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter		5,000,000	$15,350.00	$20,579.78	$ 5,229.78	34.07%
56								
57	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		50,000	$1,028.00	$1,383.31	$ 355.31	34.56%
2	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		100,000	$1,176.00	$1,581.70	$ 405.70	34.50%
3	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		150,000	$1,324.00	$1,780.10	$ 456.10	34.45%
4	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		200,000	$1,472.00	$1,978.49	$ 506.49	34.41%
5	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		250,000	$1,620.00	$2,176.88	$ 556.88	34.38%
6	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		300,000	$1,768.00	$2,375.27	$ 607.27	34.35%
7	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		350,000	$1,916.00	$2,573.66	$ 657.66	34.32%
8	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		400,000	$2,064.00	$2,772.06	$ 708.06	34.31%
9	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		450,000	$2,212.00	$2,970.45	$ 758.45	34.29%
10	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		500,000	$2,360.00	$3,168.84	$ 808.84	34.27%
11	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		600,000	$2,656.00	$3,565.62	$ 909.62	34.25%
12	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		700,000	$2,952.00	$3,962.41	$ 1,010.41	34.23%
13	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		800,000	$3,248.00	$4,359.19	$ 1,111.19	34.21%
14	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		900,000	$3,544.00	$4,755.98	$ 1,211.98	34.20%
15	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,000,000	$3,840.00	$5,152.76	$ 1,312.76	34.19%
16	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,100,000	$4,136.00	$5,549.54	$ 1,413.54	34.18%
17	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,200,000	$4,432.00	$5,946.33	$ 1,514.33	34.17%
18	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,300,000	$4,728.00	$6,343.11	$ 1,615.11	34.16%
19	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,400,000	$5,024.00	$6,739.90	$ 1,715.90	34.15%
20	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,500,000	$5,320.00	$7,136.68	$ 1,816.68	34.15%
21	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,600,000	$5,616.00	$7,533.46	$ 1,917.46	34.14%
22	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,700,000	$5,912.00	$7,930.25	$ 2,018.25	34.14%
23	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,800,000	$6,208.00	$8,327.03	$ 2,119.03	34.13%
24	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		1,900,000	$6,504.00	$8,723.82	$ 2,219.82	34.13%
25	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,000,000	$6,800.00	$9,120.60	$ 2,320.60	34.13%
26	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,100,000	$7,096.00	$9,517.38	$ 2,421.38	34.12%
27	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,200,000	$7,392.00	$9,914.17	$ 2,522.17	34.12%
28	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,300,000	$7,688.00	$10,310.95	$ 2,622.95	34.12%
29	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,400,000	$7,984.00	$10,707.74	$ 2,723.74	34.11%
30	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,500,000	$8,280.00	$11,104.52	$ 2,824.52	34.11%
31	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,600,000	$8,576.00	$11,501.30	$ 2,925.30	34.11%
32	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,700,000	$8,872.00	$11,898.09	$ 3,026.09	34.11%
33	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,800,000	$9,168.00	$12,294.87	$ 3,126.87	34.11%
34	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		2,900,000	$9,464.00	$12,691.66	$ 3,227.66	34.10%
35	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,000,000	$9,760.00	$13,088.44	$ 3,328.44	34.10%
36	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,100,000	$10,056.00	$13,485.22	$ 3,429.22	34.10%
37	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,200,000	$10,352.00	$13,882.01	$ 3,530.01	34.10%
38	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,300,000	$10,648.00	$14,278.79	$ 3,630.79	34.10%
39	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,400,000	$10,944.00	$14,675.58	$ 3,731.58	34.10%
40	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,500,000	$11,240.00	$15,072.36	$ 3,832.36	34.10%
41	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,600,000	$11,536.00	$15,469.14	$ 3,933.14	34.09%
42	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,700,000	$11,832.00	$15,865.93	$ 4,033.93	34.09%
43	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,800,000	$12,128.00	$16,262.71	$ 4,134.71	34.09%
44	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		3,900,000	$12,424.00	$16,659.50	$ 4,235.50	34.09%
45	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,000,000	$12,720.00	$17,056.28	$ 4,336.28	34.09%
46	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,100,000	$13,016.00	$17,453.06	$ 4,437.06	34.09%
47	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,200,000	$13,312.00	$17,849.85	$ 4,537.85	34.09%
48	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,300,000	$13,608.00	$18,246.63	$ 4,638.63	34.09%
49	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,400,000	$13,904.00	$18,643.42	$ 4,739.42	34.09%
50	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,500,000	$14,200.00	$19,040.20	$ 4,840.20	34.09%
51	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,600,000	$14,496.00	$19,436.98	$ 4,940.98	34.09%
52	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,700,000	$14,792.00	$19,833.77	$ 5,041.77	34.08%
53	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,800,000	$15,088.00	$20,230.55	$ 5,142.55	34.08%
54	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		4,900,000	$15,384.00	$20,627.34	$ 5,243.34	34.08%
55	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter		5,000,000	$15,680.00	$21,024.12	$ 5,344.12	34.08%
56								
57	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		50,000	$1,413.00	$1,901.71	$ 488.71	34.59%
2	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		100,000	$1,561.00	$2,100.11	$ 539.11	34.54%
3	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		150,000	$1,709.00	$2,298.50	$ 589.50	34.49%
4	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		200,000	$1,857.00	$2,496.89	$ 639.89	34.46%
5	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		250,000	$2,005.00	$2,695.28	$ 690.28	34.43%
6	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		300,000	$2,153.00	$2,893.67	$ 740.67	34.40%
7	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		350,000	$2,301.00	$3,092.07	$ 791.07	34.38%
8	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		400,000	$2,449.00	$3,290.46	$ 841.46	34.36%
9	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		450,000	$2,597.00	$3,488.85	$ 891.85	34.34%
10	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		500,000	$2,745.00	$3,687.24	$ 942.24	34.33%
11	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		550,000	$2,893.00	$3,885.63	$ 992.63	34.31%
12	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		600,000	$3,041.00	$4,084.03	$ 1,043.03	34.30%
13	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		650,000	$3,189.00	$4,282.42	$ 1,093.42	34.29%
14	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		700,000	$3,337.00	$4,480.81	$ 1,143.81	34.28%
15	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		750,000	$3,485.00	$4,679.20	$ 1,194.20	34.27%
16	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		800,000	$3,633.00	$4,877.59	$ 1,244.59	34.26%
17	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		850,000	$3,781.00	$5,075.99	$ 1,294.99	34.25%
18	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		900,000	$3,929.00	$5,274.38	$ 1,345.38	34.24%
19	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		950,000	$4,077.00	$5,472.77	$ 1,395.77	34.24%
20	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,000,000	$4,225.00	$5,671.16	$ 1,446.16	34.23%
21	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,050,000	$4,373.00	$5,869.55	$ 1,496.55	34.22%
22	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,100,000	$4,521.00	$6,067.95	$ 1,546.95	34.22%
23	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,150,000	$4,669.00	$6,266.34	$ 1,597.34	34.21%
24	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,200,000	$4,817.00	$6,464.73	$ 1,647.73	34.21%
25	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,250,000	$4,965.00	$6,663.12	$ 1,698.12	34.20%
26	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,300,000	$5,113.00	$6,861.51	$ 1,748.51	34.20%
27	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,350,000	$5,261.00	$7,059.91	$ 1,798.91	34.19%
28	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,400,000	$5,409.00	$7,258.30	$ 1,849.30	34.19%
29	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,450,000	$5,557.00	$7,456.69	$ 1,899.69	34.19%
30	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,500,000	$5,705.00	$7,655.08	$ 1,950.08	34.18%
31	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,550,000	$5,853.00	$7,853.47	$ 2,000.47	34.18%
32	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,600,000	$6,001.00	$8,051.87	$ 2,050.87	34.18%
33	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,650,000	$6,149.00	$8,250.26	$ 2,101.26	34.17%
34	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,700,000	$6,297.00	$8,448.65	$ 2,151.65	34.17%
35	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,750,000	$6,445.00	$8,647.04	$ 2,202.04	34.17%
36	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,800,000	$6,593.00	$8,845.43	$ 2,252.43	34.16%
37	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,850,000	$6,741.00	$9,043.83	$ 2,302.83	34.16%
38	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,900,000	$6,889.00	$9,242.22	$ 2,353.22	34.16%
39	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		1,950,000	$7,037.00	$9,440.61	$ 2,403.61	34.16%
40	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,000,000	$7,185.00	$9,639.00	$ 2,454.00	34.15%
41	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,050,000	$7,333.00	$9,837.39	$ 2,504.39	34.15%
42	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,100,000	$7,481.00	$10,035.79	$ 2,554.79	34.15%
43	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,150,000	$7,629.00	$10,234.18	$ 2,605.18	34.15%
44	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,200,000	$7,777.00	$10,432.57	$ 2,655.57	34.15%
45	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,250,000	$7,925.00	$10,630.96	$ 2,705.96	34.14%
46	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,300,000	$8,073.00	$10,829.35	$ 2,756.35	34.14%
47	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,350,000	$8,221.00	$11,027.75	$ 2,806.75	34.14%
48	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,400,000	$8,369.00	$11,226.14	$ 2,857.14	34.14%
49	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,450,000	$8,517.00	$11,424.53	$ 2,907.53	34.14%
50	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,500,000	$8,665.00	$11,622.92	$ 2,957.92	34.14%
51	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,550,000	$8,813.00	$11,821.31	$ 3,008.31	34.13%
52	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,600,000	$8,961.00	$12,019.71	$ 3,058.71	34.13%
53	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,650,000	$9,109.00	$12,218.10	$ 3,109.10	34.13%
54	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,700,000	$9,257.00	$12,416.49	$ 3,159.49	34.13%
55	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter		2,750,000	$9,405.00	$12,614.88	$ 3,209.88	34.13%
56								
57	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		75,000	$2,587.00	$3,482.06	$ 895.06	34.60%
2	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		150,000	$2,809.00	$3,779.65	$ 970.65	34.55%
3	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		225,000	$3,031.00	$4,077.24	$ 1,046.24	34.52%
4	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		300,000	$3,253.00	$4,374.82	$ 1,121.82	34.49%
5	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		375,000	$3,475.00	$4,672.41	$ 1,197.41	34.46%
6	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		450,000	$3,697.00	$4,970.00	$ 1,273.00	34.43%
7	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		525,000	$3,919.00	$5,267.59	$ 1,348.59	34.41%
8	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		600,000	$4,141.00	$5,565.18	$ 1,424.18	34.39%
9	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		675,000	$4,363.00	$5,862.76	$ 1,499.76	34.37%
10	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		750,000	$4,585.00	$6,160.35	$ 1,575.35	34.36%
11	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		825,000	$4,807.00	$6,457.94	$ 1,650.94	34.34%
12	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		900,000	$5,029.00	$6,755.53	$ 1,726.53	34.33%
13	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		975,000	$5,251.00	$7,053.12	$ 1,802.12	34.32%
14	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,050,000	$5,473.00	$7,350.70	$ 1,877.70	34.31%
15	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,125,000	$5,695.00	$7,648.29	$ 1,953.29	34.30%
16	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,200,000	$5,917.00	$7,945.88	$ 2,028.88	34.29%
17	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,275,000	$6,139.00	$8,243.47	$ 2,104.47	34.28%
18	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,350,000	$6,361.00	$8,541.06	$ 2,180.06	34.27%
19	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,425,000	$6,583.00	$8,838.64	$ 2,255.64	34.26%
20	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,500,000	$6,805.00	$9,136.23	$ 2,331.23	34.26%
21	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,575,000	$7,027.00	$9,433.82	$ 2,406.82	34.25%
22	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,650,000	$7,249.00	$9,731.41	$ 2,482.41	34.24%
23	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,725,000	$7,471.00	$10,029.00	$ 2,558.00	34.24%
24	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,800,000	$7,693.00	$10,326.58	$ 2,633.58	34.23%
25	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,875,000	$7,915.00	$10,624.17	$ 2,709.17	34.23%
26	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		1,950,000	$8,137.00	$10,921.76	$ 2,784.76	34.22%
27	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,025,000	$8,359.00	$11,219.35	$ 2,860.35	34.22%
28	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,100,000	$8,581.00	$11,516.94	$ 2,935.94	34.21%
29	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,175,000	$8,803.00	$11,814.52	$ 3,011.52	34.21%
30	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,250,000	$9,025.00	$12,112.11	$ 3,087.11	34.21%
31	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,325,000	$9,247.00	$12,409.70	$ 3,162.70	34.20%
32	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,400,000	$9,469.00	$12,707.29	$ 3,238.29	34.20%
33	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,475,000	$9,691.00	$13,004.88	$ 3,313.88	34.20%
34	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,550,000	$9,913.00	$13,302.46	$ 3,389.46	34.19%
35	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,625,000	$10,135.00	$13,600.05	$ 3,465.05	34.19%
36	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,700,000	$10,357.00	$13,897.64	$ 3,540.64	34.19%
37	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,775,000	$10,579.00	$14,195.23	$ 3,616.23	34.18%
38	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,850,000	$10,801.00	$14,492.82	$ 3,691.82	34.18%
39	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		2,925,000	$11,023.00	$14,790.40	$ 3,767.40	34.18%
40	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,000,000	$11,245.00	$15,087.99	$ 3,842.99	34.18%
41	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,075,000	$11,467.00	$15,385.58	$ 3,918.58	34.17%
42	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,150,000	$11,689.00	$15,683.17	$ 3,994.17	34.17%
43	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,225,000	$11,911.00	$15,980.76	$ 4,069.76	34.17%
44	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,300,000	$12,133.00	$16,278.34	$ 4,145.34	34.17%
45	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,375,000	$12,355.00	$16,575.93	$ 4,220.93	34.16%
46	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,450,000	$12,577.00	$16,873.52	$ 4,296.52	34.16%
47	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,525,000	$12,799.00	$17,171.11	$ 4,372.11	34.16%
48	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,600,000	$13,021.00	$17,468.70	$ 4,447.70	34.16%
49	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,675,000	$13,243.00	$17,766.28	$ 4,523.28	34.16%
50	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,750,000	$13,465.00	$18,063.87	$ 4,598.87	34.15%
51	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,825,000	$13,687.00	$18,361.46	$ 4,674.46	34.15%
52	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,900,000	$13,909.00	$18,659.05	$ 4,750.05	34.15%
53	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		3,975,000	$14,131.00	$18,956.64	$ 4,825.64	34.15%
54	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		4,050,000	$14,353.00	$19,254.22	$ 4,901.22	34.15%
55	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter		4,125,000	$14,575.00	$19,551.81	$ 4,976.81	34.15%
56								
57	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter	Average:	0	$0.00	$0.00	$ -	#DIV/0!
58								
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Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	FS - All Meter Sizes	Chaparral Fire Sprinklers		4,000	$21.84	$29.34	$ 7.50	34.32%
2	FS - All Meter Sizes	Chaparral Fire Sprinklers		8,000	$33.68	$45.21	$ 11.53	34.23%
3	FS - All Meter Sizes	Chaparral Fire Sprinklers		12,000	$45.52	$61.08	$ 15.56	34.18%
4	FS - All Meter Sizes	Chaparral Fire Sprinklers		16,000	$57.36	$76.95	$ 19.59	34.15%
5	FS - All Meter Sizes	Chaparral Fire Sprinklers		20,000	$69.20	$92.82	$ 23.62	34.14%
6	FS - All Meter Sizes	Chaparral Fire Sprinklers		24,000	$81.04	$108.69	$ 27.65	34.12%
7	FS - All Meter Sizes	Chaparral Fire Sprinklers		28,000	$92.88	$124.56	$ 31.68	34.11%
8	FS - All Meter Sizes	Chaparral Fire Sprinklers		32,000	$104.72	$140.44	$ 35.72	34.11%
9	FS - All Meter Sizes	Chaparral Fire Sprinklers		36,000	$116.56	$156.31	$ 39.75	34.10%
10	FS - All Meter Sizes	Chaparral Fire Sprinklers		40,000	$128.40	$172.18	$ 43.78	34.10%
11	FS - All Meter Sizes	Chaparral Fire Sprinklers		44,000	$140.24	$188.05	$ 47.81	34.09%
12	FS - All Meter Sizes	Chaparral Fire Sprinklers		48,000	$152.08	$203.92	$ 51.84	34.09%
13	FS - All Meter Sizes	Chaparral Fire Sprinklers		52,000	$163.92	$219.79	$ 55.87	34.09%
14	FS - All Meter Sizes	Chaparral Fire Sprinklers		56,000	$175.76	$235.66	$ 59.90	34.08%
15	FS - All Meter Sizes	Chaparral Fire Sprinklers		60,000	$187.60	$251.54	$ 63.94	34.08%
16	FS - All Meter Sizes	Chaparral Fire Sprinklers		64,000	$199.44	$267.41	$ 67.97	34.08%
17	FS - All Meter Sizes	Chaparral Fire Sprinklers		68,000	$211.28	$283.28	$ 72.00	34.08%
18	FS - All Meter Sizes	Chaparral Fire Sprinklers		72,000	$223.12	$299.15	$ 76.03	34.08%
19	FS - All Meter Sizes	Chaparral Fire Sprinklers		76,000	$234.96	$315.02	$ 80.06	34.07%
20	FS - All Meter Sizes	Chaparral Fire Sprinklers		80,000	$246.80	$330.89	$ 84.09	34.07%
21	FS - All Meter Sizes	Chaparral Fire Sprinklers		84,000	$258.64	$346.76	$ 88.12	34.07%
22	FS - All Meter Sizes	Chaparral Fire Sprinklers		88,000	$270.48	$362.63	$ 92.15	34.07%
23	FS - All Meter Sizes	Chaparral Fire Sprinklers		92,000	$282.32	$378.51	$ 96.19	34.07%
24	FS - All Meter Sizes	Chaparral Fire Sprinklers		96,000	$294.16	$394.38	$ 100.22	34.07%
25	FS - All Meter Sizes	Chaparral Fire Sprinklers		100,000	$306.00	$410.25	$ 104.25	34.07%
26	FS - All Meter Sizes	Chaparral Fire Sprinklers		104,000	$317.84	$426.12	$ 108.28	34.07%
27	FS - All Meter Sizes	Chaparral Fire Sprinklers		108,000	$329.68	$441.99	$ 112.31	34.07%
28	FS - All Meter Sizes	Chaparral Fire Sprinklers		112,000	$341.52	$457.86	$ 116.34	34.07%
29	FS - All Meter Sizes	Chaparral Fire Sprinklers		116,000	$353.36	$473.73	$ 120.37	34.07%
30	FS - All Meter Sizes	Chaparral Fire Sprinklers		120,000	$365.20	$489.61	$ 124.41	34.07%
31	FS - All Meter Sizes	Chaparral Fire Sprinklers		124,000	$377.04	$505.48	$ 128.44	34.06%
32	FS - All Meter Sizes	Chaparral Fire Sprinklers		128,000	$388.88	$521.35	$ 132.47	34.06%
33	FS - All Meter Sizes	Chaparral Fire Sprinklers		132,000	$400.72	$537.22	$ 136.50	34.06%
34	FS - All Meter Sizes	Chaparral Fire Sprinklers		136,000	$412.56	$553.09	$ 140.53	34.06%
35	FS - All Meter Sizes	Chaparral Fire Sprinklers		140,000	$424.40	$568.96	$ 144.56	34.06%
36	FS - All Meter Sizes	Chaparral Fire Sprinklers		144,000	$436.24	$584.83	$ 148.59	34.06%
37	FS - All Meter Sizes	Chaparral Fire Sprinklers		148,000	$448.08	$600.71	$ 152.63	34.06%
38	FS - All Meter Sizes	Chaparral Fire Sprinklers		152,000	$459.92	$616.58	$ 156.66	34.06%
39	FS - All Meter Sizes	Chaparral Fire Sprinklers		156,000	$471.76	$632.45	$ 160.69	34.06%
40	FS - All Meter Sizes	Chaparral Fire Sprinklers		160,000	$483.60	$648.32	$ 164.72	34.06%
41	FS - All Meter Sizes	Chaparral Fire Sprinklers		164,000	$495.44	$664.19	$ 168.75	34.06%
42	FS - All Meter Sizes	Chaparral Fire Sprinklers		168,000	$507.28	$680.06	$ 172.78	34.06%
43	FS - All Meter Sizes	Chaparral Fire Sprinklers		172,000	$519.12	$695.93	$ 176.81	34.06%
44	FS - All Meter Sizes	Chaparral Fire Sprinklers		176,000	$530.96	$711.80	$ 180.84	34.06%
45	FS - All Meter Sizes	Chaparral Fire Sprinklers		180,000	$542.80	$727.68	$ 184.88	34.06%
46	FS - All Meter Sizes	Chaparral Fire Sprinklers		184,000	$554.64	$743.55	$ 188.91	34.06%
47	FS - All Meter Sizes	Chaparral Fire Sprinklers		188,000	$566.48	$759.42	$ 192.94	34.06%
48	FS - All Meter Sizes	Chaparral Fire Sprinklers		192,000	$578.32	$775.29	$ 196.97	34.06%
49	FS - All Meter Sizes	Chaparral Fire Sprinklers		196,000	$590.16	$791.16	$ 201.00	34.06%
50	FS - All Meter Sizes	Chaparral Fire Sprinklers		200,000	$602.00	$807.03	$ 205.03	34.06%
51	FS - All Meter Sizes	Chaparral Fire Sprinklers		204,000	$613.84	$822.90	$ 209.06	34.06%
52	FS - All Meter Sizes	Chaparral Fire Sprinklers		208,000	$625.68	$838.78	$ 213.10	34.06%
53	FS - All Meter Sizes	Chaparral Fire Sprinklers		212,000	$637.52	$854.65	$ 217.13	34.06%
54	FS - All Meter Sizes	Chaparral Fire Sprinklers		216,000	$649.36	$870.52	$ 221.16	34.06%
55	FS - All Meter Sizes	Chaparral Fire Sprinklers		220,000	$661.20	$886.39	$ 225.19	34.06%
56								
57	FS - All Meter Sizes	Chaparral Fire Sprinklers	Average:	-	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								

Chaparral City Water Company
Test Year Ended December 31, 2012
Typical Bill Analysis

Exhibit
Schedule H-4 Rebuttal
Page 42
Witness: Hubbard

Line No.	Rate Schedule	Description		Consumption	Typical Bills Present Rates	Typical Bills Proposed Rates	Proposed Increase Amount	Proposed Increase %
1	SP2	Standpipe Water Service - 2" Meter		4,000	$11.84	$15.87	$ 4.03	34.05%
2	SP2	Standpipe Water Service - 2" Meter		8,000	$23.68	$31.74	$ 8.06	34.05%
3	SP2	Standpipe Water Service - 2" Meter		12,000	$35.52	$47.61	$ 12.09	34.05%
4	SP2	Standpipe Water Service - 2" Meter		16,000	$47.36	$63.49	$ 16.13	34.05%
5	SP2	Standpipe Water Service - 2" Meter		20,000	$59.20	$79.36	$ 20.16	34.05%
6	SP2	Standpipe Water Service - 2" Meter		24,000	$71.04	$95.23	$ 24.19	34.05%
7	SP2	Standpipe Water Service - 2" Meter		28,000	$82.88	$111.10	$ 28.22	34.05%
8	SP2	Standpipe Water Service - 2" Meter		32,000	$94.72	$126.97	$ 32.25	34.05%
9	SP2	Standpipe Water Service - 2" Meter		36,000	$106.56	$142.84	$ 36.28	34.05%
10	SP2	Standpipe Water Service - 2" Meter		40,000	$118.40	$158.71	$ 40.31	34.05%
11	SP2	Standpipe Water Service - 2" Meter		44,000	$130.24	$174.58	$ 44.34	34.05%
12	SP2	Standpipe Water Service - 2" Meter		48,000	$142.08	$190.46	$ 48.38	34.05%
13	SP2	Standpipe Water Service - 2" Meter		52,000	$153.92	$206.33	$ 52.41	34.05%
14	SP2	Standpipe Water Service - 2" Meter		56,000	$165.76	$222.20	$ 56.44	34.05%
15	SP2	Standpipe Water Service - 2" Meter		60,000	$177.60	$238.07	$ 60.47	34.05%
16	SP2	Standpipe Water Service - 2" Meter		64,000	$189.44	$253.94	$ 64.50	34.05%
17	SP2	Standpipe Water Service - 2" Meter		68,000	$201.28	$269.81	$ 68.53	34.05%
18	SP2	Standpipe Water Service - 2" Meter		72,000	$213.12	$285.68	$ 72.56	34.05%
19	SP2	Standpipe Water Service - 2" Meter		76,000	$224.96	$301.56	$ 76.60	34.05%
20	SP2	Standpipe Water Service - 2" Meter		80,000	$236.80	$317.43	$ 80.63	34.05%
21	SP2	Standpipe Water Service - 2" Meter		84,000	$248.64	$333.30	$ 84.66	34.05%
22	SP2	Standpipe Water Service - 2" Meter		88,000	$260.48	$349.17	$ 88.69	34.05%
23	SP2	Standpipe Water Service - 2" Meter		92,000	$272.32	$365.04	$ 92.72	34.05%
24	SP2	Standpipe Water Service - 2" Meter		96,000	$284.16	$380.91	$ 96.75	34.05%
25	SP2	Standpipe Water Service - 2" Meter		100,000	$296.00	$396.78	$ 100.78	34.05%
26	SP2	Standpipe Water Service - 2" Meter		104,000	$307.84	$412.66	$ 104.82	34.05%
27	SP2	Standpipe Water Service - 2" Meter		108,000	$319.68	$428.53	$ 108.85	34.05%
28	SP2	Standpipe Water Service - 2" Meter		112,000	$331.52	$444.40	$ 112.88	34.05%
29	SP2	Standpipe Water Service - 2" Meter		116,000	$343.36	$460.27	$ 116.91	34.05%
30	SP2	Standpipe Water Service - 2" Meter		120,000	$355.20	$476.14	$ 120.94	34.05%
31	SP2	Standpipe Water Service - 2" Meter		124,000	$367.04	$492.01	$ 124.97	34.05%
32	SP2	Standpipe Water Service - 2" Meter		128,000	$378.88	$507.88	$ 129.00	34.05%
33	SP2	Standpipe Water Service - 2" Meter		132,000	$390.72	$523.75	$ 133.03	34.05%
34	SP2	Standpipe Water Service - 2" Meter		136,000	$402.56	$539.63	$ 137.07	34.05%
35	SP2	Standpipe Water Service - 2" Meter		140,000	$414.40	$555.50	$ 141.10	34.05%
36	SP2	Standpipe Water Service - 2" Meter		144,000	$426.24	$571.37	$ 145.13	34.05%
37	SP2	Standpipe Water Service - 2" Meter		148,000	$438.08	$587.24	$ 149.16	34.05%
38	SP2	Standpipe Water Service - 2" Meter		152,000	$449.92	$603.11	$ 153.19	34.05%
39	SP2	Standpipe Water Service - 2" Meter		156,000	$461.76	$618.98	$ 157.22	34.05%
40	SP2	Standpipe Water Service - 2" Meter		160,000	$473.60	$634.85	$ 161.25	34.05%
41	SP2	Standpipe Water Service - 2" Meter		164,000	$485.44	$650.73	$ 165.29	34.05%
42	SP2	Standpipe Water Service - 2" Meter		168,000	$497.28	$666.60	$ 169.32	34.05%
43	SP2	Standpipe Water Service - 2" Meter		172,000	$509.12	$682.47	$ 173.35	34.05%
44	SP2	Standpipe Water Service - 2" Meter		176,000	$520.96	$698.34	$ 177.38	34.05%
45	SP2	Standpipe Water Service - 2" Meter		180,000	$532.80	$714.21	$ 181.41	34.05%
46	SP2	Standpipe Water Service - 2" Meter		184,000	$544.64	$730.08	$ 185.44	34.05%
47	SP2	Standpipe Water Service - 2" Meter		188,000	$556.48	$745.95	$ 189.47	34.05%
48	SP2	Standpipe Water Service - 2" Meter		192,000	$568.32	$761.83	$ 193.51	34.05%
49	SP2	Standpipe Water Service - 2" Meter		196,000	$580.16	$777.70	$ 197.54	34.05%
50	SP2	Standpipe Water Service - 2" Meter		200,000	$592.00	$793.57	$ 201.57	34.05%
51	SP2	Standpipe Water Service - 2" Meter		204,000	$603.84	$809.44	$ 205.60	34.05%
52	SP2	Standpipe Water Service - 2" Meter		208,000	$615.68	$825.31	$ 209.63	34.05%
53	SP2	Standpipe Water Service - 2" Meter		212,000	$627.52	$841.18	$ 213.66	34.05%
54	SP2	Standpipe Water Service - 2" Meter		216,000	$639.36	$857.05	$ 217.69	34.05%
55	SP2	Standpipe Water Service - 2" Meter		220,000	$651.20	$872.92	$ 221.72	34.05%
56								
57	SP2	Standpipe Water Service - 2" Meter	Average:	-	$0.00	$0.00	$ -	#DIV/0!
58								
59								
60								