**RHODE ISLAND PUBLIC UTILITIES COMMISSION**

**DOCKET NO.**
**PAWTUCKET WATER SUPPLY BOARD**

**PREFILED TESTIMONY OF**
**CHRISTOPHER P.N. WOODCOCK**
**ON BEHALF OF**
**PAWTUCKET WATER SUPPLY BOARD**

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**CHRISTOPHER P.N. WOODCOCK**

**Q: Please state your name and business address?**

A: My name is Christopher P.N. Woodcock and my business address is 18 Increase Ward Drive, Northborough, Massachusetts 01532.

**Q: By whom are you employed and in what capacity?**

A: I am the President of Woodcock & Associates, Inc. a consulting firm specializing in water and wastewater rate and financial studies.

## Prior Experience

**Q: Please describe your qualifications and experience.**

A: I have undergraduate degrees in Economics and in Civil Engineering from Tufts University in Medford, Massachusetts. After graduating in 1974, I was employed by the environmental consulting firm of Camp, Dresser, and McKee Inc. (CDM). For approximately 18 months I worked in the firm's environmental engineering group performing such tasks as designing water distribution and transmission pipes, sewer collection and interception systems, pumping facilities and portions of a wastewater treatment facility. From approximately January 1976, I worked in the firm's management and financial consulting services group, gaining increasing responsibility. At the time of my resignation, I was a corporate Vice President and appointed the leader of the group overseeing all rate and financial studies. In my career, I have worked on close to 400 water and wastewater rate and financial studies, primarily in the United States, but also for government agencies overseas. I have also worked on a number of engineering and financial feasibility studies in support of revenue

bond issues, I have helped draft and review revenue bond indentures, and I worked on several valuation studies, capital improvement financing analyses, and management audits of public works agencies. In addition to my professional experience I have also held elected and appointed positions on municipal boards overseeing public works functions.

**Q: Have your previously testified before state regulatory commissions or courts on rate related matters?**

A: Yes, I have provided testimony on rate related matters before utility commissions in Rhode Island, Maine, Connecticut, New York, New Hampshire, Texas, and Alberta, Canada. I have also been retained as an expert witness on utility rate related matters in proceedings in state courts in Arkansas, Florida, Massachusetts, Michigan, New Jersey, Maryland, Ohio, Virginia, and Pennsylvania, as well as the Federal Court in Michigan. I have been selected to several arbitration panels related to disputes over water rates and charges, I have provided testimony on rate related matters to the Michigan and Massachusetts legislatures, and I have provided testimony at administrative hearings on a number of occasions.

**Q: Do you belong to any professional organizations or committees?**

A: Yes, I am a member of the Water Environment Federation, the Rhode Island Water Works Association, the Massachusetts Water Works Association, the New England Water Works Association, and the American Water Works Association. For the Water Environment Federation, I was a member of the committee that prepared their manual on Wastewater Rates and Financing. For the New England Water Association, I am past chairman and a current member of the Financial Management Committee. In my capacity as President of the New England Water Works Association I also sit on the Executive Committee and the Board of Directors as well as chairing and sitting on a number of other administrative committees. For the American Water Works Association, I am past chairman of the Financial Management Committee and the Rates and Charges Committee that has prepared the manuals on Revenue Requirements, Water Rates, Alternative Rate Structures, and Water

Rates and Related Charges. I have been reappointed to and am currently a member of the Rates & Charges Committee.

## Summary

**Q: What is your role in this proceeding?**

A: Working with the staff of the Pawtucket Water Supply Board (PWSB) and its other consultants and advisors, I have prepared a summary of the requested rate year revenue requirements and have updated the cost of service allocations and rates based on Commission's findings in previous PWSB dockets.

PWSB's last rate filing (Docket 3945) was the first since the transfer of the Central Falls system. While that docket was settled, it did include a new methodology for allocating lost and unaccounted for water that was specifically approved by the Commission. I have continued to include that in this filing.

I have made one significant change to the prior cost allocations methodologies that I have used for Pawtucket (and have been used for other Rhode Island Water Utilities). Section 46-15.6-6 (Financing Infrastructure Replacement) was modified by the State Legislature to eliminate the requirement that IFR costs be recovered "directly proportionate to the users' water consumption." In the past, all IFR costs were to be recovered through metered or use based rates only. With this recent change, costs associated with meter replacements can be allocated to the meter or service charges and costs associated with providing capacity for fire protection (public or private) can be allocated to that service. As I have testified in past dockets, I believe the past restriction to only recover IFR costs through use based rates was a shortcoming of the prior IFR regulations. With the striking of this restriction, I believe that costs can be assigned to the proper components of rates and charges resulting in more equitable cost recovery.

With this change, I have updated the prior cost of service study and believe it generally complies with the Commission's findings in Pawtucket's prior dockets as well as the requirements found under Commission Docket 2049 – the 1993 Water Task Force Report on Cost of Service Study Methodology.

**Q: Will you summarize your other findings and conclusions?**

A: Pawtucket Water's requested rate year revenue requirement is $ 19,784,161. Revenues at current rates will provide revenues of $16,895,080[1]. Miscellaneous revenues will provide an additional $277,158 for total revenues of 17,172,238. As a result; the PWSB needs to increase its revenues by $2,611,923, or 15.6%. Excluding the miscellaneous revenues and proposed use of fund balances, PWSB needs to increase its water rates and charges by 15.5%. Based on the cost allocation study included in this filing, the proposed rates and charges change by varying amounts.

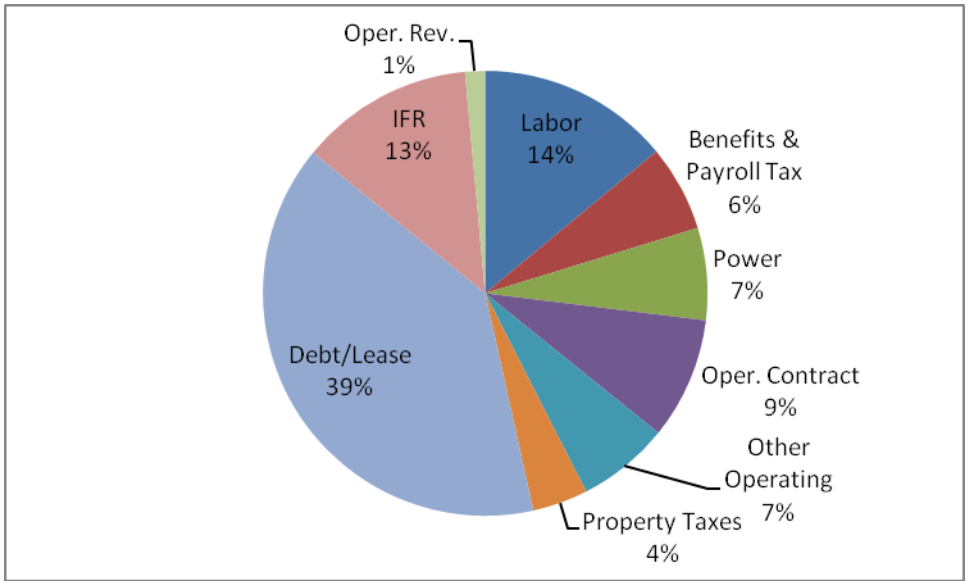
The rates that we are proposing have been scaled back significantly based on discussions with the Water Board and representatives of the City. PWSB is only seeking a 1.5% revenue stabilization account rather than the 5% I have been suggesting in recent cases, and we have modified the requested capital plan and reduced the IFR request from $3.1 million to $2.5 million in an attempt to hold down the rate increase this year. Lastly, I am proposing modification to the public fire protection charges that result from the cost allocation study. The changes to the manner in which IFR costs can be recovered (no longer just on use) result in large increases to the public fire protection charges. Recognizing recent legislative attempts to eliminate these charges, I have recommended a modest (5%) increase to the public fire charges with the service charges picking up the balance of the fire protection costs.

[1] Based on Docket 3945, the current rates were expected to produce $18.42 million per year. The drop in sales has had a significant impact on PWSB's ability to recover its costs.

I have also included a request for a second step increase as provided for in recent legislation. This is discussed at the conclusion of my testimony.

**Q: Can you summarize the revenue requirements that are being requested?**

A: I have depicted the various components of the request on the following chart. Capital items (debt service and IFR) and labor are the largest components of the revenue requirements. Other operating costs and the operating contract for the new treatment plant each comprise about 7-9% of the revenue requirements.




**Q: Can you summarize the items that have caused the requested increase?**

A: The following table compares the expenses allowed in the last case (Docket No. 3945) to the proposed rate year we are requesting in this docket. As this shows, the labor, labor related benefits and taxes, and IFR are reduced from the last case. The power and debt costs show significant increases.

| | Doc. 3945 (2009) | Current Doc. (2011) |
|---|---|---|
| Labor | $ 2,828,140 | $ 2,768,128 |
| Benefits & Payroll Tax | $ 1,529,080 | $ 1,237,952 |
| Power | $ 966,416 | $ 1,324,927 |
| Oper. Contract | $ 1,695,244 | $ 1,749,927 |
| Other Operating | $ 1,544,039 | $ 1,326,749 |
| Property Taxes | 797,467 | 797,127 |
| Debt/Lease | $ 7,208,231 | $ 7,791,072 |
| IFR | $ 3,100,000 | $ 2,500,000 |
| Oper. Rev. | $ 272,178 | $ 288,281 |
| Total Costs | $ 19,940,794 | $ 19,784,161 |
| Less Misc Income | $ (1,523,433) | $ (277,158) |
| From Rates | $ 18,417,361 | $ 19,507,003 |
| Reduced Sales | | 1,524,019 |

Overall, the rate year *expenses* we are requesting are actually reduced from the amounts provided by the Commission in the last docket. There are two significant factors contributing to the requested *rate* increase, however:

1. There is a significant reduction in miscellaneous revenues that offset the needed amount from rates. In Docket 3945 we had nearly $1 million available from debt service stabilization to offset debt costs. Those funds are no longer available.
2. There has been a significant drop in sales and resulting decrease in revenues. For the rate year we project a $1.5 million less in revenues than allowed in Docket 3945.

These two factors account for the bulk of the requested $2.6 million increase in rate revenues.

## Content of Schedules

**Q: Please describe the schedules included with your prefiled direct testimony.**

A: Aside from the schedule related to the second step increase, there are 11 main schedules, several of which include supporting schedules[2]. I have tried to use the same schedules and numbering as used in our prior dockets to make comparisons easier. The schedules included in this filing are:

- **CW Schedule 1.0** This schedule presents the test year (FY 2009) along with the adjustments that were used to derive the rate year (CY 2011) revenue requirements. The test year expenses match the Adjusted Test Year amounts presented in Mr. Bebyn's Schedule DGB-1. A number of the test year adjustments are provided in the schedules included with Mr. Benson's testimony. As described later, I have also made several adjustments. Most line items include adjustments from the test year to the rate year with notations as to which supporting schedule includes the explanation for the adjustment. Attached to Schedule 1.0 is a supporting schedule that supports the requested increase.
  - **CW Schedule 1.1.** This schedule provides the explanation for many of the individual adjustments to the test year expenses.
- **CW Schedule 2.0** This schedule presents the units of service including the number of meters by size and billing frequency, the number of private and public fire services by size of connection, and the retail and wholesale water sales. The miles of each size pipe are also presented – this is used to allocate transmission and distribution costs between retail and wholesale service and to derive the allocation of un-metered sales (unaccounted for water).
  - **CW Schedule 2.1** This schedule presents the historic water sales and shows the variations from year to year as well as the downward trend

[2] CW Schedule 12.0 relates to a second step increase

in sales. It also presents the projected rate year sales based on the average changes in sales for each class between FY 2004 and FY 2009.

- **CW Schedule 2.2** This schedule presents the derivation of the base, maximum day, and peak hour use by meter size that is used to allocate costs to the various rate classes. This also shows the historic production, sales and unaccounted for water for the system.

- **CW Schedule 3.0** presents the allocation of the rate year costs to various cost of service components. These are the same components and format used in the last three full rate filings. Schedule 3 also has several supporting schedules.
  - **CW Schedule 3.1** This schedule presents the allocation of the Pawtucket Water assets. It is based on the FY 2009 net assets (gross asset value less accumulated depreciation through the test year) plus the Construction Work in Process (CWIP). This is used to allocate many of the capital items.
  - **CW Schedule 3.2** This schedule presents the allocation of non-administrative labor costs. It is used to allocate labor related items that cannot be allocated directly.
  - **CW Schedule 3.3** This shows the allocation of the costs from Schedule 3 to Fire Protection, Wholesale Service, and Retail Service. These values are used in later schedules to derive the proposed rates. This schedule also presents the allocation of the unaccounted for water to various classes.
  - **CW Schedule 3.4** contains an explanation for each of the symbols or allocators that were used in the prior schedules.
- **CW Schedule 4.0** summarizes the proposed fire protection charges.
  - **CW Schedule 4.1** presents the allocation of total fire service expenses (from Schedule 3.3) to Public Fire Service and to Private Fire Service.

- **CW Schedule 4.2** shows the calculation of the proposed public and private fire protection charges. This table also shows that the amounts used to derive the public fire charges were reduced to hold down the hydrant charges.

- **CW Schedule 5.0** summarizes the proposed service charges and shows their derivation. The revenues that were removed from the public fire protection charges are reassigned to the service charges in this schedule.
- **CW Schedule 6.0** presents the allocation of general water costs (metered rates) to the various customer classes.
- **CW Schedule 7.0** presents the calculation and summary of the proposed retail and wholesale metered rates for each rate class.
- **CW Schedule 8.0** presents a summary of the current rates and the proposed rates derived from the cost of service study, including the percentage change to each.
- **CW Schedule 9.0** This schedule presents the impact of the proposed rates and charges on various types of customers.
- **CW Schedule 10.0** This schedule contains the proof of revenues, showing the annual revenues under the existing and proposed rates. Because the rates are rounded to the nearest penny, the proposed rates provide slightly different total revenues from those required.
- **CW Schedule 11.0** This schedule is a summary of the test year and rate year revenues and expenses. The test year revenues are those derived from Schedule 10.0; that is the revenues at the current rates with the rate year usages.

## Revenue Requirements

**Q: What is the rate year proposed in this proceeding?**

A: The proposed rate year is calendar year 2011. It is hoped that these proceedings can be concluded prior to December 31, 2010 and that new rates will be effective prior to January 1, 2011. However, because of the lag in billing, it is expected that full revenues at the proposed rates will not start to be received until after January 1, 2011.

**Q: Have you prepared a schedule that presents the proposed rate year revenue requirements?**

A: Yes I have. CW Sch 1.0 presents a summary of the test year expenses, our proposed adjustments, and the proposed rate year revenue requirements. Mr. Benson and Mr. Bebyn have provided testimony and exhibits supporting many of the test year adjustments. I have presented others in CW Sch. 1.1.

**Q: Can you discuss the adjustments presented in your schedule 1.1?**

A: Yes. The first set of adjustments in my schedules relate to capital items.

- The first item I have presented is the property tax expenses. I have presented the test year property tax payments by functional category. In each case I have increased the FY 2009 amounts by 5% per year for 2 ½ years. The mid-point of the test year is January 1, 2009; the mid-point of the rate year is July 1, 2011; that is 2 ½ years.
- The next capital item is the debt service. On CW Sch. 1.1 I have shown the annual debt service requirements for FY 2010 – FY 2013 for the existing revenue bonds, the existing general obligation debt that remains, and for two new bond issues that are proposed. I have proposed using the FY 2012 debt for the rate year.

**Q: What is the new debt you have included?**

A: This is explained in Mr. Mr. Benson's testimony. The repayment schedule is an estimate that we were provided by the Water Board's financial advisors at First Southwest.

**Q: Please explain why you propose to use the FY 2012 debt requirement (July 1, 2011 – June 30, 2012) when the rate year is calendar year 2011.**

A: Under its bond indenture, Pawtucket Water is required to make monthly deposits to its debt service fund each month in order to have sufficient funds in the debt service fund to make the payments that are due to investors every six months. In effect, Pawtucket Water must start prefunding its debt payments six months before they are due. The largest payments are due in September of each year, right at the start of the fiscal year. By using the FY 2012 debt payments, Pawtucket Water will raise sufficient funds in the rate year to make the September 2011 (FY 2012) debt payments. I might further add that the amounts associated with debt service have historically been restricted by the Commission. We do not oppose this and expect that the allowance in this case will continue to be restricted for debt service.

**Q: Please continue with your explanation of adjustments in CW Sch. 1.1.**

A: The last capital items relate to trustee fees, lease purchase payments, IFR funding, and deposits to the O&M reserve fund.

- Pawtucket Water pays trustee fees to the RI Clean Water Finance Agency for the bonds that it has financed through this agency. They are the most significant trustee fees. The other trustee fees are amounts paid to bank trustees, attorneys and an arbitrage service. Under the trust indenture, many of the funds are actually held by a bank trustee.
- The fourth capital item is the vehicle lease purchases. CW Sch. 1.1 shows the payments that are due on these leases end in FY 2011. We have not included funding for any new leases in this filing.
- The fifth capital item is the funding for the IFR program. Pawtucket Water is actually looking to decrease the IFR funding allowance from $3.1 million to $2.5 million per year.
- The final capital item is the required deposits to the O&M reserve fund. This is a trustee held fund required by the trust indenture. On the last day of the fiscal year, Pawtucket

Water is required to have on deposit in its O&M reserve fund an amount that is equal to 25% of its operating budget for that year. In general, each month a deposit is required that equals 1/12 of 25% of the Pawtucket Water Supply Board's O&M budget. As shown on CW Sch. 1.1 we expect to have sufficient deposits in the O&M reserve fund so that no new deposits will be needed in the rate year.

**Q: Have you provided other non-capital adjustments to the test year expenses?**

A: Yes I have.

- Pawtucket Water's new treatment facility is operating under contract by a private operating firm. The agreement with the operator calls for increases each year based on the increase to the Consumer Price Index (CPI). Mr. Benson's testimony and exhibits present the calculations that support this line item.
- PWSB is proposing to move to monthly billing for all accounts by the rate year. Accordingly, I have increased the postage and printing costs under Customer Accounts by a factor of 3 to account for increased bills.
- There are a number of items noted in CW Sch. 1.0 that have been increased for inflation. In these cases I have used an annual inflation rate of 2.48%. This is the five year average increase for calendar year 2005 through calendar year 2009, using the GDP as recommended by the Division in the last docket. For items associated with energy or utility costs, I have increased them at a 10% higher rate to account for larger increases in energy costs.
- The cost of power is passed through directly to PWSB and not covered under the treatment operating contract. PWSB gets power through the League of Cities and Towns. Under the existing contract, no new increase for supply is expected through the rate year. As shown on CW Sch. 1.1 I have provided for an increase in the distribution portion of the power costs using the GDP inflation rate discussed earlier.
- I have also included an adjustment for Regulatory Commission expenses and the amortization of rate case expenses. In the case of the regulatory expenses I have used the FY

2009 fee as a base and increased it for inflation for 2½ years. For rate case expenses we estimate that the cost to Pawtucket Water for this docket will be $200,000. Spread over a two year amortization period, the annual cost will be $100,000 for a decrease from the actual test year of $77,737. We will be glad to update this item for actual costs as the docket reaches a conclusion.

**Q: Why have you proposed to amortize the rate case expenses over two years?**

A: As the record will show, Pawtucket has been before the Commission rather frequently with rate requests. The recent history has been:

This Docket Approx 3/10
Docket 3945: 3/28/08
Docket 3674: 4/11/05
Docket 3593: 2/23/04
Docket 3497: 2/28/03
Docket 3378: 8/2/01
Docket 3164: 6/30/00

This filing is the 7th such rate filing in ten years. The Commission typically spreads rate case expenses over several years to reflect a normal level of expenses. In the case of Pawtucket, the normal period has clearly been less than two years. Using a two year amortization period seems to be more than a reasonable request given this history.

## Revenue Stabilization Account

**Q: What level is Pawtucket Water requesting for a revenue stabilization account?**

A: We are seeking a 1.5% Revenue Stabilization Account, which was formerly known as an operating revenue allowance.

**Q: Is this the same 1.5% you requested and was approved in PWSB's last rate filing?**

A: Yes it is. Since that Docket there have been several developments.

- The Commission has generally been providing a higher allowance since Docket 3945. These higher allowances were provided in the Kent County Water Authority (Docket 3942), Newport Water (Docket 4025) and Providence Water (Docket 4061) cases. In all these cases portions of the revenue stabilization account were restricted.
- The Rhode Island legislature has adopted section 39-15.1-3 (c) of the general laws which states. "Revenue stabilization. Water suppliers subject to commission rate regulation shall in the absence of other sufficient funds available for similar purposes, establish as part of their next general rate filing before the commission a revenue stabilization account to ensure fiscal stability during periods when revenues decline as a result of implementing water conservation programs, or due to circumstances beyond the reasonable control of the water supplier, including, but not limited to, the weather and drought. A revenue stabilization account shall accumulate a maximum of ten percent (10%) of the annual operating expenses of the supplier and shall be used to supplement other revenues so that the supplier's reasonable costs are compensated. A supplier may draw upon its revenue stabilization account without further action of the commission if revenues in any fiscal year fall below the level sufficient to provide reasonable compensation for services rendered, subject to periodic review by the commission to ensure that the purposes of section 39-15.1-1 are fulfilled."

**Q: Why haven't you asked for an increased allowance in light of this?**

A: The Board has considered the impact of the proposed increase on its customers and felt that it should not ask for an increase allowance at this time. Because this level of funding is the same as the unrestricted levels provided to other water utilities in the State, we are asking that the full amount be unrestricted.

We would hope to seek a higher allowance in future filings in order to build up to the allowed 10% reserve level over a number of years. Because the Board has asked that the

Revenue Stabilization allowance be held at 1.5% and not increased, we believe it is critical that the Commission not over-estimate the projected rate year water sales.

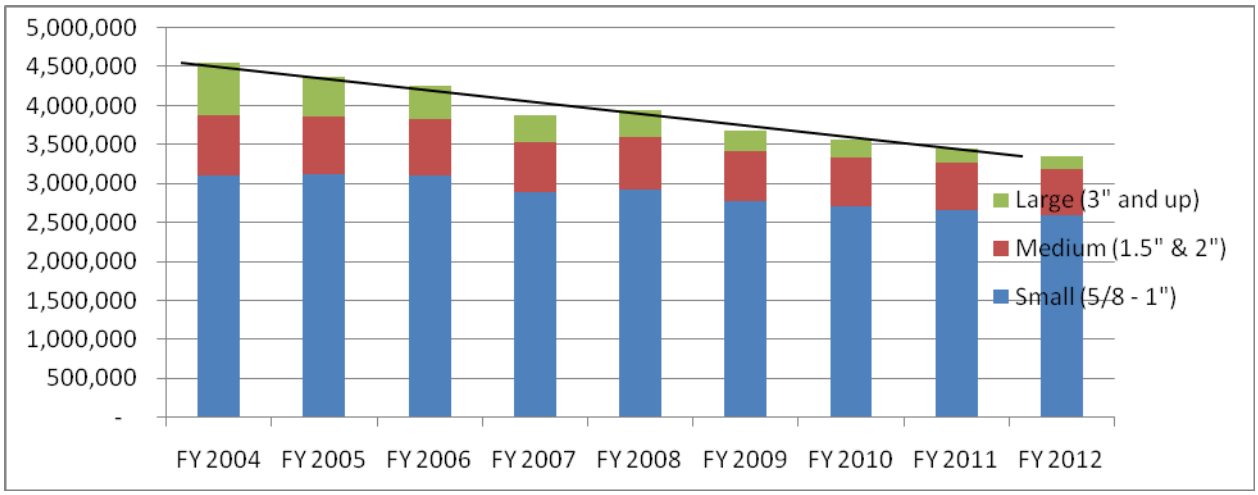
## Water Use

**Q: Over the years there has been considerable disagreement between water utilities and the Division over the best way to estimate water sales in the rate year. In recent years many Rhode Island water utilities have seen a decrease in sales. What does Pawtucket propose to use for the rate year water sales in this docket?**

A: This is presented in my Sch. 2.1. I have presented the annual (fiscal year) sales from FY 2004 – FY 2009. Based on the average annual change, I have projected sales through FY 2012. The rate year (CY 2011) includes half of FY 2011 and half of FY 2012.

As shown on this schedule, we have looked at the trend between FY 2004 and FY 2009 and based on that trend we have projected sales forward through FY 2012. In one case (the medium sized residential accounts, there was an increase which we continued. In all other cases there were downward trends which we have projected forward. Overall, the projected rate year sales present a continued decrease in sales.

The following chart shows the historic retail water sales for Pawtucket Water and our projections through FY 2012. It is evident that sales are dropping. I think this is the compelling reason as to why our recommended projections should be accepted by the Commission.




## Cost Allocations and Rate Design

**Q: Have you prepared a cost allocation study?**

A: Yes I have. Schedule 3.0 and its supporting schedules contain the cost allocation study. I have used the same general basis as the filing approved in past Dockets since 2001 (Docket 3378).

**Q: Are you proposing a change in rate structure?**

A: While I am not proposing any major change to the general structure of the rates, the changes to individual rates and charges vary by different percentages.

**Q: Are you proposing any revisions to the cost allocations?**

A: Yes, there are three: (a) a revision to the allocations associated with the meter charges, (b) an adjustment to the way that IFR costs are allocated, and (c) a reduction to the public fire protection with that money being reallocated to the service charges.

**Q: Please explain the first change – to the meter charge allocations.**

A: While it does not impact the general *structure* of the tariffs, there is a change to the cost allocations that were used in the last docket (3945) that impacts the meter charges. This

has to do with the allocation of costs to the meters and services portion of the service charges.

During the analysis for Docket 3945 I asked Pawtucket Water to review the assignment of transmission and distribution labor. This had not been reviewed since PWSB embarked on its major capital improvement program in 2002. Based on the analysis of time spent by the T&D work crews there was a significant shift in emphasis. With more time related to repairs to services.

**Q: What was the impact of this shift in emphasis?**

A: Because the service charge recovers costs associated with metering and service lines, there was a significant shift in costs onto the service charges. This was compounded by the fact that there are no longer labor costs associated with supply, pumping or treatment – all these functions are taken care of under the operating contract. As a result, Pawtucket's direct labor costs are now more concentrated in metering, service repairs, meter reading, billing and collection. This added significant costs onto the customer service charge and reduced the costs allocated to public fire hydrants.

**Q: Did you have any suggestions on how to deal with this in the last docket and how to deal with it now?**

A: Yes. Because of the impacts on the meter charges I had recommended and the parties accepted (as part of the settlement) that we move some of the service costs onto the metered rate in order to reduce the impact of this shift onto the service charges. Because these increases were large, I modified the cost allocation to remove all administrative and capital costs from the allocation to meters and services and to billing. I created three new allocators (E-M, L-M and P-M) for the allocation of administrative and capital costs. These allocators transferred some of the costs from the service charge to the consumption

charge. In addition, I also recommended that the amounts allocated to meters, services and billing be further reduced to minimize the impacts.

For this docket I recommend that the E-M and L-M allocators be retained to reduce the allocation of administrative costs to the service charges. As I will explain later, the allocation of capital costs is impacted by legislative changes, so the P-M allocator used in the last docket to allocate capital items is revised anyway and no longer needed. Lastly, I recommend that to move gradually back to cost based tariffs, that the reductions to the overall allocations that I had used in the last docket also be removed.

**Q: You also mentioned a change in the allocation of IFR costs. Can you discuss that?**

A: In the past. Legislation in Rhode Island had required all IFR related costs to be recovered through use based charges and not fixed charges like service charges and fire protection fees. The latest legislation has removed that restriction and IFR costs can now be allocated to the cost components or tariff that is best associated with those costs. As a result, fixed charges like the service charge and public and private fire protection costs can be (and should be) allocated to these tariffs.

**Q: Have you done that in this case?**

A: Yes I have. The result of this is an increase in both the service charges and the fire charges. Because these are fixed charges and not dependant on water sales, this revision to the law will not only allocate IFR costs more fairly, but enhance the stability or predictability of the revenues for Rhode Island's water utilities. Changes in water use like those we have seen over the past few years will have less of an impact on revenues.

**Q: Won't this result in a big increase to the service charges and fire protection fees?**

A: Yes, it results in larger percentage increases to these charges than to others. The increase to the service charges is the greatest on the quarterly service charges and large meter

charges. Because we are proposing to bill all customers monthly, the quarterly charges will not be used. The largest percentage increases impact the larger size meters. For these larger accounts the service charge is a much smaller portion of the total bill and the metered rates for larger uses is not increasing as much as the rate for smaller size meters, in effect, offsetting the larger service charge increase.

In the case of the fire charges, there was a substantial decrease in the last docket (46% for public fire). The increase indicated in this docket essentially reverses that. While I do not advocate large decreases and increases from docket to docket, there were unusual circumstances[3] in the case of Pawtucket that caused these.

**Q: Please discuss the third revision – the change to pubic fire service charges.**

A: The revisions to the IFR allocations result in a large increase to the public fire service (hydrant) charges. While these charges would return to levels that are comparable to the amounts in prior dockets, there would be a significant impact on the City of Pawtucket's budget. The public fire charged to the City would increase from $512,000 per year to more than $735,000 per year; a 44% increase. There is the further complication of proposed legislation that, if passed, could allow cities to choose not to pay these charges. There certainly would be an incentive for the City of Pawtucket to make such a request if the public fire charges were increased by over $200,000 per year. Accordingly, we are asking that the Commission allow the public fire charges to be increased only 5% and recover this fixed revenue through another fixed revenue source -- the service charges. Furthermore, it may be helpful to the utility if it is not dependent on a source of income that could quickly disappear; if the proposed legislation passes and the City does make this election, the PWSB will have to make up for this loss of revenue in other areas.

[3] The changes in crew emphasis on services and hydrants and then the charge in the manner in which IFR costs can be recovered.

**Q: Won't your proposed shift from the public fire service charges increase the service charges even more?**

A: Yes it will. I propose to assign the reduction in fire service revenues to the service charges based on size. While there is not a great correlation between water meter size and fire protection, I believe that, in general, accounts with larger meters will tend to be associated with larger buildings and thus potentially larger fire demands.

The allocation of the fire costs based on meter size means larger increases for larger size meters. However, because the metered rates for larger meter sizes are not proposed to increase as much as those for smaller meters, the impacts are not as severe.

**Q: Have you prepared a comparison of the current rates and those derived from your study?**

A: Yes I have. Schedule 8.0 presents this comparison. As I noted earlier in my testimony, there are various percentage changes to the various rates and charges. This is a result of the cost allocations and the calculations presented in the earlier schedules as well as the reallocation of costs from the fixed service charges to the metered rates.

**Q: What is the overall impact of the proposed rates on a typical residential customer?**

A: Schedule 9.0 presents the impact on various customers and types of service. A typical residential customer using 800 cubic feet per month (200 gallons per day) will see their water bill increase by about $6.37 per month or about 17%. This amounts to an increase of about $0.21 per day. I believe that the resulting total cost of water -- about $1.45 per day – is still reasonable for the value of the service being provided.

Schedule 9.0 also shows that the increases to customers with larger size meters are the smallest percent, despite the increased service charges discussed above.

**Q: Have you prepared a summary of revenues under the current and proposed rates?**

A: Yes I have. Schedule 10.0 presents this calculation. Because the rates have been rounded off, the revenues do not match the requirements exactly. However, Schedule 10.0 does demonstrate that the difference is within limits that are normally accepted by the Commission.

## Multi-year Rate Increase

**Q: Section 39-15.1-4 of the recently enacted legislation provides for multi-year rate plans. Have you addressed this in your filing?**

A: I have. This section of the law provides for a future rate plan of up to six years. I am unaware of another water utility that has filed for increases under this provision; we are not quite sure how the Commission would like to handle such a filing.

I have prepared a rather simple, straightforward proposal that is included on my CW Sch. 12. Pawtucket Water is proposing second step increase for CY 2012 (the year following the proposed rate year in this docket). These rates are proposed to become effective on January 1, 2012, subject to the provisions in parts (c) and (d) of the legislation.

**Q: How have you determined the rates for that second year?**

A: As shown on CW Sch. 12, I have simply presented four areas with increases for CY 2012: (1) the new debt costs that we expect (including a second proposed bond issue as outlined in Mr. Benson's testimony), (2) the trustee fees that would go along with this bond issue, (3) the inclusion of a revenue stabilization allowance at 1.5%, and (4) an inflationary increase to all O&M expenses based on the GDP rate presented on CW Sch 1.1.

Based on these projections, an additional rate increase of 4.5% is indicated. I have not adjusted sales or accounts in arriving at this projection. We propose a simple 4.5% increase to all rates and charges for the second step, CY 2012 rates.

## Summary

**Q: Does this conclude your testimony?**

A: Aside from new information that may be brought to my attention and without reviewing testimony from the Division or other witnesses, yes it does.

**TEST YEAR & RATE YEAR EXPENSES**

| Expense Item | Test Year FY 2009 | Summary of Adjustments | Rate Year CY 2011 | <---------- Adjustments Detail ----------> Labor & Related Items | Other Adjustments | Supporting Schedule |
|---|---|---|---|---|---|---|
| ADMINISTRATION | | | | | | |
| Salaries & Wages - (601) | $663,308 | $28,933 | $692,241 | $28,933 | $0 | R. Benson |
| Salaries & Wages - Payroll Taxes | $46,207 | -$36,363 | $9,844 | -$36,363 | $0 | R. Benson |
| Employee Pensions & Benefits (604) | $397,790 | -$158,118 | $239,672 | -$158,118 | $0 | R. Benson |
| Workers Comp | $0 | $8,768 | $8,768 | $8,768 | $0 | R. Benson |
| Materials and Supplies (Account 620) | $35,904 | $2,272 | $38,176 | $0 | $2,272 | Sch. 1.1 (i) |
| Contractual Services - Legal (Account 633) | $77,487 | $4,902 | $82,389 | $0 | $4,902 | Sch. 1.1 (i) |
| Contractual Services - Mgt. Fees (634) City Chg | $197,281 | $12,482 | $209,763 | $0 | $12,482 | Sch. 1.1 (i) |
| Contractual Services - Other (Account 635) | $8,266 | $523 | $8,789 | $0 | $523 | Sch. 1.1 (i) |
| Rental of Equipment (Account 642) | $7,128 | $451 | $7,579 | $0 | $451 | Sch. 1.1 (i) |
| Transportation Expenses (Account 650) | $15,749 | $996 | $16,745 | $0 | $996 | Sch. 1.1 (i) |
| Insurance - General Liability (Account 657) | $192,883 | $12,203 | $205,086 | $0 | $12,203 | Sch. 1.1 (i) |
| Insurance - Worker's Compensation (658) | $14,600 | $924 | $15,524 | $0 | $924 | Sch. 1.1 (i) |
| Insurance - Other (Account 659) | $14,740 | $933 | $15,673 | $0 | $933 | Sch. 1.1 (i) |
| Regulatory Com Expense - Other (667) | $52,222 | $3,304 | $55,526 | $0 | $3,304 | Sch. 1.1 |
| Reg Com Exp - Amort of Rate Case Exp (666) | $177,737 | -$77,737 | $100,000 | $0 | -$77,737 | Sch. 1.1 |
| Miscellaneous Expense (Account 675) | $38,319 | $2,424 | $40,743 | $0 | $2,424 | Sch. 1.1 (i) |
| Other -pba fees | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Education Training | $4,879 | $309 | $5,188 | $0 | $309 | Sch. 1.1 (i) |
| Maint of Misc Plant | $30,215 | $1,912 | $32,127 | $0 | $1,912 | Sch. 1.1 (i) |
| Purchased Power | $50,521 | $1,066 | $51,587 | $0 | $1,066 | Sch. 1.1 |
| Other Utilities | $47,487 | $3,004 | $50,491 | $0 | $3,004 | Sch. 1.1 (i) |
| Printing | $9,140 | $578 | $9,718 | $0 | $578 | Sch. 1.1 (i) |
| Postage | $7,288 | $461 | $7,749 | $0 | $461 | Sch. 1.1 (i) |
| Subtotal - Admin | $2,089,151 | -$185,773 | $1,903,378 | -$156,780 | -$28,993 | |
| CUSTOMER ACCOUNTS | | | | | | |
| Salary & Wages - Cust Ser | $166,842 | $29,978 | $196,820 | $29,978 | $0 | R. Benson |
| Salary & Wages - Meter | $383,635 | -$2,864 | $380,771 | -$2,864 | $0 | R. Benson |
| Salary & Wages Payroll Tx(CS) | $12,456 | -$9,667 | $2,789 | -$9,667 | $0 | R. Benson |
| Salary & Wages Payroll Tx (Meters) | $29,310 | -$23,952 | $5,358 | -$23,952 | $0 | R. Benson |
| Empl Pensions & Benefits (Cust Ser) | $53,516 | $24,093 | $77,609 | $24,093 | $0 | R. Benson |
| Empl Pensions & Benefits (Meters) | $175,506 | -$9,374 | $166,132 | -$9,374 | $0 | R. Benson |
| Matls & Supp (Cust Serv) | $2,446 | $155 | $2,601 | $0 | $155 | Sch. 1.1 (i) |
| Matls & Supp (Meters) | $6,990 | $442 | $7,432 | $0 | $442 | Sch. 1.1 (i) |
| Contractual Services - Other - [Cust. Srvc.] (Account 63 | $15,278 | $967 | $16,245 | $0 | $967 | Sch. 1.1 (i) |
| Rental of Equipment (Account 642) | $498 | $32 | $530 | $0 | $32 | Sch. 1.1 (i) |
| Workers Comp - Cust Serv | $1,040 | -$137 | $903 | -$137 | $0 | R. Benson |
| Workers Comp - Meters | $0 | $21,658 | $21,658 | $21,658 | $0 | R. Benson |
| Transportation Expenses - [Cust srvc.] (Account 650) | $3,808 | $241 | $4,049 | $0 | $241 | Sch. 1.1 (i) |
| Transportation Expenses - [Meter] (Account 650) | $9,004 | $570 | $9,574 | $0 | $570 | Sch. 1.1 (i) |
| Bad Debt Expense (Account 670) | $6,885 | $436 | $7,321 | $0 | $436 | Sch. 1.1 (i) |
| Miscellaneous Expense - [Cust. Srvc.] (Account 675) | $306 | $19 | $325 | $0 | $19 | Sch. 1.1 (i) |
| Miscellaneous Expense - [Meter] (Account 675) | $641 | $41 | $682 | $0 | $41 | Sch. 1.1 (i) |
| Education Training - [Cust. Srvc.] | $2,029 | $128 | $2,157 | $0 | $128 | Sch. 1.1 (i) |
| Education Training - [Meter] | $590 | $37 | $627 | $0 | $37 | Sch. 1.1 (i) |
| Repairs & Maintenance - general | $89 | $6 | $95 | $0 | $6 | Sch. 1.1 (i) |
| Repairs & Maintenance - meters | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Other Utilities - [Cust. Srvc.] | $2,479 | $157 | $2,636 | $0 | $157 | Sch. 1.1 (i) |
| Other Utilities - [Meter] | $4,491 | $284 | $4,775 | $0 | $284 | Sch. 1.1 (i) |
| Printing - [Cust. Srvc.] | $21,141 | $42,282 | $63,423 | $0 | $42,282 | Sch. 1.1 |
| Printing - [Meter] | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Postage--[Cust. Srvc.] | $33,593 | $67,186 | $100,779 | $0 | $67,186 | Sch. 1.1 |
| Subtotal - Customer Accts | $932,573 | $142,716 | $1,075,289 | $29,735 | $112,982 | |

**TEST YEAR & RATE YEAR EXPENSES**

| Expense Item | Test Year FY 2009 | Summary of Adjustments | Rate Year CY 2011 | <---------- Adjustments Detail ----------> Labor Increase | Other Adjustments | Supporting Schedule |
|---|---|---|---|---|---|---|
| SOURCE OF SUPPLY | | | | | | |
| Salaries & Wages - (601) | $119,412 | -$5,508 | $113,904 | -$5,508 | $0 | R. Benson |
| Salaries & Wages - Payroll Taxes | $13,001 | -$11,393 | $1,608 | -$11,393 | $0 | R. Benson |
| Employee Pensions & Benefits (604) | $41,938 | $8,178 | $50,116 | $8,178 | $0 | R. Benson |
| Workers Comp | $0 | $8,767 | $8,767 | $8,767 | $0 | R. Benson |
| Purchased Power (Account 615) | $24,682 | $79 | $24,761 | $0 | $79 | Sch. 1.1 |
| Materials and Supplies (Account 620) | $2,328 | $147 | $2,475 | $0 | $147 | Sch. 1.1 (i) |
| Transportation Expenses (Account 650) | $3,960 | $251 | $4,211 | $0 | $251 | Sch. 1.1 (i) |
| Miscellaneous Expense (Account 675) | $706 | $45 | $751 | $0 | $45 | Sch. 1.1 (i) |
| Security Service | $80,815 | $5,113 | $85,928 | $0 | $5,113 | Sch. 1.1 (i) |
| Education Training | $512 | $32 | $544 | $0 | $32 | Sch. 1.1 (i) |
| Maint of Misc Plant | $73,043 | $4,621 | $77,664 | $0 | $4,621 | Sch. 1.1 (i) |
| Other Utilities | $2,438 | $154 | $2,592 | $0 | $154 | Sch. 1.1 (i) |
| Subtotal - Supply | $362,835 | $10,488 | $373,323 | $45 | $10,443 | |
| PURIFICATION | | | | | | |
| DBO O&M Contract | $1,401,732 | $348,195 | $1,749,927 | $0 | $348,195 | Sch. 1.1 |
| Purchased Power (Account 615) | $997,736 | $17,295 | $1,015,031 | $0 | $17,295 | Sch. 1.1 |
| Other Utilities | $8,172 | $0 | $8,172 | $0 | $0 | |
| Subtotal - Purification | $2,407,640 | $365,490 | $2,773,130 | $0 | $365,490 | |

**TEST YEAR & RATE YEAR EXPENSES**

| Expense Item | Test Year FY 2009 | Summary of Adjustments | Rate Year CY 2011 | <---------- Adjustments Detail ----------> Labor Increase | Other Adjustments | Supporting Schedule |
|---|---|---|---|---|---|---|
| TRANSMISSION & DISTRIBUTION | | | | | | |
| Salaries & Wages - (601) | $913,732 | $45,718 | $959,450 | $45,718 | $0 | R. Benson |
| Salaries & Wages -[Engineering] (601) | $346,035 | $78,906 | $424,941 | $78,906 | $0 | R. Benson |
| Salaries & Wages - Payroll Taxes - | $66,292 | -$52,739 | $13,553 | -$52,739 | $0 | R. Benson |
| Salaries & Wages - Payroll Taxes - [Engineering] | $28,572 | -$22,541 | $6,031 | -$22,541 | $0 | R. Benson |
| Salaries & Wages - Police Details | $44,220 | $2,798 | $47,018 | $0 | $2,798 | Sch. 1.1 (i) |
| Employee Pensions & Benefits - (604) | $363,438 | $18,140 | $381,578 | $18,140 | $0 | R. Benson |
| Employee Pensions & Benefits - [Engineering] (604) | $118,824 | $35,366 | $154,190 | $35,366 | $0 | R. Benson |
| Materials and Supplies - (Account 620) | $36,005 | $2,278 | $38,283 | $0 | $2,278 | Sch. 1.1 (i) |
| Materials and Supplies - [Engineering] (Account 620) | $17,196 | $1,088 | $18,284 | $0 | $1,088 | Sch. 1.1 (i) |
| Rental of Equipment (Account 642) | $2,766 | $175 | $2,941 | $0 | $175 | Sch. 1.1 (i) |
| Rental of Equipment - [Engineering] (Account 642) | $680 | $43 | $723 | $0 | $43 | Sch. 1.1 (i) |
| Transportation Expenses - (Account 650) | $36,695 | $2,322 | $39,017 | $0 | $2,322 | Sch. 1.1 (i) |
| Transportation Expenses - [Engineering](Account 650) | $8,090 | $512 | $8,602 | $0 | $512 | Sch. 1.1 (i) |
| Workers Comp T&D | $91,583 | -$23,787 | $67,796 | -$23,787 | $0 | R. Benson |
| Workers Comp - Engineering | $782 | $20,798 | $21,580 | $20,798 | $0 | R. Benson |
| Miscellaneous Expense - (Account 675) | $10,239 | $648 | $10,887 | $0 | $648 | Sch. 1.1 (i) |
| Miscellaneous Expense - [Engineering] (Account 675) | $390 | $25 | $415 | $0 | $25 | Sch. 1.1 (i) |
| Education Training | $1,698 | $107 | $1,805 | $0 | $107 | Sch. 1.1 (i) |
| Education Training - [Engineering] | $602 | $38 | $640 | $0 | $38 | Sch. 1.1 (i) |
| Repairs & Maintenance - general | $3,180 | $201 | $3,381 | $0 | $201 | Sch. 1.1 (i) |
| Repairs & Maintenance - T&D | $15,227 | $963 | $16,190 | $0 | $963 | Sch. 1.1 (i) |
| Repairs & Maintenance - fire services | $2,429 | $154 | $2,583 | $0 | $154 | Sch. 1.1 (i) |
| Repairs & Maintenance - services | $11,723 | $742 | $12,465 | $0 | $742 | Sch. 1.1 (i) |
| Repairs & Maintenance - Hydrants | $8,428 | $533 | $8,961 | $0 | $533 | Sch. 1.1 (i) |
| Road surface restoration | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Repairs & Maintenance - general | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Purchased Power | $17,551 | $429 | $17,980 | $0 | $429 | Sch. 1.1 |
| Other Utilities | $14,756 | $934 | $15,690 | $0 | $934 | Sch. 1.1 (i) |
| Other Utilities - [Engineering] | $6,378 | $404 | $6,782 | $0 | $404 | Sch. 1.1 (i) |
| Printing | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 (i) |
| Postage--[Engineering] | $750 | $47 | $797 | $0 | $47 | Sch. 1.1 (i) |
| Subtotal - T&D | $2,168,261 | $114,300 | $2,282,561 | $99,861 | $14,440 | |

**TEST YEAR & RATE YEAR EXPENSES**

| Expense Item | Test Year FY 2009 | Summary of Adjustments | Rate Year CY 2011 | <---------- Adjustments Detail ----------> Labor Increase | Other Adjustments | Supporting Schedule |
|---|---|---|---|---|---|---|
| CAPITAL EXPENSE | | | | | | |
| Property Taxes | | | | | | |
| Source of Supply | $413,892 | $497 | $414,389 | $0 | $497 | Sch. 1.1 |
| Treatment-Pumping | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 |
| Treatment-Purification | $86,449 | $104 | $86,553 | $0 | $104 | Sch. 1.1 |
| Trans & Distrib | $295,830 | $355 | $296,185 | $0 | $355 | Sch. 1.1 |
| Rental Property | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 |
| Restrict. Bond Principal & Interest | $6,688,543 | $721,311 | $7,409,854 | $0 | $721,311 | Sch. 1.1 |
| Leases | $149,781 | -$149,781 | $0 | $0 | -$149,781 | Sch. 1.1 |
| IFR | $3,100,000 | -$600,000 | $2,500,000 | $0 | -$600,000 | Sch. 1.1 |
| CF Franchise Fee | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 |
| Calgon Royalties Fund | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 |
| CF System Fund | $0 | $0 | $0 | $0 | $0 | included T&D |
| Trustee Fees | $273,894 | $107,324 | $381,218 | $0 | $107,324 | Sch. 1.1 |
| O&M Reserve Deposit | $0 | $0 | $0 | $0 | $0 | Sch. 1.1 |
| Subtotal - Capital | $11,008,389 | $79,810 | $11,088,198 | $0 | $79,810 | |
| TOTAL EXPENSES | $18,968,849 | $527,031 | $19,495,880 | -$27,140 | $554,171 | |
| PLUS: Rev. Stabiliz./Oper. Rev. Allowance | $0 | $288,281 | $288,281 | | | Sch. 1.1 |
| LESS: Service Instal Revenue | -$67,479 | $0 | -$67,479 | | | see DGB-1 |
| LESS: State Surcharge Revenue | -$50,602 | $0 | -$50,602 | | | see DGB-8 |
| LESS: Penalties | -$104,415 | $0 | -$104,415 | | | see DGB-1 |
| LESS: Cumberland Tax Reduction | -$200,000 | $200,000 | $0 | | $200,000 | Sch. 1.1 |
| LESS: Non-Operating Rental | -$22,065 | $0 | -$22,065 | | | see DGB-1 |
| LESS: Interest Income | -$253 | $0 | -$253 | | | see DGB-1 |
| LESS: Misc Non-Operating | -$31,357 | | -$31,357 | | | see DGB-2 |
| LESS: Gain/Loss Disposal Property | -$987 | $0 | -$987 | | | see DGB-3 |
| REQUIRED FROM RATES | $18,491,691 | $1,015,312 | $19,507,003 | -$27,140 | $754,171 | |

## DETAILS OF ADJUSTMENTS TO TEST YEAR EXPENSES

### Capital Requirements

**Property Taxes**

Property taxes were increased 5% per year at the statutory limit for 2.5 years or 0.12% over 2.5 years

**Debt Service**

Projected Debt is as follows:

| | FY 2010 | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|---|
| *Existing Revenue Bonds* | | | | |
| Principal (& sinking fund) | $3,142,000 | $3,214,768 | $3,460,970 | $ 3,549,274 |
| Interest | $3,300,560 | $3,301,020 | $3,304,745 | $ 3,232,947 |
| Total | $6,442,560 | $6,515,788 | $6,765,715 | $6,782,221 |
| *Projected Revenue Bonds (2 issues: Aug 2010 - 7.485 mill. Aug 2011 - $6.165 mill)* | | | | |
| Principal | $0 | $0 | $276,000 | $507,000 |
| Interest | $0 | $55,121 | $268,246 | $418,012 |
| Total | $0 | $55,121 | $544,246 | $925,012 |
| *Existing General Obligation Bonds* | | | | |
| Principal | $208,667 | $216,930 | $74,027 | $74,027 |
| Interest | $41,119 | $32,064 | $25,865 | $25,865 |
| Total | $249,786 | $248,993 | $99,892 | $99,892 |
| *Total All Bonds* | $6,692,346 | $6,819,902 | $7,409,854 | $7,807,124 |
| For Rate Year (1/2 each of FY 2011 and 2012) Use | | | *$7,409,854* | |

**Trustee Fees**

| | | Estim RY |
|---|---|---|
| Bank of New York | Trustees Fees 7 @ $2,500 | $ 17,500 |
| US Bank | Admin Fess | $ 3,250 |
| Partridge, Hahn & Snow | Legal Fees - Annual Disclosure filing | $ 2,000 |
| Amtec | Annual Arbitrage Services | $ 600 |
| Subtotal | | $23,350 |
| RI CWFA Fees | | $ 357,868 |
| Total Trustee Fees | | *$ 381,218* |

**Capital Leases**

| | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| Principal | $139,364 | $144,478 | $0 |
| Interest | $10,417 | $5,302 | $0 |
| Total | $149,781 | $149,781 | $0 |
| For Rate Year Use | | | *$0* |

| | Rate Year |
|---|---|
| **IFR - PAYGO** | $2,500,000 |

**O&M Reserve Requirement**

| | | |
|---|---|---|
| Rate Year O&M = | $9,204,808 | (Operating Costs plus Property Taxes) |
| Required Level (25%) | $2,301,202 | |
| Balance 6/30/09 | $2,707,697 | |
| Estimated Additions | $0 | |
| Estimated Balance 12/30/10 | $2,707,697 | |
| Rate Year Addition = | $0 | |

### Operating Costs

**DBO Contract**

| | New WTP |
|---|---|
| Annual Contract 2/08-2/09 | $1,612,792 |
| Annual Contract 2/09 - 2/10 | $1,710,819 |
| Rate Year Estimate | $1,749,927 |
| Increase over Test Year | $348,195 |

**Customer Accounts Postage and Bill Printing**

With the proposed change from quarterly to monthly billing, the postage and printing costs in Customer Accounts were tripled from the Test Year.

## DETAILS OF ADJUSTMENTS TO TEST YEAR EXPENSES

**Inflation Adjustments**

Indicated items were increased for inflation based on GDP as published by Bureau of Economic Ana 2.48% per year
Inflation for 2.5 yrs 6.33%

**Power Costs**

| | | CY 2009 | Adjustment ** | Rate Year | |
|---|---|---|---|---|---|
| Administration | | | | | |
| | Delivery | $ 21,186 | $ 1,066 | $ 22,252 | |
| | Supply | $ 29,335 | $ - | $ 29,335 | |
| | Total | $ 50,521 | $ 1,066 | $ 51,587 | |
| Source of Supply | | | | | |
| | Delivery | $ 1,578 | $ 79 | $ 1,658 | |
| | Supply | $ 1,864 | $ - | $ 1,864 | |
| | Total | $ 3,442 | $ 79 | $ 3,522 | |
| Purification * | | | | | |
| | Delivery | $ 343,822 | $ 17,295 | $ 361,118 | |
| | Supply | $ 890,721 | $ - | $ 890,721 | |
| | Total | $ 1,234,543 | $ 17,295 | $ 1,251,838 | |
| T&D | | | | | |
| | Delivery | $ 6,779 | $ 429 | $ 7,208 | |
| | Supply | $ 10,772 | $ - | $ 10,772 | |
| | Total | $ 17,551 | $ 429 | $ 17,980 | $ 1,324,927 |

* Reflects adjustment for contract maximum

| | | |
|---|---|---|
| | Delivery | $ (80,118) |
| | Supply | $ (212,771) |
| | Total | $ (292,889) |

** No increase to supply, Delivery costs increased annually (2 yrs) b 2.5%

**Cumberland Tax Credit**

This credit was applied to older tax bills and is removed in the rate year.

**Regulatory Expenses**

*1. Rate Case Estimated Rate Year*

| | |
|---|---|
| Rate Case Costs (estim) | $200,000 |
| Spread over 2 yrs | $100,000 |
| Other | $0 |
| Total Rate Year | $100,000 |
| Test Year | $177,737 |
| Adjustment | -$77,737 |

*2. PUC Fee - Admin*

| | |
|---|---|
| FY 2009 Fee | $52,222 |
| Increase (2.5 yr inflation) | $3,304 |
| Total Rate Year | $55,526 |
| Test Year | $52,222 |
| Adjustment | $3,304 |

**Revenue Stabilization / Operating Revenue Allowance**

See testimony of C. Woodcock. An operating reserve allowance of 1.5% on total revenues is requested in this case.

## UNITS OF SERVICE

### METERS

| | Test Year | | Rate Year | | | | |
|---|---|---|---|---|---|---|---|
| Meter Size | Quarterly | Monthly | Quarterly | Monthly | Total | Equiv Factor | # of Equivs |
| 5/8 | 21,516 | 11 | 0 | 21,527 | 21,527 | 1.00 | 21,527 |
| 3/4 | 255 | 4 | 0 | 259 | 259 | 1.39 | 359 |
| 1 | 487 | 11 | 0 | 498 | 498 | 2.00 | 996 |
| 1 1/2 | 222 | 5 | 0 | 227 | 227 | 4.07 | 924 |
| 2 | 356 | 43 | 0 | 399 | 399 | 5.29 | 2,109 |
| 3 | 12 | 12 | 0 | 24 | 24 | 6.00 | 144 |
| 4 | 6 | 6 | 0 | 12 | 12 | 14.00 | 168 |
| 6 | 1 | 5 | 0 | 6 | 6 | 21.00 | 126 |
| 8 | 0 | 0 | 0 | 0 | 0 | 30.00 | 0 |
| | ========= | ========= | ========= | ========= | ========= | | ========= |
| Totals | 22,855 | 97 | 0 | 22,952 | 22,952 | | 26,353 |

### PUBLIC FIRE HYDRANTS

| | Test Year | Adjustments | Rate Year |
|---|---|---|---|
| Pawtucket | 1,518 | 0 | 1,518 |
| Central Falls | 203 | 0 | 203 |
| Valley Falls | 197 | 0 | 197 |
| Totals | 1,918 | 0 | 1,918 |

### PRIVATE FIRE SERVICE

| Size | Test Year | Adjustments | Rate Year | Equiv Factor * | # of Equivs |
|---|---|---|---|---|---|
| 2 | 26 | 0 | 26 | 4.07 | 106 |
| 4 | 49 | 0 | 49 | 6.00 | 294 |
| 6 | 392 | 0 | 392 | 14.00 | 5,488 |
| 8 | 90 | 0 | 90 | 21.00 | 1,890 |
| 10 | 4 | 0 | 4 | 21.00 | 84 |
| 12 | 2 | 0 | 2 | 21.00 | 42 |
| Total | 563 | 0 | 563 | | 7,904 |

* one size down to equate to meter equivalent

## UNITS OF SERVICE

**METERED WATER USE (ccf/year)**

| Class | Test Year | Adjustments | Rate Year |
|---|---|---|---|
| Small (5/8 - 1") | 2,773,813 | -146,321 | 2,627,492 |
| Medium (1.5 - 2" & By pass) | 640,780 | -40,443 | 600,337 |
| Large (3" and up) | 265,983 | -96,561 | 169,422 |
| Total | 3,680,576 | -283,325 | 3,397,251 |
| | | | |
| Wholesale | | | |
| Cumberland | 578,899 | 0 | 578,899 |
| Seekonk | 0 | 0 | 0 |
| Total | 578,899 | 0 | 578,899 |

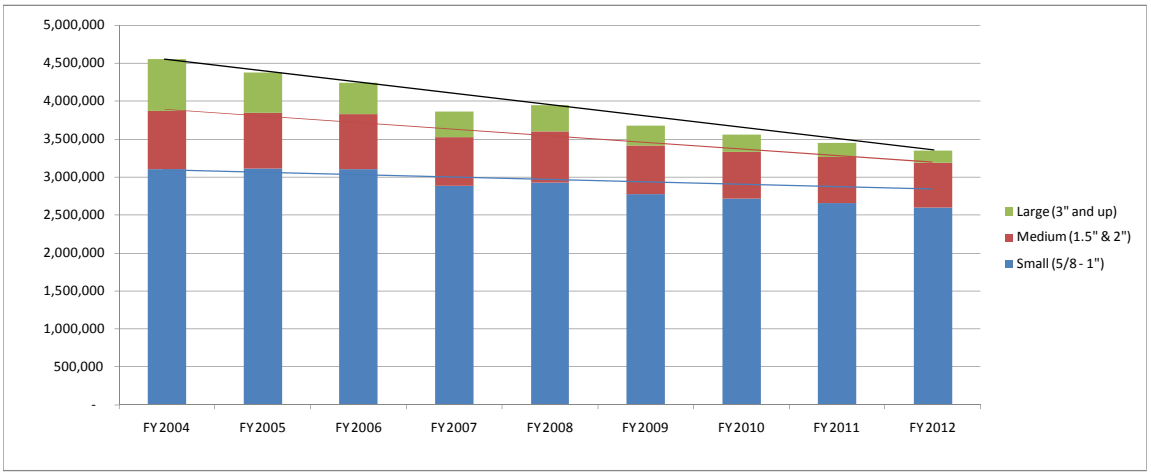
**Miles of Mains**

| Size | Miles | | Inch-Miles | |
|---|---|---|---|---|
| Service Pipes | 204.31 | | | |
| 2 | 0.84 | | 1.7 | |
| 4 | 1.42 | | 5.7 | |
| 6 | 106.47 | | 638.8 | |
| 8 | 83.01 | | 664.1 | |
| 10 | 1.61 | | 16.1 | |
| 12 | 49.78 | 95.7% | 597.4 | 82.1% |
| 16 | 4.24 | | 67.8 | |
| 20 | 9.13 | | 182.6 | |
| 24 | 6.16 | | 147.8 | |
| 30 | 0.10 | | 3.0 | |
| 36 | 0.53 | 4.3% | 19.1 | 17.9% |
| Totals | 467.60 | | 2,344 | |

## Historic and Projected Water Sales (hcf/year)

| | Actual | | | | | | Projected* | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Cycles 1-6 & 12 Residential** | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | FY 2012 | CY 2011 |
| Small (5/8 - 1") | 2,991,934 | 2,991,054 | 2,996,684 | 2,782,513 | 2,837,162 | 2,681,400 | 2,625,015 | 2,569,815 | 2,515,776 | 2,542,796 |
| Medium (1.5" & 2") | 98,069 | 101,848 | 109,829 | 104,006 | 148,091 | 126,803 | 135,527 | 144,851 | 154,817 | 149,834 |
| Large (3" and up) | - | - | - | - | 1,850 | - | - | - | - | - |
| Subtotal Residential | 3,090,003 | 3,092,902 | 3,106,513 | 2,886,519 | 2,987,103 | 2,808,203 | 2,760,542 | 2,714,666 | 2,670,593 | 2,692,630 |
| **Cycles 7 & 11 Commercial** | | | | | | | | | | |
| Small (5/8 - 1") | 111,715 | 120,900 | 107,110 | 101,363 | 90,608 | 92,413 | 89,240 | 86,176 | 83,217 | 84,696 |
| Medium (1.5" & 2") | 672,576 | 637,335 | 616,348 | 537,269 | 524,596 | 513,977 | 487,511 | 462,409 | 438,598 | 450,503 |
| Large (3" and up) | 677,607 | 524,493 | 415,228 | 343,222 | 343,905 | 265,983 | 221,708 | 184,803 | 154,041 | 169,422 |
| Subtotal Commercial | 1,461,898 | 1,282,728 | 1,138,686 | 981,854 | 959,109 | 872,373 | 798,459 | 733,387 | 675,856 | 704,622 |
| **Totals** | | | | | | | | | | |
| Small (5/8 - 1") | 3,103,649 | 3,111,954 | 3,103,794 | 2,883,876 | 2,927,770 | 2,773,813 | 2,714,255 | 2,655,991 | 2,598,993 | 2,627,492 |
| Medium (1.5" & 2") | 770,645 | 739,183 | 726,177 | 641,275 | 672,687 | 640,780 | 623,038 | 607,260 | 593,415 | 600,337 |
| Large (3" and up) | 677,607 | 524,493 | 415,228 | 343,222 | 345,755 | 265,983 | 221,708 | 184,803 | 154,041 | 169,422 |
| Subtotal Retail | 4,551,901 | 4,375,630 | 4,245,199 | 3,868,373 | 3,946,212 | 3,680,576 | 3,559,001 | 3,448,053 | 3,346,449 | 3,397,251 |

* Note: Projections for FY 2010 - FY 2012 based on average annual changes from FY 2004 - FY 2009 for each class.



**UNITS OF SERVICE - DEMAND FACTORS**

| | BASE | | MAXIMUM DAY | | | PEAK HOUR | | | Equivalent | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Annual Use | Average Day | Demand | Maximum Day | Extra Capacity | Demand | Maximum Hour | Extra Capacity | Meters & | |
| Inside - Retail | ccf/year | ccf/day | Factor | ccf/day | ccf/day | Factor | ccf/day | ccf/day | Services | Bills |
| Small (5/8 - 1") | 2,627,492 | 7,199 | 2.50 | 17,997 | 10,798 | 3.50 | 25,195 | 7,199 | 22,882 | 267,408 |
| Medium (1.5 - 2" & By p | 600,337 | 1,645 | 2.00 | 3,290 | 1,645 | 3.00 | 4,934 | 1,645 | 3,033 | 7,512 |
| Large (3" and up) | 169,422 | 464 | 1.80 | 836 | 371 | 2.50 | 1,160 | 325 | 438 | 504 |
| Fire Protection | 6,000 gal/min for 6 hours per Docket 3193 | | | 2,888 | 2,888 | | 481 | 481 | | 563 |
| Wholesale | | | | | | | | | | |
| Cumberland | 578,899 | 1,586 | 2.50 | 3,965 | 2,379 | 3.50 | 5,551 | 1,586 | | |
| Seekonk | 0 | 0 | 2.50 | 0 | 0 | 3.50 | 0 | 0 | | |
| Totals | 3,976,150 | 10,894 | | 28,974 | 18,081 | | 37,322 | 11,236 | 26,353 | 275,987 |

**ALLOCATION OF RATE YEAR EXPENSES TO COST COMPONENTS**

| EXPENSE ITEM | PRO FORMA EXPENSE | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| ADMINISTRATION | | | | | | | | |
| Salaries & Wages - (601) | $692,241 | L-M | $625,298 | $25,115 | $9,511 | $0 | $0 | $32,315 |
| Salaries & Wages - Payroll Taxes | $9,844 | L-M | $8,892 | $357 | $135 | $0 | $0 | $460 |
| Employee Pensions & Benefits (604) | $239,672 | L-M | $216,495 | $8,696 | $3,293 | $0 | $0 | $11,188 |
| Workers Comp | $8,768 | L-M | $7,920 | $318 | $120 | $0 | $0 | $409 |
| Materials and Supplies (Account 620) | $38,176 | E-M | $31,037 | $5,864 | $286 | $0 | $0 | $989 |
| Contractual Services - Legal (Account ( | $82,389 | E-M | $66,983 | $12,654 | $618 | $0 | $0 | $2,134 |
| Contractual Services - Mgt. Fees (634 | $209,763 | E-M | $170,537 | $32,218 | $1,573 | $0 | $0 | $5,434 |
| Contractual Services - Other (Account ( | $8,789 | E-M | $7,145 | $1,350 | $66 | $0 | $0 | $228 |
| Rental of Equipment (Account 642) | $7,579 | E-M | $6,162 | $1,164 | $57 | $0 | $0 | $196 |
| Transportation Expenses (Account 650 | $16,745 | E-M | $13,614 | $2,572 | $126 | $0 | $0 | $434 |
| Insurance - General Liability (Account ( | $205,086 | E-M | $166,736 | $31,500 | $1,538 | $0 | $0 | $5,313 |
| Insurance - Worker's Compensation (6 | $15,524 | L-M | $14,023 | $563 | $213 | $0 | $0 | $725 |
| Insurance - Other (Account 659) | $15,673 | E-M | $12,742 | $2,407 | $118 | $0 | $0 | $406 |
| Regulatory Com Expense - Other (667) | $55,526 | E-M | $45,143 | $8,528 | $416 | $0 | $0 | $1,439 |
| Reg Com Exp - Amort of Rate Case Ex | $100,000 | E-M | $81,300 | $15,359 | $750 | $0 | $0 | $2,591 |
| Miscellaneous Expense (Account 675) | $40,743 | E-M | $33,124 | $6,258 | $305 | $0 | $0 | $1,056 |
| Other -pba fees | $0 | E-M | $0 | $0 | $0 | $0 | $0 | $0 |
| Education Training | $5,188 | E-M | $4,218 | $797 | $39 | $0 | $0 | $134 |
| Maint of Misc Plant | $32,127 | E-M | $26,119 | $4,934 | $241 | $0 | $0 | $832 |
| Purchased Power | $51,587 | E-M | $41,940 | $7,923 | $387 | $0 | $0 | $1,336 |
| Other Utilities | $50,491 | E-M | $41,050 | $7,755 | $379 | $0 | $0 | $1,308 |
| Printing | $9,718 | E-M | $7,901 | $1,493 | $73 | $0 | $0 | $252 |
| Postage | $7,749 | E-M | $6,300 | $1,190 | $58 | $0 | $0 | $201 |
| Subtotal - Admin | $1,903,378 | | $1,634,679 | $179,017 | $20,301 | $0 | $0 | $69,381 |
| CUSTOMER ACCOUNTS | | | | | | | | |
| Salary & Wages - Cust Ser | $196,820 | B | $0 | $0 | $0 | $0 | $196,820 | $0 |
| Salary & Wages - Meter | $380,771 | M | $0 | $0 | $0 | $261,780 | $118,991 | $0 |
| Salary & Wages Payroll Tx(CS) | $2,789 | B | $0 | $0 | $0 | $0 | $2,789 | $0 |
| Salary & Wages Payroll Tx (Meters) | $5,358 | M | $0 | $0 | $0 | $3,684 | $1,674 | $0 |
| Empl Pensions & Benefits (Cust Ser) | $77,609 | B | $0 | $0 | $0 | $0 | $77,609 | $0 |
| Empl Pensions & Benefits (Meters) | $166,132 | M | $0 | $0 | $0 | $114,216 | $51,916 | $0 |
| Matls & Supp (Cust Serv) | $2,601 | B | $0 | $0 | $0 | $0 | $2,601 | $0 |
| Matls & Supp (Meters) | $7,432 | M | $0 | $0 | $0 | $5,110 | $2,323 | $0 |
| Contractual Services - Other - [Cust. S | $16,245 | B | $0 | $0 | $0 | $0 | $16,245 | $0 |
| Rental of Equipment (Account 642) | $530 | B | $0 | $0 | $0 | $0 | $530 | $0 |
| Workers Comp - Cust Serv | $903 | B | $0 | $0 | $0 | $0 | $903 | $0 |
| Workers Comp - Meters | $21,658 | B | $0 | $0 | $0 | $0 | $21,658 | $0 |
| Transportation Expenses - [Cust srvc.] | $4,049 | B | $0 | $0 | $0 | $0 | $4,049 | $0 |
| Transportation Expenses - [Meter] (Acc | $9,574 | M | $0 | $0 | $0 | $6,582 | $2,992 | $0 |
| Bad Debt Expense (Account 670) | $7,321 | B | $0 | $0 | $0 | $0 | $7,321 | $0 |
| Miscellaneous Expense - [Cust. Srvc.] ( | $325 | B | $0 | $0 | $0 | $0 | $325 | $0 |
| Miscellaneous Expense - [Meter] (Acc | $682 | M | $0 | $0 | $0 | $469 | $213 | $0 |
| Education Training - [Cust. Srvc.] | $2,157 | B | $0 | $0 | $0 | $0 | $2,157 | $0 |
| Education Training - [Meter] | $627 | M | $0 | $0 | $0 | $431 | $196 | $0 |
| Repairs & Maintenance - general | $95 | B | $0 | $0 | $0 | $0 | $95 | $0 |
| Repairs & Maintenance - meters | $0 | M | $0 | $0 | $0 | $0 | $0 | $0 |
| Other Utilities - [Cust. Srvc.] | $2,636 | B | $0 | $0 | $0 | $0 | $2,636 | $0 |
| Other Utilities - [Meter] | $4,775 | M | $0 | $0 | $0 | $3,283 | $1,492 | $0 |
| Printing - [Cust. Srvc.] | $63,423 | B | $0 | $0 | $0 | $0 | $63,423 | $0 |
| Printing - [Meter] | $0 | M | $0 | $0 | $0 | $0 | $0 | $0 |
| Postage--[Cust. Srvc.] | $100,779 | B | $0 | $0 | $0 | $0 | $100,779 | $0 |
| Subtotal - Customer Accts | $1,075,289 | | $0 | $0 | $0 | $395,554 | $679,735 | $0 |

**ALLOCATION OF RATE YEAR EXPENSES TO COST COMPONENTS**

| EXPENSE ITEM | PRO FORMA EXPENSE | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| SOURCE OF SUPPLY | | | | | | | | |
| Salaries & Wages - (601) | $113,904 | A | $113,904 | $0 | $0 | $0 | $0 | $0 |
| Salaries & Wages - Payroll Taxes | $1,608 | A | $1,608 | $0 | $0 | $0 | $0 | $0 |
| Employee Pensions & Benefits (604) | $50,116 | A | $50,116 | $0 | $0 | $0 | $0 | $0 |
| Workers Comp | $8,767 | A | $8,767 | $0 | $0 | $0 | $0 | $0 |
| Purchased Power (Account 615) | $24,761 | A | $24,761 | $0 | $0 | $0 | $0 | $0 |
| Materials and Supplies (Account 620) | $2,475 | A | $2,475 | $0 | $0 | $0 | $0 | $0 |
| Transportation Expenses (Account 650 | $4,211 | A | $4,211 | $0 | $0 | $0 | $0 | $0 |
| Miscellaneous Expense (Account 675) | $751 | A | $751 | $0 | $0 | $0 | $0 | $0 |
| Security Service | $85,928 | A | $85,928 | $0 | $0 | $0 | $0 | $0 |
| Education Training | $544 | A | $544 | $0 | $0 | $0 | $0 | $0 |
| Maint of Misc Plant | $77,664 | A | $77,664 | $0 | $0 | $0 | $0 | $0 |
| Other Utilities | $2,592 | A | $2,592 | $0 | $0 | $0 | $0 | $0 |
| Subtotal - Supply | $373,323 | | $373,323 | $0 | $0 | $0 | $0 | $0 |
| PURIFICATION | | | | | | | | |
| DBO O&M Contract | $1,749,927 | D | $879,678 | $870,249 | $0 | $0 | $0 | $0 |
| Purchased Power (Account 615) | $1,015,031 | A | $1,015,031 | $0 | $0 | $0 | $0 | $0 |
| Other Utilities | $8,172 | A | $8,172 | $0 | $0 | $0 | $0 | $0 |
| Subtotal - Purification | $2,773,130 | | $1,902,881 | $870,249 | $0 | $0 | $0 | $0 |

**ALLOCATION OF RATE YEAR EXPENSES TO COST COMPONENTS**

| **EXPENSE ITEM** | PRO FORMA EXPENSE | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| TRANSMISSION & DISTRIBUTION | | | | | | | | |
| Salaries & Wages - (601) | $959,450 | O | $52,763 | $52,198 | $19,768 | $767,560 | $0 | $67,162 |
| Salaries & Wages -[Engineering] (601) | $424,941 | O | $23,369 | $23,118 | $8,755 | $339,953 | $0 | $29,746 |
| Salaries & Wages - Payroll Taxes - | $13,553 | O | $745 | $737 | $279 | $10,843 | $0 | $949 |
| Salaries & Wages - Payroll Taxes - [En | $6,031 | O | $332 | $328 | $124 | $4,825 | $0 | $422 |
| Salaries & Wages - Police Details | $47,018 | O-A | $40,200 | $2,558 | $969 | $0 | $0 | $3,291 |
| Employee Pensions & Benefits - (604) | $381,578 | O | $20,984 | $20,759 | $7,862 | $305,262 | $0 | $26,710 |
| Employee Pensions & Benefits - [Engir | $154,190 | O | $8,479 | $8,389 | $3,177 | $123,352 | $0 | $10,793 |
| Materials and Supplies - (Account 620) | $38,283 | O | $2,105 | $2,083 | $789 | $30,626 | $0 | $2,680 |
| Materials and Supplies - [Engineering] | $18,284 | O | $1,005 | $995 | $377 | $14,627 | $0 | $1,280 |
| Rental of Equipment (Account 642) | $2,941 | O | $162 | $160 | $61 | $2,353 | $0 | $206 |
| Rental of Equipment - [Engineering] (A | $723 | O | $40 | $39 | $15 | $578 | $0 | $51 |
| Transportation Expenses - (Account 65 | $39,017 | O | $2,146 | $2,123 | $804 | $31,213 | $0 | $2,731 |
| Transportation Expenses - [Engineerin | $8,602 | O | $473 | $468 | $177 | $6,881 | $0 | $602 |
| Workers Comp T&D | $67,796 | O | $3,728 | $3,688 | $1,397 | $54,236 | $0 | $4,746 |
| Workers Comp - Engineering | $21,580 | O | $1,187 | $1,174 | $445 | $17,264 | $0 | $1,511 |
| Miscellaneous Expense - (Account 675 | $10,887 | O | $599 | $592 | $224 | $8,709 | $0 | $762 |
| Miscellaneous Expense - [Engineering] | $415 | O | $23 | $23 | $9 | $332 | $0 | $29 |
| Education Training | $1,805 | O | $99 | $98 | $37 | $1,444 | $0 | $126 |
| Education Training - [Engineering] | $640 | O | $35 | $35 | $13 | $512 | $0 | $45 |
| Repairs & Maintenance - general | $3,381 | O | $186 | $184 | $70 | $2,705 | $0 | $237 |
| Repairs & Maintenance - T&D | $16,190 | T | $6,849 | $6,776 | $2,566 | $0 | $0 | $0 |
| Repairs & Maintenance - fire services | $2,583 | F | $0 | $0 | $0 | $0 | $0 | $2,583 |
| Repairs & Maintenance - services | $12,465 | S | $0 | $0 | $0 | $12,465 | $0 | $0 |
| Repairs & Maintenance - Hydrants | $8,961 | F | $0 | $0 | $0 | $0 | $0 | $8,961 |
| Road surface restoration | $0 | O | $0 | $0 | $0 | $0 | $0 | $0 |
| Repairs & Maintenance - general | $0 | O | $0 | $0 | $0 | $0 | $0 | $0 |
| Purchased Power | $17,980 | O | $989 | $978 | $370 | $14,384 | $0 | $1,259 |
| Other Utilities | $15,690 | O | $863 | $854 | $323 | $12,552 | $0 | $1,098 |
| Other Utilities - [Engineering] | $6,782 | O | $373 | $369 | $140 | $5,425 | $0 | $475 |
| Printing | $0 | O | $0 | $0 | $0 | $0 | $0 | $0 |
| Postage--[Engineering] | $797 | O | $44 | $43 | $16 | $638 | $0 | $56 |
| Subtotal - T&D | $2,282,561 | | $167,778 | $128,769 | $48,765 | $1,768,740 | $0 | $168,509 |
| TOTAL O&M | $8,407,682 | I | $4,078,660 | $1,178,035 | $69,066 | $2,164,294 | $679,735 | $237,890 |

**ALLOCATION OF RATE YEAR EXPENSES TO COST COMPONENTS**

| EXPENSE ITEM | PRO FORMA EXPENSE | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| CAPITAL EXPENSE | | | | | | | | |
| Property Taxes | | | | | | | | |
| Source of Supply | $414,389 | A | $414,389 | $0 | $0 | $0 | $0 | $0 |
| Treatment-Pumping | $0 | D | $0 | $0 | $0 | $0 | $0 | $0 |
| Treatment-Purification | $86,553 | D | $43,510 | $43,043 | $0 | $0 | $0 | $0 |
| Trans & Distrib | $296,185 | T-C | $107,247 | $106,098 | $40,184 | $26,713 | $12,142 | $3,802 |
| Rental Property | $0 | A | $0 | $0 | $0 | $0 | $0 | $0 |
| Restrict. Bond Principal & Interest | $7,409,854 | P | $3,648,666 | $2,698,866 | $487,824 | $365,178 | $160,066 | $49,254 |
| Leases | $0 | P | $0 | $0 | $0 | $0 | $0 | $0 |
| IFR | $2,500,000 | P | $1,231,018 | $910,566 | $164,586 | $123,207 | $54,004 | $16,618 |
| CF Franchise Fee | $0 | P | $0 | $0 | $0 | $0 | $0 | $0 |
| Calgon Royalties Fund | $0 | A | $0 | $0 | $0 | $0 | $0 | $0 |
| CF System Fund | $0 | T-C | $0 | $0 | $0 | $0 | $0 | $0 |
| Trustee Fees | $381,218 | P | $187,715 | $138,850 | $25,097 | $18,787 | $8,235 | $2,534 |
| O&M Reserve Deposit | $0 | E | $0 | $0 | $0 | $0 | $0 | $0 |
| Subtotal - Capital | $11,088,198 | | $5,632,544 | $3,897,423 | $717,692 | $533,885 | $234,447 | $72,208 |
| TOTAL EXPENSES | $19,495,880 | | $9,711,205 | $5,075,458 | $786,758 | $2,698,179 | $914,182 | $310,098 |
| PLUS: Rev. Stabiliz./Oper. Rev. Allowa | $288,281 | I | $139,848 | $40,392 | $2,368 | $74,209 | $23,307 | $8,157 |
| LESS: Service Instal Revenue | -$67,479 | S | $0 | $0 | $0 | -$67,479 | $0 | $0 |
| LESS: State Surcharge Revenue | -$50,602 | I | -$24,548 | -$7,090 | -$416 | -$13,026 | -$4,091 | -$1,432 |
| LESS: Penalties | -$104,415 | I | -$50,653 | -$14,630 | -$858 | -$26,878 | -$8,442 | -$2,954 |
| LESS: Cumberland Tax Reduction | $0 | O | $0 | $0 | $0 | $0 | $0 | $0 |
| LESS: Non-Operating Rental | -$22,065 | A | -$22,065 | $0 | $0 | $0 | $0 | $0 |
| LESS: Interest Income | -$253 | I | -$123 | -$35 | -$2 | -$65 | -$20 | -$7 |
| LESS: Misc Non-Operating | -$31,357 | I | -$15,212 | -$4,394 | -$258 | -$8,072 | -$2,535 | -$887 |
| LESS: Gain/Loss Disposal Property | -$987 | P | -$486 | -$359 | -$65 | -$49 | -$21 | -$7 |
| REQUIRED FROM RATES | $19,507,003 | | $9,737,967 | $5,089,341 | $787,528 | $2,656,819 | $922,379 | $312,968 |

**ALLOCATION OF PLANT IN SERVICE TO COST COMPONENTS**

| EXPENSE ITEM | NET PLANT | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| *SOURCE OF SUPPLY* | | | | | | | | |
| Land & Land Rights | $5,560,444 | A | $5,560,444 | $0 | $0 | $0 | $0 | $0 |
| Structures & Improvements | $10,035,594 | A | $10,035,594 | $0 | $0 | $0 | $0 | $0 |
| Wells & Springs | $227,169 | A | $227,169 | $0 | $0 | $0 | $0 | $0 |
| *PUMPING* | | | | | | | | |
| Land & Land Rights | $30,133 | D | $15,148 | $14,985 | $0 | $0 | $0 | $0 |
| Structures & Improvements | $266,381 | D | $133,908 | $132,473 | $0 | $0 | $0 | $0 |
| Electric Pumping Equipment | $3,078 | D | $1,547 | $1,531 | $0 | $0 | $0 | $0 |
| *PURIFICATION* | | | | | | | | |
| Land & Land Rights | $26,046 | D | $13,093 | $12,953 | $0 | $0 | $0 | $0 |
| Structures & Improvements | $49,424,713 | D | $24,845,510 | $24,579,202 | $0 | $0 | $0 | $0 |
| Water Treatment Equipment | $0 | D | $0 | $0 | $0 | $0 | $0 | $0 |
| *TRANSM & DISTRIBUTION* | | | | | | | | |
| Land & Land Rights | $1,590 | H | $645 | $638 | $307 | $0 | $0 | $0 |
| Distribution Reservoirs | $22,432 | H | $9,099 | $9,001 | $4,332 | $0 | $0 | $0 |
| Transmission Mains | $9,749,955 | D | $4,901,245 | $4,848,710 | $0 | $0 | $0 | $0 |
| Distribution mains | $44,619,335 | H | $18,098,316 | $17,904,329 | $8,616,690 | $0 | $0 | $0 |
| Services | $4,703,680 | M | $0 | $0 | $0 | $3,233,780 | $1,469,900 | $0 |
| Meters | $3,632,187 | M | $0 | $0 | $0 | $2,497,129 | $1,135,058 | $0 |
| Hydrants | $815,631 | F | $0 | $0 | $0 | $0 | $0 | $815,631 |
| Other Misc Equip | $88,151 | H | $35,755 | $35,372 | $17,023 | $0 | $0 | $0 |
| *GENERAL* | | | | | | | | |
| Structures & Improvements | $1,250,886 | E | $470,019 | $192,128 | $9,378 | $416,230 | $130,724 | $32,407 |
| Office furniture & equipment | $369,164 | E | $138,713 | $56,701 | $2,768 | $122,839 | $38,580 | $9,564 |
| Transportation equipment | $605,523 | E | $227,524 | $93,004 | $4,540 | $201,486 | $63,280 | $15,687 |
| Stores equipment | $0 | E | $0 | $0 | $0 | $0 | $0 | $0 |
| Tools, shop & garage equipment | $0 | E | $0 | $0 | $0 | $0 | $0 | $0 |
| Laboratory equipment | $13,978 | A | $13,978 | $0 | $0 | $0 | $0 | $0 |
| Power equipment | $7,311 | E | $2,747 | $1,123 | $55 | $2,433 | $764 | $189 |
| Communication equipment | $0 | E | $0 | $0 | $0 | $0 | $0 | $0 |
| Miscellaneous equipment | $15,826 | E | $5,946 | $2,431 | $119 | $5,266 | $1,654 | $410 |
| TOTAL PLANT | $131,469,206 | | $64,736,400 | $47,884,581 | $8,655,212 | $6,479,162 | $2,839,961 | $873,889 |
| PERCENT | | P | 49.24% | 36.42% | 6.58% | 4.93% | 2.16% | 0.66% |

*Note: Test Year Net Plant plus CWIP

**ALLOCATION OF NON-ADMINISTRATIVE LABOR COSTS TO COST COMPONENTS**

| **EXPENSE ITEM** | PRO FORMA AMOUNT | ALLOC. SYMBOL (1) | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|---|
| CUSTOMER ACCOUNTS | | | | | | | | |
| Salary & Wages - Cust Ser | $196,820 | B | $0 | $0 | $0 | $0 | $196,820 | $0 |
| Salary & Wages - Meter | $380,771 | M | $0 | $0 | $0 | $261,780 | $118,991 | $0 |
| SOURCE OF SUPPLY | | | | | | | | |
| Salaries & Wages - (601) | $113,904 | A | $113,904 | $0 | $0 | $0 | $0 | $0 |
| TRANSMISSION & DISTRIBUTION | | | | | | | | |
| Salaries & Wages - (601) | $959,450 | O | $52,763 | $52,198 | $19,768 | $767,560 | $0 | $67,162 |
| Salaries & Wages -[Engineering] (601) | $424,941 | O | $23,369 | $23,118 | $8,755 | $339,953 | $0 | $29,746 |
| TOTALS | $2,075,887 | | $190,037 | $75,316 | $28,523 | $1,369,293 | $315,811 | $96,907 |
| PERCENT | | L | 9.2% | 3.6% | 1.4% | 66.0% | 15.2% | 4.7% |

## ALLOCATION TO FIRE, WHOLESALE & RETAIL SERVICE

| UNITS OF SERVICE | TOTAL | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|
| Number | | 3,976,150 | 18,081 | 11,236 | 26,353 | 275,987 | 1,918 |
| Units | | ccf/yr | ccf/day | ccf/day | equiv meters | bills | hydrants |
| Revenue Requirements | $19,507,003 | $9,737,967 | $5,089,341 | $787,528 | $2,656,819 | $922,379 | $312,968 |
| Allocation to Fire Protection | $1,208,217 | $48,690 | $812,826 | $33,734 | included in calculation | | $312,968 |
| Allocation to Wholesale * | $1,589,402 | $1,254,468 | $333,599 | $1,335 | | | |
| Net To Retail Metered Rates | $16,709,384 | $8,434,809 | $3,942,917 | $752,459 | $2,656,819 | $922,379 | $0 |

* Allocation to wholesale based on:

BASE

| | | |
|---|---|---|
| Metered Sales (ccf/yr) | 3,976,150 | |
| Retail Sales (ccf/yr) | 3,397,251 | |
| Retail Unacctd For (ccf/yr) | 539,533 | Based on miles of pipe: 100% of distribution/service costs plus 85.4% of transmission plus estim fire |
| Total Retail (ccf/yr) | 3,936,784 | |
| Wholesale Sales (ccf/yr) | 578,899 | |
| Wholesale Unacctd For (ccf/yr) | 3,239 | |
| Total Wholesale (ccf/yr) | 582,138 | |
| Grand Total (ccf/yr) | 4,518,923 | |
| Wholesale Percent of Grand Total | 12.9% | |
| Total Base Allocation | $9,737,967 | |
| Wholesale Allocation | **$1,254,468** | |

MAX DAY

| | | | |
|---|---|---|---|
| Total Max Day Allocation | $5,089,341 | | |
| Less: Distribution Costs | | | |
| 95.7% of T&D O&M | -$123,217 | | |
| Admin O&M Share | -$18,724 | 15.2% | |
| Distribution Capital Items | -$2,412,042 | 61.89% | (Less Distribution Mains & Gen'l Items allocated to Max Day) |
| Total Net of Distribution | $2,535,358 | | |
| Wholesale Max Day % | 13.16% | See Sch. 2.2 | |
| Wholesale Allocation | **$333,599** | | |

PEAK HOUR

| | | | |
|---|---|---|---|
| Total Peak Hour Allocation | $787,528 | | |
| Less: Distribution Costs | | | |
| 95.7% of T&D O&M | -$46,663 | | |
| Admin O&M Share | -$13,716 | 29.4% | |
| Capital Items | -$717,692 | 100.00% | (All Capital Peak Hour costs = distribution) |
| Total Net of Distribution | $9,458 | | |
| Wholesale Peak Hr % | 14.12% | See Sch. 2.2 | |
| Wholesale Allocation | **$1,335** | | |

## ALLOCATION SYMBOLS

| | ALLOCATION SYMBOL | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE | |
|---|---|---|---|---|---|---|---|---|
| 100.00% | A | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | Supply, IFR, Power & Chemicals |
| 100.00% | B | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | Billing |
| 100.00% | D | 50.27% | 49.73% | 0.00% | 0.00% | 0.00% | 0.00% | Max Day Demand |
| 100.00% | E | 37.57% | 15.36% | 0.75% | 33.27% | 10.45% | 2.59% | O&M less A&G |
| 100.00% | E-M | 81.30% | 15.36% | 0.75% | 0.00% | 0.00% | 2.59% | O&M less A&G - No Meter Alloc |
| 100.00% | F | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | Fire Service |
| 100.00% | H | 40.56% | 40.13% | 19.31% | 0.00% | 0.00% | 0.00% | Max Hour Demand |
| 100.00% | I | 48.51% | 14.01% | 0.82% | 25.74% | 8.08% | 2.83% | Total O&M |
| 100.00% | L | 9.15% | 3.63% | 1.37% | 65.96% | 15.21% | 4.67% | Labor |
| 100.00% | L-M | 90.33% | 3.63% | 1.37% | 0.00% | 0.00% | 4.67% | Labor-No Meter Alloaction |
| 100.00% | M | 0.00% | 0.00% | 0.00% | 68.8% | 31.3% | 0.00% | Cust Serv - "Meter" |
| 100.00% | O | 5.50% | 5.44% | 2.06% | 80.00% | 0.00% | 7.00% | O&M Mains, Hydrants & Service |
| 100.00% | O-A | 85.50% | 5.44% | 2.06% | 0.00% | 0.00% | 7.00% | T&D Police Details |
| 100.00% | P | 49.24% | 36.42% | 6.58% | 4.93% | 2.16% | 0.66% | Plant |
| 100.00% | S | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | Services and Meters |
| 100.00% | T | 42.30% | 41.85% | 15.85% | 0.00% | 0.00% | 0.00% | T&D Mains |
| 100.00% | T-C | 36.21% | 35.82% | 13.57% | 9.02% | 4.10% | 1.28% | T&D Capital |

*Symbol D*

| | MGD | % |
|---|---|---|
| Avg Day | 10.582 | 50.27% |
| Max Day Inc | 10.468 | 49.73% |
| Total Max Day | 21.050 | 100.00% |

*Symbol E*

| | TOTAL | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|
| Amount | $6,504,303 | $2,443,982 | $999,018 | $48,765 | $2,164,294 | $679,735 | $168,509 |
| Percent | E | 37.6% | 15.4% | 0.7% | 33.3% | 10.5% | 2.6% |

*Symbol H*

| | MGD | % |
|---|---|---|
| Avg Day | 10.582 | 40.56% |
| Max Day Inc | 10.468 | 40.13% |
| Peak Hour Inc | 5.038 | 19.31% |
| Total Peak Hour | 26.088 | 100.00% |

| | FY 04 | FY 05 | FY 06 | FY 07 | FY 08 | FY 09 | Avg or Max |
|---|---|---|---|---|---|---|---|
| Avg Day mgd) | 12.23 | 12.33 | 10.42 | 10.71 | 10.65 | 8.80 | 10.58 |
| Max Day (mgd) | 19.09 | 21.05 | 20.23 | | 17.70 | 15.87 | 21.05 |
| Max Hour (mgd) | 26.09 | | 20.50 | 19.70 | | | 26.09 |

*Symbol M*

These accounts include activities associated with meter reading, meter testing, backflow testing, etc. Costs have been split based on the following personnel associated with these activities:

| | # Employees | Meter Read | Meters |
|---|---|---|---|
| Meter Reader* | 2.5 | 2.5 | |
| Technician* | 4.5 | | 4.5 |
| Backflow | 1.0 | | 1.0 |
| Subtotal | 8.0 | 2.5 | 5.5 |
| Percent | | 31% | 69% |
| Agent | 1.0 | 0.31 | 0.69 |
| Supervisor | 1.0 | 0.31 | 0.69 |
| Total | 10.0 | 3.1 | 6.9 |
| Percent | | 31% | 69% |

* Note: half of one meter reader's time is used as a meter technician.

**ALLOCATION SYMBOLS**

*Symbol O*

| | % of Time | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|
| Mains | 13.00% | 5.50% | 5.44% | 2.06% | 0.00% | 0.00% | 0.00% |
| Hydrants | 7.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 7.00% |
| Services | 80.00% | 0.00% | 0.00% | 0.00% | 80.00% | 0.00% | 0.00% |
| Total | 100.0% | 5.5% | 5.4% | 2.1% | 80.0% | 0.0% | 7.0% |

Note: Based on prior docket analysis of time

*Symbol T*

| | Plant Amt. | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|
| Transmission | $9,749,955 | $4,901,245 | $4,848,710 | $0 | $0 | $0 | $0 |
| Distribution | $44,619,335 | $18,098,316 | $17,904,329 | $8,616,690 | $0 | $0 | $0 |
| Total | $54,369,290 | $22,999,561 | $22,753,039 | $8,616,690 | $0 | $0 | $0 |
| | | 42.30% | 41.85% | 15.85% | 0.00% | 0.00% | 0.00% |

*Symbol T-C*

| | Plant Amt. | BASE | MAX. DAY | PEAK HOUR | METERING | BILLING | DIRECT FIRE |
|---|---|---|---|---|---|---|---|
| Distribution Reservoirs | $22,432 | $9,099 | $9,001 | $4,332 | $0 | $0 | $0 |
| Transmission Mains | $9,749,955 | $4,901,245 | $4,848,710 | $0 | $0 | $0 | $0 |
| Distribution mains | $44,619,335 | $18,098,316 | $17,904,329 | $8,616,690 | $0 | $0 | $0 |
| Services | $4,703,680 | $0 | $0 | $0 | $3,233,780 | $1,469,900 | $0 |
| Meters | $3,632,187 | $0 | $0 | $0 | $2,497,129 | $1,135,058 | $0 |
| Hydrants | $815,631 | $0 | $0 | $0 | $0 | $0 | $815,631 |
| Total | $63,543,221 | $23,008,660 | $22,762,040 | $8,621,022 | $5,730,908 | $2,604,958 | $815,631 |
| | | 36.21% | 35.82% | 13.57% | 9.02% | 4.10% | 1.28% |

## FIRE SERVICE CHARGES

PUBLIC FIRE SERVICE

Annual Charge/Hydrant = $354.11

PRIVATE FIRE SERVICE

| SERVICE SIZE (inches) | ANNUAL CHARGE |
|---|---|
| 2 | $157.59 |
| 4 | $346.90 |
| 6 | $892.17 |
| 8 | $1,616.25 |
| 10 | $2,370.26 |
| 12 | $3,415.29 |

**ALLOCATION OF FIRE SERVICE EXPENSES**
**TO PUBLIC AND PRIVATE FIRE SERVICE**

| | NUMBER | DEMAND FACTOR (1) | NO. OF EQUIVS. | PERCENT OF DEMAND | NON-HYDR. REQUIRED | DIRECT HYDRANT | TOTAL |
|---|---|---|---|---|---|---|---|
| PUBLIC FIRE SERVICE | | | | | | | |
| Hydrants | 1,918 | 111.31 | 213,494.4 | 75.28% | $850,050 | $79,035 | $929,085 |
| PRIVATE FIRE SERVICE | | | | | | | |
| SIZE (IN) | | | | | | | |
| 2 | 26 | 6.19 | 160.9 | | | | |
| 4 | 49 | 38.32 | 1,877.6 | | | | |
| 6 | 392 | 111.31 | 43,633.9 | | | | |
| 8 | 90 | 237.21 | 21,348.6 | | | | |
| 10 | 4 | 426.58 | 1,706.3 | | | | |
| 12 | 2 | 689.04 | 1,378.1 | | | | |
| TOTAL-PRIV. | 563 | | 70,105.5 | 24.72% | $279,132 | $0 | $279,132 |
| GRAND TOTALS | 2,481 | | 283,599.8 | 100.00% | $1,129,183 | $79,035 | $1,208,217 |

| | |
|---|---|
| Total Fire Allocation | $1,208,217 |
| Less O&M for T&D Fire | $11,641 |
| Hydrant Capital | $67,394 |
| Net Non-Hydrant | $1,129,183 |

(1) Based on size to the 2.63 power.

## DETERMINATION OF FIRE SERVICE CHARGES

| PUBLIC FIRE PROTECTION | | | CALCULATED CHARGE |
|---|---|---|---|
| PUBLIC FIRE ALLOCATION (1) | | $679,188 | |
| ---------- | = | ---------- = | $354.11 per year |
| NUMBER OF PUBLIC HYDRANTS | | 1,918 | |

PRIVATE FIRE PROTECTION

| | | | |
|---|---|---|---|
| PRIVATE FIRE ALLOCATION (1,2) | | $279,132 | |
| ---------- | = | --------- = | $3.98 /EQUIV. |
| NO. OF EQUIV. UNITS | | 70,105.47 | |

| SIZE (IN) | DEMAND FACTOR | DEMAND CHARGE | SERVICE LINE CHRG | BILLING CHARGE | CALCULATED CHARGE |
|---|---|---|---|---|---|
| 2 | 6.19 | $24.65 | $129.60 | $3.34 | $157.59 |
| 4 | 38.32 | $152.57 | $190.99 | $3.34 | $346.90 |
| 6 | 111.31 | $443.20 | $445.63 | $3.34 | $892.17 |
| 8 | 237.21 | $944.46 | $668.45 | $3.34 | $1,616.25 |
| 10 | 426.58 | $1,698.47 | $668.45 | $3.34 | $2,370.26 |
| 12 | 689.04 | $2,743.50 | $668.45 | $3.34 | $3,415.29 |

(1) Set so fire charges result in 5% increase
(2) Private Fire includes allocated service maintenance costs as detailed below:

| | | |
|---|---|---|
| Service Line Maintenance Cost = | $884,370 | (Half of total "Metering" O&M ) |
| Service Line Debt Costs = | $206,059 | |
| Addtnl Allocation to Fire Service = | $251,587 | (23.07%) |
| Cost per Equiv/year = | $ 31.83 | |

# DETERMINATION OF SERVICE CHARGES

## BILLING CHARGE

| | | | |
|---|---|---|---|
| CUST. BILLING ALLOC. (2) | | $922,379 | |
| ---------- | = | ---------- = | $3.34 PER BILLING |
| NUMBER OF BILLINGS | | 275,987 | |

## METER CHARGE

| | | | |
|---|---|---|---|
| CUST. METER ALLOC. (1,2) | | $2,655,130 | |
| ---------- | = | ---------- = | $100.75 / EQ. METER/YR |
| NO. EQUIV. METERS | | 26,353 | |

## TOTAL SERVICE CHARGES

| | QUARTERLY ACCOUNTS | | | MONTHLY ACCOUNTS | | |
|---|---|---|---|---|---|---|
| METER SIZE (IN) | METER CHARGE | BILLING CHARGE | TOTAL CHARGE | METER CHARGE | BILLING CHARGE | TOTAL CHARGE |
| 5/8 | $25.19 | $3.34 | $28.53 | $8.40 | $3.34 | $11.74 |
| 3/4 | $34.90 | $3.34 | $38.25 | $11.63 | $3.34 | $14.98 |
| 1 | $50.38 | $3.34 | $53.72 | $16.79 | $3.34 | $20.13 |
| 1 1/2 | $102.55 | $3.34 | $105.89 | $34.18 | $3.34 | $37.53 |
| 2 | $133.14 | $3.34 | $136.48 | $44.38 | $3.34 | $47.72 |
| 3 | $151.13 | $3.34 | $154.47 | $50.38 | $3.34 | $53.72 |
| 4 | $352.63 | $3.34 | $355.97 | $117.54 | $3.34 | $120.89 |
| 6 | $528.95 | $3.34 | $532.29 | $176.32 | $3.34 | $179.66 |
| 8 | $755.64 | $3.34 | $758.98 | $251.88 | $3.34 | $255.22 |

(1) Less allocation of Service Maintenance Costs to Private Fire Service - see CW Sch. 4.2,
(2) adjusted to recover reduction in public fire revenues to maintain 5% public fire increase.

**ALLOCATION OF GENERAL WATER EXPENSES**
**TO CUSTOMER CLASSES**

**Class Demands**

| CUSTOMER | AVERAGE DEMANDS | | MAX DAY EXTRA CAPACITY | | | |
|---|---|---|---|---|---|---|
| CLASS | (CCF/DAY) | PERCENT | FACTOR | (CCF/DAY) | XTRA CCF/DAY | PERCENT |
| *Retail* | | | | | | |
| Small (5/8 - 1") | 7,199 | 66.08% | 2.50 | 17,997 | 10,798 | 71.07% |
| Medium (1.5 - 2" & By pass | 1,645 | 15.10% | 2.00 | 3,290 | 1,645 | 10.83% |
| Large (3" and up) | 464 | 4.26% | 1.80 | 836 | 371 | 2.44% |
| *Wholesale* | | | | | | |
| Cumberland | 1,586 | 14.56% | 2.50 | 3,965 | 2,379 | 15.66% |
| Seekonk | 0 | 0.00% | 2.50 | 0 | 0 | 0.00% |
| Total | 10,894 | 100.00% | | 26,087 | 15,193 | 100.00% |

| CUSTOMER | AVERAGE DEMANDS | | PEAK HOUR EXTRA CAPACITY | | | |
|---|---|---|---|---|---|---|
| CLASS | (CCF/DAY) | PERCENT | FACTOR | (CCF/DAY) | XTRA CCF/DAY | PERCENT |
| *Retail* | | | | | | |
| Small (5/8 - 1") | 7,199 | 66.08% | 3.50 | 25,195 | 7,199 | 66.94% |
| Medium (1.5 - 2" & By pass | 1,645 | 15.10% | 3.00 | 4,934 | 1,645 | 15.29% |
| Large (3" and up) | 464 | 4.26% | 2.50 | 1,160 | 325 | 3.02% |
| *Wholesale* | | | | | | |
| Cumberland | 1,586 | 14.56% | 3.50 | 5,551 | 1,586 | 14.75% |
| Seekonk | 0 | 0.00% | 3.50 | 0 | 0 | 0.00% |
| Total | 10,894 | 100.00% | | 36,841 | 10,754 | 100.00% |

**Allocation of Retail Metered Sales Costs to Classes (see Sch 3.3)**

| CUSTOMER | BASE COSTS | | MAX. DAY XTRA CAPACITY | | PEAK HR. XTRA CAPACITY | | TOTAL |
|---|---|---|---|---|---|---|---|
| CLASS | PERCENT | AMOUNT | PERCENT | AMOUNT | PERCENT | AMOUNT | AMOUNT |
| *Retail* | | | | | | | |
| Small (5/8 - 1") | 77.34% | $6,523,625 | 84.27% | $3,322,557 | 78.52% | $590,803 | $10,436,985 |
| Medium (1.5 - 2" & By pass | 17.67% | $1,490,538 | 12.84% | $506,099 | 17.94% | $134,989 | $2,131,625 |
| Large (3" and up) | 4.99% | $420,646 | 2.90% | $114,261 | 3.54% | $26,667 | $561,574 |
| Total | 100.00% | $8,434,809 | 100.00% | $3,942,917 | 100.00% | $752,459 | $13,130,185 |
| | | 64.2% | | 30.0% | | 5.7% | |

**METERED WATER RATES**

*Small (5/8 - 1")*

| | | | | |
|---|---|---|---|---|
| Total Expense (2) | $10,436,985 | | | |
| ---------- | = ---------- | = | $ 3.972 | per ccf |
| Metered Sales (HCF) (1) | 2,627,492 | | | |

*Medium (1.5 - 2" & By pass)*

| | | | | |
|---|---|---|---|---|
| Total Expense (2) | $2,131,625 | | | |
| ---------- | = ---------- | = | $ 3.551 | per ccf |
| Metered Sales (HCF) (1) | 600,337 | | | |

*Large (3" and up)*

| | | | | |
|---|---|---|---|---|
| Total Expense (2) | $561,574 | | | |
| ---------- | = ---------- | = | $ 3.315 | per ccf |
| Metered Sales (HCF) (1) | 169,422 | | | |

*Wholesale*

| | | | | |
|---|---|---|---|---|
| Total Expense (3) | $1,589,402 | | | |
| ---------- | = ---------- | = | $2.746 | per ccf |
| Metered Sales (HCF) (1) | 578,899 | | | |

(1) See CW Sch 2.0
(2) See CW Sch 6.0
(3) See CW Sch. 3.3

## COMPARISON OF CURRENT & PROPOSED RATES

| | | Current | Proposed | % Change |
|---|---|---|---|---|
| Metered Rates | | | | |
| Small (5/8 - 1") | | $3.459 | $3.972 | 14.8% |
| Medium (1.5 - 2" & By pass) | | $3.251 | $3.551 | 9.2% |
| Large (3" and up) | | $3.140 | $3.315 | 5.6% |
| *Wholesale* | | $2.590 | $2.746 | 6.0% |
| | | | | |
| Service Charges | | | | |
| Quarterly | 5/8 | $18.72 | $28.53 | 52.4% |
| | 3/4 | $24.07 | $38.25 | 58.9% |
| | 1 | $32.59 | $53.72 | 64.8% |
| | 1 1/2 | $61.33 | $105.89 | 72.7% |
| | 2 | $78.18 | $136.48 | 74.6% |
| | 3 | $88.09 | $154.47 | 75.4% |
| | 4 | $199.07 | $355.97 | 78.8% |
| | 6 | $296.19 | $532.29 | 79.7% |
| | 8 | $421.05 | $758.98 | 80.3% |
| Monthly | 5/8 | $9.47 | $11.74 | 24.0% |
| | 3/4 | $11.26 | $14.98 | 33.0% |
| | 1 | $14.10 | $20.13 | 42.8% |
| | 1 1/2 | $23.68 | $37.53 | 58.5% |
| | 2 | $29.29 | $47.72 | 62.9% |
| | 3 | $32.59 | $53.72 | 64.8% |
| | 4 | $69.59 | $120.89 | 73.7% |
| | 6 | $101.96 | $179.66 | 76.2% |
| | 8 | $143.58 | $255.22 | 77.8% |
| Fire Service (annual) | | | | |
| Public | /hydrant/yr | $337.25 | $354.11 | 5.0% |
| Private | | | | |
| | 2 | $125.42 | $157.59 | 25.6% |
| | 4 | $254.33 | $346.90 | 36.4% |
| | 6 | $640.81 | $892.17 | 39.2% |
| | 8 | $1,131.52 | $1,616.25 | 42.8% |
| | 10 | $1,597.19 | $2,370.26 | 48.4% |
| | 12 | $2,242.58 | $3,415.29 | 52.3% |

# IMPACT OF PROPOSED RATES

| METER SIZE | MONTHLY USE - CU FT | CURRENT RATES | <--------- PROPOSED ---------> NEW BILL | $ INCREASE | % INCREASE |
|---|---|---|---|---|---|
| Metered Service (Monthly Bills) | | | | | |
| Small | | | | | |
| 5/8 | 600 | $30.22 | $35.57 | $5.35 | 17.69% |
| **5/8** | **800** | **$37.14** | $43.52 | **$6.37** | **17.16%** |
| 5/8 | 1,200 | $50.98 | $59.40 | $8.43 | 16.53% |
| 5/8 | 1,700 | $68.27 | $79.26 | $10.99 | 16.10% |
| 5/8 | 2,500 | $95.95 | $111.04 | $15.10 | 15.73% |
| 5/8 | 3,000 | $113.24 | $130.90 | $17.66 | 15.60% |
| 5/8 | 5,000 | $182.42 | $210.34 | $27.92 | 15.31% |
| 5/8 | 7,500 | $268.90 | $309.64 | $40.74 | 15.15% |
| 5/8 | 9,000 | $320.78 | $369.22 | $48.44 | 15.10% |
| 1 | 1,000 | $48.69 | $59.85 | $11.16 | 22.92% |
| 1 | 12,000 | $429.18 | $496.77 | $67.59 | 15.75% |
| 1 | 25,000 | $878.85 | $1,013.13 | $134.28 | 15.28% |
| Medium | | | | | |
| 1 1/2 | 25,000 | $836.43 | $925.28 | $88.85 | 10.62% |
| 1 1/2 | 50,000 | $1,649.18 | $1,813.03 | $163.85 | 9.94% |
| 2 | 75,000 | $2,467.54 | $2,710.97 | $243.43 | 9.87% |
| 2 | 100,000 | $3,280.29 | $3,598.72 | $318.43 | 9.71% |
| Large | | | | | |
| 3 | 75,000 | $2,387.59 | $2,539.97 | $152.38 | 6.38% |
| 3 | 100,000 | $3,172.59 | $3,368.72 | $196.13 | 6.18% |
| 4 | 250,000 | $7,919.59 | $8,408.39 | $488.80 | 6.17% |
| 6 | 300,000 | $9,521.96 | $10,124.66 | $602.70 | 6.33% |
| 6 | 1,000,000 | $26,001.96 | $27,639.66 | $1,637.70 | 6.30% |
| Fire Service (Monthly Bill) | | | | | |
| Municipal Fire Service | 200 hydrants | $5,620.83 | $5,901.83 | $281.00 | 5.00% |
| | 1400 hydrants | $39,345.83 | $41,312.83 | $1,967.00 | 5.00% |
| Private Fire Service | 4 Inch Service | $21.19 | $28.91 | $7.71 | 36.40% |
| | 6 Inch Service | $53.40 | $74.35 | $20.95 | 39.23% |
| | 8 Inch Service | $94.29 | $134.69 | $40.39 | 42.84% |

# REVENUE RECONCILIATION

| **Service Charge:** | | <------- Current -------> | | <------- Proposed --------> | |
|---|---|---|---|---|---|
| Quarterly | Number | Rate | Revenue | Rate | Revenue |
| 5/8 | 0 | $18.72 | $0 | $28.53 | $0 |
| 3/4 | 0 | $24.07 | $0 | $38.25 | $0 |
| 1 | 0 | $32.59 | $0 | $53.72 | $0 |
| 1 1/2 | 0 | $61.33 | $0 | $105.89 | $0 |
| 2 | 0 | $78.18 | $0 | $136.48 | $0 |
| 3 | 0 | $88.09 | $0 | $154.47 | $0 |
| 4 | 0 | $199.07 | $0 | $355.97 | $0 |
| 6 | 0 | $296.19 | $0 | $532.29 | $0 |
| 8 | 0 | $421.05 | $0 | $758.98 | $0 |
| Monthly | | | | | |
| 5/8 | 21,527 | $9.47 | $2,446,328 | $11.74 | $3,032,724 |
| 3/4 | 259 | $11.26 | $34,996 | $14.98 | $46,558 |
| 1 | 498 | $14.10 | $84,262 | $20.13 | $120,297 |
| 1 1/2 | 227 | $23.68 | $64,504 | $37.53 | $102,232 |
| 2 | 399 | $29.29 | $140,241 | $47.72 | $228,483 |
| 3 | 24 | $32.59 | $9,386 | $53.72 | $15,471 |
| 4 | 12 | $69.59 | $10,021 | $120.89 | $17,408 |
| 6 | 6 | $101.96 | $7,341 | $179.66 | $12,936 |
| 8 | 0 | $143.58 | $0 | $255.22 | $0 |
| **Consumption Charge:** | | | | | |
| Small (5/8 - 1") | 2,627,492 | $3.459 | $9,088,494 | $3.972 | $10,436,397 |
| Medium (1.5 - 2" & By p | 600,337 | $3.251 | $1,951,697 | $3.551 | $2,131,798 |
| Large (3" and up) | 169,422 | $3.140 | $531,985 | $3.315 | $561,633 |
| | | | | | |
| Wholesale | 578,899 | $2.590 | $1,499,348 | $2.746 | $1,589,657 |

# REVENUE RECONCILIATION

| | | <------- Current -------> | | <------- Proposed --------> | |
|---|---|---|---|---|---|
| Fire Protection: | | | | | |
| Public Hydrants | 1,918 | $337.25 | $646,846 | $354.11 | $679,183 |
| | | | | | |
| Private Fire Protection | | | | | |
| 2 | 26 | $125.42 | $3,261 | $157.59 | $4,097 |
| 4 | 49 | $254.33 | $12,462 | $346.90 | $16,998 |
| 6 | 392 | $640.81 | $251,198 | $892.17 | $349,731 |
| 8 | 90 | $1,131.52 | $101,837 | $1,616.25 | $145,463 |
| 10 | 4 | $1,597.19 | $6,389 | $2,370.26 | $9,481 |
| 12 | 2 | $2,242.58 | $4,485 | $3,415.29 | $6,831 |
| | | | ========== | | ========== |
| Total | | | $16,895,080 | | $19,507,378 |
| Plus: Misc Revenues | | | $277,158 | | $277,158 |
| | | | ========== | | ========== |
| Pro Forma Revenue | | | $17,172,238 | | $19,784,536 |
| Required Revenue | | | $19,784,161 | | $19,784,161 |
| Difference | | | -$2,611,923 | | $375 |
| Increase in Revenues | | | | | $2,612,298 |
| Percent Increase in Total Revenues | | | | | 15.2% |
| Percent Increase in Rate Revenues (non-misc) | | | | | 15.5% |

# SUMMARY OF COST OF SERVICE

| | Test Year | Adjustments | Rate Year |
|---|---|---|---|
| **Revenues** | | | |
| Service Charges | $2,797,079 | $779,030 | $3,576,109 |
| Metered Rates | $13,071,524 | $1,647,962 | $14,719,486 |
| Fire Protection | $1,026,477 | $185,306 | $1,211,783 |
| Miscellaneous | $477,158 | -$200,000 | $277,158 |
| *Total Revenue* | $17,372,238 | $2,412,298 | $19,784,536 |
| | | | |
| **Expenses** | | | |
| O&M | | | |
| Admin | $2,089,151 | -$185,773 | $1,903,378 |
| Customer Serv | $932,573 | $142,716 | $1,075,289 |
| Supply | $362,835 | $10,488 | $373,323 |
| Purification | $2,407,640 | $365,490 | $2,773,130 |
| Trans & Distrib | $2,168,261 | $114,300 | $2,282,561 |
| Total O&M | $7,960,460 | $447,222 | $8,407,682 |
| Capital | | | |
| Property Taxes | $796,171 | $955 | $797,127 |
| Bond Principal & Interest | $6,688,543 | $721,311 | $7,409,854 |
| Leases | $149,781 | -$149,781 | $0 |
| IFR | $3,100,000 | -$600,000 | $2,500,000 |
| CF Franchise Fee | $0 | | $0 |
| Calgon Royalties Fund | $0 | $0 | $0 |
| CF System Fund | $0 | $0 | $0 |
| Trustee Fees | $273,894 | $107,324 | $381,218 |
| O&M Reserve Deposit | $0 | $0 | $0 |
| Total Capital | $11,008,389 | $79,810 | $11,088,198 |
| | | | |
| Operating Revenue Allowance | $0 | $288,281 | $288,281 |
| *Total Expenses* | $18,968,849 | $815,312 | $19,784,161 |

# PROPOSED YEAR 2 STEP INCREASE

| | | |
|---|---|---|
| Rate Year (CY 2011) Revenue Requirements = | | $19,784,161 |
| Step Increases for 2012 | | |
| New Debt | $ 397,271 | |
| Trustee Fees | $ 2,500 | |
| IFR | $ - | |
| Rev. Stabiliz @ 1.5% | $ 291,414 | |
| Inflation (O&M) | $ 208,868 | |
| | $ 900,053 | |
| CY 2012 Revenue Requirements = | | $ 20,684,214 |
| Proposed Step Increase for CY 2012 | | 4.5% |

| | | Current | Proposed (CY2011) | Step Increase (CY 2012) |
|---|---|---|---|---|
| Metered Rates | | | | |
| Small (5/8 - 1") | | $3.459 | $3.972 | $ 4.153 |
| Medium (1.5 - 2" & By pass) | | $3.251 | $3.551 | $ 3.713 |
| Large (3" and up) | | $3.140 | $3.315 | $ 3.466 |
| Wholesale | | $2.590 | $2.746 | $ 2.871 |
| Service Charges | | | | |
| Quarterly | 5/8 | $18.72 | $28.53 | $29.83 |
| | 3/4 | $24.07 | $38.25 | $39.99 |
| | 1 | $32.59 | $53.72 | $56.16 |
| | 1 1/2 | $61.33 | $105.89 | $110.71 |
| | 2 | $78.18 | $136.48 | $142.69 |
| | 3 | $88.09 | $154.47 | $161.50 |
| | 4 | $199.07 | $355.97 | $372.16 |
| | 6 | $296.19 | $532.29 | $556.51 |
| | 8 | $421.05 | $758.98 | $793.51 |
| Monthly | 5/8 | $9.47 | $11.74 | $12.27 |
| | 3/4 | $11.26 | $14.98 | $15.66 |
| | 1 | $14.10 | $20.13 | $21.05 |
| | 1 1/2 | $23.68 | $37.53 | $39.24 |
| | 2 | $29.29 | $47.72 | $49.89 |
| | 3 | $32.59 | $53.72 | $56.16 |
| | 4 | $69.59 | $120.89 | $126.39 |
| | 6 | $101.96 | $179.66 | $187.83 |
| | 8 | $143.58 | $255.22 | $266.83 |
| Fire Service (annual) | | | | |
| Public | /hydrant/yr | $337.25 | $354.11 | $370.22 |
| Private | | | | |
| | 2 | $125.42 | $157.59 | $164.76 |
| | 4 | $254.33 | $346.90 | $362.68 |
| | 6 | $640.81 | $892.17 | $932.76 |
| | 8 | $1,131.52 | $1,616.25 | $1,689.78 |
| | 10 | $1,597.19 | $2,370.26 | $2,478.09 |
| | 12 | $2,242.58 | $3,415.29 | $3,570.66 |