

Jackson Response [11/14/2008]: Thank you for your email, I have taken the time to address each of your issues, you will find my responses below.

I would note that in several of your questions you appear to assert that there may be some sort of error in the report or calculations. Please note that there is a perfectly logical and reasonable explanation for all of your concerns and that the report and forecast are sound and solid.

We will shortly be completing our final report for the Board. While it is typical to make minor revisions and adjustments between the time a draft report is completed and the time the final report is produced, none of the revisions we intend on making will have any impact on our forecast's central conclusion that no initial rate increase for any ratepayer will be required after the Pine and Strawberry systems are acquired by PSWID. This conclusion would only change if there are material changes in the information submitted by Brookes Utilities or other information is acquired during the due diligence process of the acquisition.

WFPS Response [11/15/2008]: You had made the general comment that there was nothing that would materially change your conclusions. I would think that adding the adjustment for the water sales between Strawberry and Pine will substantially alter the estimated revenues.

WFPS Question #1 [11/8/2008]: Table 1: It gives the number of accounts in Pine as 2023 and Strawberry as 1082. The last public data that I am aware of is the 2006 ACC report which averages 2014 accounts in Pine and 1058 in Strawberry. What is the basis for the difference between these two sets of numbers?

Jackson Response [11/14/2008]: The last actual data provided by Pine and Strawberry was for 2006. We have assumed a continuation of trends shown in the 2000-2006 timeframe, which results in nominally more accounts today than there are in 2008. We are also assuming that a very modest amount of growth will resume after acquisition of the companies. Interestingly, our assumption of annual growth of about 15 accounts per year after acquisition is considered to be very conservative by many others in the District. But from a ratemaking perspective, we believe it is more appropriate to be conservative with regards to growth. Please also note that we have requested that Brooke Utilities provide us with an exact number of accounts as of today, but they have so far refused to provide this number.

WFPS Response [11/15/2008]: Understood.

WFPS Question #2 [11/8/2008]: Table 1: What is the basis used to determine the growth rate in residential accounts?

Jackson Response [11/14/2008]: It is a very conservative estimate that assumes present trends will continue. Again, many in the District believe growth will be greater than this total after acquisition by PSWID.

WFPS Response [11/15/2008]: Understood.

WFPS Question #3 [11/8/2008]: Table 1: The heading for the residential consumption should indicate that this is Mil. Gals. Per Month. The title implies that this does not include the usage by businesses in Pine/Strawberry. Is that the case?

Jackson Response [11/14/2008]: Good point -I will clarify that it is consumption per month in the final report. I appreciate your pointing that out. I will further clarify this chart to read total accounts instead of residential, since it shows total consumption (residential plus commercial). Brooke Utilities has never provided us a breakdown of usage by residential and commercial customers. It is my understanding that there are very few commercial accounts and that the service area is predominantly residential in nature.

WFPS Response [11/15/2008]: Understood.

WFPS Question #4 [11/8/2008]: Page 3, first bullet: Indicates that depreciation is not included. Mr. Haney and I have been having an argument about this. In the 2003 valuation that Economists.com did, depreciation was included in the forecasted operations budget. A similar valuation by the City of Florence includes depreciation in the forecasted operations budget. I recently obtained the operations budget for the Town of Care Free and it includes depreciation as part of the operations budget. Why is it not included in this analysis? Why is it right to not include it now, when Economists.com included it in 2003?

Jackson Response [11/14/2008]: Unfortunately, you are confusing a valuation study with a ratemaking financial forecast. These are two fundamentally different reports prepared for different purposes using different sets of financial principles. The inclusion of depreciation is an important component of an asset valuation. However, doing long-term financial planning and ratemaking is very different. Under the AWWA-approved national standard Cash Basis of ratemaking, depreciation is NOT

included in the revenue requirement, but debt principal, debt coverage and capital outlays are. The idea is that only "cash expenses should be recovered from ratepayers, and if you set rates to cover both debt principal and depreciation, you are double-dipping the ratepayers. Utilities that include depreciation in their ratemaking revenue requirements are either using the Utility Basis of ratemaking (not appropriate for PSWID) or are engaged in this double-dipping.

WFPS Response [11/15/2008]: I was perhaps not clear enough with this comment. In your report you are using the operations budget number of \$882,000 that CVL provided. I don't know whether you were involved in arriving at those numbers or not. That number does not include depreciation, but as I indicated, I have found multiple independent examples which include depreciation as part of the operations budget. Economists.com's 2003 report also includes depreciation as part of the forecasted operations budget. As an engineer I am always interested in why things are different. Your 2003 report is much different than the current report in the way things are being handled. What I am interested in understanding is why this is the correct way to do it now and not in 2003? Why valuations by other firms include it, but the current one doesn't?

WFPS Question #5 [11/8/2008]: Page 3, fourth bullet: Is it typical in the acquisition of water companies to have a 25 year loan with interest only payments the first two years? What was the basis for Economists.com selecting these terms as part of the analysis?

Jackson Response [11/14/2008]: This type of debt structure has several advantages. First, 25 year debt results in lower annual payments, which means rates can be lower. Second, interest only payments for the first two years allow utilities to "phase in" rate adjustments over a number of years to pay for the debt service, instead of doing a single big increase all at once. Third, by having a 25 year term, you make future ratepayers pay a larger component of the debt. For example, if you build a line that has a 50 year lifespan, and you pay it off in 20 years, then anyone who moves into the District in year 21 does not pay any of the capital costs of the water line. Since the assets are for the current and future ratepayers, why not make future ratepayers pay their fair share?

Now there is one disadvantage of such a policy -it means the District pays more interest costs over the life of the note. So Boards and ratepayers must balance the appropriateness of paying higher total interest with the issue of timing, and who ultimately pays for the asset. It makes for interesting financial policy discussions, as different utilities will come to different conclusions about the appropriateness of 20 vs 25 year debt and interest-only vs. straight debt retirement.

WFPS Response [11/15/2008]: I can see what you are saying about a phase in of rates, but that is not how it is being used here. This doesn't create a smaller step in rate adjustment, it just pushes the big step into the future. In the 2003 report, Economists.com went with the typical 20 year paying principal from day 1 terms for the loan. Your recommendation was an immediate 30% rate increase. To make my question more specific, are the terms of the loan something that you arrived at of your own accord or were they selected to meet guidelines provided to you by the board? If you did arrive at these of your accord, what about this specific situation caused you to arrive at that?

WFPS Question #6 [11/8/2008]: Page 3, fifth bullet: It indicates that CIP requirements are expected to cost \$9,252,000 over the next decade. There are two problems here. The first is that the initial cost has been included in the \$9,252,000 number. The correct number should be \$5,045,000. The second problem is that the divisions shown spread it over 20 years, not the next decade.

Jackson Response [11/14/2008]: The CIP developed during this analysis includes both acquisition cost and system improvements. The point is that total capital spending is forecast to be \$9,252,000 between 2009 and 2018 -it is not particularly notable in the process of setting rates whether the capital expenditure is related to the acquisition or the capital improvement. Also, the rate model is actually a 20 year model, and assumes that an additional \$5,000,000 will be required for capital improvements during the period 2019-2028, hence the need for further debt issues beyond 2018.

WFPS Response [11/15/2008]: I think that this is being presented in a confusing way. In the bullet before it talks about \$4.5 million and then this bullet talks about CIP debt service and CIP requirements being \$9.2 million. The tables all break out Acquisition Debt Service and CIP Debt Service as being separate. I don't think that from the material presented that one would come to the conclusion that the \$4.5 million is included in the \$9.2 million. I would suggest making this an explicit statement in the report. I would also suggest adding a specific statement that you are including money beyond what is in the CVL CIP analysis.

WFPS Question #7 [11/8/2008]: Table 2: It shows the debt service value going up to \$350,855 for three years and then dropping down to \$309,545. It later indicates that this is for funding a reserve. What is this reserve for?

Jackson Response [11/14/2008]: A one year reserve of principal and interest is typically required when long-term utility debt is issued. The reserve is typically funded over the first five years of the bond issue. NOTE: in reviewing the rate model I notice that it is calculating the reserve contribution to be \$41,000 per year over the first 5 years. A more appropriate level is

probably closer to \$60,000. It is also possible that the bond issued may not even have a reserve requirement -this is possible though not likely. But to be conservative we will continue to assume a reserve is required. I have adjusted the rate model to include \$60,000 of annual reserve contribution for the first five years; it will be reflected in the final draft. This extremely minor adjustment does not affect the rate plan or the conclusions of the report.

WFPS Response [11/15/2008]: Understood.

WFPS Question #8 [11/8/2008]: Table 2: What is the basis for the Non-Rate Revenues number? Why does 2009 show as \$20,000 in Table 2 and as \$30,000 in Table 8?

Jackson Response [11/14/2008]: Brooke Utilities shows that they get about \$30,000 in non-rate revenue sources each year. We kept this total in 2009 and conservatively reduced it to \$20,000 in future years. Table 2 contains a typo -the actual total is \$30,000 in 2009. Table 2 is for illustrative purposes only and does not impact the rate model or report conclusions.

WFPS Response [11/15/2008]: Understood.

WFPS Question #9 [11/8/2008]: Page 5: Typo: express -> expense

Jackson Response [11/14/2008]: Noted. Thank you. Spell check does not catch these types of errors.

WFPS Response [11/15/2008]: Understood.

WFPS Question #10 [11/8/2008]: Table 5: For the residential Strawberry rates, 2001 -4000 row, starting at 2011 the value should be \$7.00, not the \$6.00 that is there now. Then \$8.05 and \$8.29.

Jackson Response [11/14/2008]: *No response supplied.*

WFPS Response [11/15/2008]: This question was not addressed and is separate from the issue of whether the Strawberry rates change. This is an error in how those values are filled in in the table.

WFPS Question #11 [11/8/2008]: Table 6: The claim is made in the conclusions that there is no impact to Strawberry rate payers. However, that conclusion is not true based on Table 6. Table 6 makes two assumptions that result in rate impacts to Strawberry. The first is that Table 6 uses the E&R base rates and ignores the fact that the Williamson and United rates are different. This ensures that there is a rate change for Williamson and United. The second assumption is that Table 6 uses the three tiers for the Pine rates. This results in United and E&R rate impacts because that increases the charge for gallons in the range of 2000 to 4000. Had the four tier approach in Table 5 been used, that wouldn't have occurred. Given the above, why did Economists.com claim that there are no rate impacts for the first year?

Jackson Response [11/14/2008]: We "claim" there are no rate impacts in the first year because there are no rate impacts in the first year. Our analysis indicates that none of the rates for the Pine and Strawberry ratepayers have to change in year 1 or year 2, Table 6 is included for illustrative purposes only. Because I wanted to minimize the numbers on this page in order to not confuse the reader, I chose to include for illustrative purposes only the E&R system. When writing reports of this nature one has to make a series of judgment calls about how many numbers to include in charts without either losing the reader or muddling up your point too much. This does NOT mean that all Strawberry ratepayers have to immediately assume the E&R rate schedule in 2009. Nowhere in the report does it even say this.

I am perfectly aware that there are different rates for different systems. But let me make this perfectly clear -there is no forecast need for any rate changes for any Pine or Strawberry ratepayer in the first two years of operation. The model makes this obvious. But just to make sure there is no source of confusion, when we complete the final report I will modify a couple of schedules to show beyond a shadow of a doubt that no initial rate increase is forecast for the first two years of operation.

WFPS Response [11/15/2008]: All I have to work with is what is presented in the report. The report doesn't state that not all of the data is being provided. I would suggest adding the number details as an Appendix, like in the 2003 report, for the couple of people like me who are interested in the details. In Table 7, the Strawberry E&R the monthly cost shown for current, 2009, and 2010 are incorrect for the current rates. This indicated to me that Strawberry was indeed being shifted to three tiers right away

WFPS Question #12 [11/8/2008]: Table 6: The Pine winter and summer usage rates are averaged together and it appears that this average is then used in the calculation of revenue. The average was done as a straight average, but it should be done as a weighted average since winter rates apply for seven months and summer rates apply for five months.

Jackson Response [11/14/2008]: Not true. For ratemaking purposes and revenue projection purposes you have to factor in the fact that more water is sold in the summer months than the winter months. For Pine, 50% of total water volume is sold in the May -September timeframe, and 50% in the October-April timeframe, So the split must be 50/50 in order for the model to correctly project revenue totals.

WFPS Response [11/15/2008]: Understood.

WFPS Question #13 [11/8/2008]: Table 6: The usage rates for Williamson, United, and E&R were averaged together as a straight average. This needs to be a weighted average that is weighted by the number of accounts under each rate. This is probably a significant source of error in the calculations.

Jackson Response [11/14/2008]: Sorry, but again I disagree. First, Brooke Utilities refuses to share with us how many customers are in each of the three systems. So we were compelled to make an assumption about the split, and we assumed a fairly even split in accounts between the three systems. The best way to test whether this assumption is reasonable is to compare how much revenue the model projects under this assumption vs. the actual amount of revenue accrued by Strawberry in their last fiscal year (2007). Using this assumption, the model projects revenue for Strawberry customers of \$433,764. Total actual revenue from the 2007 annual report: \$432,257. That's an accuracy rate of 99.65%. I'd call that pretty accurate, and it means that the model is correctly forecasting revenues.

WFPS Response [11/15/2008]: To be correct mathematically it does need to be a weighted average. I sympathize with the unavailability of data as I have asked for that split in the past. I asked the ACC how many Strawberry accounts Williamson, United, and E&R had before they were sold. They provided me the following from 1998 ACC reports:

E&R Water Company, Inc. Docket# W-01576A-98-0078 Strawberry Customers: 598

Williamson Waterworks, Inc. W-02137A-98-0079 37

United Utilities, Inc. W-01993A-98-0080 1802

I think they gave us combined numbers, but you can see that the idea that they are even in number doesn't hold up. So this is a significant source of error which you are correcting out with the 5/5/90 numbers. I don't doubt that the revenue number is very accurate since the 20/20/60 and 5/5/90 were tuned to give the result. Given that the inputs are changing much year to year and the relationships are linear I would expect that to be reasonably accurate.

As I indicated in a later comment, this breaks down in 2011 because the uncertainty in distribution disappears, but the counter acting error is still there. This is essentially a point of discontinuity and the model that was accurate before that is no longer accurate. The 90 greatly increases the weight of the highest rate change. My calculations show that the 5/5/90 results in about 5-6% higher revenue than if it was 20/20/60. I think at 2011, the weightings between the tiers need to shift. I have some ideas on how a reasonable set of tier weightings might be determined. Let me know if you are interested in hearing them.

WFPS Question #14 [11/8/2008]: Table 6: It shows total water sold for 2009 of 93,342,840 gallons. The 2006 ACC reports for Pine/Strawberry show a total of 83,644,000 gallons. What is the basis for the increase in 10 million gallons? This too is probably a significant source of error in the calculations.

Jackson Response [11/14/2008]: Again this statement is not true. The 2006 Pine ACC report shows gallons sold of 49,687,000 (p. 14). The 2006 Strawberry ACC report shows gallons sold of 43,202,000 (p.12). This totals 92,889,000 gallons. Brooke did not include volume totals in their 2007 ACC reports. For 2009 the model nominally increases this total to 93,342,840 to reflect the fact that approximately 14 new accounts are forecast to come on line in 2009. So the use of 93,342,840 gallons is perfectly appropriate. I do not know where you got your total of 83,644,000 gallons, but that number does not appear to tie to any ACC data that I possess.

WFPS Response [11/15/2008]: As I indicated in the previous email, you need to adjust the Strawberry water volume by the approximately 8 million gallons that were sold to Pine. In thinking about it, the revenues for SWCo need to be reduced for these gallons as well. I don't recall ever seeing what rate these transfers are charged at. Can probably derive something fairly close by taking the cost of Pine's purchased water and ratioing the Strawberry portion of that.

WFPS Question #15 [11/8/2008]: Table 6: There are estimates as to the distribution of the water sold between the usage rate tiers. For Pine they are 20%/20%/60%. For Strawberry they are 5%/5%/90%. Why are they so different between Pine and Strawberry? They don't seem reasonable. In 2006 the average usage per account in Pine was 2054 gallons per month. In

Strawberry it was 3349 gallons per month. It would be extremely difficult to end up with that average usage while selling 60 to 90% of the water at the 6000+ tier. What is Economists.com's basis for these numbers? This appears to be a significant source of error in the calculations.

Jackson Response [11/14/2008]: We analyzed this during the course of our study. This alleged discrepancy appears to be the result of several factors. The first is the fact that the model is attempting to graft together usage patterns and billings for Strawberry from three separate systems. Second, we believe that there may be some issues with the Strawberry volume data that has been supplied to us. A third possible reason why this is occurring is that there are a couple of very high volume customers in Strawberry's system that are skewing the averages (a school perhaps?). A fourth reason may be related to how Strawberry assesses its monthly bills. We have asked for more detailed data from Brookes Utilities to further investigate this but they have thus far refused to provide it to us.

While I agree with you that the numbers do not appear on the surface to be logically consistent, when you use these percentages, the model projects revenues for Strawberry of \$433,764, while actual Strawberry revenues for 2007 were \$432,257. So the bottom line is that the model is accurately projecting revenues.

We do need to investigate Strawberry usage patterns more thoroughly once Brookes provides more information to us. But in the meantime, these are the percentages that result in the model's degree of accuracy in projecting revenues of 99.65%. There are no errors -as a matter of fact it is hard to get more accurate than that.

WFPS Response [11/15/2008]: The distortion is not accounting for the transfer of water to Pine. My gut feel is that when you adjust for the reduced water usage in Strawberry and lower the SWCo revenues the numbers are going to go 0/0/100+. It will be interesting to see. As I have indicated earlier, I think that your model is only accurate up to 2011.

WFPS Question #16 [11/8/2008]: Page 7: Typo: Implant -> implement

Jackson Response [11/14/2008]: Thank you. Another one of those things that slips by spellcheck.

WFPS Response [11/15/2008]: Understood.

WFPS Question #1 [11/10/2008]: In looking at the 5%/5%/90%, it appears to me that this is an attempt to correct for the error that does results from not being able to do a weighted average of the Strawberry usage rate, It appears that the target is to produce a revenue number that is similar to the 2006 ACC report revenue number. Am I correct in that assessment? The problem with this is that the weighted average error goes away in 2011 when everyone moves to the same rate, At that point the 5%/5%/90% is not compensating for another error and begins to produce its own.

Jackson Response [11/14/2008]: Whenever you construct a financial forecast model, it is important to conduct a "revenue test" to ensure that the model is accurately calculating revenues. In other words, you enter the volume data, customer data and rate data for a specific time period, and the revenue the model calculates should be equivalent to the revenue that the utility actually collected during that time period. The 2006 revenue number provides a valuable revenue test for Pine and Strawberry. I think your use of the term "target" is misconstrued; it implies that numbers are being wrongfully manipulated.

Once again, because Brooke Utilities has refused to provide detailed volume and account data for the Strawberry system, we had to make a series of assumptions to ensure that the model was accurately forecasting revenues. The percentage breakdown used in the model that you cite achieves that goal. Once Brooke provides this data we will be able to determine whether there are a few high use customers who are skewing the numbers, whether there are billing issues, or whether the volume data they have already provided us is accurate. Any adjustments we would make at that time may be useful but will not change the end result -that model revenues under the current rate structure should be equivalent to actual revenues accrued by the utility. In other words, with more detailed volume and customer data our model will be more technically pure but it will not impact the long-term policy or financial issues highlighted by the forecast.

Your point regarding 2011 is interesting, but impossible to prove in the absence of more detailed data being withheld by Brooke. But by the time 2011 arrives, the District will have operated the system for two years and will have extensive, detailed volume and customer data. At that time we can use this data to determine whether any adjustments in the rate plan will be necessary.

WFPS Response [11/15/2008]: I don't agree that the 2011 discontinuity is impossible to prove without specific data from Brooke. We know that we don't know the distribution between the three rate sets and that they have been assumed to be evenly distributed by your model. We know that 5/5/90 has been selected in order to produce a revenue number that is in line with known revenue numbers. Common sense tells us that given the average usage per account that 5/5/90 is highly unlikely to be anywhere near the correct weighting. 2011 sees a major source of error go away.

I have spent a lot of my three decades as an engineer having to come to conclusions based on partial data. In the final analysis you do the best you can with what you have, as you have done. But I have found that you always have to remain very aware of where the weaknesses are in the data that forms your conclusions and the relationships between those guesses.

Very literally, the board is staking their reputations on what this report says right now. Corrections later when better data comes in is not going to help them. I would suggest that a discussion of the data that is important to the accuracy of the analysis but is missing be added to the report along with some guidance on what that may mean to the overall risk in the numbers that are being provided. Most of the board members are not familiar enough with the issues of modeling without good data to pick up on these items. Being explicit will help them to understand that the numbers being presented have some level of risk in being wrong.

WFPS Question #2 [11/10/2008]: I took the 2011 water numbers assigned to the tiers for Strawberry in Table 6, 2,202,297, 2,202,297, and 39,641,351 and multiplied them by the tier rates of \$6.00, \$7.00, and \$8.00. That produced a total of \$345,760. For 2011, Table 6 shows Strawberry usage revenue as \$332,963. What accounts for the difference?

Jackson Response [11/14/2008]: This is due to the 30 day lag between the time a rate is implemented and the time a utility begins collecting revenue under the new rate. If a rate is made effective on January 1, 2011, then the utility's January bills will reflect the new rate structure. So beginning in February the utility collects payments under the new rates. This means that in January the revenue collected is at the old rate. So our model calculates 11 months of revenue under the new rate and 1 month of revenue under the old rate. This accounts for the difference you note above.

WFPS Response [11/15/2008]: Understood.

WFPS Question #1 [11/17/2008]: I realized that there is one other source of error that needs to be corrected for. In the ACC numbers, the Metered Water Revenues include the sales tax that is collected. That sales tax is then included as the Taxes Other Than Income line of the operations budget. The \$882,000 operations number from CVL does not include that Taxes Other Than Income. So either the \$882,000 number needs to be corrected or you need to reduce the level of the 2006 revenue that you are starting from.

Jackson Response []: *No response yet received.*