COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Kentucky-American Water Company, a/k/a Kentucky American Water for Certificate of Convenience and Public Necessity Authorizing Construction of Kentucky River Station II ("KRS II"), Associated Facilities, and Transmission Line	))))))	**Case No. 2007-00134**

PREFILED SUPPLEMENTAL TESTIMONY OF EDWARD WETZEL ON BEHALF OF LOUISVILLE WATER COMPANY

February 11, 2008

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PREFILED SUPPLEMENTAL TESTIMONY OF EDWARD WETZEL
ON BEHALF OF
LOUISVILLE WATER COMPANY

Q. WHAT IS YOUR NAME?

A. My name is Ed Wetzel.

Q. WHO IS YOUR EMPLOYER?

A. I am an Executive Vice President of the independent consulting firm of R. W. Beck, Inc. My office is located at 400 Professional Park Drive, Suite 100, Goodlettsville, Tennessee 37072-2100.

Q. HAVE YOU PREVIOUSLY CAUSED TESTIMONY TO BE PREFILED IN THIS CASE ON BEHALF OF LOUISVILLE WATER COMPANY ("LWC")?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY TODAY?

A. The financial model developed by R. W. Beck as part of the initial investigation contains a series of assumptions regarding future economic conditions, project costs, timeframes, water supply needs and asset ownership. After completion of the Kentucky Public Service Commission hearing, LWC asked R.W. Beck to modify some of the assumptions to match current LWC proposals, and perform additional sensitivity analyses on such variables as ownership percentages, baseline flow rates, cost of debt, wholesale rate increases and financing timeframe.

The purpose of this study is to determine:

1. whether the fundamental conclusions outlined in the initial report are altered by changing various modeling assumptions;

2. which variables have the largest impact on the present worth cost of the LWC pipeline; and

3. under what conditions does the Kentucky American Water Company ("KAWC") Pool 3 option become cost-competitive with the LWC pipeline.

Q. IS A COPY OF THIS SUPPLEMENTAL REPORT ATTACHED TO YOUR TESTIMONY?

A. Yes.

Q. DOES YOUR SUPPLEMENTAL REPORT REFLECT YOUR CONCLUSIONS?

A. Yes.

Q. WHERE MAY THOSE CONCLUSIONS BE FOUND?

A. They may be found at Section 5.2 of the Supplemental Report.

Q. WHAT ARE THOSE CONCLUSIONS?

A. Delivering water from LWC to Central Kentucky customers through a pipeline from Shelby County is a more cost-effective alternative to the KAWC Pool 3 project. The present worth cost savings for a 6 MGD constant flow rate range from $110 million over a 20-year analysis period, to as much as $144 million over 40 years. A number of variables were evaluated to determine the sensitivity of the LWC pipeline model to varying conditions, including ownership, future wholesale rate increases, cost of debt and the base flow through the pipeline. The analysis is most sensitive to the flow rate, but even at a base flow of 12 MGD, the LWC pipeline option is nearly 20% ($55 to $60 million) less expensive than the Pool 3 option. In fact, the base flow would need to reach 18.5 MGD on a constant flow basis for 20 years before the LWC pipeline equals the present worth cost of the Pool 3 project.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

VERIFICATION

I hereby verify that the foregoing testimony is true and accurate to the best of my knowledge and belief.

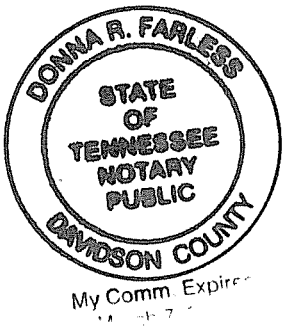
Edward Wetzel, PhD, P.E.,
Executive Vice President of R. W. Beck, Inc.

STATE OF TENNESSEE)
)SS
COUNTY OF Davidson)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me by EDWARD WETZEL, to me known, in his capacity as Executive Vice President of R. W. Beck, Inc., this 8th day of February, 2008.

My commission expires: 3/7/2011.

Donna R. Farless
Notary Public



CERTIFICATE OF SERVICE

It is hereby certified that the Prefiled Rebuttal Testimony of Edward Wetzel on behalf of Louisville Water Company was served via first-class United States mail, sufficient postage prepaid, on the following individuals this 11th day of February, 2008:

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Supplemental Report

Financial Analysis of the Pool 3 vs. Louisville Pipeline Options to Serve Central Kentucky Water Customers

Louisville Water Company

February 2008

R·W·BECK

Supplemental Report

Financial Analysis of the Pool 3 vs. Louisville Pipeline Options to Serve Central Kentucky Water Customers

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Financial Analysis of the Pool 3 vs. Louisville Pipeline Options to Serve Central Kentucky Water Customers

Louisville Water Company

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Section 1
PROJECT INTRODUCTION

1.1 Background

The Kentucky American Water Company (KAWC) has submitted an application to the Kentucky Public Service Commission (KPSC) for a Certificate of Convenience and Necessity (Case No. 2007-00134) to construct a water treatment plant on Pool 3 of the Kentucky River, and a 30-mile transmission main connecting to the KAWC distribution system in Fayette County. R.W. Beck was retained by the Louisville Water Company (LWC) to conduct a life-cycle, present worth cost analysis of a pipeline from Louisville as an alternative means of water supply to Central Kentucky as compared with the Pool 3 project. The results of this analysis were submitted as testimony to the KPSC in a report entitled *Comparison of the Louisville Pipeline and Pool 3 Options to Serve Central Kentucky Water Customers* dated November 16, 2007.

The fundamental conclusions from the study are summarized in Section 6.3 of the report as:

> *Delivering water from the Louisville Water Company to Central Kentucky customers through a publicly-owned pipeline from Shelby County is a more cost-effective alternative than constructing the proposed new intake and treatment plant on Pool 3 of the Kentucky River. Although the Pool 3 option becomes more cost-effective with increasing flows and better utilization of the assets, the LWC wholesale rate must increase by 5% per year for more than 20 years in order for the LWC pipeline option to approach the Pool 3 present worth cost.*
>
> *Increasing flows will eventually deplete the capacity of Pool 3 and require an Ohio River supply. The capital cost to provide an Ohio River expansion of the Pool 3 option is twice the cost of a parallel pipeline to Louisville, and translates into significantly higher present worth costs for the Pool 3 option beyond 2030.*

An additional conclusion of the study was constructing a 36-inch pipeline from Louisville to Lexington in lieu of the 42-inch transmission main saved over 20% in capital costs and about 15% on a life-cycle, present worth basis.

The KPSC held a hearing on the KAWC application from November 26-28, 2007. Testimony was provided to the KPSC from a number of interveners, including financial consultants on behalf of KAWC and the Kentucky Office of Attorney General. R.W. Beck provided responses to their testimony which were included on pages 3 through 16 of a document filed with the KPSC entitled "Louisville Water

Company's Post-Hearing Response to Requests for Information", enclosed herein as Appendix A to this report.

R.W. Beck responded to specific testimony of Harold Walker on behalf of KAWC and Scott Rubin on behalf of the Attorney General's office. The responses to Mr. Walker involved six identified assumptions used in the financial modeling effort, and eleven specific cost estimates. The modeling assumptions were in the areas of inflation rate, interest rates, financing alternatives, tax-exempt debt and future wholesale rate increases from LWC. R.W. Beck remains comfortable that all assumptions are based on published economic indicators, past trends as predictors of future increases, and the experience of our senior financial analysts in conducting such studies. With regard to the cost estimates used in the model, all operating expenses were obtained directly from testimony of KAWC to the KPSC.

Mr. Rubin's concerns involved five specific areas:

- Depreciation rates
- Public vs. private ownership
- Pre-tax cost of capital
- Debt service coverage factors
- Amount of water needed

Each of these areas is discussed in detail in our responses. Ownership alternatives and water usage are further analyzed in some detail in this report. With regard to the other three areas, R.W. Beck is once again comfortable that our modeling assumptions are appropriate and consistent with the evaluation required.

Subsequent to the completion of the KPSC hearing and submission of responses to a series of data requests, the LWC requested that R.W. Beck perform additional analyses under various scenarios and assumptions. The enclosed Supplemental Report is not intended to replace the November 16, 2007 report, but rather to provide additional information, modeling analyses and conclusions.

1.2 Purpose of the Project

The financial model developed by R.W. Beck as part of the initial investigation contains a series of assumptions regarding future economic conditions, project costs, timeframes, water supply needs and asset ownership. After completion of the KPSC hearing, LWC asked R.W. Beck to modify some of the assumptions to match current LWC proposals, and perform additional sensitivity analyses on such variables as ownership percentages, baseline flow rates, cost of debt, wholesale rate increases and financing timeframe.

The purpose of this study is to determine:

1. whether the fundamental conclusions outlined in the initial report are altered by changing various modeling assumptions;

2. which variables have the largest impact on the present worth cost of the LWC pipeline; and
3. under what conditions does the KAWC Pool 3 option become cost-competitive with the LWC pipeline.

Section 2
BASE CASE ANALYSIS

2.1 Modeling Assumptions

Section 2 of the November 16, 2007 report outlined the various assumptions used in the present worth cost analysis, including capital costs, operation and maintenance expenses, and financial parameters such as inflation rate, interest rate and discount rate. The previous report also considered a constant flow rate compared with increasing flows to meet future water supply needs, 20 and 40-year analyses under both flow scenarios, and evaluated a smaller diameter pipeline from Louisville as a lower cost alternative to the 42-inch pipe used for the Pool 3 transmission main.

R.W. Beck reviewed the construction bid information provided to the KPSC after the November hearing by KAWC for the Pool 3 project. The estimated contract amount for the Pool 3 project, including both the options likely to be accepted by KAWC and the 5 MGD expansion for the Bluegrass Water Supply Commission (BWSC) communities, was $126.7 million. This compares with the construction cost estimate used in the model of $130 million. Given that change orders are likely during the construction of these facilities, we believe the $130 million construction estimate is still a reasonable number and will not be changed for this round of modeling. Similarly, capital costs for the LWC pipeline option will also remain unchanged. All modeling scenarios presented in this report utilize a 42-inch pipeline from Louisville to be consistent with the 42-inch transmission main included in the Pool 3 project. Operation and maintenance expenses were obtained from testimony provided by KAWC to the KPSC, and these costs are also assumed to be the same as previously modeled.

During the KPSC hearing in November, testimony was provided by KAWC indicating that no cryptosporidium was detected during 15 months of sampling of the Pool 3 source water. Although 24 months of sampling is required before Pool 3 will be classified by the State, and space has been allocated for an ultraviolet (UV) disinfection system in the KAWC water treatment plant site, we have eliminated the 2011 investment in the UV system in the Pool 3 capital costs for this modeling effort.

A number of economic parameters are utilized by the model and were not changed for this supplemental report. The assumed rates are reiterated below.

Municipal bond interest rate	4.7%
KAWC interest rate on debt	6.5%
KAWC return on rate base	7.75%
Inflation rate	2.4%
Discount rate	4.7%

The initial R.W. Beck report compared the Pool 3 option (80% owned by KAWC and 20% owned by the BWSC) with a 100% publicly-owned pipeline from Louisville. Additional analyses were conducted that considered alternative ownership options for the LWC pipeline, ranging from 100% public to 100% privately-owned. The results of these analyses were presented in a letter dated November 14, 2007 and submitted to the KPSC as part of the LWC testimony. These same ownership alternatives were evaluated as part of this study, with the results presented as part of the sensitivity analysis in Section 3.

The previous study looked at both a constant flow rate of 6 MGD for both the Pool 3 and LWC pipeline options, as well as an increasing flow scenario whereby flow rates increased by 0.5 MGD per year from an initial 6 MGD. Testimony provided to the KPSC indicated that KAWC intends to operate the Pool 3 plant as a drought protection plant, whereby some minimum flow is maintained from Pool 3 and normal flow fluctuations are accommodated out of the other KAWC facilities on Pool 9. This supplemental report therefore only considers constant flow scenarios, but the rate of flow is varied as part of the sensitivity analysis in Section 3.

The wholesale rate used in this analysis follows the latest proposal from LWC as outlined by Mr. Gregory Heitzman's testimony to the KPSC. The current wholesale rate of $1.71/1,000 gallons is held constant through the year 2015. In 2016, the rate is increased by the cumulative rate of inflation from 2009 through 2015, to a new rate of $2.07/1,000 gallons. Future increases to the wholesale rate are at the rate of inflation, with larger increases considered in the sensitivity analysis.

2.2 KAWC Pool 3 Option

The KAWC Pool 3 option involves the construction of a 25 MGD intake, water treatment plant and high-service pump station at Pool 3 of the Kentucky River, and a 30 mile, 42-inch transmission main from the treatment plant to the connection to the KAWC system at Iron Works Road (KY 1973) and Newtown Pike (KY 922) in Fayette County. The transmission main also includes a booster pump station and a 3 million gallon storage tank along the pipeline route from Pool 3 to Fayette County. It is assumed that the treatment plant will operate at a constant 6 MGD over the life of the analysis period, which varies from 20 to 40 years. As in the original report, the Pool 3 project is assumed to be 80% owned by KAWC (private) and 20% owned by the BWSC communities (public)

2.3 LWC Option

The LWC pipeline option considers the construction of a 42 mile, 42-inch finished water transmission main from KY 53 in Shelby County, along the I-64 corridor to the intersection of I-64 and Newtown Pike in Fayette County. This option also includes a booster pump station and storage tank along the pipeline alignment, and assumes a constant 6 MGD flow over the 20, 30 and 40-year analysis periods. The base case continues to assume the LWC pipeline to be 100% publicly-owned.

2.4 Modeling Results

The present worth costs for the Pool 3 and LWC pipeline options are presented in Table 2-1 below (2007 dollars). In both the 20 and 30-year analyses, the municipal financing costs assume 20 and 30-year revenue bond issues, respectively. Since a 40-year bond issue is not typical, the 40-year analysis assumes a 30-year bond issue, with the project becoming debt free after 30 years. The results indicate a 40% savings in present worth cost for the LWC pipeline compared with the KAWC Pool 3 project. These saving can be further enhanced by constructing a 36-ince LWC pipeline in lieu of the 42-inch main assumed in this analysis.

Table 2-1
Base Case 6 MGD Present Worth Cost Comparison
Pool 3 vs. LWC Pipeline Option
($ 000)

Scenario	Present Worth Cost		
	20-Yr	30-Yr	40-Yr
Pool 3 option	282,989	331,050	358,577
LWC pipeline	172,696	195,976	214,131
Difference ($)	110,293	135,074	144,446
Savings (%)	39	41	40

The model also evaluates the alternatives on a cost per 1,000 gallons basis. Figures 2-1, 2-2 and 2-3 present plots comparing the Pool 3 and LWC pipeline options over a 20, 30 and 40-year analysis period. Note that all LWC plots show a bump in the curves in year 2016, reflecting the step increase in the LWC wholesale water rate at that time. These plots demonstrate that for a constant 6 MGD of flow, the cost of the Pool 3 plant is always more expensive per gallon of usage for at least 40 years.

Figure 2-1
Unit Cost Comparison
6 MGD Constant Flow over 20-Year Analysis Period

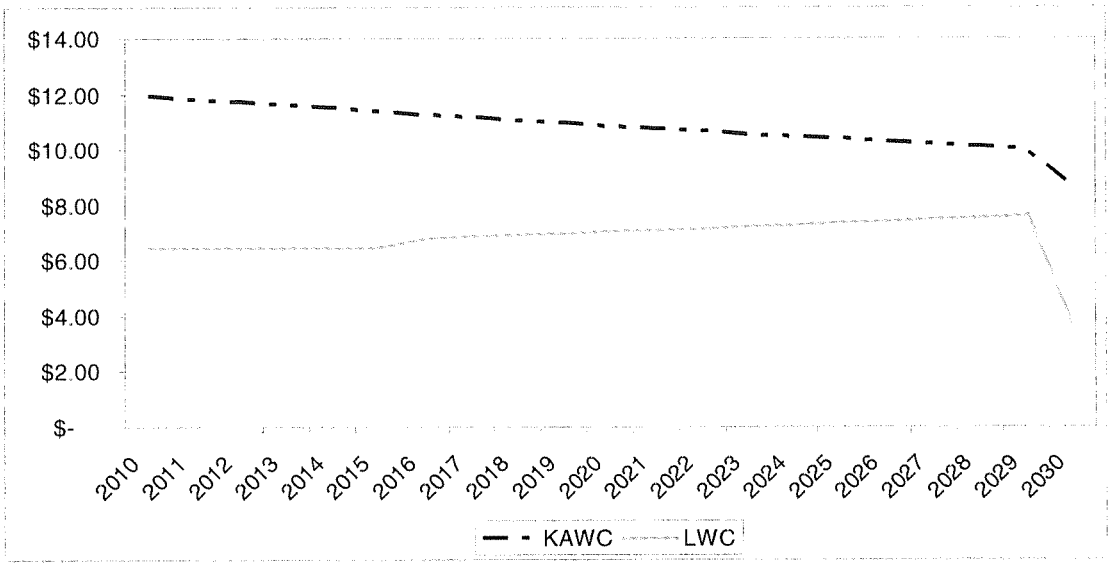


Figure 2-2
Unit Cost Comparison
6 MGD Constant Flow over 30-Year Analysis Period

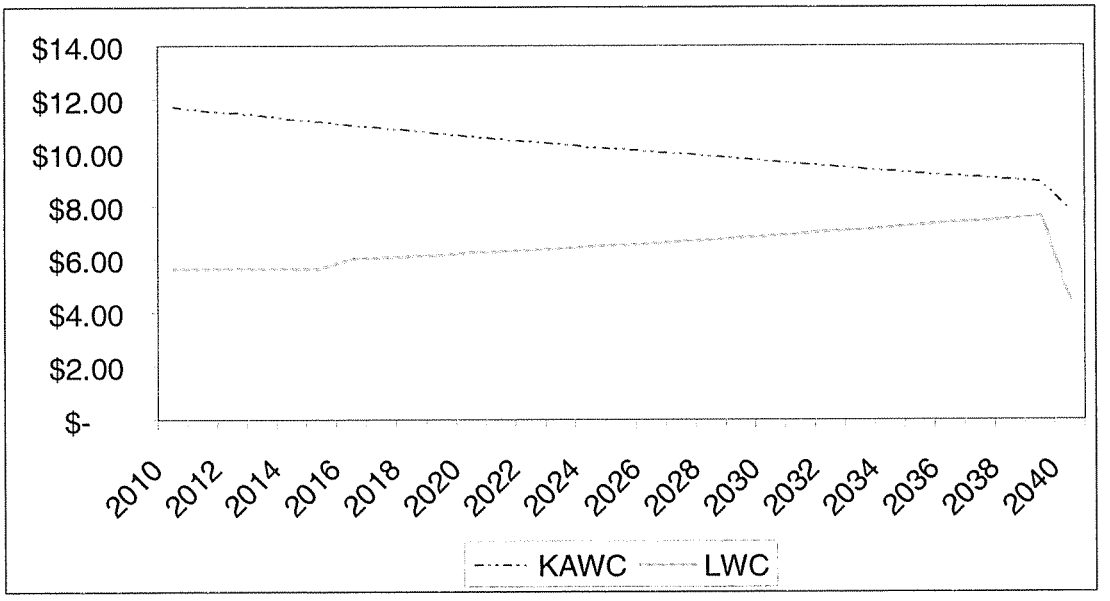
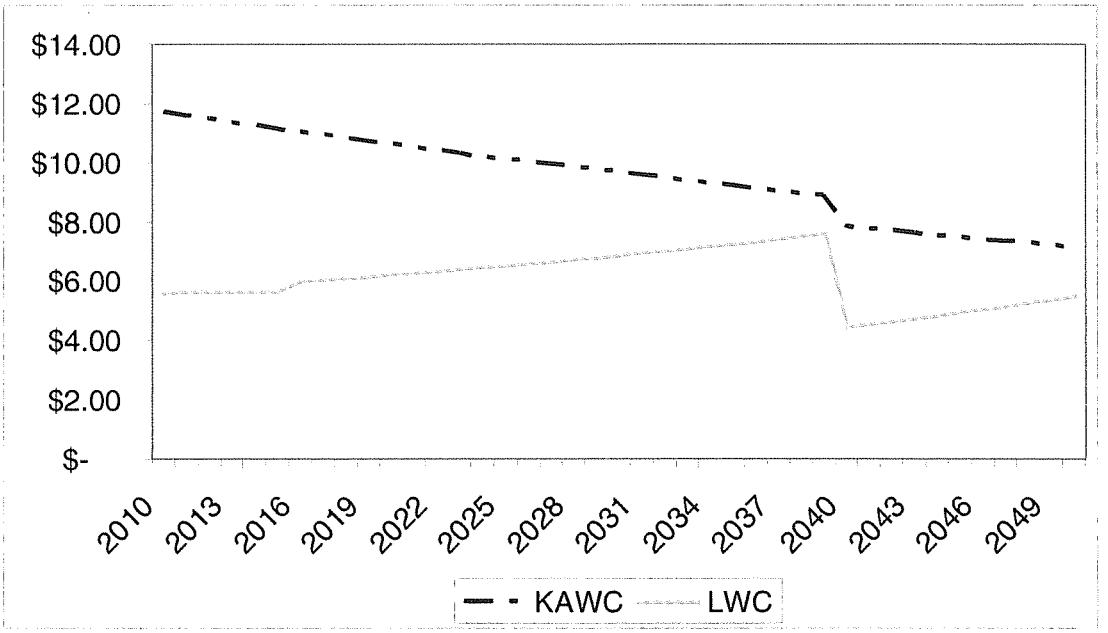


Figure 2-3
Unit Cost Comparison
6 MGD Constant Flow over 40-Year Analysis Period



Section 3
SENSITIVITY ANALYSIS

3.1 Sensitivity Approach

The purpose of any sensitivity analysis is to understand the sensitivity of a financial model to the various independent variables and assumptions imbedded in that model. The November 2007 R.W. Beck report considered the model's sensitivity to the LWC future wholesale rate increases, varying the future increases from 1% to 5%, with a base assumption of a 3% rate increase. The November 14, 2007 letter report further considered five ownership scenarios for the pipeline ranging from 100% public to 100% private, and utilized wholesale rate increases that approximated the latest proposal from LWC. These variables are again considered in the sensitivity analyses described below with the modeling results as presented in this section. The economic parameters such as inflation rate, the various interest rates included in the model, and the discount rate are not independent of one another. It is not reasonable to assume that interest rates would rise without a similar increase in the rate of inflation over a 20, 30 or 40-year analysis period. Consequently, these variables are not analyzed as part of this sensitivity analysis.

3.2 Ownership Alternatives

The base case presented in Section 2 assumes that the Pool 3 project is 80% owned by KAWC and 20% owned by the BWSC communities. Consequently, the BWSC portion of the project is financed through municipal debt (with an assumed interest rate of 4.7%), while the KAWC portion is subject to a return on rate base at their KPSC authorized rate of return of 7.75%.

The base case for the LWC pipeline option assumed that the pipeline was 100% publicly-owned. There have been discussions about the possibility of a public-private partnership, in which a portion of the pipeline could be owned and operated by one or more public entities, and the remained owned and operated by KAWC. The LWC pipeline option was therefore evaluated under five separate ownership scenarios. These scenarios include:

- 100% public ownership (base case)
- 80% public/20% private ownership
- 50% public/50% private ownership
- 20% public/80% private ownership
- 100% private ownership

The present worth cost comparison between the Pool 3 and LWC pipeline options for the five ownership scenarios is presented on Table 3-1 below for a 20-year and 30-year analysis period.

Table 3-1
Present Worth Cost Comparison under Various Pipeline Ownership Scenarios
($ 000)

Scenario	Present Worth Cost	
	20-Yr	30-Yr
KAWC 6 MGD	282,989	331,050
LWC 6 MGD 100% Public	172,696	195,976
LWC 6 MGD 20% Private	183,852	213,129
LWC 6 MGD 50% Private	200,586	238,860
LWC 6 MGD 80% Private	217,321	264,591
LWC 6 MGD 100% Private	228,477	281,745

The table indicates that even if the pipeline were 100% owned by KAWC, the Pool 3 project is still $50-$55 million more expensive on a present worth basis than the LWC pipeline option.

Figures 3-1 and 3-2 present the modeling results on a unit cost basis (cost per 1,000 gallons). These graphs demonstrate that the higher the percentage of private ownership, the higher the unit cost of the pipeline project. Under some ownership scenarios, the graphs cross, but not until late in the 30 year analysis period.

Figure 3-1
20-Year Ownership Scenarios

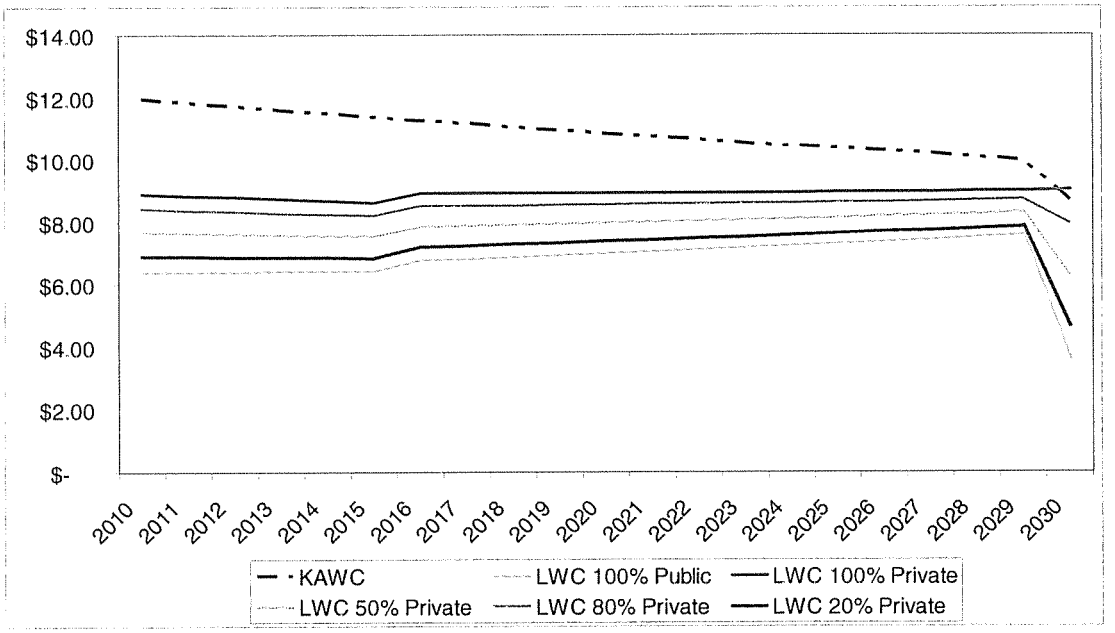
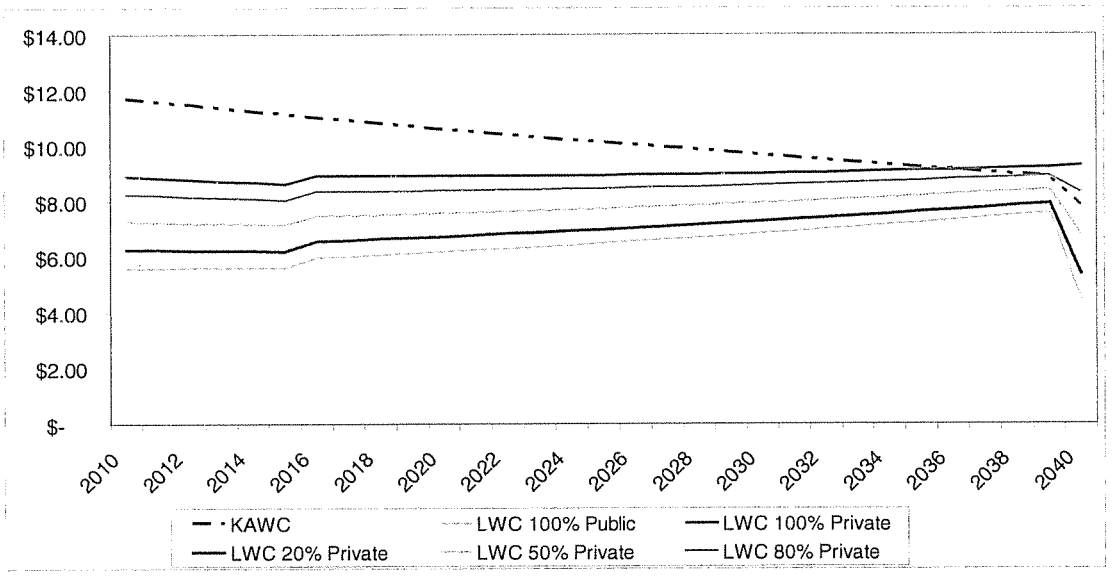


Figure 3-2
30-Year Ownership Scenarios



3.3 Base Flow Alternatives

There has been a good deal of discussion, testimony and speculation regarding the assumed flow rate produced by the Pool 3 facilities and provided through the LWC pipeline. Questions were raised regarding the cost-effectiveness of the LWC pipeline if flows increased beyond the assumed 6 MGD. In fact, the November 2007 R.W. Beck report acknowledges that the Pool 3 project increases its' cost-effectiveness with higher flows and increased utilization of the fixed assets.

The purpose of this section is to evaluate the sensitivity of the model to the assumed flow rate. Analyses were conducted at 6, 9 and 12 MGD for 20, 30 and 40-year analysis periods. In each case, the flow through the Pool 3 plant and transmission main equaled the flow rate through the LWC pipeline. The present worth cost comparison is presented in Table 3-2.

Table 3-2
Present Worth Cost Comparison under Various Constant Flow Scenarios
($ 000)

Scenario	Present Worth Cost		
	20-Yr	30-Yr	40-Yr
KAWC at 6 MGD	282,989	331,050	358,577
KAWC at 9 MGD	283,632	331,839	359,458
KAWC at 12 MGD	284,275	332,627	360,339
LWC at 6 MGD	172,696	195,976	214,131
LWC at 9 MGD	200,768	233,702	259,563
LWC at 12 MGD	228,840	271,428	304,995

Table 3-2 demonstrates that the present worth cost of the Pool 3 option increases a small amount (by the increase in facility operating costs) as flows increase from 6 to 12 MGD. Conversely, the present worth cost of the LWC pipeline option increases somewhat proportional to the higher usage, reflective of the higher wholesale water costs. Nevertheless, even at 12 MGD, the LWC pipeline option saves $55- $60 million over the Pool 3 option. R.W. Beck conducted additional iterative modeling of the flow rate to determine that the flow rate from the day the project comes on line would need to be approximately 18.5 MGD for 20 years and 17 MGD over 30 years in order for the two options to have the same present worth cost.

Once again, a unit cost comparison was made of the various flow scenarios as presented in Figures 3-3 through 3-5 below. Each figure contains a Pool 3 option compared with a parallel LWC option for each of three flow rates- 6, 9 and 12 MGD. The graphs illustrate that the higher the constant flow rate, the sooner the unit cost curves cross one another for all three analysis periods evaluated.

Figure 3-3
20-Year Base Flow Scenarios

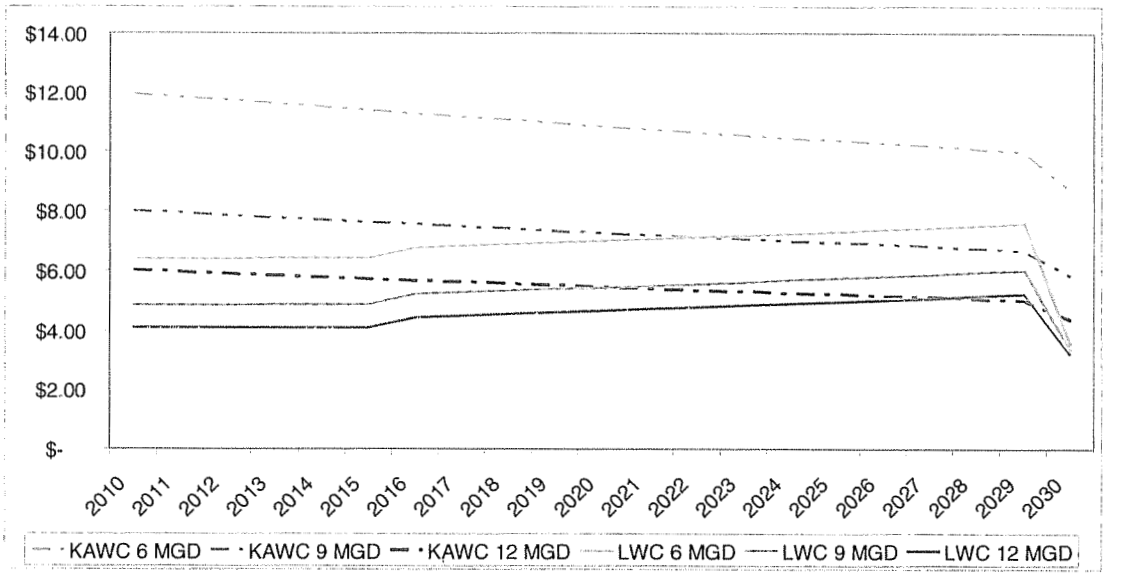


Figure 3-4
30-Year Base Flow Scenarios

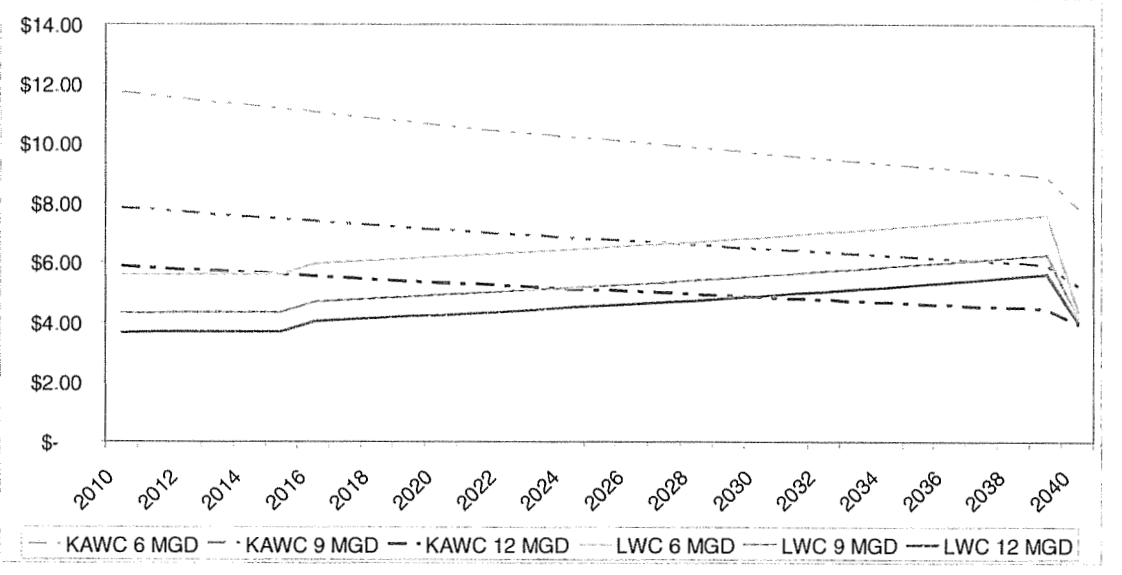
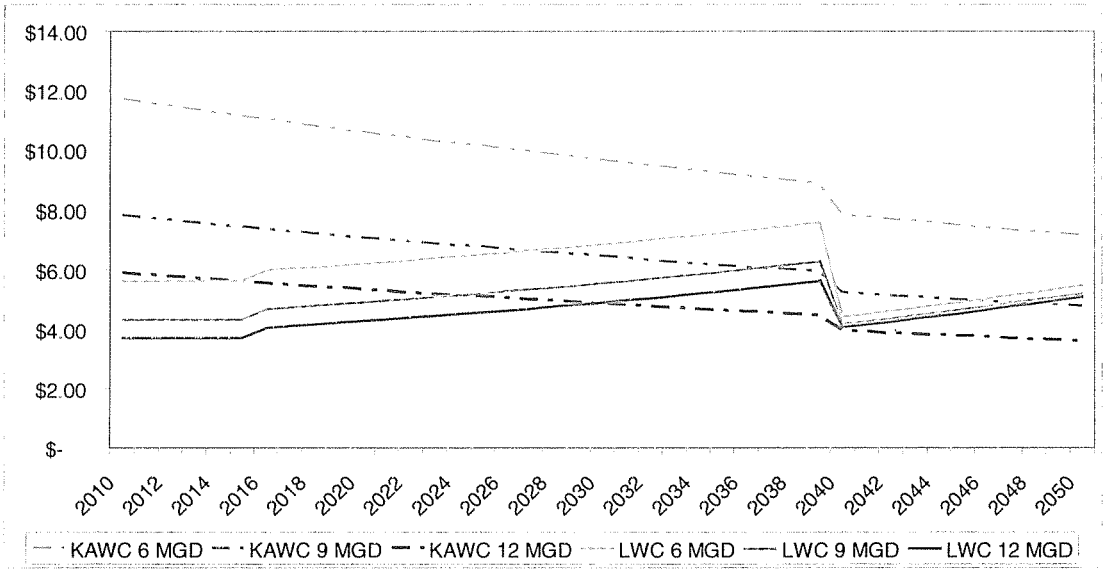


Figure 3-5
40-Year Base Flow Scenarios



3.4 Cost of Debt

The base case assumes a municipal bond interest rate of 4.7%. A number of programs are available for government-owned utility systems in Kentucky that provide for lower interest rates for debt financing. Such programs include the State Revolving Loan Funds and financing programs through agencies such as the Kentucky Infrastructure Authority. The relative significance of obtaining lower interest municipal financing was considered in this section of the sensitivity analysis.

Table 3-3 presents the present worth cost comparisons for the LWC pipeline options under assumed interest rates ranging from the 4.7% used in the base case down to a low blended rate of 1% for both the 20-year and 30-year analysis periods. While a 1% blended rate is not likely, obtaining some amount of lower-interest financing is possible and could well result in a blended cost of debt of 3% compared with the 4.7% used in the base case. The results shown on Table 3-3 indicate an additional savings of $15 to $20 million at 3% over 20 to 30 years.

Table 3-3
LWC Present Worth Cost Comparison under Various Blended Interest Rates
($ 000)

Scenario	Present Worth Cost	
	20-Yr	30-Yr
LWC Base Case with 4.7% cost of debt	172,696	195,976
LWC with 1% cost of debt	143,254	157,248
LWC with 2% cost of debt	150,668	166,734
LWC with 3% cost of debt	158,492	176,971

The unit cost plots illustrate that the model is not very sensitive to a lower cost of debt. Figures 3-6 and 3-7 present the results for a 20-year and 30-year analysis period, respectively. Although there is a discernible difference between 1% and 4.7% as shown on the plots, the modeling results are not nearly as sensitive to cost of debt as the other parameters considered in this section.

Figure 3-6
20-Year Cost of Debt Scenarios

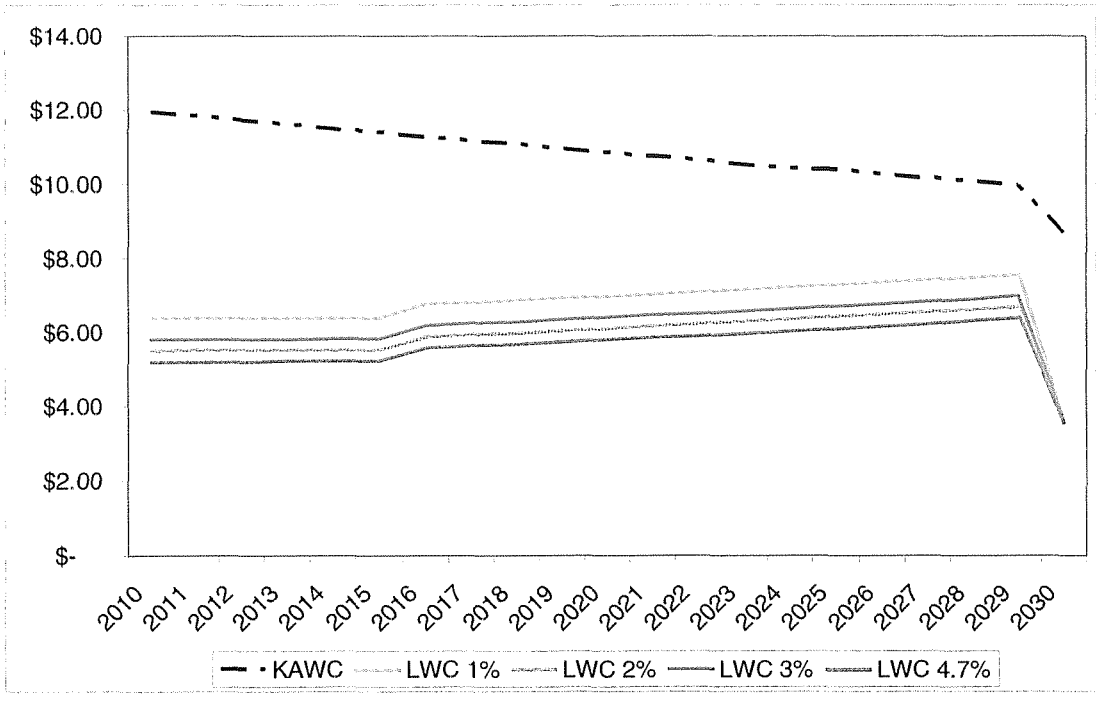
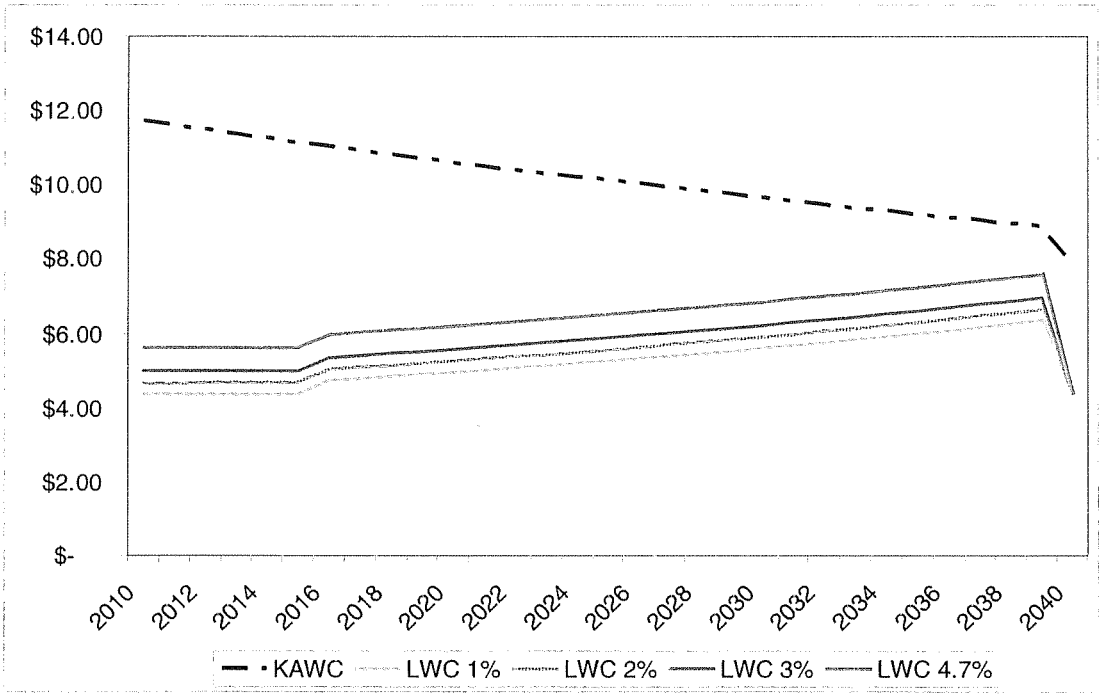


Figure 3-7
30-Year Cost of Debt Scenarios



3.5 LWC Wholesale Rate Increases

The base case analysis assumes the LWC wholesale rate will increase at the rate of inflation (2.4%) after the step increase in the year 2016. R.W. Beck believes this is a reasonable assumption, as one would expect the LWC cost of service to generally follow inflationary trends, especially over a long period of analysis. However, we also recognize that some elements of the LWC cost structure may be tied to capital needs over time, and construction costs can increase at a rate higher than indices such as the Consumer Price Index (CPI) or other inflationary economic indicators. A sensitivity analysis was conducted to examine the impact of the LWC wholesale rate increasing at greater than the rate of inflation after 2016.

Table 3-4 presents the present worth cost comparison for the Pool 3 and LWC base cases, as well as for wholesale rate increases at inflation plus 1, 2 and 3% from 2016 through the end of the analysis period. The results are shown for 20, 30 and 40-year analyses, and suggest that even when the rate increases by 2% over inflation (the cap established by LWC in their wholesale rate proposal), the LWC pipeline option is at least $100 million less expensive than the Pool 3 option.

Table 3-4
Present Worth Cost Comparison under Various Wholesale Rate Increases
($ 000)

Scenario	Present Worth Cost		
	20-Yr	30-Yr	40-Yr
KAWC Base Case	282,989	331,050	358,877
LWC Base Case	172,696	195,976	214,131
LWC inflation plus 1%	175,260	202,503	225,718
LWC inflation plus 2%	178,046	210,048	239,943
LWC inflation plus 3%	181,075	218,783	257,482

Figures 3-8 through 3-10 present the analyses on a unit cost basis over 20, 30 and 40 years. The plots illustrate that only when the wholesale rate increases exceed inflation by 3% (total of 5.4%) the cost increases become dramatic over time. Nevertheless, the wholesale rate would need to increase at that level for well over 40 years for the Pool 3 option to become cost-competitive with the LWC pipeline on a present worth basis.

Figure 3-8
20-Year Wholesale Rate Increase Scenarios

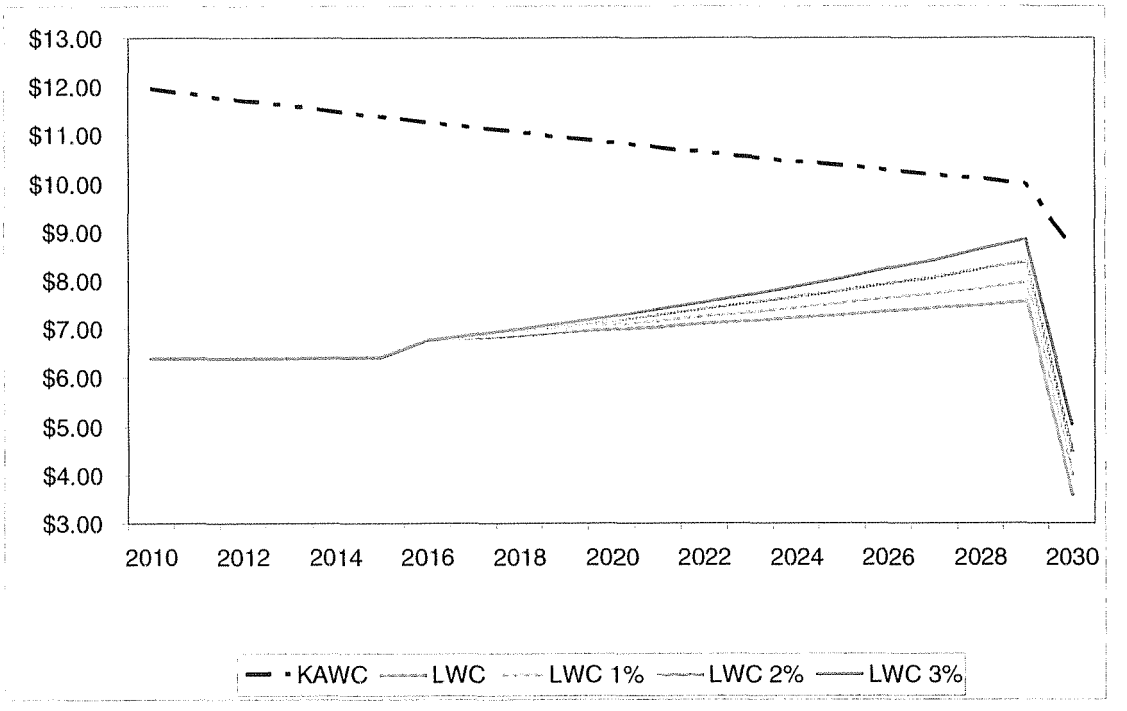


Figure 3-9
30-Year Wholesale Rate Increase Scenarios

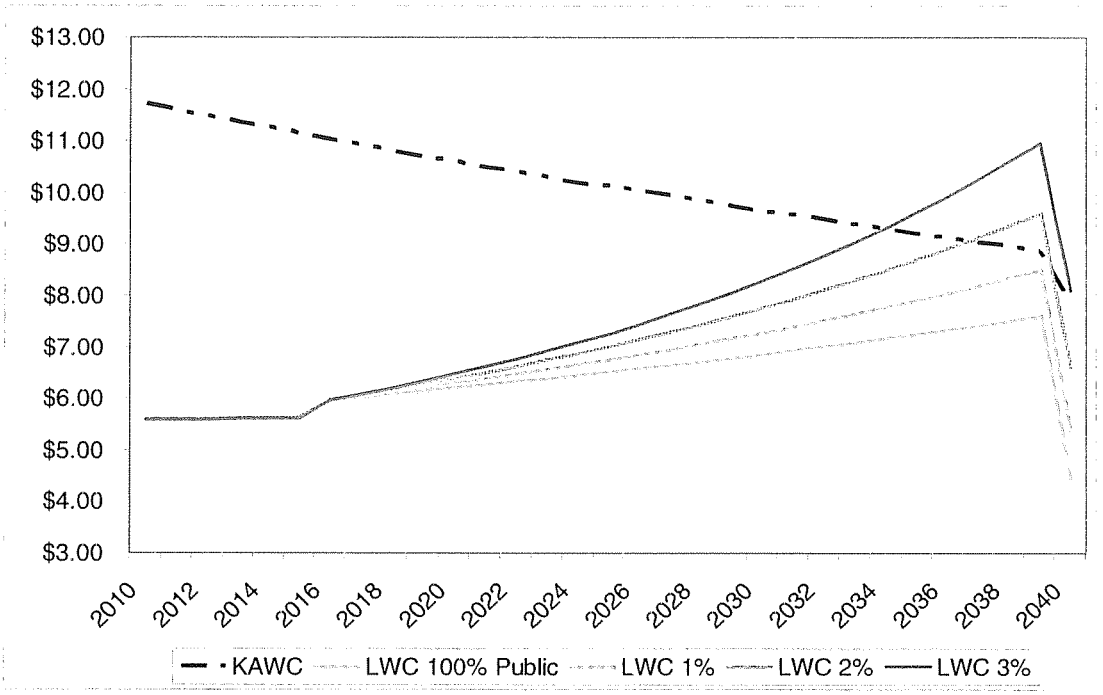
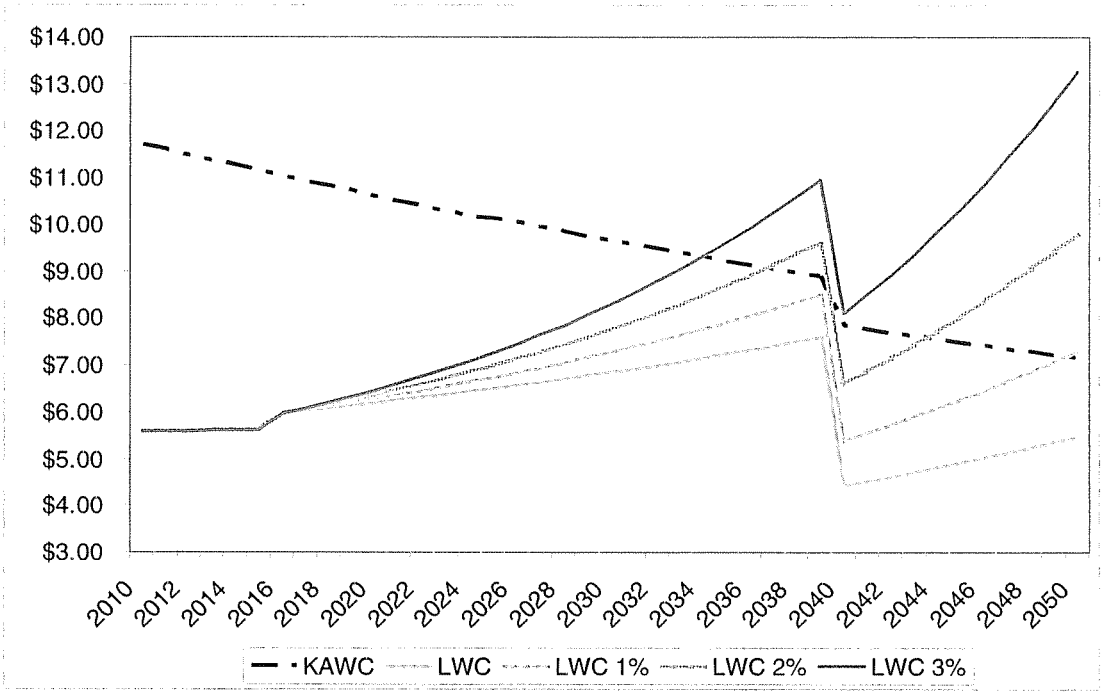


Figure 3-10
40-Year Wholesale Rate Increase Scenarios



Section 4
RATE IMPACTS ON KAWC CUSTOMERS

R. W. Beck, Inc. developed a current year "cost based revenue requirement" for the proposed KAWC Pool 3 and LWC pipeline options under a proposed ownership scenario, of 80 percent private/20 percent public.

Under the scenario, an increase in rate revenue will be required to pay for the additional operating and maintenance expenses as well as the capital expense associated with the project. We expect that both projects will result in rate increases for all customer classes, as indicated by the one-year analysis. The methodology used in this analysis was derived from KAWC's testimony to the Public Service Commission (PSC) on January 1, 2001 in Case Number 2007-00134, specifically in response to Citizens for Alternative Water Solutions (CAWS) 1-Q013.

R. W. Beck's analysis, shown in Table 4-1 below, indicates that the Pool 3 project will result in a total rate increase of about 46 percent while the LWC pipeline options will result in total rate increases of about 31 percent.

Table 4-1
Comparison of Source of Supply Project Options
Estimate of KAWC Customer Retail Rate Impact

(000's)	(CAWS Response) KAWC Pool 3 Project	R. W. Beck Model KAWC Pool 3 Project [1]	80% Private/20% Public Louisville Pipeline Project [2]
Initial Gross Plant	$159,727	$167,419	$113,294
Less: Depreciation Expense	3,594	3,236	760
Deferred Income Tax Expense	1,118	-	-
Rate Base	$155,015	$164,183	$112,534
WCC Currently Authorized	7.75%	7.75%	7.75%
UOI	$12,014	$10,179	$6,977
Revenue Gross Up Factor [2]	1.6540077	1.6540077	1.6540077
Revenue Requirement	$19,871	$16,837	$11,540
Add: Depreciation Expense	$3,594	$3,236	$760
Deferred Income Tax Expense	$1,118	-	-
O&M Expense	$1,185	$2,143	$228
KRA Withdrawal Fee	-	$110	$88
Property Taxes	-	$1,213	-
Wholesale Water Cost	-	-	$2,996
Total	$5,897	$6,702	$4,072
Rate Impact From SS Project	$25,768	$23,538	$15,612
Going Level Revenues [3]	$50,867	$50,867	$50,867
% Rate Increase	50.66%	46.27%	30.69%

(1) Assumes KAWC ratepayers pay for 80 percent of the cost of treatment plant and pipelines.
(2) 80 percent of the gross plant is included for the return on rate base (UOI) calculation for KAWC
(3) Based on KAWC Testimony: Case No. 2007-00134 – Schedule in Response to CAWS-1-Q013

Following a similar methodology and looking at the proposed LWC pipeline project under the 100 percent public ownership scenario, R. W. Beck performed a similar analysis. In this analysis, R. W. Beck assumed that KAWC would pay for 80 percent of the project's operating, debt service and renewal and replacement annual expenses but that the project would be 100 percent owned by a public entity.

Additionally, R. W. Beck conducted the same 100 percent publicly owned scenario, utilizing the LWC proposed 36-inch pipeline and related capital and operations and maintenance costs.

The results of these analyses can be seen below in Table 4-2.

Table 4-2
KAWC Retail Rate Impact for a 100% Publicly-Owned LWC Pipeline

Estimate of KAWC Customer Retail Rate Impact	42" Pipeline	36" Pipeline
80% of Debt Service	$5,696	$4,252
Renewals and Replacements	$779	$661
Electricity	$138	$138
Maintenance	$76	$76
Meter Charge	$15	$15
Wholesales Water Cost	$2,996	$2,996
KRA Withdrawal Fee	$88	$88
Total Retail Rate Impact	$9,786	$8,225
Going Level Revenues	$50,867	$50,864
Percentage Rate Increase	19.24%	16.17%

Table 4-3 measures the impact that the construction of the Pool 3 option and the LWC option would have on customers' monthly bills. The impact of the LWC project was analyzed under the 80 percent private/20 percent public, the 100 percent publicly owned 42-inch line and the 100 percent publicly owned 36-inch line scenarios.

As shown below, Table 4-3 identifies the retail rate impact of the three classes' bills: residential, commercial and industrial customers. The number of customers per class, annual revenue and annual water usage was obtained from KAWC's 2006 Annual Report to the KPSC.

Table 4-3
Current Customers' Average Monthly Use and Estimated Total Bill

	Average Monthly Bill[1]	Bill after Increase	Amount of Increase
(CAWS Response) KAWC Pool 3 Project			
Residential	$21.21	$31.95	$10.74
Commercial	$118.12	$177.95	$59.83
Industrial	$5,465.21	$8,233.72	$2,768.51
R. W. Beck Model KAWC Pool 3 Project[2]			
Residential	$21.21	$31.02	$9.81
Commercial	$118.12	$172.77	$54.66
Industrial	$5,465.21	$7,994.20	$2,528.99
80% Private/20% Public Louisville Pipeline Project[2]			
Residential	$21.21	$28.13	$6.93
Commercial	$118.12	$156.69	$38.57
Industrial	$5,465.21	$7,249.88	$1,784.67
100% Publicly Owned (42")			
Residential	$21.21	$25.29	$4.08
Commercial	$118.12	$140.84	$22.72
Industrial	$5,465.21	$6,516.66	$1,051.45
100% Publicly Owned (36")			
Residential	$21.21	$24.64	$3.43
Commercial	$118.12	$137.22	$19.10
Industrial	$5,465.21	$6,348.93	$883.72

(1) Based on Revenue and Customer Statistics from KAWC 12/31/2006 Annual Report filed with the PSC p 56
(2) Assumes KAWC ratepayers pay for 80 percent of the cost of treatment plant and pipelines

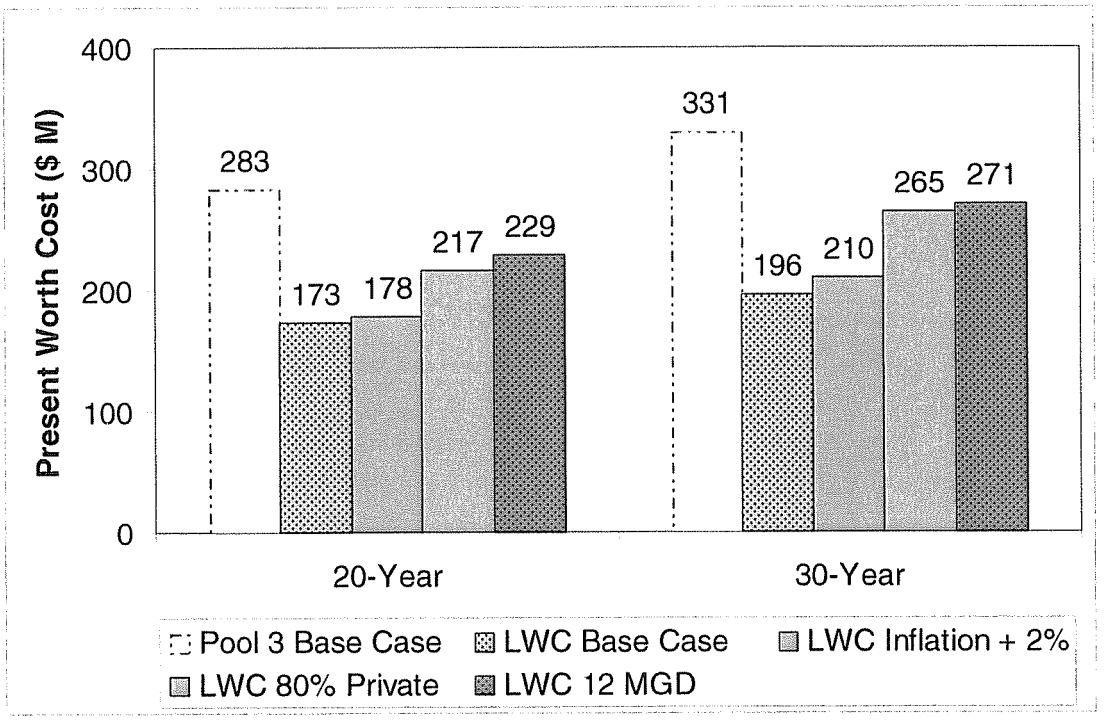
Section 5
SUMMARY AND CONCLUSIONS

5.1 Modeling Results

R.W. Beck completed a number of scenarios using the previously developed life-cycle, present worth cost model comparing the KAWC Pool 3 option with the LWC pipeline option for providing water to Central Kentucky. The base case considered a 6 MGD constant flow rate from both the Pool 3 and LWC pipeline options. A number of sensitivity analyses were conducted to understand how sensitive the model is to a variety input variables and conditions.

Figure 5-1 presents a summary of the present worth costs for a number of scenarios considered for both the 20-year and 30-year analysis periods.

Figure 5-1
Present Worth Cost Comparison under Various Modeling Scenarios



Two scenarios were considered that served to reduce the cost of the LWC pipeline options. The first was the assumption of lower cost of debt because of the availability of lower interest loan programs for municipally-funded projects. When comparing the base case at 4.7% interest rate with a blended rate of 3%, the present worth cost of the

LWC pipeline is reduced by $15 to $20 M (for the 20 and 30-year evaluations), or approximately a 10% cost reduction.

The second alternative considered was the use of a 36-inch pipeline in lieu of the 42-inch pipe in the base case. As was the case in our previous analysis, the 20% capital cost decrease for the smaller diameter pipeline translates into a 15% reduction in the present worth cost over 20 or 30 years.

Consideration was given to the rate impact on KAWC customers under the Pool 3 and LWC pipeline options. The revenue needed to support these projects required a 46% increase for the Pool 3 option, reduced to a 31% increase for the LWC pipeline option with an 80% private/20% public ownership scenario. This increase could be reduced below 20% if KAWC connected to a 100% publicly-owned pipeline from Louisville, and 16% if a 36-inch pipeline is constructed instead of the 42-inch transmission main.

5.2 Conclusions

Delivering water from the Louisville Water Company to Central Kentucky customers through a pipeline from Shelby County is a more cost-effective alternative to the KAWC Pool 3 project. The present worth cost savings for a 6 MGD constant flow rate range from $110 million over a 20-year analysis period, to as much as $144 million over 40 years. A number of variables were evaluated to determine the sensitivity of the LWC pipeline model to varying conditions, including ownership, future wholesale rate increases, cost of debt and the base flow through the pipeline. The analysis is most sensitive to the flow rate, but even at a base flow of 12 MGD, the LWC pipeline option is nearly 20% ($55 to $60 million) less expensive than the Pool 3 option. In fact, the base flow would need to reach 18.5 MGD on a constant flow basis for 20 years before the LWC pipeline equals the present worth cost of the Pool 3 project.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY AUTHORIZING THE CONSTRUCTION OF KENTUCKY RIVER STATION II, ASSOCIATED FACILITIES AND TRANSMISSION MAIN	))))))	CASE NO. 2007-00134

LOUISVILLE WATER COMPANY'S POST-HEARING RESPONSE TO REQUESTS FOR INFORMATION

The Louisville Water Company ("LWC"), by counsel, hereby responds to the requests for information made during the hearing of the Public Service Commission of the Commonwealth of Kentucky (the "Commission") in the above-captioned matter.

REQUESTS FOR INFORMATION

Request No. 1

How much storage capacity (in MGD) has LWC added to its system since 2002?

Responsible Witness: **Greg Heitzman**

RESPONSE: LWC has added 2.56 MG of storage to its system since the beginning of 2002.

Request No. 2

Provide a copy of the post-2002 Black & Veatch study.

Responsible Witness: **Greg Heitzman**

RESPONSE: Please see the attached.

Request No. 3

Provide a copy of the document entitled "Louisville Water Company Proposal for a Louisville to Lexington Pipeline Along I-64."

Responsible Witness: **Greg Heitzman**

RESPONSE: The document entitled "Louisville Water Company Proposal for a Louisville to Lexington Pipeline Along I-64" is copied into the Greg Heitzman Rebuttal Testimony filed October 1, 2007, at pages 4-7. Therefore, a copy already has been provided to all parties and the Commission.

Request No. 4

Identify any system development charge(s) associated with, or to be imposed by, the LWC proposal.

Responsible Witness: **Greg Heitzman**

RESPONSE: See Greg Heitzman Rebuttal Testimony filed October 1, 2007, at page 7, line 9: "LWC will waive the System Development Charge for this delivery point."

Request No. 5

Provide all hard-copy and electronic spreadsheets underlying the table located at LWC0002.

Responsible Witness: **Greg Heitzman**

RESPONSE: An electronic spreadsheet responsive to this request is available and will be provided to any authorized recipient pursuant to the terms of the Confidentiality/Non-Use Agreement, upon receipt by LWC of an agreement executed by the authorized recipient.

Counsel for LWC previously provided electronic copies of the Confidentiality/Non-Use Agreement to counsel for parties in this matter. No hard copy spreadsheet exists.

Request No. 6

Please state whether LWC adjusts (as opposed to reviews) its annual demand factors in each of its annual cost of service studies.

Responsible Witness: **Greg Heitzman**

RESPONSE: LWC typically adjusts its annual demand factors in each of its annual cost of service studies. During the past five years, Louisville Water Company has adjusted its demand factors in 2003, 2005, 2006, and 2007. Louisville Water Company reviewed but did not adjust its annual demand factors in 2004.

Request No. 7

Provide an explanation for R. W. Beck's disagreement with Walker's six identified assumptions (p. 8, lines 1-40 of his rebuttal testimony) and the 11 dollar amount disagreements he identified at the hearing.

Responsible Witness: **Ed Wetzel**

RESPONSE:

Assumption No. 1: Inflation

Inflation is assumed to 3.00% for both operating Expenses and capital costs. This rate is based on the long term average rate of inflation of 3.0%.

R. W. Beck Report used inflation of 2.4% for most operating expenses and 3.0% for wholesale rates. The R. W. Beck report also used 3.1% inflation for capital costs based upon the

Handy Whitman Water Treatment rate of 3.0%, Handy Whitman Mains rate of 2.97% and ENR CCI rate of 3.1%.

Response

R. W. Beck's estimate of inflation of 2.4% is based on the Blue Chip Economic Indicator Report (BCEIR) at the time of the report. Based on R. W. Beck experience this report is a valid and reputable source used specifically to estimate the rate of inflation and other economic indicators. While 3% is sometimes used as a "rule of thumb," we believe the BCEIR provides for an inflation estimate that more accurately reflects current and projected economic conditions. Capital costs were escalated using the Engineering News Record Construction Cost Index to more accurately reflect the specific nature of construction costs. The Handy Whitman Index was looked at to confirm the rate of inflation indicated by the ENR CCI, and supports the number presented by the ENR CCI. Although these numbers differ slightly the impact on the present worth costs is minimal.

Assumption No. 2: KAW's Tax Exempt Debt

KAW's total tax exempt debt available for either option is $35,000,000 based on a three year construction period. This is assumed to be industrial development bonds, which KAW would be contractually responsible for.

The R. W. Beck Report did not assume any tax exempt debt for KAW.

Response

R. W. Beck is unaware of any specific source of financing being proposed which would include any tax exempt debt. If such financing were available to KAW, the net effect would be a reduction in their weighted average cost of capital (WACC) from the currently PSC-approved rate of 7.75% to something less than that.

Assumption No. 3: LWC's Wholesale Rate Increase

LWC's post-2016 wholesale rate increase above inflation is 2.%. LWC's wholesale rate is $1.71 per thousand. Based upon Mr. Heitzman's testimony, this rate is held constant through 2015. In 2016 is increased by the compounded inflation rate, which is assumed to be 3% annually, after 2016 the rate is assumed to increase by a maximum of 2% above inflation (i.e. inflation + 2%).

R. W. Beck Report used a 3.0% annual increase in wholesale rates over their study period. The R. W. Beck Report differs from Mr. Heitzman's testimony.

Response

The R.W. Beck report used an assumed 3% per year increase in the wholesale rate as a simplifying assumption to the model. The report also considered the sensitivity of the results to changes in the wholesale rate by analyzing a range of values based on a 1%, 3% and 5% increase. Under all scenarios the LWC pipeline proposal had the lowest present worth costs.

R. W. Beck submitted a supplemental analysis by letter dated November 14, 2007 which included the wholesale rate increases per Mr. Heitzman's proposal under a variety of ownership scenarios. The difference between the KAWC proposal and the LWC proposal is smaller than the baseline case, but the conclusions are still the same. See the table below under the constant flow scenario.

		42" LWC	36" LWC	
Scenario	KAWC [1]	6 MGD Flat	6 MGD Flat	Savings [2]
100% Public	$293,986,300	$174,025,816	$146,796,486	$147,189,814
80/20 Public/Private	$293,986,300	$185,406,487	$155,071,919	$138,914,381
50/50 Public/Private	$293,986,300	$202,477,494	$167,485,069	$126,501,232
20/80 Public/Private	$293,986,300	$219,548,501	$179,898,218	$114,088,082
100% Private	$293,986,300	$231,031,793	$188,173,651	$105,812,649

See the table below for the results under the increasing flow scenario.

Scenario	KAWC [1]	42" LWC 6 MGD Start (.5 MGD/year increase)	36" LWC 6 MGD Start (.5 MGD/year increase)	Savings [2]
100% Public	$303,899,862	$221,583,568	$196,202,921	$107,696,941
80/20 Public/Private	$303,899,862	$232,964,239	$204,478,354	$99,421,508
50/50 Public/Private	$303,899,862	$250,035,246	$216,891,504	$87,008,358
20/80 Public/Private	$303,899,862	$267,106,253	$229,304,653	$74,595,209
100% Private	$303,899,862	$280,438,228	$237,580,087	$66,319,775

Assumption No. 4: BWSC's Debt Term

BWSC's debt issue term is assumed to be 25 years. A 25 year term was used in order to have the life of the financial capital approximate the life of the underlying long lived assets. The result of combining the debt's term life with a conservative balloon payment enables the life of the financial capital to be comparable to the life of the underlying long lived assets.

The R. W. Beck Report used a term of 20 years.

Response

R. W. Beck used a 20 year bond issue and Mr. Walker proposed a 25 year "balloon bond" with a 2nd 25 year bond to follow to pay the remaining portion of unpaid debt. R. W. Beck is of the opinion that a 20 or 25 year bond would both be reasonable terms, but 20-year bonds are the standard of the industry, with more than 85% of municipal bonds issued last year having 20-year terms. In this instance, 20 years is also the timeframe in which the assets being constructed run out of capacity. This means that the ratepayers who gain the benefit of the assets will be the ones who pay off the debt. Future ratepayers will need to construct and pay for future assets to serve their needs.

R. W. Beck also disagrees that having a "balloon bond" is a more reasonable assumption. We know of no example where a municipal utility has issued this kind of debt, and Mr. Walker

could not site an example when asked during his testimony. Using a 25-year bond to repay 50% of the cost with the remaining 50% to be refinanced for another 25 years is considered by R.W. Beck inconsistent from most common utility practices and would result in higher interest expense. This is like comparing a 30 year mortgage to a 30 year balloon mortgage, only paying ½ the principal, then refinancing the remaining principal for another 30 years, resulting in more interest expense and adding an unnecessary burden to rate payers.

Assumption No. 5: BWSC's Debt Payment Frequency

BWSC's Debt issue is assumed to have two payments annually to match the requirements of a typical municipal bond payment.

The R. W. Beck Report used a single annual payment which would be unique for a municipal bond.

Response

R. W. Beck used an annual debt payment and Mr. Walker proposes two payments annually. Both assumptions are valid for the type of analysis being performed. R. W. Beck was looking at all expenses on an annual basis. The affect of changing our debt payments to semi-annual would not affect the conclusions reached in our analysis.

Assumption No. 6: BWSC's Debts Balloon Payment

BWSC's debt issue's final balloon payment is 50%. This assumption implies that 50% of the principal is repaid prior to the final payment. The final payment is then refinanced.

R. W. Beck Report did not differentiate in balloon payments. Therefore, The R. W. Beck Report essentially recovered in rates, or the revenue requirement, the projects entire capital cost

over 20 years. That is, they recover "return on capital" over 20 years for assets with a life of 58 years.

Response

R. W. Beck disagrees that financing the cost of construction over 50 years is a more reasonable assumption. 20 year bonds are standard use within the utility industry. By reducing the principal paid to 50% over 25 years and refinancing the remaining principal for another 25years the interest expense and in turn the entire financing cost of the project is much higher, however spread over a longer period. Also a utility must look at the risk of financing a project of this size based on Mr. Walker's suggestions. The interest rate risk or the uncertainty of what future interest rates will be would be much higher under a 25 year "balloon bond" than more standard 20 or even 25 year fully amortized bonds.

Walker's 11 dollar amount disagreements

With respect to the KAWC Pool 3 proposal, Walker stated that the following categories had been *overstated* by the following amounts.

Chemical Cost	$57,099
Labor	$1,392,477
Electricity	$219,011
Property Taxes	$5,189,993
KRA Withdrawal Fees	$1,285,347
Depreciation/Capital Recovery	$19,203,489
Return on Capital	$24,485,669

With respect to the LWC Louisville Pipeline alternative, Walker stated that the following categories had been *understated* by the following amounts.

Electricity	$2,608,324
Wholesale Water	$79,220,894

Meter Charges	$9,413,221
Return on Capital	$83,700,995

Response

It is difficult to address the above discrepancies without the backup information and calculations to go along with the numbers presented. Nevertheless, we are aware of specific assumptions made by Mr. Walker and their impact on the modeling results.

KAWC Pool 3 option

Chemical costs, labor and electricity

R.W. Beck used the costs outlined in Table 4 of Ms. Bridwell's testimony regarding operating expenses for the Pool 3 plant. Mr. Walker used a slightly higher rate of inflation (3.0% vs. 2.4%) as described above, and this could account for the slightly higher life cycle costs for chemicals and electricity compared with the R.W. Beck model. The labor cost differential is larger, and may result from Mr. Walker inputting the incorrect labor costs into his model. On his Schedule 4, Page 1 of 5, he shows a total labor cost in 2007 of $542,622. Table 4 of Ms. Bridwell's testimony indicates a number of $620,382, which is the value we used in our model.

Property taxes

R.W. Beck used the property taxes shown on Table 4 of Ms. Bridwell's testimony and inflated those costs by the inflation rate over the life of the project. We further assumed that KAW would own the property in total, rather than have a split ownership of land. If KAW is afforded special consideration for property taxes by the Commonwealth of Kentucky, we were unaware of that circumstance in the development of our cost model.

KRA withdrawal fees

We know of no reason why there should be any dispute over KRA withdrawal fees, unless Mr. Walker is comparing our increasing flow model against a constant 6 MGD withdrawal. We modeled these as two separate scenarios, recognizing that there were was confusion over how KAWC intended to operate the Pool 3 facility. Under either scenario, we assumed a fee of $.05/1,000 gallons of water withdrawn.

Depreciation/capital recovery

R.W. Beck used a simplified approach to the creation of a Renewal and Replacement (R&R) fund by assuming the treatment plant assets have a 40-year life and pipeline assets have a 75-year life. This approach was used regardless of whether the assets were owned by KAWC, in which case this is treated as depreciation, or a public entity, in which case this fund is considered a capital reserve fund. It is not clear how a relatively small difference in assumption for depreciation rates could translate into a $19 million overstatement of present worth cost for the Pool 3 option. Ironically, Mr. Rubin considered the same variation in depreciation rates, and concluded that the difference resulted in an *understatement* of the Pool 3 present worth cost of only $100,000.

Return on Capital

This large difference results from the disagreement over how to determine the pre-tax cost of capital for the KAWC portion of the project. As stated in Mr. Wetzel's testimony, R.W. Beck followed the methodology provided in the exhibit to Mr. Rowe's response to the CAWS First Data Request, Item #13, in which the authorized rate of return is multiplied by the rate base and grossed up for taxes. This calculation results in a pre-tax cost of capital of 12.8%, which compares to the 10.6% shown on Schedule 6 of Mr. Walker's testimony.

LWC Pipeline

Electricity and Wholesale Water

Mr. Walker assumes a 12.5 MGD base flow rate through the LWC pipeline compared with the 6 MGD used by R.W. Beck. This is an erroneous assumption as supported by the testimony of Mr. Heitzman to the Commissioners.

Metering charges

The meter costs were provided to R.W. Beck by the Louisville Water Company, assuming an initial flow rate of 6 MGD through the pipeline. It is not clear how Mr. Walker gets to such a large difference in present worth cost, but he is assuming larger meters to be installed and charges rendered at the outset of the project.

Return on Capital

Mr. Walker assumed that the LWC pipeline would be 80% privately-owned and 20% publicly-owned, rather than the 100% public ownership from the R.W. Beck report. The additional analysis submitted by R.W. Beck on November 14, as shown on the table above, indicates that this difference should be about $45 million on a present worth cost basis, not the $84 million suggested by Mr. Walker.

Request No. 8

Provide a synopsis of R. W. Beck's response to Scott J. Rubin's three main points.

Responsible Witness: **Ed Wetzel**

RESPONSE: Mr. Rubin identifies five areas of concern as summarized on pages 1 and 2 of his testimony:

- For the Pool 3 option, KAWC's depreciation rates should be used instead of the generic assumptions made in the model.
- The R.W. Beck model assumes that 20% of the cost of the Pool 3 Project would be financed with municipal bonds. As I understand it, public entities have not made a firm commitment to the Pool 3 Project, and there is no certainty that such public financing will be used. Therefore, I have assumed that KAWC must finance 100% of the Pool 3 Project.
- The model incorrectly calculates KAWC's pre-tax cost of capital. The model applies the gross revenue conversion factor to KAWC's entire return (debt and equity). It should be applied only to the equity component of the capital structure.
- The model makes the unrealistic assumption that the LWC option would be financed entirely with public debt and that there would not be any debt service coverage requirement on such debt.
- The model's results are very sensitive to the amount of water that is needed. Making a relatively small change to the amount of water has a dramatic effect on the results.

Response

We will separately address each of Mr. Rubin's five points above.

Depreciation rates

R.W. Beck's model used a consistent average service life for the assets—40 years for treatment facilities and 75 years for pipelines—in determining the amount of renewal and replacement (R&R) reserve. This R&R reserve for public systems is the equivalent of depreciation for investor-owned utilities. Mr. Rubin points out that had we used the actual depreciation rates for the KAWC assets, the net impact would be an increase of the Pool 3 option

by $200,000 on a present worth basis. This is an insignificant difference, but one that favors the LWC pipeline option.

Private vs. public financing of the Pool 3 Project

Mr. Rubin assumes that 100% of the Pool 3 project should be financed by KAWC, as there are no firm commitments from Bluegrass member governments to help finance the project. R.W. Beck used the 80%-20% private/public split based on the tentative agreement reached between KAWC and the Bluegrass Water Supply Commission, and the fact that the treatment facilities have been upsized to 25 MGD as an option in the bidding documents prepared by Gannett Fleming. If the BWSC does not participate in the project, KAWC would provide 100% financing, but the plant would likely be the 20 MGD option at a reduced capital cost. However, if the 25 MGD project proceeds with 100% financing from KAWC, Mr. Rubin estimates that the present worth cost of the Pool 3 option would increase by about $14 million.

Pre-tax cost of capital

Mr. Rubin makes the same argument as was made by Mr. Walker that the pre-tax cost of capital is lower than the value used in the R.W. Beck analysis. As Mr. Wetzel testified to the Commission, R.W. Beck utilized the methodology outlined in Mr. Rowe's response to the CAWS First Data Request #13, in which he indicates that the revenue requirement from KAWC's customers is equal to the allowable weighted average cost of capital (currently 7.75%) times the rate base, grossed up for income taxes. This calculation results in a pre-tax cost of capital of approximately 12.8% compared with the 10.8% used by Mr. Rubin. Mr. Rubin indicates that this difference translates into a present worth cost reduction of the Pool 3 option by some $27 million.

Debt service coverage for municipal financing

Mr. Rubin first makes the statement that the project could not be 100% financed with public debt. We disagree with this statement, and believe that there are a number of entities, such as the BWSC or the Frankfort Plant Board that could own all or a portion of such a pipeline. Mr. Rubin further states that if it were 100% financed with public debt, that a debt service coverage factor of 1.5 should be applied to the debt service cost in the model. Mr. Wetzel testified to the Commission that R.W. Beck strongly disagrees with Mr. Rubin's assumption.

Debt service coverage is not a direct cost to any project, but rather a test of the financial health of the borrower. Coverage provides assurance to the bondholders that they will get paid, but the monies in reserve used to comply with a coverage requirement are never spent on the project. An analogy that was used by Mr. Wetzel at the Commission hearing is a mortgage. The cost of the house is represented by the principal and interest on the bank loan. Coverage is the financial equivalent of the income needed by the borrower to qualify for the loan. Mr. Rubin estimates that a 1.5 coverage factor would increase the cost of the LWC pipeline by $40 million.

In the event debt service coverage was considered part of the cost of a project, using a 1.5 factor is not realistic. Most revenue bond issues require coverage in the 1.1 to 1.3 range. Low interest programs like those offered through the State Revolving Loan Funds or the Kentucky Infrastructure Authority require coverage in the 1.0 to 1.2 range. We should also point out that the R&R reserve fund established in the R.W. Beck model provides for a coverage factor of 1.1.

Amount of water needed

Mr. Rubin correctly recognizes that the model is sensitive to the amount of water purchased, although we would not consider a doubling of the usage a "relatively small change". He evaluated scenarios under which water usage increased by 1.0 MGD and 1.25 MGD per year, rather than the 0.5 MGD in the R.W. Beck model. Under the 1.0 MGD per year increase, he

calculates that the Pool 3 option cost increases by about $10 million on a present worth basis, while the LWC pipeline option increases by $47 million, or a net increase for the LWC pipeline of $37 million. R.W. Beck agrees with this assessment, but must point out that under the 1.0 MGD and 1.25 MGD scenarios, both project options run out of capacity by the years 2020 and 2018, respectively. At the point capacity is exhausted, additional infrastructure will be needed to meet the demands of Central Kentucky water customers. The net impact is that higher water usage increases will drive the program to the R.W. Beck Phase 2 sooner than 2030, but the financial comparison remains the same.

Request No. 9

Provide a copy of LWC's most recent bond resolution, including rate covenants and the level of revenues required for those rates.

Responsible Witness: **Greg Heitzman**

RESPONSE: Please see the attached.

Respectfully submitted,

Barbara K. Dickens
Vice President and General Counsel
Louisville Water Company

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-and-

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Counsel to Louisville Water Company

CERTIFICATION

I hereby certify that I have supervised the preparation of Louisville Water Company's responses to the post hearing data requests and that the responses contained herein are true and accurate to the best of my knowledge, information, and belief formed after reasonable inquiry.

_____

Gregory C. Heitzman,
President of Louisville Water Company

Date: _____

CERTIFICATION

I hereby certify that I have supervised the preparation of Louisville Water Company's responses to the post hearing data requests and that the responses contained herein are true and accurate to the best of my knowledge, information, and belief formed after reasonable inquiry.

_____

Ed Wetzel, Executive Vice President
R.W. Beck, Inc.

Date:_____

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by was served via first-class United States mail, sufficient postage prepaid, on the following individuals this 10th day of December, 2007:

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