

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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COMMISSION

In the Matter of:

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

DIRECT TESTIMONY OF MARTIN SOLOMON

1 **Please state your name, address, and your occupation.**

2 My name is Martin Solomon, and I am a resident of Lexington,
3 in Fayette County, Kentucky. My address is 3913 Rock Ledge Lane,
4 Lexington, Ky. 40513

5 I am retired, and was formerly a Professor of Business and Economics at
6 the University of Kentucky. My vitae is attached.

7 **In what capacity are you giving testimony today?**

8 As an individual trained in the field of economics and business, and also
9 as a ratepayer and customer of Kentucky American Water Company, who
10 has reviewed the Kentucky American Water Company proposal and other
11 alternatives for meeting the water demands of KAWC's customers.

12 **Were you retained by any party to this case to provide an opinion?**

13 No. I became interested in this issue from reading the news articles, and
14 began to read the various reports and documents in the case file.

15 **Have you reviewed the Kentucky-American proposal to construct a**

1 **new treatment facility and pipeline?**

2 ~~Yes~~, I have reviewed the O'Brien and Gere report, the R.W. Beck,
3 Gannett-Fleming and Rubin reports.

4 **Based on your review, have you formulated an opinion regarding**
5 **whether Kentucky-American has demonstrated the need for a new**
6 **treatment facility and pipeline?**

7 Yes, I have.

8 **And what is that opinion?**

9 I believe Kentucky-American has failed to demonstrate the need for
10 the new treatment facility and associated pipeline.

11 First, as Scott Rubin noted in his testimony, an aggressive leak detection
12 program could reduce "non-revenue" water that is treated for use but lost
13 to system leakage. Such a program can reduce loss and make available
14 that water, lessening the need for additional supply.

15 Second, as the attached report from GRW demonstrates, Kentucky-
16 American can have available from the City of Versailles, some 2-3 million
17 gallons per day of treated water, according to a letter from Project
18 Engineer Michael Jacobs
19 through an existing connection with that system at a relatively small
20 capital cost of around \$158,000.

21 Third, according to a recent newspaper article, the Kentucky River
22 Authority plans to utilize funds budgeted during the next biennium to
23 install crest gates on top of Dam 9, which would increase the available

1 water in the pool from which Kentucky-American currently draws its
2 raw water supply.

3 Fourth, Kentucky-American can implement an aggressive
4 conservation program, which could moderate demand at peak times.

5 The combination of these measures – a serious leak detection program,
6 aggressive conservation program, installation of crest gates on Dam 9 and
7 the opportunity to purchase 2-3 mgd of water in the event of drought
8 conditions from the City of Versailles, are more than adequate to meet the
9 realistic demands of Kentucky-American Water Company's customers
10 for the next several years at a modest cost relative to the construction of a
11 new treatment plant and associated pipeline to Pool 3.

12 **You use the term “realistic demands.” Do you believe that the**
13 **projected demand that has been used in this case is unrealistic?**

14 From 2000 to 2006, Kentucky American's maximum daily demand
15 in normal weather increased by 140,000 gallons per day, or 0.14 mgd each
16 year.

17 Yet for 2006 to 2030, their projected normal daily demand increases much
18 more dramatically, with a projected increase over the 24-year
19 period of .58 mgd per year. This dramatic increase in projected demand is
20 hard to fathom. The projections for drought daily maximum demand
21 increases are likewise seemingly high with a projected annual increase of
22 .56 mgd. Using demand increase numbers that are more in line with
23 historic trends, the necessity for a major new capital project is even more

1 questionable.

2 **What is the source of the demand numbers that you used?**

3 I used those in the Kentucky-American submittal.

4 **Have you developed a graph depicting the daily demand projections?**

5 Yes, and it is attached to my testimony.

6 **Do you have any additional information concerning alternatives for**
7 **water supply for Kentucky-American?**

8 Yes. It is apparent that, in the near term, the combination of more
9 attention to leak detection, implementation of more aggressive
10 conservation measures, and the availability of water from Versailles
11 might be able to meet realistic anticipated increases in demand. The
12 installation of crest gates atop the new Dam 9 will provide almost an
13 additional billion gallons of raw water supply, according to the letter from
14 KRA's Executive Director to Sen. Carroll. For longer terms needs, there
15 are at least two options that are under development and will increase
16 available supply without the need for a new treatment plant and pipeline to
17 Pool 3. Louisville Water Company has recently announced plans to extend
18 water supply to Frankfort in a regional effort involving utilities in Shelby
19 and Franklin County, and the extension of treated water capacity from the
20 Ohio River to Frankfort by 2010 will further reduce the costs of that option
21 for satisfying any longer-term demand. Additionally, I am told that the
22 Kentucky River Authority Budget for the next biennium includes
23 installation of a cut-off wall with a transfer valve in the lock structure in

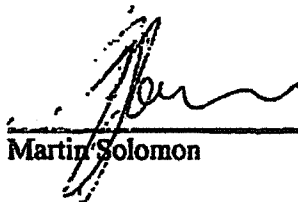
1 order to enable water transfers during drought and to safeguard the
2 current structure. In conclusion, the water “need” projected by Kentucky-
3 American seems much higher than existing demand trends would suggest,
4 and realistic near term demand might well be met through a combination
5 of reduction in line losses, implementation of conservation measures,
6 utilization of available treated water from the City of Versailles if needed,
7 and through installation of crest gates on Dam 9.

8 On the other hand, after studying the four reports alluded to earlier, all
9 four point to the fact that the Louisville Water Company proposal is more
10 cost efficient than the Kentucky American project. There is controversy
11 over the O-Brien and Gere Report because, after the study was published
12 declaring the Louisville Water Company proposal the lowest cost proposal,
13 O’Brien and Gere disqualified the Louisville proposal, not on the basis of
14 cost, but on the basis of water guarantee. The bid specifications required a
15 45 mgd guarantee from Day 1, which seems quite inappropriate and
16 unnecessarily costly. Thus, if either of the two proposals were to be
17 implemented soon, the Louisville Water Proposal appears to be the lower
18 cost option for ratepayers. This conclusion was also reached in the Gannett-
19 Fleming Report and the Beck Study and by Scott Rubin, who testified that
20 if anticipated annual increases in water demand were under 500,000 gallons
21 per day per year, then the LWC plan was the least costly. Since historical
22 increases appear to be only 140,000 gallons per year, Mr. Rubin’s testimony
23 would appear to be that the LWC plan is the less costly.

1 Does this conclude your testimony?


2 Yes, it does.

AFFIDAVIT



Marty Solomon

Subscribed and sworn to before me, a notary public in the Commonwealth of Kentucky, by Marty Solomon, this 11th day of February, 2008.



Notary Public

My commission expires June 22, 2009

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Direct Testimony of Marty Solomon was served by first-class mail upon the following individuals, and on KAWC's Counsel and Commission Staff electronically, this 11th day of February, 2008:

Hon. A.W. Turner Jr.
Kentucky-American Water Company
2300 Richmond Road
Lexington, KY 40502

Hon. Lindsey Ingram Jr.
Hon. Lindsey Ingram III
Stoll Keenon Ogden PLLC
300 West Vine Street Suite 2100
Lexington, Kentucky 40507

Hon. David E. Spenard
Assistant Attorney General
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601

Hon. David J. Barberie
Lexington-Fayette Urban County Government
Department of Law
200 East Main Street
Lexington, Kentucky 40507

Hon. David Boehm
Boehm, Kurtz and Lowry
36 East Seventh Street, Suite 2110
Cincinnati OH 45202

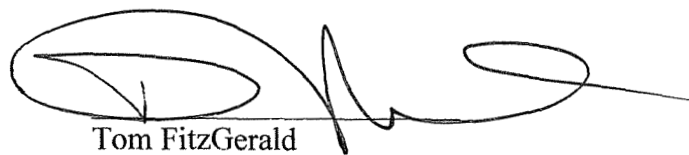
Beth O'Donnell, Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

Hon. Damon R. Talley
P.O. Box 150
Hodgenville, Kentucky 42748

Hon. Jerry Wuetcher
Public Service Commission
211 Sower Boulevard

Frankfort, Kentucky 40601

Stephen Reeder, Director
Kentucky River Authority
70 Wilkinson Boulevard
Frankfort, Kentucky 40601

A handwritten signature in black ink, appearing to read "Tom Fitzgerald". The signature is stylized with a large, loopy initial "T" and a long, sweeping horizontal stroke at the end.

Tom FitzGerald

RÉSUMÉ OF MARTIN B. SOLOMON

<i>Home Address</i>	3913 Rock Ledge Lane Lexington, Ky 40513 859-224-0946
<i>Education</i>	Ph.D. in Quantitative Economics, University of Kentucky MBA University of Kentucky B.S. in Commerce, University of Kentucky
<i>Background</i>	<p>I have been responsible, at several different universities, for the management of large and complex computing and communications systems. These have included every aspect of operational and long-range planning for academic and administrative computing, networking and telephone operations. The diversity of the organizations has involved virtually every level of computing and communications from microcomputing to midrange, mainframe and supercomputing, as well as statewide telephone and computer networking organizations..</p> <p>I have taught statistics, operations research and computer science courses at several different universities.</p> <p>I have also been active in national professional activities, academics and instructional programs and have engaged in consulting activities with other higher educational, business and governmental organizations.</p> <p>National activities have included serving on boards of academic journals and The Corporation for Research and Educational Networking. Academic involvement has included teaching duties at The University of Kentucky and at The University of South Carolina, as well as publishing a variety of papers and books. In addition, I have served various colleges and universities, corporations and The United Nations in a variety of consulting roles.</p>
<i>Employment</i>	1995-1997 Special Assistant to the President for Information Technology, University of Utah
<i>History</i>	1988-1993: Vice Provost for Computing & Communications, University of South Carolina 1988-1993 Professor of Computer Science, University of South Carolina 1982-1988: Director, Academic Computing, The Ohio State University 1982-1988 Professor of Computer Science, Ohio State University 1961-1982 Associate Professor of Business and Economics, Univ of Kentucky 1967-1982: Director, University of Kentucky Computing Center 1964-1967: Assistant Director, University of Kentucky Computing Center 1962-1964: Manager, Operations and Systems, University of Kentucky Computing Center

<i>Monographs</i>	Investment Decisions in Small Business (Lexington, University of Kentucky Press, 1963)
<i>Published</i>	Annotated Bibliography of Films in Automation, Data Processing and Computer Science (Lexington: University of Kentucky Press, 1967), Co-author with N.G. Lovan
<i>Chapters in Books</i>	Chapter in Management: Cases and Concepts by J.L. Massie and W.W. Haynes, Prentice-Hall
<i>Books Published</i>	Chapter in Essentials of Management by J.L. Massie, Prentice-Hall Structured PL/ZERO Plus PL/ONE (Englewood Cliffs: Prentice-Hall, 1988), Co-author with Michael Kennedy Planning for Local Area Networks (Cincinnati, Ohio: South-Western Publishing Co., 1987), Co-authored print material and videotape Ten Instruction PASCAL (Englewood Cliffs: Prentice-Hall, 1982), Co-author with Michael Kennedy Ten Statement Fortran Plus Fortran IV (Englewood Cliffs: Prentice-Hall, 1975), Co-author with Michael Kennedy Eight Statement PL/ZERO Plus PL/ONE (Englewood Cliffs: Prentice-Hall, 1972), Co-author with Michael Kennedy
<i>Articles Published</i>	"A New Paradigm for Higher Education," <i>International Journal of Instructional Media</i> , Volume 22, Number 1, 1995, pp. 5-8 "The Hidden Costs of Client/Server," <i>Cause/Effect</i> , Spring 1994, pp. 47-51. "Why Multimedia Doesn't Work in Higher Education," <i>T.H.E. Journal</i> , February 1994, pp. 81-83 "The Economics of Centralized File Servers," <i>Educom Review</i> , January/February 1994, pp. 36-41 "Thoughts on the New S.A.T.: It's the Way Out of Our Multiple Choice Mentality," <i>Education Week</i> , January 30, 1991, pp. 32,34 "E-Mail: A Primer for Academics," <i>T.H.E Journal</i> , August 1990, pp. 64-65 "So You Want To Buy A Local Area Network," <i>The Edutech Report</i> , December 1989, pp. 4-5 (reprinted in ACUTA News, March-April 1990)

"Planning a Statewide Computing Infrastructure," *T.H.E. Journal*, June 1989, pp. 57-61

"Microcomputer Site Licensing: Concepts and Problems," *T.H.E. Journal*, October 1988, pp. 85-88 (Reprinted in *The Edutech Report*, May 1989, pp. 1, 4-5)

"Sharing Computer Resources in Kentucky," *Statewide Computing Systems* (New York: Marcel Dekker, Inc., 1974) pp. 76-79

"Investment Decision-Making in Small Business," *The National Public Accountant*., September 1973, pp. 30-32

"Some Computer Economics in Education," *Education Technology*, May 1971, pp. 47-50

"Economies of Scale and Personnel in Computing," *Datamation*, March 1970, pp. 107-110

Articles Published

"Are Small Free Standing Computers Really Here to Stay?" *Datamation*, July 1966, pp. 66-71

"Economies of Scale and the IBM System/360," *Communications of the ACM*, June 1966, pp. 435-440

"A Simulation of Hospital Admission Policy," *Communications of the ACM*, May 1966, pp. 362-63, Coauthor with W.G. Smith

"The Effects of Uncertainty on Investment Decisions," *Management Science* , April 1966, pp. 334-339

"Search Function in the Capital Budgeting Decision," *Iowa Business Digest*., October 1964, pp. 3-19

"A Misplaced Emphasis in Capital Budgeting," *The Quarterly Review of Economics and Business*, February 1962, pp. 39-46, Coauthor with W.W. Haynes

The Combined Computer and Data Processing Center, 16th Annual College and University Machine Records Conference, Dallas, Texas, May 3-5, 1971

*Professional
Activities*

Contributing Editor, *Technological Horizons in Education*, 1991-

Consulting Editor, *Journal of Education for Business*, 1990-

Member, Board of Advisors, *Chief Information Officer Journal*, 1988-present

Editorial Advisor, *International Journal of Instructional Media*, 1982-present

Member, Board of Trustees, Corporation for Research & Educational Networking (BITNET) 1989-

Member, Transition Team for Merger of BITNET & CSNET, 1988-89

Coordinator, National Teleconference on Local Area Networks, Produced from Columbus, Ohio, October 15, 1987.
 Member, Board of Trustees, BITNET, 1982-1989
 Treasurer, BITNET, 1987-1989
 Member, AT&T University Customer Council, 1984-1986
 Member, Ohio Board of Regents Computer Task Force, 1983-84
 Board of Directors, CAUSE, 1981-85
 Program Chairman, CAUSE, 1982 and Vice Program Chair 1981
 Board of Directors, CUMREC, 1975-78
 Treasurer, SHARE, 1970-72
 Member, Board of Directors, SHARE, 1969-70
 Member, Higher Education Information Systems Committee, Southern Regional Education Board, 1968-71
 Editorial Advisor, Journal of Economic Studies, Glasgow, 1969-70
 Visiting Scientist, ACM and National Science Foundation, 1969-70

*Past
Consulting
Activities*

Consultant, University of Alabama
 Consultant, Virginia System of Higher Education
 Consultant, Upjohn Company
 Consultant, State of Kentucky
 Consultant, University of Florida
 Consultant, Parker Seal Company

*Consulting
Activities*

Consultant, Baldwin-Wallace College
 Consultant, American University
 Consultant, University of North Carolina, Charlotte
 Consultant, IBM Corporation
 Consultant, United Nations -- Hungary
 Consultant, Virginia Polytechnic Institute
 Consultant, California Department of Mental Health
 Consultant, University of Houston
 Consultant, United Nations Educational, Scientific & Cultural Organization (UNESCO)
 Consultant, Cincinnati Technical College
 Consultant, State of Nevada Higher Education
 Consultant, The University of Tennessee
 Consultant, The John D. and Catherine T. MacArthur Foundation
 Consultant, University of South Florida
 Consultant, The University of Utah
 Consultant, University of Florida Office of Development and Alumni Affairs

EXHIBIT 1



801 Corporate Drive
Lexington, KY 40503
Tel 859 / 223-3999
Fax 859 / 223-8917

GRW Engineers, Inc.

Engineering
Architecture
Planning
GIS
Aviation Consultants

Arlington, TX
Cincinnati, OH
Indianapolis, IN
Knoxville, TN
Louisville, KY
Nashville, TN

April 14, 2006

Mr. Bruce Southworth
Utilities Director
City of Versailles
City Hall
196 South Main Street
Versailles, KY 40383

Re: BWSC Emergency Water Supply Study
Versailles Water System
City of Versailles, Kentucky
GRW Project No. 2676-18

Dear Mr. Southworth:

Per your request, we have evaluated the ability of City of Versailles's water systems to provide emergency water to the Bluegrass Water Supply Commission (BWSC) at the existing Kentucky American Water Company connection on Huntertown Road.

We utilized Bentley's WaterCAD V 7.0 modeling software to model the existing system and the proposed BWSC water demand. Three (3) different flow rate scenarios were considered in this study. 2mgd, 3mgd and 5mgd. These rates were assumed to be constant rates over a 24-hour period. i.e. $2\text{mgd} / (24 \text{ hrs/day} * 60 \text{ hrs/min}) = 1,388 \text{ gpm}$ or $\sim 1,400 \text{ gpm}$. It was also assumed in this analysis that the water system improvements currently under construction had been completed and the system is operating as designed.

As you know, the current improvements will create a new pressure zone in the southeast portion of the Versailles service area. This will include constructing a new 2,000 gpm booster pump station and a new 1 million gallon tank. The booster station was designed per the Recommended Standard for Water Works, with one 2,000 gpm primary pump, a second standby pump and provisions for a third future pump. The hydraulic grade line for this zone (tank overflow elevation) will be 1,110 feet. It is my understanding that KAWC's hydraulic grade line at the connection point is slightly higher at 1,132 feet. This difference in hydraulic grade will have to be overcome to allow Versailles to supply the requested water. This report is based on providing the requested demands at the metering point and does not address exactly how KAWC (or the BWSC) would achieve this additional pressure boost. We would assume that KAWC would reduce the HGL down to match Versailles, if possible, or a booster pump/station would be installed near the KAWC connection point.



Mr. Bruce Southworth
Page 2
April 14, 2006

2 MGD SCENARIO

To begin this evaluation, we modeled the 2 mgd (1,400 gpm) water demand with the booster pump station as it is currently being constructed, that is with one worker pump operating. This resulted in excessive run times, approximately 20 hrs/day, for the new booster station. This result is easily seen by comparing the total system demand versus the booster station pump discharge rate: the Versailles current peak demand (675 gpm) plus the proposed BWSC (1,400 gpm) equals 2,075 gpm compared to the 2,000 gpm pumping rate.

The next step in the analysis was to add the third pump to the booster station, which is currently under construction. This would allow the City to run two (2) pumps with one standby pump. This, at the current Versailles water demand for the new pressure zone, would allow the pump station to operate at an acceptable 14 hrs/day. The system maintained adequate pressures (min. pressure - 52 psi at Node J-411) while meeting the additional 2mgd water demand. Turnover in the new tank was rapid, but acceptable.

This scenario indicated that two short sections of 16-inch diameter water main would have high line velocities, in the 5 to 6 ft/sec range. If the BWSC and Versailles are planning to utilize the KAWC's connection point as a continuous purchase point, then the City may require that new parallel mains to be installed to reduce these velocities and associated friction losses.

The estimated construction cost for this scenario is as follows.

Pump Station 3 rd Pump & Controls	\$ 71,350.00
1,750 LF of 16" Water @ \$50/ft (optional)	<u>\$ 87,500.00</u>
Total Construction Cost (2mgd)	\$158,850.00

Fire flows were also modeled for a 2 hour, 775 gpm fire in Sycamore Estates with and without the additional BWSC water demand. The 2 mgd demand resulted only in an additional pressure drop of approximately 8 psi in the Sycamore area; however, the system pressure stayed within an acceptable range.

3 MGD SCENARIO

The 3 mgd demand was modeled with the assumptions described above and with the third booster pump described in the 2 mgd scenario being installed in the booster station that is currently under construction. The estimated run time for the booster station, at the current Versailles demand plus the additional 3 mgd to the BWSC, is 17 hr/day. The system also was able to maintain the required pressures of 30 psi (44.5 psi at Node J-411).



Mr. Bruce Southworth

Page 3

April 14, 2006

Also, the velocities in the above mentioned mains increased to the 5 to 7 ft/sec. range. As stated above, these velocities will need to be addressed if the 3 mgd purchased by BWSC is intended to be a "normal" operating situation.

A 775 gpm fire flows scenario resulted in pressures very near the minimum required pressures for Sycamore Estates. During this time, the pressure within Sycamore fell to approximately 17 psi. To avoid this pressure drop, several thousand feet of water main would need to be added to Sycamore. A more cost-effective solution would be to simply limit the amount of water available to the KAWC meter in the event of a fire.

Along these same lines, if the City elects to pursue this alternative, consideration should be given to the expected growth in the new pressure zone and the potential need to reduce the amount of water available to KAWC/BWSC as this growth occurs.

5 MGD SCENARIO

The same modeling assumptions as stated above for the 3 mgd scenario were modeled with the 5 mgd demand. The booster pumping station, as it is currently being constructed (including the third pump), was unable to supply sufficient water to meet the City's needs and the desired 5 mgd BWSC demand.

In an attempt to satisfy the 5 mgd demand, we ran another scenario utilizing larger pumps in the booster pump station. This proposed adjustment satisfied the desired demands for the new pressure zone, however, it also highlighted a larger issue with trying to meet the requested water demand. The Versailles Water Treatment Plant is only rated for 10 mgd. The City's Water Plant currently operates in the 4 to 5 million gallons per day range. If an additional 5 mgd in demand were given to the BWSC, the plant would be operating at capacity, leaving no room for expansion within Versailles or even daily maintenance at the Water Plant. Additional concerns with this would be meeting the required one day storage volume for the distribution system.

Given the above, the City of Versailles should strongly consider the many improvements that would be needed to the system and the extensive associated costs before agreeing to a 5 mgd rate.

Without fully knowing the details of the potential agreement between the City of Versailles and the Bluegrass Water Supply Commission and the intended demand patterns, it is difficult to make a firm recommendation. However, it would appear that the City of Versailles could provide temporary emergency water at the KAWC connection at a rate of 2 to 3 million gallons per day without negatively impacting their operation if the above discussed improvements are implemented. It would further appear that a 5 mgd purchase by BWSC would be impractical with the limiting factor being the capacity of the Versailles Water Treatment Plant.



Mr. Bruce Southworth

Page 4

April 14, 2006

Should you have any questions or comments, feel free to contact Brad Montgomery or me at the above phone number.

Very truly yours,



Michael Jacobs, P.E.
Project Engineer

EXHIBIT 2



COMMONWEALTH OF KENTUCKY

STEVEN L. BESHEAR
Governor

KENTUCKY RIVER AUTHORITY
70 WILKINSON BOULEVARD
FRANKFORT, KENTUCKY 40601
OFFICE (502) 564-2866
FAX (502) 564-2681
KRA.kv.gov

STEPHEN REEDER
Executive Director

ROBERT W. WARE
Chairman

February 8, 2008

Senator Julian M. Carroll
State Senator
RM 229 Capital Annex
Frankfort, Kentucky 40601

Dear Senator Carroll:

This is in response to your letter of February 7, 2008, regarding questions related to Kentucky River Dam 9. My response will be in the order presented in your letter.

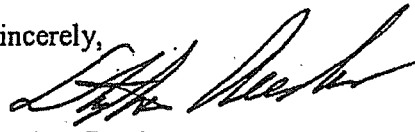
- A crest gate for Dam 9 is currently in the KRA's Capital Plan for the 2010-2012 Biennium.
- The primary steps that need to be completed in order to add crest gates to Dam 9 are:
 - Apply for and receive the environmental permits necessary for the project through the U.S. Army Corps of Engineers and the Kentucky Division of Water. An extensive baseline study has already been done that addresses the existing environmental, cultural and historical conditions that could be affected by this project. However, this study did not include what the impacts of raising the pool level with crest gates would be. That would come during the permitting process.
 - Final Design of the crest gates still needs to be completed.
 - We do not anticipate that there will be any real estate or easements that need to be purchased for this project. The U.S. Army Corps of Engineers, while designing a similar set of crest gates for Dam 10, found that all impacts would be below the ordinary high water mark.



- The cost including engineering services, mitigation and construction is estimated at \$6.5 million.
- A crest gate for Dam 9 is currently in the Capital Plan for the 2010-2012 Biennium. Since the other projects in the 2006 authorization will lack sufficient funding due to the previous veto, there are no funds to construct the crest gate until 2010 Biennium. We should have sufficient funding and authority under the proposed budget to complete the replacement of Dam 3 and possibly either Lock 3 (Monterey) or Lock 4 (Frankfort). The Dam 3 construction project will be bid with the Locks being alternates with the award going to the least expensive combination. If the \$17.5 million is restored it will be used to complete the projects originally authorized and we intend to advance the crest gate to a construction letting assuming requirements for permitting are satisfied. We will scope and design the crest gate to the extent possible with funds from the original authorization. The language in the current budget proposal is broad enough to encompass the cost of the crest gate since the restored item of \$17.5 million would go into the Lock and Dams Maintenance and Renovation-Pool.
- Enactment of a budget containing the \$17.5 million would greatly accelerate the crest gate project at Dam 9.
- At the earliest, the crest gate construction at Dam 9 would begin in 2009 and completion would be in mid or late 2010. The timeframe to install the crest gates depends mostly on the permitting process, which could take up to a year to complete. Although the primary permits come from the U.S. Army Corps of Engineers and the Kentucky Division of Water, numerous agencies such as Kentucky Fish and Wildlife, U.S. Fish and Wildlife, State Historic Preservation Office, among others, must all review and comment on the project.
- A four-foot crest gate would add approximately 0.9 billion gallons of water in Pool 9. To put this in perspective, during the drought of 2007, Kentucky American Water Company was pumping around 45 million gallons per day from the Kentucky River for much of the drought. 0.9 billion gallons would equal about twenty days of pumping at that rate.

I hope this adequately answers your questions. If you need further information please contact me.

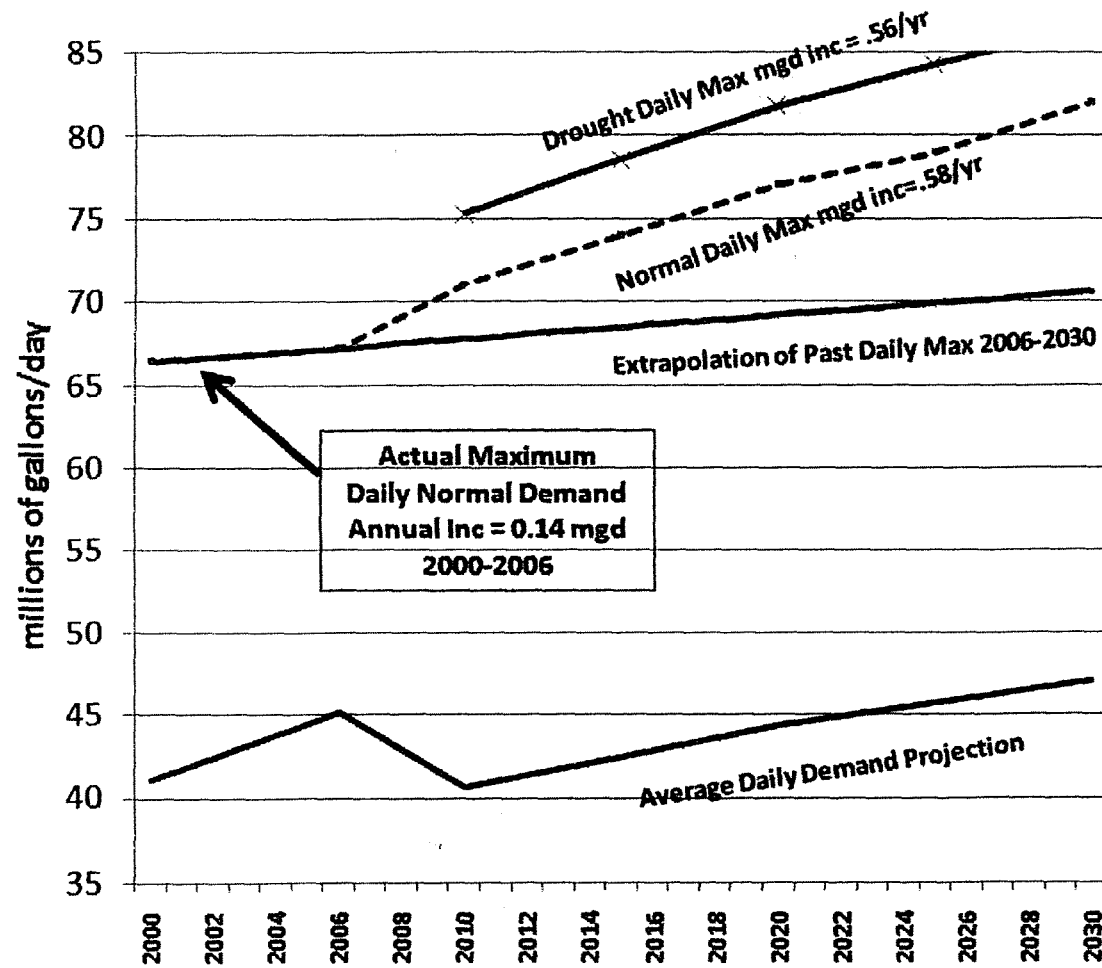
Sincerely,



Stephen Reeder
Executive Director

EXHIBIT 3

DAILY DEMAND PROJECTIONS BY KENTUCKY-AMERICAN WATER



Source: Kentucky-American Water Co. submission to Public Service Commission

EXHIBIT 4

2008-2010 EXECUTIVE BUDGET

VOLUME II

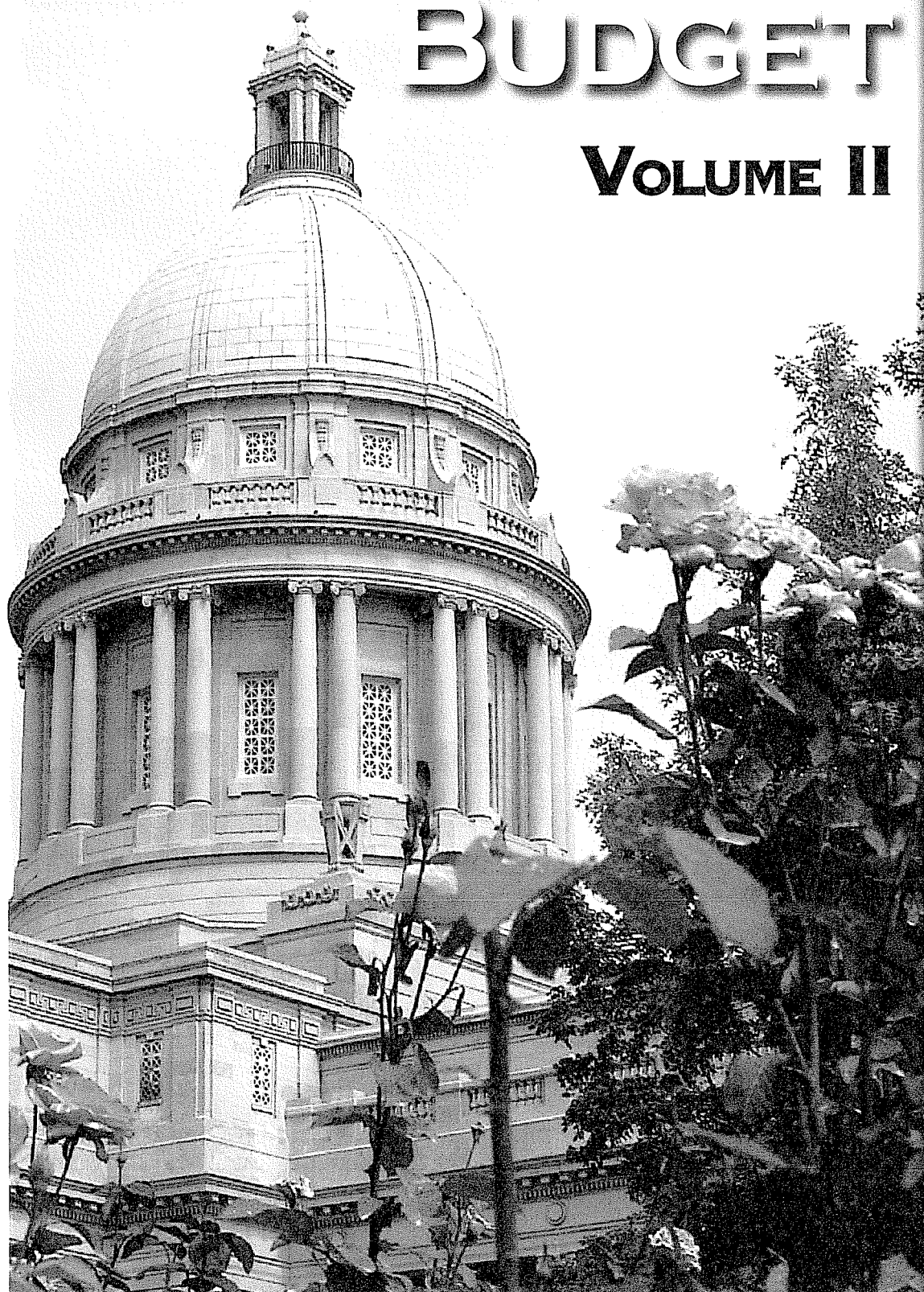


**STEVEN L.
BESHEAR**

GOVERNOR,
COMMONWEALTH
OF KENTUCKY

**MARY E.
LASSITER**

STATE
BUDGET
DIRECTOR



Kentucky
UNBRIDLED SPIRIT

Kentucky River Authority**Ky River Locks & Dams Maintenance & Renov Pool****17,500,000**

This pool is for reconstruction of Dam 3 located near Monterey in Owen County and modifications to Locks 1 through 4. Due to deterioration of lock walls, cut-off walls will be constructed in the lock chambers of Locks 1 and 2. Locks 3 and 4 are undergoing renovation simultaneously to achieve economies in design and construction. Dam 3 will be renovated due to the fact that the offsetting pressure of the water created in Dam 3 helps to stabilize the next upstream dam (Dam 4). A loss of Dam 3 would cause the water level to drop by 13 feet below Dam 4 and thus jeopardize the water supply for Frankfort. In addition, Dam 10 is in the preliminary design state for interim stabilization of the lock and installation of a transfer valve. The bond funds in this pool can be utilized to match a federal appropriation to enter the construction phase for the Dam 10.

Bond Funds

17,500,000

Dam 10 Design & Interim Stabilization - Add'l**625,000****250,000**

The renovation of Dam 10 is a federal Corps of Engineers project authorized for \$24 million dollars, \$19.2 of this being federal funds. Federal appropriations have not been made as originally anticipated and thus construction has been delayed. To safeguard the current structure and enable water transfers during drought we propose installation of a cut-off wall with a transfer valve in the lock structure, as a direct state project costing \$500,000. The funding requested also includes the required state share of design costs (25% of Federal Appropriations) to complete final design in the next biennium. The project will eventually increase the height of Dam 10 by 6 feet, adding approximately 1.7 billion gallons of new water storage.

Restricted Funds

625,000

250,000

Kentucky River Authority Summary**18,125,000****250,000****Restricted Funds****625,000****250,000****Bond Funds****17,500,000**