

**KENTUCKY-AMERICAN WATER COMPANY**

**Case No. 2001-117**

**RESPONSES TO PUBLIC SERVICE COMMISSION  
ORDER DATED MAY 15, 2001**

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**Witness Responsible: Linda C. Bridwell**

1. Provide all correspondence between Kentucky-American and the Kentucky River Authority since August 21, 1997 in which improvements to locks and dams along the Kentucky River or any other issues related to Kentucky-American's withdrawal of water from the Kentucky River are discussed.

**RESPONSE:**

The correspondence is attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

2. Provide all correspondence between Kentucky-American and the Lexington-Fayette Urban County Government since August 21, 1997 regarding Kentucky-American's water supply.

**RESPONSE:**

The correspondence is attached in non-electronic format.

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3. At page 6 of its Report to Kentucky Public Service Commission: Source of Supply and Treatment Status, Kentucky-American states that it "re-assessed whether significant progress had been made in implementing a Kentucky River supply augmentation during the four years of the ongoing investigation."

- a. Describe this re-assessment process.
- b. Provide all documents, including correspondence, internal memoranda, and electronic mail messages that were reviewed or created as a result of this re-assessment process.

**RESPONSE:**

a. The re-assessment process involved primarily Gary Naumick and Linda Bridwell determining what progress had been made during the four years by each of the responsible entities. This was the continuation of an ongoing process. Linda had attended nearly all of the Kentucky River Authority meetings to monitor its progress. Since the initiation of Case 93-434, the KRA had successfully implemented its withdrawal fees after significant legal challenges. The KRA was also able to transfer the ownership of Dam 10 from the Corps to the Commonwealth of Kentucky. However, all other dams were then and still are owned by the Corps. The KRA had retained a staff of four and had implemented other programs to improve water quality in the Kentucky River Basin. The KRA had also taken over the operation of Dams 5-14 from the Department of Natural Resources. In 1997, the KRA did not have a strategic plan for ownership or stabilization of the dams, nor enhancements to increase water supply. The condition of the foundations and cores of the 100-year old dams was unknown. There was no accurate data to confirm the condition of the dams, the extent of deterioration, the environmental impact of any potential enhancements. The KRA did not have funding for the construction of enhancements. With Gary's concurrence, Linda was responsible for calling to the attention of senior management the lack of significant progress on the Kentucky River. This happened over a series of conversations in early September and October of 1997. The decision was made to proceed with developing a Request for Proposals from consultants for purchasing treated water from the Louisville Water Company.

- b. The correspondence is attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

4. State the name and position of each person employed by Kentucky-American or American Water Company or an affiliate of American Water Company who participated in Kentucky-American's decision to abandon the pipeline solution to the sources of supply deficit and to adopt the Kentucky River solution.

**RESPONSE:**

The people involved in the decision to acquiesce to the resolution of the LFUCG because the public focus and stakeholder cooperation attendant to the government's process would accelerate the implementation of a solution were:

Roy W. Mundy – President – Kentucky-American Water Company  
Nick O. Rowe – Vice President of Operations – Kentucky-American Water Company  
Linda C. Bridwell – Director of Engineering – Kentucky-American Water Company  
Coleman D. Bush - Vice President and Treasurer  
Herbert A. Miller – Vice President and Corporate Counsel

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**Witness Responsible:**

5. Identify the persons who served upon the Fayette County Water Supply Council from January 1998 through December 1999.

**RESPONSE:**

Members of the Fayette County Water Supply Planning Council between January 1998 and December 1999 were:

Gloria Martin – LFUCG Council Member  
Al Mitchell – LFUCG Council Member  
Sandy Shafer – LFUCG Council Member  
James R. Rebman, Chairperson – LFUCG Division of Planning  
Linda Bridwell, PE – Director of Engineering, Kentucky-American Water Company  
Darryl Bennett, PE – LFUCG Division of Engineering  
Martin Lowry – Spears Water Company  
Ned Sheehy – Greater Lexington Chamber of Commerce  
Cherie Kiesler, PE – LFUCG Division of Streets and Roads  
Steve Bowers – LFUCG Division of Fire  
Dr. Don Slagel  
Ed Gardner – LFUCG Department of Law  
Bill Grier  
Holly Coleman – Lexington-Fayette County Health Department  
Dr. John Kiefer – Kentucky Geological Survey  
Chetan Talwalker

Steve Bowers replaced John Hoagland from the LFUCG Fire Department at the conclusion of Phase I of the Council.

Holly Coleman retired from the Health Department in July 1999 and was replaced by Larry Delph.

Martin Lowry indicated verbally that Spears Water Company believed they were adequately represented by their supplier, Kentucky-American Water Company and did not attend the meetings or participate in the final document.

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**Witness Responsible:**

6. Provide the plan that the Fayette County Water Supply Planning Council adopted in July 1999 regarding the water supply deficit.

**RESPONSE:**

It is Kentucky-American's understanding that a copy of this plan is being provided by the Lexington-Fayette Urban County Government.

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**Witness Responsible: Linda C. Bridwell**

7. Identify each person who served upon the LFUCG Technical Advisory Group and the group that he or she represented.

**RESPONSE:**

Mr. Jim Rebmann – Chairman of Fayette County Water Supply  
Planning Council, LFUCG  
Ms. Linda Bridwell – Director of Engineering – Kentucky-American Water Company  
Mr. David Spenard – Kentucky Attorney General's Office  
Dr. John Kiefer – Kentucky Geological Survey  
Mr. Jack Wilson – Director – Division of Water  
Mr. David Morgan – Division of Water  
Mr. Leon Smother – Division of Water  
Mr. Steve Reeder – Executive Director – Kentucky River Authority  
Dr. Bob Volk, Director – Kentucky Water Resources Research Institute  
Dr. Lindell Ormsbee, Associate Director – Kentucky Water Resources Research Institute  
Dr. Jim Kipp, Associate Director – Kentucky Water Resources Research Institute  
Mr. David Cooper, President – Neighbors Opposing Pipeline Extravagance  
Dr. Glen Blomquist – University Of Kentucky School of Economics  
Mr. Bob Biehl – U. S. Army Corps of Engineers  
Mr. Harry Rollins, District Chief – United States Geological Survey  
Mr. Bob Arnold – Commissioner – KY Department of Local Government  
Mr. Laurence Weatherby – Kentucky Department of Local Government  
– Water Resources Development Commission  
Mr. Don Hassall – Bluegrass Area Development District  
Mr. Bob Douglass – Greater Lexington Chamber of Commerce  
Mr. Ned Sheehy – Greater Lexington Chamber of Commerce  
Mr. Bob Wiseman – LFUCG Mayor's Office  
Mr. Paul Schoninger – LFUCG Council Office

A number of other people participated in the meetings, including individual council members, representatives of the Sierra Club, other members of the Fayette County Water Supply Planning Council, and other interested citizens.

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**Witness Responsible: Linda C. Bridwell**

8. Provide the minutes of each meeting of the Technical Advisory Group of the LFUCG Council on the water supply problem.

**RESPONSE:**

Kentucky-American Water Company does not have the minutes. Attached are copies in non-electronic format of the presentations made by the KWRRRI at the meetings and handouts from the meetings.



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**Witness Responsible: Linda C. Bridwell**

9. Provide all reports that the Technical Advisory Group of the LFUCG Council presented to the LFUCG Council on the water supply problem.

**RESPONSE:**

Kentucky-American Water Company does not have the reports. Attached in non-electronic format are copies of the presentations made by the KWRRI to the LFUCG Council regarding the Technical Advisory Group discussions.

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**Witness Responsible: Linda C. Bridwell**

10. Provide a transcript of Steve Reeder's presentation to the LFUCG Council on November 22, 1999.

**RESPONSE:**

Kentucky-American Water Company does not have a transcript of the presentation. It is Kentucky-American's understanding that the LFUCG is providing meeting minutes of the presentation.

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**Witness Responsible: Linda C. Bridwell**

11. Provide a transcript of the Kentucky Water Resources Research Institute's ("KWRRI") presentation to the LFUCG Council on December 6, 1999.

**RESPONSE:**

Kentucky-American Water Company does not have a transcript but copies of the slides used in the presentation are attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

12. Provide a copy of the progress report that was submitted to LFUCG as required by Recommendation 2h of the LFUCG Resolution No. 679-99.

**RESPONSE:**

Attached in non-electronic format is a copy of the letter from the Bluegrass Area Development District regarding the Consortium progress.

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**Witness Responsible: Linda C. Bridwell**

13. Provide all correspondence between Kentucky-American and the Division of Water ("DOW") since 1997 concerning Kentucky-American's withdrawal permit.

**RESPONSE:**

The correspondence is attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

14. a. List the date of each meeting since August 21, 1997 held between Kentucky-American and the DOW concerning Kentucky-American's withdrawal permit.

b. For each meeting listed, provide the minutes of the meeting and notes of Kentucky-American's representatives of such meeting.

**RESPONSE:**

a. August 17, 1999 – Nick Rowe (KAWC) and Linda Bridwell (KAWC) met with Leon Smothers (DOW) to discuss temporary variance and potential permanent changes to the withdrawal permit prior to a presentation at the LFUCG Council. No minutes were taken.

May 25, 2000 – Linda Bridwell met with Leon Smothers to discuss differences in permits among withdrawers along the river. No minutes were taken.

May 31, 2001 – Nick Rowe, Linda Bridwell, Derek Churchill (KAWC), and Gary Naumick (American Water Works Service Company) met with Leon Smothers, Sherry Pryor (DOW) and Ed Neal (DOW) to discuss the conditions surrounding a possible second intake on the Kentucky River in a downstream pool.

b. Please see the attached notes about the 5/31/2001 meeting in non-electronic format. No other minutes or notes were taken.

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**Witness Responsible: Linda C. Bridwell**

15. Provide Kentucky-American's current withdrawal permit.

**RESPONSE:**

Please see the attachment in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

16. List and describe each application that Kentucky-American currently has pending before the DOW that involves Kentucky-American's withdrawal permit.

**RESPONSE:**

Currently there are no applications from Kentucky-American Water Company to the DOW that directly involve Kentucky-American's withdrawal permit.

At any given time Kentucky-American will have a handful of projects being reviewed for approval by the DOW for main extensions, main replacements, or treatment facility improvements which will indirectly involve the withdrawal permit. These take about 30 days for review. As of June 5, the current projects being reviewed by the DOW include:

<b>Work Order No.</b>	<b>Project</b>	<b>Date Requested</b>
11301	Devonia Avenue Relocation	04/23/01
10857	Coldstream Station Unit 1-F	04/24/01
11075	Muir Station Road @ Glen Lake Estates	05/23/01
11265	Shell C Store – Cherry Blossom Way	06/05/01
11368	Beaumont Center Unit 8-1	06/05/01
11262	Shepherd Place Apts – Hill Rise Court	06/05/01
10668	Bridle Creek Apts – Phase 2	06/05/01



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**Witness Responsible: Linda C. Bridwell**

17. Provide all correspondence between Kentucky-American and the DOW since January 1, 1995 concerning the operational capabilities of Kentucky-American's existing production facilities.

**RESPONSE:**

The correspondence is attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

18. Provide all studies that KWRRI has performed on the Kentucky River's capacity to supply water and/or needed improvements to the Kentucky River.

**RESPONSE:**

The documents are attached in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

19. Provide a transcript of the Blue Grass Area Development District's presentation to LFUCG on June 27, 2000 on the progress of the Consortium.<sup>1</sup>

**RESPONSE:**

Kentucky-American Water Company does not have the transcript but a copy of the handouts used are attached in non-electronic format.

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<sup>1</sup> The "Consortium" refers to a group of Central Kentucky water suppliers, primarily municipal utilities, that has been discussing water issues. The Blue Grass Area Development District serves as a facilitator for the group. See Report at 22.

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**Witness Responsible: Linda C. Bridwell**

20. a. List the members of the Consortium and state when each joined the group.
- b. State for each member of the Consortium:
- (1) Its current maximum daily demand;
  - (2) Its projected maximum daily demands for years 2005, 2010, 2015 and 2020;
  - (3) Its average daily demand;
  - (4) Its maximum daily water production capacity;
  - (5) Its source(s) of supply;
  - (6) The maximum daily amount of water that it may withdraw from its water sources.

**RESPONSE:**

a. The idea of a Consortium was initially presented by Vernon Azevedo of the Winchester Municipal Utilities to the LFUCG Council on November 29, 1999. At that time Winchester, Frankfort, Nicholasville and Paris were identified as members. After resolution 679-99 was passed by the LFUCG Council, the Bluegrass Area Development District proposed to act as the facilitator for a group of regional utilities that has since evolved into the Bluegrass Water Supply Consortium. This group initially included Winchester, Paris, Nicholasville, Frankfort, Georgetown and Kentucky-American Water Company. After a number of meetings Paris elected to withdraw from ongoing discussions and Versailles asked to participate. Additionally, the LFUCG was asked to send representatives.

- b. Please see attachment in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

21. a. Provide the level of Kentucky-American's actual expenditures for consumer conservation programs for each year during the period from 1995 to 2000.

b. Provide the projected or budgeted level of Kentucky-American's expenditures for consumer conservation programs for each year during the period from 2001 to 2008.

**RESPONSE:**

- a. 1995 - \$29,028.65  
1996 - \$13,663.96  
1997 - \$25,710.44  
1998 - \$295,428.44  
1999 - \$265,080.23  
2000 - \$39,565.67
- b. 2001 - \$146,318.00  
2002-2008 - \$175,000.00 per year

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**Witness Responsible: Linda C. Bridwell**

22. a. Identify and describe each demand-side management program or activity that Kentucky-American was implemented since August 21, 1997. Include in the description of each program the estimated annual and daily reduction upon water consumption that the program has produced.

b. Identify and describe each demand-side management program or activity that Kentucky-American has considered since August 21, 1997.

c. For each program listed in Item 27(b) that was not implemented, explain why.

**RESPONSE:**

a. Please refer to the attached document provided in non-electronic format which is a description of conservation initiatives from 1995-2000. Kentucky-American has not attempted to estimate the annual and daily reduction upon water consumption that each activity has produced. The individual residential usage is going down on average, which is a function of several factors including smaller household size, 1996 plumbing standards, and Kentucky-American's demand-side management efforts including public awareness.

b. The two programs that have been reviewed and not implemented are commercial and residential interior water use audits.

c. Kentucky-American has realized little tangible success from the individual fixture retrofit programs. These fixtures were of good quality and Kentucky-American paid for installation or removal. Based on Kentucky-American's initial review, it is unlikely that more expensive efforts, including outright fixture replacement or rebates can produce enough additional water use reduction to justify the significantly increased cost. Kentucky-American sees the biggest results from the public education efforts to increase awareness about efficient water use, both inside and outside. The pilot programs for fixture retrofit that were implemented resulted in little customer participation, and Kentucky-American believes that the audit programs, or other programs aimed at individual customers will not produce adequate savings, or involve reasonable levels of participation to justify the expense. Kentucky-American has increased customer service efforts to assist with leak detection if requested, and provides the retrofit kits, but has elected to focus on public awareness and education.

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**Witness Responsible: Linda C. Bridwell**

23. a. List the date of each meeting of the Consortium since December 9, 1999.
- b. For each meeting listed, provide the minutes of the meeting and notes of Kentucky-American's representatives for the meeting.

**RESPONSE:**

- a. May 31, 2001  
May 2, 2001  
April 4, 2001  
March 8, 2001  
February 13, 2001  
December 8, 2000  
November 17, 2000 (no minutes available)  
November 10, 2000  
October 5, 2000  
August 31, 2000  
August 21, 2000 – meeting with LFUCG Council reps  
August 14, 2000  
July 26, 2000  
June 29, 2000  
May 23, 2000  
May 3, 2000  
April 14, 2000  
March 24, 2000  
February 18, 2000  
January 26, 2000 – presentation of Bluegrass Area Development District
- b. Please see attached documents which are provided in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

24. a. Aside from discussions held during Consortium meetings, has Kentucky-American discussed the purchase of water or transportation of water with Consortium members or other water utilities?

b. If yes,

(1) Identify each water utility with which Kentucky-American has held such discussions, state the date of each discussion, and describe the nature of these discussions.

(2) Provide the minutes and notes of each discussion.

(3) Provide all correspondence with these water utilities in which the sale of water to or transportation of water for Kentucky-American was discussed.

(4) Provide all internal memoranda, electronic messages or other internal communication forms in which the sale of water to or transportation of water for Kentucky-American by other utilities was discussed.

**RESPONSE:**

a. Yes.

b. (1) Since December, 1999 Kentucky-American has had numerous discussions with Consortium members and other water utilities outside the discussions of the Consortium meetings regarding the purchase from or to, or transportation of water. These include:

Frankfort Electric and Water Plant Board  
Met: February 9, 2001, May 10, 2001  
Discussions regarded the sale of water to KAWC.



Winchester Municipal Water Utilities

Met: January 11, 2000, July 17, 2000, September 21, 2000,  
November 6, 2000 and April 20, 2001

Discussions regarding the sale of water from WMU to the Ford-Hampton area (formerly in the Boonesboro Water Association service area) after the expiration of the October 10, 1981 agreement between WMU and BWA. A new agreement was executed June 1, 2001.

Georgetown Municipal Water and Sewer Service

Met: November 21, 2000, November 28, 2000, and January 30, 2001

Discussed potential of GMWSS selling water into Owen County to Kentucky American. Discussed the potential of additional sales to GMWSS from Frankfort to sell to Kentucky-American or as part of a KAWC project from Frankfort. Discussed potential for additional water from Cincinnati.

Corinth Water District

Met: January 26, 2001

Discussed potential of water sales to Corinth from a US 25 connection.

Harrison County Water Association

Met: Met June 30, 2000

Discussed potential of water sales to HCWA. An agreement was executed and construction of a connection for sales up to 100,000 gpd is underway.

Boone Florence Water Commission

Met: August 24, 2000

Discussed potential of water sales to KAWC via a pipeline through Grant County. Boone-Florence Water Commission will purchase water from Cincinnati Water Works

Jessamine County Water District Number 1

Met: May 24, 2001

Discussed potential of water sales to JCWD No. 1 to serve subdivision at the Jessamine-Fayette County line at the end of Boston Road in Fayette County.

- (2) Please see attached documents provided in non-electronic format.
- (3) Please see attached documents provided in non-electronic format.
- (4) Please see attached documents provided in non-electronic format.

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**Witness Responsible: Linda C. Bridwell**

25. How does Kentucky-American's current water consumption compare to its forecasted consumption as presented in Case No. 93-434?

**RESPONSE:**

Below is a chart comparing the demand forecast as listed in the attachment to the testimony of Linda C. Bridwell in Case No. 93-434 filed February 18, 1994, actual demands, and the Current Forecast as updated annually and listed in the March 21, 2001 report to the PSC. In each year, the actual average day demand exceeded the forecasted demand due primarily to growth greater than originally projected, and less savings from conservation and plumbing code changes than originally projected.

Projected Average Day Demand	93-434 Forecast (MGD)	Actual Demand (MGD)	Current Forecast (MGD)
1994	38.24	40.55	
1995	37.18	40.02	
1996	37.26	42.20	
1997	37.09	41.98	
1998	36.86	42.69	
1999	36.65	39.69	
2000	36.69	41.02	
2005	37.11		42.42
2010	37.56		43.59
2015	38.42		44.21
2020	39.27		45.05

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**Witness Responsible: Linda C. Bridwell**

26. What effect, if any, have recent weather conditions experienced since August 21, 1997 had on Kentucky-American's "Drought Average Day" demand calculation and thus its overall demand calculations?

**RESPONSE:**

In general, the recent weather conditions have had very little impact on the overall demand calculations. The 1999 annual demands were actually about where the projections indicated, but were lower than the previous five years due to the restrictions that summer. The projections use a five-year rolling average to project future per capita demand in order to smooth out the impact of a dry year. The long-term impact has been a reduction in usage by industrial customers that was implemented during the drought, but has not increased back to pre-drought conditions. Many industrial customers expressed concern that this was not the most economic alternative for them, but as long as water supply concerns continued that they would continue to suppress demands.

The actual maximum day demand in 1999 was undoubtedly lower than would have occurred without the prolonged restrictions. This builds in a reduced ratio over the long term.

The "Drought Average Day" demand is based on a twenty-year average of ratio of summer usage to average usage. Again, because of the restrictions, the average in 1999 was actually lower than in previous years. The projection of Drought Average Day demand is reduced by an additional 5% to account for odd/even watering requests that may be expected during a drought. This 5% reduction was agreed to by consensus of the LFUCG Technical Advisory Group for planning purposes, and the Fayette County Water Supply Planning Council.

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**Witness Responsible: Gary A. Naumick/Linda C. Bridwell**

27.     a.     List each potential solution that Kentucky-American investigated prior to selecting the Kentucky River solution as the solution to its source of supply deficit.
- b.     For each alternative listed above, provide a description of the alternative and its estimated cost.
- c.     Show how Kentucky-American rated each alternative.

**RESPONSE:**

- a.     Kentucky-American has been part of the review of over fifty different alternatives since 1989. For identification of different alternatives, please refer to the attachment in non-electronic format.
- b.     Please refer to the attachment in non-electronic format.
- c.     Essentially, Kentucky-American eliminated alternatives that were infeasible or were not the least cost. During that process, Kentucky-American identified the least cost, most feasible solution to be a pipeline to purchase finished water from the Louisville Water Company and went about implementing that solution. The Kentucky River solution had always been the next best solution. Kentucky-American concluded that a Kentucky River solution had significant obstacles for feasible implementation in a reasonable time period. In December 1999, Kentucky-American felt it prudent to acquiesce to the resolution of the LFUCG because it felt the public focus and stakeholder cooperation attendant to the government's process would accelerate the implementation of a solution to the problem. The potential for expensive and lengthy legal battles in the pipeline implementation could reduce the cost and feasibility advantage of the pipeline as a solution. The decision to acquiesce to the resolution of the LFUCG did not require a review of previous alternatives explored; however, Kentucky-American has remained open to any viable new alternatives that may be available and do not require an inordinate amount of additional feasibility review that may delay the overall process.

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**Witness Responsible: Linda C. Bridwell**

28. Provide Kentucky-American's present demand forecast for each year from 2001 through 2020.

**RESPONSE:**

Year	Maximum Day Demand (MGD)	Average Day Demand (MGD)
2001	75.94	42.56
2002	76.58	42.31
2003	76.97	42.27
2004	76.93	42.07
2005	77.75	42.42
2006	78.51	42.74
2007	79.14	42.99
2008	79.75	43.22
2009	80.33	43.44
2010	80.77	43.59
2011	81.08	43.71
2012	81.39	43.83
2013	81.70	43.95
2014	82.01	44.07
2015	82.33	44.21
2016	82.60	44.38
2017	82.87	44.55
2018	83.14	44.72
2019	83.41	44.89
2020	83.66	45.05

The maximum day demand is a projection based on hot, dry scenario that uses a 95% exceedance factor. This number is used for planning purposes and is not a projected maximum day demand for normal weather conditions. The average day demand projection is for normal weather conditions.

The projections for 2005, 2010, 2015, and 2020 were based on the population projections for those years. From 2001 through 2010, the population projections were interpolated by year and individual demand projections were made. For 2011-2014 and 2016-2019, the demand projections themselves were interpolated.

These projections were updated in January 2001 to include actual 2000 demands. They have not been updated to include the 2000 Census data and no updated population forecasts have been issued by the KY State Data Center since the results of the 2000 Census were published in March 2001.

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**Witness Responsible: Linda C. Bridwell**

29. What effect, if any, would the completion of the proposed improvements to Dam 10 have on the level of water that Kentucky-American can safely obtain from the Kentucky River?

**RESPONSE:**

Currently, any effect is unknown. The scope of the improvements to Dam 10 will not be finalized until the U. S. Army Corps of Engineers can complete its Environmental Impact Statement and decision document. This will take about two years. Mr. Leon Smothers of the Division of Water confirmed in a May 22, 2001 session with the LFUCG Council that any additional water supplies will be allocated to all downstream users based on the extent of their demands, allowing for environmental protection and public use. How the additional water supply allocation will specifically impact KAWC has not been determined yet.

**KENTUCKY-AMERICAN WATER COMPANY**

**Case No. 2001-117**

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ORDER DATED MAY 15, 2001**

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**Witness Responsible: Linda C. Bridwell**

30. a. Provide the conservation and demand management plan that Kentucky-American was required to develop by Recommendation 2h of LFUCG Resolution No. 679-99.
- b. Provide all correspondence between Kentucky-American and DOW concerning this plan.
- c. State when the plan was submitted to the Commission for approval.

**RESPONSE:**

- a. Kentucky-American is currently working to revise its demand management plan which includes a conservation program and water shortage response plan for review and input by stakeholders. The original plan was developed in 1989 and publicly distributed in June 1990. It was revised in September 1993. The LFUCG adopted ordinance 2000-120 to more closely match Kentucky-American's Water Shortage Response Program.
- b. There is none to date.
- c. Kentucky-American intends to file a copy of the updated plan to the Commission in response to Executive Director Dorman's May 16, 2001 letter.



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**Witness Responsible: Linda C. Bridwell**

31. Describe the current status of the Kentucky River Authority's efforts to acquire Dams 6, 7, 8, 9, and 11.

**RESPONSE:**

In response to an LFUCG Council Member on May 22, 2001, a representative of the Corps of Engineers stated that the transition of ownership of the other dams of the Kentucky River from the Corps of Engineers to the Kentucky River Authority would be complete by the end of this year. Kentucky-American does not have any additional information regarding the current status of the Kentucky River Authority's efforts to acquire Dams, 6, 7, 8, 9, and 11.

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**Witness Responsible: Linda C. Bridwell**

32. Describe the current status of the Kentucky River Authority's environmental assessment of Dam 10.

**RESPONSE:**

To our knowledge the environmental assessment has not begun.

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**Witness Responsible: Linda C. Bridwell**

33. Describe the current status of the Kentucky River Authority's study of possible modifications of East Kentucky Power Company's intake in Pool 10.

**RESPONSE:**

Kentucky-American does not have any information regarding the status of the Kentucky River Authority's study of modifications of East Kentucky Power Company's intake in Pool 10.

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**Witness Responsible: Linda C. Bridwell**

34. Describe the current status of the Kentucky River Authority's environmental assessment of Dam 10.

**RESPONSE:**

Please refer to the response to Question 32.

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**Witness Responsible: Linda C. Bridwell**

35. State the estimated cost of the Kentucky River solution and the expected sources of funding to meet these costs.

**RESPONSE:**

Kentucky-American has a defined deficit of 3.0 billion gallons over the duration of a drought of record. Impoundment of that additional volume of water on the Kentucky River will take at least four dams being raised between two and four feet apiece. The estimated cost to stabilize and raise the dams, including the work on Dam 10 is at least \$55 million. Currently, the Kentucky River Authority has secured \$24 million in federal funding for the work at Dam 10, which reduces the cost impact to Kentucky River users. The cost estimate does not include costs for real estate acquisition and estimates only minimal work to the lock chambers other than Dam 10. In addition, the 1999 estimate for additional treatment plant capacity to be built at the existing Richmond Road Station with a second intake in Pool 9 was \$70 million. An intake in a different pool will result in more expensive transmission pipe costs and increase the estimate by \$5 million or more. Neither cost estimate includes operational costs.

The difficulty in defining a cost estimate for a Kentucky River solution continues to be that there is not consensus among stakeholders about the scope and implementation plan of a Kentucky River solution. The deficit of 3.0 billion gallons is for Kentucky-American only, and the impoundment of additional water does not mean that Kentucky-American will be allowed to utilize all of that water.

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**Witness Responsible: Linda C. Bridwell**

36. a. Provide the Kentucky River Authority's current valve operating plan for the Kentucky River.

b. Does the Kentucky River Authority have the legal authority to implement such a plan? Explain.

c. Does the Kentucky River Authority have personnel and financial resources to implement such a plan? Explain.

**RESPONSE:**

a. Please see attached Drought Response Plan, which is provided in non-electronic format. The Valve Operating Plan is included as Section 3 of the Drought Response Plan.

b. Kentucky-American has not researched the issue and does not have an opinion on the question.

c. As the operations of the valves would only occur in infrequent dry weather conditions and requires limited resources to physically implement, Kentucky-American believes that the Kentucky River Authority does have the personnel and financial resources to implement such a plan.

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**Witness Responsible: Linda C. Bridwell**

37. Provide a copy of the federal statutes or public law that authorized funding for the design and construction work on Dam 10. In lieu of furnishing a copy, a citation to the statute or public law may be provided.

**RESPONSE:**

The documents are attached in electronic format.

PUBLIC LAW 106–553—DEC. 21, 2000

FEDERAL FUNDING, FISCAL YEAR 2001

114 STAT. 2762A–76 PUBLIC LAW 106–553—APPENDIX B

#### COASTAL AND OCEAN ACTIVITIES

\$16,000,000 is for a grant for Eastern Kentucky Pride, Inc., of which \$11,000,000 is for design and construction of facilities for water protection and related environmental infrastructure;

114 STAT. 2762A–111 PUBLIC LAW 106–553—APPENDIX B

SEC. 631. (a) The Secretary of the Army is authorized to take all necessary measures to further stabilize and renovate Lock and Dam 10 at Boonesborough, Kentucky, with the purpose of extending the design life of the structure by an additional 50 years, at a total cost of \$24,000,000, with an estimated Federal cost of \$19,200,000 and an estimated non-Federal cost of \$4,800,000.

(b) For purposes of this section only, “stabilize and renovate” shall include, but shall not be limited to, the following activities: stabilization of the main dam, auxiliary dam and lock; renovation of all operational aspects of the lock; and elevation of the main and auxiliary dams.



114 STAT. 1441 PUBLIC LAW 106-377—OCT. 27, 2000

114 STAT. 1441A-60 PUBLIC LAW 106-377—APPENDIX B

Southern and Eastern Kentucky, Kentucky, \$4,000,000;  
Clover Fork, Middlesboro, City of Cumberland, Town of  
Martin, Pike County (including Levisa Fork and Tug Fork  
Tributaries), Bell County, Martin County, and Harlan County,  
Kentucky, elements of the Levisa and Tug Forks of the Big  
Sandy River and Upper Cumberland River, Kentucky,  
\$20,000,000: *Provided*, That the Secretary of the Army, acting  
through the Chief of Engineers, is directed to proceed with  
planning, engineering, design and construction of the Town  
of Martin, Kentucky, element, in accordance with Plan A as  
set forth in the preliminary draft Detailed Project Report,  
Appendix T of the General Plan of the Huntington District  
Commander;

114 STAT. 1441A-61 PUBLIC LAW 106-377—APPENDIX B

That \$2,000,000 of the funds appropriated herein shall  
be available for stabilization and renovation of Lock and Dam  
10, Kentucky River, Kentucky, subject to enactment of authorization  
by law:

**KENTUCKY-AMERICAN WATER COMPANY**

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**Witness Responsible: Gary A. Naumick/Linda C. Bridwell**

38. Provide the most current estimates for the amount of time necessary to complete each phase of the Kentucky River Solution.

**RESPONSE:**

With the valve operating plan, the Kentucky River Basin still has a deficit of 5.5 billion gallons. 3.0 billion gallons of this is Kentucky-American's deficit. At least four dams will have to be raised to eliminate this total basin deficit.

Information is not currently available to Kentucky-American upon which it can reasonably estimate the amount of time to complete a Kentucky River solution other than that available for Dam 10. The US Army Corps has indicated that it will initiate an Environmental Impact Statement for Dam 10 in 2001, complete the EIS in 2002, that the KRA will secure funding for real estate acquisition in 2003 while the review process is being finished, the KRA will begin real estate acquisition in 2004 and complete it in 2006, at which time Dam 10 renovation and elevation increase will begin, and an elevated pool will be complete in 2007. It is reasonable to expect additional dams to take a similar length of time from initiation of work. It will take Kentucky-American three years from the initiation of design to completion of construction for additional treatment plant capacity.

The Kentucky River Authority has indicated an intention to begin work on Dam 9 as work on Dam 10 gets underway. The KRA also has expressed concern about the condition of Dam 8 and will focus on its stabilization after 9. The improvements to Dam 8 are critical for water supply to Nicholasville, but being downstream of Kentucky-American they would not improve Kentucky-American's water supply situation. Beyond that, the KRA has not developed a strategic plan for additional water supply enhancements, which makes it difficult to estimate implementation time. The difficulty in defining a time estimate for a Kentucky River solution continues to be that there is not clear consensus among the stakeholders about the definition of a scope and implementation plan of a Kentucky River solution.

As with any project, litigation resulting from permitting decisions, other regulatory decisions, or real estate acquisition may significantly delay implementation and have not been factored into the time estimates. Another factor that may complicate implementation is that at this time, the Kentucky River Authority has not secured funding for any additional work other than for Dam 10. As it is assumed that a Kentucky River solution is a phased solution, a delay in funding may significantly delay final resolution.

**KENTUCKY-AMERICAN WATER COMPANY**

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**Witness Responsible: Gary A. Naumick/Linda C. Bridwell**

39. a. Is the proposed Kentucky River solution, in Kentucky-American's opinion, the best technical solution to Kentucky-American's source of supply deficit? Explain.

b. If Kentucky-American does not consider the Kentucky River solution as the best technical solution to the source of supply deficit, identify the course of action that Kentucky-American considers to be the best technical solution and explain why Kentucky-American has chosen not to implement this course of action.

**RESPONSE:**

a. Kentucky-American defines the best technical solution to a problem as one that solves both the supply deficit and Kentucky-American's treatment capacity needs, can be feasibly implemented in timely manner, does not require unusual construction or maintenance, provides the most additional reliability, enhances existing distribution system, and provides excellent water quality. The challenge in evaluating the Kentucky River solution is that there is not consensus among stakeholders about the definition of the Kentucky River solution. Both a Kentucky River solution and an Ohio River solution have technical benefits and disadvantages in head-to-head comparison based on Kentucky-American's current operating conditions. Kentucky-American has a difficult time in characterizing the Kentucky River solution as the best technical solution at this time. A Kentucky River solution uses a water source that is closer with a less urbanized watershed, and provides treatment reliability. An Ohio River solution makes use of existing treatment facilities, utilizes a source of supply that is virtually inexhaustible, and provides increased overall reliability by using an alternative source. An Ohio River solution uses a watershed that is more closely monitored for pollution, and provides an opportunity to enhance service in part of the distribution system where the connection is made. An Ohio River solution also relieves stress on the fairly moderate stream flow of the Kentucky River which has a large and growing demand. However, it is more remote from Lexington.

The Kentucky River will clearly remain the primary source of water supply for Kentucky-American, and Kentucky-American is committed to the stabilization of the dams of the Kentucky River.

b. Kentucky-American elected to acquiesce to the resolution of the LFUCG because the Kentucky River solution appeared to be the most likely to be implemented in a reasonable time period as the public focus and stakeholder cooperation attendant to the

government's process would accelerate implementation. Further, Kentucky-American recognizes that the other factors impact project implementation including community acceptance and stakeholder interests. Kentucky-American believes that recent information that more accurately defines the time and process required for the Kentucky River solution raises serious concern whether a Kentucky River solution will be implemented in a timely manner. Kentucky-American believes that all of the stakeholders in the issue need to be apprised of the most updated information available to either confirm or reassess the previous commitment to a Kentucky River solution.

In summary, a Kentucky River solution and an Ohio River solution are both "technically" feasible. In concept, the Ohio River solution (constructing a pipeline) is a simpler technical project. The Kentucky River solution (which involves raising dams, and building intake and treatment facilities) presents more technical challenges. However, the real key to which solution is the best technical solution is which one can be completed within a reasonable timeframe. The issues affecting the ability to achieve completion of the project are largely not "technical"; rather, they involve governmental policy and support, cost, and environmental policy.

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**Witness Responsible: Gary A. Naumick/Linda C. Bridwell**

40. a. Is the proposed Kentucky River solution, in Kentucky-American's opinion, the most economically efficient solution to Kentucky-American's source of supply deficit? Explain.

b. If Kentucky-American does not consider the Kentucky River solution as the most economically efficient solution to the source of supply deficit, identify the course of action that Kentucky-American considers to be the most economically efficient solution and explain why Kentucky-American has chosen not to implement this course of action.

**RESPONSE:**

a. Kentucky-American defines the most economically efficient solution as one that can be constructed at the least cost and provides the most efficient cost recovery. The cost impact to Kentucky-American's customers for either solution may be comparable. The challenge in evaluating the Kentucky River solution is that there is not a clear consensus among stakeholders about the definition and implementation plan of a Kentucky River solution. An Ohio River solution provides an opportunity for distributing a portion of the cost recovery to wholesale customers along the route, thus reducing partially the cost burden to Kentucky-American's customers. Kentucky-American believes that the full costs of a Kentucky River solution continue to be understated based on the information currently available. The infusion of federal funding into either solution will likely help offset the direct cost impact to Kentucky-American's customers. Kentucky-American has a difficult time in characterizing the Kentucky River solution as the best economic solution at this time. Kentucky-American recognizes and reiterates its commitment that, regardless of which alternative for additional supply and treatment is chosen, capital investment to stabilize the Kentucky River dams is imperative.

b. Kentucky-American recognizes that the economics are not the only factors of solution, particularly when the economics are arguably comparable depending on the various criteria considered. Kentucky-American elected to acquiesce to the resolution of the LFUCG because the Kentucky River solution appeared to be the most likely to be implemented in a reasonable time period as the public focus and stakeholder cooperation attendant to the government's process would accelerate implementation. Further, Kentucky-American recognized that other factors impact project implementation including community acceptance and stakeholder interests. Kentucky-American believes that recent information that more

accurately defines the time and process required for the Kentucky River solution raises serious concern whether a Kentucky River solution will be implemented in a timely or economically efficient manner. Kentucky-American believes that all of the stakeholders in the issue need to be apprised of the most updated information available to either confirm or reassess the previous commitment to a Kentucky River solution.