

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 1

Q-1. The PSC's Order of January 11, 2002, states, on page 4, that "Kentucky-American has increased the forecast demand for 2020 from 39.27 MGD to 45.05 MGD." Concerning this demand forecast:

- a) Please provide a complete copy of the demand forecast from which this figure (45.05 MGD in 2020) is taken.
- b) If this is not KAWC's most recent demand forecast, please provide the most recent forecast.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the demand forecasts provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the demand forecasts provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the demand forecasts provided in response to subparts (a) and (b) of this question.

A-1.a. Please refer to the response to Item 14a of the PSC Interrogatories dated February 4, 2002.

- b. Please refer to the response to Item 18b of the PSC Interrogatories dated February 4, 2002.
- c. Please refer to the attached documents in non-electronic format.
- d. Please refer to the attached documents in non-electronic format and the attached files: The disaggregated use data from 1986 – 1993 was filed in response to Item 68 of the AG's Supplemental Data Request in Case No. 93-434 dated 4/01/94.

- e. The 1999 edition of *How Many Kentuckians* contains the population estimates for the first demand projection in the model. This document is available from the Kentucky State Data Center at 426 W. Bloom Street, Louisville, KY 40208-5457 or at its website cbpa.louisville.edu/ksdc. The Lexington-Fayette Urban County Government 1996 Comprehensive Plan is the basis for the second population projection. This report is available from the LFUCG Planning Department at 200 East Main Street, Lexington, KY 40507. Attached in non-electronic format is a copy of the population information presented to the LFUCG Technical Advisory Committee by Mr. James Rebmann of the LFUCG Planning Department. The 1995 edition of *How Many Kentuckians* is also available from the Kentucky State Data Center. The third demand projection in the model uses the High Growth Series of population projections from that publication.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 2

Q- 2. Has KAWC analyzed its ability to supply the customer demands it projects in the year 2020 or in any other future year, using the demand forecasts that were provided in response to the previous question? If so, please provide a complete copy of the inputs and results of each such analysis. If the analysis involves a computer simulation or model, please provide all electronic files that are needed to replicate such analysis. If not, please explain why not.

A-2. Yes. Please refer to the response to Item 5a of the PSC Interrogatories dated 2/4/02. The input of the review is included in the response to Item 5 b of the PSC Interrogatories dated 2/4/02. No additional computer simulation or model was specifically used to analyze the ability to supply projected customer demands.

Witness: Gary A. Naumick/Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 3

Q-3. From September 1997 through the present, provide a listing of each instance where KAWC has conducted an analysis to provide water sufficient to meet the demands of its customers in the year 2020 or in any year after 2020. For each such instance, provide the following:

- a) When the analysis was performed
- b) Why the analysis was performed
- c) Who performed the analysis
- d) Who decided on the appropriate inputs for the analysis
- e) How the results of the analysis were used
- f) Who received the results of the analysis

A-3. a. KAWC's analysis to provide water sufficient to meet the demands of its customers through the year 2020 was conducted between September 1997 and December 1999 and was discussed in Case No. 2000-120. Since that time, the only analysis performed has been in late 2000-early 2001.

- b. Prior to December 1999, an analysis was performed to develop the scope of the pipeline project to purchase finished water from the Louisville Water Company. The subsequent analysis was done to provide updated information.
- c. The analysis was done internally by Linda Bridwell and Gary Naumick with advice and information from other KAWC personnel, consultants and regulatory agency representatives.
- d. Kentucky-American senior management.
- e. The results were used to make decisions for developing a proposed course of action. Between 1997 and 1999, results were used to pursue a solution to the source of supply problems. The results of

the subsequent analysis were used to respond to a request from the Commission and to update stakeholders.

- f. Results of the analysis prior to 1999 were not formalized nor singly distributed, although the information was widely disseminated, including through a public education effort. This was discussed at length in Case No. 2000-120. The results of the most recent analysis were distributed as indicated in the attached file KAW_R_AGDR1#3f_SCH1_021302.doc.

Witness: Gary A. Naumick/Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 4

Q-4. For each year from 1997 through 2001, please provide the following information:

- a) KAWC's number of retail customers, by customer class, as of December 31 of the year
- b) The amount of water sold (based on billings) during the year to KAWC's retail customers, by customer class
- c) KAWC's number of wholesale customers, as of December 31 of the year
- d) The amount of water sold (based on billings) during the year to each of KAWC's wholesale customers, shown separately for each customer
- e) The amount of water delivered into the system by KAWC during the year
- f) The maximum daily demand and peak hour demand for water during the year
- g) The amount of storage capacity (in million gallons) in service on KAWC's system as of December 31 of the year
- h) The average daily production and maximum daily production of each of KAWC's treatment facilities during the year, shown separately for each treatment facility
- i) The average daily withdrawal and maximum daily withdrawal of water by KAWC from the Kentucky River during the year

- A-4.
- a. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4a".
 - b. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4b".
 - c. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4c".

- d. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4d".
- e. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4e-i".
- f. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4e-i".
- g. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4e-i".
- h. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4e-i".
- i. Please refer to file KAW_R_AGDR1#4_SCH1_021402.xls, worksheet titled "4e-l"

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 5

Q- 5. Please provide a complete copy of all permits that are currently in effect and that allow KAWC to do any or all of the following:

- a) Withdraw water from the Kentucky River
- b) Withdraw water from any other body of water
- c) Discharge water into the Kentucky River
- d) Discharge water into any other body of water
- e) Operate a water treatment facility
- f) Distribute potable water to the public

- A-5.
- a. Please refer to page 2 through 5 of the attachments to the response to Item 15 of the PSC Order dated May 15, 2001.
 - b. Please refer to Attachment A to the response to Item 45 of the AG's Second Information Request dated 4/1/94 in Case No. 93-434.
 - c. Please refer to the attachment in non-electronic format.
 - d. Please refer to the attachment in non-electronic format.
 - e. Kentucky-American is not aware of any permits required to operate a water treatment facility. The Kentucky Division of Water must approve all facilities prior to construction.
 - f. Kentucky-American is not aware of any permits required to distribute potable water to the public. The Kentucky Division of Water must approve all facilities prior to construction.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 6

Q- 6. In its March 19, 2001, report to the PSC, KAWC states on page 1: "KAWC presently has a source of supply deficit of 21 million gallons per day during a severe drought, and a reliable production capacity deficit of 11 mgd." Concerning this statement:

- a) Please provide a complete copy of the analyses or reports from which these figures were taken.
- b) If this is not KAWC's most recent deficit analysis, please provide the most recent analysis.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the deficit analyses provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the deficit analyses provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the deficit analyses provided in response to subparts (a) and (b) of this question.

A-6. a. The calculation of the source of supply deficit is the drought average day demand from the demand model filed in response to Item 14a of the PSC Interrogatories herein dated 2/4/02, minus a safe yield of 35 mgd. The calculation of the reliable production capacity deficit is the projected peak day demand from the same demand model, including in-plant use, minus the long-term reliable production capacity of 65 mgd. For a copy of the review of the capacity of the treatment plants, please refer to the attachment to the response for Item 5b of the PSC Interrogatories herein dated 2/4/02. No additional analysis or reports were used in the development of these figures.

- b. The revised demand projections are filed in response to Item 18b of the PSC Interrogatories herein dated 2/4/02.
- c. All documents that discuss, explain, accompany or otherwise concern the deficit analyses have been filed previously with the Commission or in response to other requests in this Case.
- d. All spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each deficit analysis have been filed previously with the Commission or in response to other requests in this Case.
- e. Please refer to the response to Item 1e of this same Request for Information.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 7

Q- 7. In its March 19, 2001, report to the PSC, KAWC states on page 8: "KAWC's 'safe yield' of the Kentucky River/Jacobson Reservoir system ... was determined to be 35 mgd in a 1991 study by Harza Engineering Company." Concerning this statement:

- a) Has KAWC undertaken or contracted for any analysis of its safe yield subsequent to the 1991 study by Harza Engineering? If so, please provide a copy of such analyses. If not, please explain why not.
- b) When was the last time that KAWC reviewed the relevant assumptions and inputs used in Harza's safe yield analysis to see if those assumptions and inputs remain accurate?
- c) Has KAWC analyzed changes made after 1990 to the locks, dams, and intakes on the Kentucky River to determine if they have an effect on the safe yield? If so, please provide a copy of such analyses. If not, please explain why not.
- d) Has KAWC analyzed changes made after 1990 to minimum stream flow requirements on the Kentucky River to determine if they have an effect on the safe yield? If so, please provide a copy of such analyses. If not, please explain why not.

A-7. a. KAWC has not independently undertaken or contracted for any analysis of its safe yield subsequent to the 1991 study by HARZA Engineering. KAWC was an active participant in the development of the 1996 Kentucky Water Resources Research Institute study for the KRA which produced a different model of the Kentucky River water availability. The KWRRRI study produced a volumetric deficit rather than a safe yield. However, a detailed review of the KWRRRI output shows that while the assumptions were updated, the range of results are very similar to the HARZA results. Initially, the KWRRRI deficit was much larger, indicating a smaller safe yield. However, the 3.038 billion gallon deficit for Pool 9 using 2020 high demand and operations of the valves is an average 25 mgd deficit over the 120 days that a deficit occurs. The summer demand used in the analysis is 62.90 mgd, producing a safe yield of 37.90 mgd.

Kentucky-American has not felt it necessary or cost effective to undertake another analysis of Kentucky River water availability, as nothing has changed the input values significantly.

- b. KAWC reviewed the HARZA assumptions in 2001. Some of the inputs and assumptions have clearly been revised since the time of the initial analysis. However, revised demand projections will not revise the safe yield, only the amount of the deficit.
- c. Yes. The only significant change made after 1990 to the lock, dams, and intakes on the Kentucky River that have an impact on the safe yield would be the installation of valves on upstream dams. This was addressed in the KWRRI report filed in response to Item 18 of the PSC Order dated 5/15/01.
- d. Some of the minimum stream flow requirement changes made since 1990 were analyzed as part of the KWRRI study for the KRA in 1996. Kentucky-American does not anticipate that this will have a significant impact on its own safe yield or source of supply deficit as the changes would be for users downstream of Kentucky-American. KAWC did not initiate an evaluation of those changes because it would be more appropriately coordinated by the KRA, particularly in light of the expense. It appeared in 2000 that the KRA was going to initiate efforts to revise the model.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 8

Q- 8. In its March 19, 2001, report to the PSC, KAWC states on page 8: "The Kentucky Division of Water has limited KAWC to withdrawing as little as 30 mgd from the Kentucky River during the most severe drought conditions." Concerning this statement:

- a) Does this statement reflect the current withdrawal limitations in place for KAWC? If not, what is the current limitation and when did it change from "as little as 30 mgd"?

A-8. Yes.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 9

Q- 9. In its March 19, 2001, report to the PSC, KAWC states on page 8: "The KAWC volumetric deficit is currently (i.e., as of 2000) 0.968 billion gallons, and will increase to 3.038 billion gallons in 2020 based on customer growth projections." Concerning this statement:

- a) Please provide a complete copy of the analyses or reports from which these figures were taken.
- b) If this is not KAWC's most recent deficit analysis, please provide the most recent analysis.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the deficit analyses provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the deficit analyses provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the deficit analyses provided in response to subparts (a) and (b) of this question.
- f) Do the "customer growth projections" assume that KAWC expands to provide service in municipalities where it does not provide service at the present time? If so, please identify each such area, the expected number of customers to be added, and the effect of such expansion on the deficit analysis for 2020.

A-9. a. These figures were taken from the KWRRRI report prepared in 1996 for the KRA and was filed in response to Item 18 of the PSC Order herein dated 5/15/01.

- b. KAWC is not aware of any published revisions to this analysis.
- c. KAWC did not prepare this deficit analysis. Attached in non-electronic format are all of the documents KAWC retained as a participant in the development of the analysis.
- d. KAWC did not prepare this deficit analysis and does not have any further spreadsheet files, workpapers, or other supporting documents that were used in the preparation of the deficit analysis.
- e. Please refer to the attachment to the response to Item 19 of the PSC Interrogatories herein dated 2/4/02.
- f. No. Please refer to the response to Item 18 of the PSC Order herein dated 5/15/01.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 10

Q- 10. In its March 19, 2001, report to the PSC, KAWC states on pages 8-9: "With all of the proposed low level release valves assumed in place, the total basin-wide deficit would be 3.035 billion gallons, and would grow to 5.467 billion gallons by 2020." Concerning this statement:

- a) Please provide a complete copy of the analyses or reports from which these figures were taken.
- b) If this is not KAWC's most recent deficit analysis, please provide the most recent analysis.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the deficit analyses provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the deficit analyses provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the deficit analyses provided in response to subparts (a) and (b) of this question.

- A-10. a. Please refer to the response to Item 18 of the PSC Order herein dated 05/15/01.
- b. Kentucky-American is not aware of any more recently published analyses.
- c. Please refer to the response to Item 9c of this same data request.

- d. KAWC did not prepare this deficit analysis and does not have any further spreadsheet files, workpapers, or other supporting documents that were used in the preparation of the deficit analysis.
- e. Please refer to the response to Item 9e of this same request.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 11

Q- 11. In its March 19, 2001, report to the PSC, KAWC provides a table on page 10 showing the drought average day demand for the years 2001, 2005, 2010, and 2020. Concerning this table:

- a) Please provide a complete copy of the analyses or reports from which these figures were taken.
- b) If this is not KAWC's most recent demand analysis, please provide the most recent analysis.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the demand analyses provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the demand analyses provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the demand analyses provided in response to subparts (a) and (b) of this question.

- A-11. a. Please refer to the response to Item 14 a of the PSC Interrogatories herein dated 2/4/02.
- b. Please refer to the response to Item 18b of the PSC Interrogatories herein dated 2/4/02.
- c. Please refer to the response to Item 1c of this same data request.
- d. Please refer to the response to Item 1 d of this same data request.
- e. Please refer to the response to Item 1e of this same data request.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 12

Q- 12. In its March 19, 2001, report to the PSC, KAWC states that the rated capacity of its treatment plants is 65 mgd. Is this figure still accurate? If not, please provide the current rated capacity of each treatment plant and describe why it differs from the figures provided in the March 19, 2001 report.

A-12. Yes. Kentucky-American Water company believes that the long-term rated capacity of its treatment plants is 65 mgd.

A rated capacity is generally considered to be the capacity of operations with the largest mechanical unit out of service for each treatment process. In reality, if all units are operating, the plant is actually capable of producing more water, if needed, than the rated capacity. The difference between the operational capability and the rated capacity provides reliability for the plant and a buffer for extraordinary circumstances. This reliability and buffer is critical since a failure to provide water equal to demands can compromise the health and safety of the public in the entire service area. In Kentucky-American's efforts to minimize the risk to the public while still meeting the regulatory responsibility for providing water in the short-term with existing source of supply and treatment capacity deficits, Kentucky-American undertook an analysis of the operational capability of its two treatment plants. In reviewing the Kentucky River Station, Kentucky-American realized that under certain optimal water quality conditions, given existing regulations, the KRS could be extended to a reliable capacity of 45 mgd with a maximum operational capability of 46 mgd. Kentucky-American initiated discussions with the DOW, and was granted a temporary re-rating of the KRS to 45 mgd from June 1 through September 30. The DOW emphasized that this was in no means a long-term solution to Kentucky-American's treatment capacity deficit and expected to revoke this temporary re-rating as filtering regulations became more stringent in the near future.

In the same manner, Kentucky-American is pursuing approval for hydraulic improvements to the RRS that will allow the operational capability to be extended from 25 mgd to 30 mgd. Kentucky-American has openly discussed with the DOW its intentions to pursue a similar temporary re-rating of the RRS once those improvements have been

made, however, the reliable high service pumping capability of the RRS may prevent a temporary re-rating.

In both situations, the operation of the treatment plants at the extended capacity beyond the design capacity of the plants requires optimal raw water quality and allows virtually no room for adjustments to the treatment process if raw water conditions change. While this operational scenario can be achieved, it cannot be sustained for extended periods, is not desirable as a frequent operation, and is not a permanent solution for Kentucky-American's water supply situation.

Witness: Gary A. Naumick/Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 13

Q-13. In its March 19, 2001, report to the PSC, KAWC discusses, on pages 11-12, various plans to increase the rated capacity of its treatment plants. What is the current status of these plans?

A-13. KAWC met with DOW officials in 2001 regarding the proposal to initiate hydraulic improvements to the Richmond Road Station. Following that meeting, Kentucky-American initiated design of the improvements. Design was completed in the Fall of 2001, and a preliminary report was also submitted to the DOW for review in the Fall of 2001. Kentucky-American recently received the comments from the DOW and has submitted plans for approval.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 14

Q-14. In its March 19, 2001, report to the PSC, on page 12, KAWC provides a table showing the projected peak day, short-term operational treatment capacity, and long-term reliable treatment capacity. Concerning this table:

- a) Please provide a complete copy of the analyses or reports from which these figures were taken.
- b) If this table does not reflect KAWC's most recent peak-day demand and production capacity analyses, please provide the most recent analyses.
- c) Please provide a copy of all documents that discuss, explain, accompany, or otherwise concern the analyses provided in response to subparts (a) and (b) of this question.
- d) Please provide a copy of all spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the analyses provided in response to subparts (a) and (b) of this question. Computer files should be provided in their original format without modification of any kind, and may be provided on any of the following media readable by a Windows-compatible computer: 3.5-inch diskette, ZIP disk (100 MB or 250 MB), CD-ROM, DVD-ROM.
- e) Please provide a copy of the population forecast that was used in preparing each of the analyses provided in response to subparts (a) and (b) of this question.

- A-14. a. Please refer to the demand model filed in response to Item 14a of the PSC Interrogatories herein dated 2/4/02 for the projected peak day demand. Please refer to the attachment to Item 5b of the PSC Interrogatories herein dated 2/4/02 for the operational treatment capacity and long-term reliable treatment capacity.
- b. Please refer to the response to Item 18b of the PSC Interrogatories herein dated 2/4/02.

- c. All documents that discuss, explain, accompany, or otherwise concern the analyses referred to in the response to subparts (a) and (b) of this question have been filed in this proceeding.
- d. All spreadsheet files, workpapers, and other supporting documents that were used in the preparation of each of the analyses referred to in response to subparts (a) and (b) have been filed in this proceeding.
- e. Please refer to the response to Item 1e of this same request.

Witness: Linda C. Bridwell/Gary A. Naumick

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 15

Q-15. In its March 19, 2001, report to the PSC, on page 18, KAWC states: "The KWRRI stated that 'the raising of 3 dams 4 feet (e.g. 9, 10, and 11) and mining pools 12 and 13 to 6 feet is sufficient to meet the projected deficit.'" Does KAWC dispute this conclusion from KWRRI? If so, please discuss the areas of disagreement and provide all supporting analyses and documentation.

A-15. Kentucky-American does not have any reason to dispute that the raising of 3 dams by 4 feet and the mining of pools 12 and 13 to 6 feet would provide an additional volume of water of 3.05 billion gallons, which is approximately equal to the amount of Kentucky-American's source of supply deficit. However, as is clearly documented in the Task V report of the KWRRI, Kentucky-American is not the only entity on the Kentucky River with a source of supply deficit. The entire basin deficit is projected at 5.467 billion gallons. Kentucky-American does not believe that the DOW will simply adjust Kentucky-American's withdrawal permit restrictions to allocate that volume of water to Kentucky-American while a deficit still exists in other pools. A larger volume of water is needed to resolve the projected deficit. Raising 3 dams by 4 feet may cause an adverse reaction from environmental activists and property owners. The DOW and the Department of Fish and Wildlife have not decided on acceptance of mining pools 12 and 13 to 6 feet. In addition, raising 3 dams by 4 feet has not been determined to be environmentally feasible, nor likely to be completed in a reasonable time frame, and is significantly higher in cost than presented by the KWRRI in 1999.

Witness: Linda C. Bridwell/Gary A. Naumick

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 16

Q-16. In its March 19, 2001, report to the PSC, on pages 22-25, KAWC provides an update of regional and Kentucky River activities roughly through the end of 2000. Please provide a similar update of activities that occurred during the year 2001.

A-16. In late November of 2000, the Division of Water (DOW) gave Kentucky American Water Company permission to increase its rated capacity at the Kentucky River Station (KRS) from 40 mgd to 45 mgd during summer months on a temporary basis, provided all water quality standards are being met. In 2001, KAWC had additional follow-up conversations with the Division of Water in pursuit of temporarily re-rating the Richmond Road Station (RRS) from 25 mgd to 30 mgd capacity. In order for that process to occur, it will be necessary for Kentucky-American to make hydraulic and chemical feed improvements to its facilities at a cost of \$1.6 million.

The DOW looked favorably on the proposal for hydraulic improvements to the RRS. Design of the improvements was completed in September. A preliminary engineering report was submitted in the fall of 2001 that outlined proposed design modifications and sought the DOW approval. As of the end of 2001, the DOW had not responded officially to the preliminary report, although KAWC is continuing to pursue expediting that approval. Kentucky-American anticipates construction to be completed 12-18 months after approval, with additional operational capacity available by the summer of 2003. Kentucky-American's total temporary rated capacity for both plants, during June through October, will then be 75 mgd.

On February 26, 2001, KAWC received correspondence from the Division of Water confirming that both treatment plants can be operated above the reliable plant capacity during summer months to meet peak day demands, assuming all water quality parameters are met. Although this is a short-term solution, it will allow the company to physically meet peak customer demand that may occur until the treatment plant deficit can be eliminated. The operational capability of both plants, though not reliable, totals 76 mgd.

Kentucky-American received a request from the Public Service Commission on February 19, 2001 requesting that KAWC file an updated report on its efforts to ensure adequate water supply to meet customer demands through the year 2020. The report was filed on March 21st and included a list of activities since the end of the water supply investigation in Case No. 93-434 in 1997. KAWC representatives met with over forty stakeholders regarding this Public Service Commission report, including individual meetings with the mayor, city council members, the media, Chamber of Commerce and many other community leaders and groups. Reports were mailed to all opposition groups of the proposed Lexington-Louisville pipeline, including the Sierra Club and Neighbors Opposing Pipeline Extravagance (N.O.P.E.) members.

In its response of March 21st, Kentucky-American suggested to the Public Service Commission that a public forum be held under the auspices of the PSC, involving representatives of Kentucky River Authority (KRA), U. S. Army Corps of Engineers, Division of Water (DOW), Lexington-Fayette Urban County Government, Sierra Club, NOPE members, Chamber of Commerce, large user groups, and any other interested community parties.

The Public Service Commission issued a request for data in the form of 40 interrogatories involving issues surrounding the water supply of Kentucky-American. A response to that request was filed on June 15, 2001.

After receiving Kentucky-American's response to interrogatories in June, the Commission expanded the proceeding to include other parties, including the Lexington-Fayette Urban County Government, the Kentucky River Authority, the Corps of Engineers, opponents to the pipeline (N.O.P.E.) and the Bluegrass Regional Water Supply Consortium (Consortium) of which Kentucky-American is a member. The Commission established a procedural schedule that required that a preliminary findings of fact be published by the staff in January 2002. This report was to be reviewed and commented on by all parties. An evidentiary hearing on any disputed issues will follow on April 30, 2002. The Attorney General asked the Commission to expand the scope of the proceeding to include consideration of Kentucky-American's business development planning and activities. The Commission ordered that, as the extent of Kentucky-American's business development planning and activities will affect its water supply requirements, the issue would be considered during the course of this proceeding.

On May 22, representatives of the Corps of Engineers, Kentucky River Authority, Bluegrass Area Development District (Bluegrass ADD) and Kentucky-American made presentations to the Lexington-Fayette Urban

County Government (LFUCG) council members. The presentations were comprehensive in nature and clearly pointed out the concerns of council members on the lack of timely solutions on the Kentucky River as described by the Corps and KRA. The meeting before the Council lasted for approximately four hours.

The Lexington-Fayette Urban County Government Council requested an update to the water supply situation in reference to its recommendations in Resolution 679-99 of December 1999. Kentucky-American submitted a written update on November 16th, and made an informal presentation at a December Council work session along with members of the Consortium and representatives of East Kentucky power. The primary focus was the Consortium efforts and Kentucky-American's conservation initiatives.

The Consortium, which is made up of utilities in surrounding areas and KAWC, gained momentum throughout 2001 on developing regional solutions to the water supply problems. These efforts were beneficial as the Consortium persuaded the Division of Water to temporarily increase water withdrawals for the summer of 2001 for all of the members if a drought event occurred. Although this approval was temporary and only applicable for the year 2001, the increase in water available if a drought had occurred this year would have significantly reduced potential customer restrictions.

KAWC met individually with the DOW on May 31st regarding potential restrictions for an additional intake, assuming that a new plant would be built downstream of Pools 9 and 10. The DOW representatives subsequently met with the Consortium, and reiterated in writing that they will consider an additional intake with no withdrawal restrictions only in Pool 3 or below. This would then require 35 to 50 miles of transmission pipe in order to bring water to Lexington. The Consortium developed a scope of work for study of a potential regional solution to the water supply and treatment capacity deficit. The purpose of the study is to develop a final recommendation for a regional solution to treatment capacity needs, considering the deficit and progress toward a solution to the source of supply by the Kentucky River Authority. The study will also recommend a preferred business structure for the group and appropriate level of interconnections for optimal reliability.

The group decided to retain a national consulting firm and issue a Request for Qualifications on top-ranking engineering firms throughout the country. The study will be paid for by a congressional funding authorization of \$290,000 with a 45% match from the Kentucky Infrastructure Authority. The Consortium issued a request for qualifications. Seven teams submitted qualifications and four teams were asked to submit proposals. The request was targeted at national firms with experience in regional

water resources efforts and in both treatment plant design and pipeline design. The four teams that were selected include: R.W. Beck; Consoer, Townsend, Envirodyne Engineers (CTE); Camp, Dresser, and McKee with Gannett-Fleming; and O'Brien & Gere. The Consortium met with the four teams to discuss the proposal on September 27th, and received proposals from the four teams on November 12th. The proposals were presented to the Consortium group on November 27th and O'Brien and Gere was selected. The grant approval for funding has delayed the study start date from January 2002 for at least two months. The study should be complete in Fall 2002.

The Consortium made it clear in its RFP that the consultant should not repeat any previous work including demand projections or river modeling, but will be moving forward on evaluating current alternatives and making a definitive recommendation based on the information available. This will include evaluating the Kentucky River status.

Representatives of LFUCG involved with the Consortium expressed concern that the Consortium may be working in a direction that is not in concert with the LFUCG resolution and requested support from the LFUCG Council. After a presentation by the Bluegrass ADD, which is the acting facilitator for the Consortium group, the Council voted on July 10 to support the Consortium's efforts.

On October 25th, members of the Bluegrass Water Supply Consortium met with various members of Governor Patton's staff, including the Secretary of the Cabinet, Crit Luallen. Also attending were the Secretary of the Natural Resources Cabinet, Commissioner of the Department for Local Governments, Executive Directors of the Kentucky Infrastructure Authority, the KRA, and the PSC. The purpose of the meeting was to discuss the progress of the group. The officials concurred that efforts of the Consortium to obtain a regional solution to the water supply deficit are headed in the right direction that the Governor and the Legislature have encouraged and pledged to give their support.

No progress was made on the connection to purchase water from Frankfort. The proposed study of the Consortium will include the recommendation for a water distribution grid which will include an interconnection between Frankfort and Kentucky-American. Kentucky-American hopes this effort can be undertaken following the completion of the study, either under the auspices of the Consortium or between the two individual utilities.

The KRA continued to pursue its design of Dam 10 improvements upstream of KAWC's intake. It was originally anticipated in 1999 that design work would be completed in 18-24 months and would include an

environmental assessment on the ability to stabilize and raise the dam. Since that time, the KRA has received correspondence from the Corps indicating that the original estimate of the Kentucky River Authority (\$24 million) seemed low and that their anticipated cost of Dam 10 improvements is approximately \$37.5 million. The Corps also indicated that they expected the KRA to submit a decision document and enter into a project cooperation agreement with the Corps before federal funding will become available. The KRA originally scheduled Dam 10 repairs to be completed by 2006, and this additional time requirement and environmental concerns could delay Dam 10 final construction. KAWC met with the KRA and had conversations with the Corps, but a timeline for raising the dam is still in question.

The Corps indicated it would take approximately eight years to complete all work, including stabilizing and raising Dam 10. This includes two years of environmental assessment, plus an environmental impact study. This also includes design of the dam and a two-year window to address the land taking and real estate issues that may be caused by raising pool levels behind Dam 10. Although the Corps indicated it would be a minimum of eight years before Dam 10 could actually have water available, the KRA was more optimistic in presenting to the LFUCG Council meeting that three other dams could be raised by the year 2010.

KAWC also met with representatives of Senator McConnell and Senator Bunning regarding the Corps' timeline on the Kentucky River. These representatives stated that they, in fact, met with the Corps, discussing the potential to accelerate the timetable. Indications are the Corps will continue with its original timetable.

Representatives of the Corps met with the KRA at its September 19th strategic planning session. At that meeting, the Corps again estimated that it would be 2008 before any additional water would be available behind Dam 10. Many of the KRA members expressed concern with the lengthy timeframe.

Because of this concern, the KRA agreed to move forward with the preliminary design of repairs to Dam 9, including geo-technical work, and an environmental assessment of construction related activities. This design work should be completed in 18-24 months. The Kentucky River Authority retained Fuller, Mossbarger, Scott and May Engineers (FMSM) to undertake all necessary work up to construction on Dam 9. This will include the initial geotechnical exploration similar to Dam 10, design, aerial photography, surveying, environmental assessment, and permitting work. This work is being funded through the Authority's current fee structure. The contract for this work was executed in late 2001. FMSM is

also working to determine the extent of the leakage at Dam 8, just downstream of Kentucky-American's pool. During the drought of 1999, the level of water in Pool 8 dropped more than in Pool 9, although there was significantly less usage. This is critical, as it will affect the passing flow that Kentucky-American is required to maintain through Pool 9 to ensure aquatic habitat in Pool 8. FMSM dye tested the lock chamber and around the dam. FMSM is designing a method of releasing water from Pool 9 to Pool 8, which will be implemented in 2002.

Representatives of Representative Fletcher's office have continued to be involved in the issue, attending the Kentucky River Authority strategic planning meeting and discussing regional efforts with Consortium members.

The Kentucky River Authority began pouring concrete on November 5th for a bulkhead in the lock structures at Dams 8 and 9. The work was completed in December. These concrete bulkheads will stabilize (and essentially block permanently) the lock gates. This will significantly improve the risk of the pools failing by eliminating the most vulnerable point in the structure – the gates. The work at Dam 9 shores up Kentucky-American's pool, while the work at Dam 8 will decrease the need for continued releases through Dam 9 to maintain water levels into a leaking Pool 8 and hopefully reduce the need for withdrawal restrictions in Pool 9 during a drought.

Kentucky-American's goal is to continue to be in the mix of regional discussions and to be a regional player for solving not only Kentucky-American's deficit, but also to be active in solving the regional deficit as well.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 17

Q-17. In its March 19, 2001, report to the PSC, on page 27, KAWC provides a list of three short-term measures to partially alleviate its production capacity and source of supply deficits. Concerning these short-term measures:

- a) What is the status of each of these measures?
- b) Please describe the actions taken by KAWC during 2001 on each of these measures
- c) Please provide a current projection of whether and when each measure will be implemented. If any measure will not be implemented, explain why.
- d) Subsequent to the preparation of this report, has KAWC identified any other short-term measures that might partially alleviate its production capacity and source of supply deficits? If so, please describe each such measure and state its current status.

A-17. a. For the status of the RRS hydraulic improvements, please refer to the response to Item 14 of this same request. Kentucky-American has had discussions with the Frankfort Electric and Water Plant Board, and began negotiating terms of a water purchase agreement. Negotiations appear to be at a standstill due to the minimum purchase requirement requested by the Frankfort Plant Board and to the proposed study by the Consortium, which is moving forward, and will provide a recommendation for a regional grid of potable water supply including interconnections. Kentucky-American has initiated a project for the design of improvement on Leestown Road due to recent growth in the area. This project can be extended if a connection to Frankfort is to be implemented. For an update on withdrawal permit modifications, please refer to the response to Item 16 of this same request.

- b. Please refer to the response to Item 16 of this same request.
- c. If all necessary approvals are granted in early 2002, KAWC anticipates construction of hydraulic improvements to provide

expanded operational capability at the RRS in the summer of 2003. The potential connection to Frankfort will likely not occur before the end of 2003 awaiting the study results from the Consortium. Modifications to the withdrawal permit restrictions appear to be limited to an annual basis until enhancements to the Kentucky River can be implemented.

d. No.

Witness: Gary A. Naumick/Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 18

Q- 18. In its March 19, 2001, report to the PSC, on pages 27-28, KAWC states that the KRA, DOW, and KWRRRI were expected to update the Kentucky River model during 2001. Concerning this section of the report:

- a) Has the model been updated? If not, when does KAWC expect the model to be updated? (If the model has not been updated, the remaining subparts of this question are not applicable.)
- b) What is the updated model's estimate of the deficit for KAWC in 2020 during the drought of record?
- c) Does the updated model indicate that Kentucky River supply improvements as proposed by KRA are adequate to resolve the supply deficit? If not, what is the magnitude of the deficit remaining after such improvements?
- d) Have stakeholders met to consider the effects of the revised model and to determine if additional enhancements can be made to the river that would alleviate the deficit?

A-18. a. The model has not been updated.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 19

Q- 19. In its March 19, 2001, report to the PSC, on pages 28-29, KAWC provides a series of conditional statements concerning planned improvements on the Kentucky River. Concerning these statements:

- a) Has it been determined that dam 10 can feasibly be raised? If so, what determination has been made? If not, when is a determination expected?
- b) Has it been determined if additional water stored by raising dam 10 can be used by KAWC? If so, what determination has been made? If not, when is a determination expected?
- c) Have stakeholders met to determine if additional enhancements on the Kentucky River are necessary? If so, what determination has been made? If not, when is a determination expected?
- d) Has KAWC developed a plan to construction treatment facilities on the Kentucky River? If so, please provide a copy of the plan. If not, please explain why not and state when such a plan is expected to be developed.

- A-19. a. No. Public statements made by the US Army Corps of Engineers indicate that Environmental Impact Statement would not be available until after October 2003. Other than that, Kentucky-American does not have any information regarding when that determination can be expected.
- b. No. Kentucky-American does not have any information about when that determination can be expected despite numerous conversations with the DOW.
- c. Since 1986, various stakeholders have met frequently. It has been generally agreed by all stakeholders that additional enhancements are absolutely necessary to sustain the Kentucky River as a reliable source of supply for the current water availability and will be required to even further utilize the Kentucky River as a sole solution to for the present source of supply deficit.

- d. No. Kentucky-American cannot adequately prepare a detailed plan for the construction of treatment facilities for a source of supply that is not reliable and where enhancements have not been determined to be feasible. That plan could be developed in 12 months following the determination that the necessary enhancements are feasible in a timely manner.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 20

Q-20. In its March 19, 2001, report to the PSC, on pages 30-31, KAWC poses a series of questions. Concerning these questions:

- a) Have events during the past year provided KAWC with answers to any of these questions? Please explain the answer in detail.
- b) Have events during the past year resulted in any of these questions being eliminated from KAWC's list of critical questions? Please explain the answer in detail.
- c) Have events during the past year resulted in any additional questions being added to KAWC's list of critical questions? Please explain the answer in detail.

A-20. a. The only questions that have been answered are in the last two bullet points:

"Is the KRA valve operating plan a valid assumption for modeling the availability of supply during a drought? Can operation of the valves during a drought be guaranteed in accordance with the valve operating plan?" The operation of the valves during a drought in accordance with the valve operating plan appears to be certain. Therefore, the valve operating plan can be utilized in the planning of long-term supply availability.

"Does the timetable outlined in the LFUCG Resolution provide the most reasonable schedule for solution to the problem? Can it be expedited? Are there conclusions that can be reached without delay? Are there activities which can and should be undertaken more quickly than [sic] outlined in the Resolution?" It now appears, however, the timetable outlined in the LFUCG resolution is not going to be met and it cannot be expedited. No other questions were answered during the past year. For additional information, refer to the response to Item 16 of this request.

- b. No, they have not.
- c. Yes. A question to be added now is: What role will a regional effort play in resolving Kentucky-American's long-term water supply and

treatment capacity deficits? This question should be adequately answered based on the Consortium efforts over the next few months.

Witness: Linda C. Bridwell/Gary A. Naumick

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 21

Q-21. Please identify the water suppliers (both suppliers subject to the jurisdiction of the Public Service Commission as well as any other water suppliers offering water service) that have been given presentations by Kentucky-American regarding water supply. Please provide a listing of suppliers and presentations from January 1, 1996, to present. (Include copies of all correspondence and meeting materials.)

A-21. Kentucky-American has not made any presentations to any water suppliers regarding Kentucky-American's water supply.

Kentucky-American has had discussions with numerous other water suppliers regarding water supply within the Kentucky River basin since 1996. These include the Georgetown Municipal Water and Sewer Service, Boonesboro Water Association, Winchester Municipal Utilities, East Clark County Water District, Harrison County Water Association, City of Paris, City of North Middletown, City of Versailles, City of Lawrenceburg, City of Midway, Frankfort Electric & Water Plant Board, Peaks Mill Water District, City of Nicholasville, Jessamine South Elkhorn Water District, Spears Water Company, Jessamine No. 1 Water District, and the Tri-Village Water District. Many of the discussions did not result in any correspondence or meeting materials. Correspondence and meeting materials prior to April 4, 1997 were provided in response to Chetan Talwalkar's Data Request dated 4/04/97 of Case No. 97-034. Correspondence and meeting materials related to the Harrison County Water Association purchase agreement were filed in response to Item 12 of the PSC Order dated 7/13/01 in Case No. 2001-173. Correspondence and meeting materials related to the Tri-Village Water District were filed in Case No. 2001-094. Additional correspondence and materials since that time are attached in non-electronic format. To the extent that this request relates to suppliers outside the Kentucky River basin and not regarding supply within or to the Kentucky River basin, Kentucky-American believes the Interrogatory seeks information relating to an issue that is outside the scope of this phase of this proceeding as set forth in the Commission's Order of January 28, 2002. The request insofar as it relates to suppliers outside the Kentucky River basin and not regarding supply within or to the Kentucky River basin, therefore, seeks information that is not relevant to

any such issues nor is it reasonably calculated to lead to the discovery of admissible evidence, and Kentucky-American objects.

Witness: Linda C. Bridwell

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 22

- Q- 22. Please identify the water suppliers (both suppliers subject to the jurisdiction of the Public Service Commission as well as any other water suppliers offering water service) that have been given presentations by Kentucky-American regarding the outsourcing of management, transfer of assets, merger, or any other form of consolidation or change in control. Please supply a listing of suppliers and presentations from January 1, 1996, to present. (Include copies of all correspondence and meeting materials.)
- A-22. Objection. This Interrogatory seeks information relating to an issue that is outside the scope of this phase of this proceeding as set forth in the Commission's Order of January 28, 2002. It, therefore, seeks information that is not relevant to any such issues nor is it reasonably calculated to lead to the discovery of admissible evidence.

KENTUCKY-AMERICAN WATER COMPANY

CASE NO. 2001-117

Response to Attorney General's
Request for Information

Question No. 23

Q-23. Is Kentucky-American currently participating in any discussions concerning regional cooperation with other water suppliers? If yes, please identify the following:

- a) The identity of other participants (Include as participants the identify of any moderators, consultants, or facilitators.),
- b) The dates of the meetings, and
- c) By individual meeting, a list of attendees.

Please also supply the following:

- d) All correspondence from and memoranda summarizing communications from Kentucky-American (which is in the possession of Kentucky-American or its agents) to other participants in the discussions,
- e) All correspondence to and memoranda summarizing communications to (which is in the possession of Kentucky-American or its agents) Kentucky-American from other participants in the discussions,
- f) Copies of any reports prepared by the group relating to joint water supply planning, and
- g) Copies of any reports prepared by Kentucky-American relating to joint water supply planning.

A-23. a. Please refer to the response to Item 20 of the PSC Order dated 5/15/01. KAWC believes the Bluegrass Water Supply Consortium will supply the requested information since 6/15/01 in response to Kentucky-American's request for information to the Consortium dated 2/4/02.

- b. Please refer to the response to Item 23 of the PSC Order herein dated 5/15/01. KAWC believes the Bluegrass Water Supply Consortium will supply the requested information since 6/15/01 in

response to Kentucky-American's request for information to the Consortium dated 2/4/02.

- c. Please refer to the response to Item b above.
- d. Prior to 6/15/01, please refer to the response to Item 23 of the PSC Order herein dated 5/1/5/01. Additional information is attached in non-electronic format.
- e. Prior to 6/15/01, please refer to the response to Item 23 of the PSC Order herein dated 5/1/5/01. Additional information is attached in non-electronic format.
- f. Kentucky-American is not aware of any reports prepared by the Consortium relating to joint water supply planning.
- g. Kentucky-American has not prepared any reports related to joint water supply planning.

Witness: Linda C. Bridwell