

COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

ELECTRONIC APPLICATION OF THE BARKLEY)
LAKE WATER DISTRICT FOR A)
CERTIFICATE OF PUBLIC CONVENIENCE)
AND NECESSITY TO CONSTRUCT A SYSTEM) Case No. 2020-00255
IMPROVEMENTS PROJECT AND AN ORDER)
APPROVING A CHANGE IN RATES AND)
AUTHORIZING THE ISSUANCE OF SECURITIES)
PURSUANT TO KRS 278.023)

** *** **** ***** **** *** **

RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

The Applicant, Barkley Lake Water District (the "District"), by Counsel, files this Response to the August 14, 2020 Commission Staff's Initial Request for Information set forth below.

The witness responsible for responding to all of the questions is: Mr. John Herring, Manager, Barkley Lake Water District.

Request No. 1. Refer to Barkley Lake District's 2018 Annual Report, page 57, line 21, Total Other Water Used, lists 145,204,000 gallons, which equates to 27.24 percent of the water produced by Barkley Lake District.

(a). Provide a detailed explanation how the amounts were determined for each of the categories listed as Other Water Used.

Response No. 1(a). See attached **Exhibit "A"**.

Request No. 1(b). Provide copies of all documents relied upon to support the amounts of water usage for each of the categories listed as Other Water Used.

Response No. 1(b). See attached **Exhibit "A"**.

Request No. 1(c). In the event that any of the usage is estimated, provide the basis for the amount of the estimate.

Response No. 1(c). See attached **Exhibit "A"**.

Request No. 1(d). Provide an explanation of Barkley Lake District's high volume of system use.

Response No. 1(d). See attached **Exhibit "A"**.

Request No. 2. Confirm that Barkley Lake District does not have a depreciation reserve account.

Response No. 2. See attached **Exhibit "A"**.

Verification of Response to Commission Staff's First Request for Information

The undersigned, John Herring, being duly sworn, deposes and states that he is the Manager of the Barkley Lake Water District and that he has personal knowledge of the matters set forth in the Responses for which he is identified as the witness, and the answers contained in said Responses are true and accurate to the best of his knowledge, information, and belief formed after a reasonable inquiry.


John Herring, Manager
Barkley Lake Water District

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me by John Herring, Manager of the Barkley Lake Water District on this August 24, 2020.

My Commission expires: 6/2/24




NOTARY PUBLIC
KY NP 8148
NOTARY PUBLIC ID Number

CERTIFICATE OF SERVICE

The undersigned, in accordance with 807 KAR 5:001, Section 8, hereby certifies that Barkley Lake Water District's electronic filing of the foregoing Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Kentucky Public Service Commission on August 24, 2020; that there are currently no parties that the Kentucky Public Service Commission has excused from participation by electronic means in this proceeding; and that within 30 days following the end of the state of emergency announced in Executive Order 2020-215, this Response in paper medium will be delivered to the offices of the Kentucky Public Service Commission in Frankfort, Kentucky.



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EXHIBIT A

Responses to Staff Information Request

1. In Reference to the 2018 Annual Report, page 57. Line 21 Total Other Water Used, lists 145,204,000 gallons, which equates to 27.24 percent of the water produced by Barkley Lake District.

A. The amount of water listed in the Other Water Used category is achieved by adding together several subcategories in the water loss report. These groups are Utility and/or Water Treatment Plant, System Flushing, Fire Departments, and Other.

1a - Utility and/or Water Treatment Plant: This number is the combination of backwash meter reading (water used to clean the filters) and the difference between the high service meter (finished water leaving the plant) and the raw water meter. The water difference between the raw water and the high service is used to clean sludge from the sediment basins. The sludge collectors run three times a day per basin (four basins total) which amounts to roughly one hundred thousand gallons a day. In addition to these numbers we also wash the basins once a month. The basins are drained and then pressure washed to remove sludge and other by-products of the treatment process. This process amounts to an additional six hundred thousand gallons of raw water over a two-day period. All of these numbers are documented and accounted in the Monthly Operating Report (MOR) and the Daily Log as stipulated by the Kentucky Division of Water (Kentucky Energy and Environmental Cabinet).

2a - System Flushing: This number is an estimate based upon the number of hydrants flushed and the number of leaks in any given month. For the calendar year 2018 the District had twenty-one leaks and flushed approximately six-hundred and seventy-six hydrants. We estimated roughly one-hundred and fifty thousand gallons per flushing. These estimates vary monthly depending on the frequency of line breaks and number of hydrants flushed. For example, if a line breaks and it is in the Rockcastle area of the system the District might leave a hydrant running for multiple days to flush the air out of the line.

3a - Fire Departments: This number is an estimate based on the number of Fire Depts. In Trigg County and the amount of fires that occur.

4a - Other: This category is a catch all. It has been used to cover water tank renovations and bad valves in the treatment plant. In 2018 the Other category was used to document the water that was seeping through a faulty backwash valve. The backwash valve was leaking roughly twenty-five gallons per minute.

B. Please see attached documents

1b - Daily Log (High Service and Raw Water meter readings) and page 6 of MOR (backwash readings) for January 2018

2b - Daily Log and page 6 of MOR for February of 2018

3b - Daily Log and page 6 of MOR for March of 2018

4b - Daily Log and page 6 of MOR for April of 2018

5b - Daily Log and page 6 of MOR for May of 2018

6b - Daily Log and page 6 of MOR for June of 2018

- 7b – Daily Log and page 6 of MOR for July of 2018
- 8b – Daily Log and page 6 of MOR for August of 2018
- 9b – Daily Log and page 6 of MOR for September of 2018
- 10b – Daily Log and page 6 of MOR for October of 2018
- 11b – Daily Log and page 6 of MOR for November of 2018
- 12b – Daily Log and page 6 of MOR for December of 2018
- 13b – Pages 92-93 of Operator’s Companion 10th edition
- 14b - Backwash Log for November 14, 2018
- 15b - Page 56 of the 2019 PSC draft report

C. The amount of water in two of the following categories is estimated. These are 2a: System Flushing and 3a: Fire Departments.

1c. - System Flushing: The District has used mathematical formula to estimate the amount of water flushed during a given period of time. This formula is listed as exhibit 13b. For a standard flush plug a two-and-a-half-inch opening is used to flush the system for water quality or after a line break. The District follows the AWWA (American Water Works Association) of 2.5 fps (150 gpm on 2.5 inch opening) to scour the pipe followed by a lower rate of 1.75 fps (75 gpm on 2.5 inch opening) to clean up any disturbances (air or discoloration) in the water after the scour. This is accomplished as roughly four hours of a scour and an overnight flow at the lower rate. This comes out to roughly one hundred and twenty-five thousand gallons over a twenty-four-hour period. This is for the smaller flush plugs; for the four and a half inch openings on the larger fire plugs 2.5 fps equals roughly 495 gpm and 125 gpm for 1.75 fps. For the larger flush plugs this comes out to roughly two hundred and fifty thousand gallons over a twenty-four-hour period. For leaks the line is flushed at 2.5 fps for roughly four hours and then the flushing is dialed back to 1.75 fps or less. This is to allow the line to settle down and to allow the air trapped in the water to dissipate. Depending on the area of the county and the amount of elevation changes in the line this process can take a six to eight hours or up to several days. Due to these evolving factors the amount of flushing listed each month varies based on the amount of lines breaks, hydrants flushed and the areas in which the breaks occurred.

2c. – Fire Departments: Fire Dept. usage is estimated from historical amounts. The number fifty thousand was used because this appears to be close to or below the average for all the fire districts combined. Trigg county has eight fire departments that are supplied by the District, each district has its own personnel, and do not share an overall authority. This has led to massive problems of getting the districts to report usage. Due to these factors the District decided to estimate the usage for the fire districts.

D. Barkley Lake Water District takes extreme pride in our service and water quality. We want to ensure that our customers have the safest, best tasting water we can provide. The District currently has

over five hundred and fifty miles of line. These water lines vary in age from a couple of years old to over sixty. To ensure that our standards are met we tend err on the side of caution while flushing or scouring lines. In 2018 the Water District was able to remove and replace approximately forty thousand feet of some of our original system which was installed in the mid-sixties. This has helped reduce the amount of water used to flush and scour by a little over forty million gallons (please refer to page 56 of the 2019 PSC draft report. 15b). In the future as older lines are replaced the District hopes to continue reducing the amount of water used to flush and scour our lines further. In 2021 the District hopes to replace a little over ten thousand feet of PVC lines that were installed in the late seventies. Following that project the District plans to begin the process of replacing some of the oldest parts of the system located along the lake. These replacements should help reduce the amount of flushing even further due their age and unreliability.

2. The District does have a depreciation fund. It was established by bond ordinance in 1969. Please refer to 2a for details.