

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF JESSAMINE-SOUTH ELKHORN)
WATER DISTRICT FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY TO) CASE NO. 2012-00470
CONSTRUCT AND FINANCE A WATERWORKS)
IMPROVEMENTS PROJECT PURSUANT TO KRS)
278.020 AND 278.300)

ORDER

Jessamine-South Elkhorn Water District (“JSEWD”) has applied for a Certificate of Public Convenience and Necessity (“Certificate”) to construct a one million-gallon elevated water storage tank on a one-acre tract of land in Jessamine County, Kentucky, and for authorization to borrow \$1.24 million from Kentucky Rural Water Finance Corporation (“KRWFC”) to finance the proposed construction. Finding that JSEWD has failed to demonstrate the need for a water storage facility of that capacity, we deny the application.

STATEMENT OF THE CASE

JSEWD, a water district organized pursuant to KRS Chapter 74, owns and operates two water distribution systems that serve approximately 2,560 customers in Jessamine County, Kentucky.¹ Its territory is divided into two service areas: Northwest Service Area and Southeast Service Area. The distribution systems serving these areas are not physically connected.²

¹ *Annual Report of Jessamine-South Elkhorn Water District to the Kentucky Public Service Commission for the Year Ended December 31, 2011* at 5 and 27.

² JSEWD’s Response to Intervenors’ First Request for Information, Item 31.

The Northwest Service Area covers the northwest corner of Jessamine County, Kentucky.³ JSEWD serves approximately 2,400 customers within its Northwest Service Area.⁴ It purchases the Northwest Service Area's total water requirements from Kentucky American Water Company ("Kentucky American").⁵ Based upon the 12-month period ending July 31, 2012, the average daily water usage for the Northwest Service Area is 709,200 gallons.⁶ JSEWD currently has two water storage tanks that serve the Northwest Service Area. These storage tanks have a total capacity of 550,000 gallons.⁷

JSEWD proposes to construct a one million-gallon elevated water storage tank on a one-acre tract of land adjacent to the Forest Hills Subdivision in Jessamine County. It began planning and site selection for the proposed facility in 2000.⁸ It acquired the site for the proposed facility on May 10, 2004.⁹ It completed plans and specifications for the proposed facilities in December 2010,¹⁰ which the Kentucky

³ For a detailed description of the Northwest Service Area, see JSEWD's Response to Commission Staff's First Request for Information, Item 11. For a map of JSEWD's territory, see Intervenor's Exhibit 3 at 3.

⁴ App. Ex. A at 1.

⁵ During the hearing, JSEWD witnesses testified that the water district is currently negotiating a contract with the city of Nicholasville for a second source of water for the Northwest Service Area. VR 03/13/2013 Hearing Transcript; 16:27:25-16:27:41; 03/13/2013 Hearing Transcript; 09:49:58-09:50:41.

⁶ *Id.* at 2.

⁷ *Id.*

⁸ JSEWD's Post-Hearing Brief at 7.

⁹ JSEWD's Response to Commission Staff's First Request for Information, Item 3.

¹⁰ Horne Engineering, Inc., Contract Documents For: Catnip Hill Pike 1.0 MG Elevated Storage Tank, Project # 3569 (filed Oct. 19, 2012).

Division of Water approved on March 8, 2011.¹¹ On July 7, 2012, JSEWD opened bids on the contract to construct the proposed facilities.¹²

JSEWD estimates the total cost of proposed facility is \$2,192,000.¹³ It proposes to finance this cost through an appropriation of \$1,000,000 from the Commonwealth of Kentucky¹⁴ and a loan from KRWFC in the principal amount of \$1,240,000.

PROCEDURE

On October 16, 2012, JSEWD submitted to the Commission its application for a Certificate and for authority to enter a loan agreement with KRWFC.¹⁵ The Commission established this docket to consider that application and subsequently permitted Forest Hills Residents' Association, Inc. ("Forest Hills Residents") and William Bates (collectively "Intervenors") to intervene in this matter.

After affording the parties an adequate opportunity to conduct discovery, the Commission held an evidentiary hearing¹⁶ in this matter on March 13-14, 2013.¹⁷ At this hearing, the Commission directed JSEWD to submit additional information, which it

¹¹ Letter from Harold L. Sparks, Kentucky Division of Water, to Glenn T. Smith, JSEWD (Mar. 8, 2011).

¹² App. Ex. C.

¹³ For a complete breakdown of project costs, see App. Ex. B.

¹⁴ 2008 Ky. Acts Ch. 191.

¹⁵ The Commission accepted the application for filing on October 26, 2012 after permitting Jessamine-South Elkhorn District to deviate from 807 KAR 5:001, Section 11(2)(a).

¹⁶ At this hearing the following persons testified on JSEWD's behalf: L. Nicholas Strong, JSEWD's Chairman; Glenn T. Smith, JSEWD's Superintendent; John G. Horne and L. Christopher Horne, Professional Engineers, Horn Engineering, Inc.; and William L. Berkley, Jr., Berkley Appraisal Company. On behalf of the Intervenors, the following persons testified: William Bates and Logan Davis, residents of Forest Hills Subdivision; E. Clark Toleman, Professional Appraiser; and Michael Richie, President, Photo Science.

¹⁷ By our Order of March 6, 2013, the Commission gave written notice of this hearing to the Jessamine County-City of Wilmore Joint Planning Commission in accordance with KRS 100.324(1).

provided on March 17 and 25, 2013.¹⁸ Each party has submitted a written brief. As of April 3, 2013, this matter stood submitted for decision.

DISCUSSION

No utility may construct any facility to be used in providing utility service to the public until it has obtained a Certificate from this Commission.¹⁹ To obtain such a certificate, the utility must demonstrate a need for the facilities to be constructed and an absence of wasteful duplication.²⁰

“Need” is defined as

. . . substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed and operated.

. . . the inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.²¹

“Wasteful duplication” is defined as “an excess of capacity over need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”²² To demonstrate that a proposed facility does not result in wasteful duplication, the applicant must demonstrate that a thorough review of

¹⁸ Electronic mail message from Bruce E. Smith, JSEWD counsel, to Gerald Wuetcher, Commission Staff counsel (Mar. 25, 2013 2:34:32 PM); Electronic mail message from Bruce E. Smith, JSEWD counsel, to Gerald Wuetcher, Commission Staff counsel (Mar. 17, 2013 4:37:23 PM).

¹⁹ KRS 278.020(1).

²⁰ *Kentucky Utilities Co. v. Pub. Ser. Com'n*, 252 S.W.2d. 885 (Ky. 1952).

²¹ *Id.* at 890.

²² *Id.*

all alternatives has been performed.²³ Selection of an alternative that is not the least-cost alternative does not necessarily result in wasteful duplication.²⁴ All relevant factors must be balanced.²⁵

The first issue before us, therefore, is whether a need exists for the proposed facility. The record clearly shows that the Northwest Service Area needs additional storage capacity. Pursuant to KRS 278.280(2), the Commission has promulgated 807 KAR 5:066, Section 4(4), which requires that a water system have minimum storage capacity “equal to the average daily consumption.” The Northwest Service Area has an average daily consumption of 709,200 gallons.²⁶ Currently, the total storage capacity presently available for the Northwest Service Area is only 550,000 gallons.²⁷ A deficit of 159,200 gallons presently exists.

The second issue before the Commission is whether the construction of the proposed one million-gallon storage facility will result in the excessive investment or an unnecessary multiplicity of physical properties. The proposed facility would provide the Northwest Service Area with 1,550,000 gallons of water storage — almost three times

²³ Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin counties, Kentucky* (Ky. PSC Sept. 8, 2005).

²⁴ See *Kentucky Utilities Co. v. Pub. Ser. Com'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 KV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

²⁵ *Id.* at 6.

²⁶ App. Ex. A at 2.

²⁷ When assessing the need for additional water storage capacity, the Commission has viewed the storage facilities of the Northwest Service Area and of Southeast Service Area separately. Because the systems are not physically connected, considering the average daily usage and the capacity storage facilities of each service area jointly is not reasonable and would be contrary to the intent of 807 KAR 5:066, Section 4(4).

its present capacity and more than twice the capacity that 807 KAR 5:066, Section 4(4), requires. On its face, the magnitude of the increase creates an appearance of unnecessary and excessive investment.

JSEWD offers several arguments to counter this appearance. First, it suggests that “average daily consumption,” as the term is used in 807 KAR 5:066, Section 4(4), is not limited to an average determined on an annual basis, but may be determined on a monthly basis. It asserts that “[s]uch an analysis based on monthly demand is more applicable and necessary for a utility such as JSEWD that has pronounced seasonal and daily variations in demand.”²⁸ Noting that its average monthly daily usage in June 2012 and July 2012 was 1,115,590 gallons and 1,109,110 gallons respectively, JSEWD suggests that the addition of one million gallons of water storage will not result in a level greatly in excess of the minimum level that Section 4(4) establishes.²⁹

JSEWD also argues that consideration must be given to its peak day water demand. It notes that, as a utility, it must provide adequate service.³⁰ KRS 278.010(14) defines “adequate service” as meeting maximum customer demands and assuring customers of “reasonable continuity of service.” It further notes that 807 KAR 5:006, Section 10(4), requires that “[t]he quantity of water to be delivered to the utility’s distribution system from all source facilities shall be sufficient to supply adequately, dependably and safely the total reasonable requirements of its customers under maximum consumption.” Noting that its maximum daily water usage in the months of

²⁸ JSEWD’s Post-Hearing Brief at 16.

²⁹ *Id.* at 19.

³⁰ *Id.* at 17. See also KRS 278.030(2).

May through July 2012 exceeded 1,550,000 gallons, JSEWD argues that the proposed capacity addition does not result in any excessive storage.³¹

To the extent that the proposed facility results in capacity beyond JSEWD's present needs, JSEWD has indicated that this capacity will be necessary to meet expected growth in the Northwest Service Area. Based upon a study conducted by its engineer, JSEWD estimates that it will experience an annual growth of approximately 60 customers per year for the next 40 years and that the proposed facility will provide for sufficient water storage capacity for a 40-year period to meet this anticipated customer growth.³²

For their part, the Intervenors argue that the consideration of peak or maximum demand usage in determining whether a one million-gallon storage facility is needed is not appropriate. They note that the Section 4(4) expressly bases minimum storage capacity upon **average daily use** and, therefore, maximum use – whether computed daily, monthly, or annually – is irrelevant to determining JSEWD's compliance with that regulation. They assert that references in KRS 278.010(14) to a utility's "having sufficient capacity to meet the maximum estimated demands of the customer" refer to an adequate source of supply, not adequate storage capacity and that 807 KAR 5:006, Section 10(4), addresses only water supply requirements, not water storage requirements.

The Intervenors assert that average daily usage information does not support the addition of one million gallons of water storage. They note that during the six months of

³¹ JSEWD's Post-Hearing Brief at 19-20; JSEWD's Response to Intervenors' Supplemental Requests for Information, Item 27.

³² Intervenors' Hearing Exhibit 3 at 79-80.

the 12-month period from August 2011 to July 2012, Northwest Service Area's water usage was largely within that area's storage capacity and that the average monthly daily usage for the total annual period was 709,200 gallons. They further note that for the period between 2006 and 2010, the average daily consumption in Northwest Service Area fell between 93 percent and 125 percent of its present storage capacity, suggesting that a doubling of existing water storage capacity is not necessary.³³

Intervenors argue that only 57.7 percent of the proposed storage tank's capacity will be used on an average day.³⁴ To ensure that water quality degradation does not occur, the proposed storage tank must be operated in a manner to permit all water within the tank to turn over within 72-hour period.³⁵ Hydraulic models that JSEWD's engineers prepared³⁶ show that on an average day, such turnover can occur only if the maximum volume of water stored in the tank is 604,515 gallons, or approximately 57.7 percent of proposed storage facility's capacity. Thus, Intervenors argue, JSEWD presently cannot use 42.3 percent of the proposed water storage volume on an average day.

³³ Intervenor Post-Hearing Brief at 6; JSEWD's Response to Intervenors' Supplemental Requests for Information, Item 16. Average Daily Consumption for the period from 2006 through 2010 is set forth below:

Year	Average Daily Usage
2006	512,634
2007	692,833
2008	667,447
2009	533,013
2010	619,353

³⁴ Intervenors' Post-Hearing Brief at 12-13.

³⁵ Kentucky Division of Water, "General Design Criteria For Surface and Ground Water Supplies" at 8 (Apr. 1, 2010), available at <http://dep.ky.gov/formslibrary/Documents/General%20Design%20Criteria.pdf>.

³⁶ JSEWD's Response to Commission Staff's First Request for Information, Item 1.

The Intervenor also take issue with JSEWD's demand projections. They note that the demand projections that JSEWD provides in this proceeding were prepared in 2006 and have not been updated to reflect more recent conditions. Intervenor further note that the projected annual growth rate of 60 residential customers has not occurred. Actual residential customer growth between 2006 and 2012 has averaged 39.33 customers annually, which is 35 percent below projected growth.³⁷ They argue that the methodology used to develop the growth rate projections is flawed. It is based, they argue, upon growth in six residential subdivisions in the Northwest Service Area that JSEWD's engineer believed to be indicative of anticipated future demands, rather than on systematic sampling. They note that these projections did not consider the effects of declining population growth, declining usage per customer, conservation, leakage, or non-revenue water.³⁸

Finally, Intervenor argue that JSEWD failed to consider other water storage alternatives. They argue that JSEWD failed to consider a smaller water storage tank. It notes the absence of any evidence in the record of any discussions or studies regarding tank size or capacity. Noting that Kentucky American, JSEWD's water supplier, has six million gallons of water storage located in close proximity to one of JSEWD's master metering points, they assert that JSEWD failed to investigate the possibility of using Kentucky American's storage. They further assert that JSEWD failed to investigate seeking a deviation from the requirements of 807 KAR 5:066, Section 4(4). They note that, in the absence of any pressure or other service problems related to its current storage capacity and its negotiations with the city of Nicholasville to obtain a second

³⁷ JSEWD's Response to Intervenor's Supplemental Requests for Information, Item 22.

³⁸ Intervenor's Post-Hearing Brief at 8-9.

source of supply for the Northwest Service Area, this alternative should have been considered.

As the applicant in this case, JSEWD bears the burden of proof.³⁹ JSEWD has demonstrated that the system serving the Northwest Service Area is not in compliance with 807 KAR 5:066, Section 4(4). JSEWD's current average daily use for the Northwest Service Area exceeds its storage capacity in that area. We find no merit in the argument that "average daily consumption" should be based upon a monthly or peak seasonal period of operations. We have for some period of time used an annual period of operations to determine average daily consumption.⁴⁰ Use of an annual period better ensures a storage standard that reflects normal operations and ameliorates the effects of peak and minimal use periods. Accordingly, we do not accept JSEWD's argument that Section 4(4) requires construction of the proposed storage tank.

Additionally, we are unable to find that JSEWD has met its burden of proof that the proposed storage facility is necessary and will not result in excessive or wasteful investment. The record does not show that JSEWD has adequately investigated and eliminated all reasonable alternatives to obtain compliance with that regulation.

³⁹ *Energy Regulatory Commission v. Kentucky Power Co.*, 605 S.W.2d 46 (Ky.App. 1980).

⁴⁰ See, e.g., Case No. 10121, *Application of Overland Development, Inc., for a Deviation from the Water Storage Requirements* (Ky. PSC Mar. 29, 1988).

Assuming *arguendo* that a new storage facility is needed,⁴¹ the record indicates an absence of a thorough and complete inquiry on JSEWD's part into the appropriate size and capacity of a new storage facility. While Section 4(4) may not require JSEWD's construction of a million-gallon storage tank, the proposed facility may still be necessary to address reasonably expected growth or to provide for enhanced services such as fire protection and, therefore, would not constitute excessive investment. JSEWD, however, has not demonstrated that system growth or enhanced services require a million-gallon storage tank or that a smaller facility could not as easily address these concerns.

We find that JSEWD's evidence regarding system growth to be inadequate. The growth projections in the record are based upon a seven-year old study that has not been updated to reflect more recent population trends or economic conditions. No census data or independent population studies are used. Given that the projections were not based upon a representative sample of the entire Northern Service Area, and that the average residential customer growth for the period from 2006 through 2012 was 35 percent below projected residential growth, we are reluctant to afford much weight to the growth projections. Simply put, the evidence that JSEWD introduced regarding anticipated residential growth has failed to convince us that the proposed storage capacity is needed and will be used over the life of the proposed facility to such extent as to make it an economically efficient investment.

⁴¹ We agree with the Intervenor's that JSEWD should have investigated the availability of obtaining water storage capacity from Kentucky American. At a minimum, JSEWD should have demonstrated that such capacity was unavailable or insufficient to address the water district's requirements. We further find that JSEWD should at least consider whether the institution of a line-loss or non-revenue water reduction program would have affected the need for additional storage capacity or significantly reduced the amount of needed storage capacity.

Our decision today should not be regarded as a rejection of JSEWD's request for additional storage capacity.⁴² As we have previously noted, the record demonstrates a need for additional storage capacity. JSEWD has failed to demonstrate that the level of storage capacity that the proposed facility will provide is necessary. To the extent that JSEWD can provide more convincing and reliable evidence on the customer growth and demand in the Northwest Service Area or additional evidence on the suitability of smaller water storage facilities for that area, it may request rehearing on this Order to present such evidence or file a new application.

SUMMARY

Based upon our review of the record and being otherwise sufficiently advised, the Commission finds that:

1. Jessamine-South Elkhorn is a utility and is subject to Commission jurisdiction.⁴³
2. KRS 278.020(1) requires JSEWD to obtain a Certificate from the Commission prior to commencing construction of the proposed facilities.
3. KRS 278.030 requires Kentucky-American to provide "adequate, efficient and reasonable service."
4. 807 KAR 5:066, Section 4(4), requires that "a water system have minimum storage capacity equal to the average daily consumption."
5. For the calendar year ending July 31, 2012, JSEWD's Northern Service Area had average daily usage of 709,200 gallons.

⁴² Our decision today focuses only on the need for the proposed storage facility. Having found that JSEWD has failed to demonstrate the need for the proposed storage facility, we do not address the questions related to the selection of the site for the proposed facility or JSEWD's treatment of the intervenors.

⁴³ KRS 278.010(3)(d); KRS 278.015.

6. JSEWD's Northwest Service Area has total water storage capacity of 550,000 gallons.

7. JSEWD's Northwest Service Area is not in compliance with 807 KAR 5:066, Section 4(4).

8. JSEWD proposes to construct a million-gallon elevated water storage tank to serve its Northwest Service Area.

9. The proposed facility is not an extension in the ordinary course of business.

10. JSEWD has failed to demonstrate that the construction of an additional one million gallons of water storage capacity is needed or will not result in excessive or wasteful investment.

11. JSEWD has failed to demonstrate that the public convenience and necessity require construction of the proposed facilities.

12. As JSEWD's proposed loan agreement with KRWFC is intended to finance the construction of the proposed water storage facility, and as JSEWD has failed to demonstrate the need for such facility, JSEWD's application to enter into the proposed loan agreement should also be denied.

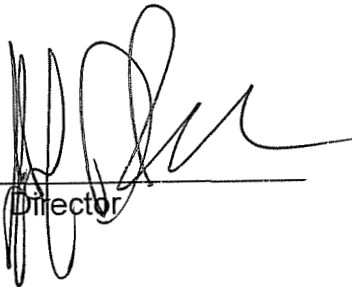
IT IS THEREFORE ORDERED that:

1. JSEWD's application for a Certificate of Public Convenience and Necessity is denied.

2. JSEWD's application for authorization to enter an agreement to borrow \$1.24 million from KRWFC is denied.

By the Commission

ENTERED
APR 30 2013
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST: 

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