

## LAKE JUNALUSKA ASSEMBLY, INC. DOCKET NO. W-1274, SUB 7

## TESTIMONY OF JOHN L. DAVIS

December 18, 2019

1 Q1. PLEASE STATE FOR THE RECORD YOUR NAME AND ADDRESS.

2 A1. My name is John L. Davis. I reside at 6 Bomac Road, Lake Junaluska, North Carolina,  
3 28745.

4 Q2. BRIEFLY STATE YOUR EDUCATION AND EXPERIENCE.

5 A2. I hold a bachelor of science in civil engineering degree from the University of Kentucky  
6 and a master of science degree in civil engineering from Louisiana State University. I'm  
7 a registered professional engineer in both civil and environmental disciplines, currently  
8 inactive. I retired as director of a multi-billion dollar state office. I have decades of  
9 experience in the financing, design and construction of infrastructure, and have worked  
10 closely with government and civic leaders at all levels, including state legislators and two  
11 governors. I was an elected member of the Junaluska Assembly Community Council  
12 from 2016-2018. I did not seek re-election in 2018.

13 Q3. WHY DID YOU REQUEST TO BE AN INTERVENER FOR THIS DOCKET?

14 A3. First, I want to thank the Commission for granting my request to be designated an  
15 intervener.

16 Lake Junaluska Assembly Inc. (LJA) is a nonprofit, non-stock corporation that manages,  
17 owns, develops, and sells real property in Lake Junaluska Assembly, an unincorporated  
18 area in Haywood County. LJA is a licensed North Carolina real estate brokerage firm.  
19 LJA is governed by a Board of Trustees, the Trustees being appointed either by virtue of  
20 positions in other organizations, or nominated and elected from within the LJA Board of  
21 Trustees (most selected this way). LJA governs the Lake Junaluska Assembly area,  
22 including by ownership and operation of the water and sewer systems. Lot/unit owners  
23 in Lake Junaluska Assembly do not become members of LJA by virtue of lot/unit  
24 ownership. The previously mentioned Community Council, while being a community  
25 elected body, is advisory only, has no legal or contractual authority over LJA or in  
26 governance of Lake Junaluska Assembly, and is not a legal entity.

27 Given these conditions, as a property owner with no elected representation in the  
28 governance of the immediate area in which I live, I sought to participate in the  
29 proceedings before the Commission so that I could perhaps have some meaningful input  
30 on something that directly impacts me.

31 Q4. WHAT ARE YOUR RECOMMENDATIONS TO THE COMMISSION CONCERNING THIS  
32 DOCKET?

A4. Based on my review of LJA's partial response to my data request, I support LJA being granted a Certificate of Public Convenience and Necessity ("CPCN") with its current rates, and request the Commission withhold approving the proposed rates at this time.

Q5. WHY DO YOU REQUEST THE COMMISSION WITHOLD APPROVING THE LJA PROPOSED RATES AT THIS TIME?

A5. My reasons can be grouped into four areas: (a) Inequitable Rate Structure, (b) Capital Plan, (c) Operations Budget, and (d) Incomplete Responses to My Data Request.

(a) Rate Structure: My comments herein relate to water, only, since the sewer rate structure essentially reflects the water rate structure. According to AWWA M1, a goal of a rate structure should be "that each customer class pays the costs allocated to the class and thus cross-class subsidies are avoided." From data provided by LJA in response to my data request, it appears that the LJA proposed rate structure is not equitable between residential and commercial customers. I conclude this because the percentage of revenue paid in by the residential customers for the volume of water consumed is significantly higher than that of the commercial (see Table 1). Under the LJA proposed rate structure, it appears the residential customers pay in approximately 74% of the revenue while consuming only 60% of the water. I believe comparing percent revenue generated by customer class versus percent volume consumed is an appropriate way to measure fairness since (a) the physical plant is already paid for, (b) there is no debt, depreciation or return on unrecovered investment, and (c) operating maintenance and electrical costs are minimal. In other words, distribution of costs allocated to the various cost components to customer class according to the respective responsibility of the customer classes for each of the component costs, can be considered uniform.

The LJA proposed rate structure is mostly a uniform rate (single block) with varying base charges. According to AWWA M1, uniform rate structures might be appropriate when "Customer groups or service classes exhibit similarities in usage (demand) characteristics." I don't think this is the case for LJA. For this reason, I'm not sure an equitable rate structure can be accomplished with a single block structure. See Table 2 for an example of an increasing block structure that would get closer to accomplishing the equity goal while providing essentially the same revenue. I believe that in the past, LJA has used a decreasing block rate structure, so having a rate structure different than a uniform rate (single block) is not without precedent.

I ask that the Commission require LJA propose a rate structure that is equitable across customer classes. I do agree with the LJA proposed use of a capital surcharge, and that the surcharge be structured based on meter size factors.

(b) Capital Plan: I'm not sure what 10-year capital plan is being referenced. If it is the Cavanaugh plan, then there has been significant work done outside the plan (including a large, phased meter replacement project which was considered and rejected in the

71 Cavanaugh plan). Further, according to the LJA answer to my data request, a buy/lease,  
72 new/used financial analysis for the \$180,000 vacuum truck in the plan submitted to  
73 NCUC has not been performed, "An economic analysis for the life cost of a replacement  
74 vacuum water truck will be done in the fiscal year when the truck is to be acquired,  
75 based on funding available at that time." Perhaps a better justified and defined 5-year  
76 capital program would be in order.

77 I ask that the Commission require LJA propose a capital plan/program that is  
78 unambiguous and where each line item therein has been formally justified.

79 (c) Operating Budget: The operating budget has increased dramatically. Back in 2012,  
80 LJA prepared a very thorough study justifying the then doubling of rates to pursue a  
81 capital improvement plan based on a \$150,000 operating budget (not considering  
82 purchased water/sewer treatment to Waynesville ) while providing at least \$200,000  
83 per year for capital improvements (total for water and sewer). By 2016, operations had  
84 increased to \$226,361 (51% increase, for perspective CPI increased 5% over those  
85 years). The 2018 operating budget submitted in the Application to NCUC is \$362,240 (a  
86 60% increase from 2016 and 141% increase from 2012). The audit submitted with the  
87 Application is for LJA at-large (including its commercial activities), the water/sewer  
88 program being part of a single line item for revenues and expenditures for "residential  
89 services" (a/k/a Assembly Public Works), designated as unrestricted revenues and  
90 expenditures, no less. Also, the 2018 budget on proposed rates submitted in the  
91 Application to NCUC does not include a reserve line item. According to the LJA answer  
92 to my data request, LJA considers the capital budget to be the reserve. This philosophy  
93 was probably contributory to why so much of the funds supposed to go to capital in the  
94 2013 rate increase ended up being spent on operations.

95 I ask that the Commission thoroughly review the LJA water and sewer operations  
96 budget to determine appropriateness.

97 (d) Incomplete Responses to My Data Request: As an intervener, I made a data request  
98 to LJA and received some of the information requested. See Exhibit A for my replies to  
99 the LJA responses to this data request.

100 I ask that the Commission receive and evaluate the information I requested, and was  
101 denied, prior to approving a rate structure.

102 Q6. DOES THIS CONCLUDE YOUR TESTIMONY?

103 A6. Yes.

**Table 1. LJA Proposed Rate Structure, Water Used vs. Revenue Paid by Customer Class (not including capital surcharge)**

		<i>Percent of total volume metered</i>	<i>Percent revenue</i>
W01	3/4" residential	56%	67%
W08	3/4" residential (water only; Holston)	3%	4%
W09	3/4" irrigation/landsc water only resid	1%	3%
W00	3/4" commercial	12%	5%
W02	1" commercial	4%	4%
W03	2" commercial	8%	5%
W04	3" commercial	3%	2%
W05	4" commercial	11%	8%
W06	4" gallons commercial	1%	2%
W07	1" irrigation/comm water only)	0%	0%

**Table 2. Example Increasing Block Structure to Improve Equity  
between LJA Residential and Commercial Customers  
(Test Year = 2017)**

		USAGE RATE	BASE CHARGE	% OF TOTAL VOLUME USAGE	% OF TOTAL REVENUE
<b>W01</b>	3/4" residential (1st 200 cf)	0.035	\$16.00	56%	60%
	3/4" residential (> 200 cf)	0.0555	\$16.00		
<b>W08</b>	3/4" residential (water only; Holston)(1st 400 c.f)	0.035	\$16.00	3%	3%
	3/4" residential (water only; Holston)(> 400 c.f)	0.0555			
<b>W09</b>	3/4" irrigation/landsc water only resid	0.075	\$16.00	1%	2%
<b>W00</b>	3/4" commercial (1st 600 cf)	0.035	\$16.00	12%	8%
	3/4" commercial (> 600 cf)	0.0555			
<b>W02</b>	1" commercial (first 700 cf)	0.035	\$100.00	4%	4%
	1" commercial (> 700 cf)	0.0555			
<b>W03</b>	2" commercial	0.035	\$250.00	8%	8%
<b>W04</b>	3" commercial	0.035	\$330.00	3%	2%
<b>W05</b>	4" commercial	0.035	\$550.00	11%	10%
<b>W06</b>	4" gallons commercial	0.035	\$550.00	1%	2%
<b>W07</b>	1" irrigation/comm water only)	0.075	\$16.00	0%	0%

BEFORE THE  
NORTH CAROLINA UTILITIES COMMISSION DOCKET NO. W-1274, Sub 7

In the Matter of Application of	)	John L. Davis's Replies to Responses
Lake Junaluska Assembly, Inc.	)	of Lake Junaluska Assembly, Inc. to
for a Certificate of Public Convenience	)	Davis's Data Request No. 1
And Necessity, and for Approval of Rates	)	

**APPLICANT'S General Note:**

Lake Junaluska Assembly ("LJA") notes at the outset that the North Carolina Utilities Commission ("NCUC") has not authorized the service of data requests in this docket, and that its Order Scheduling Hearings And Requiring Customer Notice does provide for such, or establish any procedures or schedules for such. Without waiving any of its rights or objections relating to these data requests, in a good faith effort to cooperate, LJA provides the information described below.

DAVIS REPLY: Noted.

**Davis's Requests for Information, Applicant's Responses, and Davis's Replies**

**1) Please provide the total volume of water imported from Town of Waynesville in each month of each year 2016-2018, inclusive.**

- i) APPLICANT'S RESPONSE: LJA objects to this request, to the extent that it seeks information which is irrelevant to any issue legitimately presented in this docket, is not reasonably calculated to lead to the discovery of relevant evidence, and that compliance with this request would be unduly burdensome. Subject to and without waiving the foregoing objections, the data set forth in LJA's Application filed in this docket is actual data from 2017 adjusted for known and measurable changes. LJA will provide the requested data regarding water purchased from Waynesville for each month in 2017, and it otherwise objects to this request to the extent that it seeks data from 2016 and 2018. Please see Attachment No. 1.

- (a) DAVIS REPLY: Multi year information is sought so that variations in use or data can be considered in analysis of rate structure. For example, the 2017 volume of metered water figure provided in response to this data request appears to be 4,516,880 cf, where the figure given in the Application is 4,663,143 cf. Another example, the Application says "At this point, LJA still experiences purchased water losses in the low to mid-20% range ...". From review of the metered volume figures for 2017 provided in response to this data request, it appears non-revenue water is about 34% of total imported water (which is different than the mid-20% in a report posted on the LJA website for 2016).

- 2) Please provide the dollar cost of purchasing water from Town of Waynesville in each month of each year 2016-2018, inclusive.**
- i) APPLICANT'S RESPONSE: Subject to the objections set forth in LJA's Response to Item 1, LJA will provide the requested data for each month in 2017. Please see Attachment No. 2.
    - (a) DAVIS REPLY: Acknowledged, subject to Reply for item #1.
- 3) Please provide the total revenue water volume in each month of each year 2016 through 2018, inclusive, for each of the meter types (rate codes) listed on Attachment #1A of the Attachments to Application of LJA.**
- i) APPLICANT'S RESPONSE: Subject to the objections set forth in LJA's Response to Item 1, and given the data that is included in Attachment #1B to LJA's Application, LJA will provide the requested data for each month in 2018. Please see Attachment No. 3.
    - (a) DAVIS REPLY: Acknowledged, subject to Reply for item #1.
- 4) Please provide the identification of each commercial facility and each irrigation location, and the number/sizes of meters associated with each.**
- i) APPLICANT'S RESPONSE: Please see Attachment No. 4.
    - (a) DAVIS REPLY: Acknowledged.
- 5) Is there an amount budgeted for "reserves" in Attachments #2A and #2B of the Attachments to Application of LJA, and if not, why?**
- i) APPLICANT'S RESPONSE: Yes. The capital improvement assessment proposed in Attachment 2B to LJA's Application is effectively a reserve. The intent is to use that assessment to fund continuing efforts to repair and replace the water and sewer infrastructure serving the Assembly community.
    - (a) DAVIS REPLY: Recommend establishing a dedicated reserve line item in the operating budget. Less than 5 years ago Applicant had non-designated emergency reserves that appear to have been spent on normal operations. Recommend that reserve policy be established and not just inferred by lack of reserves line item in overall budget. Per AWWA Cash Reserve Policy Guidelines, "The level of reserves maintained by a utility is an important component of short and long-term financial management, and is a key consideration in the rate-setting process. ... while many utilities view higher levels of reserves as prudent and conservative planning that result in many benefits, some utilities philosophically view reserves as tying up current customer dollars that could be used for expenditures or other benefits. Regardless of the philosophical perspective on reserves, all utilities should establish formal or informal financial policies relative to reserves. Such policies should articulate how these balances are established, their use, and

how the adequacy of each respective reserve fund balance is determined. Once reserve targets are established, they should be reviewed annually during the budgeting process to monitor current levels and evaluate conformance with formal or informal policies. Decisions can then be made to maintain, increase, or spend down reserve balances, as appropriate, with an understanding of the impact of such decisions to the upcoming budget period and long-term financial plan of the utility. Moreover, a utility should review the philosophy or approach used to establish its reserve policies every three to five years. This time frame is appropriate given that customer demands, operating cost profiles, debt levels, and capital infrastructure activity can vary during this time, which would affect the appropriate level of reserve balances.”

- 6) Are there any 6 inch meters in the water system? No rates are included for such in Attachments to Application of LJA; however, past applications to NCUC included multiple 6 inch service taps in the inventory and a 2017 report posted by LJA says a 6 inch meter was replaced in 2015.**

i) APPLICANT’S RESPONSE: There are no 6-inch customer water meters in LJA’s system. There are 6-inch supply water meters owned by the Town of Waynesville. As shown on Page 5, Item 17 of LJA’s Application, there are no 6-inch water service taps in use, but there are nine 6-inch sewer service taps.

(a) DAVIS REPLY: Acknowledged.

- 7) Please clarify item #7 (under Notes) in Attachment #2A to the Attachments to Application of LJA. How much is the "additional salary" and what to/for what is the "additional salary" adding to?**

i) APPLICANT’S RESPONSE: In 2017, the water and sewer budget was adjusted to more accurately reflect the salary cost of providing water and sewer services across the entire Assembly Public Works Department.

(a) DAVIS REPLY: Response does not answer the request. Applicant uses the term “additional”; the request was additional to what? The administrative costs in the proposed budget far exceed that in all years prior to 2017. Again, the request was for the basis of the administrative costs (in the past) that are now being added to.

- 8) In Attachment #2A to the Attachments to Application of LJA it appears that some of the annual base revenue was used to deliver water; one could argue for part of non-revenue water. If so, why is non-revenue water funded out of the base charges? When the water rates were more than doubled by LJA in 2013 there is documentation saying the intent at that time was to fund non-revenue water completely from water usage (volume) revenue.**



- i) APPLICANT'S RESPONSE: Attachment 2A reflects the cost of purchased water and sewer under NCUC guidelines, and it makes no distinction between base charge and usage charge water revenues.
  - (a) DAVIS REPLY: Noted.
- 9) **What percentage of the total revenue water was consumed, by volume, through the commercial meters and what percent of the total water revenue was paid by customers of those meters, in each year 2016 through 2018, inclusive?**
  - i) APPLICANT'S RESPONSE: Subject to the objections set forth in LJA's Response to Item 1, LJA will provide the requested data for 2017 and 2018. Please see Attachment No. 5.
    - (a) DAVIS REPLY: Acknowledged, subject to Reply for item #1.
- 10) **Was a rent vs. buy, new vs. used, financial analysis done as part of the decision process to include a sewer (vacuum?) truck in the proposed capital plan? If so, please provide a copy of that analysis.**
  - i) APPLICANT'S RESPONSE: No, not yet. An economic analysis for the life cost of a replacement vacuum water truck will be done in the fiscal year when the truck is to be acquired, based on funding available at that time.
    - (a) DAVIS REPLY: Recommend not including an item in the capital plan that in total amounts to about a year's worth of capital budget until/unless a financial analysis is done to justify.
- 11) **Please explain the following sentences from the last paragraph of page 3 of Attachment #1D to the Attachments to Application of LJA - "LJA's situation and circumstances are unlike those of a typical water and sewer utility service provide. All of its plant has been paid for by its customers. Thus, LJA has no rate base and its rates will be set based on the operating ratio methodology."**
  - i) APPLICANT'S RESPONSE: LJA's past investment in water and sewer infrastructure was recovered through the rates paid by its water and sewer service customers; it thus has no unrecovered investment, which is referred to in utility ratemaking as rate base. N.C. Gen. Stat. § 62-133.1 allows water and sewer utilities to have their rates set based on an operating ratio, rather than under N.C. Gen. Stat. § 62-133(b).
    - (a) DAVIS REPLY: The Response did not address "All of its plant has been paid for by its customers." The Applicant is a developer of real estate to which it has provided water/sewer service. If the Applicant recovered any or all of its costs to provide water/sewer to lots it developed, recommend the Applicant reimburse the water/sewer fund such costs since such costs are developer's costs with potential recovery through sale of real property.

**12) Please explain the following sentences from pages 3 and 4 of Attachment #1D to the Attachments to Application of LJA - "LJA does not have access to other sources of capital to fund continuation of the work called for in the 10-Year Plan. Further, even if LJA could borrow money to fund this work, the typical rate making process would require filing of sequential rate cases to cover the debt. That approach would not be in the customers' best interest, as the debt service and rate case expenses would only increase the cost to LJA's rate payers of completing the 10-Year Plan." LJA recently completed an infrastructure project where, according to public announcements, it was funded in part through debt. Has a financial analysis been prepared to show that the cost of debt for work to complete the 10-Year Plan is not justifiable?**

i) APPLICANT'S RESPONSE: No. If funds were borrowed to finance the cost of continued efforts to refurbish LJA's water and sewer system, assuming LJA could borrow money for such work, it would only increase the cost of that work for LJA's customers, which would not be in their best interest. In that scenario, the customers would end up paying even more, as they would have to pay for the cost of the work, plus the debt service.

(a) DAVIS REPLY: Response is purely anecdotal. Debt is often the means of finance for infrastructure projects and often the benefits of a project outweigh the extra costs of incurring debt to finance it. Financial analysis considering debt should be part of how to accomplish a capital plan. Also, if an annual \$200,000 pay-as-you-go capital expenditure plan is adopted, recommend that this target be confirmed to both reduce water loss to some economically justified level and to support replacing the entire systems as sections reach the ends of service life.

**13) Why has LJA retained ownership and management of the public water (and sewer) system rather than establishing a non-profit water/sewer corporation that could qualify for grants and low interest loans?**

i) APPLICANT'S RESPONSE: LJA objects to this request, to the extent that it poses a hypothetical that is irrelevant to any issue legitimately presented in this docket, and is not reasonably calculated to lead to the discovery of relevant evidence. Subject to and without waiving the foregoing objections, any decision to consider any alternative ownership arrangement of LJA's water and sewer operations would be for the Lake Junaluska Assembly Board of Trustees.

(a) DAVIS REPLY: This data request is relevant because Applicant makes a point to say "LJA does not have access to other sources of capital ...", when a potential remedy is readily apparent.

**14) In Attachment #1C to the Attachments to Application of LJA it appears the calculation of REU is based on the total revenue water and total equivalent meters calculated from meter size factors. Aren't equivalent residential units usually based on the average (or peak) amount of water consumed by single-family residence with the typical size**

**residential meter? What would the REU be if based on average revenue water volume for single-family residential  $\frac{3}{4}$  inch meters?**

- i) APPLICANT'S RESPONSE: LJA objects to the request as to "what would the REU be if based on average revenue water volume for single-family residential  $\frac{3}{4}$  inch meters." LJA does not calculate, possess or maintain data on this average in the ordinary course of its business, and LJA has no obligation to create data that it does not possess. Subject to and without waiving the foregoing objections, LJA believes this information is irrelevant to any issue in this matter as it understands that for purposes of setting a REU base facility charge (the charge for zero usage), the methodology traditionally used at the NCUC is that the REU is based on the capacity of various meter sizes as determined by American Water Works Association.
  - (a) DAVIS REPLY: Noted. Response does not address whether the methodology used for calculating REU in the application was not in accordance with typical methods.



John L. Davis  
December 11, 2019