

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**IN THE MATTER OF THE PETITION OF)
SOUTHERN MONROE WATER) CAUSE NO. 45141-U
AUTHORITY FOR A NEW SCHEDULE OF)
RATES AND CHARGES)**

OUCS TESTIMONY

OF

CARL N. SEALS – PUBLIC’S EXHIBIT NO. 2

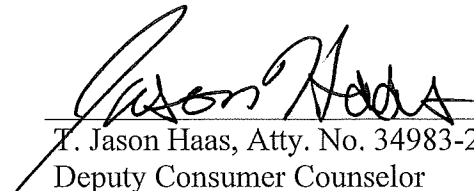
ON BEHALF

OF

THE INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

DECEMBER 19, 2018

Respectfully Submitted,



T. Jason Haas, Atty. No. 34983-29
Deputy Consumer Counselor

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Office of Utility Consumer Counselor's* *Testimony of Carl N. Seals* has been served upon the following counsel of record in the captioned proceeding by electronic service on December 19, 2018.

Larry Smith
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TESTIMONY OF CARL N. SEALS
CAUSE NO. 45141-U
SOUTHERN MONROE WATER AUTHORITY

1 **Q: Please state your name and business address.**

2 A: My name is Carl N. Seals, and my business address is 115 West Washington Street, Suite
3 1500 South, Indianapolis, Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as a Utility
6 Analyst in the Water/Wastewater Division. My qualifications and experience are set forth
7 in Appendix A.

8 **Q: What is the purpose of your testimony?**

9 A: I discuss Southern Monroe Water Authority's ("Southern Monroe" or "Utility") current
10 operations, its request for an extensions and replacements revenue requirement, and its
11 compliance with a prior Commission order.

12 **Q: What have you done to prepare your testimony?**

13 A: I reviewed Southern Monroe's Small Utility Rate Application and its 2013-2017 Indiana
14 Utility Regulatory Commission ("IURC" or "Commission") Annual Reports. I wrote
15 discovery requests and reviewed the responses Southern Monroe provided. I reviewed the
16 Commission's final order in Cause No. 43952-U and testimony filed in that cause. I
17 researched news articles regarding Southern Monroe's current and past operations and rate
18 increases. On December 11, 2018, I met with Ted Prince, Southern Monroe's
19 Superintendent, who showed me the Utility's above-ground water utility facilities and
20 discussed its operations. I took pictures of those facilities, which I present in Attachment
21 CNS-1 to this testimony.

1 **Q: Please describe Southern Monroe characteristics.**

2 A: Southern Monroe is a not-for-profit water utility that began operation in June of 1968,
3 which currently serves approximately 3,400 customers south of Bloomington in Monroe
4 County. This includes the communities of Harrodsburg, Sanders, Smithville and the
5 surrounding rural area in Clear Creek and Perry Townships. The Utility's office is located
6 at 5790 S. Fairfax Road, Bloomington, Indiana. Southern Monroe operates as a
7 distribution-system-only water utility, as it does not produce its own water. The Utility's
8 system includes four points of entry from its supplier, the City of Bloomington, two
9 pumping stations, four storage tanks, 331 fire and 55 flush hydrants and approximately 81
10 miles of main, with diameters ranging from 2 to 20 inches. Mains less than 6 inches in
11 diameter are typically polyvinyl chloride, while larger mains are asbestos cement. In 2017,
12 Southern Monroe sold an average of 422,638 gallons of water per day.¹ Southern Monroe's
13 2017 IURC Annual Report sets forth some general operating statistics, which I summarize
14 in Attachment CNS-2 ("Utility Dashboard"). Southern Monroe's last rate increase of
15 16.89% was granted by the Commission on May 11, 2011 in Cause No. 43952-U.

16 **Q: What is Southern Monroe's water storage capacity?**

17 A: According to the 2000 Preliminary Engineering Report prepared by Midwestern Engineers,
18 Inc., Southern Monroe has a total usable storage of 469,000 gallons.² With average sales

¹ 2017 Annual Report page W-6, 154,263,000 gallons sold 2017 / 365 days = 422,638 gallons per day.

² "Usable storage" because this is less than the sum of all tanks total storage capacity. Below a certain level, standpipes become much less effective. The 2000 PER prepared by Midwestern Engineers, Inc. estimated "that the top thirty feet of a water standpipe is usable storage" and calculated usable storage from that.

1 in 2017 of approximately 423,000 gallons per day, Southern Monroe meets the Ten State
2 Standard recommendation that total water storage meet average day demands.³

3 **Q: What is Southern Monroe's level of water loss?**

4 A: As used in Applicant's IURC annual reports, "water loss" is the difference between water
5 Southern Monroe produced and the total amount of water sold to customers or used for
6 firefighting, flushing mains, flushing sewers, street cleaning, backwashing, or other
7 authorized consumption. Water loss may reasonably be attributed to leaks or inaccurate
8 measurement of consumption. Over the last five years, Southern Monroe's water loss
9 values have ranged from 29.6% to 23.4%, with a slightly decreasing trend over this period.⁴

10 **Q: Has Southern Monroe proposed an extensions and replacements ("E&R") revenue
11 requirement?**

12 A: Southern Monroe originally proposed an E&R revenue requirement based upon
13 depreciation of applicable utility plant in service. As a not-for-profit utility, however,
14 Southern Monroe is not able to use depreciation to calculate its E&R revenue
15 requirements.⁵ OUCC witness Corey has instead recalculated Applicant's E&R based upon
16 historic extensions and replacements. That amount is \$122,762.

17 **Q: Do you have any recommendations regarding Applicant's proposed E&R revenue
18 requirement based upon its historical expenditures?**

19 A: Yes. Based upon information gathered from OUCC Data Request 1 and from my site visit
20 to Southern Monroe, the \$122,762 calculated for E&R revenue requirements is a

³ 469,000 gallons usable storage > 423,000 average day consumption recommended. According to the Recommended Standards for Waterworks, A Report of the Water Supply Committee of the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, Part 7 Finished Water Storage, Section 7.0.1(a) Sizing states: "The minimum storage capacity (or equivalent capacity) for systems not providing fire protection shall be equal to the average daily consumption. This requirement may be reduced when the source and treatment facilities have sufficient capacity with standby power to supplement peak demands of the system."

⁴ See "Percent Water Lost" chart on Attachment CNS-2.

⁵ [IC 8-1-2-125](#) does not provide for depreciation as a revenue requirement for not-for-profit utilities.

1 reasonable amount, and I recommend that the Commission approve this amount.

2 **Q: Is Southern Monroe making adjustments to its test year operation and maintenance**
3 **("O&M") expenses to recover projected periodic maintenance expense?**

4 A: No. Southern Monroe has not sought any adjustments to its test year O&M expenses.

5 **Q: Did the Commission have any requirements for Southern Monroe in the order issued**
6 **in its last rate case, Cause No. 43952-U, on May 11, 2011?**

7 A: Yes, the Commission ordered Southern Monroe to do the following:

8 1. Proceed with leak reduction activities and file a report annually with the Commission
9 and Office of Utility Consumer Counselor summarizing any plans developed or work
10 completed in regards to leak reduction activities;

11 2. Have its Preliminary Engineering Report from 2000 updated and file a rate case, based
12 on the updated Preliminary Engineering Report ("PER"), within 18 months of the
13 Order. The rate case should include a long term capital plan to improve Southern
14 Monroe Water Corporation's water system.
15

16 **Q: Did Southern Monroe comply with these requirements?**

17 A: While Southern Monroe appears to have had some success with leak reduction, as shown
18 by its declining water loss,⁶ it is unclear if any follow-up reports or plans were filed with
19 the IURC or OUCC. Applicant has not updated its 2000 PER, nor did it file a case within
20 18 months of the May 11, 2011 order with a long term capital plan to improve its system.

21 **Q: What are some of the benefits of a long term capital improvement plan?**

22 A: A long term capital improvement plan, supported by a recent PER, would give the
23 Applicant a plan to make improvements to its system to increase reliability now and in the

⁶ Southern Monroe has begun replacing meters that appeared to have a tendency to fail, causing unrecorded water leaks inside customers' meter pits. Glued joints originally used by the utility are another source of potential problems, but are more difficult to identify and correct.

1 future. One example of this might include a plan to replace portions of its distribution
2 system at greatest risk, or with history of failures to reduce future main breaks.

3 **Q: Does Southern Monroe maintain a detailed map of its system showing the location of**
4 **mains, storage facilities, valves and hydrants?**

5 A: Southern Monroe does have a system map showing the location of mains, storage facilities,
6 valves and hydrants on the wall of its main office. Southern Monroe is also working to
7 enable global positioning system ("GPS") locations of its facilities, with meters and valves
8 being the first priority. Some GPS information is currently available on a tablet used by the
9 working superintendent.

10 **Q: Why is maintaining a detailed system map important?**

11 A: Southern Monroe's current Superintendent and staff are knowledgeable about the system
12 and its operations. It is nevertheless good practice to establish and maintain an ongoing
13 record so that in the future employees and contractors, who may not have that knowledge,
14 would have access to this information. If, for example, there were a loss of pressure due to
15 a main break and the current Superintendent was not immediately available, other
16 employees or contractors could assist in locating the break and making repairs.

17 **Q: What is your recommendation regarding the development of a comprehensive system**
18 **map?**

19 A: Southern Monroe should continue to use its existing map, as-built drawings, and GPS data
20 to continue enhancement of the current map, consistent with Section 4.3.3.1(1) of the
21 AWWA Standard G200.

22 **Q: Are there opportunities for Southern Monroe to improve its Annual Reports to the**
23 **Commission?**

24 A: Yes, particularly with regard to the inclusion of operations information. Southern Monroe
25 has not listed the number of main breaks on Page W-6 of its 2016 and 2017 Annual Reports.

1 However, in response to OUCC Data Request 1, the Utility noted that there were 13 main
2 breaks in 2016 and 8 main breaks in 2017. In addition, page W-7 also appears to be
3 incomplete. Under "Reservoirs" on Page W-7 in the 2013-2017 Annual Reports, Southern
4 Monroe does not list any information regarding its storage facilities.

5 **Q: Does the United States Environmental Protection Agency ("EPA") have any**
6 **resources that may be beneficial to Southern Monroe's operations?**

7 A: Yes. In conjunction with the United States Department of Agriculture ("USDA"), the EPA
8 developed the Rural and Small Systems Guidebook to Sustainable Utility Management
9 ("Guidebook")⁷. Rural and small water systems can use the information in the Guidebook
10 in several different ways:

- 11 • By system managers, water system operation specialist and staff as a guide for
12 taking actions leading to short- and long-term improvements to system
13 management and performance;
- 14 • By service providers as they work with individual systems or groups of systems
15 through workshops or other assistance efforts;
- 16 • As a resource for system improvement workshops, like those sponsored by USDA
17 and EPA;
- 18 • As a resource for guiding conversations about sustainability with utility board
19 members; or
- 20 • As a resource for communicating and educating utility board members on the
21 importance of effective management.

22 **Q: How should Southern Monroe use the Guidebook?**

23 A: At a minimum, Southern Monroe should work through Appendices 1 and 2 of the
24 Guidebook to see if it might benefit from any of the Guidebook's practices or programs.

25 **Q: Did the OUCC receive any customer comments regarding Southern Monroe's**
26 **proposed rate increase?**

27 A: No.

⁷ The Guidebook can be obtained for free from the following website: <https://www.epa.gov/small-and-rural-wastewater-systems/rural-and-small-systems-guidebook-sustainable-utility-management>

1 **Q: Please summarize your recommendations:**

2 A: I recommend that the Commission approve the \$122,762 calculated by Mr. Corey for
3 extensions and replacements revenue requirement as shown in OUCC Exhibit No. 1. I
4 further recommend that Southern Monroe become more proactive in developing a capital
5 improvement plan to provide for the replacement of its plant, including mains and booster
6 pumps.

7 **Q: Does this conclude your testimony?**

8 A: Yes.

I. APPENDIX A: QUALIFICATIONS

1 **Q: Please describe your educational background and experience.**

2 A: In 1981 I graduated from Purdue University, where I received a Bachelor of Science degree
3 in Industrial Management with a minor in Engineering. I was recruited by the Union Pacific
4 Railroad, where I served as mechanical and maintenance supervisor and industrial engineer
5 in both local and corporate settings. I then served as Industrial Engineer for a molded-
6 rubber parts manufacturer before joining the Indiana Utility Regulatory Commission
7 ("IURC") as Engineer, Supervisor and Analyst for more than ten years. It was during my
8 tenure at the IURC that I received my Master of Health Administration degree from Indiana
9 University. After the IURC, I worked at Indiana-American Water Company, initially in
10 their rates department, then managing their Shelbyville operations for eight years, and later
11 served as Director of Regulatory Compliance and Contract Management for Veolia Water
12 Indianapolis. I joined Citizens Energy Group as Rate & Regulatory Analyst following the
13 October 2011 transfer of the Indianapolis water utility and joined the Office of Utility
14 Consumer Counselor in April of 2016.



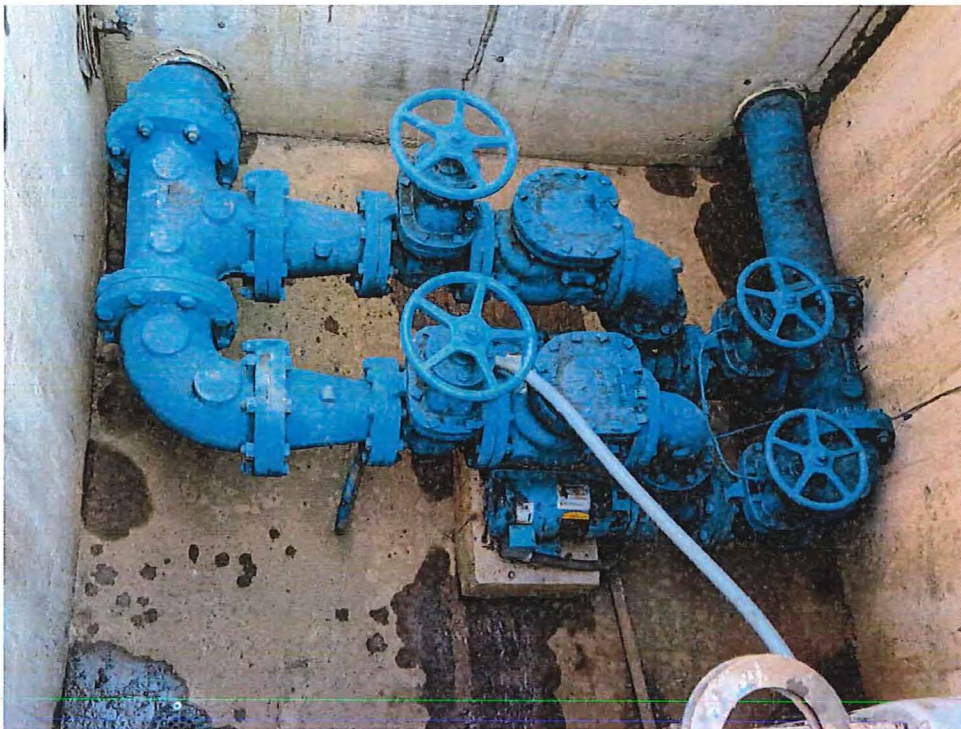
Southern Monroe office on Fairfax Road



North (office) booster – interior



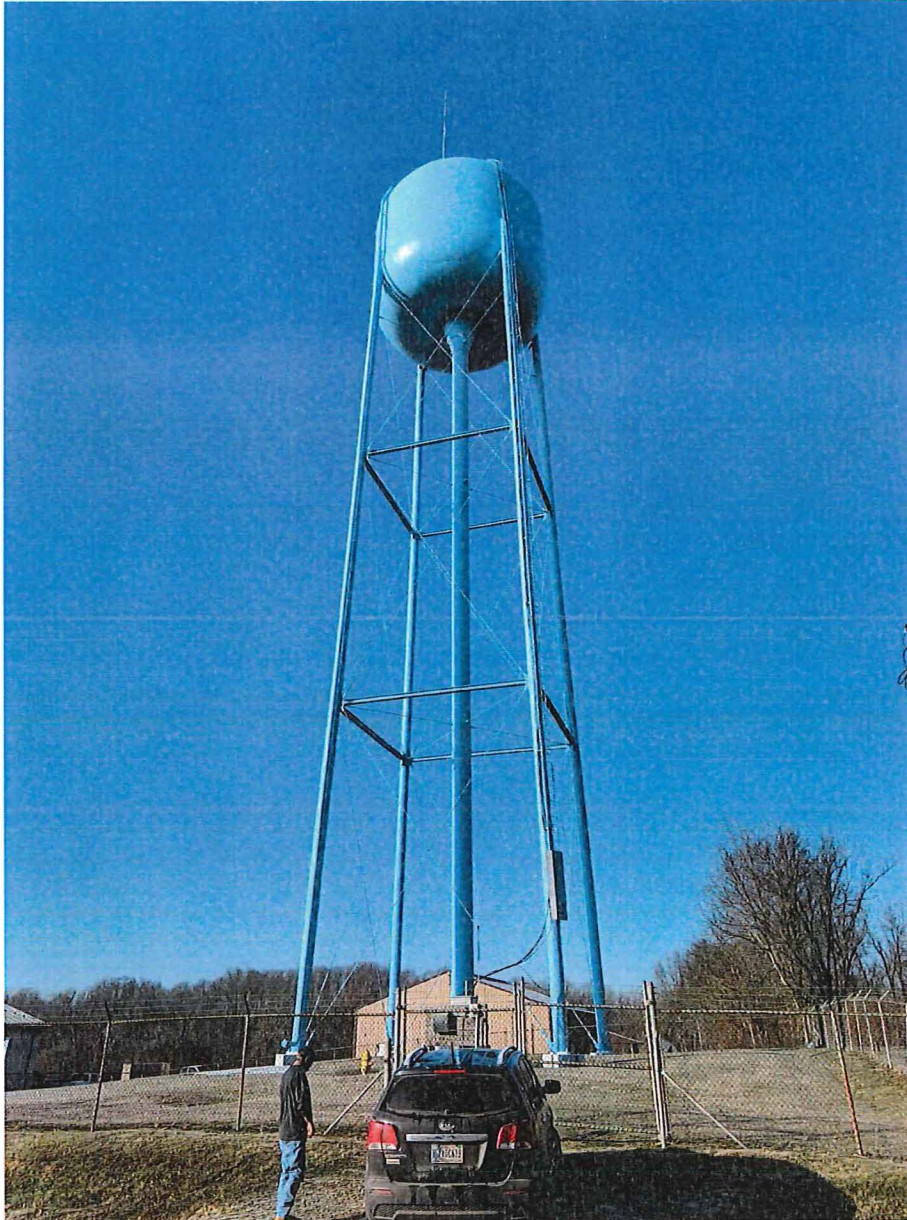
Smithville booster – exterior



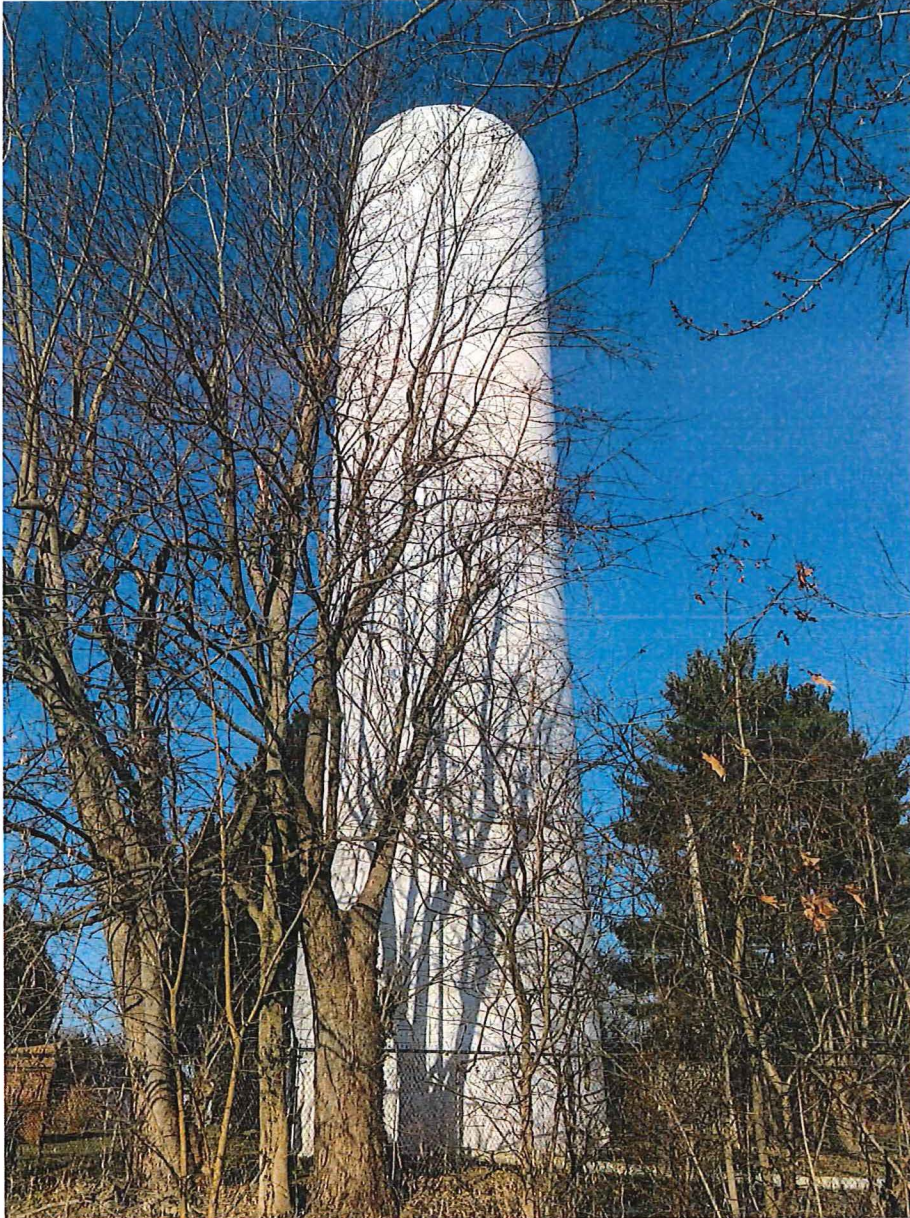
Smithville booster – interior



Smithville tank – 300,000 gallons



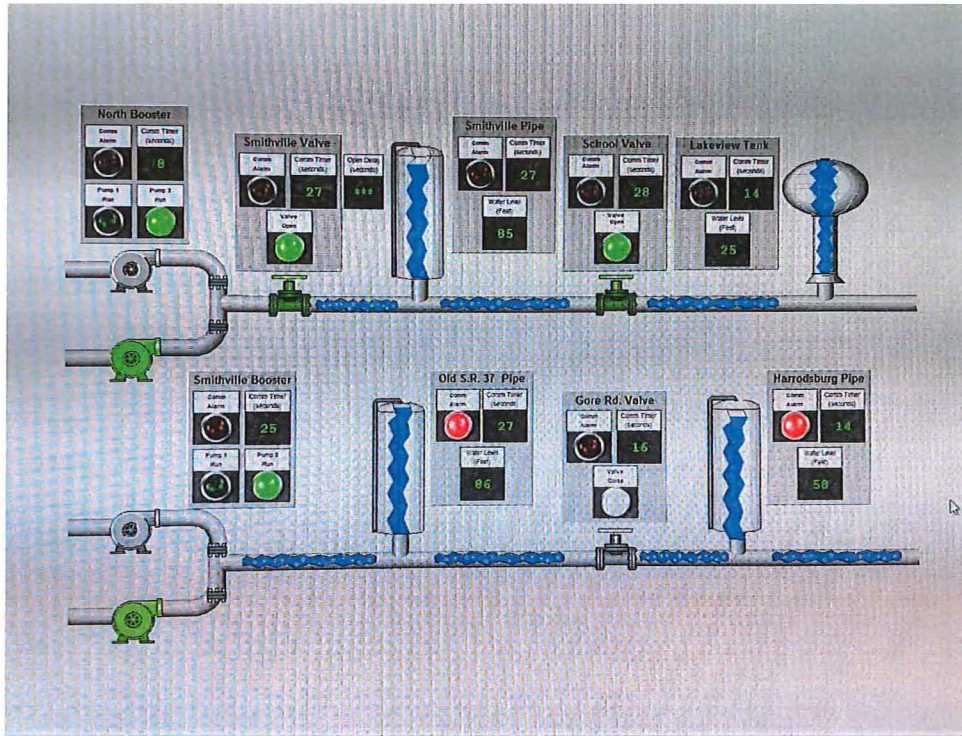
Lakeview tank – 200,000 gallons



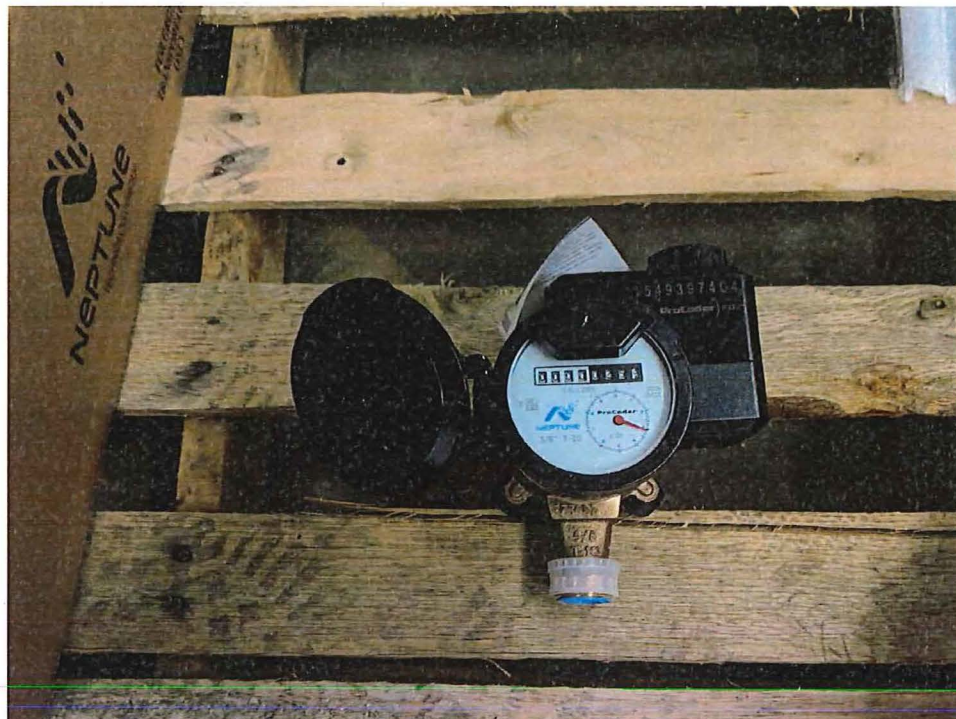
Starlite (SR 37) tank – 210,000 gallons



Harrodsburg tank – 100,000 gallons



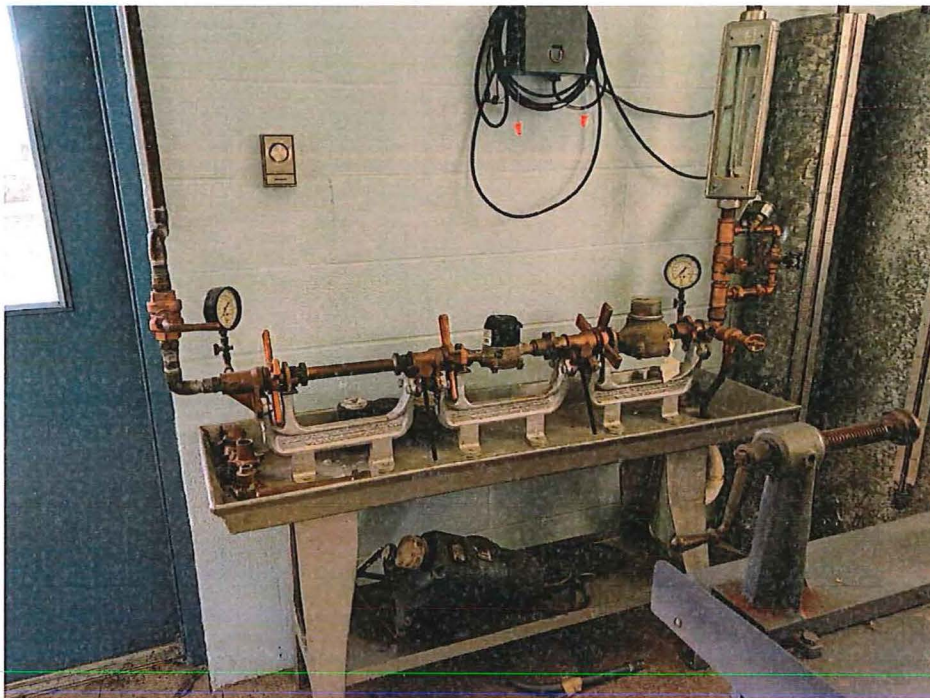
SCADA overview of system



New Neptune radio-read meter



Material storage at office/garage



Meter test bench at office/garage



Southern Monroe office on Fairfax Road



North (office) booster – interior



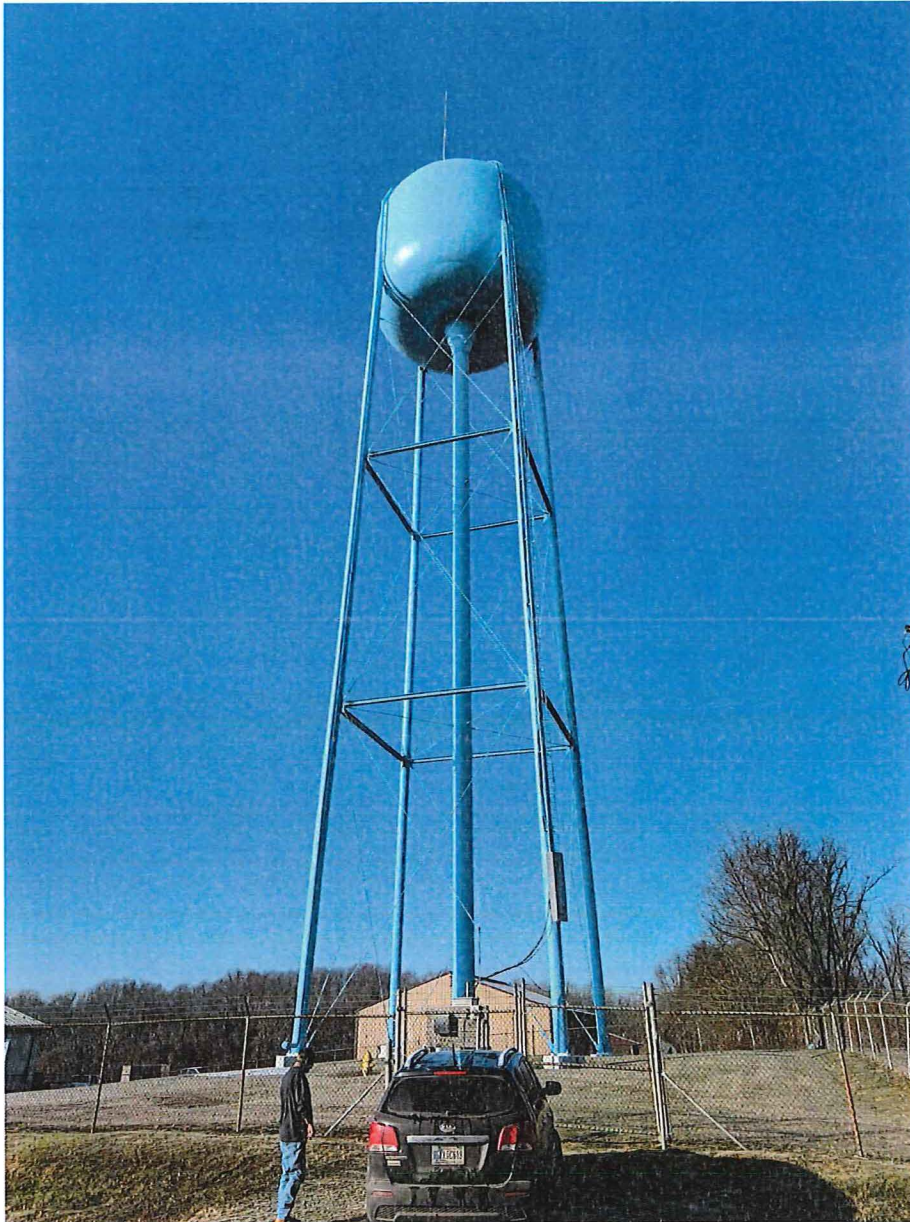
Smithville booster – exterior



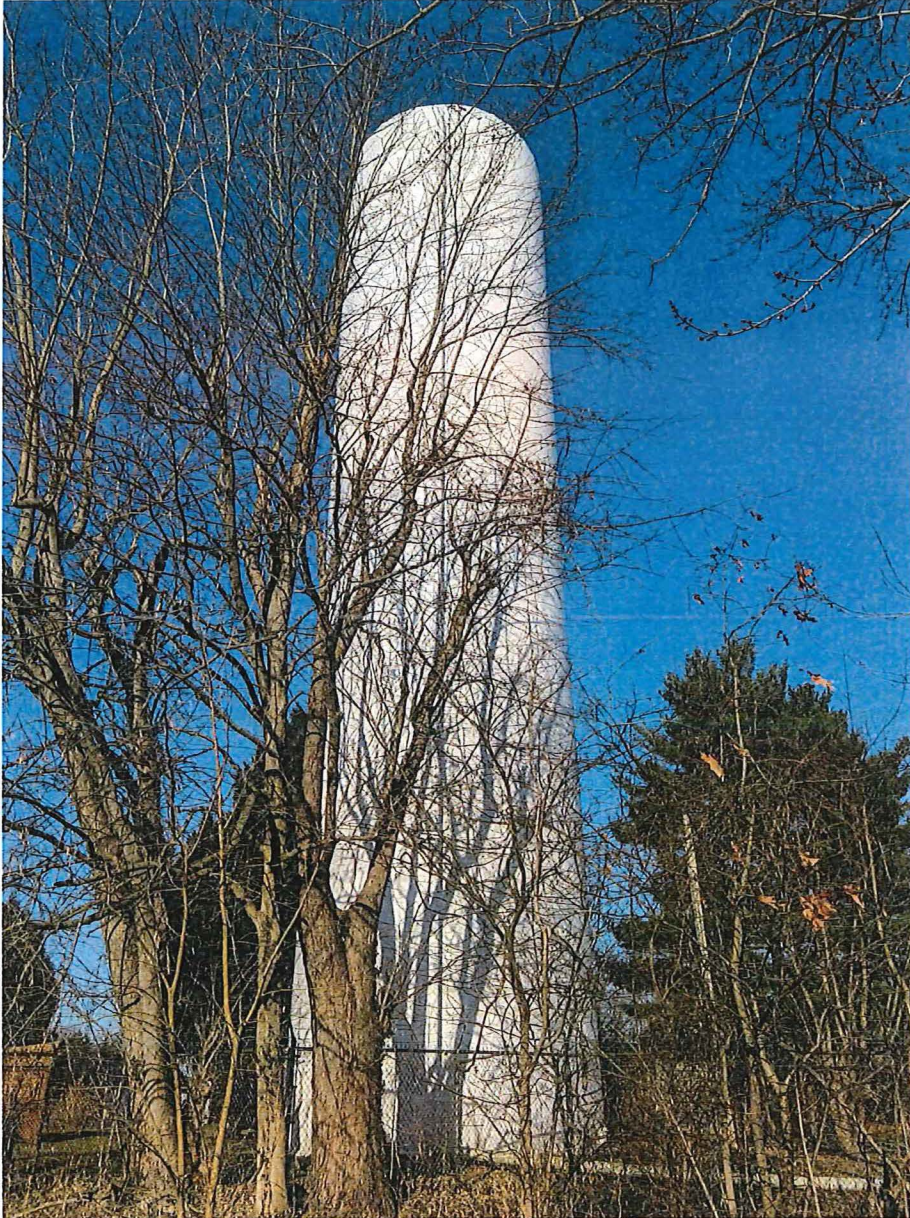
Smithville booster – interior



Smithville tank – 300,000 gallons



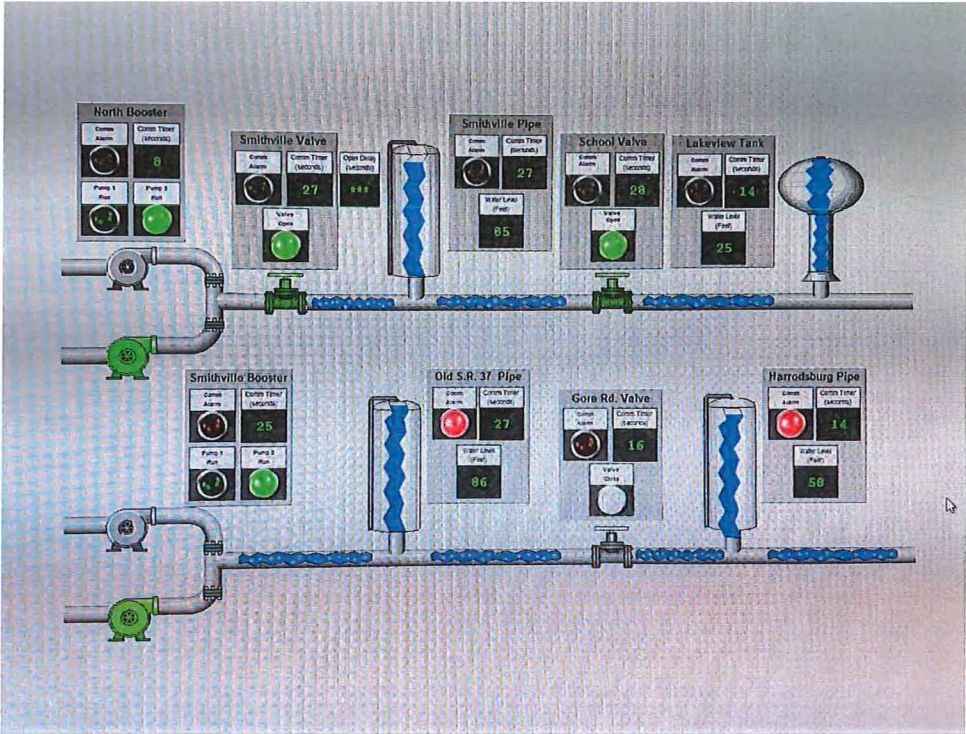
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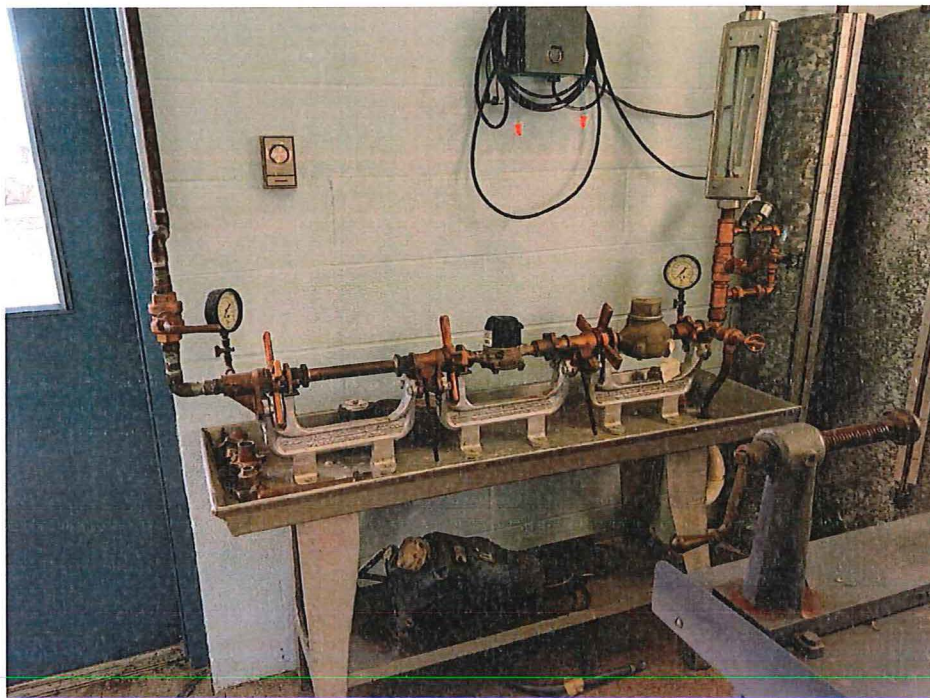
SCADA overview of system



New Neptune radio-read meter



Material storage at office/garage



Meter test bench at office/garage

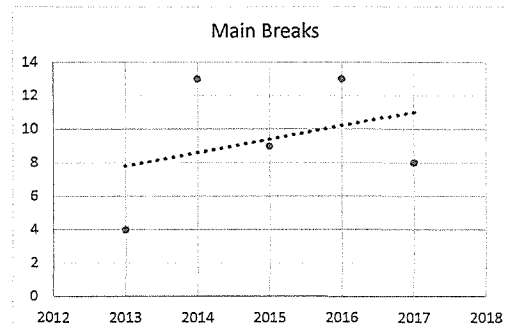
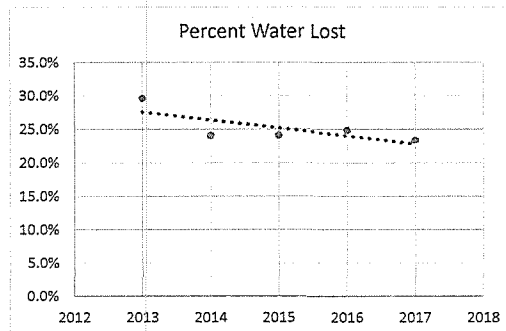
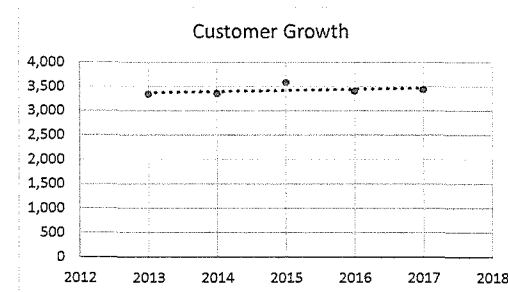
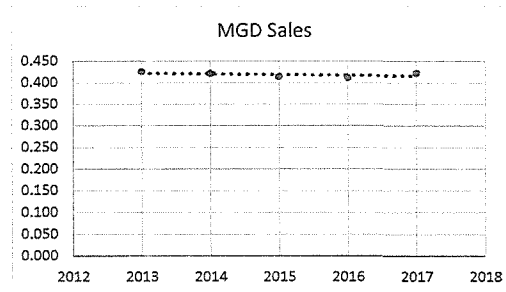
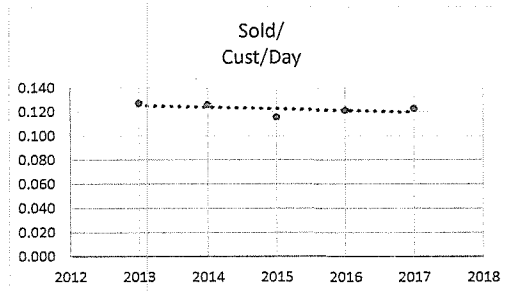
Utility Dashboard Southern Monroe Water Authority Cause No. 45141-U

| A | B | C | D | E | F | G | H | I | J | K |
|------|--------------------|-----------------|------------|---------------------|--------------|--------------------|----------------------|-------------|---------------|-------------|
| Year | Customers Year-End | Total Purchased | Total Sold | Non-Revenue (C - D) | System Usage | Water Loss (E - F) | Percent Loss (G / C) | Average MGD | Sold/Cust/Day | Main Breaks |
| 2013 | 3,337 | 220,661 | 155,354 | 65,307 | | 65,307 | 29.6% | 0.426 | 0.127 | 4 |
| 2014 | 3,350 | 203,822 | 153,953 | 49,869 | 840 | 49,029 | 24.1% | 0.422 | 0.126 | 13 |
| 2015 | 3,583 | 199,268 | 151,193 | 48,076 | | 48,076 | 24.1% | 0.414 | 0.116 | 9 |
| 2016 | 3,406 | 200,468 | 150,725 | 49,743 | | 49,743 | 24.8% | 0.412 | 0.121 | 13 |
| 2017 | 3,434 | 201,291 | 154,263 | 47,028 | | 47,028 | 23.4% | 0.423 | 0.123 | 8 |

average mgd 2017
avg gals/cust/mo 2017
average cust growth
average mgd 5 yrs

0.423 mgd
3,744 gals
24.25 /yr
0.419 mgd

All reported in thousand gallons
System usage includes water used for firefighting, backwashing, main flushing, etc.
Source: IURC Annual Reports



Dashed lines shows results of linear regression (trend) over period shown

AFFIRMATION

I affirm the representations I made in the foregoing testimony are true to the best of my knowledge, information, and belief.

Carl N. Seals

By: Carl N. Seals
Cause No. 45141-U
Indiana Office of
Utility Consumer Counselor

Dec 19, 2018

Date: