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Case No.: SA-2021-2017
Date: February 23, 2021

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. SA-2021-0017

REBUTTAL TESTIMONY

OF

DENNIS E. STITH

ON BEHALF OF

BOONE COUNTY REGIONAL SEWER DISTRICT

**REBUTTAL TESTIMONY
DENNIS E. STITH
BOONE COUNTY REGIONAL SEWER DISTRICT
CASE NO. SA-2021-0017**

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AFFIDAVIT

I, Dennis E. Stith, under penalty of perjury, and under Section 509.030, RSMo, state that I am an outside expert retained by the Boone County Regional Sewer District, that if inquiries were made as to the facts in the accompanying testimony, I would respond as set forth; and that the aforesaid testimony is true and correct to the best of my knowledge and belief.



Dennis E. Stith

Dated: February 23, 2021

REBUTTAL TESTIMONY

DENNIS E. STITH

I. INTRODUCTION

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

2 A. Dennis E. Stith. My business address is 107 Butler Street, Macon, MO 63552.

3 **Q. Where are you employed and in what capacity?**

4 A. I am a Project Manager at McClure Engineering Company (“McClure”).

5 **Q. What is your educational background and business experience.**

6 A. I hold a Bachelor of Science Degree in Civil Engineering from the University of
7 Missouri-Columbia. I also am a Registered Professional Engineer. I have over 43 years of
8 engineering experience, including over twenty years of experience managing water and
9 wastewater projects in Missouri. I have worked with communities ranging in population
10 from 500 to over 10,000 residents. I was previously employed by Schafer, Kline &
11 Warren, Inc., which was acquired by McClure in 2018. A true and correct copy of my
12 curriculum vitae is attached hereto as **Schedule DES-1**.

13 **Q. What are your employment responsibilities?**

14 A. I provide solutions for water and wastewater systems and treatment facilities, specifically
15 studies, design, surveying, preparation of specifications, bidding, construction and on-call
16 services for wastewater collection systems, wastewater and water treatment plants, and
17 water distribution systems. I manage and direct teams, coordinating mechanical,
18 electrical, structural, surveying, and civil engineering services as required to meet overall

1 project goals and objectives. I also assist communities with seeking and managing
2 funding from public and private sources for projects.

3 **Q. Are you providing testimony on behalf of a party to this case?**

4 A. Yes. I am providing expert testimony on behalf of the Boone County Regional Sewer
5 District (“District”).

6 **Q. Have you previously testified before the Commission?**

7 A. No.

8 **Q. What is the purpose of your rebuttal testimony?**

9 A. The purpose of my testimony is to oppose Missouri American Water Company’s
10 (“MAWC”) Application for a certificate of convenience and necessity to install, own,
11 acquire, construct, operate, control, manage and maintain a sewer system in and outside
12 of the corporate boundaries of the City of Hallsville, Missouri.

13 **II. PUBLIC INTEREST**

14 **Q. What work did you perform related to MAWC’s Application for a Certificate of
15 Convenience and Necessity (“Application”)?**

16 A. I evaluated MAWC’s Application to determine if its purchase and operation of the City
17 of Hallsville’s (“Hallsville”) sewer system would be detrimental to the public interest.

18 **Q. What documents did you review in performing your evaluation?**

19 A. I reviewed MAWC’s Application, all the direct testimony and associated schedules filed
20 in this case, including the Direct Testimony of Matt Horan and James Busch and
21 MAWC’s feasibility study, the MO PSC Staff’s Recommendation to Grant Certificate of
22 Convenience and Necessity and attached Official Case File Memorandum

1 (“Memorandum”), information and documents provided by MAWC in this case, the
2 Hallsville Requests for Proposals for the purchase of its sewer system (“RFPS”), and the
3 Missouri State Operating Permit (“Permit”) for Hallsville’s System. A true and correct
4 copy of the RFPS is attached hereto as **Schedule DES-2** and a copy of the Permit is
5 attached hereto as **Schedule DES-3**.

6 **Q. Based on your evaluation, training, and experience do you have an expert opinion as**
7 **to whether MAWC’s purchase of the Hallsville sewer system and provision of**
8 **service to the Hallsville area is in the public interest?**

9 A. Yes. In my opinion, MAWC’s proposed purchase of the Hallsville sewer system and
10 provision of service to the Hallsville area is detrimental to the public interest.

11 **Q. Why do you believe MAWC’s purchase of the Hallsville sewer system and provision**
12 **of service to the Hallsville area is detrimental to the public interest?**

13 A. MAWC has failed to address critical concerns about the adequacy of the design flow and
14 storage capacity of the Hallsville sewer system, and adequacy of available land
15 application capacity. The Permit for the Hallsville system with an effective date of
16 January 1, 2020 indicates that it is designed to accommodate a maximum wastewater
17 flow of 212,622 gallons per day (“Design Flow”), not accounting for inflow and
18 infiltration. *See **Schedule DES-3, Page 1***. The Permit states that the actual wastewater
19 flow is 149,568 gallons per day, which is generated by the system’s approximately 676
20 customers. *See **Schedule DES-3, Page 1** and **Schedule JAB-d2, Page 2 of 25** to **MO***
21 **PSC – DT – Busch**.

1 . According to Hallsville’s RFPS that culminated in a Purchase Agreement between
2 MAWC and Hallsville, currently approved additions to the collection and treatment
3 system will result in a projected growth of 322 lots in the Douglas Pointe, Echo Ridge,
4 Silver Creek, and Sunnyslope Subdivisions. *See **Schedule DES-2, Page 8***. Based on the
5 Missouri Department of Natural Resource (“MDNR”) Wastewater and Standards
6 Document February 2019, I have calculated that this growth will result in an additional
7 wastewater flow of 119,100 per day (rounded). A true and correct copy of my report
8 which includes these calculations is attached hereto as **Schedule DES-4**. The current
9 flow plus this additional flow will be 268,668 gallons per day, which will significantly
10 exceed the permitted design flow by twenty-six percent (26%). **Schedule DES-4, Page 2**.
11 This is a conservative estimate of total future flow because it does not factor in
12 projections of growth from other areas that are not addressed in MAWC’s proposal or
13 PSC Staff’s analysis.

14 The lagoon storage capacity, which is based on the system’s Design Flow of
15 212,622 gallons per day, is 53,992,426 gallons. *See **Schedule DES-3, Page 2***. Based on
16 actual flows equaling the Design Flow, the lagoon has a total of 253 days of storage with
17 1 in 10-year flows. *See **Schedule DES-3, Page 2*** The additional 119,100 gallons per days
18 of flow from the projected growth discussed above will produce an additional 98,063,820
19 gallons of new volume to be stored and will reduce the lagoon’s days of storage from 253
20 days to 201 days. *See **Schedule DES-4, Page 2***. The MDNR Wastewater and Standards
21 Document requires the Hallsville system to have a minimum of 135 days of storage
22 because the land application fields are leased. In my experience at least 180 days of

1 storage are needed, and it is better to have at least 210 days of storage when wastewater is
2 land applied to row crops. This is because, in my experience, lower application rates are
3 typical for leased field planted in row crops. The Permit reflects 395 acres of leased land
4 application fields, 340 of which are in row crops and 55 of which are in grass. *See*
5 **Schedule DES-3, Pages 3, 49-53**. Using a recommended application rate of 6-inches per
6 year for the fields in row crop and 24-inches per year for the fields in grass, the total
7 available land application capacity on the leased fields is 91,232,064 gallons per year,
8 which is 6,831,756 gallons shy of the necessary land application capacity needed.

9 MAWC's Application does not identify these serious concerns let alone address
10 how they will be handled. It also does not specify how the Hallsville system will be
11 operated, how it will address inflow and infiltration not factored into my analysis, or what
12 type of treatment it anticipates adding. In addition, in its response to the District's Data
13 Request 004 MAWC indicated that other than its feasibility study filed in this case it has
14 not conducted any study, evaluation or analysis of Hallsville's sewer system. A copy of
15 MAWC's responses to the District's Data Requests 003 and 004 is attached hereto as
16 **Schedule DES-5**. Accordingly, MAWC, despite being knowledgeable of the system's
17 history of MDNR noncompliance and violation of environmental laws, is presumably
18 unaware of these serious issues, has no plan to address them, no estimated cost of
19 addressing them, and no idea of the impact on customer rates. All of this demonstrates
20 that MAWC's proposed acquisition of Hallsville's sewer system is detrimental to the
21 public.

1 **Q. Do you have any other reasons for believing that MAWC's purchase of the**
2 **Hallsville sewer system and provision of service to the Hallsville area is detrimental**
3 **to the public service?**

4 A. Yes. Aside from there being inadequate land application capacity on the two fields
5 historically leased by Hallsville and used for land application, there are issues with these
6 leases. The Memorandum indicates that the lease for one of the two land application
7 fields currently used by Hallsville expired on November 30, 2020. *See **Schedule JAB-***
8 ***d2, Pages 10-11 of 25** to **MO PSC – DT – Busch**.* MAWC has not indicated a renewal
9 occurred or that it or the City has been or will be able to lease different land application
10 fields. Also, the owner of the formerly leased fields owns the pivots and associated
11 wastewater irrigation equipment so this equipment is no longer available for use by
12 MAWC. *See **Schedule JAB-d2, Pages 10-11 of 25** to **MO PSC – DT – Busch**.*

13 Further, even if MAWC had ongoing leases for these tracts, there is a troubling
14 history of issues. One of the landowners has constructed waterways that have resulted in
15 partially treated wastewater entering the receiving stream and presumably will continue
16 to do so in the future. Also, both owners have failed to take wastewater when land
17 application is necessary to prevent illegal storage lagoon discharges. *See **Schedule JAB-***
18 ***d2, Page 11 of 25** to **MO PSC – DT – Busch**.*

19 **Q. Based on your knowledge, training, experience and evaluation, what are the long-**
20 **term options for treatment of wastewater flow from customers of the Hallsville**
21 **system?**

1 A. There are only two viable long-term options that will result in compliant treatment of the
2 wastewater flow from customers of the Hallsville system and protection of the
3 environment and residents of Boone County. The first is to construct a new wastewater
4 treatment facility to handle the flow from the Hallsville area customers. The other option
5 is to transport the flow to a different wastewater treatment facility with sufficient
6 treatment capacity.

7 **Q. Have you worked with the District to estimate the costs of each long-term option?**

8 A. Yes. The estimated minimum cost to build a new treatment system is \$6,300,000, which
9 includes \$4,500,000 in construction costs, \$900,000 in engineering costs, and \$900,000
10 in contingencies. A true and correct copy of the calculations for these costs is attached
11 hereto as **Schedule DES-6**. This figure does not include any land acquisition costs. The
12 estimated minimum cost to transport flow from the Hallsville system is \$5,003,710,
13 which is based on transportation of the flow to the District's Rocky Fork Wastewater
14 Treatment Facility ("Rocky Fork") for treatment. This figure includes \$3,535,000 (from
15 the District's current Facility Plan) for the construction of a force main and associated
16 pump stations from the District's Cedar Gate Wastewater Treatment Facility ("Cedar
17 Gate") to the Rocky Fork, \$694,500 in costs associated with pumping the flow from the
18 Hallsville storage lagoon to Cedar Gate, and \$774,210 in costs associated with
19 constructing additional wastewater treatment capacity at Rocky Fork to expand capacity
20 and enable Rocky Fork to receive the flow. A true and correct copy of the calculation of
21 the cost to pump wastewater from the Hallsville storage lagoon to Cedar Gate is attached
22 hereto as **Schedule DES-7**. A true and correct copy of my calculation of the cost to

1 expand Rocky Fork is attached hereto as **Schedule DES-8**. See **Schedule TR-1, Part 3,**
2 **Page 153 of 229** to **District – RT - Ratermann.**

3 **III. CONCLUSION**

4 **Q. Could you please summarize your testimony?**

5 A. MAWC's Application proposing to purchase and operate Hallsville's sewer system fails
6 to identify and present viable short and long-term solutions to imminent, critical
7 compliance problems. It also fails to consider significant costs associated with resolving
8 these problems and the impact on customer rates. For these reasons, it is my opinion that
9 MAWC's Application is detrimental to the public interest.

10 **Q. What do you ask the Missouri Public Commission to do in this case?**

11 A. Disapprove MAWC's Application.

12 **Q. Does this conclude your rebuttal testimony?**

13 A. Yes.