RESPONSE TO STAFF'S SECOND REQUEST FOR INFORMATION

TO MCKINNEY WATER DISTRICT

Case No 2023-00194

JUNE 19, 2024

This response is being prepared by Luther Galloway, AGE Engineering Services, Inc., on behalf of the McKinney Water District for the response to the request for information on the unaccounted-for water loss reduction plan, related surcharge expenditures, and monitoring.

" The information requested is due on June 7, 2024."

In response to the request, the District did not receive the filed request until June 12, 2024 and then only by inquiry by District Staff. In review of the filing "Parties of Record" listed indicated the parties were notified by email. However, the address for the District was as follows, without any email address listed:

"McKinney Water District
2900 KY HWY 198
Stanford, KY 40484"

The correct mailing address for the District is as follows:

McKinney Water District
2900 KY HWY 198
Hustonville, KY 40437
Or
McKinney Water District
P O Box 7
McKinney, KY 40448
And the current email address is mckinneywaterdistrict@gmail.com

1) Explain why the required water loss and surcharge reports for September 2023 through April 2024 have not been filed and provide the referenced reports. Consider this request as part of the requirement of the Opening Order in this matter.

ANSWER: The staff was unaware of any such request other than the normal annual reporting of such items as required by regulation. The requested water loss reports have been prepared and are attached as Appendix A of this response to Second Request for Information. The requested surcharge reports have been prepared and are attached as Appendix B. The water loss reports will be forwarded each month. The surcharge fee is being collected and deposited, but has not yet been spent, awaiting PSC approval of the Water Loss Plan.

2) Refer to page 3 of the "Water Loss Investigation and Response" filed December 26, 2023.

a) Explain why there is no master meter at the referenced third pump station that pumps water from the City of Stanford to the Maywood area from Neal's Creek Master Meter to the Ottenheim area.

Page 3 "Water Loss Investigation and Response Statement:

"*The third pump station pumps water from the City of Stanford through the Maywood area from the Neal's Creek meter to the Ottenheim area. This is to offset water bought from the City of Eubank which is at a higher price for Eubank water. The pump is not metered and is estimated based on the run time of the pump."*

ANSWER: The statement as presented is not complete in the explanation. The "*run time of the pump*" should have been the flow rate of the pump. The Ottenheim pump station at Maywood has a Mag-meter (See Appendix C) that was installed in the pump station to satisfy the requirement of the Ten-State standards for a meter at pump stations. The meter is located on the suction side of the pump and does not have test plugs on it for testing of the meter for accuracy. Mag-meters measure the flow of the water in the tube by measuring the velocity of the water as it is pumped past. Mag-meters are calibrated at the factory and have a computing unit that converts the velocity to a flow rate or in this case a total flow in gallons of water. Mag-meters require certain configurations in order to be accurate. They do not function correctly if the fluid flow in the tube does not have laminar flow. This means uniform flow across the section of the tube.

The Ottenheim pump and associated City of Eubank Meter have been questioned due to certain readings of the water loss in this area of the system. The water loss in this area for the months of October 2022 to September 2023 was 3% of water purchased. This area showed water loss of negative percentages in Nov-22, Dec-22, Jan-23, Feb-23, and Jun-23. During the same period the Neal's Creek meter showed a water loss of 43%.

The Ottenhiem area has an elevated storage tank so a negative water loss is theoretically possible, but this loss is highly unlikely, especially for four months in a row. The Eubank meter is a purchased water meter and is therefore tested on a scheduled basis. It is assumed to be accurate for water purchase. This leaves the accuracy of the Mag-meter and pump calculation to be in question. Any inaccuracy here could lessen water loss in the Ottenheim area and increase it in the Maywood area of the Neal's Creek meter. When searching for water leaks to improve water loss in the system it is absolutely imperative to know the area in which to search. This is why we question the flow readings in the Ottenheim Pump and associated meter.

MONTH	AJUSTED REMAINDER BALL PARK METER	ROWLAND METER	NEALS CREEK METER	GREASY RIDGE METER	OTTENHEIM METER	WEST SKYLINE METER	PETREYS METER	BONEYVILLE METER	SHORT PIKE METER
Oct-22	0.02	0.70	0.39	0.10	0.14	0.14	0.61	0.22	0.45
Nov-22	0.06	0.59	0.54	0.08	(0.01)	0.03	0.50	0.01	0.31
Dec-22	0.01	0.56	0.48	0.06	(0.00)	0.09	0.44	0.15	0.25
Jan-23	(0.09)	0.49	0.25	(0.08)	(0.18)	(0.23)	0.31	(0.08)	0.26
Feb-23	0.10	0.51	0.50	(0.02)	(0.05)	0.00	0.56	0.17	0.37
Mar-23	0.19	0.51	0.46	0.11	0.11	0.30	0.56	0.20	0.16
Apr-23	0.08	0.45	0.40	0.20	0.03	0.10	0.53	0.21	0.35
May-23	0.14	0.57	0.43	0.08	0.10	0.15	0.56	0.18	0.47
Jun-23	(0.06)	0.50	0.41	(0.03)	(0.07)	(0.02)	0.52	0.14	0.07
Jul-23	0.17	0.51	0.33	0.13	0.27	0.24	0.57	0.45	0.23
Aug-23	0.02	0.58	0.47	0.20	0.05	0.10	0.51	0.34	0.25
Sep-23	0.09	0.60	0.52	0.05	0.01	0.14	0.36	0.23	0.42
ANNUAL %	6%	55%	43%	8%	3%	9%	50%	19%	30%

b) Explain who performs the current estimates of the water pumped from the referenced third pump station, and how that amount is estimated based on the runtime of the pump, including any calculations.

ANSWER: The water flow is read on a daily basis for the Mag-meter readout. The Mag-meter and associated control devise is calibrated at the factory based on the configuration of the meter size of the line and related data. The office staff takes the reading of the meter off the telemetry of the pump station and records it daily. The staff will calculate each day (by subtracting the previous days reading from current day's) the amount of water pumped from Neal's Creek meter area to the

Ottenheim meter area and add it to the City of Eubank meter reading to determine the amount of water purchase in this area. The similar amount is subtracted from the Neal's Creek Meter area.

As stated previously this meter is not tested to check the calibration. It is more common to use this type meter in fluids that are not clear and thus could not use a more common water meter. The installation configuration and calibration of this meter is critical to its accuracy. The District intends to improve this situation by making changes to metering in this area. The Neal's Creek metered area is one of the primary problem areas for water loss and will require intense study to correct the problem. This includes the question of pumped water flow to the Ottenheim area.

c) Provide a map depicting each pump station and the closest master meter as well as the connections described in this section of the report.

ANSWER: Please see Appendix D for McKinney Water System Map that shows the three existing pump locations, master meter locations, piping system, and related requested information.

3. Refer to McKinney District's response to Commission Staff First Request for information, items 4 and 5. Provide an update as to whether McKinney District has bid those referenced projects and, if so, when McKinney District plans to file an application for a Certificate of Public Convenience and Necessity with the Commission for those projects.

ANSWER: The McKinney Water District has not yet bid the proposed projects at this time. It is anticipated that the project will be bid very soon. The McKinney Water District has been pursuing grant funding from CDBG, ARC, and KY Clean Water in an effort to reduce project barrowed money cost. These funds have been awarded and we are waiting on the contracts and related certificates and assurances to be approved to authorize bidding of the project.

Certification:

I/we hereby certify that the information and estimates included in this document are, to the best of our knowledge based on information and belief formed after a reasonable inquiry, true and accurate, and that the plan as presented represents the intention of the Board of the McKinney Water District.

Preparer, Luther Galloway
AGE Engineering Services, Inc.

Chairman, Matt Rankin
McKinney Water District