

FILE

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio)
American Water Company to Increase Its) Case No. 11-4161-WS-AIR
Rates for Water Service and Sewer Service.)

DIRECT TESTIMONY
OF
THOMAS SCHWING
ON BEHALF OF
OHIO AMERICAN WATER COMPANY

- ☐ Management policies, practice and organization
- ☐ Operating income
- ☐ Rate base
- ☐ Allocations
- ☐ Rate of return
- ☐ Rates and tariffs
- ☒ Other

PUCO

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1 **Direct Testimony of**

2 **Thomas Schwing**

3 **I. WITNESS INTRODUCTION**

4 **Q1. Please introduce yourself.**

5 A1. My name is Thomas Schwing. I am the Operations Manager for the Ashtabula and
6 Franklin County Districts of Ohio American Water (“Ohio American” or the
7 “Company”). My business address is 5481 Buenos Aires Boulevard, Westerville, Ohio
8 43081.

9 **Q2. Please summarize your education and business experience.**

10 A2. I received an Associates of Arts degree in Pollution Abatement Technology from Charles
11 County Community College, a Bachelor of Science degree in chemistry from Xavier
12 University in Cincinnati, and a Masters in Public Administration also from Xavier
13 University. I am also a graduate of University of Southern California Environmental
14 Management Institute. I also have attended numerous water and wastewater professional
15 training programs. My professional work experience includes chemist for the United
16 States Environmental Protection Agency; Director of Public Utilities for the City of
17 Fairfield, Ohio; Utility Operations Specialist for SIECO Engineering; and an independent
18 environmental consultant for more than ten years. I am a licensed water and wastewater
19 operator in the state of Ohio. I have held this position since May 2010. Prior to that date,
20 I was the Operations Superintendent for the Franklin County District.
21

1 **Q3. Have you previously participated in regulatory matters?**

2 A3. Yes. I have testified before county commissioners and zoning boards with respect to
3 utility matters related to annexation. I have also presented written and oral testimony
4 before the Public Utilities Commission of Ohio ("PUCO" or "Commission") in Ohio
5 American's two prior rate cases and in a complaint case.

6 **Q4. Have you written articles on water and wastewater issues?**

7 A4. Yes. I have co-authored research documents funded by the U.S. Environmental
8 Protection Agency on wastewater systems. I have developed training presentations on
9 water and wastewater treatment. I have presented numerous presentations at national
10 conferences on subjects such as utility operations, maintenance and management. I have
11 also presented papers on wastewater issues at national conferences. I have also written
12 articles for utility newsletters.

13 **Q5. What are your job responsibilities at Ohio American?**

14 A5. I became the Network Operations Superintendent for Ohio American in the Franklin
15 County District in January 2005. In May 2010, I was appointed Operations Manager for
16 the Ashtabula (includes Portage County) and Franklin County Districts.

17 As the Operations Manager I am directly responsible for the operations of Ohio
18 American's Ashtabula District's water system and the Franklin County District's water
19 and wastewater systems. The Franklin County District includes the Huber Ridge and
20 Lake Darby water systems.

21 I report to David Little who is the President of Operations of Ohio American.

1 **II. PURPOSE**

2 **Q6. What is the purpose of your testimony?**

3 A6. My testimony will address Staff's recommendations that were presented in the Staff
4 Report in Rate Case No. 09-391-WS-AIR as they pertain to the Ashtabula and Franklin
5 County Districts and the Company's compliance with Staff's recommendations. I will
6 indicate the Staff's Report page number after each topic for reference.

7 **III. COMPLIANCE ACTIVITIES**

8 **Q7. What has the Company done to address Staff's recommendation with respect to the**
9 **unaccounted-for-water reduction and reporting commitment (Staff Report – p. 52)?**

10 A7. The Company continues to calculate and report to the PUCO the traditional unaccounted
11 for water ("UFW") metric on a quarterly basis. In addition, each District which has a
12 UFW above 15% has an active ongoing program to reduce water loss.

13 In regards to the adoption of the Infrastructure Leak Index ("ILI"), the Company
14 has begun collecting the long term data needed to develop a baseline ILI for each of its
15 water service areas. ILI data looks at long term (minimum 12 month) system delivery,
16 sales volumes and non-revenue water usage data, system operation and layout
17 assumptions, as well as implementation costs. The development of baseline ILI values
18 for each water system will take at least two yearly cycle periods to develop the necessary
19 data for baseline values.

20 The Company will continue to collect data for the development of baseline ILI
21 values for each water system, as well as continue to address water leaks in a prompt and
22 timely manner.

1 **Q8. What has the Company done to address Staff's recommendation with respect to**
2 **leak repair commitment (Staff Report – p. 55)?**

3 A8. The Company's Districts continue to maintain and report leak logs to the PUCO on a
4 quarterly basis. As a matter of ongoing standard operating procedure, the Company
5 repairs leaks affecting service within 24 hours of confirmation that a leak exists. Repairs
6 of leaks that do not affect service are performed within seven days of confirmation that a
7 leak exists. Repairs for minor leaks that do not create a water stream on the surface of the
8 ground and do not affect service are repaired within thirty days.

9 **Q9. What has the Company done to address Staff's recommendations with respect to the**
10 **Lake Darby commitment (Staff Report – p. 57)?**

11 A9. The Company continues to operate and maintain the Lake Darby Water Treatment Plant
12 ion exchange softening process to achieve a finished water hardness of between 90 mg/L
13 and 150 mg/L for at least 95% of the reported measurements. The Company has
14 continued to monitor the finished water hardness and submit monthly report to the
15 Commission. Ohio American spends approximately \$8,500 annually to support the
16 ongoing annual operation and maintenance costs (instrumentation maintenance, outside
17 lab costs, instrumentation supplies, etc.) to perform the increased operating, monitoring
18 and reporting costs necessary to implement Staff's recommendation.

19 **Q10. Has the Company addressed Staff's recommendation with respect to the Ashtabula**
20 **commitment (Staff Report – p. 62)?**

21 A10. Yes. The Company has updated and conducts annual reviews of the Bunker Hill Storage
22 Tank Emergency Contingency Plan with Ashtabula operating personnel. More
23 importantly, the Company has constructed improvements to the Ashtabula Water

1 Treatment Plant which eliminate the critical conditions that required the development of
2 the plan.

3 **Q11. What infrastructure improvements has the Company performed at the Ashtabula**
4 **Water Treatment Plant?**

5 A11. The major Ashtabula Water Treatment Plant improvements include:

- 6 1) Electrical System Improvements – The Ashtabula Water Treatment Plant (AWTP)
7 electrical service has been changed from a 2,400 VAC to a 480 VAC system.
8 New power transformer, power distribution panels, service transformers and
9 lighting panels have been installed. All electrical service system improvements
10 are complete, in use and useful.
- 11 2) Standby Power Generators – A 500 kW and a 750 kW diesel generators and
12 associated automatic transfer switches have been installed, in use, and useful.
- 13 3) HSP Pumps Replacement – Three (3) new high service pumping pumps have been
14 installed replacing the 1952 vintage HSP pumps. The HSP pumps and associated
15 VFD electrical switch gear are in use and useful.
- 16 4) WTP #1 Sedimentation Tank Renovations – The concrete walls of the 1906 WTP
17 #1 sedimentation tanks have been rebuilt. Associated supports, handrail, grating
18 have been installed. The work is complete and the facilities are in use and useful.
- 19 5) WTP #1 Filter Renovations – The 1906 WTP #1 filters have been renovated. The
20 production capacity was increased from 2 gallons per minute per square foot
21 (gpm/sf) to 4 gpm/sf. New filter underdrains, backwash troughs, dual media,
22 instrumentation, valves and associated support systems have been installed. The
23 WTP #1 filter renovations are complete, in use, and useful.

- 1 6) Instrumentation Upgrade – Defective instrumentation such as on-line
2 turbidimeters, chlorine analyzers and pH sensors have been replaced. On-line
3 instrumentation sensors have been installed to monitor the performance of critical
4 steps in the treatment processes. The on-line instrumentation sensors and
5 electronic components are in use and useful.
- 6 7) SCADA System – The old AWTP SCADA system has been replaced with a new
7 integrated coordinated SCADA instrumentation system. All critical instruments
8 and operating systems are continuously monitored and recorded with the
9 appropriate alarm systems. The new AWTP SCADA system is on-line, in use,
10 and useful.
- 11 8) Clearwell Modification for CT Baffle Credit - Ohio EPA issued a letter approving
12 a new Baffle Effectiveness value from 0.1 to 0.15 based on the documentation
13 submitted. Clearwell modification is being re-evaluated to determine the best
14 method to achieve a 0.25 baffle effectiveness factor.
- 15 9) Chemical Feed System Improvements – The chemical feed system has been
16 upgraded to control the accurate feeding of treatment chemicals for turbidity
17 removal. The new chemical day tanks, chemical feed pumps and scales are in use
18 and useful.
- 19 10) HSP Discharge Pipe & Valve Header – A new high service pump (HSP) discharge
20 pipe and valve header (north side only) were installed replacing the old piping and
21 five (5) defective valves and three (3) venture flow meters. New piping, control
22 valves and magnetic flow meters were installed. The replacement HSP discharge
23 header is in use and useful.

- 1 11) LSP Suction Pipe & Valve Header – A new low service pump (LSP) suction
2 header piping and valves were installed replacing the old piping and seven (7)
3 defective valves. The replacement LSP suction header is in use and useful.
- 4 12) LSP Discharge Pipe & Valve Header – A new low service pump (LSP) discharge
5 header piping and valves were installed replacing the old piping and four (4)
6 defective valves. New rate-of-flow (ROF) control valve was installed allowing
7 for the effective operation of AWTP. The replacement LSP discharge header is in
8 use and useful.
- 9 13) WTP #2 Process Improvements – The two (2) Aldrich treatment units had seven
10 (7) defective drain valves replaced; broken fiberglass weir troughs and weirs
11 repaired; and the filtration systems has been inspected. This work is complete and
12 the improvements are in use and useful.

13 **Q12. Were the improvements you just described part of the Phase II plan for the**
14 **Ashtabula treatment plant that the Company presented in Case No. 09-391-WS-**
15 **AIR?**

16 A12. The improvements I described were part of a scaled-back plan to improve the Ashtabula
17 plant. As discussed by Company witness Mr. David Little, Ohio American originally
18 planned to extend the life of the plant to provide an additional 60 years of service. The
19 Company has since decided to reduce capital expenditures to a level that is expected to
20 extend the useful life of the plant by an additional 20 years. Ohio American took over
21 this project in April 2010 from the design build team of AECOM Engineers/Kokising
22 Construction to further reduce costs. While significant improvements have been

completed at the Ashtabula plant, additional investment will be required to complete the upgrades, including:

- 1) Construction of a Chemical Feed Building to remove chlorine gas from the site and consolidate chemicals in one area.
- 2) Replacement of the HSP discharge header on the south side to replace broken valves and provide for flow control.
- 3) Completion of finished water clearwell study to provide increase CT valves.
- 4) Process performance demonstration study to establish the treatment capacity of WTP #2 at 4gpm/sf rather than the current 2 gpm/sf treatment capacity.

Q13. What major infrastructure improvements has the Company performed in the Ashtabula District's Water Distribution System?

A13. There have been significant improvements related to water main replacement and relocation associated with roadway projects. Major projects include:

- 1) Wade Avenue Water Main Extension
- 2) SR 531 Water Main Replacement
- 3) West Avenue Water Main Relocation
- 4) US 20 Water Main Relocation
- 5) Lake Avenue Bridge Water Main Relocation
- 6) Academy/School Streets Water Main Replacement

1 **Q14. What major infrastructure improvements has the Company performed in the**
2 **Portage County Service Area?**

3 A14. The most significant improvement is the installation of radio read water meters. This
4 allows for increased productivity of the Field Service Representative as well as more
5 accurate and timely reporting of customer water usage.

6 **Q15. What major wastewater infrastructure improvements has the Company constructed**
7 **in the Franklin County District?**

8 A15. The largest single wastewater capital infrastructure improvement in Franklin County is
9 the construction of a secondary clarifier at the Huber Ridge Wastewater Treatment Plant.
10 This project was required by the facility's National Pollutant Discharge Elimination
11 System (NPDES) permit issued by the Ohio EPA. The approximate \$1.5 million project
12 upgraded the secondary clarification system and reduced solids pollutant loading to the
13 state's receiving stream.

14 Other major wastewater capital infrastructure improvements include electrical
15 switch gear replacement at Blacklick Wastewater Treatment Plant, pump replacement at
16 the Huber Ridge Wastewater Treatment Plant, and aeration blower replacement at the
17 Blacklick Wastewater Treatment Plant.

18 **Q16. What major water infrastructure improvements has the Company constructed in**
19 **the Franklin County District?**

20 A16. The largest single infrastructure improvement in the Franklin County has been the
21 Blacklick Water Treatment Plant iron filter replacement project. This \$2.47 million
22 project replaced the two 45+ year old iron and manganese aeralators with three new

1 pressure filters. This project addressed aging infrastructure needs as well as treatment
2 reliability and performance requirements.

3 Other major wastewater capital infrastructure improvements include replacement
4 of reverse osmosis feed pipe at the Huber Ridge Water Treatment Plant, high service
5 pump replacement at the Worthington Hills Water Treatment Plant, and water main
6 replacement on Noe Bixby in the Blacklick water service area.

7 **Q17. Does this conclude your testimony?**

8 A17. Yes.