

**FILED**  
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INDIANA UTILITY  
REGULATORY COMMISSION

**INDIANA-AMERICAN WATER COMPANY, INC.**

**DIRECT TESTIMONY**

**OF**

**KARI C. BRITTO**

**SPONSORING ATTACHMENTS KCB-1 THROUGH KCB-2**

**March 31, 2023**

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OF  
KARI C. BRITTO**

**INTRODUCTION**

1

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

3 A. My name is Kari C. Britto, and my business address is 153 N Emerson Ave., Greenwood,  
4 IN 46143.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Indiana-American Water Company, Inc. (“INAWC”, “Indiana-  
7 American” or the “Company”) as Senior Manager of Business Operations.

8 **Q. What are your responsibilities as Senior Manager of Business Operations?**

9 A. In my current role, I am responsible for overall oversight of operational performance. I  
10 manage a team that is responsible for overseeing customer complaints, managing customer  
11 service initiatives, analyzing data and managing processes to find efficiencies and  
12 opportunities across the state, as well as monitoring that all operations are meeting their  
13 operational targets while staying within our rules and regulations as well as meeting  
14 compliance requirements.

15 **Q. Please summarize your educational background.**

16 A. I have a Bachelor of Science Degree in Business and Marketing from the University of  
17 Indianapolis, and a Master’s Degree in Business Administration, with a concentration in  
18 Management, from Indiana Wesleyan University.

1 **Q. Please summarize your professional experience.**

2 A. I started my career with the United States Department of Defense as an accounting tech  
3 auditing travel pay for the military while attending the University of Indianapolis. I then  
4 worked for a Federal Credit Union as a member service representative and loan officer. I  
5 began my career with INAWC in 2009 in the Finance Department. In this role I was  
6 responsible primarily for monthly financial statement analysis and budgeting. In 2012, I  
7 moved from the Finance Department to our Business Operations side of the business where  
8 I have held many roles including Operations Specialist, Sr. Specialist Business Services,  
9 Supervisor Business Process, Manager Business Performance all focusing on the  
10 performance of our organization and operations, excellent customer service, data and  
11 reporting metrics and finding efficiencies across the business. From 2017 to the present, I  
12 have been employed by Indiana-American as Senior Manager, Business Operations which  
13 brought a broader scope of responsibility and oversight across operations.

14 **Q. What is the purpose of your Direct Testimony in this proceeding?**

15 A. The purpose of my Direct Testimony is to describe INAWC's operations, discuss our  
16 commitment to water quality, environmental compliance, health and safety, customer  
17 service, and our continuing efforts to improve water and wastewater efficiency. My  
18 testimony also supports the Company's proposed staffing levels.

19 **OPERATIONS AND FACILITIES**

20 **Q. Please describe Indiana-American's operations.**

21 A. Indiana-American provides water service to approximately 328,000 customers throughout  
22 the state and wastewater service to approximately 2,400 customers. The Company's  
23 operations are widely dispersed throughout the state. INAWC operates 32 distinct public

1 water systems providing service to approximately 78 communities throughout Indiana.  
2 Indiana-American's operations are organized into six geographical regions throughout the  
3 state - Northwest, Northeast, East, West, Central, and South as reflected in Attachment  
4 KCB-2.

5 **Q. Please describe the facilities and property that Indiana-American uses to provide**  
6 **water and wastewater service to customers.**

7 A. INAWC's utility plant accounts include land and land rights, structures and improvements,  
8 wells, pumping equipment and associated facilities, purification plant and equipment,  
9 sludge disposal facilities, transmission and distribution mains, collection pipes, distribution  
10 storage facilities, service lines, meters, hydrants, and other facilities, including materials  
11 and supplies. All of this plant and property is used and is useful for providing safe,  
12 adequate, efficient, and reliable water and wastewater services to INAWC's customers.

13 **Q. Please provide an overview of the sources of water supply, treatment facilities,**  
14 **pumping equipment and distribution system property that INAWC uses to provide**  
15 **water service to its customers.**

16 A. Indiana-American withdraws from various sources including surface supplies, wells, and  
17 infiltration galleries. Approximately 51% of our water supply comes from wells and  
18 infiltration galleries, and about 49% comes from surface sources. Less than 0.1% is  
19 purchased from other utilities. The Company operates 39 water treatment plants. Water  
20 treatment varies by facility and can consist of flocculation, sedimentation, filtration, iron  
21 and manganese removal, sequestering, corrosion control, fluoridation and disinfection, and  
22 all is ultimately treated to satisfy drinking water regulations. The Company's water  
23 treatment plants are monitored by the Indiana Department of Environmental Management

1 (“IDEM”), to comply with the regulations of the United States Environmental Protection  
2 Agency (“EPA”) and the Safe Drinking Water Act. As discussed in greater detail in the  
3 direct testimony below, these treatment facilities must keep pace with increasingly  
4 stringent EPA regulations and the introduction of new standards for contaminants in the  
5 water supply to meet the specific consumption and quality needs of the communities they  
6 serve. Statewide, we conduct over 84,000 water quality tests every year for more than 172  
7 potential contaminants throughout the treatment and distribution process.

8 Pumps transport the water from the treatment facility to the distribution system for delivery  
9 to the customer’s home or business. The pumping stations move water 24 hours a day using  
10 appropriately sized pumps, pipes, and power sources to drive the pumps. This sophisticated  
11 equipment requires regular maintenance and upgrades.

12 Water in our distribution systems travels through over 5,245 miles of water mains through  
13 a network of pipes ranging from 1” to 48” in diameter that deliver water across cities,  
14 towns, subdivisions and neighborhoods to homes, businesses, industrial plants and a  
15 multitude of other destinations. To help ensure that adequate water quantity and pressure  
16 is conveyed where it needs to go, the Company operates a total of 123 water storage tanks  
17 and clearwells with a combined capacity of approximately 91 million gallons per day, 75  
18 booster stations and pressure reducing stations. This stored water is available for pressure  
19 equalization and fire protection. Company engineers run computer simulations of the  
20 hydraulic activity of the water to determine proper pressure, pipe sizing, and other factors  
21 (a fire hydrant, for example, will require different flow and pressure characteristics and  
22 larger piping than will water for residential use). Indiana-American maintains  
23 approximately 30,525 fire hydrants throughout the state available for public fire protection.

1 Collectively across the 78 communities we serve in Indiana, the Company delivers an  
2 average of 115 million gallons of water daily.

3 **Q. What facilities are necessary to provide wastewater service?**

4 A. Indiana-American currently owns, operates, and provides service through five separate  
5 public community wastewater systems. INAWC operates three wastewater treatment  
6 plants in Riley, Somerset and Sheridan. INAWC also operates the wastewater collection  
7 system in Muncie-Farmington and a collection system with a wastewater mound system in  
8 River's Edge. The treatment plants receive sewage from a complex collection system,  
9 where the sewage flows to the plant or is pumped to the site using lift stations. The plants  
10 process the sewage prior to discharge to a local waterway. The level of treatment varies  
11 depending on the amount of sewage being treated and EPA regulations. In general, solids  
12 are removed (primary treatment), and then bacteria are utilized to reduce the organics in  
13 the sewage (secondary treatment). Phosphates and nitrates are reduced (tertiary treatment),  
14 and the final effluent is sanitized prior to release into local waterways. INAWC owns and  
15 operates nine wastewater lift stations, moving wastewater through the collection system to  
16 a variety of treatment plants. These treatment facilities must keep pace with increasingly  
17 stringent EPA regulations to protect the waterways of the state. Wastewater travels through  
18 over 30 miles of gravity collection and six miles of force main and pressure sewer pipes  
19 that collect wastewater from homes, businesses, and industrial plants through subdivisions,  
20 towns, and cities. The River's Edge wastewater system consists of a Mound treatment  
21 system, gravity collection and force main and pressure sewer systems. The Muncie-  
22 Farmington system consists of gravity collection only with metering and discharge to the  
23 Muncie municipal wastewater system.

1 COMMITMENT TO WATER QUALITY

2 **Q. Please describe INAWC’s overall commitment to water quality and environmental**  
3 **compliance.**

4 A. Water quality is of paramount importance to the health and well-being of our customers.  
5 INAWC has provided water service to customers for over 130 years. We are acutely aware  
6 that water is the only utility service intended for customers to ingest, and that our customers  
7 rely on INAWC to provide them with safe and reliable water services. Beyond health and  
8 safety, we know that INAWC’s customers are also interested in the aesthetic of the water  
9 we treat and deliver to them. We proactively look for ways to optimize treatment  
10 capabilities to continue to improve the overall quality of drinking water delivered to our  
11 customers and do so in a way that strives to create operational efficiencies that also benefit  
12 our customers. This commitment has resulted in INAWC receiving only one Notice of  
13 Violation (“NOV”) for drinking water in the past nine years. Of greater significance, this  
14 single NOV occurred in December 2022 in one of our newly acquired municipal systems,  
15 and the root cause of it pointed back to a need for enhanced training and knowledge of one  
16 of our newly acquired employees. As I will explain later in my testimony, this need for  
17 enhanced training and supervision highlights the importance of the roles being added to  
18 our workforce.

19 **Q. What are some of the efforts the Company undertakes to monitor and protect source**  
20 **water?**

21 A. Indiana-American’s source water monitors (“SWM”) use Hach Probes and Controllers to  
22 measure parameters such as pH, UV, Conductivity, ORP, Turbidity, and Temperature of  
23 the source water entering our surface plants. Not all plants have the same probe

1 configuration as above, but they do have some combination of those probes. While it is not  
2 a current IDEM requirement, IDEM strongly recommends SWM as part of the Surface  
3 Water Threat Minimization and Emergency Response Plan. The main purpose is to detect  
4 changes in source water chemistry that would indicate a potential contamination of the  
5 source water entering our plant intake. Early detection enables operators to take timely  
6 protective actions, including additional treatment. Surface Water Threat Minimization and  
7 Emergency Response Plans have been completed for all surface water treatment plants and  
8 IDEM regulations require that they be updated every five years.

9 **Q. Please describe the Company's water quality testing program.**

10 A. INAWC routinely tests water in all its systems to determine if it is meeting the safety  
11 standards established by the federal and state regulatory authorities. Our drinking water is  
12 tested both before and after treatment to confirm that it satisfies all chemical  
13 and bacteriological criteria. To help protect the public health, we have multiple barriers  
14 in the treatment process to help prevent contamination from reaching our customers. We  
15 test for presence of synthetic organic chemicals, inorganic chemicals, volatile organic  
16 chemicals, radionuclides, bacteria, disinfection byproducts, and all other contaminants that  
17 the regulators require us to monitor at the frequency prescribed by the federal and  
18 state regulations and report the results of this testing to IDEM monthly, in accordance with  
19 the regulations. In addition, we have begun sampling for perfluoroalkyl and  
20 polyfluoroalkyl substances and work with our customers to collect and analyze samples for  
21 compliance with the Lead and Copper Rule.

22 Water quality regulations have become more stringent since the Company's last rate case  
23 requiring additional tracking, monitoring, and reporting. In 2022, INAWC collected more



1 than 84,000 water chemistry and routine bacteriological samples. Many additional samples  
2 were taken to assess process effectiveness, support pilot treatment studies, and monitor  
3 emerging contaminant threats. We also collect other bacteriological samples as needed in  
4 response to main breaks and similar emergencies.

5 **Q. What regulations govern the quality and quantity of water service provided by**  
6 **INAWC?**

7 A. Water supply utilities are subject to a complex array of regulations at the federal, state, and  
8 local levels with respect to water quantity, water quality and other environmental aspects  
9 of their facilities and operations. Drinking water quality is addressed by a combination of  
10 federal regulations under the Safe Drinking Water Act of 1973, the federal act that  
11 established the EPA as the federal regulatory body governing drinking water. Pursuant to  
12 that authority, the EPA has established standards for contaminant levels in drinking water,  
13 mandatory treatment methods, monitoring and reporting requirements, and public  
14 notification mandates in the event of contaminant level or treatment method  
15 noncompliance. The EPA has granted primacy to IDEM to administer the federal  
16 regulatory standards for water systems in Indiana.

17 **Q. What are some of the new and emerging federal and state environmental standards**  
18 **for drinking water quality that will require enhancements or improvements in the**  
19 **treatment facilities and distribution systems for both water and wastewater systems?**

20 A. In recent years there has been an increase in public concern over water quality standards  
21 and regulation that has led to increased stringency in EPA and state drinking water  
22 regulation. Over the years, regulatory protection has been extended through the  
23 establishment of maximum contaminant levels (“MCLs”) or by treatment requirements that

1 target additional contaminants. MCLs determine the maximum level of each covered  
2 substance within the drinking water that is deemed safe for the customer. They also include  
3 requirements for monitoring, remediation, and public notice when standards are exceeded.  
4 There are now MCLs for 88 individual organic and inorganic chemicals, including groups  
5 such as trihalomethanes, and haloacetic acids, and E. coli bacteria indicator  
6 microorganisms. In addition, treatment technology requirements include specifications for  
7 surface water filtration and groundwater disinfection cover protozoa, viruses, and other  
8 bacteria.

9 In 2021, U.S. EPA adopted the Lead and Copper Rule Revisions (“LCRR”) which require  
10 public water systems to perform additional actions to better protect communities from  
11 potential exposure to lead in drinking water. The new regulations and the replacement of  
12 lead service lines comes with added duties, these includes a public customer-facing service  
13 line inventory and updates, pitcher filter distribution and management, customer  
14 communication requirements, school and daycare testing, sample site validations,  
15 increased sampling and management of sample results, establishment of trigger level,  
16 stronger treatment requirements and requirements for lead service line replacement. The  
17 increased regulations -- for example EPA’s Unregulated Contaminant Monitoring  
18 Rule (“UMCR”) 4 and now UCMR5, which started in 2023 -- require greater sampling,  
19 increased communication to customers, and tracking of all samplings. Additionally, we are  
20 putting greater focus and documentation on identifying the highest priority (Tier) sites to  
21 sample. Additional provisions of the LCRR take effect in 2025. These include increased  
22 lead testing at schools and childcare facilities connected to public water systems, annual

1 communication by the utility to homes connected to lead service lines, and requirements  
2 to remove those lines.

3 In 2021, the EPA issued two actions to address per- and polyfluoroalkyl substances  
4 (“PFAS”) in drinking water.<sup>1</sup> As mentioned above, INAWC has already begun sampling  
5 for PFAS. More recently, the EPA has proposed standards to limit six PFAS chemicals in  
6 drinking water.<sup>2</sup> Current studies indicate that in order to remove PFAS from drinking water,  
7 INAWC may need to employ additional treatment technologies at existing water treatment  
8 facilities. A determination of what technologies to employ if PFAS compounds are present  
9 will require a review of the effectiveness of each technology and an analysis of the costs  
10 and operational feasibility for each location. Because we are still analyzing, the cost of  
11 these additional technologies is not part of the projections in this case.

12 **Q. Are wastewater systems also being impacted by changing environmental standards?**

13 A. Yes. Wastewater systems are also seeing continued and increased regulatory initiatives to  
14 address surface water quality and the environment. Wastewater utilities continue to see an  
15 effort to reduce the number of combined sewer overflows (“CSO”) and sanitary sewer  
16 overflows (“SSO”) through the permits and agreements to ensure compliance in meeting  
17 the goals of the Clean Water Act. In addition, wastewater systems are seeing an increasing  
18 emphasis on assisting with reducing nutrient pollution in lakes, rivers, and streams by  
19 addressing the amount of phosphorus and nitrogen that is released into the environment by  
20 wastewater systems. The changing water and wastewater environmental standards,

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<sup>1</sup> Contaminants of Emerging Concern Under the Clean Water Act, November 29, 2021 and Federal Role in Responding to Potential Risks of Per- and Polyfluoroalkyl Substances (PFAS), August 10, 2022 available at <https://crsreports.congress.gov/product/pdf/R/R45998>

<sup>2</sup> See <https://www.epa.gov/pfas/key-epa-actions-address-pfas>

1 including increased monitoring and reporting requirements, highlight the importance of the  
2 roles being added to our workforce discussed later in my testimony.

3 **Q. How does INAWC manage compliance with applicable environmental laws and**  
4 **regulations?**

5 A. As we are faced with new or emerging requirements, we have used and will continue to  
6 use the mechanism for approval of plans for service enhancement improvements (“SEI”).  
7 For both existing and new requirements, INAWC uses a laboratory information  
8 management system (“LIMS”) for managing much of the water quality data and sample  
9 reporting requirements. The LIMS sample scheduling feature provides a tool to streamline  
10 thousands of water sample tests annually and ensures that the results are tracked and  
11 reported as required by the environmental regulators. In addition, Indiana-American uses  
12 Sample1View, an internally built product, to manage bacteriological sample scheduling,  
13 collection, analysis, and reporting from utility-operated laboratories. LIMS and  
14 Sample1View provide a combined view and reporting capability for bacteriological  
15 samples and the data from the LIMS system for a single view of compliance samples for a  
16 user-defined monitoring period. LIMS pre-populates reports to enable all samples to be  
17 tracked from collection to upload in an Excel-based report.

18 Indiana-American uses MapCall, another internally built product, to manage operator  
19 licenses, environmental permits, incidents, training, and lead and copper site requirements  
20 and forms, as well as other EPA and Occupational Safety and Health Administration  
21 (“OSHA”) requirements. MapCall is accessible by mobile device, so samples can be  
22 collected in the field, permits can be referenced from a remote station and any other

1 documentation or training document can be pulled up at the time the work is being  
2 performed.

3 INAWC is also implementing Waterly, a new web-based application that allows for the  
4 direct capture of treatment plant data that was previously recorded manually. Operators  
5 directly enter water and wastewater production data into Waterly using a mobile device.  
6 The data is then used for internal reports and external regulatory forms. This is also being  
7 integrated with our SCADA systems to capture data directly from the system.

8 Together, these systems confirm all required reports and samples are completed and  
9 submitted each month to help ensure environmental compliance. The use of software  
10 systems such as LIMS, MapCall, Waterly and SampleView reduces the manual re-entry  
11 of data collected on paper forms or otherwise generated from diverse sources. They also  
12 consolidate the information into structured databases with querying and reporting tools,  
13 instead of managing it in multiple separate spreadsheets. This allows for better data  
14 analysis, which in turn supports better decision-making in compliance and operating  
15 matters and makes mandatory reporting more efficient.

16 **Q. Is there any external validation of the success of INAWC's water quality programs?**

17 A. The Company's participation in the AWWA Partnership for Safe Water Treatment Plant  
18 Optimization Program is one demonstration of INAWC's commitment to the health and  
19 safety of our customers through the delivery of clean, safe, aesthetically pleasing water.  
20 The Partnership is an alliance of six organizations with a mission to improve the quality of  
21 water delivered to customers by optimizing water system operations. Each year, the  
22 Partnership evaluates our water quality data against strict program standards. All five of

1 our surface water treatment plants have received the AWWA Partnership for Safe Water  
2 Treatment Plant Optimization Program Phase III 20 Year Directors Award. This award is  
3 acknowledgement of our participation in the Partnership and our efforts in continuously  
4 optimizing water treatment plant operation and performance. In addition, the Hoosier  
5 Water Guardian Award is an optional program administered by IDEM, recognizing the  
6 communities that go above and beyond the minimum state standards for Wellhead and  
7 Source Water Protection. Thirteen of our public water systems have been granted this  
8 award since the program's inception in 2008.

### 9 **COMMITMENT TO SAFETY**

10 **Q. Please describe INAWC's overall commitment to safety.**

11 A. The health and safety of our employees and customers, as well as protecting the quality of  
12 water we deliver, are the top priorities for our Company and critical to our success. Our  
13 co-workers', contractors', and customers' safety is vital, and we focus on it every day. We  
14 strive to ensure that the communities we serve are kept safe and try to ensure that every  
15 INAWC employee chooses safety in every job. This commitment has been demonstrated  
16 in our SEI filing.

17 With the safety of our employees, customers, contractors, and the public in mind, we  
18 approach safety with a focus on continuous improvement through the implementation of  
19 proactive initiatives, plans, practices, and processes that complement and sustain a robust  
20 workplace safety program.

21 INAWC is also committed to securing assets across our system and recognizes the  
22 importance of protecting our water sources, treatment plants, infrastructure, and data from

1 malevolent acts, as demonstrated by our robust security and cyber security programs. In  
2 addition, the Company's emergency response program demonstrates the Company's  
3 recognition that rapid response and recovery from security breaches and all other types of  
4 incidents are critical to maintaining the water and wastewater systems.

5 **Q. Please describe INAWC's safety program and Operations' role in promoting safety**  
6 **and a safe working environment at INAWC.**

7 A. The Company's safety program includes multiple activities and initiatives to maintain  
8 compliance, support employee engagement, and help ensure the safety of our workforce,  
9 our customers, as well as the public. Operations is responsible for administering the health  
10 and safety program, which includes the delivery of all OSHA required and American Water  
11 required safety trainings and qualification of employees, physical security, cyber security,  
12 business continuity planning, and event management. Safety and security metrics are  
13 tracked and reviewed monthly. The Operations Leadership Team holds monthly steering  
14 committee meetings to discuss ongoing programs and the progress of initiatives. Some  
15 ongoing programs include:

- 16 • Employee Injury Review Meetings
- 17 • Pre-Job Safety Briefing completion
- 18 • OSHA compliance and INAWC required training
- 19 • Supervisor Inspections and Feedback
- 20 • WhosonLocation App implemented at RMP facilities
- 21 • Contractor Safety Orientation
- 22 • Near miss, first aid, incident investigations
- 23 • Certified Safe Worker Program
- 24 • Stop Work Authority
- 25 • Safety Culture Council
- 26 • Daily Safety Talks

- 1 • GIS Utilization: location of below-ground assets and confined space locations
- 2 • ISNetworld for contractor safety pre-qualification and monitoring of safety
- 3 performance
- 4 • Safety profiles: 13 different personnel safety profiles identified so safety
- 5 curriculum is tailored to the employee’s job
- 6 • Emergency Response Plan tabletop exercises

7 **Q. How is safety relevant to operational performance?**

8 A. The Company considers safety to be a core value, as well as a strategy. We ask our  
 9 employees to place safety first in everything they do. Our overall goal is to have no  
 10 employee injured at or away from work as well as to maintain safety and security for our  
 11 customers as well as contractors. A safe workplace increases employee morale, increases  
 12 our commitment to one another, and in the long run makes for a more engaged and  
 13 productive workforce.

14 Our commitment has been effective. We have a strong safety culture at INAWC, which is  
 15 illustrated by our year-over-year safety performance specifically in areas of our OSHA  
 16 Recordable Injury Rate (“ORIR”) and Days Away and Restricted (“DART”) measures,  
 17 which continues to improve and stay at low levels since our last general rate case.

INAW	2018	2019	2020	2021	2022
ORIR	1.17	1.35	1.14	0.00	0.28
DART	0.58	1.35	0.57	0.00	0.00

18

19 **Q. Are there benefits gained from the implementation of these safety initiatives?**

20 A. Yes. A strong safety culture is a cornerstone for high performing organization. It also  
 21 improves employee morale, as our employees know that we care for them and their



1 families. A strong safety culture also reduces safety-related incidents and the associated  
2 costs, which also benefits customers.

### 3 **OPERATIONS AND MAINTENANCE EXPENSE**

4 **Q. What level of O&M expense is the Company seeking in this case?**

5 A. The Company has been generally successful in controlling O&M expenses over the past  
6 decade. In 2022, the Company's O&M expense per customer was approximately the same  
7 as it was in 2013. However, new challenges now require increased O&M spending.  
8 INAWC is seeking recovery of approximately \$100 million in O&M expense for the Step  
9 1 increase in this Cause, and approximately \$106 million in O&M expense for both Step 2  
10 and Step 3 in this Cause.

11 **Q. Please explain some of the drivers of the Company's O&M expenses in this case.**

12 A. The Company is projecting an increase in O&M expense in order to continue providing  
13 cost-effective, high-quality water and wastewater service to our customers over the long  
14 term. Maintaining INAWC's facilities in accordance with safety, environmental and water  
15 quality standards requires substantial capital investment and annual operations and  
16 maintenance expenditures by INAWC. The Company's proposed rates in this case are  
17 intended to recover the prudently incurred and just and reasonable level of INAWC's costs  
18 in meeting these requirements. INAWC's requested increase in O&M expense is driven by  
19 increases in employee related expenses, contract services expenses, and production costs.  
20 INAWC's specific O&M pro forma adjustments proposed in this case are discussed in  
21 greater detail in the Direct Testimony of INAWC witnesses Manuel Cifuentes, Jr., and  
22 Jennifer M.B. Grisham.

1 **IMPROVING WATER AND WASTEWATER EFFICIENCY**

2 **Q. What does it mean to improve water and wastewater efficiency?**

3 A. In simple terms, improving water and wastewater efficiency means using improved  
4 practices and technologies to deliver water and wastewater service more efficiently.  
5 INAWC’s efforts to improve water efficiency cover a wide range of approaches, and  
6 include supply side practices, such as improved pump efficiency, meter reading, leak  
7 detection, and repair programs, as well as demand-side strategies, such as customer  
8 efficiency and public education programs. From an operations perspective, improving  
9 water and wastewater efficiency requires achieving a cost-effective mix of prudent  
10 investments and improved operations and maintenance management capabilities targeting  
11 safety, customer satisfaction, sustainability, and system efficiency.

12 **Q. Please describe INAWC’s efforts to improve water and wastewater efficiency.**

13 A. The Company strives to improve water and wastewater efficiency through operational  
14 excellence, the use of technology, system maintenance, and efforts to manage costs as  
15 efficiently as possible to provide a more cost-effective level of service for our customers  
16 over the long term. The Company also leverages the size and scale of American Water  
17 Works Company, Inc. (“American Water”) to improve transactional efficiencies through  
18 increased automation, the adoption of more effective business practices, and a continuous  
19 improvement mindset.

20 **Q. How is INAWC using technology to improve employee effectiveness?**

21 A. INAWC is using technology in a number of ways in order to enhance productivity and  
22 efficiency. For example, I previously discussed our LIMS and Sample1View systems that  
23 allow efficient storage and retrieval of our water sampling data, making those tasks far

1 more efficient. In addition, accurate Geographic Information System (“GIS”) maps ensure  
2 that the Company’s institutional infrastructure knowledge is readily available for use by  
3 employees. To that end, INAWC has loaded its facilities into GIS so that maps of its water  
4 and sewer system assets are accessible on its internal network. The information available  
5 in GIS includes the location and a short description of the facilities, giving an electronic  
6 spatial view of the entire system. GIS also helps locate customers that might be affected by  
7 related service issues and allows us to communicate with our customers more effectively.

8 INAWC continues to enhance its GIS platform through integration with our Enterprise  
9 Asset Management system, our computer-aided design system, our work management  
10 system (“MapCall”) and our fixed asset records. This integration allows communication  
11 across the various platforms that makes data retrieval more efficient. The Company  
12 continues to build the GIS platform by adding new assets and retiring old assets to ensure  
13 our technicians have access to the most current information while working in the field. In  
14 2022, the Company implemented a ‘Digital As-built Workflow’ that is focused on  
15 standardizing how, what and when GIS is updated as well as facilitating better integration  
16 between GIS and MapCall. This improved the lag time between when the asset was  
17 installed to when GIS and other systems are updated. The goal is to keep our GIS current,  
18 complete and accurate for our end users.

19 **Q. How have INAWC and its customers benefitted from the GIS platform?**

20 A. The location of water quality events, chlorine residuals, maintenance events, and pipe  
21 failures are all plotted on GIS map layers. The spatially presented information can be used  
22 to answer customer water quality inquiries, identify trends, and prioritize water main  
23 replacement projects. GIS also is a tool used to assist compliance with federal and state

1 lead service line inventory and management. Known customer and Company service line  
2 material data has been loaded into the MapCall service records that is integrated to display  
3 on the GIS maps. This will provide employees and customers with a visual representation  
4 of known and suspected lead service lines within the service territory.

5 **Q. How does INAWC's work management system improve employee effectiveness?**

6 A. MapCall is a web-based application that enables employees and contractors to complete  
7 the lifecycle of work orders and assets in the field. Employees and contractors can view  
8 historical information, including work order history on an asset, standard operating  
9 practices associated with an asset, maintenance history, O&M manuals, and tap card  
10 images. MapCall provides the flexibility to create work orders, configure workflows and  
11 report progress while in the field. For example, a supervisor can create a work order to  
12 flush a dozen hydrants in a particular area. Using MapCall, the field worker can report  
13 progress as flushing is performed, and both the supervisor and others in the field can  
14 visually see the progress made toward completing the identified work in real time through  
15 the MapCall interface. The same can be done to schedule and monitor other routine work,  
16 as well as emergency work, such as main break repairs. MapCall also allows those in the  
17 field to communicate water quality and other events more efficiently through preloaded  
18 notifications via email to both internal and external stakeholders, including regulators,  
19 allowing workers to quickly shift back to focusing on the task at hand and providing quality  
20 service to customers. Water main break locations are continually added to GIS and  
21 MapCall to help identify sections of pipe that have outlived their useful life. This  
22 information is used to prioritize water main replacements by strategically focusing on the  
23 pipe with the highest risk of failure.

1 **Q. Are there other technology solutions that have been implemented to improve**  
2 **employee effectiveness?**

3 A. Yes. In addition to GIS and MapCall, INAWC is implementing other technology solutions  
4 to enhance employee effectiveness. MyWater and Work1View (“W1V”) are software  
5 applications that provide more comprehensive and easily accessible information to  
6 employees.

7 **Q. Please describe how MyWater and W1V improve employee effectiveness.**

8 A. MyWater has been implemented by the Company to better serve our customers. MyWater  
9 provides improved access to customer information (e.g., premise and service order history,  
10 meter details, billing and payment information) to field service representatives (“FSRs”),  
11 and customer service representatives (“CSRs”) who regularly interact with our customers.  
12 This means that FSRs can view the same information as customer service representatives  
13 (“CSRs”). This allows our FSRs to review customer information that can help them  
14 address the customer’s issue and provide customers information while speaking with them,  
15 rather than having to contact the CSC for information or requiring customers themselves  
16 to follow up with the CSC. FSRs can also update customer information and record notes  
17 on customer interactions on the spot, providing other employees that serve our customers  
18 timely access to the most up-to-date information. MyWater is also the customer facing  
19 website that allows customers to view much of the same information in the same format as  
20 both our FSRs and our CSRs are seeing to make for a more seamless discussion when  
21 interacting with the customer. Recent and planned enhancements have and will also  
22 improve our customers’ self-service capabilities and the resiliency and usability of the  
23 website.

1 W1V provides employees with a single view for managing customer service order work in  
2 the field, customer information and meter information. W1V includes a real-time  
3 operations map to see work orders with optimized routing, as well as other types of nearby  
4 work and alerts. In addition, using W1V, FSRs can manage their own work based on the  
5 day's demands by adding or deferring undated work or by putting orders on hold in order  
6 do emergency work needed at another location. Supervisors can also reroute work as  
7 appropriate. W1V along with MyWater allows for easy access to customer information  
8 during field visits. It has also been integrated with MapCall to provide FSRs one point of  
9 access for all information needs. Taken together, these types of improvements continue to  
10 support improved customer experience and satisfaction.

11 **Q. Is the Company deploying advanced metering infrastructure technology?**

12 A. Yes, advanced metering infrastructure (“AMI”) technology is an integrated system of  
13 meters, communications networks, and data management systems. In 2020, INAWC began  
14 deploying AMI meters and smart endpoint system. The AMI cellular-network systems  
15 utilize smart cellular endpoints installed on each meter to transmit the meter data via an  
16 existing 3rd party cellular infrastructure to a central database system for analysis and  
17 reporting. The smart endpoint utilizes a cell-based network provided by major companies  
18 such as AT&T and Verizon to capture interim customer reads and eliminates the  
19 requirements of a fixed data collector network.

20 **Q. Why is INAWC installing AMI technology?**

21 A. The implementation of AMI will increase billing accuracy and reduce the likelihood of  
22 estimated bills (e.g., due to weather events or other obstacles to accessing customer meters)  
23 by automatically providing timely, accurate reads through the network. In addition, AMI

1 will reduce the need for manual re-reads and improve processes from meter reading  
2 through billing. AMI will reduce the number of certain service orders over time by  
3 eliminating the need to drive by premises to collect reads and eliminating the need to roll  
4 a truck to complete certain high volume service orders such as “Move in-Move out orders.”  
5 With the planned implementation of a meter data management system, the Company will  
6 also be able to collect, organize and analyze information, to better enable smart water use  
7 choices, to enhance customer communication regarding customer water consumption  
8 patterns, and to improve INAWC’s ability to measure and address non-revenue water more  
9 efficiently.

10 **Q. Is INAWC taking other steps to improve water efficiency?**

11 A. In addition to utilizing its DSIC mechanism to accelerate the replacement of aging  
12 infrastructure in the Company’s service territory to address some of our real losses, we are  
13 enhancing our leak detection efforts throughout the state. We are using acoustic listening  
14 devices to conduct surveys of our systems to assist in determining the condition of buried  
15 infrastructure. For example, we use mobile acoustic listening devices to do manual  
16 sounding of our distribution system.

17 The Company also plans to expand its efforts in improving apparent losses through large  
18 meter testing and profiling, conducting fire service audits, and improving our Company’s  
19 billing process.

20 *Large Meter Testing and Profiling.* Large meter testing and profiling includes our effluent  
21 meters in the plants as well as our large customer meters. INAWC yearly tests plant effluent  
22 meters in order to ensure accuracy of the system delivery numbers used to calculate non-

1 revenue water (“NRW”) numbers for water going out to the distribution system. The  
2 Company is also analyzing consumption patterns to determine if the customers’ meters are  
3 still appropriate for their current consumption rates, and if not, the installation of new  
4 meters will be recommended. We are also installing AMI endpoints on our larger meters  
5 to get more accurate read information and detect any issues such as leaks or meter issues  
6 quickly.

7 *Fire Service Audits.* We have reviewed and improved our process related to fire services.  
8 All fire services going in the ground now have a detector meter installed. This meter is read  
9 monthly and allows us to see if there was any usage on the service for the month. If there  
10 is usage on the meter we investigate if it was for authorized use. We do have several old  
11 fire services in the system without detector meters, nearly 64%, so if a customer  
12 intentionally or inadvertently tapped into a fire service and used the connection for some  
13 other use, there would be no record of the water used through that service. We are looking  
14 at ways to audit these systems and finding solutions to get a more accurate picture of the  
15 water loss we may be seeing in this area. These audits require extensive labor, and we will  
16 repurpose some of the original locating work to this on-going project. Not only do the  
17 audits access NRW, but they also check for vault safety and any items that may need to be  
18 updated for the safety of our employees, as well as include cross connection checks to  
19 ensure the quality of our water to our customers.

20 *Company’s Billing Process:* The Company monitors its customer database system and  
21 billing system for inactive accounts/premises with consumption (or vice versa), premise  
22 mismatches, estimated reads and consecutive zero consumptions that may impact NRW  
23 levels. These expectations are processed into work orders that determine and eliminate the



1 issues that caused the exception. Indiana-American is also developing the utilization of  
2 GIS analytics to allow greater flexibility in reviewing data tables of consumption, rate  
3 class, and service order information. This initiative is in its early stages, and these tools  
4 will be customized based upon user experience and results. As mentioned below, we have  
5 seen field service orders rise, in part, because non-essential frontline service work was  
6 deferred from March 2020 through December 2021 to help protect the safety of our  
7 employees and customers due to the pandemic. We also anticipate increased field service  
8 orders as new AMI metering equipment is installed and more meter information becomes  
9 available.

10 **Q. Please describe the role that Service Company plays for INAWC.**

11 A. The services INAWC receives from the Service Company are necessary for INAWC's  
12 utility operations and provision of service to its customers. The Service Company provides  
13 access to highly trained professionals who possess expertise in various specialized areas  
14 and who work exclusively for the Company's affiliates. The services provided by the  
15 Service Company include, among others, customer service, water quality testing,  
16 innovation and environmental stewardship, human resources, communications,  
17 information technology and cyber security, finance, accounting, payroll, tax, legal,  
18 engineering, accounts payable, supply chain, and risk management. Further, INAWC  
19 benefits from the economies of scale in getting these services and expertise on a shared  
20 basis at cost. The Service Company provides INAWC an efficient and cost-effective means  
21 of obtaining services needed for INAWC's customers and supports INAWC's ongoing  
22 efforts to improve water efficiency. INAWC witness Baryenbruch provides testimony and

1 analysis that demonstrates that the Service Company costs charged to INAWC are  
2 reasonable.

3 **Q. Can you provide additional examples of the services obtained from the Service**  
4 **Company?**

5 A. Yes. The Service Company operates the American Water (“AW”) Central Laboratory  
6 located in Belleville, Illinois. The AW Central Laboratory conducts sophisticated testing  
7 and analysis for all American Water subsidiaries, including INAWC. The AW Central  
8 Laboratory processes nearly 30,000 sample events each year, is certified in 16 states and  
9 territories, and is accredited for 38 methodologies and over 250 compounds (160 of which  
10 are regulated). The lab has a history of being on the forefront of monitoring, testing,  
11 identifying and controlling analytes in advance of federal regulations, and regularly  
12 collaborates with the EPA to help develop federal drinking water standards and regulations.  
13 Our highly sophisticated analytical and research capabilities are why the EPA regularly  
14 taps into our lab and our research team to help develop federal drinking water standards  
15 and regulations.

16 The Service Company's Information Technology team provides effective information  
17 technology support and solutions to meet INAWC's business needs. The Company's  
18 ongoing investment in technology enables INAWC to better manage its end-to-end view  
19 of its water and wastewater operations water from source to the tap and collection to  
20 discharge. Service Company's IT team works side-by-side with INAWC end-users to  
21 develop technological solutions engineered with a focus to enhance our employees'  
22 effectiveness and to allow our customers to do business with us more easily.

1 Through the size and breadth of American Water, the Service Company Supply Chain team  
2 has continued to increase its purchasing power and obtain significant discounts on the  
3 necessary equipment needed to manage and maintain our system—including pipes, fittings,  
4 and water treatment chemicals—at prices that we otherwise would be unable to obtain  
5 separately.

### 6 STAFFING LEVELS

7 **Q. What is INAWC’s proposed staffing level in this case?**

8 A. The Company has identified 408 full time equivalent (“FTE”) employees as the appropriate  
9 staffing level for the Company’s water and wastewater operations for the test year ending  
10 April 2025 in this case. The number of employees is based upon discussions with each  
11 department and functional area. On a monthly basis, performance metrics ranging from  
12 safety, customer service, financial, asset creation, asset maintenance and regulatory  
13 compliance are reviewed to ensure desired service levels and performance are achieved  
14 within each region/department. Service needs and related resource requirements are  
15 consistent with meeting regulatory requirements, tariff requirements, industry standards,  
16 service requests, customer needs, and providing support to the business operations in the  
17 most cost-effective way to best serve the long-term interests of our customers. The pro  
18 forma adjustments in this Cause for employee related expense and contract services are  
19 explained in the Direct Testimony of INAWC witness Grisham.

20 **Q. Please discuss how INAWC staffs its business operations.**

21 A. We recognize our duty to staff our business in a manner consistent with the provision of  
22 safe and adequate utility service. This requires a constant evaluation of the right mix of  
23 internal and contract labor, straight time versus overtime, training programs, and

1 technology. In this vein, we continue to evaluate costs and expenses going forward, always  
2 looking for the best solution for the unique and changing challenges we face. A large  
3 portion of our cost structure is for labor, and as a position becomes vacant in our  
4 organization, we look to the value of that position. We review the overall need for that  
5 position and consider, among other things, whether it should be transferred to another area,  
6 modified, or even eliminated. Cost control and improved business performance are the  
7 goals of these efforts. We continue to evaluate the new roles that will be created as new  
8 regulatory requirements are promulgated, and the appropriate positions that INAWC will  
9 need to optimize new technology and most effectively serve our customers.

10 **Q. Why is INAWC projecting an increase in staffing levels in this case?**

11 A. The additional employees will support the increased investment and maintenance for aging  
12 infrastructure, systems added through acquisitions, and compliance with increasing water  
13 quality and wastewater regulations as well as to improve levels of service, quality,  
14 reliability, and efficiency for our customers and the community. As I mentioned above,  
15 the Company's operations are widely dispersed throughout the state. INAWC operates 32  
16 distinct public water systems providing service to approximately 78 communities  
17 throughout Indiana. In addition, the Company's customer base has increased through  
18 acquisitions and organic growth from approximately 300,000 in the last Cause to 332,000  
19 in this Cause. Consequently, INAWC's operations are organized into six (6) geographical  
20 regions - Northwest, Northeast, East, West, Central, and South - which determines how the  
21 Company groups people and positions, lines of communication, chains of command, the  
22 relationships between positions, responsibilities, and levels of accountability.

1 **Q. What are some of the advantages of the Company's geographical organizational**  
2 **structure?**

3 A. The Company's geographical organizational structure allows employees to coordinate  
4 meetings with each other, to focus better on the objectives of their specific locations, and  
5 to meet the challenges of the specific locations that they manage and support. by combining  
6 employees from different specialties to develop solutions and respond to issues in specific  
7 regions at a quicker pace. Many of the Company's systems are very different and complex  
8 when it comes to plant, source of supply, customer demographics, and being able to focus  
9 on one region you gain increased expertise and knowledge.

10 This structure also requires managers with effective leadership at each location and  
11 provides managers with the opportunity to complete on-the-job training and gain valuable  
12 experience. These leadership opportunities, in turn, train managers how to lead better  
13 preparing them for additional opportunities within the Company, which supports  
14 succession planning. The regional organizational structure will allow local managers to  
15 maintain a regional focus, tailoring the region's operations to best fit the needs and  
16 demands of our customers in each area we serve. Also, working locally often allows  
17 employees to communicate with and build and maintain relationships with customers more  
18 easily.

19 **Q. Please summarize the additional positions that the Company has added since its last**  
20 **general rate case.**

21 A. One way INAWC continues to look to improve efficiency, enhance compliance, and better  
22 serve our customers is by consistently evaluating all areas of operations and identifying the  
23 positions that fit best in a regional approach and which positions can function optimally at

1 a centralized location. INAWC has slowly added support staff to ensure we are adding the  
2 right positions in the right areas of the state to support our customers and maintain  
3 compliance. Please see Attachments KCB-1 and KCB-2 for an overview of INAWC's  
4 geographical operations structure and a listing of all positions INAWC has added and plans  
5 to add from 2019 through the Test Year in this case. The following is a summary of the  
6 positions INAWC has added and plans to add from 2019 through the Test Year in this case:

7 ***Acquisitions*** - In 2019 and 2020, INAWC added four (4) positions as a result of the  
8 Sheridan wastewater acquisition, and in 2021, nine (9) more positions as a result of the  
9 Lowell water acquisition. Both acquisitions are now part of the Company's Northeast  
10 region.

11 ***Centralized oversight and support*** - In 2021 and 2022, INAWC added five (5) positions  
12 to provide more effective oversight and support of operations throughout the state. INAWC  
13 created two Director of Operations positions to oversee more uniform standards across the  
14 state – one to oversee the Company's three regions in north Indiana and the other to oversee  
15 the Company's three regions in south Indiana. The Company also added an Information  
16 Technology Specialist and two Business Operations Specialist to support for state-wide  
17 operations.

18 In 2023, the Company is adding four (4) positions to provide more effective oversight and  
19 support of operations throughout the state, including a state-wide water quality and  
20 environmental compliance supervisor, two staff engineers, and a state-wide training  
21 coordinator.

1        ***Regional management and support*** – In 2022, the Company added three (3) senior  
2        manager roles to operations in the East, Central, and West regions (for a total of six  
3        managers across the state, one per region). The Company also added six (6) new pipe  
4        mechanics to create two crews for replacing lead service lines that fall outside of our  
5        scheduled engineering projects, these include service line leaks and turning on service to  
6        homes that have existing lead.

7        In 2023, the Company plans to add three (3) water treatment plant operators for the East,  
8        Central and South regions.

9        By 2024, the Company will have added six (6) water quality and environmental compliance  
10       positions to better support our regional structures and improve our focus on water quality  
11       and environmental compliance – one in 2021, one in 2022, two in 2023, and two in 2024.  
12       These additional employees will support compliance with more stringent regulations,  
13       discussed above, that require additional tracking, monitoring, and reporting. In addition,  
14       they will enhance the Company’s cross connection control program, which is a critical  
15       component to protect our distribution system and the health and safety of our customers.  
16       (INAWC has one designated Cross Connection Control Specialist who provides regulatory  
17       coverage and enforcement for the Company’s public water systems across the state.)

18       While our safety results have been strong, we currently have only one (1) safety manager  
19       and one (1) safety specialist for the entire state’s operations. From one operation in our  
20       Northwestern region (Gary IN) to our Southern region (Newburgh IN) is an over 300-mile  
21       trip, and each region is unique regarding water supply, production and treatment plants,  
22       distribution systems, local government regulations, customer demographics and

1 geographical footprint. Consequently, we plan to add four (4) health and safety specialists  
 2 (one Northern region, one Southern region in 2023), and two more in 2024 (one Central  
 3 region, one Western region in 2024) to align with and support the Company’s regional  
 4 structure and further strengthen our commitment to safety.

5 **Q. Please explain how regulatory requirements to locate and mark the Company’s**  
 6 **facilities are also driving its proposed staffing level in this case.**

7 A. Indiana 811, also known as Call Before You Dig, was created to bring together  
 8 underground facility owners, operators, government agencies, excavators, industry  
 9 associations and service providers to address issues related to the goal of improving safety  
 10 and reducing damages to underground and overhead utilities, and those in proximity to, or  
 11 working nearby those facilities, to provide cooperation and coordination of construction  
 12 activities, and to improve communication, involvement and commitment to these goals.  
 13 While improving safety and reducing damages to facilities allows INAWC to continue to  
 14 serve its customers more efficiently, the Company continues to see a significant increase  
 15 in Indiana 811 notices to locate and mark its facilities since the Company’s last general  
 16 rate case (Cause No. 45142) and projects this trend will continue through the test year in  
 17 this current Cause. The Company’s projected volume of notices to locate and mark its  
 18 facilities is based on the average increase in notices from 2020 to 2022.

<b>Indiana-American Notices to Locate and Mark Facilities</b>									
2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
180,295	191,653	196,442	206,111	208,359	216,272	232,903	244,548	259,221	274,774



1 INAWC has an obligation to locate and mark its facilities within two working days of  
2 receiving a notice of excavation or demolition.<sup>3</sup> INAWC cannot control the number of  
3 tickets called in, nor can we defer the locate orders. Non-essential frontline service work  
4 was deferred from March 2020 through December 2021 to help protect the safety of our  
5 employees and customers, consequently, we did not contract out work such as locates  
6 during the pandemic. With the continuing increases in the volume of notices to locate and  
7 mark our facilities, as well as frontline service work no longer being deferred, our  
8 operations have frequently shifted employees from other duties. Employees have been  
9 reassigned from completing customer service orders and other crucial (although less time  
10 sensitive) tasks such as hydrant maintenance, valve maintenance, leak detection, fire  
11 service inspections, cross-connection inspections, contractor site inspection, cross-  
12 training/development activities, and a variety of other water distribution tasks to stay  
13 current with the 811 work demands.

14 The Company is proposing to address the continued increasing demand to locate and mark  
15 its facilities in this Cause by utilizing contractors to do most of this work across the state.  
16 The proposed increase in contract services expense in this Cause is based on the costs of  
17 bid responses, received from contractors to complete the current and the projected level of  
18 notices requiring the Company to locate and mark its facilities. Please see support  
19 presented as part of INAWC Financial Exhibits OPER Schedule OM 11 in the file INAWC  
20 2023 Rate Case – Contract Services Confidential. Shifting to contractors for line locates  
21 will limit the number of new hires included in this Cause to address this work.

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<sup>3</sup> IC 8-1-26-16.

1 **Q. Please describe how using contract labor to address the increased requirements to**  
2 **locate and mark facilities will further support INAWC's efforts to recruit, develop,**  
3 **and retain employees.**

4 A. Recruitment of skilled workers, as well as the training and retention of existing workers, is  
5 critical to continuing to provide safe and reliable drinking water and perform satisfactory  
6 customer service. Competition among companies to attract and retain the best and highest  
7 performing employees is keen, and our ability to cross-train our employees is critical  
8 considering 16% of our employees will be retirement age by 2022 and 72% of our new  
9 hires over the past three years have no prior water utility experience. Using contract labor  
10 to locate and mark our facilities and repurposing our employees back to maintenance  
11 activities will allow for building a more robust team of employees that can focus on the  
12 critical, yet fundamental, elements of adequately operating a water distribution system.

13 **Q. Please further explain how the Company proposes to address its current and future**  
14 **staffing needs given the demographics of the Company's existing workforce.**

15 A. Water utilities across the country are faced with the inevitable loss of significant knowledge  
16 and expertise over the next 5 to 10 years due to retirements. Indiana-American is not an  
17 exception. Currently 28% of the front-line employees at Indiana-American are over the  
18 age of 55, and 16% of the front-line employees are over 60 years of age. These tenured  
19 employees have familiarity with our operations, processes and the local knowledge of our  
20 systems, and many have the necessary licenses required by state and federal regulations.

21 Unfortunately, this loss of experience and knowledge is not easy to overcome without  
22 significant forethought and action. Supplementing the loss of a retiree cannot be achieved  
23 simply by filling a vacancy as the freshman class of front-line employees do not come with

1 a wealth of knowledge of the water and wastewater industry. Since 2019, 72% of the new  
2 hires at Indiana-American have entered the business with no past water utility experience  
3 and only 5% of our new hires have any level of a water or wastewater license.

4 Indiana-American believes that the most logical solution is to hire employees before the  
5 wave of retirements hit so the new hires can learn side-by-side with the soon to be retirees.  
6 This approach will also provide the new hires with the on-the-job experience required for  
7 a license and provide ample time for the new hires to prepare for and pass the applicable  
8 exams. The certification exams prove to be, and rightfully so, challenging to pass.  
9 According to IDEM, the current (as of the date of the Petition in this Cause) pass rates for  
10 the most common distribution and production license is as follows: 10.5% for a WT3,  
11 17.6% for a WT5, and 39.4% for a DSL. The Company's requested staffing levels in this  
12 Cause are part of its plan to develop the appropriate knowledge and expertise within our  
13 organization to appropriately support the current and future staffing needs for these critical  
14 positions.

### 15 **PRODUCTION COSTS**

16 **Q. Please discuss INAWC's production costs.**

17 A. INAWC's production costs include chemicals used to treat water, as well as power and  
18 waste disposal costs. Some of the increases in costs for chemicals and waste disposal are  
19 driven by new water and wastewater contaminant standards as well as supply-side  
20 constraints that have increased supply bottlenecks and costs as explained in the testimony  
21 of Company witness Thomas G. O'Drain. The increases in production costs in general, and  
22 chemicals pricing, are not unique to INAWC but rather are national phenomena. As I  
23 mentioned above, INAWC mitigates these increases, in part, by leveraging the buying

1 power and expertise of the Service Company Supply Chain. The pro forma adjustments to  
2 production costs in this Cause are explained in the Direct Testimony of INAWC witness  
3 Cifuentes.

4 **Q. Please provide a general overview of chemicals used by INAWC to provide safe and**  
5 **reliable water and wastewater services to customers.**

6 A. INAWC is committed to providing safe and reliable water and wastewater services that  
7 meet state and federal public health and environmental standards, and water treatment  
8 chemicals are required to transform raw water into safe, potable water for customer use.  
9 There are combinations of several distinct treatment processes that require multiple uses of  
10 various chemicals, including:

- 11 • Pre-chlorination
- 12 • Ozonation
- 13 • Coagulation
- 14 • Flocculation
- 15 • Clarification
- 16 • Filtration
- 17 • Disinfection
- 18 • Corrosion Control
- 19 • Taste & Odor Control
- 20 • Hardness Treatment
- 21 • Sequestration
- 22 • Fluoride Treatment
- 23 • Residuals Treatment

24 Each year, Service Company conducts more than one million tests and measurements at  
25 AW Central Laboratory and at local utility labs to analyze samples throughout the  
26 treatment process and distribution system. This supports INAWC's commitment and

1 ability to meet state and federal public health and environmental standards throughout the  
2 process, from the distribution of safe drinking water to customers, to the collection of  
3 wastewater from customers and its treatment and return to the environment.

4 **Q. What specific chemicals does INAWC use as part of its treatment processes?**

5 A. Chemicals are, of course, a required component in water treatment. Without use of specific  
6 chemicals, the Company would be unable to provide safe water service as required by  
7 governmental regulations. Within its treatment processes, INAWC relies on multiple  
8 chemicals, grouped and summarized into categories as follows:

- 9 • Aluminum Sulfate, Ferric Chloride, and various Polymers – used primarily in  
10 coagulation to separate compounds for filtration.
- 11 • Caustic Soda – used as corrosion control for the distribution system, and to regulate  
12 the acidity during water treatment by raising the pH of water.
- 13 • Chlorine and Sodium Hypochlorite – used primarily in disinfection to oxidize  
14 naturally-occurring inorganic compounds, as well as to aid in the inactivation of  
15 potentially harmful microorganisms.
- 16 • Fluoride (Hydrofluosilicic acid, or “HFS”) – added to drinking water because of its  
17 demonstrated effectiveness in preventing dental cavities.
- 18 • Lime – used to treat water hardness by removing minerals such as calcium and  
19 magnesium.
- 20 • Phosphates – used in the sequestration process to separate naturally occurring iron  
21 and manganese from groundwater supplies and to maintain water quality (inhibit  
22 corrosion, scale, biofilm, and reduce lead and copper levels) in the distribution  
23 system.

- Other Chemicals – various chemicals used in multiple stages, such as the addition of carbon to remove odor-producing compounds and to manage taste, or ammonia to prevent growth of pathogens within the distribution system.

**Q. Are there restrictions in INAWC’s ability to change its chemical consumption based on price or supply pressure?**

A. Yes. INAWC is required to comply with all drinking water quality, water pollution, residuals management, air pollution and hazardous materials laws and regulations. These compliance requirements preclude the Company from changing the suite of chemicals used in the Company’s water treatment process based on price or supply pressure without making additional investments to change its operations. Water treatment requires the purchasing of the specific chemicals used in the process, and the Company cannot maintain its legal and regulatory compliance without them. Water treatment chemicals are a smaller part of the overall chemical market, and the chemicals INAWC uses are very carefully manufactured and transported to adhere to state mandated standards (NSF-60), and are consistent with the quality and specifications set forth by the American Water Works Association.

**Q. How does Service Company Supply Chain support INAWC’s efforts to mitigate production cost increases?**

A. As described in the testimony of Company witness O’Drain, Supply Chain manages the bid process for INAWC’s water treatment chemicals. By leveraging the volume of the entire American Water enterprise, Supply Chain has been successful in securing consistent access to chemicals required to operate the Company on more favorable pricing terms than INAWC could obtain independently. In addition, supply chain can leverage alternate

1 suppliers or work with other American Water affiliates at times when chemical supply is  
2 limited. Supply Chain monitors the energy markets for buying opportunities and  
3 coordinates with INAWC to purchase both electricity and natural gas supply for use in  
4 system operations to minimize the unit price while also mitigating price risk from an  
5 extremely volatile energy market.

6 **Q. Does this conclude your Direct Testimony?**

7 A. Yes, it does.

**VERIFICATION**

I, Kari C. Britto, Senior Manager of Business Operations, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



\_\_\_\_\_  
Kari C. Britto

Date: 3/28/23



<u>Year</u>	<u>Position Title</u>	<u>Operations Region</u>	<u>Number of Employees</u>	<u>Notes</u>
2019	Wastewater Specialist	Northeast IN - (Sheridan WW)	1	Acquisition - Sheridan Water & Waste Water
2019	Utility Specialist	Northeast IN - (Sheridan WW)	1	Acquisition - Sheridan Water & Waste Water
			<hr/>	2
2020	Customer Service Technician	Northeast IN - (Sheridan WW)	2	Acquisition - Sheridan Water & Waste Water
			<hr/>	2
2021	Water Quality & Environmental Compliance Specialist	IN State	1	WQ/Compliance - cross connection
2021	Technician, Technology Field Services	Northern IN	1	IT support
2021	Plant Operator	Northwest IN (Lowell)	5	Acquisition - Lowell Water
2021	Field Service Representative	Northwest IN (Lowell)	2	Acquisition - Lowell Water
2021	Sr. Operations Support Rep	Northwest IN (Lowell)	1	Acquisition - Lowell Water
2021	Sr. Supt Operations	Northwest IN (Lowell)	1	Acquisition - Lowell Water
			<hr/>	11
2022	Senior Manager Operations	Western IN	1	Improving Water & WW efficiency - Business Performance/Compliance
2022	Senior Manager Operations	Central IN	1	Improving Water & WW efficiency - Business Performance/Compliance
2022	Senior Manager Operations	Eastern IN	1	Improving Water & WW efficiency - Business Performance/Compliance
2022	Director Operations	Northern IN & Southern IN	2	Improving Water & WW efficiency - Business Performance/Compliance
2022	Business Operations Specialist	IN State	2	Improving Water & WW efficiency - Business Performance/Compliance
2022	Water Quality & Environmental Compliance Specialist	Eastern IN	1	WQ/Environmental Compliance
2022	Pipe Mechanic	Northern IN	6	WQ/Environmental Compliance - lead service line crews
			<hr/>	14
2023	Health & Safety Specialist	Northern IN & Southern IN	2	Health & Safety
2023	Training Coordinator	IN State	1	Improving Water & WW efficiency - Business Performance/Compliance
2023	Water Quality & Environmental Compliance Specialist	Southern IN & Eastern IN	2	WQ/Environmental Compliance
2023	Plant Operator	Southern IN, Eastern IN, Central IN	3	WQ/Environmental Compliance
2023	Water Quality & Environmental Compliance Supervisor	IN State	1	WQ/Environmental Compliance - Lead Service Line/Environmental Compliance
2023	Staff Engineer	IN State	2	Support Lead Line Replacement Program/Environmental Compliance
			<hr/>	11
2024	Health & Safety Specialist	Central IN & Western IN	2	Health & Safety
2024	Water Quality & Environmental Compliance Specialist	Western IN & Northeast IN	2	WQ/Environmental Compliance
			<hr/>	4
		<b>Total Number of Employees</b>	<b>44</b>	

Division	Regions	Districts	PWSID/NPDES	Customers
<b>North (Director)</b>	Northwest IN (Manager)	Northwest (Gary, Portage etc.)	1	77063
		Lowell	1	4273
	Western IN (Manager)	Terre Haute/Farmersburg/Sullivan	5	28668
		Riley WW	1	438
		West Lafayette	1	13725
		Crawfordsville/Waveland	2	6527
	Northeast IN (Manager)	Warsaw	1	5527
		Wabash	3	5051
		Somerset WW	1	91
		Kokomo	3	24330
		Noblesville	1	17752
	Sheridan WW	1	1427	
<b>South (Director)</b>	Southern IN (Manager)	Southern (Jeffersonville, Clarksville etc.)	5	37648
		Rivers Edge WW	N/A	35
		Newburgh	1	9308
		Seymour	1	8013
	Central IN (Manager)	Johnson County	1	34248
		Mooresville	1	3949
		Shelbyville	1	7238
	Eastern IN (Manager)	Muncie	1	27253
		Muncie WW	N/A	377
Richmond		2	17759	

330700

\*N/A - mound system