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INDIANA UTILITY
REGULATORY COMMISSION

INDIANA-AMERICAN WATER COMPANY, INC.

DIRECT TESTIMONY

OF

THOMAS G. O'DRAIN

March 31, 2023

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OF
THOMAS G. O'DRAIN**

INTRODUCTION

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Q. Please state your name and business address.

A. My name is Thomas G. O'Drain. My business address is 1 Water Street, Camden, NJ 08102.

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

A. I am employed by the American Water Works Service Company, Inc. ("AWWSC" or the "Service Company"). The Service Company is a wholly owned subsidiary of American Water Works Company, Inc. ("American Water") that provides services to Indiana-American Water Company Inc. ("INAWC" or the "Company"). My title is Director of National Categories and Corporate Procurement.

Q. Please summarize your educational background and business experience.

A. I received a Bachelor of Arts in History from Rowan University in 1995, and I received my Master of Business Administration from the University of Phoenix in 2006. I have over 25 years of experience in supply chain management and procurement, with relevant experience in category and product management, supplier relationship management, demand forecasting, and inventory management. I began my career in retail store management for CompUSA in 1993 and advanced through several promotions from Regional Purchasing Manager in 1998, Replenishment Buyer in 2001, to Category Manager in 2004. I was then employed as a Category Manager for TESSCO Technologies from 2006 – 2008, and as Manager of Replenishment and Allocations for David's Bridal from 2008 until joining AWWSC as a Category Manager in 2014. In 2016, I was promoted

1 to Senior Manager of Corporate Procurement, and in March of 2022, I was named Senior
2 Manager of National Category Management. In October of 2022, I was named the Director
3 of National Categories and Corporate Procurement, after serving in the role in an interim
4 fashion since September of 2021.

5 **Q. What are your current employment responsibilities?**

6 A. My responsibilities as Director of National Categories and Corporate Procurement include
7 the management of a team of procurement professionals focused on two key areas. The
8 National Category team is responsible for sourcing, contracting, and ongoing relationship
9 management of American Water’s national material suppliers. This team covers
10 Chemicals, Direct Materials, Meters, and MRO (Maintenance, Repair and Operations
11 supplies). The Corporate Procurement team is responsible for the sourcing, contracting,
12 and ongoing relationship management of American Water’s corporate service suppliers,
13 which, among others, include categories such as Information Technology, Human
14 Resources, Corporate Engineering, Accounting / Finance / Treasury, Energy, and Supply
15 Chain.

16 **Q. Have you previously testified before any regulatory commissions?**

17 A. Yes. I have provided testimony in support of American Water’s chemical, fuel, and power
18 expenses in regulatory proceedings before the Illinois Commerce Commission (Docket No.
19 22-0210), the Virginia State Corporation Commission (Case No. PUR-2021-00255), the
20 Missouri Public Service Commission (Case No. WR-2022-0303), and the New Jersey
21 Board of Public Utilities (BPU Docket No. WR22010019). This is the first time I am
22 submitting testimony before the Indiana Utility Regulatory Commission (“IURC” or
23 “Commission”).

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

2 A. The purpose of my Direct Testimony is to support the current chemical prices, and drivers
3 of increases from 2023 through 2025 used to calculate the annual level of chemical expense
4 for the Company. The annual level of chemical expense, including the methodology for
5 calculating this amount, is explained in greater detail in the Direct Testimony of Company
6 Witness Manuel Cifuentes, Jr.

7 **CHEMICAL SOURCING PROCESS**

8 **Q. Please provide a general overview of how chemicals are sourced to manage INAWC's**
9 **business requirements.**

10 A. INAWC relies on the specialized expertise of Service Company, with a center-led Supply
11 Chain Department to handle, among other responsibilities, supplier management, contract
12 negotiations, and executing the Company's annual chemical bid, all of which support
13 INAWC's chemical needs. Annually, Supply Chain collaborates with INAWC's
14 operations teams to prepare the aforementioned chemical bid. This collaboration includes
15 an understanding of all chemical requirements that would impact the upcoming bid;
16 confirmation of the chemicals that will be bid along with specifications and typical order
17 quantities; any changes to treatment plant processes or equipment that would require
18 changes to the current chemical specifications; any new facilities planned that will be added
19 to the bid, and any new facility chemical requirements.

20 Supply Chain conducts an annual nationwide sourcing event for all chemicals enterprise-
21 wide (including INAWC), working with over 90 chemical suppliers during the bidding
22 process. Several new suppliers are certified and added to the bidding process each year.
23 In late August to early September, Supply Chain releases the bid requirements (chemicals

1 required, specifications, expected order quantities, and delivery locations) to certified
2 suppliers, with the request for the suppliers to offer firm, fixed prices for the upcoming
3 year. These prices are expected to be all-in, delivered prices to ensure that Supply Chain
4 can evaluate all suppliers on a level playing field. The deadline for suppliers to submit
5 bids is typically 4-to-5 weeks from the release date of the bid, at which point Supply Chain
6 reviews the submissions to assess the reasonableness of the supplier's responses (to avoid
7 awarding or eliminating a supplier in cases where it appears that their bid is an obvious
8 error). The goal of the bid process is to determine the most ideal supplier based on the best
9 value for the specific state, plant, and chemical while having confidence that the awarded
10 supplier can reliably supply the required chemicals.

11 The bid recommendations are provided to the INAWC operations teams for their
12 assessment of financial impacts and operational alignment. The INAWC team gives
13 feedback to supply chain, selecting the suppliers that they feel offer the best overall value
14 to INAWC's customers. Once the bids are finalized and accepted, Supply Chain works
15 with the suppliers to draft new or amend existing contracts to create the next year's pricing
16 terms for each of the chemicals the supplier has been selected to provide.

17 **Q. Has Service Company typically been able to lock in agreed-upon prices for chemicals**
18 **for an annual period?**

19 A. For most of the past decade water treatment chemicals were a very stable market, with
20 pricing set on an annual basis and few, if any, product availability concerns. The annual
21 bidding process would usually result in small price changes that mostly followed inflation.
22 Future years could be projected to follow that inflation curve, and actual chemical expenses
23 were generally consistent with projected expense levels. In rare cases of significant

1 weather events, major plant downtime, or other chemical availability disruptions, there
2 might be temporary price increases, as the situations usually caused a supplier to use
3 alternate means to acquire chemical supplies, adding additional time and costs. In these
4 instances, Service Company had to balance the risk and impact of a price increase outside
5 of the standard bidding process with the supplier's ability to continue to deliver an
6 uninterrupted supply of chemicals to support all the operating companies' ongoing water
7 treatment obligations. These situations were rare, however, and the Company could
8 reasonably rely upon the stability of the chemical market in past years. This, however, has
9 not been the experience in recent years, as I discuss further below.

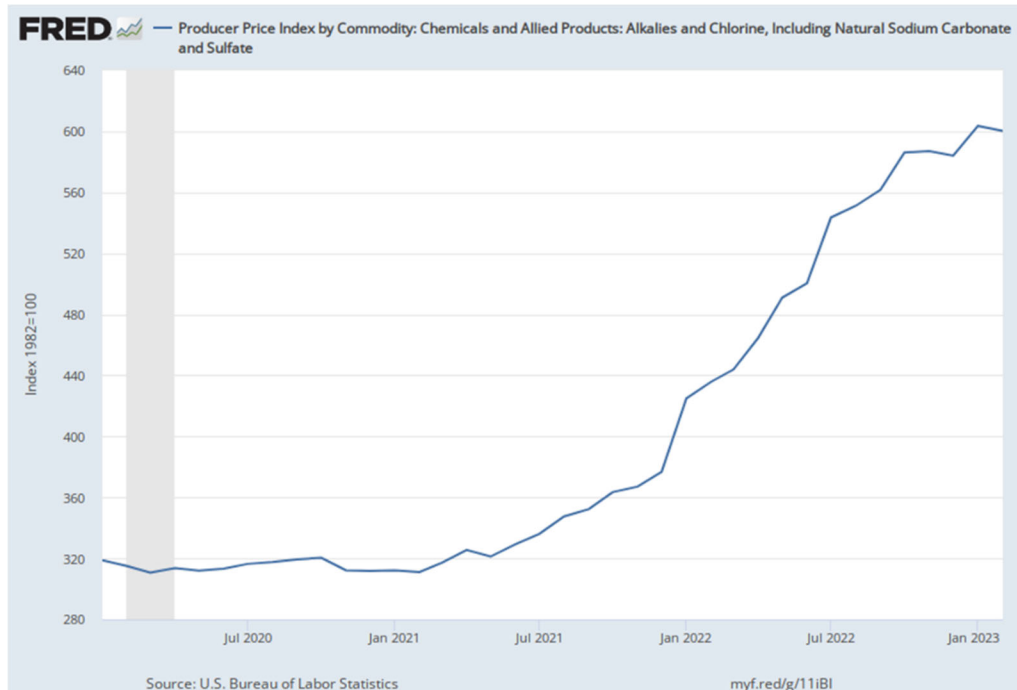
10 **Q. Has Service Company been able to lock in agreed-upon prices for chemicals for all of**
11 **calendar year 2023?**

12 A. Similar to what the Company experienced in 2022, not in the majority of instances.
13 Specific to INAWC, there are 139 unique chemical, supplier, plant combinations that carry
14 agreed-upon prices. Of these, 28 (20%) have current agreements governing prices for the
15 calendar year of 2023, 24 (17%) have prices through June 30, 2023, and 87 (63%) have
16 prices that are negotiated on a quarterly basis.

17 **Q. How has the process for 2023 differed from prior years?**

18 A. During the chemical bids conducted in 2021 and 2022, there were significant increases in
19 prices compared to prior years. For example, in 2021, chlorine deliveries averaged
20 [REDACTED] per pound. For 2022, the average price bid was [REDACTED] per pound, and after
21 half-year and quarterly increases in 2022, the year-ending average price was [REDACTED] per
22 pound. In 2023, INAWC's chlorine average price bid was [REDACTED] per pound, and those
23 prices are only set for the first quarter of 2023. Information gathered from the Federal

1 Reserve Economic Data (“FRED”)¹ specific to Chlorine, Sodium Hydroxide, and Other
2 Alkalis shows the pricing trend starting in 2021 through the most recent reading, which
3 was in Feb. 2023. As can be seen from the graph, pricing has been moving in one direction
4 – upward.



5
6 In discussions prior to the formal bidding process for 2023, many suppliers indicated that,
7 due to the continued extreme volatility in the chemical market, they were still not willing
8 to lock in chemical prices for the calendar year, as they had continued to experience
9 repeated price increases from their suppliers over the last two years. In fact, most were only
10 willing to lock in pricing for an even shorter period of time than they did in 2022, as some
11 who were willing to take the risk were forced to endure losses as their costs rose all through
12 2022. Since few suppliers were willing to offer annual contracts, and American Water

¹ FRED is “an online database consisting of hundreds of thousands of economic data time series from scores of national, international, public, and private sources.” <https://fred.stlouisfed.org>

1 cannot produce safe water without chemicals, suppliers were permitted to bid for a shorter
2 period, with prices set for three or six-month increments. As can be seen from the much
3 higher percentage of shorter-term contracts, suppliers remain concerned about increasing
4 prices and are unwilling to take on the risk of higher costs while offering American Water
5 a fixed price.

6 **III. 2023 CHEMICAL PRICING**

7 **Q. What is driving the significant increases and volatility in chemical prices in 2023?**

8 A. Over the last two years, the chemical market has seen unprecedented price increases, driven
9 by many factors such as inflationary increases in commodity and transportation prices, high
10 energy prices caused by, among other factors, the conflict in Ukraine, and overall supply
11 pressure within a consolidating chemical market. The following categories give an
12 overview of why prices have been increasing so dramatically in recent years.

- 13 • Transportation Costs: Across the country, companies are experiencing the impacts of
14 a national driver shortage, vehicle production challenges, and increases in fuel costs,
15 creating significant pricing pressure on shipping services. For chemicals specifically,
16 government regulations make the transport of chemicals less desirable for a driver than
17 other types of freight, limiting the pool of potential shipping partners. Record high
18 diesel prices in 2022 led to significant fuel surcharge increases, and even as prices have
19 started to decline, the continued conflict in Ukraine, and the shortage of US diesel fuel
20 has kept prices at elevated levels. While some impacts of the pandemic have eased, the
21 national truck driver shortage has continued, and companies have had to increase their
22 drivers' wages significantly to keep their employees from jumping to competing
23 companies. Enticements such as large signing bonuses and high starting salaries have

1 kept labor costs significantly higher than in past years. Rail transportation is also an
2 important part of the chemical supply chain. The January 2023 train derailment at East
3 Palestine, Ohio has brought renewed congressional scrutiny to chemical transportation
4 safety, and brought to light just how antiquated those systems are on the country's rail
5 cars. The current expectation is that higher safety standards, including new braking
6 systems, will be mandated in the near future, and those costs will be passed on to the
7 rail company's customers, which in turn will lead to higher chemical prices in the
8 market.

- 9 • Supplier Consolidation: Larger suppliers are dominating the chemical production
10 space, which leaves little room for opportunities to seek more favorable prices. As an
11 example, the chlor-alkali market in 2010 had more than 10 major producers that
12 produced product for the water treatment industry. In 2023, only five major producers
13 remained, three of which typically supply American Water's suppliers. Of those three,
14 one of the largest producers has made it clear publicly in an earnings call that the price
15 increases, or ratchets, currently experienced will not reverse, going so far as to say they
16 would sell zero volume to preserve this ratcheted price policy.² These suppliers have
17 also had frequent unplanned plant shutdowns, or emergency maintenance procedures
18 that have limited the supply of material, leading to longer lead times and higher prices.
19 For example, in January of 2023, an explosion at the Carus LaSalle, Illinois plant
20 destroyed the only remaining potassium and sodium permanganate production plant in
21 the western hemisphere. This plant serves 80% of those chemical needs for all of North

² Olin Corporation Second Quarter Earnings Conference Call, July 28, 2021

<https://www.olin.com/investors/events-presentations/past-events/>

1 America's water treatment plants.³ While all of the impacts of this situation are not
2 known at this time, the expectation is that product will run out in short order, it will
3 take time to obtain more expensive imported product and once the plant does come
4 back online, it will take time to ramp up production. With fewer suppliers, and the high
5 costs of building a chemical plant, barring new competition those suppliers who remain
6 in the market have a much greater ability to increase costs on a regular basis. With
7 consolidation, there is a greater likelihood that this type of cost pressure could happen
8 with other chemical manufacturers if they experience similar unplanned shutdowns.

- 9 • Energy Costs: Chemicals are heavily linked with the energy market, both in the
10 consumption of raw materials and the production of the end-product. Prices for
11 electricity were 14.3% higher in 2022 compared to 2021, more than double the rate of
12 inflation.⁴ While natural gas costs have eased since their 2022 highs, the average cost
13 for 2022 was 53% higher than 2021,⁵ and more than 200% higher than the average for
14 2020.⁶ As these costs increase for manufacturers, they pass those costs onto chemical
15 distributors who then pass those increased costs onto the Company through
16 significantly elevated all-in prices for chemicals.

³ See Chemical & Engineering News, *Carus warns of a 3-month outage for permanganate chemicals* by Rick Mullins (Jan. 23, 2023), available at <https://cen.acs.org/environment/water/Carus-warns-3-month-outage/101/web/2023/01>

⁴ See *Consumer Price Index News Release* (Jan. 12, 2023), available at https://www.bls.gov/news.release/archives/cpi_01122023.htm (showing a 14.3% percentage change for electricity for the "Unadjusted 12-mos. ended Dec. 2022).

⁵ See U.S. Energy Information Administration, *Average cost of wholesale U.S. natural gas in 2022 highest since 2008* (Jan. 9, 2023), available at <https://www.eia.gov/todayinenergy/detail.php?id=55119>.

⁶ See U.S. Energy Information Administration, *Henry Hub Natural Gas Spot Price* (Mar. 8, 2023), available at <https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm> (showing the monthly 2020 prices, that result in an average price of \$2.035, as compared to the 2022 average price of \$6.418 supported by the monthly 2022 prices).

1 • Demand for Other Products: Global demand was weak during the 2020 COVID-19
2 government-mandated shutdowns, and many companies were forced to cut production
3 and lay off workers. The global economy came back in 2021, and those companies
4 that had reduced production capacity were suddenly struggling to keep up with the
5 increased needs of the market, a problem that has remained years later. Because of
6 limited capacity, these manufacturers have shown a willingness to reduce the amount
7 of product available to the water industry in pursuit of higher profit margins in other
8 areas. NSF certification requirements and other high standards for water treatment
9 chemicals make these chemicals more expensive to produce, and the remaining
10 suppliers find that they can make higher margins serving other markets with lower
11 quality specifications. With decreased supply in the market, American Water (and the
12 water industry in general) has had to pay higher prices and accept longer lead times
13 with less reliability than in previous years.

14 **Q. Has INAWC experienced increases in its chemical prices in its 2023 contracts?**

15 A. Yes. INAWC's 2023 contractual prices have grown 16% from the end of year prices in
16 2022, equating to approximately \$0.8 million of increases to annual expenses.⁷ This is on
17 top of what the Company experienced in 2022, where prices at the end of 2022 were
18 approximately 66% higher than what the Company experienced at the end of 2021,
19 resulting in approximately \$1.9 million of increases to annual expenses. As I explained
20 earlier in my testimony, a significant portion (63%) of the 2023 contracts are fixed only
21 through March 31, 2023. Although uncertainty exists as a result of these short-term

⁷ Figures noted here and in Table TGO-1 are based on the same normalized usage for chemicals for all periods and reflect only the impacts associated with the change in pricing. Actual chemical expense would fluctuate annually based on usage.

1 contracts, the Company has not included any estimated increases in 2023 above current
2 contractual levels.

3 **Table TGO-1**

| Contractual Price Increases | | |
|------------------------------------|--------------------------------------|--------------------------------------|
| Chemical Family | % Increase - 2021 to 2022 | % Increase - 2022 to 2023 |
| Caustic Soda | 140% | -6% |
| Chemicals - Other | 29% | 15% |
| Chlorine | 246% | 23% |
| Ferric Chloride | 32% | 57% |
| Ferric Sulfate | 31% | 0% |
| HFS (Fluoride) | 17% | 9% |
| Lime | 0% | 16% |
| Phosphates | 95% | 10% |
| Polymers | 21% | 3% |
| Sodium Hypochlorite | 139% | 8% |
| Total Increase | 66% | 16% |

4
5 Looking at the largest movement, chlorine (an essential chemical used to disinfect the
6 water supply) saw an increase of 246% from 2021 to 2022, and another 23% increase for
7 the first quarter of 2023. All locations only have set prices through March 31, 2023.
8 Sodium Hypochlorite saw significant increases as well, increasing 139% in 2022, and
9 another 8% in 2023. Of the 27 chemical and plant combinations for sodium hypochlorite,
10 only 3 have annual prices, and the remaining 24 all have quarterly reopeners.

11 **Q. What if anything is Supply Chain doing today to mitigate these price increases?**

12 A. Supply Chain continues to actively work with suppliers to find ways to mitigate market
13 pressure, but as I explained earlier, this is extremely difficult when all suppliers and their
14 manufacturers are all experiencing the same market pressures. The intent of agreeing to
15 shorter-term pricing was to share risk and manage prices closer to market by providing an

1 opportunity to adjust if market conditions changed. But in the previous two years, Supply
2 Chain has only seen the market prices moving upward. When discussing 2023 bids with
3 suppliers, they had used recent history as a guide for pricing in their bids. As I described
4 earlier in my testimony, with market forces continuing to influence prices, suppliers saw
5 no signs that pricing pressures were easing. While Supply Chain will continue to use
6 market competition and the threat of moving to alternate suppliers as a means to keep prices
7 as low as possible, the market forces influencing prices remain in place.

8 **Q. What does this increase in prices mean for the term beyond current contracts?**

9 A. At this time, supply chain has not seen evidence that the market pressure on prices is easing
10 now or in the near future.

11 **2024 & 2025 CHEMICAL PRICING**

12 **Q. How has the Company assessed prices into 2024?**

13 A. Unlike in the great recession of 2008-2009, American Water has not seen market
14 corrections that would move prices back towards historical numbers. Communications
15 between Supply Chain and its suppliers have revolved around the cost increases seen by
16 the Company's suppliers and the need to build these higher prices into future forecasts. As
17 discussed previously, many factors are contributing to the rise in chemical prices. The rate
18 of inflation has shown some signs of easing from the dramatic increases seen in the last
19 two years but inflation has not reversed. Transportation and energy costs have remained
20 elevated. Demand remains high and the chemical market has a limited supply of material
21 available, with little incentive for suppliers to increase production. With the upcoming
22 hurricane season, the weather could also play a part in future prices. A hurricane strike in

1 the Gulf of Mexico, where the majority of domestic chemical production takes place, could
2 make a bad situation much worse.

3 Moving forward to 2024, Supply Chain has compiled information from the Company's
4 chemical suppliers to forecast future pricing for INAWC, and that data reflects an
5 approximate 7.9% overall price increase for each of 2024 and 2025.

6 **Table TGO-2⁸**

| Contractual Price Increases | | |
|------------------------------------|--------------------------------------|--------------------------------------|
| Chemical Family | % Increase - 2023 to 2024 | % Increase - 2024 to 2025 |
| Caustic Soda | 5% | 5% |
| Chemicals - Other | 10% | 10% |
| Chlorine | 10% | 10% |
| Ferric Chloride | 12% | 12% |
| Ferric Sulfate | 7% | 7% |
| HFS (Fluoride) | 4% | 4% |
| Lime | 5% | 5% |
| Phosphates | 8% | 8% |
| Polymers | 5% | 5% |
| Sodium Hypochlorite | 10% | 10% |
| Total Increase | 9% | 10% |

7
8 By chemical family, some drivers of these increases are as follows:

- 9
- 10 • Aluminum Sulfate: Liquid aluminum sulfate pricing is increasing due to increased costs
11 of sulfuric acid and alumina. The sulfuric acid price index has increased more than
12 130% from January 2020 to December 2022, and aluminum prices hit record highs in
2022 as Russian sanctions and Chinese efforts to reduce CO2 levels impacted exports

⁸ Reference Footnote 7.

1 from those countries. Forecasts show prices increasing through 2030 because of the
2 versatility of the metal.

- 3 • Caustic Soda: Caustic Soda prices vary based on caustic demand and market conditions
4 for water treatment needs and other sectors of the economy. The chemical is also used
5 in the manufacturing of petroleum products, soap, detergents, alumina, pulp and paper,
6 chemical products, as well as pharmaceuticals. The high rate of inflation has added
7 significant cost increases, as the production of the chemical requires significant energy
8 use. Producer outages are also creating a tight supply. Some planned maintenance of
9 older plants is always expected, but some complete shutdowns of other antiquated sites
10 have lowered total production capacity in recent years.

- 11 • Chlorine: Chlorine increases typically follow the caustic market. Despite rising
12 demand, manufacturers have reduced more than 10% of the total U.S. production
13 capacity in the last several years by closing older plants. Olin, the largest producer, has
14 closed three plants since 2021. This has led to supply shortages, longer lead times, and
15 rising prices. Additionally, as with Caustic soda, high energy needs for production
16 coupled with the high inflationary impacts the U.S. has seen over the last two years
17 have contributed to the rising price.

- 18 • Ferric Chloride: High demand from wastewater treatment plants and increasing
19 stringent regulations for treating sewage water and industrial waste to curtail pollution
20 are likely to lead to higher prices. In addition, two of the three main raw materials –
21 chlorine and hydrochloric acid – have seen significant cost increases, and reductions in
22 steel availability due to U.S. sanctions and a reduction in availability of scrap steel has
23 reduced the availability of the base rate material.

- 1 • HFS (Hydrofluosilicic acid or Fluoride): Overall, the HFS market has been steadily
2 increasing, with the market growing at an estimated 8% annually through 2030.
3 Transportation issues are also driving cost increases, with specific HFS trailers difficult
4 to procure, as this product is highly corrosive.

- 5 • Phosphates: Phosphate is growing as a commodity because of its use in batteries and
6 fertilizer. The phosphate market is expected to experience a compound annual increase
7 of 5% between 2022 and 2028 primarily because of these two industries. The large
8 increase in demand for electric vehicles is fueling the increasing production of lithium-
9 iron-phosphate batteries. In addition, the increasing use of phosphates in fertilizer along
10 with shrinking global supplies are leading to increased raw material costs. In addition,
11 the market is experiencing supply constraints from China and now Russia.

- 12 • Polymers: Demand is a significant driver of price increases recently. In addition,
13 emulsion polymers are a petroleum-based product, and as petroleum prices have risen
14 due to unrest in Europe, upward pressure on polymers prices are expected to continue.
15 Finally, transportation costs also are significantly impacting prices.

- 16 • Sodium Hypochlorite: Caustic soda prices also impact the prices of sodium
17 hypochlorite, and as noted above, major manufacturers of chlorine have shut down
18 several plants, reducing supply of this necessary product, which has created more
19 demand for sodium hypochlorite, increasing prices. Transportation costs especially
20 impact sodium hypochlorite, as a treatment plant would require ten times more
21 hypochlorite over chlorine for the same treatment impact.

- 1 • Chemicals – Other: The various cost drivers described for other chemical families have
2 contributed to the rises seen in this chemical grouping as well.

3 **CONCLUSION**

4 **Q. Please summarize the impacts to chemical expenses as a result of these pricing
5 updates.**

6 A. Throughout my Direct Testimony, I have discussed how recent movements in the chemical
7 market are impacting the costs of the Company's water and wastewater treatment
8 chemicals. Material price increases in 2022 and 2023 have been driven by external factors
9 outside of the control of the Company and in most cases, outside of the control of many of
10 the Company's suppliers. These factors will continue to impact pricing beyond current
11 contracts, based on ongoing discussions with suppliers. Although price agreement
12 timelines have been adjusted to hedge future price risk, the Company expects to see
13 continued upward pressure in chemical pricing, given cost drivers that have led to recent
14 increases appear to be structural in nature, and as of early 2023, American Water has not
15 seen signs that chemical price increases are reversing.

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

17 A. Yes, it does.

VERIFICATION

I, Thomas G. O'Drain, Director of National Categories and Corporate Procurement, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

A handwritten signature in black ink, appearing to read "Thomas O'Drain", written over a horizontal line.

Thomas G. O'Drain

Date: March 27, 2023