

Petitioner's Exhibit No. 1

INDIANA-AMERICAN WATER COMPANY, INC.

IURC CAUSE NUMBER 45537

DIRECT TESTIMONY

OF

STACY S. HOFFMAN

SPONSORING ATTACHMENTS SSH-1 THROUGH SSH-3

AND WORKPAPERS

INDIANA-AMERICAN WATER COMPANY, INC.

Cause No.

Direct Testimony of Stacy S. Hoffman

1		BACKGROUND
2	Q.	Please state your name and business address.
3	A.	My name is Stacy S. Hoffman. My business address is 153 North Emerson Avenue,
4		Greenwood, Indiana 46143.
5	Q.	By whom are you employed?
6	A.	I am employed by Indiana-American Water Company, Inc. ("Indiana American", or
7		"Company").
8	Q.	What is your position with Indiana American?
9	A.	I am the Director of Engineering.
10	Q.	How long have you held that position?
11	A.	I have held that position from December 2007 to February 2012 as an employee of
12		American Water Works Service Company, Inc. ("Service Company"), a subsidiary of
13		American Water Works Company, Inc. ("American Water") that provides support services

1		to American Water's subsidiaries, including Indiana American. I have held that position
2		since February 2012 as an Indiana American employee.
3	Q.	What do your job responsibilities include?
4	A.	My job responsibilities are to lead and direct a staff of engineering personnel at Indiana
5		American to deliver planning, design, and construction of potable water source of supply,
6		treatment, production, transmission, and distribution facilities, and wastewater collection
7		and treatment facilities, and to provide engineering support to daily operations.
8	Q.	What is your educational background?
9	A.	I received a Bachelor of Science Degree in Mechanical Engineering from Purdue
10		University in 1991.
11	Q.	Are you a Registered Professional Engineer?
12	A.	Yes, I have been a Registered Professional Engineer in the states of Indiana, Ohio, Illinois,
13		Missouri, and Iowa, and currently maintain an active Registered Professional Engineer
14		status in Indiana.
15	Q.	Please describe your business experience in the water utility industry.
16	A.	From 1994 to 1997 I was employed with Indiana-American as Engineer. From 1997 to
17		2000 I was employed with Indiana American as Operations Engineer. My job
18		responsibilities as Engineer and Operations Engineer were designing and managing

construction of source of supply, treatment, production, transmission, and distribution 1 2 facilities for Indiana American, and providing engineering support to daily operations. From 2000 to 2004, I was employed as Engineering Manager for a now former subsidiary 3 of American Water, Ohio-American Water Company, Inc. In this role, I was responsible 4 for managing the planning, design, and construction of source of supply, treatment, 5 production, transmission and distribution facilities and providing engineering support to 6 daily operations. From 2004 to 2007, I was employed with the Service Company as 7 8 Engineering Manager. My job responsibilities were managing a staff of engineering personnel to deliver planning, design, and construction of source of supply, treatment, 9 10 production, transmission and distribution facilities for Missouri-American Water Company, Inc. ("Missouri-American") and for Illinois-American Water Company, Inc. 11 ("Illinois-American") in the service areas of Alton, Granite City, Belleville, East St. Louis, 12 and Cairo. My job responsibilities also included providing engineering support to daily 13 operations in Missouri-American and in the Illinois-American service areas described 14 above. From December 2007 to present I have been employed with the Service Company 15 and Indiana American as Director of Engineering as described earlier in this testimony. 16

Q. Are you generally familiar with the business, facilities and the operations of the Company in each of its districts?

19 A. Yes.

Q. Are you generally familiar with the books and records of the Company related to the
capital investment program?

Yes. 1 A.

2	Q.	Are all of the facilities that are included in the utility plant accounts of Indiana
3		American in service and reasonably necessary for the provisions of safe and reliable
4		water or wastewater service?
5	A.	Yes.
6	Q.	What is the purpose of your testimony?
7	A.	The purpose of my testimony is to present Indiana American's proposal to implement
8		updated system development charges (SDCs) and connection fees (CFs) for its water
9		operations, and new SDCs for its wastewater operations. The proposed tariff sheets for the
10		SDCs and CFs are sponsored by witness Gregory D. Shimansky.
11		SYSTEM DEVELOPMENT CHARGES
12	Q.	What are system development charges (SDCs)?
13	A.	The American Water Works Association (AWWA) M1 Manual, Sixth Edition, titled,
14		"Principles of Water Rates, Fees, and Charges", describes SDCs, their purpose, and their
15		calculation in detail. The AWWA M1 Manual, Sixth Edition, p. 261, describes an SDC
16		as: " a one-time charge paid by a new water customer for system capacity. It is also
17		assessed to existing customers requiring increased system capacity. The receipts of this
18		charge are used to finance the development of capacity-related water facilities and are an
19		important funding/financing source for growth-related or capacity-related water facilities."

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Q. Why do utilities implement and update SDCs?

A. SDCs help facilitate equitable distribution of capacity related costs between existing and
new customers. A rate design without SDCs allocates all capacity costs to existing
customers and no costs to new customers. Implementation of SDCs equitably distributes
capacity costs to new customers at the time they connect to the system. Periodically
updating an SDC calculation enables any changes in capacity related costs to be recognized
in the SDC paid by new customers. The collection of updated SDCs also facilitates more
equitable future rate designs.

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Q. What costs are included in the SDCs?

10 A. With respect to drinking water utilities, the AWWA M1 "Principles of Water Rates, Fees, and Charges", Sixth Edition, p. 261, describes SDC costs as follows, "In general, SDCs are 11 based on the costs for major backbone infrastructure components that are necessary to 12 13 provide service to all customers including source of supply facilities, raw water transmission, treatment facilities, pumping facilities, storage tanks, and major treated-14 Indiana-American has used this AWWA M1 Manual water transmission mains." 15 description for identifying costs included in the SDCs. 16

With respect to wastewater utilities, the WEF Manual of Practice No. 27, Fourth Edition,
p. 200, describes SDC costs as follows, "Typically, SDCs are used to pay for backbone
water resource recovery facilities (WRRFs), including collector mains, interceptor mains,
outfall sewers, and lift stations. ... The SDCs are also charged to existing connections
requiring increased capacity." Indiana American has used this WEF Manual description
for identifying costs included in the newly calculated wastewater SDCs.

1 Q. Have you included costs associated with income taxes that will be owed on 2 contributions?

A. No. As explained by witness Shimansky, the calculated SDC costs presented in this
testimony do not include the tax gross up resulting from the Tax Cuts and Jobs Act of 2017
(TCJA).

6 Q. Please describe how the Company has calculated the updated SDCs for its water 7 operations.

8 A. The Company has calculated updated SDCs for its water operations using the buy-in calculation method and the RCNLD valuation method as outlined in the AWWA M1 9 Manual (ie, the combined method). The Company has presented the calculation and 10 schedule of the proposed SDCs by meter size in Attachment SSH-1. The method I have 11 used is similar to the method used to calculate the existing water SDCs as approved in 12 Cause No. 44450-S1. The only change in the method is the use of actual meter 13 manufacturer flow data in this filing as compared with the use of more generalized meter 14 information from the AWWA M22 Manual that was used in Cause No. 44450-S1. 15

The SDC calculations include a tabulation, included in workpapers with <u>Attachment SSH-</u>
 <u>1</u>, of the Company's RCNLD with productivity adjustment factor for backbone plant and
 a tabulation of the Company's capacity in terms of firm treatment plant capacity. This
 information is used to calculate the RCNLD value per gallon per day of system capacity.
 Water use per residential customer is also used in the calculations and is identified in
 <u>Attachment SSH-1</u>. This information is used to calculate the SDC for residential 5/8-inch

meter service connections as shown in <u>Attachment SSH-1</u>. SDCs for larger size meters are
calculated by multiplying the RCNLD value per gallon per day of system capacity by the
average use per day for residential customer by the ratio of the capacity of the larger meter
size to the capacity of the 5/8-inch meter based on the meter manufacturers' published
product data sheets.

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Q.

Please describe how the Company has calculated SDCs for its wastewater operations.

A. The Company presents calculations for the wastewater SDCs by water meter size in
<u>Attachment SSH-2.</u> The WEF Manual of Practice No. 27, Fourth Edition and the AWWA
M1 Manual discuss three methods for calculating SDCs: the buy-in method, the
incremental or planned facility/growth method, and the combined method. The Company
calculates SDCs for its wastewater operations using the combined calculation approach.

The SDC calculations include a tabulation of the Company's RCNLD with productivity 12 adjustment factor for backbone plant, the total projected cost of Sheridan wastewater 13 treatment facility improvements, and a tabulation of the Company's capacity in terms of 14 average plant capacity presented in workpapers. The Sheridan wastewater treatment 15 16 facility improvements project was competitively bid and subsequently awarded in March, 17 2020. A portion of the new facilities were placed into operation in March 2021. Most of the remaining new facilities are expected to be placed in-service by May 2021, with 18 19 rehabilitation of the existing Biolac basin following in the summer of 2021 after completion 20 of the new facilities. Total projected project costs are presented in workpapers. The 21 Sheridan wastewater treatment improvements project is the most significant component of 22 the calculation with an estimated total project cost of approximately \$8.9M. Indiana

American's wastewater operations in Delaware and Wabash Counties are much smaller 1 2 and have not added any customers in many years. Indiana American also recently acquired another much smaller wastewater system in the Town of Riley in Vigo County, and has 3 pending an acquisition of the River's Edge wastewater system owned by Wastewater One, 4 5 LLC in Clark County. The extent of possible new wastewater customer additions, if any, in the near future is uncertain. Therefore, Indiana-American has completed the wastewater 6 7 SDC calculation using only the Sheridan wastewater system information described herein. The Company proposes the SDCs would apply to new wastewater customers connecting 8 to the Sheridan system, and any new wastewater customers, should they connect to its 9 10 wastewater operations in Delaware, Wabash, Vigo and Clark Counties. If the Company were to acquire a larger wastewater utility in the future, the Company would perform an 11 12 updated analysis and calculation of wastewater SCDs as soon as would be practical after such an acquisition, and would file it in a similar Cause with the Commission. 13

Average flow per residential customer is also used in the calculations, and is identified in <u>Attachment SSH-2</u>. This information is used to calculate the SDC for new wastewater customers with residential 5/8-inch water meter service connections. SDCs for new customers with larger size meters are calculated in additional steps as described below and as shown in <u>Attachment SSH-2</u>.

The average day wastewater flow for the residential wastewater customer is associated with a 5/8-inch water meter size, and is multiplied by the ratio of the capacity of the larger meter size to the capacity of the 5/8-inch meter size as published in the meter manufacturers' product data sheets to identify the average daily flow by meter size through the 3-inch meter size. The average flow in gallons per day, by meter size is then multiplied by the
 capacity cost in \$ per gallon of capacity per day to arrive at the wastewater SDC by water
 meter size for meter sizes through 3-inches. The calculation steps are shown in tabular
 format with equations and references in <u>Attachment SSH-2</u>.

5 Larger customers with meters larger than 3-inches diameter have more potential to have 6 wastewater streams that are less reflective of their water meter size. For example, larger customers may use more water in production of products, in which a portion of the water 7 becomes part of the product, or may be recycled, or lost through evaporation, or may be 8 9 treated and discharged through their own NPDES permit. Larger customers may also have 10 more unique biochemical oxygen demands (BOD), total suspended solids (TSS), and other loadings. For new customers with meter sizes larger than 3-inches in diameter, the 11 Company will gather flow and loading information from the customer and will identify an 12 13 equivalent residential unit as a factor of the residential 5/8-inch customer flow. The equivalent residential unit will be based on analysis of forecasted customer flows, or 14 15 forecasted customer flows and customer wastewater treatment loading demands, with the basis of the analysis including the ratio of the new customer average day flow to the average 16 17 day flow of the residential customer. This approach may also be used for the smaller 3inch meter size if the Company determines the new customer flow or loadings will be 18 sufficiently unique to warrant this approach. The Company will share and explain the 19 20 equivalent residential unit analysis with the new customer.

Q. Please describe in more detail the combined calculation approach for calculating SDCs for the wastewater operations.

A. The WEF Manual of Practice No. 27, Fourth Edition, p. 210 describes the combined
 approach:

"Increasingly, in response to the stated goal to charge new customers for the full
cost of growth, and thereby avoid the subsidization of new customers by existing
customers, many state laws allow utilities to implement both of the approaches
described previously into a single combined fee approach. The combined approach
generally applies when the current system facilities could serve future customers
and a portion of the wastewater capital improvement program is also related to
growth. The combined fee approach includes two separate elements:

- 10 (1) System reimbursement component. Includes a portion for the new customer
 11 to pay for an equitable share of existing facilities; and
- 12 (2) Incremental new capacity component (also referred to as growth-related
 13 improvement component). Includes future facilities that will be constructed to
 14 accommodate growth.

This approach is generally the most technically rigorous of the system development charge calculation approaches. It involves explicit determination of available capacity value in the existing system, and apportionment of future capital costs between existing users and new development. The reimbursement fee component is determined by dividing the value of available capacity in the existing system by the estimated growth units during the planning period. The improvement fee component is determined by dividing the value of future capacity-increasing costs by the estimated growth units. So, unlike the planned facility approach described
previously, which only recovers the future capacity costs related to serving new
growth, the combined approach also recovers the costs of available capacity of the
existing system." WEF Manual of Practice No. 27, fourth Edition, pp. 210-211.

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The AWWA M1 Manual description of the combined method states:

"The combined cost approach, as shown in Table VI.2-4, is as the name implies a 6 method of averaging the buy-in method and the incremental cost method. The 7 8 average is not a simple summed average, but rather, it is a weighted average. In the example illustrated in Table VI.2-4, it is assumed that the utility has capacity within 9 the existing system that can serve growth but will also need to add capacity in the 10 future to serve growth. In such cases, it is logical to base the SDC on the weighted 11 average cost of the existing capacity and future capacity additions. By doing so, 12 new customers pay an SDC that reflects the value of existing and planned capacity." 13

Q. Please elaborate on the references to cost of capacity and capacity in the system reimbursement or buy-in component of the combined approach.

A. Cost of capacity in the system reimbursement or buy-in component of the combined
approach refers to the cost per unit of existing capacity, for example cost per gallon of
existing capacity. The cost and capacity used in this calculation are the total cost of the
existing capacity and the total existing capacity. Dividing the total cost of existing capacity
by the total existing capacity produces the cost per gallon of existing capacity.

I elaborate on this especially with respect to the system reimbursement or buy-in 1 2 component of the combined approach because the language in the WEF Manual of Practice 3 No. 27, is a little less precise in places as compared with the language in the AWWA M1 manual, so I want to remove any possible confusion. For example, in the WEF language 4 quoted in preceding paragraphs above, it refers to capacity as, "available capacity value in 5 the existing system", and "available capacity in the existing system". This appears to be 6 7 the authors' way of noting that of the existing capacity, obviously only available capacity is available for new customers. It does not mean that a unit cost of existing capacity is 8 somehow to be calculated on only the portion of capacity that remains available. That unit 9 10 cost is, in essence, the same as the unit cost of the total capacity, because usually capacity is built in large projects, not in an infinite number of incremental parts. For example, when 11 a treatment plant with clarifiers is constructed, the construction projects includes the 12 construction of the entire clarifier unit not just a part of a clarifier. If only a part of a 13 clarifier were to be constructed it could not be used or operated. Therefore, the unit cost 14 of existing capacity currently available is taken to be the same as the unit cost of the total 15 existing capacity, regardless of what amount of capacity is currently available. The WEF 16 manual makes this clear in a prior section discussing the system reimbursement or buy-in 17 method, where it says, "The appropriate capacity measure under the capacity buy-in 18 method is total system capacity (as opposed to 'used' capacity for the equity buy-in 19 approach)." WEF Manual of Practice No. 27, Fourth Edition, 4.1.1.2, Capacity 20 21 Determination, p. 209. The AWWA M1 manual is equally clear on this with respect to capacity and cost of unit capacity in the system reimbursement or buy-in component of the 22 combined approach as quoted in preceding paragraphs above where it states, "...it is 23

assumed that the utility has capacity within the existing system that can serve growth but
will also need to add capacity in the future to serve growth. In such cases, it is logical to
base the SDC on the weighted average cost of the existing capacity and future capacity
additions. By doing so, new customers pay an SDC that reflects the value of existing and
planned capacity." The WEF Manual example and AWWA M1 Manual examples are also
clear that the unit cost of existing capacity is calculated by dividing the total cost of the
existing capacity by total existing capacity.

8 Q. Why is the combined approach appropriate for calculating SDCs for Indiana 9 American's wastewater operations?

A. The combined approach is appropriate for calculating SDCs for Indiana American's wastewater operations for a couple reasons. Some of the existing backbone plant, particularly the collector mains 12-inches in diameter and larger, and the lift stations, have capacity for accommodating additional growth. The cost of these backbone facilities are included in the SDC calculation as part of the system reimbursement component in the combined calculation approach.

Indiana American's existing Sheridan wastewater treatment facility also has some limited biological treatment capacity available during average flow conditions though it does not have hydraulic capacity during peak flows to accommodate additional growth. Because the Sheridan wastewater treatment facility does not have capacity during peak flows to accommodate additional growth, and in compliance with an Agreed Order and Compliance Plan with IDEM, Indiana American is in the process of building new facilities at the Sheridan wastewater treatment plant, which will be integrated with, and work together with
 the existing treatment facility assets to result in a new larger overall wastewater treatment
 plant capacity. Certain existing assets at the Sheridan wastewater treatment facility will
 also be retired.

5 For these reasons Indiana American is including the projected cost of the planned new wastewater treatment facility improvements in the SDC calculation as part of the new 6 capacity component of the SDC calculation in the combined calculation approach. Because 7 the new facilities will operate integrally together with the existing facilities to provide a 8 9 new overall facility average and peak flow capacity, the cost of the existing treatment 10 facilities less the value of planned retirements are also included in the SDC calculation as part of the system reimbursement component in the combined calculation approach. The 11 combined unit cost of capacity is calculated by dividing the sum of the cost of the existing 12 13 backbone plant and the cost of the new plant improvements by the total new capacity, as shown in Attachment SSH-2. 14

Q. Will the accounting treatment for SDCs remain the same as approved in Cause 44450 S1?

A. Yes. Received SDCs will continue to be treated as contributions in aid of construction
(CIAC). The CIAC from received SDCs will continue to offset the Company's existing
rate base, thereby equitably distributing the capacity costs between existing and new
customers. Reduction of the Company's rate base from received SDCs will result in a
reduction in capacity costs for existing customers.

CONNECTION FEES

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2 0. Please describe the Company's connection fees.

The Company's connection fees pay for the cost of installing new service line connections 3 A. and related meter settings for new customers or developers. Connection fees do not include 4 costs for meter pits and appurtenances for meter sizes of 2-inches in diameter and larger 5 because within Indiana American's existing Rules and Regulations approved by the 6 Commission, developers are already responsible for these costs. Because the construction 7 of these larger size meter pits and vaults often require developer site specific considerations 8 this practice remains appropriate and is more efficient for developers to manage. The 9 calculated connection fee costs presented in Attachment SSH-3 do not include the tax gross 10 up resulting from the TCJA. 11

Why do utilities implement and update connection fees? 12 **Q**.

It is appropriate for developers to pay for the costs of new service connections they request, 13 A. 14 rather than existing customers being charged to cover the cost of these connections. Periodically updating a connection fee calculation enables any changes in connection costs 15 to be recognized in the connection fee paid by new customers. The collection of updated 16 connection fees also facilitates more equitable future rate designs. 17

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Q. Please describe how the Company has calculated updated connection fees for its water operations.

20 A. The Company employs contractors with contract pricing for service line and meter related construction work in all service areas except the Northwest service area, where Company 21 22 crews perform this work. The Company has presented a schedule of updated connection fees by meter and service size in <u>Attachment SSH-3</u>. The connection fees are calculated
 as the current average costs of these connections across the Company's service areas. This
 information is presented in the workpapers supporting <u>Attachment SSH-3</u>.

4

5

Q. Will the accounting treatment for connection fees remain the same as approved in Cause 44450 S1??

A. Yes, connection fee receipts will continue to be treated as contributions in aid of
construction (CIAC). The CIAC from received connection fees will continue to offset the
Company's existing rate base, thereby equitably distributing the capital costs between
existing and new, or future customers. Reduction of the Company's rate base from
received connection fees will result in a reduction in costs for existing customers, thereby
benefiting existing customers.

12 Q. Does the Company plan to propose connection fees for its wastewater operations?

No. In most typical developments developers will install sewer laterals and connections to 13 Α. a new sewer main simultaneous with the installation of the new sewer main extensions in 14 conformance with Indiana American specifications. This is a more efficient practice 15 16 because this is usually performed before development roads are constructed, and thereby 17 avoids more costly sewer lateral construction and connection costs that would otherwise result if the sewer laterals and connections were installed subsequent to the development 18 19 roads being constructed. In a less common circumstance wherein an existing undeveloped 20 lot within a community may be developed with sewer main already along the property, the 21 developer of the undeveloped lot will contract with a contractor to install a sewer lateral 22 and connection to the existing sewer main in conformance with Indiana American specifications. For these less common circumstances, the scope and cost for the work could
be highly variable depending on the length and depth of sewer lateral, site conditions, and
restoration requirements. Therefore, identifying a connection fee for the uncommon
circumstances with potentially significantly varying costs would also be challenging and
could potentially be inequitable if implemented. For these reasons Indiana-American does
not plan to propose connection fees for its wastewater operations.

7 Q. Does this conclude your direct testimony?

8 A. Yes.

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