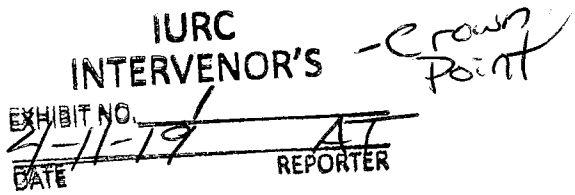
STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF THE INDIANA-AMERICAN WATER COMPANY, INC. FOR (1) AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR WATER UTILITY SERVICE, (2) REVIEW OF ITS RATES AND CHARGES FOR WASTEWATER UTILITY SERVICE, (3) APPROVAL OF NEW SCHEDULES OF RATES AND CHARGES APPLICABLE TO WATER AND WASTEWATER UTILITY SERVICE, AND (4) AUTHORITY TO IMPLEMENT A LOW INCOME PILOT PROGRAM	)	**CAUSE NO. 45142**



INTERVENOR CITY OF CROWN POINT'S EXHIBIT 1
DIRECT TESTIMONY OF GREGORY T. GUERRETTAZ

/S/ R.M. Glennon
Robert M. Glennon
Robert Glennon & Assoc., P.C.
3697 N. Co. Rd. 500 E.
Danville, Indiana 46122
Telephone: (317) 852-2723
Fax: (3017) 852-0155
robertglennonlay@gmail.co

CITY OF CROWN POINT, INDIANA

RE: IURC CAUSE NO. 45142

Indiana-American Water Company

Pre-filed Testimony of Gregory T. Guerrettaz

Q. Please state your name and business address.

A. My name is Gregory T. Guerrettaz. My office is located at 2680 E. Main St., Suite 223, Plainfield, Indiana 46168.

Q. By who are you employed and what is your position?

A. I am the President of Financial Solutions Group, Inc. (FSG Corp.), which is registered with the Security and Exchange Commission (SEC) and the Municipal Security Rulemaking Board (MSRB), and currently hold a Series 50 license as a Municipal Advisor. As part of my duties as President, I routinely supervise and perform services for governmental, utility rates and financial advisory engagements.

Q. Please summarize your educational and professional qualifications.

A. I received a Bachelor's degree in Accounting from Indiana University School of Business. As part of my business education, I took courses in economics and finance. During my employment, I have attended and spoken at numerous seminars on governmental accounting and finance throughout the United States. I continue to maintain all requirements under CPA and AICPA Continuing Professional Education requirements. This consists of over 40 hours of instruction, per year, in areas of finance and accounting.

Q. Please state your experience including experience related to Debt and Equity.

A. As an Independent Financial Advisor and a Certified Public Accountant with a concentration in Utility accounting since the early 1980s, I have been active in numerous rate cases for various types of utilities. I began my career as the first college intern at the Public Service Commission (now the Indiana Utility Regulatory Commission). Once completing this internship and my degree at Indiana University, in 1982, I was hired as Staff Accountant at the Public Service Commission, focusing on matters of utility accounting and related matters such as return and capital structure. During my employment at the Commission, I was exposed to and learned about the various components of ratemaking including cost of capital. While at the Commission, I built the first "Visicalc" work sheet to compute the overall cost of capital, once the equity return was provided. The spreadsheet then computed taxes and the rest of the pro-forma income statement. After leaving the Commission in 1984, I began working for the venerable CPA and economist Benard T. Perry and his firm Municipal Consultants, Inc. in their Indianapolis office. I worked directly with Mr. Perry in many matters including analyzing utility rate cases and in the preparation of testimony and exhibits in numerous utility rate cases. During that time, for approximately ten years, I worked with Cost of Equity formulas and models for Municipal Consultants and Mr. Perry. While at Municipal Consultants, I participated in equity offerings. In addition to this experience, I have participated in utility cases regarding financial matters, including Cost of Debt and Equity. As a Finance expert, I have given numerous presentations on Wall Street to bond rating agencies and bond insurance companies and other bond related groups, also underwriters of debt and equity. Fifty percent of my firm's business is and has been assisting municipal and some private companies in acquiring debt capital from the debt

markets. I have attended various Cost of Equity and Debt, Capital Plans and Cost of Service continuing education courses at such universities as Wisconsin, Georgia State and Georgia Tech.

Q. How long have you been employed by FSG Corp., and what utility related services do you perform?

A. I founded Financial Solutions Group, Inc. in 1998 and have been the President of the company since then. I have been responsible for numerous projects, including utility rate engagements, cost of capital analyses, utility financial analyses, utility business valuations during the acquisition process, and projects related to a variety of utility issues and preparation of electric, water and other trackers for utilities in the State of Indiana.

I have pre-filed written, and given verbal, testimony before the Indiana Utility Regulatory Commission on a variety of issues, over the past 30 years, including, but not limited to, revenue requirement calculations, accounting methodology and related areas, utility historical and pro-forma financial information, cost of capital analysis, capital structure, rate structure and Cost of Service issues, issuance of both long and short-term debt, utility operating information, utility trackers and a variety of other utility related issues. I presented cost of capital testimony in Petitioner's prior rate cases.

I prepare activity-based budgets and assist communities in both short and long-range Sustainability and Recovery Plans for all types of entities. I have served as Financial Advisor for billions of dollars of tax-exempt and taxable securities, including utility financings through the State Revolving Fund (SRF). I have also performed a variety of feasibility and cost-of-service studies for cities and towns throughout Indiana. I worked closely with the Indiana Bond Bank, performing credit reviews and coverage

analyses. I have assisted many clients by developing and implementing a variety of financial alternatives for all types of bonds, such as creating a multi-jurisdictional, public Holding Corporation and performing analyses of revenue streams.

Q. Please state the organizations of which you and your company are members.

A. We are members of Accelerate Indiana Municipalities (AIM), Indiana Association of County Commissioners (IACC), Association of Indiana Counties, (AIC), American Water Works Association (AWWA), Indiana League of Municipal Clerks and Treasurers (ILMCT), Indiana Association of School Business Officials (IASBO), Indiana Library Federation (ILF), Indiana CPA Society (ICPA), American Institute of Certified Public Accountants (AICPA), National Municipal Advisor Association (NAMA), Society of Utility & Regulatory Financial Analysts (SURFA), Municipal Securities Rulemaking Board (MSRB), and the Securities and Exchange Commission (SEC).

Q. Have you participated in prior Indiana-American Water Company, Inc. and its predecessors' proceedings?

A. Yes. I participated in water rate cases as far back as when Gary Hobart Water Company was serving Lake County, as well as in Northwest Indiana Water cases and rate cases involving Indiana-American Water Company, Inc. ("IAW"). I presented testimony on behalf of Crown Point in the Company's past base rate cases while at my former employer Crowe and FSG Corp. I also presented testimony and exhibits on behalf of Crown Point in various causes regarding IAW. Among other things my testimonies addressed rate making expense and capital items, cost of equity, cost of service, rate design and Crown Point's plant type size and locations.

Q. How long have you assisted the City of Crown Point ("Crown Point") as a Municipal Advisor and finance and Utility consultant?

A. In the mid 1980s, I became the independent Municipal Advisor to the City of Crown Point. I am involved in all bond issues, economic development matters, budgets and three (3) separate utilities (Water, Wastewater and Storm Water). As a result, I have had to work closely with Crown Point's Mayor, utility management, operating staff professional engineers and the knowledge they have. I have developed a broad understanding of Crown Point's utility operations, utility plant, its size, use and locations.

Q. On whose behalf are you appearing in this proceeding?

A I am appearing on behalf of Crown Point. FSG Corp. was retained to review the filing of IAW in this Cause. I have prepared this testimony as a result of our engagement. We reviewed information from a large amount of data request responses and volumes of Petitioner's testimony and exhibits in preparation of my testimony and attachments.

Q. What areas does your testimony address?

A. In general, my testimony will address the following issues:

I. Purpose of Crown Point's testimony and background.

II. IA's continuing rate increases

III. Future test year, future rate base cut off, used and useful plant phase in.

IV. Declining use adjustment

V. Cost of service and Crown Point's System

VI. Cost of equity

I. PURPOSE OF CROWN POINT'S TESTIMONY AND BACKGROUND

Q. What is the purpose of background for your testimony and Crown Point's intervention?

A. To bring much needed positive change to IAW's determination of SFR rates and charges. As Crown Point's Mayor previously testified in this Cause there needs to be change in the rate making for SFR utility customers like Crown Point. Crown Point can no longer tolerate the size and frequency of IAW's rate increases, here a proposed punitive 25% to the SFR class. Apparently three other intervening SFR utilities feel the same way.

Crown Point operates a "Large" municipal water utility with approximately 13,500 customers, growing at a rate of almost 300 customers per year.[1] Crown Point Municipal water utility has the economy of scale and available land needed to flourish. Crown Point manages and pays for its own major capital improvements, its own line replacements, its own technology needs, its own meter reading, and its own customer support. We can handle, and since 1895 have handled, those costs and operational responsibilities. The most significant challenge to Crown Point's water utility is how to minimize the financial hardship caused by the size and frequency of IAW's rate increases.

Crown Point is feed water through large IAW transmission lines from IAW's Bormann treatment plant down Broadway in Gary to Crown Point's metering station. Crown Point receives no service or real benefit from the many old water utilities, many in poor condition, which IAW has acquired and continues to acquire. Crown Point pays for

[1] The *Evaluation of Indiana's Water Utilities* November 2016 report presented to the Indiana Legislature classifies Crown Points 13,500 customer water utility as "Large" and IAW as "Very Large." It then shows that Large water utilities have the best economy of scale of all size utilities, i.e. Very Small, Small, Medium, Large and Very Large.

and is dedicated to maintaining its own large water utility infrastructure. Crown Point completes repairs and replacements and strives to maintain service and prevent the utility from falling into a state of disrepair and then becoming a troubled utility.

At the same time that Crown Point is paying to maintain its water system it should not be forced to pay IAW for the restoration of old or troubled distant water utilities. Yet that is what is again proposed in this rate case. By contract IAW's rates to Crown Point are set by the Commission. Crown Point needs the Commission's rate making support.

Crown Point has approached its goal to make Lake Michigan water affordable again in several ways. First, lower IAW's proposed rate increase by reasonably revised revenue adjustments and a reasonable proposed return on equity. Second, revise or replace IAW's unacceptable cost of service study ("COSS.") Third, ensure rate and charge adjustment for inclusion of DSIC additions is placed where it legally and sensibly belongs, in the Customer Charge. Fourth, revise IAW's rate design to fairly treat SFR customers, particularly those large volume customers taking service off of transmission mains. Fifth, exclude Crown Point and similar SFR customers from IAW capital additions and related expenses for distant unrelated acquired utilities that have no tie to or benefit to providing transmission level SFR customers with bulk wholesale water service. Sixth, position Crown Point to participate in economically priced off peak and interruptible transmission level SFR rates and have those optional rates approved in this Cause. Seventh, have an optional transportation rate approved. Mr. Seelye of the Prime Group and I will address these matters.

Q. What are the economic conditions of Crown Point and the surrounding area?

A. The timing of this proposed rate increase is not good. Crown Point and "the Calumet Region" are experiencing some very needed but fragile economic growth. Lake County

unemployment is approximately 4.9% while Indiana as a wholes is approximately 3.6% and the national rates 3.5%. Crown Point's Mayor and local officials are always working diligently to grow the local economy and create new jobs. As I detail later, any rate increase that results from this proceeding, should be phased in over 4 years to monitor and ensure the new plant is used, useful, and necessary and also to mitigate customer and local economy rate impact. Also, any increase should be allocated fairly to the Sales for Resale ("SFR") customers, as detailed in the Cost of Service testimony of Mr. William Steven Seelye.

Q. Describe those served and the purpose of Crown Point's municipal water utility.

A. The Crown Point municipal water utility has since 1895 provided potable water to the residents of Crown Point. Today Crown Point has over 30,000 residents and our water utility has approximately 13,500 customers. The local Crown Point economy, the health and happiness of our residents depend on water from our municipal utility. Crown Point takes its role in providing public service very seriously and dedicates substantial time and resources in planning and operating the water utility. The Crown Point municipal utility is actively engaged in replacing old water lines and making necessary costly major capital improvements and expansions. I will further describe our current capital improvement plans later.

While IAW attempts to force Crown Point to pay for capital improvements in distant, unrelated, acquired water utilities, IAW contributes no capital to Crown Point's municipal utility. Crown Point's Mayor David Uran aptly described the inequity of the rate increases IAW imposes on Crown Point and the unreasonableness of making a municipal SFR customer pay for the restoration of unrelated distant acquired utilities. The recent passage of P.L. 91-2017 amending I.C. 8-1-31-8 to me indicates the

legislature also recognizes the disproportionate hardship place on SFR customers through the capital costs of IAW restoring distant unrelated acquired utilities. IAW's rate increases continue to put unacceptable financial pressure on our municipal utility and eventually in turn our residential customers. Here IAW proposes an approximate 25% increase to Crown Point. IAW's rates to Crown Point are set by and subject to the rate making jurisdiction of the Commission. Crown Point respectfully asks the Commission for relief from IAW's oppressive rates.

Q. What is the purpose of Attachments 2-11?

A. The purpose is to show the consistent consumption pattern of the Crown Point Water Utility. The utility has also experience growth in the number of customers as shown on Attachment 17. These Attachments demonstrate the consistent and reliable revenue stream to IAW and the well run nature of the Crown Point Water Utility.

Q. You mentioned recent legislation and support from the Legislature. Do you think there is legislative support for protecting Crown Point's Large water utility and its 13,500 customers from having to pay for the costs of IAW's distant unrelated utilities?

A. Yes. Municipal water utilities have been lawfully authorized to operate and charge for their services since the beginning of utility operation and regulation in Indiana. Municipal utilities are legislatively sanctioned core operations and core providers of critically needed public service. They are part of the local fabric of many municipalities, with local employees, officials and offices and payment locations readily available for face to face contact with municipal citizens. In my opinion the Legislature has not decided to sanction the demise of large municipal water utilities by forcing them to pay for IAW's distant unrelated utility acquisitions and subsequent renovations. P.L. 91-2017

assignment of DSIC rate charges to the customer charge is evidence of support for SFR customers.

Moreover, in addressing utility acquisitions the legislature has not overlooked the need for cooperation with local government in maintaining utility infrastructure "…while protecting the affordability of utility services for present and future generations of Indiana Citizens." IC 8-1-2-0.5.

> The general assembly declares that it is in the continuing policy of the state, ***in cooperation with local governments*** and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to ***create and maintain conditions under which utilities plan for and invest in infrastructure necessary for operation and maintenance while protecting the affordability of utility services for present and future generations of Indiana citizens.***

Crown Point's payments to IAW to refurbish distant acquired utilities are instead needed by Crown Point to maintain and invest in its own water infrastructure, replace its own water assets and to protect the affordability of its services for current customers and generations to come. Using funds saved from not subsidizing the renovation of IAW's distant unrelated acquisitions is consistent with the goals I see in the statute above. Savings from no subsidizing unrelated utility renovations would help avoid or diminish rate increases to Crown Point customers. In a municipal utility retained monies stay within the utility and is used for capital additions and not purchasing other utilities. I cannot believe the Legislature would sanction SFR water utilizes being charged rates so high that they become subject to the acquisition efforts of IAW. Yet ever increasing steep SFR rates have that effect.

II. THE CONTINUING CHAIN OF IA RATE INCREASES AND ITS RESULTS

Q. How substantial have IAW rate increases to Crown Point been in just the last five years?

A. Harmfully substantial. In just the last 9 years, IAW has increased its rates 11 times for a total increase of approximately 59%, but the increase to Crown Point has been even worse at approximately 77% as summarized below:

Cause No.	Order Date	% increase	Ann. $ increase	CP % increase	Est CP $ incr.
DSIC-5	4-15-09	4.92%	$3,802,319	.46%	$7,800
43680	4-30-10	19.75%	$31,542,729	23.65%	$400,000
DSIC-6	10-20-10	2.82%	$5,445,718	3.06%	$53,000
44022	6-6-12	1%	$1,948,284	14.77%	$258,000
DSIC-7	12-27-12	2.12%	$3,666,274	2.07%	$43,000
DSIC-8	12-18-13	2.23%	$3,862,073	1.79%	$41,000
44450	1-28-15	2.55%	$5,121,575	.30%	$8,313
DSIC-9	5-4-16	1.95%	$3,474,913	1.95%	$54,032
DSIC-10	1-17-17	4.45%	$8,321,240	4.45%	$123,303
DSIC-11	3-14-18	changed to DSIC charge per meter			$9,856
45142	IA Proposed	17.6%	$38,637,236	24.5%	$2,618,517

Thus, the estimated total dollar cost increase to Crown Point alone in purchased water is over $678,859 annually. For a municipal water utility, that's a very substantial cost and represents lost financial opportunities to make local improvements and make investments to grow the local economy. Crown Point's current annual cost of water from IAW is approximately $2,770,855 for 2017. Moreover, the annual increase of money withdrawn out of the North West Indiana economy through IAW's higher rates is huge.

To avoid or minimize IAW future rate increases Crown Point is moving forward with capital improvements that include two new water storage tanks. The resulting 10,000,000 total gallons of storage may position Crown Point to fill off peak and avoid water peak period draws from IAW. It also. Crown Point was required to raise rates 30%. This increase has resulted in our rates being 1.38% of Median Household Income for 6,000 gallons as shown on my Attachment 1. In this current case under the proposed IAW Cost of Service Study and the proposed large revenue increase they propose to charge SFR utility customers will increase the monthly bills for 6,000 gallons to as much as $79.96 as show on Attachment 1. This compares to the IAW residential customer bill for 6,000 gallons of $54.90.

Q. Was that recent nine-year pattern of increases unusual for IAW?

A. No. For example, since 2001 IAW has increased base rates six times and DSIC rates 12 times, 18 increase in 17 years. Like a boulder strapped to our municipal backs Crown Point and its customers continue to bear the financial weight of those increases.

Q. Hasn't P.L. 91-2017 offered some relief from the degree of IAW increases upon Crown Points SFR utility?

A. As the chart I include above shows, the increases in DSIC 9, 10 and 11 were lower than normal because the infrastructure improvement costs were applied to the customer charge rather than to water volumes. That mandated legislative correction of P.L 91-2017 did help. It is imperative that legislative correction and recognition of need to put DSIC infrastructure improvement costs in the customer charge needs to be continued in these base rates. I will discuss this further.

Q. Has anything occurred to slow the frequency of IAW rate increases?

A. No. Through the DSIC, IAW can and has increased its rates for distribution system improvements very quickly and with compressed regulatory review. Further under IC 8-1-2-42.7, IAW can implement base rate increases, such as here, much more quickly than historically had been the case and proposes to do so largely based on its future expense budget and future capital budget rather than actual expenses adjusted for changes that are fixed, known, and measurable and actual items of capital improvement that are, or will be, in service and used and useful by the close of the record. The shortened time for IURC and public review of this base rate request down to about 300 days, compounded by the future test year ratemaking by projecting everything, makes the always daunting challenge of keeping IAW's issue packed rate proposals to a reasonable level even more difficult than in past cases. And for retail customers IAW's declining use adjustment would charge water rates customers consciously reducing their water consumption to try and save money. As I will detail latter, IAW continues to effectively move its business toward a nominal risk or near zero risk enterprise while at the same time arguing for an increased return on equity in hopes of further increasing rates and profits to purchase more utilities.

Q. While IAW has increased Crown Point's water rates so much and IAW is positioned to continually pursue rapidly recurring rate increases, how has the market value of the publicly traded stock which encompasses IAW's operations performed?

A. The value of American Waterworks' ("AWK") stock, IAW's parent, has done remarkably well. Since 2001 AWK has increased from about $13 per share to today about $93 per share and its current dividend growth as shown on Attachment 26 over the last 3 years is 10.2%. Crown Point's wholesale water rates have increased almost 77%,

in the last 9 years. Beginning 2009, American Waterworks' stock has increased in value from $17.60 to $88.35 or approximately a 302% increase in market value. The S&P 500 only increased by 120.75% in the same time period.

Q. When faced with these rapidly increasing costs of wholesale water, what are municipal SFR customers left to do?

A. The rapidly increasing cost of IAW's water drives wholesale municipal utility customers to search for solutions. Some, like those in this case intervene before the IURC and advocate for reasonable rates. Or as many municipalities have already done, they sell their municipal water system to IAW, who is a persistent, ready and willing purchaser that aggressively seeks to grow and continues to grow its retail sales through acquisitions. I call the SFR rate increases a "price squeeze" i.e. push municipal water rates so high, SFR utilities are financially pressured to sell. And some as in the case of Lake Station go so far as to invest heavily in new ground water treatment plant capable of replacing dependence on IAW. That did not go so well for Lake Station in that soon thereafter it agreed to sell its municipal water utility to IAW and the new treatment plant became a stumbling block.

Crown Point purchases approximately 964,532,000 gallons of water from IAW annually at a cost of about $2,770,855 and is IAW's second largest volume customer. In total, municipal SFR customers purchase 3,632,402,000 gallons per year. Per IAW's SFR customers represent 4.9% of annual water sales. Crown Point is a major, reliable source of revenue for IAW for which IAW does not have to pay to maintain our system or bill our customers. IAW does not have to pay for Crown Point fire hydrants, capital costs, O&M, billing or any of its operations. And still IAW gets to sells all needed volumes of water to Crown Point. Crown Point is a large beneficial customer and revenue source

for IAW, a customer that IAW should be pricing water to at rates that meet Crown Point's public utility needs rather than pushing us away.

Q. IAW indicates that these rate increases are largely driven by the following: 1) Ongoing Capital Investments, 2) Increased O&M Costs, 3) Additional Costs Associated with Acquisitions, 4) Increase Demand for Line Locates, and 5) Increased Preventative Maintenance Activities. Are you satisfied with that rate increase justification?

A. No, I am not satisfied, especially for Crown Point. I will respond to each of the items listed above.

1) Ongoing Capital Investment: The ongoing capital investment does not appear to benefit Crown Point and the SFR class. It should be noted on pages 10, 11 and 12 of Mr. Shimansky's prefiled testimony that Utility Plant in Service ("UPIS") is mainly going up due to large DSIC plant and capital additions from acquisitions. Those distant utility renovations have no connection to delivering treated Lake Michigan water to Crown Point. Mr. Hoffman references another $326,000,000 of non DSIC capital additions to be placed in service in the future test year, by April 30, 2020. Hoffman p. 6. In total IAW proposes about $526,000,000 in rate base additions in this cause, the vast bulk of which will have no tie to serving Crown Point or even North West Indiana.

2) Increased O&M Cost: IAW has made numerous complex operating expense adjustments that Crown Point has considered but not yet totally resolved. We will review adjustments made by other parties to this Cause and perhaps file responsive testimony. We believe through "Regulated O&M Efficiency", see Attachment 23, that IAW does not need any adjustment to expenses since the anticipated O&M efficiency ratio for AWK has demonstrated to the Investors that O&M efficiency will improve from the 36.5% in

2016 to 31.5%. Such O&M efficiency improvements should help IAW mitigate the need for any rate increase.

3) Additional Cost Associated with Acquisitions:

Crown Point strongly opposes paying any current or additional costs associated with acquisitions of other utilities. Crown Point opposed IAW's proposed acquisition of Lake Station's water utility system. Like other IAW acquisitions that acquisition provided no benefit to Crown Point's system, but would lump more costs on Crown Point. Again, Lake Station's case to me demonstrates the desperation of SFR customers to avoid IAW's never continuing rate increases by opting to build a costly new water treatment plant to only then succumb selling the utility to IAW. Now in this rate case, IA has acquired and seeks to reflect in higher rates two additional water systems and one additional wastewater system. One of the water acquisitions was Charlestown and the other combined utility is Sheridan. As you can see from Attachment 24, there is no end to growth from acquisitions in sight, in fact AWK has proposed to use 1-2% of their capital plan dollars for more acquisition.

Q. Why is this troubling?

A. While SRF customers are required to pay more to refurbish IAW's old acquired water utilities, IAW keeps adding more acquired water utilities to its large diverse utility portfolio. The acquisition capital refurbishment costs just keep stacking up, and IAW's rate base and return dollars just keep growing. For the selling utilities, it's a big payday. For their residential customers its often means the benefits of lower rates, or improved service, or avoidance of paying for costly needed repairs and replacement, but for the SFR utilities dedicated to providing reasonable cost public service it's just higher rates, less money to meet their own capital needs and increased pressure to raise rates or sell to

IAW. I call it "Price Squeeze." Large viable SFR utilities like Crown Point should not be placed in this situation.

Since 2001 IAW has acquired 16 Indiana water utilities, of which I believe 9 were municipal utilities. Those acquired utilities are far from Crown Point and do not in any way provide service to Crown Point. Yet IAW continues to reflect in SFR rates the revenue requirements of and investment in those distant utility systems. IAW's business paradigm is and has been very rewarding for its shareholders and it has been punitive for its SFR customers. These distant acquired utility systems typically do not have SFR customers in them or if they do, they are typically small volume SFR customers feed off distribution systems. In Lake County Crown Point and Schererville take large volumes of water solely from transmission mains. Charging SFR customers for the revenue requirements of distant old acquired utilities is inequitable for all SFR utility customers and in my view particularly punitive for Large SFR utility customers feed from transmission mains.

4) Increase demand for line locates: Crown Point and the SRF class should not be responsible for any of the costs of line locates on the IAW system. Line locates for Crown Point and other SRF utilities are not paid for by IAW. Symmetrically we should not be called upon to pay for IAW's line locates. In fact, Crown Point does its own line locates.

5) Increase prevention maintenance: As shown in IAW's witness Brock, on page 17, regarding the enhanced maintenance activities, the Company's workforce performs a variety of maintenance activities, such as locates, service orders, meter reading, fire hydrant maintenance, flushing and painting, distribution system valve inspection and operation, fire service inspections, leak detection, cross connection inspection, contractor

site inspections and other water distribution related tasks. The Company is adding resources to improve water efficiency through enhanced maintenance activities in an effort to establish and sustain a more cost-effective level of service for our customers over the long term. All of the activities sited above again have no direct or indirect benefit to Crown Point. These costs should be allocated out of the SFR Cost of Service and not affect the SFR class of customers.

III. FUTURE TEST YEAR

Q. Do you have comments regarding the challenges of using a future test period in this case?

A. Yes. Investor owned utility rate cases have always been relatively complex matters to evaluate for purposes of setting just and reasonable rates. However, the traditional historic test year combined with adjustments for changes that are fixed, known, and measurable occurring within 12 months of the test year close presented a fairly transparent, readily auditable number of expense and revenue adjustments and rate base additions. Despite the utility having the superior detailed knowledge and control of its books, accounting systems, strategic information, and operations, the specific proposed adjustments to expenses and rate base were based on currently known and fixed changes, thereby providing a high degree of information and certainty. The proposed revenue and expense adjustments were based on certainty both as to occurrence and as to timing. The same was true with plant additions; they were already used and useful, or typically would be by the date of the last hearing. Under traditional, historic test years, there was reduced opportunity to overstate pro forma expenses. To the extent there was

some regulatory lag in the traditional rate setting time frame, it served to incent utility management to strive for new efficiencies and to manage or reduce costs, see Attachment 23 for "Efficiency Ratio Reduction." When such efficiencies are made between rate cases the savings typically falls to the bottom line as higher profit, and helps keep future rates lower.

The new use of future test periods presents a real challenge for regulators and consumer advocates who work to ensure that the resulting rates do not present an opportunity for excessive earnings, which can be used for non-revenue requirement items like to purchase other utilities.

Q. What has IAW forecasted?

A. Essentially every element in the rate case. Revenue, expense, billing determinants, rate base, cost of capital, cost of equity, elements of the capital structure (such as deferred taxes) have been in some way forecasted to an April 30, 2020 date. One example specific to Crown Point is in the determination of the billing equivalents in the development of the cost of service, IAW did not change Crown Point's usage, or the SFR class usage rather IAW used an average of the last three years, see REA-8, lines 4-6. Crown Point is growing, and its usage will not be stagnant. Crown Point's customer base is increasing, as shown on my Attachment 17 by the growth in customers. No adjustment for growth in volumes results in rate per unit being higher than what is needed to support the cost of service by class.

Q. Given there is an approved future test period and future rate base cutoff, what can be done to help preserve the regulatory balance of fashioning rates that are fair to both consumers and the utility?

A. First the beneficiary of having its rates based on long term estimates should be held accountable to annually reporting how its actual expenditures compared to it rate case future estimate for those same expenses. If IAW regularly does not have a reasonable matching between estimated and actual expenditures it should be held accountable in subsequent proceedings.

Second, the obvious resulting risk reduction of future test year rate making must be reflected in IAW's authorized return. Instead of strictly adhering to fixed known a measurable adjustment in suggesting its pro forma revenue requirements, IAW essentially seek rates based on mere long-term budget estimates that look way beyond the historically typical 12 month post test year adjustment period. Moreover the 300-day expedited rate case time requirement in combination with the more difficult to analyze expenses projected 3 years in the future eliminate the delay of increased rate revenues previously incurred in "regulatory lag."

The future test period is another example of how IAW has taken effective legislative and regulatory steps to minimize its risk and enhance the stability of its revenues and its profits. It is pushing its business toward nominal financial risk thru legislation and new rate proposals, while arguing for the same or higher authorized return it had when its business faced higher financial risk. The Section 42.7 limitation on the Commission's time to process and issue a rate case order and the future test period and extended future rate base cut off reduce regulatory lag by ensuring IAW will get faster base rate relief. They also increase the chances that its revenue component for

budgeted expenses and capital additions will foster the opportunity to bolster current and future profits above authorized returns. This is on top of the DSIC tracker that already allows distribution system updates to rate base, return, and depreciation between base rate cases. Also, IAW has mastered the art of pursuing a new base rate case about every two years or so. To further support its push toward a nominal financial risk water business, IAW in this case has once again, proposed a declining use adjustment, a decoupling mechanism, and once again, a boost to fair value return that the Commission already rejected several times previously. Further, Section 42.7 does not change the 18-month protection period between base rate case filings. Thus, the Company could file a new base rate case before its forecasted test year is even complete. The Company could file in 2020. IA should have stated in its case they would not file again until 2024.

Q. Does the reduced risk from substantially decreased regulatory lag, decreased earnings erosion created by expedited rate cases, DSIC tracking and future test years substantially serve to offset IAW's risk?

A. Yes. When IAW encounters the need for infusion of new capital for major new projects and replacements those financial needs now more quickly become embedded in new rates. The DSICs keep promptly tracking large amounts of capital replacement. In the extremely unlikely event of a dire need that would compromise financial integrity, emergency rete relief is available. Investments in distant small utilities will get their costs paid by some customer class. IAW's water utility operation and the highly supportive rate making framework available make its risk in my opinion extremely low. AWK's Beta is only .60. To be equitable the lower risks need to carry through on the other side of the scale in lower authorized return.

To top it off, IAW provides the most essential, none substitutable utility service of all, potable water. Unlike gas and electricity, there is no substitute for water. The use of gas and electricity for heat and light can be drastically reduced in the "shoulder months" of late spring and the fall months. Daylight is longer, there no need to heat or cool space, and the weather is nice enough that cooking can be done on an outside grill. Even in hot summer months the convenience of air conditioning can be reduced or avoided by homes with well-positioned shade trees or cool finished basements. Alternative heat sources of wood burning stoves, wood burning outdoor water heaters that pump hot water into buildings for radiant heat, geothermal systems, and customer owned electric generation by wind, solar, waste heat or waste gas can reduce or avoid electricity and gas use for heat. If you do not like the cost of electricity, you can use gas to heat space. If you do not like the cost of gas, you can use electricity to heat space. Even sanitary sewage collection and treatment is totally dependent on water to move the waste, but nothing can survive any time of year without potable water, but there is no substitute for water. It is required for hydration, for cleanliness, for cooking, and to carry away waste from our homes and buildings. It is essential 365 days a year to stay alive. The reality is environmental compliance expenses, new capital project needs, and all major business risks are protected by rate of return regulation. And nowhere is the commodity demand so certain and without substitute than in the provision of potable water. No matter how expensive IAW makes its water, its captive customers still have to buy it. In the face of escalating water costs, all customers can do is work to use less water, but disturbingly IAW wants to charge customers for that too!

IV. DECLINING USE ADJUSTMENT

Q. Please describe Petitioner's declining use adjustment.

A. Mr. Roach explains IAW "employed the use of numerous regression models exploring varying combinations of potential explanatory variable, including time and numerous climatic variables." Roach p. 6. IAW then relied on its anticipated declining usage to reduce test year water usage by 2.12% resulting in a higher usage charge.

Q. Do you support approval of the declining use adjustment?

A. No. I strongly oppose its approval. The declining use adjustment should be denied for several obvious reasons. First, accelerated recognition of estimated possible declining residential and commercial use is not needed. All changes in revenue are captured at the time of the utility's base rate case. It is at that time that any decrease or increase in sales and resulting impact to revenue is reflected in pro forma rates. What IAW proposes by its declining residential use adjustment is to accelerate the rate recognition of its "best estimate" of declining residential customer (usage decline that has not yet occurred and may not occur,). This is reaching beyond what is fair, and in fact he believes it will take 52 years to convert all the current fixtures to high efficiency fixtures. (Roach p. 22).

This declining use adjustment proposal is yet another way to reduce regulatory lag, i.e. by reflecting estimated decreased customer sales in rates before the supposed decrease actually occurs, rather than accurately capturing any change in sales volumes in the next rate case, to the degree there may have actually been any change in usage. I do not believe this non-traditional adjustment is justified or necessary. IAW already files a base rate case about every two years. IAW already receives DISC rate adjustments on a regular and ongoing basis. And now IAW is relying on a future test period based

essentially on estimated budgets marked up in some places merely for inflation. IAW's regulatory lag in increasing its rates is already minimized to the fullest extent possible and I have seen no need to further reduce its regulatory lag by imposing this non-traditional, pro forma adjustment in rates to reflect IAW's best hypothetical estimate of what decline in residential sales may occur. If residential water sales decline let residential customers enjoy their savings at least until the next rate case rather than IAW hypothetically projecting their conservation savings and taking those hypothetical savings away before they even occur!

Second, the proposal asks the Commission to focus on two subsets of sales, residential and commercial, and ignores other customer sales and revenue. IAW obtains sales data from all categories of customers (residential, commercial, industrial, and SFR). A decrease in residential sales does not necessarily correlate to a decrease in sales to other categories of customers. For example, industrial and commercial sales are often tied to the level of production or output of each customer. By its very nature, for some production operations processes, the higher the level and duration of output, the more water is consumed. A decrease in residential and commercial sales may be offset by increased or new industrial production, particularly if the economy continues to improve or Petitioner continues to acquire one or more municipal water utilities / customers for which no adjustment was made in the forecast. A large new customer can add material demand for water volumes. For example, a Walmart milk processing plant recently began operations in Northeast Indiana. Indiana's economic development teams are always working to attract new large manufacturers, some of which use substantial volumes of water.

Third, the IAW's proposal asks the Commission to focus on a single subset of possible causes of reduced sales, conservation/efficiency, and ignores the things that increase sales. A prime example is the correlation between weather and water consumption. In dry periods, customers use more water to replace the missing rain. Lawn, garden, and crop sprinkling, car washing, washing porches, drives, and outdoor living areas all increase water usage in dry periods. This increase in water usage in dry periods is not limited to residential customers. Industrial and commercial customers also have lawns to sprinkle, cars and trucks to wash, and outdoor areas to clean. Conversely, in wet periods, water usage decreases because the rain is watering plants, helping clean property, and minimizing or eliminating interest in vehicle washing.

Sales increases sufficient to more than offset any perceived decline in residential sales due to efficiency/conservation can also occur through increases in customer base between rate cases. Housing starts have been on the rise. Crown Point's customer base is increasing, not decreasing, one percent per month as shown in IAW's work papers. Future increased customer base may be sufficient to offset sales declines caused by governmentally imposed water appliance conservation and customer self-imposed water frugality in response to ever increasing water rates.

Fourth, it is not reasonable that customers take on the additional burden/actions of voluntary water conservation or voluntarily take on the additional expense of paying for new higher efficiency plumbing fixtures or appliances, only to have their expected savings benefit eliminated by an IAW pro forma declining use adjustment embedded in water rates. High efficiency washers, dishwashers, toilets and plumbing fixtures are not free. IAW does not subsidize them or provide them. One of the marketing efforts and attractiveness for such high efficiency appliances and low flow fixtures is the customer

water bill savings from lower water usage that in turn over time offset the appliance or fixture purchase price. From my own experience, when customers are shopping for such items, they consider the potential water savings, as described by the manufacturer, as a factor in their purchasing decisions. I believe it is reasonable that they expect their opportunity for those savings to start when the appliance or fixture is installed. Under IAW's proposal, the level of savings to the customer (from efficiency or conservation) will be decreased or eliminated before the high efficiency appliance is even purchased because the declining use adjustment embedded in his/her water rates is already charging the customer more for their hypothetically anticipated conservation and their future decision to replace their broken appliance, or repairable appliance, or older but still functioning appliance with a new water efficient appliance.

Customers' appliance decisions are not limited to buying the new, expensive water efficient appliances. There is an active market in used appliances and with the Internet; replacement appliance parts and appliance repair video and even over the telephone instructions are a few clicks of the mouse away.

I can imagine the utter shock customers would have when they learn they pay extra in their water rates to cover the reduced water usage that is expected to occur due to governmentally mandated, higher new appliance efficiency laws and IAW's expectation that they will actively try to otherwise conserve water use in response to continually increasing water rates. It would be like government charging you higher taxes this year because it expects you to make more income two years from now, rather than charging taxes on what you are earning now. John Q. Citizen would be outraged, and rightfully so, to learn that utility regulation approved higher rates because future conservation and efficiency measures might lower sales years from now.

Fifth, the proposal is not warranted. There may be instances where unusual circumstances warrant creative, non-traditional adjustments and proposals, but, on this issue, I see no showing of dire need or unusual circumstance to warrant accelerated recovery of possible sales decline for a single customer class, caused by a single factor, rather than accurately capturing all changes in sales and revenue simultaneously in the next rate case test year. IAW and AWK financial health has over time proven to be excellent. Their financial performance does not need to be further boosted by charging people for water conservation results that have not yet occurred, may not occur, and if they do occur can be accounted for in the next rate case.

V. COST OF SERVICE STUDY AND CROWN POINT'S WATER UTILITY SYSTEM

Q. Is Crown Point concerned about the IAW's proposed Cost of Service Study?

A. Yes. Mr. William Steven Seelye of the Prime Group is presenting testimony relevant to IAW's Cost of Service study and rate design. I will address Crown Point's beginnings as a wholesale water customer, the plant investments it made and is making to minimize demand on IAW's operations, and how Crown Point's system is different from other SFR systems and why it deserves more favorable cost and causation consideration in the Cost of Service Study and rate designs, and alternative rate structures would do that.

Q. What aspects of Crown Point's beginnings as a wholesale water customer do you wish to point out?

A. Crown Point became a customer of IAW's predecessor Northwest Indiana water in August 1997. Northwest Indiana Water required that Crown Point install a 24-inch main south of Gary Indiana along Broadway to a Crown Point. This cost Crown Point in

excess of $5,900,000. Crown Point was also required to within three years install at least 3 million gallons of ground level water storage. These investments were built to help control water flow and buffer demand. Crown Point at that time was incurring $589,352 in annual costs to operate their own water treatment facility and the new cost of purchased water from Northwest was to be $580,000 per year. Crown Point choose Northwest Indiana Water Company as the provider of water into the future as it made good economic sense at the time.

Q. Now where does Crown Point find itself?

A. Financially harmed by continuing water rate increases, incorrect rate structure and being squeezed into retail rates higher than IAW's. Since Northwest Indiana Water was purchased by IAW, Crown Point finds itself locked into a price squeeze situation, and IAW continues to increase Crown Point's wholesale rates. Recently Crown Point had to increase its rates by 30% to keep up with its own capital improvements like substantial new storage capacity necessary to try and mitigate the pricing of IAW's wholesale water. The new storage capacity may allow Crown Point to take water essentially only off peak and rely on stored water for on peak periods.

Q. Please describe the new capital improvements and storage addition that will allow Crown Point to take water off peak and avoid peak water demand periods.

A. Crown Point has undertaken the addition of a new 3.0 MG storage tank, and a new 1.0 MG storage tank this additional storage will allow Crown Point to fill storage in off peak periods and rely on stored water during peak periods. Construction is scheduled to be completed and on line in the 4th quarter of 2019 for the 3.0 MG tank, and the 1st quarter of 2021 for the 1.0 MG tank.

Q. Please describe the configuration of the current Crown Point water system.

A. Crown Point's water system is generally built and operated to take water from the Company at an even rate of flow and Crown Point has 6.0 MG storage. As noted above the City is in the process of expanding its storage to a total of 10 MG. This allows Crown Point to minimize demand on the IAW system during peak times. Below is a summary of the Crown Point Water system that I know to be accurate and has been confirmed by Crown Point's engineer as accurate:

A. Supply Source

The point of connection to IAW is located near the intersection of Broadway and 93rd Avenue in the northern end of the Crown Point Service Area. **An adjustable** control valve controls the rate of flow. The water supply is transferred through a 24" diameter transmission main which conveys the water to a 3 million-gallon ground level storage tank located near the intersection of Madison Street and St. Peter and Paul Drive.

B. Pressure Zones

Crown Point's water distribution system consists of two service zones or "pressure zones", to serve the Crown Point customers. The water distribution system as a whole is supplied with water by two pumping stations, the ground level water storage tank discussed above, one below ground water storage reservoir, and three elevated water storage tanks.

Each individual pressure zone is generally defined by ground elevation within its respective portion of the planning area, and specifically by the maximum water level elevation, or overflow elevation, of the water storage facilities which serve a particular pressure zone. A description of each pressure zone is provided below, along with a discussion of its general boundaries, storage facilities, and pumping facilities.

1. North Pressure Zone

In terms of land area, the north pressure zone is the largest service zone in Crown Point, serving most utility customers who are situated at a ground elevation of approximately 730' msl and below. The north zone operates at a maximum hydraulic grade elevation of 865' msl, and accounts for roughly 80% of the City's overall service area, serving residential, commercial, and industrial customers.

The North Zone is served primarily by gravity from two elevated water storage tanks: 1) the North Street tank, a 500,000-gallon multiple column elevated tank located near the site of the City's now abandoned water treatment plant, and 2) the 113th Avenue tank, which is a 1,000,000-gallon single pedestal type elevated tank located adjacent to Interstate 65 and south of 113th Avenue.

The elevated tanks which serve the north pressure zone are supplied with water from the main 96th Street pumping station located adjacent to the 3 MG ground level storage tank. The city will install a new 3 MG ground level storage tank at this location in 2019 to provide additional storage capacity.

It must be mentioned that the terms "North Zone" and "South Zone" are general in nature, and have been used by Crown Point for many years. The North pressure zone does serve the majority of the City's original service area, and virtually all customers located north of 117th Avenue. Geographically speaking, however, as Crown Point's overall service area is expanded, the North Zone will also serve areas south and east of the City due to the lower ground elevations which exist at those locations. In fact, all future service areas which lie east of Interstate 65 will be provided with water service from the North pressure zone.

2. South Pressure Zone

Crown Point's south pressure zone serves locations in the south and south west portions of the service area which generally lie at ground elevations of 730' msl and above. Physically, the South Zone encompasses a land area of approximately 8 square miles and is composed primarily of residential, commercial, and institutional land uses.

Water is transferred from the North Zone to the South Zone through a dedicated 14" transmission main on Main Street which discharges water to a below ground 1 MG reservoir located at Kaiser Park. The City will install a new 1 MG storage tank at this location in 2021 to provide additional storage capacity. A pumping station located at the Kaiser Park Reservoir transfers water to the south pressure plane and to an elevated water storage tank located south of 125th Avenue and adjacent to Main Street (extended).

The south pressure zone elevated tank is a 0.5 MG single pedestal type tank with an overflow elevation of 903' msl.

C. Storage Facilities

As discussed above, Crown Point's public water supply system includes a total of five storage facilities: one ground level reservoir, one below ground reservoir, and three elevated tanks.

Total reservoir capacity is 4.0 Million gallons, and total elevated storage capacity is 2.0 Million gallons. The table below summarized important information regarding the City's existing storage facilities.

The City intends to install 2 new storage facilities and increase storage capacity by 4 MG in 2019-2021.

Table No. 17
Storage Facilities Summary

Storage Facility	General Location	Capacity	Overflow Elev.	Pressure Zone Serviced by Reservoir
Main North Reservoir	Madison St. and St. Peter and Paul Drive	3.0 MG	727' msl*	Entire system
North St. Tank (Elevated)	North Street, east of Indiana Avenue	0.5 MG	865' msl	North Zone
113th Ave. Tank (Elevated)	Interstate 65 and 113th Avenue	1.0 MG	865' msl	North Zone
Kaiser Park Reservoir	Main Street south of Hemlock Lane	1.0 MG	764' msl	South Zone
125th Ave. Tank (Elevated)	South of 125th Ave. and east of Main Street (extended)	0.5 MG	903' msl	South Zone

*Approximate elevation, based upon available information.

1. The 3.0 MG Main Reservoir

The 3.0 MG Main Reservoir is the storage facility which receives the Crown Point's water supply as it is delivered from the Indiana American Northwest Water Company. The reservoir is a cast in place, circular pre-stressed concrete structure with a diameter of approximately 127' and a height to overflow of approximately 31.5' water is transferred from the main reservoir to the City's north pressure zone by the main pumping station located adjacent to the reservoir.

2. North Street Tank (Elevated Tank – North Zone)

The North Street tank is Crown Point's oldest elevated water storage facility, and is centrally located near the intersection of North Street and Indiana Avenue. This is also the site of Crown Point's water treatment facility which is no longer in operation. This

tank establishes the hydraulic grade elevation for the north pressure zone. Its central location, together with a strong distribution system network between the tank and the north pumping station, makes it suited to serving the central and northern sections of the City.

3. 113th Avenue Tank (Elevated Tank – North Zone)

The 113th Avenue Tank is an elevated water storage facility of single pedestal design which also serves the north pressure zone. This 1.0 MG tank is located just east of Interstate 65 and south of 113th Avenue in east-central portion of the City's service area. This tank is well located to accommodate future growth in the southeastern portion of the planning area.

4. Kaiser Park Reservoir (Below Ground Reservoir – South Zone)

The Kaiser Park reservoir is a below ground concrete reservoir which is used to provide storage capacity to serve the City's south pressure zone. Water is transferred from the North Zone through a dedicated 14" transmission main on Main Street. Water is discharged into the reservoir through a pressure sustaining valve assembly which serves to control the rate of flow and maintain adequate pressures within the North Zone. Water is transferred from the Kaiser Park reservoir into the south pressure zone by three vertical turbine pumps.

5. 125th Avenue Tank (Elevated Tank – South Zone)

Water in excess of consumption, which is discharged from the Kaiser Park pumping station, is stored in the 125th Avenue tank. This is an elevated, single column, spheroid type tank with a capacity of 0.5 MG. This elevated tank has an overflow elevation of 903', which establishes the maximum hydraulic grade elevation for the south pressure zone. This higher elevation pressure zone (38' higher than the North Zone) is necessary in order to insure adequate operating pressures for customer located at higher elevations in the south and southwest portions of the Crown Point's planning area.

D. Pumping Stations

The Crown Point water distribution system includes two pumping stations: the north pumping station, located adjacent to the main 3.0 MG reservoir, and the Kaiser Park pumping station, which serves the south pressure zone. The following table presents a brief description of each station, including pressure zone served, pump number, horsepower rating, operating speed, and discharge capacity.

Table No. 18
Water Pumping Facilities
Performance and Operational Characteristics

Pumping Station	Pump No.	HP	Speed	Capacity	Zone Served
Main North Pumping Station	1	60	1,770 rpm	900 gpm	North Zone
	2	125	1,770 rpm	1,500 gpm	North Zone
	3	200	1,770 rpm	2,800 gpm	North Zone
	4	200	1,770 rpm	2,800 gpm	North Zone
	5	150	1,770 rpm	2,200 gpm	North Zone
Kaiser Park Pumping Station	1	50	1,770 rpm	1,180 gpm	South Zone
	2	50	1,770 rpm	1,180 gpm	South Zone
	3	50	1,770 rpm	1,180 gpm	South Zone

1. Main North Pumping Station

The main north pumping station is located adjacent to the 3.0 MG ground level storage tank near the intersection of Madison Street and St. Peter and Paul Drive. This station is equipped with five vertically mounted, split case centrifugal pumps. The two largest pumps are 200 HP units, operating at 1,770 rpm and rated for 2,800 gpm at 197' of head. There is (1) 60 HP pump rated for 900 gpm at 163' total head, (1) 125 HP pump rated 1,500 gpm at 197', and (1) 150 HP pump rated 1,800 gpm at 197' of head.

This pumping station takes suction from the main 3.0 MG reservoir and transfers water to the north pressure zone via a 24" diameter ductile iron transmission main running south on Broadway.

2. Kaiser Park Pumping Station

The Kaiser Park Pumping station is located at the northeast corner of the 1.0 MG below ground reservoir near the intersection of Main Street and Hemlock Lane in the City's south service zone. This station includes three 50-horsepower vertical turbine pumps which take suction from the below ground reservoir. These pumps alternate in operation and transfer water to the south pressure zone and to the 125th Avenue elevated storage tank. As previously discussed, a pressure sustaining valve is located on the Kaiser Park Reservoir supply line to maintain a minimum preset operating pressure in the dedicated transfer line. The pumps at the Kaiser Park station are equipped with variable frequency drives to conserve power and to reduce water hammer and line breakage due to velocity surges and flow reversal.

Q. What is the demand significance of the design of the Crown Point system you described above?

A. Since first contracting to purchase water from Northwest Indiana Water in 1997, the Crown Point system has been designed and built to limit the level the demand and volume on the IA's system. The new storage facilities will further reduce demand on IAW.

Since IAW's most recent rate case, the demand limiting storage and remotely adjustable intake valve facilities have lowered Crown Point's capacity factors. This lower demand was not taken into account in the IAW's Cost of Service Study. Also, the current 6.0 million gallons of storage allows Crown Point to meet additional demands on their own system during peak times and fire events, and certain weather events without impacting the IAW's system.

Crown Point completed a comprehensive review of its Water Master Plan in 2016. The Plan was prepared to evaluate the present condition and future needs of the Water Utility. The Plan identified total project costs of $32,464,000. Crown Point reviewed the estimated user rate impact of those costs and concluded that it would not be economically possible to complete all the projects at this time without creating a hardship on residents due to high water rates. Crown Point has identified critical projects totaling $19,306,000 and is in the process of issuing bonds to finance those projects. Crown Point closed on $9,181,383 of SRF Financing on December 14, 2018 to fund phase 1 of the critical projects. The City expects to issue additional bonds in 2019 to finance the remainder of the projects. The projects are summarized as follows:

- Repair of existing storage tanks;
- New, redundant storage tanks at Kaiser Park (1.0 MG) and at 96th Street (3.0 MG);
- New, mechanical mixers in elevated storage tanks;

- Energy-efficient improvements to the existing facilities;
- Three (3) new chlorine dosage facilities;
- Two (2) new booster stations;
- Water main looping for the Feather Rock, Regency, and Cooper Creek areas; and
- Replacement of undersized lines to provide fire flow protection.

Q. How does Crown Point's capital plan and substantial increased storage capacity relate to its need for lower IAW water rates for Crown Point?

A. The capital improvements including improvements to existing storage, construction of new storage may allow Crown Point to buy its water off peak and or on an interruptible basis, remain a customer of IAW and obtain the resulting savings for Crown Point's constituents.

VI. COST OF EQUITY

Q. Please explain the Cost of Equity attachments to your testimony.

A. My testimony in this area includes five attachments. Attachment 12 is a summary of the results we found for the Cost of Equity through the two methodologies (I also included our debt rate reduction analysis on this exhibit), which are developed further in Attachments 13A and 13B. Attachment 13A and 13B shows the calculation of the Cost of Equity through the DCF analysis. Attachment 14 shows the results of our CAPM approach. Attachment 15 is our historical and projected treasury yields. Attachment 16 is our comparison of the current requested cost of equity to the calculated DCF and CAPM cost of equity utilized in prior Causes.

Q. Do you take issue with the Company's proposed 10.80% Cost of Equity?

A. Yes, I do. I believe the proposed level of 10.80%, 105 basis points above the Company's currently authorized Cost of Equity of 9.75%, is too high. My testimony supports a cost of equity of approximately 9.00%. I believe 9.00% is fair for many reasons. The first reason is that the Company witnesses testified the Company has been able to reasonably attract capital from the market place at its current COE of 9.75% and is shown by the aggressive acquisition of utilities, and its high equity to debt ratio and the impressive earnings per share as shown on Attachments 25 and 26. The Company's ability to reasonably attract capital from the market is the intent of and result of a fair authorized Cost of Equity. The second reason is that the forward looking test year using forecast revenues and expenses and the Company's past and ongoing successive base rate increases about every two years help to protect and maintain the Company's cash flow and reduce the Company's risk. The third reason is the attractiveness of the Company's regulated water return to investors and the relative safe haven investment position American Waterworks equity enjoys during these turbulent economic times. The fourth reason, unlike energy utility services, water is essential to human life. Customers can, and have been known to, do without gas or electricity during the warmer non-heating shoulder and summer months. There are alternative energy sources for heating and cooking such as propane, coal and wood, but there is no alternative to potable water. As American Waterworks's public substantiate, the customer demand for water is far less impacted by price increases than the customer demand for energy services. This strong customer dependence on the Company's potable water strengthens its market presence, its future stream of revenues and reduces its risk. In addition to these considerations, I have reviewed and applied the Discounted Cash Flow ("DCF") and the Capital Assets Pricing Model ("CAPM') in reaching my recommended Cost of Equity.

Q. What was the Cost of Common Equity determined in the last two rate cases before this Commission?

A. In the rate Order for Cause No. 43680, the Order of the Commission states:

> *"Based on our discussion above, the Commission finds a 10.0% cost of equity is fair and reasonable. We find that this cost of equity will provide Petitioner an opportunity to earn a pre-tax interest coverage ratio that will preserve a "BBB+" bond rating and is high enough to compensate Petitioner for any marginal risks it faces."*

The Order in Cause No. 44022 states:

> *"When comparing the Parties' ROE proposals from Cause No. 43680 to those in this Cause, each of the Parties has proposed a lower cost of equity than in Cause No. 43680: Indiana-American – 0.5%; Schererville – 0.25%; Industrial Group – 0.5%; OUCC – 0.65%. In addition, Indiana-American's cost of debt has declined by 0.44% from 6.96% in Cause No. 43680 to 6.52% in this Cause. As a result, we believe that a decrease in Petitioner's ROE from the 10% authorized in the 2010 Rate Order, is warranted. Based on our discussion above, the Commission finds that a reasonable range for Petitioner's cost of equity is 9.50% to 10.00%, and we conclude that a 9.70% ROE equity is fair and reasonable."*

Q. What growth rate model did you use?

A. I have used a stable growth rate model. I have also used the same proxy group that Indiana-American has used. My Cost of Equity ranges from 7.52% to 8.61%. I recommend that the Company's Cost of Equity be set at 9.00%, as shown on Attachment 12.

PROXY GROUP

Q. Can the two models used, the DCF and the CAPM, be directly applied to a specific subsidiary company like Indiana-American Water Company, Inc.?

A. No. The DCF analysis and the CAPM are used to find the Cost of Equity for publicly traded companies. The Petitioner's stock is not publicly traded, and therefore, cannot apply the two models in finding its Cost of Equity. Because of this, a proxy group must be used to create estimation. It is very difficult to find a large proxy group that has the same business characteristics as the Company. The proxy group can often be a source of disagreement; however, I have chosen to use the same proxy group as Ms. Bulkley.

DISCOUNTED CASH FLOW ANALYSIS

Q. Please explain the importance of the discounted cash flow model and the factors it comprises.

A. The DCF analysis is used to find the Cost of Equity based on the Company's current price of their stock (P0), the expected dividend to be paid at the end of this year (D1), the Cost of Equity (k) and the expected constant growth rate (g). The cost of a security is found by discounting the expected cash flows or dividends by the Cost of Equity. The price of the stock is equal to the dividend at the end of this year divided by the Cost of Equity minus the growth rate:

$$P_0=D_1/(k-g).$$

The equation can be rearranged to solve for the Cost of Equity:

$$k=D_1/P_0 + g$$

In this equation, the investor expects to receive a dividend yield (D1/P0), plus a capital gain (g) for a total expected return of k. In the DCF analysis, both (D_1) (the dividends expected at the end of this year), and (g) (the growth rate) must be estimated.

Q. How did you estimate (D_1), the expected dividend at the end of Year One?

A. To find D_1, current annual dividends (D_0), must first be calculated. D_0 is found by multiplying the Company's most recent quarterly dividend by four. D_1 is then found by multiplying D_0 by one plus one-half the Company's expected growth rate. This method is the "one-half times growth methodology" for converting current yields to future yields. The Commission has accepted the one-half year growth methodology repeatedly.

In the Order in Cause No. 43680, approved April 30, 2010, the Commission stated:

> "The Commission has considerable experience with the DCF analysis for estimating the cost of equity. We are well aware of the advantages and limitations of the various approaches used by each of the witnesses…. In all cases, however, the Commission expects the parties to exercise sound judgment when deciding which inputs to include as part of their analyses."

And in Cause No. 42520, approved November 18, 2004, on Page 57, the Commission states:

> "For example, the half-year method used by the OUCC for calculating the forward years is the most frequently used approach in this jurisdiction and is rarely a point of contention in DCF analysis."

Q. How did you estimate the long run growth rate component (g) of the DCF analysis?

A. The long run dividend growth component we used in my DCF analysis was taken from our growth rate analysis that we prepared and have shown on Attachment 18. We utilized the average growth rate for each proxy company.

Q. Why did you do this?

A. In the Commission Order in Cause No. 42520, approved November 18, 2004, the Commission stated,

"As we have stated before, the Commission continues to believe that both historical and forecasted earnings, dividends and book value per share data are useful when employing the DCF analysis."

Q. Explain the results of your DCF study.

A. In order to get the estimated Cost of Equity for the Company, we found the Cost of Equity for each of the companies in the proxy group and averaged those Costs of Equity. The proxy group's Cost of Equity ranged from 6.73% to 10.39%, with the simple average being 8.43%.

CAPM ANALYSIS

Q. Please explain your CAPM analysis.

A. The CAPM identifies the relationship between risk and required rates of return on assets. It identifies the cost of capital by analyzing the risk premium. It assumes that the investor demands a higher return for higher risks in the market. The key ingredient in the CAPM approach is the beta coefficient, b. The beta coefficient measures the market risk, or systematic risk, involved with the stock being examined. An average-risk stock is one that tends to move up and down in step with the general market. A stock with average risk will have a beta, by definition, of 1.0. This indicates that the stock would move up 5% if the market moved up 5% or down 5% if the market moved down 5%. If a stock's beta is above 1.0, it is more volatile, and thus riskier than the average-risk stock. Conversely, if the stock's beta is less than 1.0, it is less volatile and therefore less risky than the average-risk stock. AWK enjoys a low beta of .60.

On our Attachment 19, we have determined the betas for each of the proxy company and the average of the proxy group using the most recent data found in Value

Line Pro from our system. This average beta, as you can see from the exhibit, calculated to be .70.

Q. Please explain the CAPM.

A. The CAPM formula is stated as:

$k = RF_c + b*(K_m - K_{rf})$ where,

k = Cost of Equity

RF_c = Current Risk Free Rate of Return

K_m = Market Equity Return

K_{rf} = Historical Risk Free Rate of Return

$K_m - K_{rf}$ = Expected Market Equity Risk Premium

b = beta

The Cost of Equity is equal to the current risk free rate of return, plus beta multiplied by the expected market equity risk premium ($k_m - k_{rf}$).

Q. What are some of the problem areas of the CAPM?

A. CAPM has many disputable areas that can cause the cost of capital to appear higher or lower than it actually is. The area with the largest dispute is the estimation of the market risk premium. A historical risk premium can be used, but this opens another controversy of whether to use a geometric mean or an arithmetic mean calculation.

Another area of controversy in the CAPM approach is the risk free rate of return. The risk free rate is supposed to be an investment that is completely free of risk.

Typically, investors use United States Treasury Security yields as the risk free rate of return. However, often there is a disagreement on the length of the Treasury Security that should be used in the analysis.

Q. In the past, has this Commission ruled on the subject of arithmetic mean premiums versus geometric mean risk premiums?

A. Yes. In the Order in Cause No. 42520, dated November 18, 2004, Page 59, the Commission stated:

> "We will continue to give both the geometric and arithmetic mean risk premiums substantial weight. Neither the arithmetic nor geometric mean risk premiums should be excluded in favor of the other."

Q. How did you estimate the risk free rate?

A - We have performed the CAPM analysis using each of the means and averaged their outcomes, giving no preference to one over the other. The historical risk free rates of return we used are on Attachment 14 for the Geometric Mean results. Therefore, the numbers were 10.2% (Large Company Stock Return) minus 5.1% (Long-Term Government Bond), which equals 5.1%. Using the Arithmetic Mean, the Large Company Stock Return is 12.1% less the Long-Term Government Bonds of 5.2%, which equals 6.9%.

The current risk free rate (RF_c) that I used is taken from Attachment 15. The thirty-year Treasury Security Yield, as of October 12, 2018, was 3.32%.

Q. What were the results of your CAPM studies?

A. The results of my CAPM studies can be found on Attachment 14. The Cost of Equity using the Arithmetic Mean was 8.15%, while the Cost of Equity using the Geometric Mean was 6.89%. The average of these two Costs of Equity is 7.52%.

OTHER FACTORS AND RECOMMENDATIONS

Q. What other information did you review, of American Water, during the process of developing your opinion?

A. I reviewed, in great length, all of the Value Line Pro information available on AWK and all of the proxy group utilities such as the information on Attachment 20 and 21. There is a substantial amount of material available through our subscription service. As I have gone through the IAW information, you get a real sense that IAW is doing quite well, operationally and financially. My Attachment 26 is a chart from the December 11, 2018 Investor Day Presentation showing AWK believes they are in fact doing well, see the title "Doing Well…by Doing Good".

Q. What other factors did you use in the development of your opinion on the Cost of Equity?

A. I also reviewed investor information and the ratings report of AWK, including the 2019 EPS in the top half of 7-10% EPS CAGR range, as shown on Attachment 25.

Q. In today's market, is a water utility return of 9.00% Cost of Equity reasonable for this Company?

A**.** Yes. In our opinion it is, or we would have recommended a different estimate. The Company is healthy and at this rate, the Company is expected to maintain that health, in

fact the Presentation slide, Attachment 25 shows 7-10% putting AWK in the "Top half of the Range", and Attachment 22 shows the increase in EPS for 2019-2023 plan.

Q. Do you have additional concerns related to the 10.80% request by IAW, and the testimony of Ann Bulkley?

A. Yes, it appears like witness Bulkley did nothing to individualize the cost of equity to IAW, or take into account any of the facts related to the State of Indiana. See Attachment 27 where 10.80% was used regardless of the state, size of the company, or the revenue recognition policy of the state. The cost of equity appears from this chart to be the "Cost of Equity to Request for 2018".

Q. Do you have a comment on the Municipal Services segment?

A**.** Yes. Again, because of the Cost of Service Study treatment of SFR customers in this and prior cases, my price squeeze concern still exists. I believe growth through privatization of customers like Crown Point is a part of IAW's and AWK's business strategy as you can see on Attachment 24. They are using capital plan dollars to acquire water utilities throughout the states including Indiana.

Q. What do you mean by the term price squeeze?

A. This is a term of art used in the utility industry, in the early 80s, on the Wholesale level, whereby certain suppliers of services were pricing their services on a residential basis lower than the price at which they were passing on to the cities. Therefore, it resulted in the Wholesale provider charging a typical residential customer (for example, $100) and when the City passed through the commodity cost and their cost (for example, $150), the City's residential bill ended up to be more expensive than the residential rate that the Wholesale provider was charging.

Q. If IAW gets its requested rates how would they compare to Crown Points?

A. If the Company was allowed this rate increase, Crown Point's residential rates and charges would be more expensive for larger usage than the Company's proposed residential rates.

Q. Should your not addressing one or more of the issues in this case be viewed as Crown Point's agreement or acquiescence to those matters?

A. No. This is a large case. We still have some matters under review, discovery pending and reserve the right to present supplemental information.

Q. Was your testimony and your Attachments 1 through 27 prepared by you or under your direct supervision?

A. Yes, they were.

Q. Does this conclude your testimony?

A. Yes, at this time.

VERIFICATION

I affirm under the penalties of perjury that my foregoing written testimony is to the best of my knowledge, information, and belief true and accurate.

Gregory T. Guerrettaz

12/21/2018
Date

CERTIFICATE OF SERVICE

The undersigned counsel hereby certifies that a copy of the foregoing document was served via electronic mail, this 21st day of December, 2018, upon the following:

INDIANA-AMERICAN
Hillary J. Close
Lauren M. Box
BARNES & THORNBURG LLP
11 South Meridian Street
Indianapolis, IN 46204
Hillary.close@btlaw.com
Lauren.box@btlaw.com
IAWC@btlaw.com

SULLIVAN VIGO
Jeffery A. Earl
LAW OFFICES OF LEWIS & EARL
52 West Main Street
Danville, IN 46122
jeff@lewisandearl.com

CAC; INCAA
Jennifer A. Washburn
Margo Tucker
CITIZENS ACTION COALITION
1915 West 18th Street, Suite C
Indianapolis, IN 46202
jwashburn@citact.org
mtucker@citact.org

TOWN OF WHITELAND
William W. Barrett
Stephen K. Watson
WILLIAMS, BARRET & WILKOWSKI
600 North Emerson Avenue
PO Box 405
Greenwood, IN 46142
wbarrett@wbwlawyers.com
swatson@wbwlawyers.com

OUCC
William I. Fine
Abby R. Gray
Daniel M. Le Vay
OFFICE OF UTILITY CONSUMER COUNSELOR
PNC Center
115 W. Washington Street, Suite 1500 South
Indianapolis, IN 46204
wfine@oucc.in.gov
agray@oucc.in.gov
dlevay@oucc.in.gov
infomgt@oucc.in.gov

TOWN OF SCHERERVILLE
J. Christopher Janak
Nikki G. Shoultz
Kristina K. Wheeler
BOSE MCKINNEY & EVANS LLP
111 Monument Circle, Suite 2700
Indianapolis, IN 46204
cjanak@boselaw.com
nshoultz@boselaw.com
kwheeler@boselaw.com

Industrial Group
Joseph P. Rompala
Bette Dodd
Tabatha Balzer
One American Square, Suite 2500
Indianapolis, IN 46282

Respectfully Submitted,
/s/ R. M. Glennon
Robert M. Glennon Atty No. 8321-49
Council for City of Crown Point

Counsel for City of Crown Point
Robert M. Glennon, Atty. No. 8321-49
Robert Glennon & Associates, P.C.
3697 N. Co. Rd. 500 E.
Danville, IN 46122
Telephone: (317) 852-2723
Facsimile: (317) 852-0115
Email: robertglennonlaw@gmail.com