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State of Florida

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: June 4, 2015

TO: Office of Commission Clerk (Stauffer)

FROM: Division of Economics (Bruce, Daniel, Hudson)
Division of Accounting and Finance (Archer, Cicchetti)
Division of Engineering (Watts)
Office of the General Counsel (Crawford, Mapp)

RE: Docket No. 140158-WS – Application for increase in water/wastewater rates in Highlands County by HC Waterworks, Inc.

AGENDA: 06/18/15 – Regular Agenda – Proposed Agency Action, Except for Issue Nos. 20 and 22 – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Brisé

CRITICAL DATES: 5-Month Effective Date Waived Through 06/18/15

SPECIAL INSTRUCTIONS: None

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Table of Contents

Case Background

HC Waterworks, Inc. (HC or Utility) is a Class B utility serving approximately 929 water customers in three subdivisions known as Leisure Lakes, Lake Josephine, and Sebring Lakes and 297 wastewater customers in Leisure Lakes in Highlands County. The Utility's service territory is located in the Southwest Florida Water Management District (SWFWMD). In the Utility's 2014 Annual Report, HC reported total operating revenues of $590,053 and total operating expenses of $519,944.

HC's last rate case proceeding was in Docket No. 100330-WS prior to the transfer from Aqua Utilities Florida, Inc. (Aqua) to HC.[1] Aqua's rates were based on a capband methodology in which systems were grouped together based on similar costs to serve with bills capped at a maximum affordability level. The groupings, based on similar costs to serve, were an effort to minimize the level of subsidization among customers.

By Order No. PSC-14-0314-PAA-WS, issued June 13, 2014, the Commission approved the transfer of Certificate Nos. 422-W and 359-S from Aqua to HC.[2] On October 2, 2014, HC filed its application for the rate increase at issue in the instant docket. Accompanying the Utility's application were minimum filing requirement schedules (MFRs) required by Section 367.081, Florida Statutes (F.S.), and Rule 25-30.437, Florida Administrative Code (F.A.C.). The Utility was notified of deficiencies in the MFRs on October 31, 2014. The deficiencies were corrected and December 16, 2014, was established as the official filing date.

The Utility requested that the application be processed using the Proposed Agency Action (PAA) procedure and a test year ended June 30, 2014. HC contends that its earnings are outside the range of reasonable returns. The Utility is requesting an increase to recover reasonable and prudent costs for providing service and a reasonable rate of return on investment, including the requested pro forma plant improvements. In its original application, HC requested final rates designed to generate annual revenues of $509,491 for water and $73,571 for wastewater. This represents a revenue increase of $103,463 (20.30 percent) for water and a decrease of $47,574 (64.66 percent) for wastewater.

By Order No. PSC-14-0685-PCO-WS, the Commission suspended the final rates proposed by the Utility to allow staff sufficient time to process this case.[3] A customer meeting was held on February 19, 2014. In a letter filed on March 13, 2014, the Office of Public Counsel (OPC) identified concerns with the MFRs and other information filed by HC in support of its rate

[1] Order No. PSC-12-0102-FOF-WS, issued March 5, 2012, in Docket No. 100330-WS, In re: Application for increase in water/wastewater rates in Alachua, Brevard, Desoto, Hardee, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities, Florida, Inc.

[2] Order No. PSC-14-0314-PAA-WS, issued June 13, 2014, in Docket No. 130175-WS, In re: Application for approval of transfer of certain water and wastewater facilities and Certificate Nos. 422-W and 359-S of Aqua Utilities Florida, Inc. to HC Waterworks, Inc. in Highlands County.

[3] Order No. PSC-14-0685-PCO-WS, issued December 10, 2014, in Docket No. 140158-WS, In re: Application for increase in water/wastewater rates in Highlands County by HC Waterworks, Inc.

increase. Letters from customers opposing the rate increase and water quality were also filed in the docket.

On April 29, 2015, staff met with OPC and the Utility to discuss revisions made to the MFRs. At the noticed meeting, all agreed that the Utility should refile its MFRs to address these issues as well as include any pro forma projects completed after the test year. Further, the Utility also agreed to renotice the customers to give them an opportunity to provide comments on the revised filing. On May 4, 2015, HC filed revised MFRs to address the revisions made to its original filing and to include additional pro forma items which occurred after the test year. The Utility's revised requested revenues are $545,113 for water and $76,774 for wastewater. These revised revenue levels represent additional increases of $35,622 (7.00%) and $3,203 (4.35%) over the prior noticed requested revenues for water and wastewater, respectively. The Utility sent a revised customer notice to the customers on May 4, 2015. The five-month statutory deadline for the Commission to address the Utility's requested final rates was May 18, 2015. However, by letter dated June 1, 2015, the Utility waived the five-month statutory deadline through June 18, 2015.

This recommendation addresses HC's request for final rates. The Commission has jurisdiction pursuant to Sections 367.081, Florida Statutes (F.S.).

Discussion of Issues

Quality of Service

Issue 1: Should the quality of service provided by HC be considered satisfactory?

Recommendation: Yes. Staff recommends that the condition of the water and wastewater treatment facilities are satisfactory and the water provided by HC is meeting applicable water quality standards, including primary and secondary standards, as prescribed in the Florida Department of Environmental Protection (DEP) rules. It also appears that the Utility has attempted to address customers' concerns. Therefore, staff recommends that the overall quality of service for the HC water and wastewater systems in Highlands County is satisfactory. (Watts)

Staff Analysis: Pursuant to Rule 25-30.433(1), F.A.C., in water and wastewater rate cases, the Commission shall determine the overall quality of service provided by a utility. This is derived from an evaluation of three separate components of the Utility operations. These components are the quality of the Utility's product, the operational conditions of the Utility's plant and facilities, and the Utility's attempt to address customer satisfaction. HC's compliance with the DEP and SWFWMD regulations, and customer comments or complaints received by the Commission, are also reviewed.

Quality of Utility's Product and Operating Conditions of the Utility's Plant and Facilities.

HC's service area is located in Highlands County. The raw water source is ground water, which is obtained from six wells, two in each of three service areas. The water treatment processing sequence is to pump raw water from the aquifer, force the raw water through filters (referred to hereinafter by their brand name, AdEdge), treat the water with chloramine (a mixture of chlorine and ammonia), store the treated water in a tank, and distribute.

In addition to primary contaminants, Section 367.0812, F.S., requires the Commission to consider secondary contaminants as part of the overall quality of service. Secondary contaminants are those contaminants a customer would likely notice because they impact things like color or smell. However, secondary contaminants are not a health risk and DEP does not typically undertake enforcement actions for secondary standards, unless another type of contaminant exceeds the maximum contaminant levels (MCL).

HC is current in all of its required chemical analyses. Staff reviewed the chemical analyses for both the Leisure Lakes and Lake Josephine/Sebring Lakes systems, with samples dated April 24, 2012. The laboratory tests show that HC's finished water product is below the MCLs allowed by DEP for primary contaminants and all but one secondary contaminant in the Leisure Lakes system, which was iron. Since the primary contaminants were within acceptable limits, DEP did not take action with respect to the iron content. Staff notes that no complaints have been filed by customers regarding iron. In addition, subsequent to those 2012 laboratory tests, Aqua installed the AdEdge filters which may have alleviated the iron problem. DEP requires these chemical analyses every three years, so the next test is due in 2015.

Samples taken on September 3, 2013, from both the Leisure Lakes and Lake Josephine/Sebring Lakes systems showed each system exceeded the MCLs for Total Trihalomethanes (TTHM) and Halo Acetic Acids (HAA5), also known as disinfection byproducts. These contaminants can have adverse health effects, and are tested annually unless levels exceeding the MCL are detected. When that happens, the Utility is required to issue notices to its customers and take steps to bring the water system(s) into compliance with DEP rules regarding disinfection byproducts. The Utility must then have its water systems tested quarterly until the levels are below the MCLs, and continue to test for two more quarters, issuing warning notices to customers each time. After three consecutive quarterly tests showing levels below the MCLs, the Utility is allowed to return to annual testing and to stop issuing notices to its customers.

To address this problem, in February 2014 HC converted the Leisure Lakes water treatment plant (WTP) from using free chlorine as a disinfectant to using chloramines. It proved to be effective in bringing the disinfectant byproduct levels into compliance with DEP rules. Therefore, in August 2014 it converted the Sebring Lakes WTP to chloramines, and completed the Lake Josephine conversion in September 2014. After its respective conversion, the lab results for each WTP showed acceptable levels of disinfection byproducts for three consecutive quarters, and each system has been cleared to return to annual testing. Thus, there appear to be no water quality compliance issues with this facility.

Staff also reviewed the Utility's last DEP Sanitary Survey Reports, dated September 25, 2014, for Lake Josephine/Sebring Lakes, and dated December 5, 2014, for Leisure Lakes. The Lake Josephine/Sebring Lakes report states the facility is in compliance. The Leisure Lakes report noted that the monthly operating reports (MORs) state that the system is operating over the permitted design capacity. The Utility was instructed by DEP to apply for a permit to re-rate or expand the water plant capacity. HC responded on December 22, 2014, stating that U.S. Water Engineering would perform a Capacity Analysis Report to address the issue. The Utility provided the Capacity Analysis Report to DEP on February 26, 2015. Based on HC's DEP compliance, staff recommends that the operational conditions of the WTPs are satisfactory.

The wastewater treatment plant (WWTP) is an extended aeration activated sludge facility, with chlorinated effluent sent to a percolation pond. Staff reviewed the last Compliance Evaluation Inspection performed by DEP, dated July 24, 2014. DEP stated that the lift station did not have a warning sign with an emergency telephone number posted. The Utility reported on July 25, 2014, that it had posted the required sign. When inspecting the plant, staff observed that the sign was in place. No subsequent compliance issues were reported by DEP. Based on HC's status with DEP, staff recommends that the operational condition of the WWTP is satisfactory.

The Utility's Attempt to Address Customer Satisfaction

A customer meeting was held in Sebring, Florida, on February 19, 2015. Ten of the Utility's customers attended the meeting and seven spoke. In addition to the customers who spoke at the meeting, four customers who attended the customer meeting sent written comments to the Commission. In conjunction with HC's filing of revised MFRs, the Utility sent a Revised Initial Customer Notice to its customers on May 4, 2015. Subsequent to that notice and as of

May 26, 2015, the Commission has received an additional 34 written comments, mostly from customers who did not attend the February 19, 2015 customer meeting. The majority of these customers wrote objecting to the rate increase.

Likewise, all of the customers who spoke at the customer meeting or wrote within the following three weeks were concerned about the rate increase. In addition to rates, these customers had concerns or questions about: (1) water quality and safety; (2) brown water that persisted for 11 days and damaged materials in the home; (3) low water pressure; (4) not receiving Precautionary Boil Water Notices (PBWN); and (5) the lack of available fire hydrants in the Lake Josephine area.

Water quality, safety, and brown water. All of the comments addressed the bad taste and/or smell of the water. This is due primarily to the high sulfur content of the raw groundwater. While not a primary contaminant or a health hazard, it does make the water unpleasant. The previous owner of the Utility had attempted to improve the aesthetics of the water by filtering out as much sulfur as it could with the AdEdge filters.

When HC took over operations after the transfer from Aqua, it found that the maintenance protocol instituted by the previous owner for the AdEdge filters was incorrect. The previous owner used recycled water (from previous backwashes) to backwash the filters in an attempt to clean them, which resulted in clogging the filter media, insufficient removal of the sulfur, as well as causing discoloration of the water. After researching the situation, HC determined and instituted the proper protocol for backwashing and maintaining the AdEdge filters by using clean water. The Utility meters the amount of water used for backwashing the AdEdge filters and records the amount daily.

As stated in the previous section, HC converted its WTPs to chloramines for disinfection, and tests conducted subsequent to each conversion show that the conversions were effective in bringing the contaminant levels to well below the DEP standards. However, DEP rules required HC to continue to issue the warning notices quarterly until three consecutive quarterly tests came back within the DEP standards. This appears to have caused confusion among the customers, who believed that the water was still unsafe to drink.

While the chloramine conversion corrected the problem with the TTHM/HAA5 levels, it exacerbated the secondary considerations of taste and odor for the customers. This was due to two factors: 1) the chloramines used to keep the disinfection byproduct levels low were less effective than free chlorine at disinfection, causing the chlorine residuals in the system to be too low according to DEP requirements and 2) the seasonal nature of the customer base. Because many customers are away for several months at a time, the water in some areas of the service territory would remain in the lines too long. This allowed the hydrogen sulfide (the source of the rotten egg odor) to reform in the lines, creating a chlorine demand and, thus, reducing the chlorine residual even further.

To reduce the reformation of hydrogen sulfide and to increase the chlorine residual to acceptable levels, the Utility instituted a flushing routine at appropriate points in its distribution system. Based on the historical location of problem areas, the Utility installed automatic flushers

at some points, and continued to manually flush other locations as needed. The Utility keeps a record of the quantity of water used to flush the system daily.

In flushing the system and backwashing the filters, staff believes that the Utility is taking the necessary actions to provide the best quality water possible at this location. Staff also believes that the Utility is properly monitoring and accounting for the amount of water used for these purposes.

As noted in the previous section, the most recent tests for all primary contaminants and chlorine residuals show that the water meets DEP standards and it is safe to drink. Additionally, the Utility has been diligent in its efforts to reduce the unpleasant odor and taste of the water given the naturally-occurring high sulfur content and the seasonal customer base.

Low water pressure. One customer who wrote to the Commission, noted that the Utility seemed to have frequent incidences of low water pressure. Staff reviewed DEP records regarding PBWNs, as the need to issue them can be triggered when the water pressure in the system goes below 20 psi. Staff found that HC issued PBWNs for the Leisure Lakes service area on four occasions between May 2014 and March 2015, three of which were triggered by low pressure in the system due to two line breaks and a power failure. All but one involved the entire service territory. HC issued six PBWNs for the Lake Josephine/Sebring Lakes area between September 2013 and March 2015. Four were for emergency repairs that involved a loss of pressure, and two were for preplanned repairs. All were limited to a small portion of the service territory. There does not appear to be an excessive number of low water pressure incidents, given the size of the systems.

Not receiving Precautionary Boil Water Notices. One customer at the February 19, 2015 customer meeting stated that he did not receive a PBWN one day last summer, and his wife became ill that evening. When he spoke with his neighbors the next day, he discovered that a notice had been issued the day before. He stated that, had he seen it, his wife would not have become ill.

In reviewing the PBWNs issued by the Utility, staff found that the incident described by the customer likely happened in connection with a PWBN issued on August 6, 2014, for 50 connections affected by a four-inch water line break at 10809 US Highway 27. The PBWN was rescinded on August 12, 2014, after the required number of laboratory tests were completed following the repair to the line. HC's report to DEP states that the PBWN was hand delivered to affected customers, as was the rescission notice. While not foolproof, this is a method accepted by DEP and it is generally an effective method for notifying customers. It appears that the Utility made a good faith effort to notify the customers.

Lack of available fire hydrants in the Lake Josephine area. One customer at the February 19, 2015 customer meeting expressed concern that there were no fire hydrants in the area when a neighbor's house caught fire, and the fire engine had to get water from Lake Josephine. He stated that they needed fire hydrants in the area. Under HC's tariff, private fire protection rates are available for general service customers which have a separate, dedicated fire line connection to their business. The water mains serving the Lake Josephine area vary in size from two inches to eight inches and are not suitable for the installation of fire hydrants at all customer locations

Staff notes that requirements concerning fire hydrants are under the jurisdiction of the local fire marshall.

After the customer meeting, HC met with customers who stayed behind to discuss issues they had raised. The following day, HC personally visited the customers who spoke at the meeting, except for one whom they were not able to contact, to follow up on quality of service comments made at the meeting. HC reported its actions in meeting with the customers in detail in a February 27, 2015 response to Customer Meeting and Engineering requests. Most of these customers' concerns dealt with billing issues or concerns with the disinfection byproducts in the water, and the Utility answered their questions during its follow-up visits. However, three customers in one neighborhood still had concerns with odor. The Utility increased the flushing schedule from four days per week to seven days per week in the area to resolve this issue. To date, these customers have not contacted HC again regarding the odor.

Staff reviewed the complaints in the Commission's Complaint Tracking System for the Leisure Lakes and Lake Josephine/Sebring Lakes systems from January 1, 2009, through December 31, 2013. Prior to the transfer to HC in July 2013, staff found 25 complaints for these systems filed with the Commission against the prior owner. Of these, 21 were billing complaints, 3 concerned low water pressure, and 1 customer wanted advance notice of system flushing. Subsequent to the transfer, staff found only three billing complaints. No quality of service problems were reported. The Utility resolved these complaints.

On January 15, 2015, staff sent a letter to DEP requesting information on complaints that were filed with DEP regarding these water systems from January 1, 2009, through December 31, 2013. DEP reported that it received two complaints regarding the Lake Josephine WTP during that time. One on September 30, 2011, regarding sand in the lines and low water pressure, and another on July 25, 2013, regarding sand in the pipes and smelly water. DEP reported two complaints from residents in the Leisure Lakes service territory on July 9, 2013, regarding a strong hydrogen sulfide odor. DEP investigated the complaints and ensured they were resolved. HC stated that no complaints have been filed with the Utility since it began operations as HC.

A summary of all complaints and comments received is shown in Table 1.

Table 1
Number of Complaints by Source

Subject of Complaint	PSC's Records (CATS)	Utility's Records	DEP Records	Docket Correspondence	Customer Meeting
Billing Related	24			5	
Opposing Rate Increase				33	7
Quality of Water	3		4	18	7
Quality of Service				8	2
Total*	27	0	4	64	16

* A complaint may appear twice in this table if it meets multiple categories.

Summary

Staff's analysis indicates the condition of the water and wastewater treatment facilities are satisfactory and the water provided by HC is meeting applicable water quality standards, including primary and secondary standards, as prescribed in the DEP rules. It also appears that the Utility has attempted to address the customers' concerns. Therefore, staff recommends the Commission find the overall quality of service for the HC water and wastewater systems in Highlands County is satisfactory.

RATE BASE

Issue 2: Should any adjustments be made to accumulated depreciation?

Recommendation: Yes. Accumulated depreciation for water and wastewater should be increased by $31,165 and $6,024, respectively. (Cicchetti)

Staff Analysis: Accumulated depreciation should be adjusted to reflect staff's audit findings the Utility did not dispute, retirements, and negative accumulated depreciation related to the purchase of the Utility in 2013.

Audit Finding 1 addressed certain items not reflected in the Utility's plant balances. Per Audit Finding 1, water accumulated depreciation should be decreased by $969. Per audit Finding 2, wastewater accumulated depreciation should be decreased by $24. Accumulated depreciation also should be decreased by $7,279 for the retirements associated with pro forma plant and retirements related to meter replacements.

Finally, accumulated depreciation should be decreased by $46,447 to remove the negative accumulated depreciation that was contained in certain accounts at the time the Utility was purchased from Aqua in 2013. Negative accumulated depreciation reduces accumulated depreciation and effectively increases rate base. Correspondingly, the negative acquisition adjustment associated with the purchase should be reduced by the same amount. The net effect of both adjustments is nearly zero. Writing off the negative accumulated depreciation against the acquisition adjustment will ensure there are not stranded assets on the Utility's books.

At the time HC Waterworks was purchased from AUF in 2013, two water accounts had negative depreciation totaling $40,399 and one wastewater account had negative depreciation totaling $6,048. Although uncommon, negative accumulated depreciation can occur due to the application of group depreciation and retirements being made in some instances at 75 percent of replacement cost. Usually, individual accounts with negative accumulated depreciation will be blended with the other accounts in the depreciation group and the negative accumulated depreciation will not be problematic. Furthermore, negative accumulated depreciation usually reverses over time as new investment is made in the group accounts. In the instant case, when HC was purchased from Aqua, specific plant accounts were identified and three of the accounts contained negative accumulated depreciation. Because a service company will now be operating the systems and costs will be allocated to the systems, there will not be significant investment in new trucks, tools, etc. by HC, and thus, the negative accumulated depreciation likely will not naturally reverse in the accounts over time. Such negative accumulated depreciation results in stranded assets on the books of the Utility and overstates a utility's net book value.

On March 13, 2015, OPC wrote a letter to the Commission, regarding its concerns in the docket. In the letter, OPC cited the transfer audit from Docket No. 130174-WS, the docket transferring the facilities from Aqua to HC. [4] The staff audit stated that, "Negative balances for

[4] Document No. 05755-13, Audit Control No. 13-199-2-3, report issued September 18, 2013, in Docket No. 130175-WS, In re: Application for approval of transfer of certain water and wastewater facilities and Certificate Nos. 422-W and 359-S of Aqua Utilities Florida, Inc. to HC Waterworks, Inc. in Highlands County.

accumulated depreciation are not a normal occurrence and in this case was not an issue until the Lake Josephine and Leisure Lakes systems were divested from the AUF water and wastewater rate band groupings. Such negative balances create a stranded asset with an indeterminable life on the utility's books and effectively overstate a utility system's net book value."

On April 3, 2015, staff held a noticed meeting to discuss, with interested parties, OPC's concerns. The meeting resulted in general agreement that the Utility should write off the negative accumulated depreciation against the negative acquisition adjustment thereby removing the negative accumulated depreciation from the Utility's books and correspondingly reducing the negative acquisition adjustment by the same amount. Staff recommends the Utility credit Account 341.50, Transportation Equipment, $20,000; credit Account 343.50, Tools, Shop & Garage Equipment, $20,952; credit Account 382.40, Outfall Sewer Lines, $6,139; and debit Account 114, Utility Plant Acquisition Adjustment (net), $46,447.

Staff recommends accumulated depreciation for water and wastewater be increased by $31,165 and $6,024, respectively. In summary, accumulated depreciation should be adjusted to reflect audit findings the Utility did not dispute, retirements, and negative accumulated depreciation associated with the purchase of the Utility in 2013. The recommended adjustments to accumulated depreciation are listed below in Table 2.

Table 2
Adjustments to Accumulated Depreciation

Description	Water Amount	Wastewater Amount
Per Audit Finding 1	$969	$0
Per Audit Finding 2	$0	$24
Retirement on Meter Replacements	$986	
Depreciation Associated with Pro Forma Items Addressed in Audit	$7,279	$0
Negative Accumulated Depreciation	($40,399)	($6,048)
Total	($31,165)	($6,024)
*Negative amounts indicate an increase to accumulated depreciation.		

Issue 3: Should any adjustments be made to the Utility's test year rate base?

Recommendation: The Utility's test year water rate base should be increased $1,546 and the Company's test year wastewater rate base should be increased $52. (Cicchetti)

Staff Analysis: Per the staff audit, $1,546 should be added to the Utility's test year water rate base to address certain items that had not been included in the Utility's plant balances. The $1,546 adjustment represents the simple average of an increase of $3,091. Similarly, an adjustment of $52 should be made to the Utility's test year wastewater rate base. The adjustment of $52 is the simple average of an increase of $103. Per the staff audit, the water CIAC simple average balance should be increased by $500. The accounts adjusted are listed below in Table 3.

Table 3
Rate Base Adjustments Per Staff Audit

Water Account	Description	Date in Service	Cost
301 Organization	Legal fees regarding Utility incorporation	6/26/14	$327
301 Organization	Transfer balance recorded wrong account	3/28/13	($298)
302 Franchises	Transfer balance recorded in correct account	3/28/13	$298
331 T&D Mains	Repair of broken water main	5/23/14	$1,978
335 Hydrants	Replaced hydrant	6/6/14	$3,144
335 Hydrants	Retire replaced hydrant at 75%	6/6/14	($2,358)
271 Water CIAC	Adjust simple average balance		$500
Wastewater Account	Description	Date in Service	Cost
351 Organization	Legal fees regarding Utility incorporation	6/26/14	$103

Issue 4: Should any adjustments be made to the Utility's pro forma plant additions?

Recommendation: Yes. The appropriate amount for pro forma plant additions is $41,246, net of retirements. (Cicchetti)

Staff Analysis: In its original filing, the Utility requested $23,425 of pro forma plant offset by associated retirements of $17,002 ($23,425 x .75). An additional $11,643 of pro forma plant was identified during the audit. These pro forma items were offset by associated retirements at 75 percent of $10,482, or $7,862. During the engineering inspection, $20,108 of pro forma plant related to the conversion of disinfection from free chlorines to chloramines at the Lake Josephine and Sebring Lakes water treatment facilities were identified. There are no offsetting retirements for the chloramine conversion costs because they are new, additional facilities that are not replacing existing facilities. Engineering staff has indicated these plant costs and the associated chemical costs are in addition to current costs. The Utility's revised filing, filed May 4, 2015, identified total pro forma plant additions of $38,451 net of retirements. The revised amount included additional completed projects and adjusted certain estimates to recognize final invoices. Staff adjusted the Utility's revised amount to recognize a retirement amount of $986 associated with meter replacements. The difference between the $41,246 shown in the table below and the $38,451 shown in HC's revised MFRs is the $11,643 identified in the audit minus the $7,862 for retirements minus the $986 for meter retirements ($38,451 + $11,643 - $7,862 - $986 = $41,246). The Utility has provided invoices for all of the pro forma plant additions. The following table lists the pro forma plant additions.

Table 4
Pro Forma Plant Additions

Description	Amount
Covered Bridge float switch	$755
Well pump at well #2, LL WTP*	$8,703
20 HP soft starter, LJ water plant*	$1,140
Generator automatic switch, LL*	$4,161
Generator automatic switch, LJ*	$5,125
Well #2, Lake Josephine*	$4,921
Generator automatic transfer switch*	$4,573
Generator automatic transfer switch*	$5,909
Viburnum and eucalyptus mulch	$1,161
Sebring Lakes chloramine treatment	$8,059
Service/Main leak repair, Ven. Pkwy	$4.040
Service line repair, Jasmine Street	$792
Service line repair, Park View Circle	$5429
Meter Replacements	$1314
Lake Josephine chloramine treatment	$12,049
Retirements at 75 percent	($26,885)
Net Plant Additions	$41,246
*Retirement at 75 percent	

All of the Utility's pro forma plant additions have been placed in service and invoices have been provided to verify the costs. Staff recommends the appropriate amount for pro forma plant additions is $41,246, net of retirements.

Issue 5: What are the used and useful percentages for the Utility's water and wastewater treatments, storage, distribution, and collection systems?

Recommendation: HC's WTPs should be considered 89.9 percent used and useful (U&U); its storage should be considered 100 percent U&U; its water distribution system should be considered 95.3 percent U&U; its WWTP should be considered 48.3 percent U&U; and its wastewater collection system should be considered 93.9 percent U&U. Staff recommends that wastewater purchased power and chemical expenses should be reduced by 8.05 percent for excessive infiltration and inflow (I&I). No adjustment is recommended for excessive unaccounted for water (EUW). Application of the U&U percentages to the average plant balances and the associated average accumulated depreciation balances results in a reduction to plant of $92,788 for water and $135 for wastewater. (Watts, Cicchetti)

Staff Analysis: The HC system is composed of three water systems (Leisure Lakes, Sebring Lakes, and Lake Josephine) and one wastewater system (Leisure Lakes). In October 2002, the Sebring Lakes system was interconnected with the Lake Josephine system to enable it to provide water to Lake Josephine customers as needed. In 2010, the valve connecting the Sebring Lakes and Lake Josephine systems was permanently opened to remedy system pressurization problems in the Lake Josephine water system. From that point forward, the two systems have been treated as one system by both DEP and the Commission. The capacities and characteristics of the respective component systems is shown in Table 5 below. The hydropneumatic tank at Sebring Lakes is used for system pressurization. Each of the systems uses chloramine for disinfection and AdEdge filters for sulfur removal.

Table 5
HC Waterworks Water Treatment and Distribution Facilities

		Lake Josephine		Sebring Lakes		Leisure Lakes	
WTP		Diameter	Capacity	Diameter	Capacity	Diameter	Capacity
	Well 1	8-inch	350gpm	10-inch	350gpm	8-inch	200gpm
	Well 2	8-inch	350gpm	10-inch	350gpm	4-inch	50gpm
	Total capacity:		700gpm		700gpm		250gpm
Storage		71,000 gal ground		15,000 gal ground 10,000 hydro		50,000 gal ground	
Distribution	8-inch PVC	715 linear feet		2,274 linear feet			
	6-inch PVC	15,334 linear feet		13,725 linear feet		10,546 linear feet	
	4-inch PVC	34,713 linear feet		3,025 linear feet		3,992 linear feet	
	3-inch PVC	14,205 linear feet					
	2-inch PVC	9,240 linear feet		2,140 linear feet		115 linear feet	
Hydrants		2		2		7	

Source: HC MFRs and data request responses; DEP reports

The Leisure Lakes WWTP is a 50,000 gallon per day (gpd) extended aeration activated sludge facility. The chlorinated effluent is disposed of in a two-cell rapid infiltration basin (percolation pond). The collection system is a network of force mains, collecting mains, and one lift station. The force mains consist of approximately 989 linear feet of 4-inch PVC pipe. The

collecting mains consist of approximately 13,567 linear feet of 8-inch PVC pipe. According to the Utility, there are 47 manholes.

HC's three WTPs, and their associated storage and distribution systems, were initially owned and operated independently of one another, and in their respective rates cases over the years the Commission has assigned each one different U&U percentages as were appropriate. Staff's analysis first considered the systems separately, then combined them using a weighted average to obtain a single U&U percentage for each component of the total system.

Excessive Unaccounted for Water

Rule 25-30.4325 (1)(e) , F.A.C., defines EUW as unaccounted for water in excess of 10 percent of the amount produced. Unaccounted for water is all water that is produced that is not sold, metered, or accounted for in the records of the Utility. Rule 25-30.4325(10), F.A.C., provides that to determine whether adjustments to plant and operating expenses, such as purchased electrical power and chemicals, are necessary, the Commission will consider all relevant factors as to the reason for EUW, solutions implemented to correct the problem, or whether a proposed solution is economically feasible. The unaccounted for water is calculated by subtracting both the gallons used for other purposes, such as flushing, and the gallons sold to customers from the total gallons pumped for the test year.

For the Leisure Lakes water system, the Utility's records indicated 21,202,786 gallons of water were produced during the test year, 5,570,000 gallons of water were sold to customers, and 13,879,154 gallons were used for other purposes. Thus, unaccounted for water is 8.3 percent of the amount produced, resulting in no EUW for this system.

For the Lake Josephine/Sebring Lakes water system, the Utility's records indicated 57,025,500 gallons of water were produced during the test year, 24,709,000 gallons of water were sold to customers, and 26,954,556 gallons were used for other purposes. Thus, unaccounted for water is 9.2 percent of the amount produced, resulting in no EUW for this system. Since neither system has EUW, there is no EUW for the combined system.

The amount of system flushing required to maintain the chlorine residual and the "freshness" of the water in the lines, together with the water necessary for backwashing the AdEdge filters, contributes to what appears to be an excessive amount of water (65.5 percent for Leisure Lakes and 47.3 percent for Lake Josephine/Sebring Lakes) used for "other purposes." The Utility reported the amount of water used for each purpose in its Water Audit Report submitted to SWFWMD in September 2014. SWFWMD expressed concerns via email about the amount of water used for flushing and backwashing. However, SWFWMD records indicate the Utility is actively working with SWFWMD to address its concerns. Staff notes that SWFWMD has not issued any formal citations in the matter.

Water Treatment Plant Used & Useful

Pursuant to Rule 25-30.4325(8), F.A.C., the U&U percentage of a WTP with storage is calculated by dividing the peak system demand by the firm reliable capacity (FRC). The system demand is based on the single maximum day in the test year less EUW, plus a fire flow and a growth allowance.

In the Order for the last rate case involving these systems (Order No. PSC-12-0102-FOF-WS, referenced in footnote 1, and hereinafter referred to as the Aqua Order), the Leisure Lakes WTP was stipulated to be 100 percent U&U. The Lake Josephine and Sebring Lakes WTPs had been separate Aqua systems with separate U&U percentages assigned. In the Aqua Order, since the two systems were permanently interconnected and treated as one system, the Commission assigned a U&U percentage of 85 percent based on a weighted average for the combined system. In the instant docket, staff calculated U&U percentages for the Leisure Lakes and Lake Josephine/Sebring Lakes WTPs and distribution systems, and combined them using a weighted average. The U&U analysis for each system will be discussed separately below, and the weighted average will be applied to the results.

Lake Josephine/Sebring Lakes WTP

Because the Utility has storage capacity for both the Leisure Lakes and Lake Josephine/Sebring Lakes systems, the FRC for each system is based on 16 hours of pumping excluding the largest well. The Lake Josephine WTP has two wells with a capacity of 350 gpm each, and the Sebring Lakes WTP also has two wells with a capacity of 350 gpm each. The four wells together have the capacity to pump 1,400 gpm. However, the AdEdge filters constrain the Utility to pumping a maximum of 200 gpm from each well to prevent damage to the filters, effectively limiting the maximum capacity of the four wells to 800 gpm. Thus, excluding one of the wells, the Lake Josephine/Sebring Lakes FRC is 576,000 gpd (600 gpm x 60 min/hr x 16 hrs).

The peak day of 395,400 gallons, which occurred on July 1, 2013, appears to be appropriate since it is not associated with unusual occurrences. Fire flow for the Utility's service area is 750 gpm for 2 hours, or 90,000 gpd. As discussed above, the Utility's EUW is zero. Pursuant to Rule 25-30.431, F.A.C., a linear regression analysis of the Utility's historical growth pattern results in 18 equivalent residential connections (ERCs) for the five-year statutory growth period. The Utility had an average of 649 ERCs for the test year, resulting in 609 gpd/ERC (395,400gpd/649ERCs). Thus, a growth allowance of 10,962 gpd is also considered. Therefore, calculating the U&U percentage pursuant to Rule 25-30.4325, F.A.C., yields 86.2 percent U&U for the Lake Josephine/Sebring Lakes WTP. [(395,400 gpd – 0 gpd + 90,000 gpd +10,962 gpd)/576,000 gpd]

Leisure Lakes WTP

The Leisure Lakes WTP has one well with a capacity of 200 gpm and one well with a capacity of 50 gpm each. Thus, excluding the larger well and using the equation for systems with storage, the Leisure Lakes FRC is 48,000 gpd (50 gpm x 60 min/hr x 16 hrs).

The peak day of 250,000 gallons, which occurred on June 30, 2014, appears to be appropriate since it is not associated with unusual occurrences. Fire flow for the Utility's service area is 500 gpm for 2 hours, or 60,000 gpd. As discussed above, the Utility's EUW is zero. Pursuant to Rule 25-30.431, F.A.C., a linear regression analysis of the Utility's historical growth pattern results in 23 ERCs for the five-year statutory growth period. The Utility had an average of 300 ERCs for the test year, resulting in 833 gpd/ERC (250,000gpd/300ERCs). Thus, a growth allowance of 19,159 gpd is also considered. Therefore, calculating the U&U percentage pursuant to Rule 25-30.4325, F.A.C., yields 100 percent U&U for the Leisure Lakes WTP. [250,000 gpd – 0 gpd + 60,000 gpd +19,159 gpd)/48,000 gpd]

Consolidated HC WTP system

As discussed previously, the Commission previously combined the Lake Josephine and Sebring Lakes WTP U&U percentages by applying a weighted average to the separate U&U percentages for each system. Following the same procedure, staff recommends that the consolidated HC WTP system be considered 89.9 percent U&U. [(72.9 x 86.2 + 27.1 x 100)/(72.9 + 27.1) = 89.9%, based on percentage of water pumped for each system]

Storage Used & Useful

Pursuant to Rule 25-30.4325(8), F.A.C., for water systems with storage, if the storage capacity is less than the peak demand, the storage system should be considered 100 percent U&U. For HC, since the storage capacity for each system (86,000 gallons for Lake Josephine/Sebring Lakes, and 50,000 gallons for Leisure Lakes) is less than the peak demand (395,400 gallons for Lake Josephine/Sebring Lakes, and 250,000 gallons for Leisure Lakes), the storage system should be considered 100 percent U&U.

Infiltration and Inflow (I&I)

Typically, infiltration results from groundwater entering a wastewater collection system through broken or defective pipes and joints; whereas, inflow results from water entering a wastewater collection system through manholes or lift stations. By convention, the allowance for infiltration is 500 gpd per inch diameter pipe per mile, and an additional 10 percent of residential water billed is allowed for inflow. Rule 25-30.432, F.A.C., provides that in determining the amount of U&U plant, the Commission will consider I&I. Additionally, adjustments to operating expenses such as chemical and electrical costs are also considered necessary.

All wastewater collection systems experience I&I. The conventions noted above provide guidance for determining whether the I&I experienced at a WWTP is excessive. Staff calculates the allowable infiltration based on system parameters and allowable inflow based on water sold to customers. The sum of these amounts is the allowable I&I. Staff next calculates the estimated amount of wastewater returned to the WWTP from customers. The estimated return is determined by summing 80 percent of the water sold to residential customers with 90 percent of the water sold to non-residential customers. Adding the estimated return to the allowable I&I yields the maximum amount of wastewater that should be treated by a WWTP without incurring

adjustments to operating expenses. If this amount exceeds the actual amount treated, no adjustment is made. If it is less than the gallons treated, then the difference is the excessive amount of I&I.

The Utility has 13,567 feet of 8-inch collecting mains. Given these parameters and performing the necessary conversions to express the result in gallons per year (gpy), the allowance for infiltration is 3,751,481gpy.

[500gpd x 8 x (13,567ft/5,280ft/mi)] x 365days/year = 3,751,481gpy

The Utility's records indicated that it billed for wastewater based on 5,517,000 gallons of water demand for its residential customers during the test year. Thus, the allowance for inflow is 10 percent of that amount, or 551,700gpy. Therefore, the total allowance for inflow and infiltration is 4,303,181gpy.

3,751,481gpy +551,700gpy = 4,303,181gpy

The Utility reported the total number of water gallons billed to all wastewater customers during the test year was 5,570,000 gallons (5,517,000 residential, 53,000 non-residential). Estimating the residential return at 80 percent and the non-residential return at 90 percent, the total estimated return to the WWTP is 4,461,300 gallons. Thus, the estimated maximum amount of wastewater that the WWTP should treat, the estimated return plus the allowable I&I, is 8,764,481 gpy. Any amount treated in excess of this amount is considered excessive I&I.

According to the Utility's Discharge Monitoring Reports filed with DEP, the Utility treated 9,532,000 gallons of wastewater during the test year. This is greater than the estimated maximum amount allowable. Therefore, the excessive I&I is 767,519 gpy.

9,532,000gpy - 8,764,481gpy = 767,519gpy

Expressed as a percentage of wastewater treated, it is 8.05 percent.

767,519gpy/9,532,000gpy = 8.05%, or 3,614 gpd

Thus, an 8.05 percent adjustment to wastewater purchased power and chemical operation and maintenance expenses should be made for excessive I&I.

Wastewater Treatment Plant

Pursuant to Rule 25-30.432, F.A.C., the U&U analysis of the Utility's WWTP is based on customer demand compared with the permitted plant capacity, with customer demand measured on the same basis as permitted capacity. HC's WWTP is permitted on the basis of Annual Average Daily Flow. Consideration is given for growth and I&I. Pursuant to Rule 25-30.431, F.A.C., a linear regression analysis of the Utility's historical growth pattern results in 18.5 ERCs for the five-year statutory growth period. The Utility had an average of 297 ERCs for the test

year, resulting in 87.9 gpd/ERC (26,115 gpd/297 ERCs). Thus, a growth allowance of 1,626 gpd is also considered. Based on the annual average daily flow during the test year of 26,115 gpd, the DEP permitted plant capacity of 50,000 gpd, the growth allowance of 1,626 gpd, the excessive I&I of 3,614 gpd, and pursuant to Rule 25-30.432, F.A.C., staff recommends that the WWTP be considered 48.3 percent U&U. [(26,115 gpd -3,614 gpd + 1,626 gpd)/50,000 gpd]

Water Distribution and Wastewater Collection Systems

The used and useful calculations for the water distribution and the wastewater collection systems are based on the number of customers connected to the systems divided by the capacity of the systems, consideration is given for growth. As with the Utility's WTP systems, staff calculated the Leisure Lakes and Lake Josephine/Sebring Lakes distribution systems' U&U percentages separately, then applied a weighted average to obtain the system U&U percentage.

The Lake Josephine/Sebring Lakes distribution system had 625 test year connections, 678 lots fronting mains, and a growth allowance of 18 connections, yielding a 94.8 percent U&U. [(625 + 18)/678] The Leisure Lakes distribution system had 300 test year connections, 335 lots fronting mains, and a growth allowance of 23 connections, yielding a 96.4 percent U&U. [(300 + 23)/335] Applying the weighted average, staff recommends that HC's water distribution system be considered 95.3 percent U&U. [(66.9 x 94.8 + 33.1 x 96.4)/(66.9 + 33.1) = 95.3%, based on percentage of lots connected for each system]

For the wastewater collection system, the Utility had 296 test year connections, 335 lots fronting mains, and a growth allowance of 18.5 connections. Therefore, staff recommends that the Utility's wastewater collection system be considered 93.9 percent U&U. [(296 + 18.5)/335]

Summary

Based on the analysis above, staff recommends HC's WTP should be considered 89.9 percent U&U; its storage should be considered 100 percent U&U; its water distribution system should be considered 95.3 percent U&U; its WWTP should be considered 48.3 percent U&U; and its wastewater collection system should be considered 93.9 percent U&U. Staff recommends that wastewater purchased power and chemical expenses should be reduced by 8.05 percent for excessive I&I. No adjustment is recommended for EUW. Application of the U&U percentages to the average plant balances and the associated average accumulated depreciation balances results in a reduction to plant of $92,788 for water and $135 for wastewater.

Issue 6: What is the appropriate working capital allowance?

Recommendation: The appropriate amount of working capital is $38,606 for water and $9,432 for wastewater. (Cicchetti, Archer)

Staff Analysis: Working capital is defined as the short-term investor supplied funds necessary to meet the operating expenses of the utility. Consistent with Rule 25-30.433(2) F.A.C., as applicable to Class B water and wastewater utilities, the one-eighth of operation and maintenance expense (O&M) approach was used to determine the working capital allowance. Applying this approach, staff recommends a working capital allowance of $38,606 ($308,850/8) for water and $9,432 ($75,454/8) for wastewater. Staff increased the Utility's requested working capital allowance by $338 for water and decreased the working capital allowance by $63 for wastewater to achieve one-eighth of staff's recommended O&M expense.

Staff recommends the appropriate amount of working capital is $38,606 for water and $9,432 for wastewater.

Issue 7: What are the appropriate water and wastewater rate bases for the test year ended June 30, 2014?

Recommendation: The appropriate water rate base for the test year ended June 30, 2014 is $1,835,835 for water and the appropriate wastewater rate base is $48,180. (Cicchetti, Archer)

Staff Analysis: The appropriate components of the Utility's rate base include utility plant in service, land, contributions-in-aid-of-construction (CIAC), accumulated depreciation, amortization of CIAC, and working capital. In its revised MFR's, the Utility recorded rate base of $1,919,146 for water and $45,460 for wastewater. Staff has calculated water and wastewater rate bases using the Utility's revised MFRs with adjustments as recommended in the preceding issues. Accordingly, staff recommends that the appropriate rate base for the test year ended June 30, 2014 is $1,835,835 for water and $48,180 for wastewater. Staff's recommended water and wastewater rate bases are shown on Schedule Nos. 1-A and 1-B, respectively. Staff's adjustments are shown on Schedule 1-C.

COST OF CAPITAL

Issue 8: What is the appropriate return on equity?

Recommendation: Based on the Commission leverage formula currently in effect, the appropriate allowed return on common equity (ROE) is 9.52 percent with an allowed range of plus or minus 100 basis points. (Cicchetti, Archer)

Staff Analysis: The ROE included in the Utility's MFR's is 9.52 percent. Based on the current leverage formula in effect and an equity ratio of 67.48 percent, the appropriate ROE is 9.52 percent.[5] Staff recommends an allowed return on common equity of 9.52 percent with a range of plus or minus 100 basis points be approved for ratemaking purposes.

[5] Order No. PSC-14-0272-PAA-WS, issued May 29, 2014, in Docket No. 140006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4) (f), F.S.

Issue 9: What is the appropriate weighted average cost of capital including the proper components, amounts, and cost rates associated with the capital structure for the test year ended June 30, 2014?

Recommendation: The appropriate weighted average cost of capital for the test year ended June 30, 2014 is 7.79 percent. (Cicchetti)

Staff Analysis: In its filing, the Utility requested an overall cost of capital of 7.79 percent. Staff reviewed the Utility's MFR's, balance sheet, and amounts and cost rates relating to the capital structure and overall rate of return and, other than reconciling rate base to the capital structure, made no adjustments to the Utility's request.

Staff recommends the appropriate weighted average cost of capital for the test year ended June 30, 2014 is 7.79 percent. The appropriate weighted average cost of capital including the proper components, amounts, and cost rates associated with the capital structure for the test year ended June 30, 2014 are shown on Schedule No. 2.

NET OPERATING INCOME

Issue 10: What are the appropriate amounts of test year revenues for the Utility's water and wastewater systems?

Recommendation: The appropriate amount of test year revenues for HC's water and wastewater systems are $439,875 and $121,099, respectively. (Bruce)

Staff Analysis: In its MFRs, HC's adjusted test year revenues were $395,654 for water and $121,146 for wastewater. The water revenues included $380,490 of service revenues, $13,021 of miscellaneous revenues, and $2,144 of revenues from Allowance for Funds Prudently Invested (AFPI) charges. The wastewater revenue of $121,146 consisted of only service revenues. In review of the Utility's adjusted test year revenues for water, staff found that the Utility understated test year revenues by reversing a prior period accrual of $48,000. In addition, the Utility used incorrect billing determinants in each rate block when calculating test year service revenues. Also, the Utility adjusted the incorrect rate block when issuing customer credits during the test year.

Based on the appropriate billing determinants, staff applied the current rates in effect and determined that the service revenues should be increased by $44,242 for water and decreased by $47 for wastewater. Therefore, total service revenues for the water and wastewater systems should be $424,732 and $121,099, respectively. The Utility recorded $13,021 for miscellaneous revenues for the water system. Staff determined that the miscellaneous revenues should be $13,810 and were increased by $789. The Utility recorded revenues from AFPI charges of $2,144; however, staff determined those revenues should be $1,333, a decrease of $811. There are no miscellaneous revenues for the wastewater system. Based on the above, staff recommends that the appropriate amount of test year revenues for HC's water and wastewater systems are $439,875 ($424,732 +13,810+ $1,333) and $121,099, respectively.

Issue 11: Should any adjustments be made to the Utility's test year operations and maintenance expenses?

Recommendation: Yes. Operation and maintenance expenses should be decreased $226 for water and increased $364 for wastewater. (Cicchetti, Archer)

Staff Analysis: In its filing, the Utility requested recovery of contractual costs for operations and administrative services of $197,447 for water and $58,362 for wastewater. The outside services contract amount is with an affiliated company, U.S. Water Services Corporation (USWSC). On March 13, 2015, OPC filed a second letter delineating a list of concerns regarding contract costs. Certain of the costs are allocated to multiple systems and certain costs are directly assigned to HC Waterworks. OPC's concerns related to both allocated administrative costs applicable to multiple systems and to costs directly assigned from USWSC to HC Waterworks. On March 19, 2015, the Utility filed a letter with the Commission Clerk responding to OPC's concerns regarding the contract costs. Staff reviewed OPC's concerns and the Utility's response and concluded that certain allocated administrative expenses should be adjusted.

Based on its review, staff recommends adjustments be made to the management services contract amount for both water and wastewater administrative cost of salaries, fuel, and for vehicle maintenance. Staff's recommended adjustments are addressed below.

Allocated Administrative Expenses

Salaries

Allocated administrative expense included salaries for two positions-Utility Manager and Accountant. Overtime of five percent was included for these salaried positions. The Utility indicated this was an oversight. Administrative expenses are allocated on the basis of ERCs. Staff reduced the administrative cost for salaries by $999 for water and $306 for wastewater based on the total amount of the adjustment and the ratio of water and wastewater ERCs to total ERCs.

Vehicles-Fuel

Allocated vehicle fuel expense was based on a cost of $1,100 per month or $13,200 annually. The Utility indicated its most recent analysis showed the cost should be $479 per month or $5,748. Staff reduced allocated fuel expense by $1,379 annually for water and $422 annually for wastewater based on the total amount of the adjustment and the ratio of HC Waterworks water and wastewater ERCs to total ERCs.

Vehicles-Maintenance

Allocated vehicle maintenance expense was based on an annual cost of $2,400 for each vehicle. The Utility indicated the actual 2014 cost for vehicle maintenance was $1,204 per vehicle. Staff reduced allocated vehicle maintenance expense by $222 for water and $68 for wastewater based on the total amount of the adjustment and the ratio of HC Waterworks water and wastewater ERCs to total ERCs.

Total Cost of the Management Services Contract

In response to staff's second data request regarding officer's salaries, the Utility emphasized that the CEO of HC has considerable management and operator experience and expertise that is especially beneficial to a small company such as HC Waterworks. HC Waterworks maintains no hourly employees, vehicles, computers, or offices.

The services provided by USWSC include:

- Water Operations (water treatment plant, filtration, etc.)
- Wastewater Operations
- Meter Reading
- System Maintenance (water and wastewater)
- Flushing (distribution system)
- Lift Station Maintenance and Operation
- Billing and Collection
- Customer Service
- Service Orders
- Regulatory Relations (FPSC, DEP, WMD)
- Permitting (DEP, DOH, WMD, etc.)
- Testing (all testing required for water and wastewater)
- Monthly Reporting (DMR's, MOR's)
- Annual Reporting (FPSC annual report, CCR's)
- Accounting (all bookkeeping, record keeping, accounts receivable, accounts payable, etc.)
- Meter Replacements
- Line Break Repairs
- Minor Repairs and Replacements (up to $400)
- Locates, Meter Calibrations (water and wastewater)
- Backflow Preventor Testing
- Turn-Ons and Turn-Offs
- Disconnections
- Re-Reads
- Generator Maintenance
- Tank Inspections
- Vehicles, and Office
- Office Equipment (phones, computers, etc.)

The requested contract cost of $197,447 for water and $58,362 for wastewater equates to $214 per ERC for water and $206 per ERC for wastewater for a total average cost of $212 per ERC. After the adjustments recommended above of $2,600 ($999 + $1,379 + $222) to water and $796 ($306 + $422 + $68) to wastewater, the per ERC cost is $211 for water and $203 for wastewater for an average cost of $209 per ERC. These amounts are comparable to the amounts allowed in Docket No. 130194-WS[6], which were $205 per ERC for water and $200 per ERC for wastewater for a total average cost of $203 per ERC. In a letter dated December 9, 2014, the Utility presented evidence that the cost per ERC to HC compares favorably to similar Florida Governmental Utility Authority (FGUA) contracts with USWSC which were priced at $264 per ERC and to contracts evaluated in an American Water Works Association (AWWA) study which ranged from $269 to $383 per ERC for water and $295 to $478 per ERC for wastewater. The AWWA study also indicated that for small water and wastewater utilities (0-10,000 customers) the cost per ERC ranged even higher from $716 to $1,130 per ERC. Finally, the Utility states in its letter, "If HCWW was required to establish a stand-alone utility with personnel for maintenance, customer service, accounting, regulatory compliance, etc. the costs would far exceed the amount in the current USWSC contract."

The USWSC provided its costing and allocation model to the staff and OPC. Staff reviewed the model and its inputs and allocation procedures and, with the exception of the items for which staff has made adjustments, found the model to be reasonable. In particular, evaluation of the model revealed USWSC added 1,000 projected ERCs to total ERCs which serves to spread the costs over a larger base and lowers the cost per ERC. USWSC indicated it does this to recognize potential future ERCs that are expected to be added through growth or acquisitions. Additionally, USWSC did not include any salary for the Manager of Regulated Utilities in administrative services cost. The Utility stated that excluding this salary lowers costs to customers.

In conclusion, staff believes the adjusted cost of the management services contract with USWSC is reasonable. The contract cost is comparable to the cost allowed in Lakeside Waterworks, Inc.'s rate case, Docket No. 130194-WS, and is lower than similar contract costs that have been identified. USWSC and its managers bring considerable management and operator experience and expertise at a comparably reasonable cost. By spreading costs over multiple systems, and adding ERCs to recognize potential future growth, HC Waterworks' customers are realizing operational and cost benefits that would not be available if the Utility operated on a stand-alone basis. Staff recommends that the adjusted total cost of the management services contract of $194,847 for water and $57,566 for wastewater be approved.

Conclusion

Based on the analysis of the Utility's filing and responses to data requests, staff recommends total O&M expense of $308,847 for water and $75,454 for wastewater. These

[6] See Order No. PSC-15-0013-PAA-WS, issued January 2, 2015, in Docket No. 130194-WS, In re: Application for staff-assisted rate case in Lake County by Lakeside Waterworks, Inc.

amounts represent a decrease of $226 for water O&M expense and an increase $364 for wastewater O&M expense.

Issue 12: Should any adjustments be made to the Utility's test year wastewater chemical and purchased power expenses for inflow and infiltration (I&I)?

Recommendation: Yes. Wastewater chemicals and purchased power expenses should be decreased $320 and $245, respectively, for a total adjustment of $565 for excessive I&I. (Watts, Cicchetti, Archer)

Staff Analysis: Rule 25-30.432, F.A.C., provides that in determining the amount of used and useful plant, the Commission will consider I&I. Typically, infiltration results from ground water entering a wastewater collection system through broken or defective pipes and joints, whereas inflow results from water entering a wastewater collection system through manholes or lift stations. The allowance for infiltration is 500 gpd per inch diameter pipe per mile, and an additional 10 percent of water sold is allowed for inflow. As addressed in Issue 5, staff recommends an excessive inflow and infiltration percentage of 8.05 percent. As a result, staff reduced wastewater purchased power expense by $320 and chemicals expense by $245 for a total reduction of $565 to address excessive I&I.

Issue 13: Should any adjustments be made to the Utility's depreciation expense?

Recommendation: Yes. Depreciation expense should be decreased $8,158 for water and increased $4,757 for wastewater. (Cicchetti, Archer)

Staff Analysis: Per staff Audit Findings 1 and 2, which the Utility did not dispute, increases of $36 for water and $357 for wastewater should be added to the Utility's test year depreciation expense to address certain items associated with plant balances. Per staff Audit Finding 9, which the Utility did not dispute, wastewater CIAC amortization expense should be decreased by $4,568 to recognize the correct composite rate. This results in an increase in wastewater depreciation expense of $4,568. Water depreciation expense also should be increased $58 to recognize the additional pro forma items identified in the audit and decreased $8,252 for water and $168 for wastewater to recognize staff's adjustments to the used and useful percentages. The net result of these adjustments is a decrease of $8,158 for water depreciation expense and an increase of $4,757 for wastewater depreciation expense.

Issue 14: Should any adjustments be made to the Utility's amortization expense?

Recommendation: Yes. Amortization expense associated with the negative acquisition adjustment should be decreased $9,660 for water and $3,456 for wastewater. (Cicchetti, Archer)

Staff Analysis: As discussed in Issue 2, the Utility's negative acquisition adjustment was reduced to reflect the elimination of negative accumulated depreciation. Consequently, the amortization of the negative acquisition adjustment also should be reduced. Staff has reduced the amortization of the negative acquisition adjustment by $3,938 for water and $3,182 for wastewater to recognize the reduction of the negative acquisition adjustment. Additionally, the amortization of the acquisition adjustment should be reduced by $5,722 for water and $274 for wastewater to recognize the non-used and useful portion of the acquisition adjustment. The total adjustment to the Utility's amortization expense is a reduction of $9,660 for water and $3,456 for wastewater.

Issue 15: Should any adjustments be made to taxes other than income taxes (TOTI)?

Recommendation: Yes. Taxes other than income taxes should be decreased $6,740 for water and increased $1,703 for wastewater. (Cicchetti, Archer)

Staff Analysis: Taxes other than income taxes have been reduced by staff in the amount of $4,736 for water and increased by $1,995 for wastewater to reflect the revenue adjustments cited above. The balances of TOTI were also decreased by $2,042 for water and by $292 for wastewater to reflect changes to non-used and useful plant. Finally, the balance was increased by $38 for water to reflect property tax on the additional pro-forma plant.

The net impact of the recommended adjustments results in a decrease to the balance of TOTI of $6,740 for water and an increase of $1,703 for wastewater.

Issue 16: What is the appropriate amount of rate case expense for the current case?

Recommendation: The appropriate amount of rate case expense for the current case is $8,036. This represents rate case expense of $6,091 for water and $1,945 for wastewater. Amortized over 4 years, this represents an annual rate case expense of $1,522 for water and $486 for wastewater. As a result, staff has increased annual rate case expense for water by $216 and for wastewater by $69. (Cicchetti, Archer)

Staff Analysis: The Utility originally requested $6,895 of estimated rate case expense. This amount included the Utility's filing fee, notices for the customer meeting and for final rates, and travel costs to attend the Agenda Conference. The Utility subsequently requested an additional $1,141 and has provided invoices for the amounts already incurred. Staff believes the amount of rate case expense requested is reasonable and has included these amounts in the recommended total rate case expense. The following table shows the Utility's requested rate case expense:

Table 13
Rate Case Expense

Description	MFR B-10	Additional Request	Revised Total
Notice-Customer Meeting	$972	$11	$983
Notice-Final Rates	$972	$11	$983
Travel-customer Meeting	$225	$538	$763
Filing Fee	$4,500		$4,500
Travel-PAA Agenda	$225	$582	$807
Total	$6,895	$1,141	$8,036

In summary, the appropriate amount of rate case expense for the current case is $8,036. This represents rate case expense of $6,091 for water and $1,945 for wastewater. Amortized over 4 years, this represents an annual rate case expense of $1,522 for water and $486 for wastewater.

Issue 17: What is the appropriate amount of bad debt expense for the test year ending June 30, 2014?

Recommendation: The appropriate amount of bad debt expense is $7,434 for water and $2,047 for wastewater. Test year bad debt expense should be reduced by $6,295 for water and increased by $1,656 for wastewater. (Cicchetti, Archer)

Staff Analysis: In its letter of concerns dated March 13, 2015, regarding bad debt expense as a percentage of revenue, OPC stated it is:

> "...concerned that the requested 2.55% for water is unreasonable and unsupported." OPC went on to say it also "...has concerns with the Company's use of one data point in time to support its bad debt write-offs. The Commission historically uses a 3 to 5 year average of bad debts expense to use for prospective rates. While we recognize that the test year was the first year of operation for the new owner, another year has almost passed since the purchase. Since HCWW has only had two years of operating experience, OPC would like to see what has happened in the most recent twelve months regarding bad debt expense and write-offs."

On March 17, 2015, the Utility responded to OPC's letter of concerns. In its response, the Utility stated, "HC Waterworks now records Bad Debt Expense monthly based on its actual Aged Accounts Receivable report for balances over 60-days." The Utility further stated "that in the last rate case for these systems, the Commission approved a bad debt expense of 1.67%." Finally, the Utility reported in its letter of response "HC Waterworks bad debt for its first full year of operation ending December 31, 2014 was 1.69%."

The Commission's practice is to allow the most recent three-year average for bad debt expense. Because the Utility has less than two-years of actual operating experience this is not possible. Staff believes the Utility's most recent full year experience for bad debt expense of 1.69 percent of revenues is reasonable. The 1.69 percent of revenues compares favorably to the 1.67 percent the Commission allowed for this Utility in its last rate case.[7] Staff has decreased bad debt expense $6,295 for water and increased bad debt expense $1,656 for wastewater to reflect bad debt expense based on 1.69 percent of test year revenues. Staff recommends the appropriate amount of bad debt expense is $7,434 for water and $2,047 for wastewater.

[7] Order No. PSC-12-0102-FOF-WS, issued March 5, 2012, in Docket No. 100300-WS, In re: Application for increase in water/wastewater rates in Alachua, Brevard, Desoto, Hardee, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities, Florida, Inc.

REVENUE REQUIREMENT

Issue 18: What is the appropriate revenue requirement for water and wastewater?

Recommendation: The following revenue requirement should be approved:

Table 18
Revenue Requirement

	Test Year Revenue	$ Increase/(Decrease)	Revenue Requirement	Percentage Increase/(Decrease)
Water	$439,875	$97,731	$537,606	22.22%
Wastewater	$121,100	($35,921)	$85,178	(29.66%)

(Cicchetti, Archer)

Staff Analysis: In its revised filing, the Utility requested revenue requirements to generate annual revenue of $545,113 for water and $76,774 for wastewater. These requested revenue requirements represent an increase of 37.78 percent for water and a decrease of 36.63 percent for wastewater. Consistent with staff's recommendations concerning rate base, the cost of capital, and net operating income, staff recommends approval of rates designed to generate revenue requirements of $537,606 for water and $85,178 for wastewater. The recommended revenue requirements represent an increase of $97,731, or 22.22 percent, for water and a decrease of $35,921, or 29.66, percent for wastewater. The recommended revenue requirements will allow the Utility the opportunity to recover its expenses and earn an overall rate of return of 7.79 percent on its investment in rate base. The computations of the revenue requirements are shown on Schedule Nos. 3-A and 3-B and staff adjustments to net operating income are shown on Schedule No. 3-C.

RATES

Issue 19: What are the appropriate rate structures and rates for HC's water and wastewater systems? (Bruce)

Recommendation: The recommended rate structures and monthly water and wastewater rates are shown on Schedule Nos. 4-A through 4-D. The Utility should file revised tariff sheets and a proposed customer notice to reflect the Commission-approved rates. The approved rates should be effective for service rendered on or after the stamped approval date on the tariff sheet, pursuant to Rule 25-30.475(1), F.A.C. In addition, the approved rates should not be implemented until staff has approved the proposed customer notice and the notice has been received by the customers. The Utility should provide proof of the date notice was given within 10 days of the date of the notice. (Bruce)

Staff Analysis:

Water Rates

HC is located in Highlands County within the Southwest Florida Water Management District. The Utility provides water service to approximately 923 residential water customers in 3 subdivisions and 6 general service customers. One of the general service customers is a 189 unit RV park. Approximately 25 percent of the residential customer bills during the test year had zero gallons, indicating a seasonal customer base. The average residential water demand is 2,520 gallons per month. The average water demand excluding zero gallon bills is 3,343 per month. The Utility's current water system rate structure for residential customers consists of a base facility charge (BFC) and three-tier inclining block rate structure. The rate blocks are: (1) 0-6,000 gallons; (2) 6,001-12,000 gallons; and (3) all usage in excess of 12,000 gallons per month. General service customers are billed based on a BFC and uniform gallonage charge. This rate structure was approved in the Utility's last rate case prior to the transfer from Aqua to HC.

Staff performed an analysis of the Utility's billing data in order to evaluate the appropriate rate structure for the residential water customers. The goal of the evaluation was to select the rate design parameters that: 1) produce the recommended revenue requirement; 2) equitably distribute cost recovery among the Utility's customers; 3) establish the appropriate non-discretionary usage threshold for restricting repression; and 4) implement, where appropriate, water conserving rate structures consistent with Commission practice.

Typically, the Commission allocates no greater than 40 percent of the water revenue to the BFC. However, when the Utility's customer base is seasonal, it has been the Commission's practice to allocate greater than 40 percent of the revenue requirement to the BFC to address revenue stability. In the Utility's last rate case, a BFC allocation of 40 percent was approved. However, due to the customers' low average monthly consumption coupled with a seasonal customer base, staff believes that it is appropriate to allocate 50 percent of the water revenue to the BFC for revenue stability purposes.

The average people per household served by the water system is two; therefore, based on the number of person per household, 50 gallons per day per person, and the number of days per month, the non-discretionary usage threshold should be 3,000 gallons per month. Approximately 74 percent of the customer bills included 3,000 gallons per month or less. Staff recommends a traditional BFC and gallonage charge rate structure with separate gallonage charges for discretionary and non-discretionary usage for residential water rates. Although the Utility does not have customers for residential irrigation and private fire protection, the Utility would like to maintain a rate structure for these customer classes in the event they are needed in the future. Staff recommends that the residential irrigation rate structure and rates be the same as the residential water customers. The private fire protection rate should be one-twelfth of the approved BFC, pursuant to Rule 25-30.465, F.A.C. General service customers should be billed a BFC and uniform gallonage charge.

Furthermore, staff evaluated whether a BFC for the RV park should be based on a three-inch meter, 16 equivalent residential connections (ERCs), or the demand the RV park places on the water system. During the test year, the RV park use 2,270,000 gallons of water. Compared with the average residential water demand of 2,520 gallons per month, the RV park demand represents approximately 75 ERCs (2,270,000/2,520/12) Therefore, staff recommends a BFC based on 75 ERCs for the RV park and a uniform gallonage charge.

In addition, based on a recommended revenue increase of approximately 23 percent, excluding miscellaneous revenues, the residential consumption can be expected to decline by 1,150,000 gallons resulting in anticipated average residential demand of 2,417 gallons per month. Staff recommends a 4.10 percent reduction in total residential consumption and corresponding reductions of $1,939 for purchased power, $1,361 for chemicals, and $155 for RAFs to reflect the anticipated repression, which results in a post repression revenue requirement of $519,008. Staff recommends a traditional BFC and gallonage charge rate structure with separate gallonage charges for discretionary and non-discretionary usage for residential water customers and a BFC allocation based on 50 percent of the water revenue requirement. Staff also recommends a BFC based on 75 ERCs for the RV park. Staff recommends that the residential irrigation rate structure and rates be the same as the residential water customers. The private fire protection rate should be one-twelfth of the approved BFC, pursuant to Rule 25-30.465, F.A.C. General service customers should be billed a BFC and uniform gallonage charge. Staff's recommended rate structure and rates are shown on Schedule Nos. 4-A and 4-B.

Wastewater Rates

HC provided wastewater service to 297 residential customers in the Leisure Lakes development. Currently, the residential wastewater rate structure consists of a uniform BFC for all meter sizes and a gallonage charge with a 6,000 gallon cap per month. The general service rate includes a BFC by meter size and a gallonage charge that is 1.2 times higher than the residential gallonage charge.

Staff performed an analysis of the Utility's billing data to evaluate various BFC cost recovery percentages and gallonage caps for the residential customers. The goal of the evaluation was to select the rate design parameters that: (1) produce the recommended revenue

requirement; (2) equitably distribute cost recovery among the Utility's customers; and (3) implement a gallonage cap that considers approximately the amount of water that may return to the wastewater system.

The Commission's practice is to allocate at least 50 percent of the wastewater revenue to the BFC due to the capital intensive nature of wastewater plants. As mentioned earlier, the customer base is seasonal; therefore, 50 percent of the wastewater revenue should be allocated to the BFC. It is Commission practice to set the wastewater cap at approximately 80 percent of residential water sold. Based on staff's review of the billing analysis, 96 percent of the gallons are captured at the 6,000 gallon consumption level. The wastewater gallonage cap recognizes that not all water used by the residential customers is returned to the wastewater system. For this reason, staff recommends that the gallonage cap of 6,000 per month remain unchanged. Staff recommends that the general service gallonage charge be 1.2 times greater than the residential gallonage charge which is consistent with Commission practice. Although, the Utility does not have any wastewater-only customers, HC would like to establish a flat rate for this customer class. The flat rate for wastewater only should be based on the residential BFC and the average residential water demand for the wastewater customers (1,565 gallons) times the residential gallonage charge.

In addition, based on the expected reduction in water demand described above, staff recommends that a repression adjustment also be made for wastewater. Because wastewater rates are calculated based on customers' water demand, if those customers' water demand is expected to decline, then the billing determinants used to calculate wastewater rates should also be adjusted. Therefore, staff recommends that a repression adjustment should also be made to calculate wastewater rates. Based on the billing analysis for the wastewater system, staff recommends a repression adjustment of 67,096 gallons to reflect the anticipated reduction in water demand used to calculate wastewater rates. Staff recommends a 13.26 percent reduction in total residential consumption and corresponding reductions of $46 for purchased power, $35 for chemicals, $45 for sludge removal, and $6 for RAFs to reflect the anticipated repression, which results in a post repression revenue requirement of $85,046. Staff recommends a BFC based on an allocation of 50 percent of the wastewater revenue requirement and no change to the wastewater gallonage cap of 6,000 gallons. Staff also recommends that the general service gallonage charge be 1.2 times greater than the residential gallonage charge which is consistent with Commission practice. Staff's recommended rate structure and rates are shown on Schedule Nos. 4-C and 4-D.

Summary

Based on the foregoing, the recommended rate structures and monthly water and wastewater rates are shown on Schedule Nos. 4-A through 4-D. The Utility should file revised tariff sheets and a proposed customer notice to reflect the Commission-approved rates. The approved rates should be effective for service rendered on or after the stamped approval date on the tariff sheet, pursuant to Rule 25-30.475(1), F.A.C. In addition, the approved rates should not be implemented until staff has approved the proposed customer notice and the notice has been received by the customers. The Utility should provide proof of the date notice was given within 10 days of the date of the notice.

OTHER ISSUES

Issue 20: What are the appropriate amount by which rates should be reduced four years after the established effective date to reflect the removal of the amortized rate case expense as required by Section 367.0816, Florida Statutes?

Recommendation: The water and wastewater rates should be reduced as shown on Schedule Nos. 4-A and 4-B, to remove rate case expense grossed-up for regulatory assessment fees (RAFs) and amortized over a four-year period. The decrease in rates should become effective immediately following the expiration of the four-year rate case expense recovery period, pursuant to Section 367.0816, F.S. HC should be required to file revised tariffs and a proposed customer notice setting forth the lower rates and the reason for the reduction no later than one month prior to the actual date of the required rate reduction. If the Utility files this reduction in conjunction with a price index or pass-through rate adjustment, separate data should be filed for the price index and/or pass-through increase or decrease and the reduction in the rates due to the amortized rate case expense. (Bruce, Cicchetti)

Staff Analysis: Section 367.0816, F.S., requires that the rates be reduced immediately following the expiration of the four-year period by the amount of the rate case expense previously included in rates. The reduction will reflect the removal of revenue associated with the amortization of rate case expense, the associated return in working capital, and the gross-up for RAFs. The total reduction is $1,610 for water and $514 for wastewater. Using HC's current revenue, expenses, capital structure and customer base, the reduction in revenue will result in the rate decreases as shown on Schedule Nos. 4-A and 4-B.

The Utility should be required to file revised tariff sheets no later than one month prior to the actual date of the required rate reduction. HC should also be required to file a proposed customer notice setting forth the lower rates and the reason for the reduction. If the Utility files this reduction in conjunction with a price index or pass-through rate adjustment, separate data should be filed for the price index and/or pass-through increase or decrease, and the reduction in the rates due to the amortized rate case expense.

Issue 21: What are the appropriate customer deposits for HC's water and wastewater systems?

Recommendation: The appropriate initial customer deposits should be $99 and $50 for the residential 5/8 inch x 3/4 inch meter size for water and wastewater, respectively. The initial customer deposits for all other residential meter sizes and all general service meter sizes should be two times the average estimated bill for water and wastewater. The approved initial customer deposits should be effective for connections made on or after the stamped approval date on the tariff sheets, pursuant to Rule 25-30.475, F.A.C. The Utility should be required to collect the approved deposits until authorized to change them by the Commission in a subsequent proceeding. (Bruce)

Staff Analysis: Rule 25-30.311, F.A.C., provides the criteria for collecting, administering, and refunding customer deposits. Customer deposits are designed to minimize the exposure of bad debt expense for the Utility and, ultimately, the general body of ratepayers. An initial customer deposit ensures that the cost of providing service is recovered from the cost causer. Historically, the Commission has set initial customer deposits equal to two times the average estimated bill.[8] Currently, the Utility's initial deposits are $89 for water and $105 for wastewater. Based on the staff recommended rates, the appropriate initial customer deposit should be $99 for water and $50 for wastewater to reflect an average residential customer bill for two months.

Staff recommends the appropriate initial customer deposits should be $99 and $50 for the residential 5/8 inch x 3/4 inch meter size for water and wastewater, respectively. The initial customer deposits for all other residential meter sizes and all general service meter sizes should be two times the average estimated bill for water and wastewater. The approved initial customer deposits should be effective for services rendered or connections made on or after the stamped approval date on the tariff sheets, pursuant to Rule 25-30.475, F.A.C. The Utility should be required to collect the approved deposits until authorized to change them by the Commission in a subsequent proceeding.

[8] See Order No. PSC-15-0142-PAA-SU, issued March 26, 2015, in Docket No. 130178-SU, In re: Application for staff-assisted rate case in Polk County by Crooked Lake Park Sewerage Company.

Issue 22: Should the Utility be required to provide proof, within 90 days of the final order in this docket, that it has adjusted its books for all applicable National Association of Regulatory Commissioners Uniform System of Accounts (NARUC USOA) primary accounts associated with the Commission approved adjustments?

Recommendation: Yes. To ensure that the Utility adjusts its books in accordance with the Commission's decision, HC should provide proof, within 90 days of the final order in this docket, that the adjustments for all applicable NARUC USOA primary accounts have been made. (Cicchetti)

Staff Analysis: To ensure that the Utility adjusts its books in accordance with the Commission's decision, HC should provide proof, within 90 days of the final order in this docket, that the adjustments for all applicable NARUC USOA primary accounts have been made.

Issue 23: Should this docket be closed?

Recommendation: No. If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, a consummating order should be issued. The docket should remain open for staff's verification that the revised tariff sheets and customer notice have been filed by the Utility and approved by staff, and that the adjustments for all applicable NARUC USOA primary accounts have been made. Once these actions are complete, this docket should be closed administratively. (Mapp, Crawford)

Staff Analysis: If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, a consummating order should be issued. The docket should remain open for staff's verification that the revised tariff sheets and customer notice have been filed by the Utility and approved by staff, and that the adjustments for all applicable NARUC USOA primary accounts have been made. Once these actions are complete, this docket should be closed administratively.

HC Waterworks, Inc.
Schedule of Water Rate Base
Test Year Ended 06/30/14

Schedule No. 1-A
Docket No. 140158-WS

	Description	Test Year Per Utility	Utility Adjust-ments	Adjusted Test Year Per Utility	Staff Adjust-ments	Staff Adjusted Test Year
1.	Plant in Service	$3,722,490	$38,451	$3,760,941	$4,342	$3,765,283
2.	Land and Land Rights	25,450	0	25,450	0	25,450
3.	Less: Non-used and Useful Components	0	(83,999)	(83,999)	(92,788)	(176,787)
4.	Construction Work in Progress	0	0	0	0	0
5.	Less: Accumulated Depreciation	(695,456)	17,280	(678,176)	(31,165)	(709,341)
6.	Less: CIAC	(841,545)	0	(841,545)	(500)	(842,045)
7.	Accumulated Amortization of CIAC	469,066	0	469,066	0	469,066
8.	Acquisition Adjustments	0	(849,440)	(849,440)	40,399	(809,041)
9.	Less: Accum. Amort. Of Acq. Adjustments	0	78,581	78,581	(3,937)	74,644
10.	Less: Advances for Construction	0	0	0	0	0
11.	Working Capital Allowance	0	38,268	38,268	338	38,606
12.	**Rate Base**	$2,680,005	($760,859)	$1,919,146	($83,311)	$1,835,835

HC Waterworks, Inc.
Schedule of Wastewater Rate Base
Test Year Ended 06/30/14

Schedule No. 1-B
Docket No. 140158-WS

	Description	Test Year Per Utility	Utility Adjust-ments	Adjusted Test Year Per Utility	Staff Adjust-ments	Staff Adjusted Test Year
1.	Plant in Service	$385,287	$0	$385,287	$52	$385,339
2.	Land and Land Rights	2,200	0	2,200	0	2,200
3.	Less: Non-used and Useful Components	0	(7,174)	(7,174)	(135)	(7,309)
4.	Construction Work in Progress	0	0	0	0	0
5.	Less: Accumulated Depreciation	(282,952)	0	(282,952)	(6,024)	(288,976)
6.	Less: CIAC	(285,550)	0	(285,550)	0	(285,550)
7.	Accumulated Amortization of CIAC	240,663	0	240,663	0	240,663
8.	Acquisition Adjustments	0	(21,078)	(21,078)	6,048	(15,030)
9.	Less: Accum. Amort. Of Acq. Adjustments	0	4,569	4,569	(3,182)	1,387
10.	Less: Advances for Construction	0	0	0	0	0
11.	Working Capital Allowance	0	9,495	9,495	(63)	9,432
12.	**Rate Base**	$59,648	($14,188)	$45,460	($3,304)	$42,156

HC Waterworks, Inc. Adjustments to Rate Base Test Year Ended 06/30/14		Schedule No. 1-C Docket No. 140158-WS
Explanation	**Water**	**Wastewater**
Plant In Service		
1. Per Audit Finding 1	$1,546	$52
2. Per Audit Finding 3 - Additional Items	$11,643	$0
3. Retirement on meter replacements to Acct. No. 334	($986)	
4. Retirement on additional item added to Acct. No. 310.2	($7,862)	
Total	$4,342	$52
Non-used and Useful		
To reflect net non-used and useful adjustment	($92,788)	($135)
Accumulated Depreciation		
1. Per Audit Finding 1	$969	$0
2. Per Audit Finding 2	$0	$24
3. Depreciation Pro-Forma Audit Items	$7,279	$0
4. Retirement on meter replacements to Acct. No. 334	$986	
5. Stranded Asset- Negative Accumulated Depreciation	($40,399)	($6,048)
Total	($31,165)	($6,024)
CIAC		
Per Audit Finding 4 - Water	($500)	$0
Acquisition Adjustment		
To reflect removal of stranded asset from acq adj	$40,399	$6,048
Accumulated Amortization of Acq. Adj.		
Per Audit	(3,937)	(3,182)
Working Capital		
To reflect working capital	$338	($63)

HC Waterworks, Inc.
Capital Structure-Simple Average
Test Year Ended 06/30/14

Schedule No. 2
Docket No. 140158-WS

	Description	Total Capital	Specific Adjust-ments	Subtotal Adjusted Capital	Prorata Adjust-ments	Capital Reconciled to Rate Base	Ratio	Cost Rate	Weighted Cost
Per Utility									
1	Long-term Debt	$818,881	$0	$818,881	($267,315)	$551,566	32.41%	4.25%	1.38%
2	Short-term Debt	0	0	0	0	0	0.00%	0.00%	0.00%
3	Preferred Stock	0	0	0	0	0	0.00%	0.00%	0.00%
4	Common Equity	1,699,426	0	1,699,426	(554,760)	1,144,666	67.25%	9.52%	6.40%
5	Customer Deposits	8,563	0	8,563	(2,795)	5,768	0.34%	2.00%	0.01%
6	Deferred Income Taxes	0	0	0	0	0	0.00%	0.00%	0.00%
7	**Total Capital**	$2,526,870	$0	$2,526,870	($824,870)	$1,702,000	100.00%		7.79%
Per Staff									
8	Long-term Debt	$818,881	$0	$818,881	($210,350)	$608,531	32.40%	4.25%	1.38%
9	Short-term Debt	0	0	0	0	0	0.00%	0.00%	0.00%
10	Preferred Stock	0	0	0	0	0	0.00%	0.00%	0.00%
11	Common Equity	1,699,426	0	1,699,426	(436,539)	1,262,887	67.25%	9.52%	6.40%
12	Customer Deposits	8,563	282	8,845	(2,272)	6,573	0.35%	2.00%	0.01%
13	Deferred Income Taxes	0	0	0	0	0	0.00%	0.00%	0.00%
14	**Total Capital**	$2,526,870	$282	$2,527,152	($649,161)	$1,877,991	100.00%		7.79%

	LOW	HIGH
RETURN ON EQUITY	8.52%	10.52%
OVERALL RATE OF RETURN	7.11%	8.46%

HC Waterworks, Inc.
Statement of Water Operations
Test Year Ended 06/30/14

Schedule No. 3-A
Docket No. 140158-WS

	Description	Test Year Per Utility	Utility Adjust-ments	Adjusted Test Year Per Utility	Staff Adjust-ments	Staff Adjusted Test Year	Revenue Increase	Revenue Requirement
1.	**Operating Revenues:**	$390,596	$154,517	$545,113	($105,238)	$439,875	$97,731 22.22%	$537,606
	Operating Expenses							
2.	Operation & Maintenance	$299,336	$9,737	$309,073	($226)	$308,847		$308,847
3.	Depreciation	95,608	5,370	100,977	(8,158)	92,819		92,819
4.	Amortization	0	(78,581)	(78,581)	9,660	(68,921)		(68,921)
5.	Taxes Other Than Income	59,409	4,858	64,266	(6,740)	57,526	4,398	61,924
6.	Income Taxes	0	0	0	0	0	0	0
7.	**Total Operating Expense**	454,352	(58,616)	395,735	(5,465)	390,270	4,398	394,668
8.	**Operating Income**	($63,755)	$213,133	$149,378	($99,773)	$49,605	$93,334	$142,939
9.	**Rate Base**	$2,680,005		$1,919,146		$1,835,835		$1,835,835
10.	**Rate of Return**	-2.38%		7.78%		2.70%		7.79%

HC Waterworks, Inc.
Statement of Wastewater Operations
Test Year Ended 06/30/14

Schedule No. 3-B
Docket No. 140158-WS

	Description	Test Year Per Utility	Utility Adjust-ments	Adjusted Test Year Per Utility	Staff Adjust-ments	Staff Adjusted Test Year	Revenue Increase	Revenue Requirement
1.	**Operating Revenues:**	$111,686	($34,911)	$76,775	$44,324	$121,099	($35,921) -29.66%	$85,178
	Operating Expenses							
2.	Operation & Maintenance	$79,399	($4,308)	$75,090	$364	$75,454		$75,454
3.	Depreciation	(372)	(2,553)	(2,925)	4,757	1,832		1,832
4.	Amortization	0	(4,569)	(4,569)	3,456	(1,113)		(1,113)
5.	Taxes Other Than Income	8,903	(3,266)	5,637	1,703	7,340	(1,616)	5,723
6.	Income Taxes	0	0	0	0	0	0	0
7.	**Total Operating Expense**	87,930	(14,696)	73,234	10,280	83,513	(1,616)	81,896
8.	**Operating Income**	$23,755	($20,215)	$3,540	$34,044	$37,586	($34,304)	$3,282
9.	**Rate Base**	$59,648		$45,460		$42,156		$42,156
10.	**Rate of Return**	39.83%		7.79%		89.16%		7.79%

HC Waterworks, Inc. Adjustment to Operating Income Test Year Ended 06/30/14		Schedule No. 3-C Docket No. 140158-WS
Explanation	**Water**	**Wastewater**
Operating Revenues		
1. Remove requested final revenue increase	($149,459)	$44,371
2. To reflect appropriate test year operating revenues	$44,221	($47)
Total	($105,238)	$44,324
Operation and Maintenance Expense		
1. Additional Rate case expense	$216	$69
2. To reflect I&I adjustment to purchased power and chemicals	$0	($565)
3. To reflect appropriate bad debt expense	($6,295)	$1,656
4. To reflect appropriate administrative cost for salaries	($999)	($306)
5. To reflect appropriate administrative cost for fuel	($1,379)	($422)
6. To reflect appropriate admin. cost for vehicle maintenance	($222)	($68)
7. To reflect increased chemicals for chloramine conversion	$8,452	$0
Total	($226)	$364
Depreciation Expense - Net		
1. Per Audit Finding 1	$36	$0
2. Per Audit Finding 2	$0	$357
3. Per Audit Finding 3 - Additional Items	$58	$0
4. Per Audit Finding 9 - Amortization of CIAC Expense	$0	$4,568
5. To remove non-U&U depreciation expense.	($8,252)	($168)
Total	($8,158)	$4,757
Amortization Expense		
1. Amortization Acq. Expense	$3,938	$3,182
2. To reflect non U&U amort of acquisition adj exp	$5,722	$274
Total	$9,660	$3,456
Taxes Other Than Income		
1. To reflect RAFs for revenue adjustments above.	($4,736)	$1,995
2. To reflect property tax on non-used and useful plant	($2,042)	($292)
3. Property Tax on Add. Pro-forma Plant	$38	$0
Total	($6,740)	$1,703

HC WATERWORKS, INC STAFF'S RECOMMENDED AND ALTERNATIVE WATER RATE STRUCTURES AND RATES				
Test Year Rate Structure and Rates			Recommended Rate Structure and Rates	
3-Tier Inclining Block Rate Structure BFC generated from current rates = 55%			Monthly BFC/ 2-Tier Rate Structure BFC = 50%	
BFC	$18.92		BFC	$21.49
0-6 kgals	$6.46		0-3 kgals (non-discretionary)	$8.32
6+-12 kgals	$9.71		Over 3 kgals	$10.40
12+ kgals	$12.93			
Typical Monthly Bills			Typical Monthly Bills	
Consumption (kgals)			Consumption (kgals)	
0	$18.92		0	$21.49
1	$25.38		1	$29.81
3	$38.30		3	$46.45
6	$57.68		6	$77.65
10	$96.52		10	$119.25
20	$219.38		20	$223.25
Alternative 1 Rate Structure and Rates			Alternative 2 Rate Structure and Rates	
Monthly BFC/2-Tier Rate Structure BFC = 55%			Monthly BFC/2-Tier Rate Structure BFC =40%	
BFC	$23.67		BFC	$17.15
0-3 kgals (non-discretionary)	$7.43		0-3 kgals (non-discretionary)	$10.14
Over 3 kgals	$9.29		Over 3 kgals	$12.67
Typical Monthly Bills			Typical Monthly Bills	
Consumption (kgals)			Consumption (kgals)	
0	$23.67		0	$17.15
1	$31.10		1	$27.29
3	$45.96		3	$47.57
6	$73.83		6	$85.58
10	$110.99		10	$136.26
20	$203.89		20	$262.96

HC Waterworks, Inc.
Docket No. 140158-WS
Monthly Water Rates

Schedule No. 4-B
Docket No. 140158-WS
Page 1 OF 2

	Utility Current Rates	Utility Requested Rates	Staff Recommended Rates	4 Year Rate Reduction
Residential and General Service				
Base Facility Charge by Meter Size				
5/8"X3/4"	$18.92	$23.42	$21.49	$0.07
3/4"	$28.38	$35.14	$32.24	$0.10
1"	$47.31	$58.56	$53.73	$0.17
1-1/2"	$94.61	$117.12	$107.45	$0.33
2"	$151.38	$187.39	$171.92	$0.53
3"	$302.77	$374.78	$343.84	$1.07
4"	$473.07	$585.60	$537.25	$1.67
6"	$946.15	$1,171.20	$1,074.50	$3.33
8"	$1,513.83	$1,873.92	$1,719.20	$5.33
10"	$2,176.13	$2,693.76	$2,471.35	$7.66
Charge per 1,000 Gallons - Residential				
0-6,000 gallons	$6.46	$8.21		
6,001-12,000 gallons	$9.71	$12.31		
Over 12,000 gallons	$12.93	$16.41		
0-3,000 gallons			$8.32	$0.03
Over 3,000 gallons			$10.40	$0.03
Charge per 1,000 Gallons - General Service	$7.25	$8.79	$8.91	$0.03

HC Waterworks, Inc. Docket No. 140158-WS Monthly Water Rates				Schedule No. 4-B Docket No. 140158-WS Page 2 OF 2
	Utility Current Rates	Utility Requested Rates	Staff Recommended Rates	4 Year Rate Reduction
Irrigation				
Base Facility Charge by Meter Size				
5/8"X3/4"	$18.92	$23.42	$21.49	$0.07
3/4"	$28.38	$35.14	$32.24	$0.10
1"	$47.31	$58.56	$53.73	$0.17
1-1/2"	$94.61	$117.12	$107.45	$0.33
2"	$151.38	$187.39	$171.92	$0.53
3"	$302.77	$374.78	$343.84	$1.07
4"	$473.07	$585.60	$537.25	$1.67
Charge per 1,000 Gallons				
0-6,000 gallons	$6.46	$8.21		
6,001-12,000 gallons	$9.71	$12.31		
Over 12,000 gallons	$12.93	$16.41		
0-3,000 gallons			$8.32	$0.03
Over 3,000 gallons			$10.40	$0.03
Private Fire Protection				
2"	$12.62	$15.62	$14.33	$0.04
3"	$25.23	$31.23	$28.65	$0.09
4"	$39.43	$48.80	$44.77	$0.14
6"	$78.85	$97.60	$89.54	$0.28
8"	$126.16	$156.16	$143.27	$0.44
10"	$181.34	$224.48	$205.95	$0.64
Typical Residential 5/8" x 3/4" Meter Bill Comparison				
3,000 Gallons	$38.30	$48.05	$46.45	
6,000 Gallons	$57.68	$72.68	$77.65	
8,000 Gallons	$77.10	$97.30	$98.45	

HC WATERWORKS, INC. STAFF'S RECOMMENDED AND ALTERNATIVE WASTEWATER RATE STRUCTURES AND RATES				
Test Year Rate Structure and Rates			Recommended Rate Structure and Rates	
Monthly BFC/Uniform Gallonage Rate Structure BFC generated from current rates = 66%			Monthly BFC/Uniform Gallonage Rate Structure BFC = 50%	
BFC	$22.59		BFC	$12.00
per 1 kgal	$7.64		per 1 kgal	$8.03
(6 kgal cap)			(6 kgal cap)	
Typical Monthly Bills			Typical Monthly Bills	
Consumption (kgals)			Consumption (kgals)	
0	$22.59		0	$12.00
1	$30.23		1	$20.03
2	$37.87		2	$28.06
3	$45.51		3	$36.09
4	$53.15		4	$44.12
5	$60.79		5	$52.15
6	$68.43		6	$60.18
10	$68.43		10	$60.18
Alternative 1 Rate Structure and Rates			Alternative 2 Rate Structure and Rates	
Monthly BFC/Uniform Gallonage Rate Structure BFC = 55%			Monthly BFC/Uniform Gallonage Rate Structure BFC =45%	
BFC	$13.20		BFC	$10.80
per 1 kgal	$7.22		per 1 kgal	$8.83
(6 kgal cap)			(6 kgal cap)	
Typical Monthly Bills			Typical Monthly Bills	
Consumption (kgals)			Consumption (kgals)	
0	$13.20		0	$10.80
1	$20.42		1	$19.63
2	$27.64		2	$28.46
3	$34.86		3	$37.29
4	$42.08		4	$46.12
5	$49.30		5	$54.95
6	$56.52		6	$63.78
10	$56.52		10	$63.78

HC Waterworks, Inc. **Docket No. 140158-WS** **Monthly Wastewater Rates**				**Schedule No. 4-D** **Docket No. 140158-WS**
	Utility Current Rates	**Utility Requested Rates**	**Staff Recommended Rates**	**4 Year Rate Reduction**
Residential				
Base Facility Charge - All Meter Sizes	$22.59	$15.14	$12.00	$0.07
Charge per 1,000 Gallons 6,000 gallon cap	$7.64	$4.30	$8.03	$0.05
Flat Rate		$21.88	$24.57	$0.15
General Service				
Base Facility Charge by Meter Size				
5/8"X3/4"	$22.59	$15.14	$12.00	$0.07
3/4"	$33.90	$22.71	$18.00	$0.11
1"	$56.50	$37.86	$30.00	$0.18
1-1/2"	$112.98	$75.71	$60.00	$0.36
2"	$180.78	$121.14	$96.00	$0.58
3"	$361.54	$242.28	$192.00	$1.15
4"	$564.91	$378.56	$300.00	$1.80
6"	$1,129.83	$757.12	$600.00	$3.60
8"	$1,807.20	$1,211.40	$960.00	$5.76
10"	$2,598.61	$1,741.39	$1,380.00	$8.28
Charge per 1,000 Gallons	$9.16	$5.16	$9.63	$0.06
Typical Residential 5/8" x 3/4" Meter Bill Comparison				
3,000 Gallons	$45.51	$26.87	$36.09	
6,000 Gallons	$68.43	$39.23	$60.18	
8,000 Gallons	$68.43	$39.23	$60.18	