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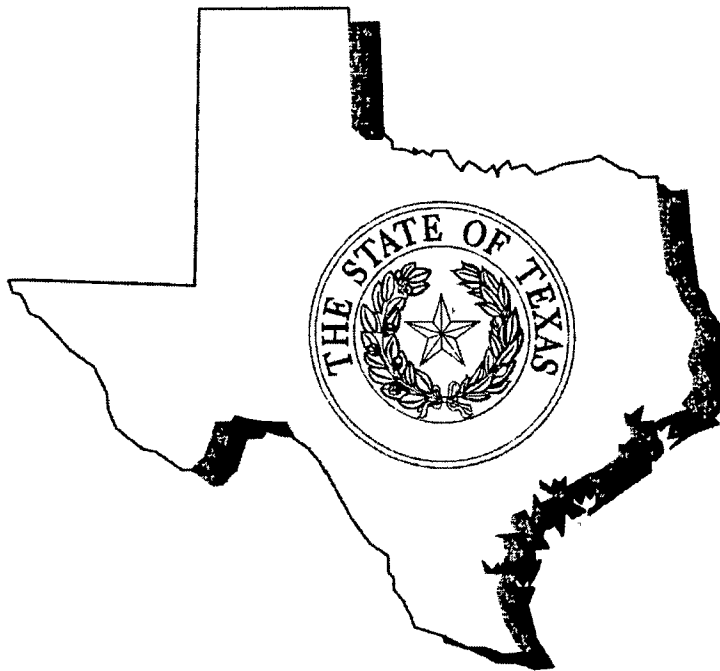
Addendum StartPage 0

SOAH DOCKET NO. 473-16-2873.WS  
PUC DOCKET NO. 45570

APPLICATION OF MONARCH  
UTILITIES I, L.P. FOR AUTHORITY  
TO CHANGE RATES FOR WATER  
AND SEWER SERVICE

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BEFORE THE STATE OFFICE  
OF  
ADMINISTRATIVE  
HEARINGS



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DIRECT TESTIMONY OF  
HEIDI GRAHAM  
WATER UTILITY REGULATION  
PUBLIC UTILITY COMMISSION OF TEXAS  
AUGUST 24, 2016

287

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1 **I. PROFESSIONAL QUALIFICATIONS**

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

3 A. Heidi Graham, Public Utility Commission of Texas, 1701 N. Congress Avenue, Austin,  
4 Texas 78711-3326.

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

6 A. I have been employed by the Public Utility Commission of Texas (PUC or Commission)  
7 since September 1, 2014, as an Engineering Specialist V in the Water Utilities Division. I  
8 was promoted to Program Specialist VII in May of 2016 and I have been the technical team  
9 leader since then.

10 **Q. What are your principal responsibilities at the Commission?**

11 A. My responsibilities include managing the technical team, reviewing and processing  
12 applications to obtain or amend certificates of convenience and necessity (CCNs);  
13 reviewing rate filings and participating in negotiating settlements; preparing testimony and  
14 exhibits for contested case matters involving investor-owned, non-profit and governmental  
15 water and sewer utilities; and conducting rate-related inspections of water or sewer utility  
16 systems within the state. I also make recommendations on policy with regard to water and  
17 wastewater depreciation and rate design and review and recommend changes to proposed  
18 forms and rules.

19 **Q. Please state your educational background and professional experience.**

20 A. I have provided a summary of my educational background and professional regulatory  
21 experience in Attachment HG-1 to my direct testimony.

22 **Q. Have you testified as a regulatory technical expert before the Commission or the State**  
23 **Office of Administrative Hearings (SOAH)?**

1 A. Yes. Attachment HG-2 provides a summary of the dockets in which I have filed direct  
2 testimony or memoranda in lieu of testimony.

3 **Q. On whose behalf are you testifying?**

4 A. I am testifying on behalf of the Staff of the Public Utility Commission (Staff).

5 **II. PURPOSE AND SCOPE OF TESTIMONY**

6 **Q. What is the purpose of your testimony in this proceeding?**

7 A. I will present Staff's recommendation for depreciation and a rate design for water and  
8 sewer service.

9 **Q. What is the scope of your review?**

10 A. I reviewed the application, all of the discovery responses, the pre-filed testimony of  
11 Monarch's witnesses, OPUC's witness and the pre-filed testimonies of Staff Regulatory  
12 Accountant/Auditor, Leila Guerrero, Engineering Specialist Jolie Mathis, Rates Manager,  
13 Debi Loockerman and Staff Financial Analyst, Emily Sears, as well as previous rate, CCN  
14 and STM cases.

15 **Invested Capital**

16 **Q. What test year did you consider when preparing your testimony?**

17 A. July 1, 2014 through June 30, 2015.

18 **Q. Have you made any adjustments to Monarch's claimed depreciation components and  
19 capital assets?**

20 A. Yes. I used the filing of Monarch's Response to OPUC's request for information (RFI) 5-  
21 2, OPUC 5-2 Errata to Monarch PPE as of 6-30-2015 (OPUC 5-2) as a basis to build a  
22 straight-line depreciation schedule. See Attachment HG-3 (CD) for OPUC 5-2 Errata to  
23 Monarch PPE as of 6-30-2015 and HG-4 (CD) for Staff's Depreciation Schedule.

1 **Q. Why did you make these adjustments and build a straight-line depreciation schedule?**

2 A. I built the schedule because the depreciation study included in the application for group  
3 depreciation purposes was determined to be unreliable, as reflected in Ms. Jolie Mathis'  
4 testimony. Absent a proper depreciation study, the straight-line method should be used.

5 **Q. Please define the term “used and useful”**

6 A. The American Water Works Association’s *Principles of Water Rates, Fees, and Charges*  
7 – *Manual of Water Supply Practices, sixth edition*, (M-1 Manual) defines ‘used and useful’  
8 as follows: [A term applicable to utility plant investment that is includable in the  
9 development of the rate base as part of the rate-making process. Plant investment is  
10 considered to be used and useful if it is actively used in the provision of service to  
11 customers.

12 **Q. What adjustments did you make to the list of assets in Attachment OPUC 5-2?**

13 Attachment OPUC 5-2 included customer contribution in aid of construction (CIAC) items,  
14 new taps, capitalized items, retired items, Holiday Village conference room rehabilitation  
15 assets and assets that were designed and built by ECO Resources, Inc. (provided in  
16 Monarch’s Response to Staff RFI Attachment 17-1). I analyzed and adjusted the used and  
17 useful percentage of each of these types of items listed in Attachment OPUC 5-2.

18 **Q. What adjustments did you make to items described as CIAC?**

19 A. For plant built using CIAC, the line item in my depreciation schedule reflecting the  
20 percentage of the plant that is used and usefulness was reduced to zero. This has the effect  
21 of removing the original cost of plant that was funded by ratepayers from rate base. CIAC  
22 shall be deducted from rate base per 16 TAC § 24.31(c)(3)(D).

23 **Q. What adjustments did you make to items described as “taps”?**

1 A. Monarch's response to Staff RFI 16-1(c) with regard to how tap fees are accounted for,  
2 was for first time taps, a tap fee is charged to the customer. The tap fee is then credited to  
3 revenue and a charge to expense is made for the cost of the tap. Errata WP/II G-1.h shows  
4 a credit for tap fees for both water and sewer. Monarch's response to Staff RFI 16-1(b)  
5 states that no tap fees were recorded for the assets listed in response to OPUC RFI 5-2.  
6 However, numerous items listed in the list of assets provided in response to OPUC RFI 5-  
7 2 were described as 'new' tap, meter, grinder pump or sewage pump and were included as  
8 used and useful. There were also numerous items provided in the same list and described  
9 as 'replacement' tap, meter, grinder pump or sewage pump. Since it appeared that  
10 Monarch was not consistent in its entries when describing capitalized items, I adjusted any  
11 'new' tap, meter, grinder pump or sewage pump item's used and useful percentage to zero.  
12 This adjustment is consistent with Monarch's accounting policy to expense new tap fees in  
13 the cost of service and reduce the cost of service for revenues related to the new tap fees.

14 **Q. What adjustments did you make to items described as "capital"?**

15 A. National Association of Regulatory Utility Commissioners' (NARUC) *Uniform System of*  
16 *Accounts* monetary level for capitalizing vs. expensing for capitalized items included in  
17 Attachment HG-3, OPUC RFI 5-2. NARUC's guidance for a Class A utility is a monetary  
18 level of \$750 for capitalizing as opposed to expensing the item. If an item is less than \$750  
19 and is not useful in providing water or sewer service, I adjusted the original cost to zero  
20 by adjusting the used and useful percentage to zero. If the capitalized item was less than  
21 \$750 and useful in providing water or sewer service, I made no adjustment to the used  
22 and useful percentage. I also made no adjustment to the used and useful percentage  
23 of capitalized items over \$750. See Attachment HG-5 for NARUC guidance.

1 **Q. What is Staff RFI 10-1?**

2 A. In Staff RFI 10-1, Staff requested a reconciliation of Monarch's original cost, annual  
3 depreciation expense, accumulated depreciation, and net plant beginning from Monarch's  
4 last fully litigated rate case, which ended in 2002, until the end of the test year for this  
5 docket, which is June 30, 2015. As part of its response, Monarch provided Attachment  
6 Staff 10-1(a), which lists Monarch's capital retirements dating later than 2000.

7 **Q. What adjustments did you make to retired items that were listed in Monarch's**  
8 **response to Staff RFI 10-1(a)?**

9 A. I adjusted the retired items listed in Monarch's response to Staff RFI 10-1(a) to zero by  
10 adjusting the used and useful percentage to zero. 16 TAC § 24.31(c)(2)(B)(iii) requires  
11 the utility to account for the reasonableness of retirement decisions for any item that is  
12 retired after June 19, 2009. Monarch did not provide any explanation of any retirement  
13 decisions for the retired assets provided in their response to Staff RFI 10-1(a), in Mr.  
14 Robinson's testimony or his depreciation study or an explanation as to why retired assets  
15 were included in the List of Non-Retired Assets included in Mr. Fenner's Attachment  
16 BWF-2 and their later filing provided in response to OPUC RFI 5-2. In short, I removed  
17 assets from Monarch's total capital assets.

18 **Q. What adjustments did you make to the Holiday Village items listed in Attachment**  
19 **HG-3, OPUC RFI 5-2 and addressed in Monarch's Response to OPUC RFI 1-24?**

20 Monarch's response to OPUC RFI 1-24 was that, the Holiday Village capital investment  
21 items for the conference room rehabilitation, were excluded from rate base in this  
22 application. The same assets were listed in Attachment OPUC RFI 5-2. Therefore, the used



1 and usefulness percentage of each item, was adjusted to zero. See Attachment HG-6 for  
2 Monarch's Response to OPUC RFI 1-24.

3 **Q. Did any of Monarch Utilities' invested capital arise from payments made to an**  
4 **affiliate?**

5 **A.** Yes. According to the testimony of Monarch's witness, Charles Profilet, during past years,  
6 ECO Resources, Inc. an affiliate of Monarch, charged Monarch and two other affiliates,  
7 Windermere and Hornsby Bend, for costs associated with design-build services for capital  
8 improvements, along with a mark-up on these costs of 30% which Monarch proposes to  
9 include in rate base. These improvements are included in the proposed rate base in  
10 Monarch's current application. According to Mr. Profilet, the design-build services  
11 encompassed all the activities required to design and build capital improvements for the  
12 utility, and involved ECO personnel who provided the expertise to supervise, inspect, and  
13 administer capital expenditures by utilities. He also stated that ECO charged the three  
14 affiliated utilities for actual labor and material costs, and added a 'margin' amount that  
15 was calculated to be 30% of the total project revenues, which applied to all capital  
16 expenditures to repair, replace, or expand the utility systems. In other words, the raw costs  
17 plus the margin equaled ECO's revenues for the project.

18 **Q. Does the Texas Water Code (TWC) allow affiliated transactions?**

19 **A.** TWC § 13.185(e) states that payment to affiliated interests for costs of any services, or any  
20 property, right or thing, or for interest expense may not be allowed either as capital cost or  
21 as expense except to the extent that the regulatory authority finds that payment to be  
22 reasonable and necessary. A finding of reasonableness and necessity must include specific  
23 statements setting forth the cost to the affiliate of each item or class of items in question

1 and a finding that the price to the utility is no higher than prices charged by the supplying  
2 affiliate to its other affiliates or divisions for the same item or items, or to unaffiliated  
3 persons or corporations.

4 **Q. Did Staff request information through discovery regarding this issue?**

5 A. Yes. In Staff RFI 4-3, Staff requested an itemization, by dollar value, of the costs actually  
6 incurred by ECO, that make up the 30% margin charged by ECO to Monarch for each  
7 component of invested capital. In response, Monarch provided a spreadsheet that imputed  
8 the itemized costs, using the ratio of expense categories to the total revenues of the parent  
9 company's affiliated service group, during 2005-2007, as shown in Monarch's 2008 Form  
10 10-K, which is filed for fiscal year ended December 31, 2007 (2008 10-K). These imputed  
11 percentage values do not correspond to the actual costs incurred by ECO, because the 2008  
12 10-K referenced in the response to Staff RFI 4-3, provides data summarized for several of  
13 the parent company's jurisdictions, including Alabama, California, Colorado, Georgia,  
14 Mississippi, New Mexico, South Dakota, and Texas. In other words, the expense categories  
15 were spread over all the jurisdictions rather than only Texas, where the expenses were  
16 incurred. The spreadsheets in Attachment Staff 4-3 are also flawed, because they show an  
17 imputed margin added to ECO's claimed actual costs that is significantly different from  
18 the margin of 30% described in Mr. Profilet's testimony. Therefore, Monarch is unable to  
19 provide an itemization of the actual costs incurred by ECO in providing the services to  
20 Monarch.

21 **Q. Do you agree that the assets constructed by ECO should be included in the original**  
22 **cost of Monarch's water and sewer plant?**

1 A. No. The transactions between ECO and Monarch represent affiliated transactions because  
2 both entities have Southwest Water as a parent company. The Third Court of Appeals'  
3 decision in *Railroad Commission of Texas et al. v. Rio Grande Valley Gas*  
4 *Company*, 683 S.W.2d 783 (Tex. App.—Austin 1984, no writ) set a precedent for a utility's  
5 burden to show that an affiliate's charges are just and reasonable. I am not an attorney,  
6 but, in my understanding that, in the case, it was decided that a utility has the burden  
7 of proof to show:

- 8 1. Prices it was charged by its affiliate were no higher than the prices charged by the  
9 supplying affiliate to its other affiliates;
- 10 2. Expenses which may not be allowed for rate-making purposes for any reason were  
11 not included in the 'allocated' expenses'
- 12 3. Each item of allocated expense was reasonable and necessary; and
- 13 4. Allocated amounts reasonably approximated the actual cost of services to it.

14 **Q. Which of the Rio Grande factors does Monarch fail to show proof of in this case?**

15 A. Monarch fails to meet all four factors. However, in particular, Monarch's inability to  
16 itemize ECO's actual costs means that it cannot meet its burden to prove the following  
17 factors:

- 18 2. Expenses which may not be allowed for rate-making purposes for any reason were  
19 not included in the 'allocated expenses' and
- 20 3. Each item of allocated expense was reasonable and necessary.

21 **Q. Why does Monarch fail to meet its burden?**

22 A. Based on Monarch's discovery responses discussed above, it is unable to provide the actual  
23 costs and margin charged by ECO. Because Monarch did not itemize the relevant expense

1 items, it is unable to meet its burden to show that the relevant expense items did not include  
2 expenses which may not be allowed for rate-making purposes for any reason and were not  
3 included in the 'allocated expenses' In addition, Monarch is unable to show that the  
4 relevant expenses were reasonable and necessary. because Monarch did not itemize the  
5 relevant expenses nor did it provide documentation supporting the expenses.

6 **Q. What adjustments did you make to the ECO items listed in Monarch's Response to**  
7 **Staff 17-1?**

8 A. Within my deprecation schedule, I adjusted the original cost of the ECO assets, provided in  
9 Monarch's Response to Staff RFI 17-1 and also listed in OPUC 5-2, to zero. See Attachment  
10 HG-7 for Monarch's Response to Staff RFI Attachment 17-1 (CD).

11 **Q. If the Commission decides not to disallow the entire original cost of the ECO assets,**  
12 **what do you recommend as an alternate option?**

13 A. I recommend the original costs of the ECO assets be reduced by the 30% margin. The 30%  
14 margin fails to meet Rio Grande factors 1 and 4, which are:

- 15 1. Prices it was charged by its affiliate were no higher than the prices charged by the  
16 supplying affiliate to its other affiliates;
- 17 4. Allocated amounts reasonably approximated the actual cost of services to it.

18 Monarch has not demonstrated that the 30% margin charged by ECO is no higher than the  
19 prices charged by ECO to other affiliates and non-affiliated entities. In fact, Mr. Profilet's  
20 testimony indicates that, at the time of the transactions at issue, ECO charged to unaffiliated  
21 municipalities a 15% margin for similar services. Monarch has also not demonstrated that  
22 the 30% margin charged by ECO approximates the actual cost of ECO's services, as it has  
23 been unable to itemize the costs that comprise the 30% margin.

---

1 **Depreciation**

2 **Q. Did you make any adjustments to Monarch's depreciation with regard to cost of**  
3 **removal and salvage value?**

4 A. Monarch did not use an engineer's estimate to determine the cost of removal and salvage  
5 value of their plant assets. Instead Monarch used an expert who has a financial background  
6 to determine the cost of removal and salvage value of their plant assets. Occupations Code  
7 (OC) Title 6 Regulation of Engineering, Architecture, Land Surveying, and Related  
8 Practices, Subtitle A. Regulation of Engineering and Related Practices Chapter 1001.  
9 Engineer includes The Texas Engineering Practice Act. 6 OC § 1001.003 defines the  
10 practice of engineering.

11 6 OC § 1001.003(b) states, the 'practice of engineering' means the performance of or an  
12 offer or attempt to perform any public or private service or creative work, the adequate  
13 performance of which requires engineering education, training, and experience in applying  
14 special knowledge or judgment of the mathematical, physical, or engineering sciences to  
15 that service or creative work. 6 OC § 1001.003(c)(1) states that the practice of engineering  
16 includes: consultation, investigation, evaluation, analysis, planning, engineering for  
17 program management, providing an expert engineering opinion or testimony, engineering  
18 for testing or evaluating materials for construction or other engineering use, and mapping;  
19 6 OC § 1001.003(c)(10) states that the practice of engineering includes: a service, design,  
20 analysis, or other work performed for a public or private entity in connection with a utility,  
21 structure, building, machine, equipment, process, system, work, project, or industrial or  
22 consumer product or equipment of a mechanical, electrical, electronic, chemical, hydraulic,  
23 pneumatic, geotechnical, or thermal nature.

1 TCEQ rules require that all water and sewer plant construction be submitted by an engineer  
2 licensed in the State of Texas. Mr. Robinson does not have the education or practical  
3 experience to determine the cost of removal and salvage values for Monarch's plant assets.  
4 Ms. Mathis recommended disallowance of Monarch's cost of removal and salvage values. I  
5 agree with Ms. Mathis and join her in recommending that Monarch's cost of removal and  
6 salvage values be removed from the cost of service.

7 **Q. If Monarch's cost of removal and salvage values are removed from the cost of service,**  
8 **what salvage ratio did you use in your depreciation recommendation?**

9 A. My depreciation recommendation does not incorporate any adjustments to plant values for  
10 removal or salvage costs or revenues. In effect, my recommendation incorporates a salvage  
11 ratio of 0%.

12 **Q. What depreciation service lives did you use in determining the annual depreciation**  
13 **expense?**

14 A. I used the depreciation service lives recommended by Staff witness Jolie Mathis.

15 **Q. What is your allocation between water and sewer for depreciation?**

16 A. Monarch used an allocation of 83% for Water and 17% for Sewer. I used the same allocation  
17 to calculate the water and the sewer portion of total depreciation.

18 **Q. Will any of your adjustments to Monarch's depreciation data affect accumulated**  
19 **deferred federal income taxes (ADFIT)?**

20 A. Yes. My adjustments may affect ADFIT. However, Staff is unable to calculate the result of  
21 any affect. I recommend that Monarch be ordered to provide the appropriate adjustments to  
22 ADFIT through its expert witnesses, if there is an affect.

---

1 **Rate design**

2 **Q. How did you calculate the total water revenue that would be generated by the proposed**  
3 **base rates?**

4 A. I multiplied the total number of customers for each meter size by the corresponding base rate  
5 times twelve months. For example, a 5/8-inch water meter with a base rate of \$51.78 would  
6 generate \$13,968,794 over twelve months. Adding the values for all the meter sizes, the total  
7 revenue generated for water would be \$14,566,457. Please see attachment HG-8 for these  
8 calculations.

9 **Q. How did you calculate the total water revenue that would be generated by the proposed**  
10 **gallonge charges?**

11 A. I calculated the revenue generated by the gallonge charges by multiplying the requested  
12 inclining block rates listed in the notice and the weather normalized gallons billed in the test  
13 year for each tier. For example, Monarch billed for 394,633,000 gallons in the 0 to 2,000  
14 gallons-tier. At \$7.84/1,000 gallons, that tier would generate \$3,093,923. Adding the values  
15 for all the tiers, the total revenue that would be generated is \$9,458,540. Please see  
16 Attachment HG-8 for these calculations.

17 **Q. What would be the total water revenue generated by the proposed base rates and the**  
18 **gallonge charges?**

19 A. Adding the base rate revenue of \$14,566,457 to the gallonge charge revenue of  
20 \$9,458,540 gives a total revenue of \$24,024,997.

21 **Q. How did you calculate the total sewer revenue that would be generated by the proposed**  
22 **base rates?**

1 A. I multiplied the total number of customers for each meter size by the corresponding base  
2 rate times twelve months. For example, the 5/8-inch base rate of \$77.63 would generate  
3 \$3,347,095 over twelve months. Adding the values for all the meter sizes, the total revenue  
4 generated for water would be \$3,537,604. Please see attachment HG-9 for these  
5 calculations.

6 **Q. How did you calculate the total sewer revenue that would be generated by the proposed**  
7 **gallage charges?**

8 A. I calculated the revenue generated by the gallage charge by multiplying the requested  
9 rate listed in the notice and the gallons billed in the test year. For example, Monarch billed  
10 for 170,885,000 gallons in the test year. At \$2.73/1,000 gallons, the gallage revenue  
11 generated would be \$466,516. Please see Attachment HG-9 for these calculations.

12 **Q. What would be the total sewer revenue generated by the proposed base rates and the**  
13 **gallage charges?**

14 A. Adding the base rate revenue of \$3,537,604 to the gallage charge revenue of  
15 \$466,516 gives a total revenue of \$4,004,120.

16 **Q. What revenue requirement did you use to calculate Staff's recommended rates?**

17 A. I used the annual revenue requirement of \$19,355,831 for water, and \$3,251,669 for sewer,  
18 recommended by Ms. Guerrero.

19 **Q. Did you prepare a water and sewer rate design using Ms. Guerrero's calculated**  
20 **revenue requirement and Monarch's proposed rates?**

21 A. Yes, my water rate design is included in Attachment HG-8 and my sewer rate design is  
22 included in Attachment HG-9.

23 **Q. What connection count did you use in your analysis and calculations?**



1 A. I used the connection count provided by Monarch in the Errata – Schedule II-H-1 Cost of  
2 Service for water and the Errata Schedule III(S) for Sewer. See Attachment HG-10 for  
3 the Errata – Schedule II-H-1 Cost of Service. See Attachment HG-11 for the Errata  
4 Schedule III(S).

5 **Q. What usage data did you use in your analysis and calculations?**

6 A. I used the usage provided in Errata – Schedule II-H-1 Cost of Service, adjusted for weather  
7 normalization of 2.1% and Errata Schedule III(S), Wastewater Rate Design.

8 **Q. Did you make any adjustments to the usage provided by Monarch in Errata –**  
9 **Schedule II-H-1 Cost of Service for water and Errata Schedule III(S), Wastewater**  
10 **Rate Design?**

11 The adjustment made by John W Hutts, based on his analysis of weather metrics and the  
12 impact on water consumption, was incorrectly applied to Monarch's usage. On Bates page  
13 242 of Mr. Hutts testimony, he states that the magnitude of the weather normalization  
14 adjustment is a reduction of 24,134 kgal or approximately 2.1%. On Errata Schedule II-H-  
15 Cost of Service, the 2.1% weather adjustment was added to the recorded water usage  
16 instead of subtracted from the recorded water usage. I recalculated the usage by subtracting  
17 the 2.1% weather adjustment. See Attachment HG-12. My results are:

1 Water Usage Charge Revenue Calculation

All Usage	7/14-6/15 Recorded Usage		Adjustment		Normalized Usage (including Contractuals)		
			-2.10%	-2.10%			
In 1k gallons	Residential (Gallons)	Non- Residential (Gallons)	Residential (Gallons)	Non- Residential (Gallons)	Residential (Gallons)	Non- Residential (Gallons)	Total (Gallons)
Tier 1 0 2	374,349	28,749	-7,861	-604	366,488	28,145	394,633
Tier 2 2,001 10	457,436	52,807	-9,606	-1,109	447,830	51,698	499,528
Tier 3 10,001 20	57,022	9,988	-1,197	-210	55,825	9,778	65,603
Tier 4 Over 20,001	7757	64,031	-163	-1,345	7,594	62,686	70,280
						Total	1,030,044

2 **II. RECOMMENDATIONS**

3 **Q. What are your recommended water and sewer original cost, annual depreciation**  
4 **expense, accumulated depreciation and net plant amounts?**

5 A. See the table on the next page.

6

	Allocation	Staff Verified Original Cost	Annual Depreciation	Accumulated Depreciation	Net Plant (Net Book Value)
Water	83%	\$72,698,273	\$1,688,908	\$27,087,175	\$45,600,135
Sewer	17%	\$12,262,359	\$345,921	\$5,547,976	\$9,339,787
Total	100%	\$84,960,632	\$2,034,829	\$32,635,151	\$54,939,922

7 **Q. What are your recommended rates?**

8 A. I recommend no increase from existing water rates. In fact, Staff recommends a decrease  
9 in rates for water service as follows:

1

Minimum Bill includes 0 gallons		Gallonage Rates per 1,000 gallons	
Meter Size	Rate	Usage	Rate
5/8'	\$42.87	0 - 2,000 gallons	\$6.05
3/4'	\$64.31	2,001 - 10,000 gallons	\$7.45
1	\$107.18	10,001 - 20,000 gallons	\$8.45
1 1/2'	\$214.35	20,001 + gallons	\$9.00
2'	\$342.96		
3'	\$643.05		
4'	\$1,071.75		
6'	\$2,143.50		
8'	3,429.60		

2 I recommend no increase from existing sewer rates. In fact, Staff recommends a decrease  
3 in rates for sewer service as follows:

Minimum Bill includes 0 gallons		Gallonage Rates per 1,000 gallons	
Meter Size	Rate	Usage	Rate
5/8'	\$63.48	All Usage	\$2.10
3/4'	\$95.22		
1	\$158.70		
1 1/2'	\$317.40		
2'	\$507.84		
3'	\$952.20		
4'	\$1,587.00		
6'	\$3,174.00		

4 **IV CONCLUSION**

5 **Q. Does this conclude your direct, pre-filed testimony?**

6 **A.** Yes, but I reserve the right to supplement this testimony during the course of the proceeding  
7 as new evidence is presented.

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**Work Experience**

**Program Specialist VII**

5/2016 – Present  
Public Utility Commission, Austin, Texas

Perform senior-level work on a broad range of water and sewer utility issues. Lead the technical team of experts who analyze and provide recommendations for depreciation studies, quality of service evaluations and rate design for rate applications and provide technical recommendations for Certificate of Convenience and Necessity (CCN) applications. Testify in hearings.

**Engineering Specialist V**

9/2014 Present  
Public Utility Commission, Austin, TX

Process Convenience and Necessity (CCN) applications. Perform depreciation studies, quality of service evaluations, design rates for rate applications and testify in hearings.

**Engineering Specialist V**

12/2006 – 8/2014  
Texas Commission on Environmental Quality, Austin, TX

Review plans, specifications and engineering reports for new or modified public water systems to ensure compliance with Federal and State standards. Process Convenience and Necessity (CCN) applications. Perform depreciation studies, quality of service evaluations, design rates for rate applications and testify in hearings.

**Project Manager**

6/2006 12/2006  
Gunze Electronics USA, Austin, TX

Developed schedules establishing sequence and time frame of manufacturing operations in order to meet production requirements for Electroluminescent Lamps and External Gasket production lines. Reviewed orders, shipping needs, plant capacity and inventory before drawing up schedules. Review engineering drawings and bill of materials (BOM) for accuracy before releasing to production. Responsible for materials database implementation.

**Shift Manager**

8/2005 4/2006  
Bealls, Bastrop, TX

Accountable for managing all aspects of retail clothing store.

**Assistant Store Manager**

8/2003 5/2005

McDonalds, Elgin, TX

Accountable for managing all aspects of fast food restaurant, including inventory, cash management and scheduling.

**Inventory Control/Production Control Planner**

4/1994 4/2003

Applied Materials, Austin, TX

Created and maintained documents in the Quality Management System. Provided inventory and production forecast and scheduling using Oracle materials database. Built, developed and tested Thin Film Technology (TFT) prototypes.

**Aircraft Maintenance Officer**

12/1988 12/1992

U.S. Air Force, Holloman Air Force Base, NM

Led, trained and equipped 75 to 250 maintenance personnel at home base and deployed locations. Managed maintenance and modification of 25 fighter aircraft and associated equipment. Maintained workforce discipline and responded to personnel issues while balancing workforce availability and skill levels with operational requirements. Ensured adherence to technical data, policy, procedures and safe maintenance practices. Maintained aircraft configuration: daily aircraft servicing, weapons loading, launch recovery and repair, periodic aircraft maintenance inspections and requirements.

**Education**

5/1988

University of Missouri, Rolla, MO

Bachelor's Degree in Mechanical Engineering

**Heidi Graham, EIT**  
**Public Utility Commission of Texas (PUC)**  
**List of Previous Testimony**

Testimonies for TCEQ Staff

Docket	Company	Application Type
SOAH 582-08-4354	James Maib dba H2O Systems Plus	Rate Application Water
SOAH 582-08-2863	Lower Colorado River Authority	Rate Appeal Water
SOAH 582-08-4353	Interim-La Ventana	Sale, Transfer, Merger Water
SOAH 582-09-0660	North San Saba WSC	Rate Appeal Water
SOAH 582-09-0592	City of Nixon	CCN Amendment Water
SOAH 582-10-3422	Denton Co. WCID No. 1	Rate Appeal Water
SOAH 582-10-5999	City of Kerrville	CCN Amendment Water
SOAH 582-13-4616	HHJ dba Decker Utilities	Rate Application Water and Sewer
SOAH 582-13-4616	M.E.N. WSC	Cost of Service Appeal Water

Testimonies for PUC Staff

PUC Docket	SOAH Docket	Company	Application Type
42858	473-14-0366	SJWTX, Inc. dba Canyon Lake Water Service Co.	Rate Application Water
42942	473-15-0623.WS	Castle Water, Inc. dba Horseshoe Bend Water System	Rate Application Water
42857	473-14-5138	City of Austin	Wholesale Appeal
42866	473-14-5144.WS	West Travis County PUA	Wholesale Appeal
42924	473-15-0371	Crystal Springs Water Co. Inc.	CCN Amendment Water
42862	473-14-5139	Town of Woodloch	Rate Appeal – Water and Sewer
42860	473-14-5140	Douglas Utility Company	Rate Settlement – Water and Sewer
43554	473-15-1230.WS	Mansions of Turkey Creek	Rate Appeal – Water and Sewer
44657	473-16-0927.WS	Interim-La Ventana	Sale Transfer Merger
43076	473-16-2049.WS	Consumers Water, Inc.	Rate Application Water
44046	473-15-4390.WS	Laguna Vista/Laguna Tres	STM Water

Available on attached CD

Available on attached CD





**Summary of Proposed Revisions to the  
NARUC Uniform System of Accounts for  
Class A, B & C Water and Wastewater Utilities**

<u>Proposed Changes</u>	<u>Water</u>	<u>Wastewater</u>
1. Change the term "sewer" to "wastewater" where applicable to conform with the terminology currently used by the industry.	A B C	A B C
2. Increased the Class A, B & C revenue levels to account for inflation since the levels were last changed in 1984. This was done based on the same index used to set the levels in the 1984 revision. New levels are:  <div style="margin-left: 40px;">           Class A: \$1,000,000 and more,            Class B: \$200,000 to \$999,999, and            Class C: Less than \$200,000.         </div>	A B C	A B C
3. Included a monetary level for capitalizing versus expensing for all Classes as follows:  <div style="margin-left: 40px;">           Class A: \$750            Class B: \$400            Class C: \$150         </div>	A B C	A B C
4. Added definitions, accounting instructions and subaccounts to provide for the accounting for regulatory assets and liabilities.	A B	A B
5. Added a new water plant account to separately account for backflow prevention devices.	A B C	
6. Added new wastewater plant accounts to separately account for reuse facilities used to produce reclaimed water.		A B
7. Added new wastewater expense accounts to separately account for the operation of reuse facilities to produce reclaimed water.		A B



**PUC DOCKET NO. 45570  
SOAH DOCKET NO. 473-16-2873.WS**

**MONARCH'S RESPONSES TO OPUC'S FIRST REQUESTS FOR INFORMATION**

**OPUC RFI 1-24:** Referencing the testimony of Craig Gott, Page 55 (Bates Stamp 180), Lines 8-11, please provide a line-item description and associated cost of each item of capital investment which encompass the conference room rehabilitation at Holiday Villages.

**RESPONSE:** The description in the testimony used an incorrect description of a single asset instead of describing the class of assets the expenditures included.

The amount shown encompasses office furniture, fixtures, software, and other assets throughout the Monarch system.

These assets were excluded from rate base in the application.

See Attachment OPUC 1-24.

Prepared by: Bruce Connolly/George Freitag/Craig Gott  
Sponsored by: Craig Gott

Monarch Utilities I, LP  
 Supporting Schedule for OPUC RFI 1-24  
 at June 30, 2015

Asset No.	Asset Description	Original Cost
60000104	MITCHELL HUMPHREY ACCOUNTING SOFTWARE-AUSTIN OFFIC	21,000.00
60000094	MITCHELL HUMPHREY ACCTING SOFTWARE-	10,500.00
60000107	MITCHELL HUMPHREY SOFTWARE NEW REPORTS-	9,000.00
60000028	Asset Manager software licenses-	8,654.59
60000043	ArcEditor software and license for Joe Torralva-	7,577.50
60000091	(3) DESKS AND (5) 5 DRAWER LATERAL FILES-	5,686.37
60000126	CAD SOFTWARE-JOE TORRALVA-PFLUGERVILLE OFFICE	5,197.59
60000106	ECO-SERVER; (5) MS OFFICE; (5) NORTON-DALLAS OFFIC	3,859.11
60000097	MITCHELL HUMPHREY ACCTING SOFTWARE-	3,000.00
60000141	Conference Room Tables Conroe Office	2,277.00
60000096	SOFTWARE / COMPUTER SETUP-	2,208.30
60000139	60" TV Monarch Call-Center	1,804.32
60000095	4 2 DRAWER LATERAL FILES-	1,779.63
60000093	LASERJET PRINTER	1,520.29
60000033	FA SOFTWARE IMPLEMENTATION-	1,266.53
60000090	CANON D880 COPIER AND CANON L50-	1,036.44
60000116	DESK AND OFFICE FURNITURE-PFLUGERVILLE	1,010.73
60000102	4 DRAW FILE CABINET; COMPUTER CHAIR-AUSTIN OFFICE	943.71
60000089	TELEPHONES OFFICE SET UP-	800.62
60000103	MITCHELL HUMPHREY ACCOUNTING SOFTWARE-AUSTIN OFFIC	750.00
60000018	Infor Global Solutions Asset Mgr Software Implemen	730.69
60000029	FA SOFTWARE IMPLEMENTATION-	681.98
60000122	CONFERENCE ROOM CHAIRS-PFUGERVILLE OFFICE	649.44
60000088	MS OFFICE SOFTWARE-	580.22
60000100	NEW OFFICE CHAIR DALLAS OFFICE-DALLAS OFFICE	487.13
60000105	(3) OFFICE CHAIRS-PFLUGERVILLE OFFICE	441.54
60000099	HP DESKJET PRINTER MODEL 9300-	430.64
60000101	SONIC WALL FOR DALLAS OFFICE-DALLAS OFFICE	407.34
60000124	PRINTER FOR J TORRALVA-PFLUGERVILLE OFFICE	405.93
60000109	HP LASERJET 3015 PRINTER/FAX-PFLUGERVILLE OFFICE	381.84
60000121	CONFERENCE TABLE-PFUGERVILLE OFFICE	377.21
60000087	LASER MULTI-FUNCTION PRINTER-	357.20
60000119	FILE CABINET BILL-PFLUGERVILLE OFFICE	345.31
60000017	Infor Global Solutions Asset Mgr Software Implemen	340.99
60000092	MS OFFICE SOFTWARE	290.11
60000115	OFFICE CABINET-PFLUGERVILLE	155.87
60000120	DRY ERASE BOARD-PFUGERVILLE OFFICE	140.72
60000038	ASSET MANAGER SYSTEM PROJ WORK-	97.43
60000058	E523-New office furniture renovation project	64,442.00

Monarch Utilities I, LP  
 Supporting Schedule for OPUC RFI 1-24  
 at June 30, 2015

Asset No.	Asset Description	Original Cost
60000056	E416P-E416-Model 60 S/N 600128 and Artic. Arm Mail	8,900.00
60000057	E461-Modular Furniture	5,534.00
60000059	E326P-E326-Knoll 6 x 8 cubical stations for bookke	4,100.00
60000054	E325P-E325-Herman Mille low panels 6 x 5 for billi	3,900.00
60000138	CONSTRUCTION OF CONFERENCE ROOM 5251 PYRAMID BLV	3,648.14
60000137	HOT WATER HEATER & MISC PLUMBING @ LIVINGSTON OFFI	2,677.40
60000050	E196-New office furniture renovation project	2,537.00
60000136	SECURITY SYSTEM @ BENBROOK OFFICE	2,462.69
60000046	E190P-E190-Chairs and tables for conference room	2,400.00
60000060	E402P-E402-Lateral Files for bookkeeping dept	2,200.00
60000051	E197P-E197-4 Rectangular shape veneer tables	1,500.00
60000055	E403P-E403-Reception Hutch	800.00
60000047	E191P-E191-Chair; stack; chrome base; sofa	800.00
60000048	E192P-E192-File; lateral; 4-drawer	800.00
60000053	E199P-E199-3 guest wing-back leg base shairs	500.00
60000045	E189P-E189-Sofa for reception area	300.00
60000049	E194P-E194-Coffee table and 2 lamp tables	300.00
60000052	E198P-E198-95000 series credenza w/ doors	300.00
60000003	FILE CABINET-PFLUGERVILLE OFFICE	232.72
		205,508.27

**SOAH Docket No. 473-16-2873.WS**  
**PUC DOCKET NO. 45570**

**Attachment HG-7 (CD)**

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Available on attached CD





<b>APPLICANT'S REQUESTED RATES</b>			
<b>Minimum Bill</b>			
(includes 0 gallons)			
5/8"			\$51.78
3/4"			\$77.68
1"			\$129.56
1 1/2"			\$258.92
2"			\$414.27
3"			\$776.75
4"			\$1,294.58
6"			\$2,589.17
8"			\$4,142.67
<b>Gallage Rates</b>			
0	to	2,000	\$7.84
2,001	to	10000	\$9.66
10001	to	20000	\$10.96
20001	+		\$11.67
<b>No. of Meters</b>			
5/8" (incl whsl 5/8" equiv)			22,481
3/4"			53
1"			148
1 1/2"			24
2"			49
3"			3
4"			2
6"			
8"			1
<b>Total</b>			22,761
<b>Gallons Billed</b>			
0	to	2000	394,633
2001	to	10000	499,528
10001	to	20000	65,603
20001	+		70,280
<b>Total</b>			1,030,044
<b>REVENUE</b>			
<b>Base Rate</b>			
5/8"			\$13,968,794
3/4"			\$49,404
1"			\$230,099
1 1/2"			\$74,569
2"			\$243,591
3"			\$27,963
4"			\$31,070
6"			\$0
8"			\$49,712
<b>Total revenue generated by Minimum Charge</b>			\$14,566,457
<b>Volumetric Revenue</b>			
0	to	2000	\$3,093,923
2001	to	10000	\$4,825,440
10001	to	20000	\$719,009
20001	+		\$820,168
<b>Total revenue generated by Gallage Charge</b>			\$9,458,540
<b>Total Revenue Generated</b>			\$24,024,997
<b>Noticed Revenue Requirement</b>			\$27,131,403

<b>STAFF'S RECOMMENDED RATES</b>			
<b>Minimum Bill</b>			
(includes 0 gallons)			
5/8"			\$42.87
3/4"			\$64.31
1"			\$107.18
1 1/2"			\$214.35
2"			\$342.96
3"			\$643.05
4"			\$1,071.75
6"			\$2,143.50
8"			\$3,429.60
<b>Gallage Rates</b>			
0	to	2,000	\$6.05
2,001	to	10000	\$7.45
10001	to	20000	\$8.45
20001	+		\$9.00
<b>No. of Meters</b>			
5/8" (incl whsl 5/8" equiv)			22,481
3/4"			53
1"			148
1 1/2"			24
2"			49
3"			3
4"			2
6"			
8"			1
<b>Total</b>			22,761
<b>Gallons Billed</b>			
0	to	2000	394,633
2001	to	10000	499,528
10001	to	20000	65,603
20001	+		70,280
<b>Total</b>			1,030,044
<b>REVENUE</b>			
<b>Base Rate</b>			
5/8"			\$11,565,126
3/4"			\$40,898
1"			\$190,343
1 1/2"			\$61,733
2"			\$201,660
3"			\$23,150
4"			\$25,722
6"			\$0
8"			\$41,155
<b>Total revenue generated by Minimum Charge</b>			\$12,059,760
<b>Volumetric Revenue</b>			
0	to	2000	\$2,387,530
2001	to	10000	\$3,721,484
10001	to	20000	\$554,345
20001	+		\$632,520
<b>Total revenue generated by Gallage Charge</b>			\$7,295,879
<b>Total Revenue Generated</b>			\$19,355,638
<b>Staff's Recommended Revenue Requirement</b>			\$19,355,831



<b>APPLICANT'S REQUESTED RATES</b>	
<b>Minimum Bill</b>	
(includes 0 gallons)	
5/8"	\$77.63
3/4"	\$116.45
1"	\$194.08
1 1/2"	\$388.16
2"	\$621.05
3"	\$1,164.47
4"	\$1,940.78
6"	\$3,881.56
8"	
<b>Gallorage Rates</b>	
All Usage	\$2.73
<b>No. of Meters</b>	
5/8"	3,593
3/4"	22
1"	19
1 1/2"	7
2"	8
3"	
4	1
6	
8	
<b>Total</b>	<b>3,650</b>
<b>Gallons Billed</b>	
All Usage	170,885
<b>Total</b>	<b>170,885</b>
<b>REVENUE</b>	
<b>Base Rate</b>	
5/8"	\$ 3,347,095
3/4"	\$ 30,743
1"	\$ 44,250
1 1/2"	\$ 32,605
2"	\$ 59,621
3"	\$
4	\$ 23,289
6	\$
8	\$
<b>Total revenue generated by Minimum Charge</b>	
	\$ 3,537,604
<b>Volumetric Revenue</b>	
All Usage	\$466,516
<b>Total revenue generated by Gallorage Charge</b>	
	\$466,516
<b>Total Revenue Generated</b>	<b>\$4,004,120</b>
<b>Revenue Requested</b>	<b>\$4,383,985</b>

<b>STAFF'S RECOMMENDED RATES</b>	
<b>Minimum Bill</b>	
(includes 0 gallons)	
5/8"	\$63.48
3/4"	\$95.22
1"	\$158.70
1 1/2"	\$317.40
2"	\$507.84
3"	\$952.20
4"	\$1,587.00
6"	\$3,174.00
8"	
<b>Gallorage Rates</b>	
All Usage	\$2.10
<b>No. of Meters</b>	
5/8"	3,593
3/4"	22
1"	19
1 1/2"	7
2"	8
3"	
	4
	6
	8
<b>Total</b>	<b>3,650</b>
<b>Gallons Billed</b>	
All Usage	170,885
<b>Total</b>	<b>170,885</b>
<b>REVENUE</b>	
<b>Base Rate</b>	
5/8"	\$ 2,737,004
3/4"	\$ 25,138
1"	\$ 36,184
1 1/2"	\$ 26,662
2"	\$ 48,753
3"	\$
	4 \$ 19,044
	6 \$
	8 \$
<b>Total revenue generated by Minimum Charge</b>	
	\$ 2,892,784
<b>Volumetric Revenue</b>	
All Usage	\$358,859
<b>Total revenue generated by Gallorage Charge</b>	
	\$358,859
<b>Total Revenue Generated</b>	<b>3,251,642</b>
<b>Staff's Recommended Revenue</b>	<b>\$ 3,251,669</b>

**SOAH Docket No. 473-16-2873.WS**  
**PUC DOCKET NO. 45570**

**Attachment HG-10**

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**MONARCH UTILITIES I, LP**  
**COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

**COST OF CAPITAL (Exhibit PRM-1, Page 1 of 25, Schedule 1)**

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Summary as of 6/30/2015		Ratios	Cost Rate	Weighted Cost Rate					
2	Type of Capital:									
3	Debt	46.00%	6.45%		2.97%					
4	Equity	54.00%	10.75%		5.81%					
5	Total	100.00%								
6	Proposed Rate of Return				8.77%					

**RATE BASE (Schedule II-B)**

8	Net Plant in Service									
9	Origin al Cost of Utility Plant									
10	Less: Accumulated Depreciation									
11	Net Plant in Service									
12										
13										
14	Other Rate Base Items									
15	Co-struction Work in Progress									
16	Plant Held for Future Use									
17	Accumulated Provision									
18	Materials & Supplies									
19	Working Capital									
20	Prepayments									
21	Storm Damage and Extraordinary Property Loss									
22	Other Rate Base Items									
23	Regulatory Assets									
24	Accumulated Deferred Income Taxes									
25	Total Other Rate Base Items									
26										
27	Total Rate Base									
28										
29										
30	RETURN (c) ÷ (a) × (b)									
31										

**INTEREST & FIT EXPENSES CALCULATION**

32	Total Rate Base	(a)								
33	Weighted Cost of Debt	(d)								
34	Interest Expense	(e) = (a) × (d)								
35										
36	Income After Tax	(f) = (c) - (e)								
37	Federal Tax Rate	(g)								
38	Income Tax	(h) ÷ (g) / (1-g)								
39		(i) ÷ (h) × (h)								
40										

Monarch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Exhibit Schedule II-H-1 Cost of Service  
 With Robert Kelly

**MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

Line No (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)

**COMPARISON OF PRESENT AND PROPOSED RATES**

WATER		Increase %	
Present	Proposed	Dollar	%

WASTEWATER		Increase %	
Present	Proposed	Dollar	%

RESIDENTIAL CUSTOMERS:			
41	Revenues from:		
42	Service Charge	\$ 11,998,516	\$ 17,282,781
43	Usage Charge	\$ 7,629,160	\$ 8,406,926
44		\$ 19,627,676	\$ 25,689,706
45			\$ 6,062,030
46	NON-RESIDENTIAL CUSTOMERS:		
47	Service Charge	\$ 820,086	\$ 643,458
48	Usage Charge	\$ 1,434,713	\$ 1,388,589
49		\$ 2,254,799	\$ 2,012,027
50	Total Revenues	\$ 21,882,475	\$ 27,701,733
51			\$ 5,819,258
52			27%

**WATER - NUMBER OF CUSTOMERS (Excluding BLUE MOUND, Including Contractuals)**

Meter size	Residential	Non-Residential	Total	Meter Equivalent	Total Meter Equivalent
	(a)	(b)	(c) = (a) + (b)	(d)	(e) = (a) x (d)
5/8"	21,824	657	22,481	1.00	21,824
3/4"	44	9	53	1.50	66
1"	69	79	148	2.50	198
1 1/2"	4	20	24	5.00	100
2"	3	46	49	8.00	368
3"		3	3	15.00	45
4"		2	2	25.00	50
6"		1	1	50.00	80
72	21,944	817	22,761		22,107
73					1,511

**WATER - SERVICE CHARGE REVENUE CALCULATION**

67	Fixed Expenses:	\$ 17,981,197
68	Adjustment for Cost of Service per Original Filing	\$ (54,959)
69	Fixed Expenses per Original Filing	\$ 17,926,238
70		
71		
72		
73	Number of Customers	
74	Fixed Expenses Allocated (a)	\$ 17,282,781
75	Total Meter Equivalent (b)	\$ 22,107
76	Annual Meter Equivalent (c) = (b) x (12)	\$ 265,276
77	Service Charge for 5/8" Meter Size/Month (a/c)	\$ 65.15
		\$ 35.49

Monarch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Exhibit Schedule II-H-1 Cost of Service  
 Witness Robert Kelly

MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)

Li: No (a) (b) (c) (d) (e) (f) (g) (h) (i) (j)

WATER - Service Charge Revenue Calculator (Continued)

Present Rates Res = Non-Res	Meter Equivalent	Meter Size	Monthly Service Charge		Present Annual Service Charge Revenues		Proposed Annual Service Charge Revenues		
			Residential	Non-Residential	Residential (a) x (d) x 12	Non-Residential	Residential (a) x (e) x 12	Non-Residential	
78	1.00	5/8"	\$ 85.15	\$ 35.49	\$ 11,845,194	\$ 366,693	\$ 17,061,823	\$ 279,783	
79	\$57.84	1.50	3/4"	\$ 97.72	\$ 53.23	\$ 3,820	\$ 7,327	\$ 51,599	\$ 5,749
80	\$113.07	2.50	1"	\$ 162.87	\$ 88.72	\$ 93,622	\$ 107,190	\$ 134,860	\$ 84,105
81	\$226.14	5.00	1 1/2"	\$ 325.75	\$ 177.44	\$ 10,855	\$ 54,274	\$ 15,636	\$ 42,595
82	\$351.82	8.00	2"	\$ 524.20	\$ 283.90	\$ 13,026	\$ 199,725	\$ 18,783	\$ 58,221
83	\$578.41	15.00	3"	\$ 977.25	\$ 532.31	\$ 24,423	\$ 24,423	\$ 156,712	\$ 175,475
84	\$1,130.68	25.00	4"	\$ 1,628.74	\$ 887.18	\$ 27,136	\$ 27,136	\$ 19,163	\$ 19,163
85	\$2,261.37	50.00	6"	\$ 3,257.48	\$ 1,774.37	\$ 43,418	\$ 43,418	\$ 21,292	\$ 21,292
86	\$3,618.18	80.00	8"	\$ 5,211.98	\$ 2,838.99	\$ 820,086	\$ 43,418	\$ 643,458	\$ 34,068
87						\$ 11,998,516	\$ 12,818,602	\$ 17,282,781	\$ 643,458
88									
						Grand Total			
						\$ 11,998,516	\$ 12,818,602	\$ 17,282,781	\$ 643,458
									\$ 17,926,238

Monarch Utilities I, L.P.  
 Docket No 45370  
 Test Year Ending 6/30/2015  
 Exhibit Schedule II-H-1 Cost of Service  
 Witness Robert Kelly

**MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

**WATER USAGE CHARGE REVENUE CALCULATION**

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
90	All Usage										
91		7/14 - 6/15 Recorded Usage			Adjustment				Normalized Usage (Including Contractuals)		
92		Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	TOTAL	
93	In Thousand Gallons			-2.10%	-2.10%	(a)					
94		374,349	28,749	(7,961)	(604)	397,672	29,553	427,024			
95	Tier 1 0 - 2	457,436	52,807	(9,605)	(1,109)	493,621	53,570	547,191			
96	Tier 2 2,001 - 10	57,022	9,988	(1,197)	(210)	62,317	16,257	78,574			
97	Tier 3 10,001 - 20	7,757	64,031	(163)	(1,345)	36,700	65,698	102,398			
98	Tier 4 Over 20,001	896,564	155,574	(18,827)	(3,298)	990,310	164,877	1,155,187			
99	Percentage					86.0%	14.0%	100.0%			
100	Variable Expenses					\$ 8,448,866.45	\$ 1,376,397	\$ 9,824,263			
101	Adjustment for Cost of Service per Original Filing							\$ (49,789)			
102	Variable Expenses per Original Filing					\$ 8,406,926	\$ 1,388,599	\$ 9,795,495			
103											
104	Contractual Usage	Lakeshore Pinnacle & Cedar View	INHE	PMCK	Residential	Non-Residential	Residential	Non-Residential	TOTAL		
105	In Thousand Gallons										
106		Non-Residential									
107	Tier 1 0 - 2	9,691	22,701	9,249	442	21,935	766	31,194	1,206		
108	Tier 2 2,001 - 10	9,411	38,282	9,136	275	38,655	1,597	45,791	1,872		
109	Tier 3 10,001 - 20	5,397	6,562	1,000	22	5,492	1,070	6,492	6,479		
110	Tier 4 Over 20,001	545	31,573	420	125	28,696	2,887	29,105	3,012		
111		5,387	20,659	19,805	884	60,475	39,613	112,573	12,571		
112											
113											
114											
115	Present Rate/Thousand Gallons										
116		Residential	Non-Residential								
117		\$ 2,644,516	\$ 195,194	\$ 2,914,115	\$ 186,195	\$ 4,454,901	\$ 418,508	\$ 7,328	\$ 6,343		
118	Tier 1 \$ 6,650	\$ 4,042,756	\$ 438,735	\$ 4,454,901	\$ 418,508	\$ 637,944	\$ 144,065	\$ 9,025	\$ 7,812		
119	Tier 2 \$ 8,190	\$ 578,925	\$ 151,028	\$ 399,966	\$ 819,801	\$ 8,406,926	\$ 1,368,569	\$ 10,237	\$ 8,652		
120	Tier 3 \$ 9,290	\$ 362,963	\$ 649,736	\$ 8,406,926	\$ 1,368,569	\$ 777,766	\$ (66,144)	\$ 10,898	\$ 9,434		
121	Tier 4 \$ 9,890	\$ 7,629,160	\$ 1,434,713	\$ 8,406,926	\$ 1,368,569	\$ 8,406,926	\$ 1,368,569	\$ 8,406,926	\$ 1,368,569		
122	Target Revenue per Original Filing	\$ 8,406,926	\$ 1,368,569	\$ 8,406,926	\$ 1,368,569	\$ 8,406,926	\$ 1,368,569	\$ 8,406,926	\$ 1,368,569		
123	Additional (Reduction) Revenue	\$ 777,766	\$ (66,144)	\$ 777,766	\$ (66,144)	\$ 777,766	\$ (66,144)	\$ 777,766	\$ (66,144)		
124											



Monarch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Effective Date Schedule II-H-1 Cost of Service  
 Witness: Robert Kelly

**MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

Un: No (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)

WATER - COMPARISON PRESENT AND PROPOSED RATES ON MONTHLY BILL WITH 5/8" METER SIZE

Per Thousand Gallon

	Tier 1	Tier 2	Tier 3	Tier 4
0 - 2	2,001 - 10	10,001 - 20	over 20,001	

Usage - 000 gals.	RESIDENTIAL				NON-RESIDENTIAL			
	Present Rates	Proposed Rates	Dollars	Percent	Present Rates	Proposed Rates	Dollars	Percent
0	\$45.23	\$56.15	\$19.92	44.0%	\$45.23	\$35.48	(\$9.74)	-21.5%
2	\$58.53	\$79.81	\$21.28	36.3%	\$58.53	\$48.17	(\$10.36)	-17.7%
5	\$83.10	\$106.88	\$23.78	28.6%	\$83.10	\$71.61	(\$11.49)	-13.8%
7	\$99.48	\$124.93	\$25.45	25.6%	\$99.48	\$87.24	(\$12.24)	-12.3%
10	\$124.05	\$152.01	\$27.96	22.5%	\$124.05	\$110.67	(\$13.38)	-10.8%
12	\$142.63	\$172.48	\$29.85	20.9%	\$142.63	\$128.40	(\$14.23)	-10.0%
15	\$170.50	\$203.19	\$32.69	19.2%	\$170.50	\$154.98	(\$15.52)	-9.1%
17	\$189.08	\$223.66	\$34.58	18.3%	\$189.08	\$172.71	(\$16.37)	-8.7%
20	\$216.95	\$254.38	\$37.43	17.3%	\$216.95	\$199.29	(\$17.66)	-8.1%
25	\$266.40	\$308.87	\$42.47	15.9%	\$266.40	\$246.46	(\$19.94)	-7.5%
30	\$315.85	\$363.36	\$47.51	15.0%	\$315.85	\$293.63	(\$22.22)	-7.0%
40	\$414.75	\$472.34	\$57.59	13.9%	\$414.75	\$387.97	(\$26.78)	-6.5%

**WASTEWATER - NUMBER OF CUSTOMERS (Excluding BLUE MOUND, including Contractuals)**

Meter size	Total Meter Equivalent			Total Meter Equivalent		
	Residential	Non-Residential	Total	Residential	Non-Residential	Total
5/8"	3,467	126	3,593	3,467	126	3,593
3/4"	19	3	22	19	3	22
1"	8	11	19	8	11	19
1 1/2"		7	7		7	7
2"		8	8		8	8
3"						
4"		1	1		1	1
6"						
8"						
	<b>3,494</b>	<b>186</b>	<b>3,680</b>	<b>3,494</b>	<b>282</b>	<b>3,776</b>

Monarch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Errata Schedule II-H-1 Cost of Service  
 With ss: Robert Kelly

**MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

Line No (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l)

**WASTEWATER - SERVICE CHARGE REVENUE CALCULATION**

155	WASTEWATER - SERVICE CHARGE REVENUE CALCULATION																			
156	Fixed Expenses :	\$	2,987,854																	
157	Number of Customers		3,494		156		3,650													
158	Fixed Expenses Allocated (e)	\$	2,860,154	\$	127,700	\$	2,987,854													
159	Total Meter Equivalent (f)		3,516		282		3,798													
160	Annual Meter Equivalent (g) = (f) x (i)		42,186		3,384		45,570													
161	Service charge for 818" Meter - Size/Month (a)(c)	\$	67.80	\$	37.74		105.54													

Present Rates	Meter Equivalent	Meter Size	Monthly Service Charge		Present Annual Service Charge Revenues		Proposed Annual Service Charge Revenues		
			Residential	Non-Residential	Residential (a) x (d) x 12	Non-Residential (a) x (d) x 12	Residential (a) x (g) x 12	Non-Residential (a) x (g) x 12	
164	1.00	5/8"	\$ 67.80	\$ 37.74	\$ 2,820,751	\$ 102,514	\$ 2,923,265	\$ 2,820,656	
165	1.50	3/4"	\$ 101.70	\$ 56.60	\$ 23,190	\$ 3,662	\$ 26,851	\$ 23,187	
166	2.50	1"	\$ 169.50	\$ 94.34	\$ 16,273	\$ 22,375	\$ 38,648	\$ 16,272	
167	5.00	1 1/2"	\$ 338.99	\$ 188.68	\$ 28,478	\$ 28,478	\$ 28,478	\$ 28,478	
168	8.00	2"	\$ 542.39	\$ 301.89	\$ 52,074	\$ 52,074	\$ 52,074	\$ 52,074	
169	15.00	3"	\$ 1,016.98	\$ 566.05	\$ 20,341	\$ 20,341	\$ 20,341	\$ 20,341	
170	25.00	4"	\$ 1,694.97	\$ 943.41	\$ 1,886.82	\$ 1,886.82	\$ 1,886.82	\$ 1,886.82	
171	50.00	6"	\$ 3,389.93	\$ 1,886.82	\$ 2,860,214	\$ 229,444	\$ 3,089,658	\$ 2,860,154	
172	80.00	8"	\$ 5,423.89	\$ 3,018.91	\$ 2,860,214	\$ 229,444	\$ 3,089,658	\$ 2,860,154	
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**WASTEWATER USAGE CHARGE REVENUE CALCULATION**

All Usage In Thousand Gallons	7/14 - 6/15 Recorded Usage		TOTAL
	Residential	Non-Residential	
187	137,225	33,660	170,885
188	137,225	33,660	170,885
189	80.0%	20.0%	100.0%
190	\$ 1,185,914	\$ 296,478	\$ 1,482,392
191	\$ 1,185,914	\$ 296,478	\$ 1,482,392
192	\$ 859,316	\$ 216,368	\$ 1,075,684
193			

Present Rates/Thousand Gallons (Residential : Non-Residential)	Present Revenues		TOTAL
	Residential	Non-Residential	
187	\$ 326,596	\$ 80,411	\$ 407,007
188	\$ 1,185,914	\$ 296,478	\$ 1,482,392
189	\$ 859,316	\$ 216,368	\$ 1,075,684
190	\$ 1,185,914	\$ 296,478	\$ 1,482,392
191	\$ 1,185,914	\$ 296,478	\$ 1,482,392
192	\$ 859,316	\$ 216,368	\$ 1,075,684
193			

Proposed Rates/Thousand Gallons (b) (c) (d)	Proposed Revenues		TOTAL
	Residential	Non-Residential	
187	\$ 864.2	\$ 8,808	\$ 9,672.2
188	\$ 1,185,914	\$ 296,478	\$ 1,482,392
189	\$ 859,316	\$ 216,368	\$ 1,075,684
190	\$ 1,185,914	\$ 296,478	\$ 1,482,392
191	\$ 1,185,914	\$ 296,478	\$ 1,482,392
192	\$ 859,316	\$ 216,368	\$ 1,075,684
193			

Monarch Utilities I, L.P.  
 Doc# 45570  
 Test Year Ending 6/30/2015  
 Estimate Schedule I-H-1 Cost of Service  
 With Robert Kelly

**MONARCH UTILITIES I, LP  
 COST OF SERVICE STUDY (TY 7/2014 - 6/2015)**

Lin. No.	(a)	(b)	(c)	(d)		(e)		(f)	(g)	(h)	(i)		(j)	(k)
				Present Rates	Proposed Rates	Dollars	Percent				Present Rates	Proposed Rates		
<b>RESIDENTIAL</b>														
194	WASTEWATER - COMPARISON PRESENT AND PROPOSED RATES ON MONTHLY BILL WITH 5/8" METER SIZE	0	\$67.80	\$67.80	(\$0.00)	0.0%	\$67.80		\$67.80	\$37.74	(\$30.06)	-44.3%		
195		2	\$72.56	\$85.06	\$12.52	17.3%	\$72.56		\$72.56	\$55.35	(\$17.21)	-23.7%		
196		5	\$79.70	\$111.01	\$31.31	39.3%	\$79.70		\$79.70	\$81.78	\$2.08	2.6%		
197		7	\$84.46	\$128.29	\$43.83	51.9%	\$84.46		\$84.46	\$98.39	\$14.93	17.7%		
198		10	\$91.60	\$154.22	\$62.62	68.4%	\$91.60		\$91.60	\$125.82	\$34.22	37.4%		
199		12	\$96.36	\$171.50	\$75.14	78.0%	\$96.36		\$96.36	\$143.43	\$47.07	48.9%		
200		15	\$103.50	\$197.43	\$93.93	90.8%	\$103.50		\$103.50	\$169.86	\$66.36	64.1%		
201		17	\$108.26	\$214.71	\$106.45	98.3%	\$108.26		\$108.26	\$187.47	\$79.21	73.2%		
202		20	\$115.40	\$240.64	\$125.24	108.5%	\$115.40		\$115.40	\$213.90	\$98.50	85.4%		
203		25	\$127.30	\$283.85	\$156.55	123.0%	\$127.30		\$127.30	\$257.94	\$130.64	102.6%		
204		30	\$139.20	\$327.06	\$187.86	135.0%	\$139.20		\$139.20	\$301.98	\$162.78	116.9%		
205		40	\$163.00	\$413.48	\$250.48	153.7%	\$163.00		\$163.00	\$390.06	\$227.06	139.3%		
206		50	\$186.80	\$499.90	\$313.10	167.6%	\$186.80		\$186.80	\$478.14	\$291.34	155.0%		



Mo ch Utilities I, L.P.  
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 Er ata Schedule III (S) Wastewa Rate Desigr  
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Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
2	COST OF CAPITAL (Exhibit PMA-1; Page 1 of 25, Schedule 1)														
3	Summary of 6/30/2015 Ratios														
4	Type of Capital:														
5	Debt 46.00%														
6	Equity 54.00%														
7	Total 100.00%														
8	Proposed Rate of Return 8.77%														
9															
10															
11	RATE BASE (Schedule B-8)														
12	Net Plant in Service														
13	Original Cost of Utility Plant														
14	Less Accumulated Depreciation														
15	Net Plant in Service														
16															
17	Other Rate Base Items														
18	Construction Work in Progress														
19	Plant Held for Future Use														
20	Accumulated Provisions														
21	Materials & Supplies														
22	Working Capital														
23	Prepayments														
24	Storm Damage and Extraordinary Property Loss														
25	Other Rate Base Items														
26	Regulatory Asset:														
27	Accumulated Deferred Income Taxes														
28	Total Other Rate Base Items														
29															
30															
31	Total Rate Base														
32															

Wastewater	Includes Theoretical Depreciation Reserve Adjustment
\$ 20,359,143	\$ 20,359,143
\$ (7,191,114)	\$ (6,923,493)
\$ 13,168,029	\$ 13,435,651
\$ 52,507	\$ 52,507
\$ 46,089	\$ 46,089
\$ 5,830	\$ 5,830
\$ (1,268,093)	\$ (1,268,093)
\$ (1,120,523)	\$ (1,211,514)
\$ (2,284,190)	\$ (2,375,182)
\$ 10,883,839	\$ 11,060,469

Mon ch Utilities I. L.P.  
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 Test Year Ending 6/30/2015  
 Er ata Schedule III (S)  
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Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
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Mc ch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Frata Schedule III (S) Wastewater Rate Design  
 Witness George Fritag

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
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SUMMARY OF EARNINGS AT PRESENT RATES

85															
86															
87															
88															
89															
90	1	Operating Revenues (Calculated at Present Rates)													
91	2	Other Operating Revenues													
92	3	Total Operating Revenues													
93															
94	4	Operating Expenses													
95	5	Depreciation Expenses													
96	6	Amortization Expenses													
97	7	Taxes Other Than on Income													
98	8	Interest Expense													
99	9	GENERAL Expenses category (excl Interest Expense) per T8													
100	10	Total Expenses before in come Tax													
101	11	CURRENT INCOME TAX													
102	12	Total Expenses													
103															
104	13	Net Operating (Income)/Loss													
105															
106	14	Rate Base													
107															
108	15	Rate of Return, Percent													
109															
110															
111	11	Detailed of Summary of Earnings Components:													
112		Current Income Tax													
113		Total Operating Revenues													
114		Total Expenses before Income Tax													
115		Interest Expense													
116		Subtotal Deduction													
117															
118		Taxable Income/Loss													
119		Federal Income Tax (FIT) Rate													
120		Current in come Tax													
121															
122															

After KAM Adjustment	Wastewater
04%	15%
69%	14%
Waste	Wastewater
	\$3,486,384
	202,295
	\$3,698,659

WasteWater
\$3,698,659

\$3,209,334
\$322,924
\$3,532,257
\$166,402
34%
\$56,977

No. ch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Er ata Schedule III (S)  
 Whrn George Fr itag Wastewater Rate De ign

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
123	SUMMARY OF EARNINGS AT PROPOSED RATES														
125															
126															
127	1	Proposed Operating Revenues													
128	2	Other Revenues													
129	3	Total Proposed Revenues													
130		Wastewater													
131	4	1.0711%													
132	5	Increase in Uncollectible													
133	6	0%													
134	7	Operating Expenses													
135	8	Depreciation Expenses													
136	9	Amortization Expenses													
137	10	Taxes Other Than on Income													
138	11	Interest Expense													
139	12	GENERAL Expense category (e of Interest Exp.) per 778													
140	13	Total Expenses before Income Tax													
141	14	CURRENT INCOME TAX													
142		Total Expenses													
143	15	Net Operating Income/(Loss)													
144															
145	16	Rate Basis													
146	17	Rate of Return, Percent													
148	18														
149															
150	13	TAXES OF PROPOSED INCOME COMPUTATION													
151		Total Proposed Revenues													
152		Total Expenses before Interest Expense													
153		Interest Expense													
154		Subtotal deduction													
155		Taxable Income/(Loss)													
157		FTT Rate													
158		FTT Expense													
159															
161															



Mc ch Utilities I, L.P.  
 Docket No 45570  
 Test Year Ending 6/30/2015  
 Rate Schedule III (\$5) Wastewater Rate Design  
 Written George Fr itag

Line	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
162	COST OF SERVICE CALCULATION														
163															
164															

Revenue requirement \$4,498,105  
 Less other revenues (3202,295)  
 Less 2016 contractual revenues \$0  
 Remaining revenues recoverable from rates (a) \$4,295,810  
 Less Theoretical Reserve Adjustment (\$114,245)  
 Remaining revenues recoverable from rates After adjustment (b) \$4,181,565

Present rate revenues from:  
 Service charge \$3,089,658 89.37%  
 Usage charge \$4,06,706 11.63%  
 To all present rate revenues (c) \$3,496,364 100.00%

Balanced revenues subject to rate increase (b - c) \$685,201

Proposed additional revenues from:  
 Service charge \$805,496  
 Usage charge \$79,704  
 Proposed : 1 rate increase: 19.60%  
 \$885,201

Proposed revenues from:  
 Service charge \$3,895,154  
 Usage charge \$486,411  
 check (\$114,245)  
 \$4,181,565

Service charge  
 Usage charge  
 Less 2016 contractual revenues  
 Proposed revenues \$4,181,565

	Phased in Rate Increase			TOTAL
	Phase I	Phase II	Phase III	
\$448,000	\$77,890	\$79,605	\$605,496	
\$39,572	\$10,283	\$10,479	\$79,704	
\$806,973	\$88,144	\$80,094	\$885,201	
14.50%	2.20%	2.20%	18.60%	
14.50%	2.202%	2.202%	18.90%	
\$06,973 \$	\$8,144 \$	\$0,094 \$	\$85,201	

Cumulative Proposed revenues from:			
	Phase I	Phase II	Phase III
\$3,537,658	\$3,615,549	\$3,895,154	
\$465,679	\$475,932	\$486,411	
\$4,003,337	\$4,091,481	\$4,181,565	\$0

Monarch Utilities I, L.P.  
 Doc No 45370  
 Ending 6/30/2015  
 Rate Schedule III (S) Wastewater Rate Design  
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Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
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201 RATE DESIGN CALCULATION

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
202	TOTAL Number of Customers less BLUE MOUND, Incl. Lakeshore														
203	Phase I														
204	Phase II														
205	Phase III														

206 Monthly Service Charge

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
206	5/8"	3,437	3,583	\$67.80	\$2,923,266	\$77.63	\$79.34	\$81.09	\$3,347,151	\$3,420,847	\$3,496,166				
207	3/4"	17	22	\$101.71	\$2,881	\$116.45	\$119.01	\$121.63	\$30,742	\$31,419	\$32,111				
208	1"	21	19	\$189.51	\$3,948	\$194.09	\$198.35	\$202.72	\$44,250	\$45,224	\$46,220				
209	1 1/2"	7	7	\$339.02	\$2,378	\$389.16	\$396.70	\$405.44	\$32,605	\$33,323	\$34,057				
210	2"	9	8	\$542.44	\$4,874	\$821.06	\$834.72	\$848.70	\$69,821	\$69,934	\$70,000				
211	3"	1	1	\$1,017.07	\$1,017.07	\$1,194.47	\$1,190.11	\$1,218.31	\$0	\$0	\$0				
212	4"	1	1	\$1,695.12	\$1,695.12	\$1,940.78	\$1,963.51	\$2,027.19	\$23,289	\$23,802	\$24,326				
213	6"	1	1	\$3,390.25	\$3,390.25	\$3,891.56	\$3,967.03	\$4,054.37	\$0	\$0	\$0				
214	8"	1	1	\$5,424.30	\$5,424.30	\$6,210.50	\$6,347.24	\$6,485.99	\$0	\$0	\$0				

215 Total Number of Customers

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
215	3,482														
216	3,650														
217	Total Service Charge Revenues \$3,089,659														

218 Usage Charge/thousand gallons

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
218	Total Usage Charge Revenues \$406,706														
219	Gal x 1000														
220	Usage Adj. 170,885														
221	Meter Adj. 170,885														
222	Total Usage Charge Revenues \$239														
223	Incl. Adj. \$406,706														
224	Total Usage Charge Revenues \$239														
225	TOTAL REVENUES \$3,496,364														

226 SERVICE CHARGE PROPOSED RATE CALCULATION

Line No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
226	Customer Count Year End 3,583														
227	Meter size 1.00														
228	Phase I 3,583														
229	Phase II 3,583														
230	Phase III 3,583														
231	Year End 3,583														
232	Meter size 1.00														
233	Phase I 3,583														
234	Phase II 3,583														
235	Phase III 3,583														
236	Year End 3,583														
237	Meter size 1.50														
238	Phase I 48														
239	Phase II 48														
240	Phase III 48														
241	Year End 144														
242	Meter size 2.50														
243	Phase I 35														
244	Phase II 35														
245	Phase III 35														
246	Year End 105														
247	Meter size 3.00														
248	Phase I 64														
249	Phase II 64														
250	Phase III 64														
251	Year End 192														
252	Meter size 8.00														
253	Phase I 0														
254	Phase II 0														
255	Phase III 0														
256	Year End 0														
257	Meter size 15.00														
258	Phase I 25														
259	Phase II 25														
260	Phase III 25														
261	Year End 75														
262	Meter size 25.00														
263	Phase I 0														
264	Phase II 0														
265	Phase III 0														
266	Year End 0														
267	Meter size 60.00														
268	Phase I 0														
269	Phase II 0														
270	Phase III 0														
271	Year End 0														
272	Total revenues from recoverable from service charge \$3,537,659														
273	Annual Cost per Meter Equivalent, Dollars \$931.36														
274	Monthly Meter Equivalent Cost, Dollars (Rate for 5/8") \$77.63														
275	Phase I \$3,496,364														
276	Phase II \$4,091,481														
277	Phase III \$4,181,565														
278	difference \$0														

COMPARISON OF PRESENT RATES AND PROPOSED MONTHLY BILL FOR 5/8"

Usage in 000 gals	Pr ent Rates	Proposed Rates	Plus : Increase Dollars	Percent
0 \$	67.80	77.6312985	9.831298499	0.145004403
2 \$	72.96	83.0814985	10.6214985	0.145004114
5 \$	79.70	91.2667985	11.5667985	0.145003745
7 \$	84.46	96.7069985	12.2469985	0.145003534
10 \$	91.80	104.8822985	13.2622985	0.145003259
12 \$	96.36	110.3924985	13.8724985	0.145003098
15 \$	103.50	118.5077985	15.0077985	0.145002894
17 \$	108.26	123.9579985	15.6979985	0.145002757
20 \$	115.40	132.1332985	16.7332985	0.145002587
25 \$	127.30	146.7587985	18.4587985	0.145002345
30 \$	139.20	159.3842985	20.1942985	0.145002144
40 \$	163.00	186.6352985	23.6352985	0.145001831

**SOAH Docket No. 473-16-2873.WS**  
**PUC DOCKET NO. 45570**

**Attachment HG-12**

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1 Q. WHAT WAS THE EFFECT OF THE WEATHER ADJUSTMENT ON TOTAL  
2 TEST YEAR WATER CONSUMPTION?

3 A. Overall, considering the weather metrics that impact water consumption and the  
4 varying impacts of these metrics during the year, weather during the Test Year was  
5 more extreme than normal, and the magnitude of the weather normalization  
6 adjustment is a reduction of 24,134 kgal, or approximately 2.1 percent.

7 Q. HAVE YOU DETERMINED THE REASONABLENESS OF THE WEATHER  
8 ADJUSTMENTS PROPOSED BY MONARCH IN THIS PROCEEDING?

9 A. Yes. I have reviewed the regressions, the weather data, and the calculation of the  
10 weather normalization adjustments, and have found the weather adjustments to be  
11 within an acceptable range of reasonableness and accuracy based on long-standing  
12 statistical standards in the industry.

13 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

14 A. Yes, it does.