Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1 (S) Original Cost of Utility Plant - Wastewater Operations
Witness: Craig Gott

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	351	Organization	No Workpaper	$ -	$ -	$ -	WW-DIRECT	$ -	$ -
2	352	Franchises	No Workpaper	14,999	-	14,999	WW-DIRECT	-	14,999
3	353	Land and Land Rights	No Workpaper	24,093	-	24,093	WW-DIRECT	-	24,093
4	354	Structures and Improvements	No Workpaper	3,673,343	-	3,673,343	WW-DIRECT	-	3,673,343
5	355	Power Generation Equipment	No Workpaper	24,283	(2,248)	22,035	WW-DIRECT	-	22,035
6	360	Collection Sewers - Force	No Workpaper	4,139,720	(396,977)	3,742,743	WW-DIRECT	-	3,742,743
7	361	Collection Sewers - Gravity	No Workpaper	3,430,190	(273,229)	3,156,961	WW-DIRECT	-	3,156,961
8	362	Special Collecting Structures	No Workpaper	155,040	-	155,040	WW-DIRECT	-	155,040
9	363	Services to Customers	No Workpaper	33,792	(20,750)	13,042	WW-DIRECT	-	13,042
10	364	Flow Measuring Devices	No Workpaper	58,769	-	58,769	WW-DIRECT	-	58,769
11	365	Flow Measuring Installations	No Workpaper	-	-	-	WW-DIRECT	-	-
12	366	Reuse Services	No Workpaper	-	-	-	WW-DIRECT	-	-
13	367	Reuse Meters and Meter Installations	No Workpaper	35,793	-	35,793	WW-DIRECT	-	35,793
14	370	Receiving Wells	No Workpaper	1,439,810	(85,006)	1,354,804	WW-DIRECT	-	1,354,804
15	371	Pumping Equipment	No Workpaper	2,059,847	(109)	2,059,737	WW-DIRECT	-	2,059,737
16	374	Reuse Distribution Reservoirs	No Workpaper	-	-	-	WW-DIRECT	-	-
17	375	Reuse Transmission and Distribution System	No Workpaper	-	-	-	WW-DIRECT	-	-
18	380	Treatment and Disposal Equipment	No Workpaper	4,953,473	-	4,953,473	WW-DIRECT	-	4,953,473
19	381	Plant Sewers	No Workpaper	855,657	(1,867)	853,790	WW-DIRECT	-	853,790
20	382	Outfall Sewer Lines	No Workpaper	-	-	-	WW-DIRECT	-	-
21	389	Other Plant and Misc. Equipment	No Workpaper	-	-	-	WW-DIRECT	-	-
22	390	Office Furniture and Equipment	No Workpaper	869	(869)	-	WW-DIRECT	-	-
23	391	Transportation Equipment	No Workpaper	117,901	-	117,901	WW-DIRECT	-	117,901
24	392	Stores Equipment	No Workpaper	-	-	-	WW-DIRECT	-	-
25	393	Tools, Shop and Garage Equipment	No Workpaper	1,100	(516)	584	WW-DIRECT	-	584
26	394	Laboratory Equipment	No Workpaper	2,270	-	2,270	WW-DIRECT	-	2,270
27	395	Power-Operated Equipment	No Workpaper	8,873	-	8,873	WW-DIRECT	-	8,873
28	396	Communication Equipment	No Workpaper	60,623	-	60,623	WW-DIRECT	-	60,623
29	397	Miscellaneous Equipment	No Workpaper	3,232	-	3,232	WW-DIRECT	-	3,232
30	398	Other Tangible Plant	No Workpaper	615	(615)	-	WW-DIRECT	-	-
31							WW-DIRECT	-	-
32									
33		Please refer to the testimony and exhibits of Craig Gott.							
34									
35									
36									
37									
38		Total Original Cost of Plant - Wastewater Operations		$ 21,094,290	$ (782,185)	$ 20,312,104		$ -	$ 20,312,104

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1 (SH) Original Cost of Utility Plant - Shared Plant
Witness: Craig Gott

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	310	Power Generation Equipment	No Workpaper	9,240	-	9,240	WTR-WWR	7,762	1,478
2	311	Pumping Equipment	No Workpaper	957	-	957	WTR-WWR	804	153
3	340	Office Furniture and Equipment	No Workpaper	97,217	-	97,217	WTR-WWR	81,662	15,555
4	341	Transportation Equipment	No Workpaper	2,281	-	2,281	WTR-WWR	1,916	365
5	343	Tools, Shop and Garage Equipment	No Workpaper	4,685	-	4,685	WTR-WWR	3,935	750
6	344	Laboratory Equipment	No Workpaper	6,056	-	6,056	WTR-WWR	5,087	969
7	345	Power Operated Equipment	No Workpaper	4,835	-	4,835	WTR-WWR	4,062	774
8	347	Miscellaneous Equipment	No Workpaper	9,600	-	9,600	WTR-WWR	8,064	1,536
9	381	Plant Sewers	No Workpaper	47,928	-	47,928	WTR-WWR	40,259	7,668
10	390	Office Furniture and Equipment	No Workpaper	108,334	-	108,334	WTR-WWR	91,001	17,333
11	395	Power Operated Equipment	No Workpaper	44,860	-	44,860	WTR-WWR	37,682	7,178
12		Total Original Cost of Plant - Shared Plant		$ 335,993	$ -	$ 335,993		$ 282,234	$ 53,759

Please refer to the testimony and exhibits of Craig Gott.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.1 Original Cost of Utility Plant for Water/Sewer
Witness: Craig Gott

a	See testimony of Craig Gott for details of these items.
c	N/A - All projects were complete at the end of the test year - No current budget costs.
e	Not Available
f	N/A - All projects were complete at the end of the test year
g	Not Available
h	N/A - No further retirements anticipated related to the plant additions.
i	See testimony of Craig Gott for details of these items.
j	See testimony of Craig Gott for details of these items.
k	See testimony of Craig Gott for details of these items.
l	See Schedules II-E-1.4(W) & II-E-1.4(S)for depreciation rate applicable
m	See testimony of Craig Gott for details of these items.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.1.b Original Budgeted Cost
Witness: Carmelitha Bordelon-Taylor

Confidential

See CONFIDENTIAL Schedule II-B-1.1.b

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.1.d Reason for Change in Budgeted Cost
Witness: Carmelitha Bordelon-Taylor

Confidential

See CONFIDENTIAL Schedule II-B-1.1.d

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.2 Adjusted Test Year Plant
Witness: Craig Gott

There were no adjustments to test year plant

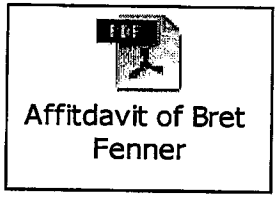
Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.3 Assets Used for Purposes Other than Utility
Witness: Craig Gott

No Monarch assets are used for purposes other than water and/or sewer utility.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.4 Assets not Currently in Use
Witness: Bret Fenner

All assets included in rate base are used and useful. See testimony of Bret Fenner.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-1.5 Engineer's Affidavit
Witness: Bret Fenner



AFFIDAVIT OF BRET W. FENNER, P.E.
REGARDING MONARCH UTILITIES I, L.P.'S RATE BASE

STATE OF TEXAS)
)
COUNTY OF TRAVIS)

BEFORE ME, the undersigned authority, on this day personally appeared Bret W. Fenner, P.E. who being by me first duly sworn, on oath deposed and said the following:

1. My name is Bret W. Fenner. I am over the age of 18 and am otherwise competent to make this affidavit. I am a licensed professional engineer in Texas and am President of B&D Environmental, Inc. ("B&D"). I have been retained by Monarch Utilities I, L.P. ("Monarch") in this matter. I have personal knowledge of the facts stated herein and those facts are true and correct.

2. I have been a licensed professional engineer in Texas since 1997. I have previously worked at the Texas Natural Resource Commission and its predecessor agency from 1990 until 1997. I have been the President of B&D since 1997, where I focused my engineering practice on water engineering consulting services focusing on regulatory compliance and ratemaking. I have represented regulatory agencies, utilities, and consumers in numerous rate proceedings in my 18 plus years of experience as a professional engineer. I have testified in over 30 proceedings before the Texas Commission on Environmental Quality and its predecessor agency.

3. Through my many years of experience in the water utility industry, I have become familiar with the calculation and analysis associated with developing a utility rate

base, including analyzing all non-retired assets included within a utility's rate base to determine whether it is used and useful in providing utility service.

4. After conducting all necessary due diligence regarding Monarch's non-retired assets, I have concluded that the non-retired assets for which original costs are claimed as a part of rate base by Monarch are currently used and useful in providing utility service, as of the date of this affidavit.

FURTHER AFFIANT SAYETH NOT.

BRET W. FENNER, P.E.

SUBSCRIBED AND SWORN TO before me this 5th day of February, 2016.

CHRISTIE ALEXANDRA AZAR
My Commission Expires
August 7, 2019

Notary Public, State of Texas

3176/18/6395612

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-2 Construction Work in Progress - Total Company
Witness: Carmelitha Bordelon-Taylor

Monarch is not requesting the inclusion of Construction Work in Progress in rate base.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-2.1 Cancelled Construction Projects
Witness: Carmelitha Bordelon-Taylor

Monarch had no cancelled construction projects or obsolete inventory write downs during the test year. No such costs were included in cost of service in dockets in the previous two calendar years.

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-3 Accumulated Depreciation - Total Company
Witness: Earl M. Robinson

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	108.1	Water Utility Accumulated Depreciation	II-B-3(W)	$ (47,735,313)	$ 4,232,914	$ (43,502,399)	WTR-DIRECT	$ (43,502,399)	$ -
2	108.1	Wastewater Utility Accumulated Depreciation	II-B-3(S)	(7,716,301)	552,869	(7,163,432)	WW-DIRECT	-	(7,163,432)
3	108.1	Shared Plant Accumulated Depreciation	II-B-3(SH)	(197,731)	-	(197,731)	WTR-WWR	(166,094)	(31,637)
4									
5		**Total Company Accumulated Depreciation**		**(55,649,345)**	**4,785,783**	**(50,863,562)**		**(43,668,493)**	**(7,195,069)**
6									
7									
8		Theoretical Depreciation Reserve Surplus:							
9	108.1	Water Surplus	WP/II-B-3		5,339,457	5,339,457	WTR-DIRECT	5,339,457	
10	108.1	Wastewater Surplus	WP/II-B-3		659,533	659,533	WW-DIRECT		659,533
11	108.1	Shared Surplus	WP/II-B-3		59,510	59,510	WTR-WWR	49,988	9,522
12									
13									

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-3 (W) Accumulated Depreciation - Water Operations
Witness: Earl M. Robinson

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	301	Organization		$ -	$ -	$ -	WTR-DIRECT	$ -	$ -
2	302	Franchises		-	-	-	WTR-DIRECT	-	-
3	303	Land and Land Rights	No workpapers	(95,895)	21,155	(74,741)	WTR-DIRECT	(74,741)	-
4	304	Structures and Improvements	No workpapers	(6,345,562)	226,541	(6,119,021)	WTR-DIRECT	(6,119,021)	-
5	305	Collecting and Impounding Reserviors		-	-	-	WTR-DIRECT	-	-
6	306	Lake, River and Other Intakes		-	-	-	WTR-DIRECT	-	-
7	307	Wells and Springs	No workpapers	(5,468,398)	889,116	(4,579,282)	WTR-DIRECT	(4,579,282)	-
8	308	Infiltration Galleries and Tunnels		-	-	-	WTR-DIRECT	-	-
9	309	Supply Mains	No workpapers	(1,298)	-	(1,298)	WTR-DIRECT	(1,298)	-
10	310	Power Generation Equipment	No workpapers	(4,149,963)	191,410	(3,958,553)	WTR-DIRECT	(3,958,553)	-
11	311	Pumping Equipment	No workpapers	(3,549,930)	567,903	(2,982,027)	WTR-DIRECT	(2,982,027)	-
12	320	Water Treatment Equipment	No workpapers	(1,887,076)	99,458	(1,787,618)	WTR-DIRECT	(1,787,618)	-
13	330	Distribution Reservoirs and Standpipes	No workpapers	(4,184,659)	525,075	(3,659,585)	WTR-DIRECT	(3,659,585)	-
14	331	Transmission and Distribution Mains	No workpapers	(19,430,508)	827,014	(18,603,494)	WTR-DIRECT	(18,603,494)	-
15	333	Services	No workpapers	(127,539)	2,047	(125,493)	WTR-DIRECT	(125,493)	-
16	334	Meters and Meter Installations	No workpapers	(1,113,386)	774,848	(338,538)	WTR-DIRECT	(338,538)	-
17	335	Hydrants	No workpapers	(130,844)	29,499	(101,345)	WTR-DIRECT	(101,345)	-
18	336	Backflow Prevention Devices		-	-	-	WTR-DIRECT	-	-
19	339	Other Plant Miscellaneous Equipment	No workpapers	153	1,345	1,497	WTR-DIRECT	1,497	-
20	340	Office Furniture and Equipment	No workpapers	(412,651)	21,101	(391,551)	WTR-DIRECT	(391,551)	-
21	341	Transportation Equipment	No workpapers	(126,488)	24,947	(101,541)	WTR-DIRECT	(101,541)	-
22	342	Stores Equipment		-	-	-	WTR-DIRECT	-	-
23	343	Tools, Shop and Garage Equipment		-	-	-	WTR-DIRECT	-	-
24	344	Laboratory Equipment	No workpapers	(111,064)	941	(110,123)	WTR-DIRECT	(110,123)	-
25	345	Power Operated Equipment	No workpapers	(406,904)	233	(406,671)	WTR-DIRECT	(406,671)	-
26	346	Communication Equipment	No workpapers	(153,960)	7,805	(146,155)	WTR-DIRECT	(146,155)	-
27	347	Miscellaneous Equipment	No workpapers	(22,104)	22,480	376	WTR-DIRECT	376	-
28	348	Other Tangible Plant	No workpapers	(17,236)	-	(17,236)	WTR-DIRECT	(17,236)	-
29									
30									
31									
32		Total Accumulated Depreciation - Water Operations		$ (47,735,313)	$ 4,232,914	$ (43,502,399)		$ (43,502,399)	$ -

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-3 (S) Accumulated Depreciation - Wastewater Operations
Witness: Earl M. Robinson

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	351	Organization		$ -	$ -	$ -	WW-DIRECT	$ -	$ -
2	352	Franchises	No workpapers	(379)	-	(379)	WW-DIRECT	-	(379)
3	353	Land and Land Rights		-	-	-	WW-DIRECT	-	-
4	354	Structures and Improvements	No workpapers	(880,505)	26,503	(854,003)	WW-DIRECT		(854,003)
5	355	Power Generation Equipment	No workpapers	(9,582)	35,333	25,752	WW-DIRECT	-	25,752
6	360	Collection Sewers - Force	No workpapers	(1,599,015)	86,089	(1,512,926)	WW-DIRECT	-	(1,512,926)
7	361	Collection Sewers - Gravity	No workpapers	(1,483,367)	148,457	(1,334,909)	WW-DIRECT	-	(1,334,909)
8	362	Special Collecting Structures	No workpapers	(155,040)	-	(155,040)	WW-DIRECT	-	(155,040)
9	363	Services to Customers	No workpapers	(7,408)	908	(6,500)	WW-DIRECT	-	(6,500)
10	364	Flow Measuring Devices	No workpapers	(16,756)	634	(16,122)	WW-DIRECT	-	(16,122)
11	365	Flow Measuring Installations		-	-	-	WW-DIRECT	-	-
12	366	Reuse Services		-	-	-	WW-DIRECT	-	-
13	367	Reuse Meters and Meter Installations	No workpapers	(9,869)	-	(9,869)	WW-DIRECT	-	(9,869)
14	370	Receiving Wells	No workpapers	(502,993)	29,549	(473,444)	WW-DIRECT	-	(473,444)
15	371	Pumping Equipment	No workpapers	(774,036)	32,008	(742,028)	WW-DIRECT	-	(742,028)
16	374	Reuse Distribution Reservoirs		-	-	-	WW-DIRECT	-	-
17	375	Reuse Transmission and Distribution System		-	-	-	WW-DIRECT	-	-
18	380	Treatment and Disposal Equipment	No workpapers	(1,701,915)	52,088	(1,649,827)	WW-DIRECT	-	(1,649,827)
19	381	Plant Sewers	No workpapers	(432,701)	136,076	(296,625)	WW-DIRECT	-	(296,625)
20	382	outfall Sewer Lines		-	-	-	WW-DIRECT	-	-
21	389	Other Plant and Misc. Equipment		-	-	-	WW-DIRECT	-	-
22	390	Office Furniture and Equipment	No workpapers	(869)	869	-	WW-DIRECT	-	-
23	391	Transportation Equipment	No workpapers	(114,678)	-	(114,678)	WW-DIRECT	-	(114,678)
24	392	Stores Equipment		-	-	-	WW-DIRECT	-	-
25	393	Tools, Shop and Garage Equipment	No workpapers	(864)	280	(584)	WW-DIRECT	-	(584)
26	394	Laboratory Equipment	No workpapers	(1,150)	-	(1,150)	WW-DIRECT	-	(1,150)
27	395	Power Operated Equipment	No workpapers	(4,781)	3,093	(1,688)	WW-DIRECT	-	(1,688)
28	396	Communication Equipment	No workpapers	(19,941)	378	(19,563)	WW-DIRECT	-	(19,563)
29	397	Miscellaneous Equipment	No workpapers	(142)	-	(142)	WW-DIRECT	-	(142)
30	398	Other Tangible Plant	No workpapers	(311)	604	293	WW-DIRECT	-	293
31								-	-
32									
33		Total Accumulated Depreciation - Wastewater Operations		$ (7,716,301)	$ 552,869	$ (7,163,432)		$ -	$ (7,163,432)

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-3 (SH) Accumulated Depreciation - Shared Plant
Witness: Earl M. Robinson

Line No	Account No (a)	Description (b)	Reference Schedule (c)	Monarch Total (d)	K&M Adjustment (e)	Adjusted Monarch Total (f)	Func. Factor (g)	Functionalization	
								Water (h)	Wastewater (i)
1	301	Organization		$ -	$ -	$ -	WTR-WWR	$ -	$ -
2	310	Power Generation Equipment	No workpapers	(15)	-	(15)	WTR-WWR	(13)	(2)
3	311	Pumping Equipment	No workpapers	(21)	-	(21)	WTR-WWR	(18)	(3)
4	340	Office Furniture and Equipment	No workpapers	(89,143)	-	(89,143)	WTR-WWR	(74,880)	(14,263)
5	341	Transportation Equipment	No workpapers	(477)	-	(477)	WTR-WWR	(401)	(76)
6	343	Tools, Shop and Garage Equipment	No workpapers	(2,378)	-	(2,378)	WTR-WWR	(1,998)	(381)
7	344	Laboratory Equipment	No workpapers	(1,666)	-	(1,666)	WTR-WWR	(1,399)	(266)
8	345	Power Operated Equipment	No workpapers	(1,079)	-	(1,079)	WTR-WWR	(907)	(173)
9	347	Miscellaneous Equipment	No workpapers	(2,259)	-	(2,259)	WTR-WWR	(1,897)	(361)
10	381	Plant Sewers	No workpapers	(8,254)	-	(8,254)	WTR-WWR	(6,934)	(1,321)
11	390	Office Furniture and Equipment	No workpapers	(79,229)	-	(79,229)	WTR-WWR	(66,553)	(12,677)
12	395	Power Operated Equipment	No workpapers	(13,208)	-	(13,208)	WTR-WWR	(11,095)	(2,113)
13									
14		Total Accumulated Depreciation - Wastewater Operations		$ (197,731)	$ -	$ (197,731)		$ (166,094)	$ (31,637)

Monarch Utilities I, L.P.
Docket No. 45570
Test Year Ending 6/30/2015
Schedule II-B-3(5) Accumulated Depreciation - Surplus/Deficiency Between Book and Theoretical
Witness: Earl M. Robinson

Theoretical depreciation reserve calculation attached.

MONARCH UTILITIES I, LP

ALL WATER SYSTEMS
ALL WASTEWATER SYSTEMS
ALL SHARED EQUIPMENT

Theoretical Depreciation Reserve Studies as of June 30, 2015

Earl M. Robinson, Principal
David A. Sheffer, Principal

AUS CONSULTANTS
792 Highway 333, Suite 200
Tijeras, NM 87015
www.ausinc.com

AUS consultants

EARL M. ROBINSON, CDP
Principal
792 Old Highway 66, Suite 200
Tijeras, NM 87059
717.763.9890 • Tel
717.877.6895 • Cell
erobinson@ausconsultants.com

February 6, 2016

Mr. Robert L. Kelly
VP – Regulatory Affairs
Suburban Water Systems
1211 East Center court drive
Covina, CA 91724

RE: Monarch Utilities I, LP-All Water Systems,
All Wastewater Systems, All Shared Equipment
Theoretical Depreciation Reserve Studies

Dear Mr. Kelly:

In accordance with your authorization, we have prepared a depreciation study related to the utility plant in service of Monarch Utilities I, LP (All Water Systems, All Wastewater Systems, and All Shared Equipment) as of June 30, 2015. Summaries of the calculations, together with supporting schedules and exhibits, are set forth in the accompanying report.

While factors, including both historic and prospective are considered and incorporated into the service lives utilized for the Company's depreciable plant in service, all average service life and average remaining life calculations set forth in detail and summary form in the provided depreciation study reports were prepared based upon Company's Water and Wastewater Systems as of December 31, 2014. In conjunction with the depreciation study analysis, estimated service lives were selected and utilized for Monarch's property groups to give consideration to both the recent experience of the property groups, as well as the anticipated limited future lives. In summary, the service life estimates recommended for the Company's property should be considered as the lives that most likely will be experienced for Company's current property.

The calculated/theoretical depreciation reserve results were based upon the Company's June 30, 2015 plant in service and the results of the December 31, 2014 comprehensive depreciation studies. That is, the expectancy - life factor (reserve ratio) for each vintage, within the applicable property group, was calculated by using the estimated depreciation parameters for each property group (average service life and Iowa curve) along with the June 30, 2015 vintage age of the applicable investment, together with the Straight Line Broad Group method of depreciation. The original cost value for each year, within the property group, was then multiplied by the resulting

vintage level reserve ratio, with the product being summed to determine the total theoretical depreciation for each property group. Detail calculations of the Theoretical Depreciation for each property group for Total Water Systems, Total Wastewater Systems, and Shared Equipment are contained within the following sections.

Respectfully submitted,

Earl M Robinson

EARL M. ROBINSON, CDP

TABLE OF CONTENTS

	Page No.
SECTION 1	
Executive Summary	1-1
SECTION 2	
Comparison of Theoretical Depreciation Reserve to Book Depreciation Reserve As of June 30, 2015 Year Depreciation Rate Schedule 6-30-15 All Water Systems (Table 1)	2-1
Comparison of Theoretical Depreciation Reserve to Book Depreciation Reserve As of June 30, 2015 Year Depreciation Rate Schedule 6-30-15 All Wastewater Systems (Table 2)	2-3
Comparison of Theoretical Depreciation Reserve to Book Depreciation Reserve As of June 30, 2015 Year Depreciation Rate Schedule 6-30-15 Shared Equipment (Table 3)	2-4
SECTION 3	
General	3-1
Depreciation Study Overview	3-2
Annual Depreciation Accrual	3-3
Group Depreciation Procedures	3-4
Calculation of ASL, ARL, and Accrued Depreciation Factors Based Upon Iowa 10-R3 Using the Equal Life Group (ELG) Procedure (Table 7)	3-7
Remaining Life Technique	3-8
Net Salvage	3-9
Service Lives	3-12
Survivor Curves	3-12
Study Procedures	3-13
Additional Factors	3-16

TABLE OF CONTENTS

	Page No.
Theoretical Depreciation Reserve	3-17
SECTION 4	
Theoretical Depreciation Reserve Calculations-Water	4-1
SECTION 5	
Theoretical Depreciation Reserve Calculations-Wastewater	5-1
SECTION 6	
Theoretical Depreciation Reserve Calculations-Shared Equipment	6-1

SECTION 1

MONARCH UTILITIES I, LP

All Water Systems
All Wastewater Systems
All Shared Equipment

Executive Summary

Table 1 on pages 2-1 to 2-2 is a comparative summary showing the Company's Total Water Systems theoretical depreciation reserve versus the book depreciation reserve and related variance based upon the total plant in service as of June 30, 2015. As noted the Company's theoretical depreciation reserve was developed using the depreciation parameters from the completed comprehensive depreciation study as of December 31, 2014. The variance between the theoretical and book depreciation reserve is $5,339,457.

Table 2 on page 2-3 is a similar comparative summary showing the Company's Total Wastewater Systems theoretical depreciation reserve versus the book depreciation reserve and related variance based upon the total plant in service as of June 30, 2015. The variance between the theoretical and book depreciation reserve is $659,533.

Table 3 on page 2-4 is also a comparative summary showing the Company's Total Shared Equipment theoretical depreciation reserve versus the book depreciation reserve and related variance based upon the total plant in service as of June 30, 2015. The variance between the theoretical and book depreciation reserve is $59,510.

SECTION 2

Table 1

Monarch Utilities I, LP
All Water Systems

Comparison of Theoretical Depreciation Reserve
To Book Depreciation Reserve As Of
June 30, 2015

NARUC Account No. (a)	Description (b)	Original Cost 6-30-15 (c)	A.S.L./ Curve (e)	Net Salvage % (f)	Theoretical Depr Reserve 6-30-15 (g)	Total Book Depr Reserve 6-30-15 (h)	Book Reserve Over (Under) Theoretical Resr (i)
	DEPRECIABLE PLANT						
	Source of Supply						
307.20	Wells & Springs	14,979,206.08	45-R0.5	-25%	4,191,505.22	4,585,060.57	393,555.35
	Total Source of Supply Plant	14,979,206.08			4,191,505.22	4,585,060.57	393,555.35
	Pumping Plant						
304.20	Pumping Structures & Improvements	255,351.94	40-R3	-10%	24,701.48	22,534.64	-2,166.84
309.20	Other Plant & Equipment	26,780.50	20-R3	0%	3,403.51	1,298.45	-2,105.06
310.20	Electrical Equipment	6,126,379.48	26-R0.5	-10%	1,925,655.12	3,962,080.17	2,036,425.05
311.20	Electric Pumping Eq.	7,222,880.84	26-R0.5	-10%	1,348,577.01	2,982,586.53	1,634,009.52
311.30	Other Pumping Eq	0.00	30-R3	0%	0.00	0.00	0.00
311.40	Booster Pumping Eq	0.00	30-R3	0%	0.00	0.00	0.00
	Total Pumping Plant	13,631,392.76			3,302,337.12	6,968,499.79	3,666,162.67
	Water Treatement Plant						
304.30	WT Structures & Improvements	11,841,179.90	45-R3	-10%	2,723,247.58	4,584,073.86	1,860,826.28
320.30	Water Treatment Equipment	4,210,957.22	28-R2.5	-10%	1,727,577.08	2,407,984.17	680,407.09
	Total Water Treatment Plant	16,052,137.12			4,450,824.66	6,992,058.03	2,541,233.37
	Transmission & Distribution Plant						
304.40	T & D Structures & Improvements	26,427.71	40-R3	0%	1,297.70	1,268.00	-29.70
330.40	Distr. Reservoirs & Standpipes	14,131,111.68	40-R2	-15%	4,530,648.57	3,659,782.97	-870,865.60
331.40	Water Lines	46,070,930.25	70-R3	-30%	18,545,063.87	18,605,453.90	60,390.03
	Total Trans & Distr Mains	46,070,930.25			18,545,063.87	18,605,453.90	60,390.03
333.40	Services	353,790.81	40-R2.5	-100%	171,489.19	125,492.53	-45,996.66
334.40	Meters	4,954,251.04	20-R3	0%	1,001,414.80	338,538.03	-662,876.77
335.40	Hydrants	321,876.61	40-R3	-20%	127,595.24	101,345.37	-26,249.87
339.20	Other Plant & Equipment	0.00	25-R3	0%	0.00	0.00	0.00
	Total Trans & Distr Plant	65,858,388.10			24,377,509.37	22,831,880.80	-1,545,628.57
	General Plant						
304.50	Adm & Gen Structures & Improvements	1,679,394.58	35-R3	-10%	757,608.95	879,517.69	121,908.74
	Total Structures & Improvements	1,679,394.58			757,608.95	879,517.69	121,908.74
340.50	Office Furniture & Equipment	438,295.62	12-R2.5	0%	291,313.66	395,528.79	104,215.13
	Total Office Furniture & Equipment	438,295.62			291,313.66	395,528.79	104,215.13
341.50	Transportation Equipment	130,084.22	8-R3	15%	107,333.53	101,541.19	-5,792.34
344.50	Laboratory Equipment	130,469.88	15-R3	0%	97,869.58	110,122.82	12,253.24
345.50	Power Operated Equipment	436,474.03	15-R3	15%	308,104.29	406,670.69	98,566.40
346.50	Communication Equipment	439,348.80	15-R3	0%	193,522.32	146,155.19	-47,367.13
347.50	Tools, Shop & Garage Equipment	8,150.81	18-R2	0%	5,174.69	-375.81	-5,550.50
	Total General Plant	3,262,217.94			1,760,927.02	2,039,160.56	278,233.54
	TOTAL DEPRECIABLE PLANT	113,783,342.00			38,083,103.39	43,416,659.75	5,333,556.36

Table 1

Monarch Utilities I, LP
All Water Systems

Comparison of Theoretical Depreciation Reserve
To Book Depreciation Reserve As Of
June 30, 2015

NARUC Account No. (a)	Description (b)	Original Cost 6-30-15 (c)	A.S.L./ Curve (e)	Net Salvage % (f)	Theoretical Depr Reserve 6-30-15 (g)	Total Book Depr Reserve 6-30-15 (h)	Book Reserve Over (Under) Theoretical Resr (i)
	NON-DEPRECIABLE PLANT						
301.00	Organization	0.00				0.00	0.00
302.00	Franchises And Consents	0.00				0.00	0.00
303.00	Miscellaneous Intangible Plant	1,506,856.39				174.46	174.46
303.20	Land & Land Rights	648,411.27			75,997.94	95,720.92	19,722.98
303.30	Land & Land Rights	0.00				0.00	0.00
303.40	Land & Land Rights	0.00				0.00	0.00
303.50	Land & Land Rights	0.00				(21,154.79)	-21,154.79
303.60	Land & Land Rights	0.00				0.00	0.00
348.00	Other Intangible Plant	63,701.94			10,077.45	17,235.67	7,158.22
	TOTAL NON-DEPRECIABLE PLANT	2,218,969.60			86,075.39	91,976.26	5,900.87
	TOTAL PLANT IN SERVICE	116,002,311.60			38,169,178.78	43,508,636.01	5,339,457.23

Table 2

Monarch Utilities I, LP
All Wastewater Systems

Comparison of Theoretical Depreciation Reserve
To Book Depreciation Reserve As Of
June 30, 2015

NARUC Account No. (a)	Description (b)	Original Cost 6-30-15 (c)	A.S.L./ Curve (e)	Net Salvage % (f)	Theoretical Depr Reserve 6-30-15 (g)	Total Book Depr Reserve 6-30-15 (h)	Book Reserve Over (Under) Theoretical Resr (i)
	DEPRECIABLE PLANT						
	Collection Plant						
354.20	Structures & Improvements - Collection	3,673,343.38	35-R3	-5%	805,700.07	854,002.61	48,302.54
354.40	Structures & Improvements - Collection	0.00	35-R3	-5%	0.00	0.00	0.00
360.20	Sewers Lines	3,742,743.45	65-R3	-5%	1,149,426.74	1,512,926.45	363,499.71
361.20	Sewers-Gravity	3,156,960.85	65-R3	-5%	1,057,471.06	1,334,909.41	277,438.35
362.20	Clarifiers & Media	155,039.57	10-R3	0%	117,344.33	155,039.57	37,695.24
363.20	Service Connections	13,042.22	25-R3	0%	6,004.80	6,499.96	495.16
364.20	Flow Meters	58,769.23	25-R3	0%	14,309.80	16,122.11	1,812.31
	Total Collection Plant	10,799,898.70			3,150,256.80	3,879,500.11	729,243.31
	Pumping Equipment						
355.20	Electrical Equipment	22,034.69	25-R3	0%	8,516.31	-26,327.23	-34,843.54
370.30	Manholes	1,354,804.00	50-R4	0%	458,891.35	473,443.55	14,552.20
371.30	Lift Station Pumps	2,059,737.43	20-L1	0%	666,946.93	742,027.91	75,080.98
	Total Pumping Equipment	3,436,576.12			1,134,354.59	1,189,144.23	54,789.64
	Treatment & Disposal Equipment						
367.00	Treatment Equipment	35,793.12	30-L3	-5%	7,624.42	9,869.08	2,244.66
380.40	Treatment & Disposal Equipment	4,953,473.01	25-R2.5	-5%	1,547,116.27	1,649,826.85	102,710.58
381.40	Treatment & Disposal Equipment	853,789.50	30-L3	-5%	546,613.89	296,624.93	-249,988.96
	Total Treatment Plant	5,843,055.63			2,101,354.58	1,956,320.86	-145,033.72
	General Plant						
390.10	Office Furniture & Equipment	0.00	15-R3	0%	0.00	0.00	0.00
391.00	Transportation Equipment	117,900.56	8-R3	15%	92,796.17	114,678.47	21,882.30
393.00	Tools, Shop & Garage Equipment	584.00	18-R2	0%	389.24	584.00	194.76
394.00	Laboratory Equipment	2,269.50	15-R3	0%	985.12	1,149.98	164.86
395.70	Power Operated Equipment	8,873.12	15-R3	15%	3,810.83	1,688.01	-2,122.82
396.70	Communication Equipment	60,623.19	20-R3	0%	19,581.57	19,562.97	-18.60
397.70	Miscellaneous Equipment	3,231.87	25-R3	0%	88.28	142.36	54.08
	Total General Plant	193,482.24			117,651.21	137,805.79	20,154.58
	TOTAL DEPRECIABLE PLANT	20,273,012.69			6,503,617.18	7,162,770.99	659,153.81
303.50	Land & Land Rights	0.00				0.00	0.00
352.00	Franchises	14,998.76				378.75	378.75
353.40	Land & Land Rights	24,093.00				0.00	0.00
	TOTAL NON-DEPRECIABLE PLANT	39,091.76			0.00	378.75	378.75
	TOTAL PLANT IN SERVICE	20,312,104.45			6,503,617.18	7,163,149.74	659,532.56

Table 3

Monarch Utilities I, LP
Shared Equipment

Comparison of Theoretical Depreciation Reserve To Book Depreciation Reserve As Of June 30, 2015

NARUC Account No. (a)	Description (b)	Original Cost 6-30-15 (c)	A.S.L./ Curve (e)	Net Salvage % (f)	Theoretical Depr Reserve 6-30-15 (g)	Total Book Depr Reserve 6-30-15 (h)	Book Reserve Over (Under) Theoretical Resr (i)
	DEPRECIABLE PLANT						
	Pumping Plant						
310	Power Generated Equipment	9,240.24	26-R0.5	-10%	83.42	15.40	-68.02
311	Trash Pump	956.70	30-R3	-10%	8.64	21.26	12.62
	Total Pumping Plant	10,196.94			92.06	36.66	-55.40
	General Plant						
340.5	Office Furniture & Equipment	97,216.72	12-R2.5	0%	58,914.82	89,143.34	30,228.52
341.5	Transportation Equipment	63,433.51	8-R3	15%	18,796.43	477.45	-18,318.98
343	Tools, Shop & Garage Equipment	4,684.87	18-R2	0%	2,126.51	2,378.29	251.78
344.5	Laboratory Equipment	6,056.42	15-R3	0%	1,552.34	1,665.60	113.26
345.5	Power Operated Equipment	4,835.44	15-R3	15%	796.51	1,079.20	282.69
347.5	Tools, Shop & Garage Equipment	9,600.00	18-R2	0%	120.63	2,258.82	2,138.19
381	Transportation Equipment	47,927.69	8-R3	15%	14,441.11	8,254.21	-6,186.90
390.1	Office Furniture & Equipment	108,333.95	15-R3	0%	33,869.18	79,229.33	45,360.15
395.7	Power Operated Equipment	44,860.11	15-R3	15%	7,511.50	13,207.77	5,696.27
	Total General Plant	386,948.71			138,129.03	197,694.01	59,564.98
	TOTAL DEPRECIABLE PLANT	397,145.65			138,221.09	197,730.67	59,509.58
	NON-DEPRECIABLE PLANT						
301	Organization	0.00					0.00
302	Franchises And Consents	0.00					0.00
303	Miscellaneous Intangible Plant	0.00					0.00
303.2	Land & Land Rights	0.00					0.00
303.3	Land & Land Rights	0.00					0.00
303.4	Land & Land Rights	0.00					0.00
303.5	Land & Land Rights	0.00					0.00
303.6	Land & Land Rights	0.00					0.00
	TOTAL NON-DEPRECIABLE PLANT	0.00			0.00	0.00	0.00
	TOTAL PLANT IN SERVICE	397,145.65			138,221.09	197,730.67	59,509.58

SECTION 3

MONARCH UTILITIES I, LP
ALL WATER SYSTEMS
ALL WASTEWATER SYSTEMS
ALL SHARED EQUIPMENT

Theoretical Depreciation Reserve Studies as of June 20, 2015

General

This report sets forth the results of our development of theoretical depreciation reserves relative to the depreciable property of Monarch Utilities I, LP - All Water Systems, All Wastewater Systems, and All Shared Equipment (the "Company") as of June 30, 2015 and is based upon the applicable original costs and depreciation parameters (recommended average service lives and life characteristics/Iowa Curves and net salvage percents) developed and set forth in the prepared December 31, 2014 depreciation studies for the applicable Monarch systems.

The scope of the underlying depreciation studies included an analysis of the Company's historical data through December 31, 2014, discussions with Company management and staff to identify prior and prospective factors affecting the Company's plant in service, as well as interpretation of past service life data experience and future life expectancies to determine the appropriate average service lives of the Company's surviving plant. The service lives and life characteristics resulting from the in-depth study were utilized together with the Company's plant in service and book depreciation reserve to determine the recommended Average Remaining Life (ARL) depreciation rates related to the Company's plant in service as of December 31, 2014.

In preparing the study, the Company's historical investment data were studied using various service life analysis techniques. Further, discussions were held with the Company's management to obtain an overview of the Company's facilities and to discuss the general scope of operations together with other factors which could have a bearing on the service lives of the Company's property. Finally, the study results were tempered by information gathered during plant inspection

tours of a representative portion of the Company's property.

The Company maintains property records containing a summary of its fixed capital investments by property account. This investment data was analyzed and summarized by property group and/or sub group and vintage then utilized as a basis for the various depreciation calculations.

Depreciation Study Overview

There are numerous methods utilized to recover property investment depending upon the goal. For example, accelerated methods such as double declining balance and sum of years digits are methods used in tax accounting to motivate additional investments. Broad Group (BG) and Equal Life Group (ELG) are both Straight Line Grouping Procedures recognized and utilized by various regulatory jurisdictions depending upon the policy of the specific agency.

The Straight Line Group Method of depreciation utilized in this study to develop the recommended depreciation rates is the Broad Group Procedure together with the Average Remaining Life Technique. The use of this procedure and technique is based upon recovering the net book cost (original cost less book reserve) of the surviving plant in service over its estimated remaining useful life. Any variance between the book reserve and an implied theoretical calculated reserve is compensated for under this procedure. That is, as the Company's book reserve increases above or declines below the theoretical reserve at a specific point in time, the Company's average remaining life depreciation rate in subsequent years will be increased or decreased to compensate for the variance, thereby, assuring full recovery of the Company's investment by the end of the property's life.

The Company, like any other business, includes as an annual operating expense an amount which reflects a portion of the capital investment which was consumed in providing service during the accounting period. The annual depreciation amount to be recognized is based upon the remaining productive life over which the undepreciated capital investment needs to be recovered.

The determination of the productive remaining life for each property group usually includes an in-depth study of past experience in addition to estimates of future expectations.

Annual Depreciation Accrual

Through the utilization of the Average Remaining Life Technique, the Company will recover the undepreciated fixed capital investment in the appropriate amounts as annual depreciation expense in each year throughout the remaining life of the property. The procedure incorporates the future life expectancy of the property, the vintaged surviving plant in service, and estimated net salvage, together with the book depreciation reserve balance to develop the annual depreciation rate for each property account. Accordingly, the ARL technique meets the objective of providing a straight line recovery of the undepreciated fixed capital property investment.

As indicated, the use of the Average Remaining Life Technique results in charging the appropriate annual depreciation amounts over the remaining life of the property to insure full recovery by the end of the life of the property. The annual expense is calculated on a Straight Line Method rather than by the previously mentioned, "sum of the years digits" or "double declining balance" methods, etc. The "group" refers to the method of calculating annual depreciation on the summation of the investment in any one depreciable group or plant account rather than calculating depreciation for each individual unit.

Under Broad Group Depreciation some units may be over depreciated and other units may be under depreciated at the time when they are retired from service, but overall, the account is fully depreciated when average service life is attained. By comparison, Equal Life Group depreciation rates are designed to fully accrue the cost of the asset group by the time of retirement. For both the Broad Group and Equal Life Group Procedures the full cost of the investment is credited to plant in service when the retirement occurs and likewise the depreciation reserve is debited with an equal retirement cost. No gain or loss is recognized at the time of property retirement because of the assumption that the retired property was at average service life.

Group Depreciation Procedures

Group depreciation procedures are utilized to depreciate property when more than one item of property is being depreciated. Such a procedure is appropriate because all of the items within a specific group typically do not have identical service lives, but have lives which are dispersed over a range of time. Utilizing a group depreciation procedure allows for a condensed application of depreciation rates to groups of similar property in lieu of extensive depreciation calculations on an item by item basis. The two more common group depreciation procedures are the Broad Group (BG) and Equal Life Group (ELG) approach.

In developing depreciation rates using the Broad Group procedure, the annual depreciation rate is based on the average life of the overall property group, which is then applied to the group's surviving original cost investment. A characteristic of this procedure is that retirements of individual units occurring prior to average service life will be under depreciated, while individual units retired after average service life will be over depreciated when removed from service, but overall, the group investment will achieve full recovery by the end of the life of the total property group. That is, the under recovery occurring early in the life of the account is balanced by the over recovery occurring subsequent to average service life. In summary, the cost of the investment is complete at the end of the property's life cycle, but the rate of recovery does not match the consumption pattern which was used to provide service to the company's customers.

Under the average service life procedure, the annual depreciation rate is calculated by the following formula:

$$\text{Annual Accrual Rate, Percent} = \frac{100\% - \text{Salvage}}{\text{Average Service Life}} \times 100$$

The application of the broad group procedure to life span groups results in each vintage investment having a different average service life. This circumstance exists because the concurrent

retirement of all vintages at the anticipated retirement year results in truncating and, therefore, restricting the life of each successive years' vintage investment. An average service life is calculated for each vintage investment in accordance with the above formula. Subsequently, a composite service life and depreciation rate is calculated relative to all vintages within the property group by weighting the life for each vintage by the related surviving vintage investment within the group.

In the Equal Life Group, the property group is subdivided, through the use of plant life tables, into equal life groups. In each equal life group, portions of the overall property group includes that portion which experiences the life of the specific sub-group. The relative size of each sub-group is determined from the overall group life characteristic (property dispersion curve). This procedure both overcomes the disadvantage of voluminous record requirements of unit depreciation, as well as eliminates the need to base depreciation on overall lives as required under the broad group procedure. The application of this procedure results in each sub-group of the property having a single life. In this procedure, the full cost of short lived units is accrued during their lives leaving no under accruals to be recovered by over accruals on long lived plant. The annual depreciation for the group is the summation of the depreciation accruals based on the service life of each Equal Life Group.

The ELG Procedure is viewed as being the more definitive procedure for identifying the life characteristics of utility property and as a basis for developing service lives and depreciation rates, nevertheless, the Broad Group procedure is more widely utilized throughout the utility industry by regulatory commissions as a basis for depreciation rates. That is, the ELG Procedure is more definitive because it allocates the capital cost of a group property to annual expense in accordance with the consumption of the property group providing service to customers. In this regard, the company's customers are more appropriately charged with the cost of the property consumed in providing them service during the applicable service period. The more timely return

of plant cost is accomplished by fully accruing each unit's cost during its service life, thereby not only reducing the risk of incomplete cost recovery, but also resulting in less return on rate base over the life of a depreciable group. The total depreciation expense over the life of the property is the same for all procedures which allocate the full capital cost to expense, but at any specific point in time, the depreciated original cost is less under the ELG procedure than under the BG procedure. This circumstance exists because under the equal life group procedure, the rate base is not maintained at a level of greater than the future service value of the surviving plant as is the case when using the average service life procedure. Consequently, the total return required from the ratepayers is less under the ELG procedure.

While the Equal Life Group procedure has been known to depreciation experts for many years, widespread interest in applying the procedure developed only after high speed electronic computers became available to perform the large volume of arithmetic computations required in developing ELG based depreciation lives and rates. The table on the following page illustrates the procedure for calculating equal life group depreciation accrual rates and summarizes the results of the underlying calculations. Depreciation rates are determined for each age interval (one year increment) during the life of a group of property which was installed in a given year or vintage group. The age of the vintage group is shown in column (A) of the ELG table. The percent surviving at the beginning of each age interval is determined from the Iowa 10-R3 survivor curve which is set forth in column (B). The percent retired during each age interval, as shown in column (C), is the difference between the percent surviving at successive age intervals. Accordingly, the percentage amount of the vintage group retired defines the size of each equal life group. For example, during the interval 3 1/2 to 4 1/2, 1.93690 percent of the vintage group is retired at an average age of four years. In this case, the 1.93690 percent of the group experiences an equal life of four years. Likewise, 3.00339 percent is retired during the interval 4 1/2 to 5 1/2 and experiences a service life of five years. Furthermore, 4.42969 percent experiences a six-year life;

etc. Calculations are made for each age interval from the zero age interval through the end of the life of the vintage group. The average service life for each age interval's equal life group is shown in column (E) of the table.

XYZ UTILITY COMPANY
CALCULATION OF ASL, ARL AND ACCRUED DEPRECIATION FACTORS — Table 7
BASED UPON AN IOWA 10-R3 CURVE USING THE EQUAL LIFE GROUP (ELG) PROCEDURE

							EQUAL LIFE GROUP PROCEDURE			
AGE AT BEGIN OF INTERVAL	LIFE TABLE BEGIN OF INTERVAL	RETIREMENT DURING INTERVAL	AVERAGE SURVIVING	AGE OF AMOUNT RETIRED	AMOUNT FOR EACH LIFE GROUP	AMOUNT FOR REMAINING LIFE GROUPS	AVERAGE SERVICE LIFE	AVERAGE REMAINING LIFE	ELG/ARL DEPR RATE	ACCRUED DEPR RES FACTOR
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
0.0	1.0000000	0.0009198	0.9995401	0.25	0.0009198	0.0583036	8.57	8.57	11.67	0.0000000
0.5	0.9990802	0.0033314	0.9974145	1.0	0.0033314	0.1131019	8.82	8.32	11.34	0.0566975
1.5	0.9957488	0.0065393	0.9924792	2.0	0.0032697	0.1098013	9.04	7.54	11.06	0.1659501
2.5	0.9892095	0.0117037	0.9833577	3.0	0.0039012	0.1062159	9.26	6.76	10.80	0.2700337
3.5	0.9775058	0.0193690	0.9678213	4.0	0.0048422	0.1018442	9.50	6.00	10.52	0.3683062
4.5	0.9581368	0.0300339	0.9431199	5.0	0.0060068	0.0964196	9.78	5.28	10.22	0.4600565
5.5	0.9281029	0.0442969	0.9059545	6.0	0.0073828	0.0897248	10.10	4.60	9.90	0.5447146
6.5	0.8838060	0.0631367	0.8522377	7.0	0.0090195	0.0815237	10.45	3.95	9.57	0.6217794
7.5	0.8206693	0.0876232	0.7768577	8.0	0.0109529	0.0715375	10.86	3.36	9.21	0.6906424
8.5	0.7330461	0.1166879	0.6747022	9.0	0.0129653	0.0595783	11.32	2.82	8.83	0.7505770
9.5	0.6163582	0.1431836	0.5447664	10.0	0.0143184	0.0459365	11.86	2.36	8.43	0.8010714
10.5	0.4731746	0.1533568	0.3964962	11.0	0.0139415	0.0318066	12.47	1.97	8.02	0.8423003
11.5	0.3198178	0.1363216	0.2516570	12.0	0.0113601	0.0191557	13.14	1.64	7.61	0.8753616
12.5	0.1834962	0.0975199	0.1347363	13.0	0.0075015	0.0097249	13.85	1.35	7.22	0.9022159
13.5	0.0859763	0.0559043	0.0580242	14.0	0.0039932	0.0039775	14.59	1.09	6.85	0.9254232
14.5	0.0300720	0.0244398	0.0178521	15.0	0.0016293	0.0011663	15.31	0.81	6.53	0.9473077
15.5	0.0056322	0.0055324	0.0028660	16.0	0.0003458	0.0001788	16.03	0.53	6.24	0.9667657
16.5	0.0000998	0.0000998	0.0000499	17.0	0.0000059	0.0000029	17.00	0.50	5.88	0.9705882
17.5	0.0000000	0.0000000	0.0000000	18.0	0.0000000	0.0000000				
		1.0000000				1.0000000				

The amount to be accrued annually for each equal life group is equal to the percentage retired in the equal life group divided by its service life. In as much as additions and retirements are assumed, for calculation purposes, to occur at midyear only one-half of the equal life group's

annual accrual is allocated to expense during its first and last years of service life. The accrual amount for the property retired during age interval 0 to .5 must be equal to the amount retired to insure full recovery of that component during that period. The accruals for each equal life group during the age intervals of the vintage group's life cycle are shown in column (F). The total accrual for a given year is the summation of the equal life group accruals for that year. For example, the total accrual for the second year, as shown in column (G), is 11.31019 percent and is the sum of all succeeding years remaining equal life group accruals plus one half of the current years life group accrual listed in column (F). For the zero age interval year, the total accrual is equal to one half of the sum of all succeeding years remaining equal life accruals plus the amount for the zero interval equal life group accrual. The one half year accrual for the zero age interval is consistent with the half year convention relative to property during its installation year. The sum of the annual accruals for each age interval contained in column (G) total to 1.000 demonstrating that the developed rates will recover 100% of plant no more and no less. The annual accrual rate which will result in the accrual amount is the ratio of the accrual amount (11.31019 percent) to the average percent surviving during the interval, column (D), (99.74145 percent), which is a rate of 11.34% (column J). Column (J) contains a summary of the accrual rates for each age interval of the property groups life cycle based upon an Iowa 10-R3 survivor curve.

Remaining Life Technique

In the Average Remaining Life depreciation technique, the annual accrual is calculated according to the following formula where, (A) the annual depreciation for each group equals, (D) the depreciable cost of plant less (U) the accumulated provision for depreciation less (S) the estimated future net salvage, divided by (R) the composite remaining life of the group:

$$A = \frac{D - U - S}{R}$$

The annual accrual rate (a) is expressed as a percentage of the depreciable plant balance by dividing

the equation by (D) the depreciable cost of plant times 100:

$$(a) = \frac{D - U - S}{R} \times \frac{1}{D} \times 100$$

As further indicated by the equation, the accumulated provision for depreciation by vintage is required in order to calculate the remaining life depreciation rate for each property group. In practice, most often such detail is not available; therefore, composite remaining lives are determined for each depreciable group, (i.e., property account).

The remaining life for a depreciable group is calculated by first determining the remaining life for each vintage year in which there is surviving investment. This is accomplished by solving the area under the survivor curve selected to represent the average life and life characteristic of the property account. The remaining life for each vintage is determined by dividing (D) the depreciable cost of each vintage, by (L) its average service life, and multiplying this ratio by its average remaining life (E). The composite remaining life of the group (R) equals the sums of products divided by the sum of the quotients:

$$\text{R Group} = \frac{\Sigma \, D/L \times E}{\Sigma \, D/L}$$

The account level accumulated provision for depreciation, which was the basis for developing the composite average remaining life accrual and annual depreciation rate for each property account as per this report, was obtained from the Company's books and records.

Net Salvage

Net salvage is the difference between gross salvage, or what is received when an asset is disposed of, and the cost of removing it from service. Salvage experience is normally included with the depreciation rate so that current accounting periods reflect a proportional share of the ultimate abandonment and removal cost or salvage received at the end of the property service life. Net salvage is said to be positive if gross salvage exceeds the cost of removal, but if cost of removal exceeds gross salvage the result is then negative salvage.

The cost of removal includes such costs as demolishing, dismantling, tearing down, disconnecting or otherwise removing plant, as well as normal environmental cleanup costs associated with the property. Salvage includes proceeds received for the sale of plant and materials or the return of equipment to stores for reuse.

Net salvage experience is studied for a period of years to determine the trends which have occurred in the past. These trends are considered together with any changes that are anticipated in the future to determine the future net salvage factor for remaining life depreciation purposes. The net salvage percentage is determined by relating the total net positive or negative salvage to the book cost of the property investment.

Many retired assets generate little, if any, positive salvage. Instead, many of the Company's asset property groups generate negative net salvage at end of their life as a result of the cost of removal (retirement).

The method used to estimate the retirement cost is a standard analysis approach which is used to identify a company's historical experience with regard to what the end of life cost will be relative to the cost of the plant when first placed into service. This information, along with knowledge about the average age of the historical retirements that have occurred to date, enables the depreciation professional to estimate the level of retirement cost that will be experienced by the Company at the end of each property group's useful life. The study methodology utilized has been extensively set forth in depreciation textbooks and has been the accepted practice by depreciation professionals for many decades. Furthermore, the cost of removal analysis approach is the current standard practice used for mass assets by essentially all depreciation professionals in estimating future net salvage for the purpose of identifying the applicable depreciation for a property group. There is a direct relationship to the installation of specific plant in service and its corresponding removal in that the installation is its beginning of life cost while the removal is its end of life cost. Also, it is important to note that average remaining life based depreciation rates

incorporate future net salvage which is routinely more representative of recent versus long-term past average net salvage.

The total end of life net salvage amount must be incorporated in the development of annual depreciation rates to enable the Company to fully recover its total plant life costs. Otherwise, upon retirement of the plant, the Company will incur end of life costs without having recovered those plant related costs from the customers who benefitted from the use of the expired plant.

Concerning the inclusion of future net salvage in annual depreciation rates, the following directive is included in the NARUC uniform system of accounts:

NARUC Accounting Directive—Class A Water Utilities 1984

Net Salvage

Balance Sheet Account

Account 108.1 Accumulated Depreciation of Utility Plant in Service

> Note: B. "At the time of retirement of depreciable utility plant in service, this account shall be charged with the book cost of the property retired plus the cost of removal, and shall be credited with the salvage value and any other amounts recovered, such as insurance. When retirement, cost of removal and salvage are entered originally in retirement work orders, the net total of such work order may be included in a separate sub-account hereunder. Upon completion of the work order, the proper distribution to subdivisions of this account shall be made as provided in the following paragraph (see paragraphs' C and D):

Impact of Not Recording and Recovering Net Salvage

- Not in compliance with NARUC Uniform System of Accounts
- Inter-generational inequity (Defers Recovery to Later Generation Customer)
- Higher cost to customer (Retains Rate Base When Negative Net Salvage Not Appropriately Recorded/Recovered) Over Life of Assets
- Company exposure to under or non-recovery of future end of life costs
- Fails revenues and consumption matching principle
- Fails to recognize that those who use/consume the property should pay their fair share

- Fails ratable recovery of fixed cost (First costs and End of life costs)

Accordingly, it is imperative for all operating companies to ratably recover both first cost (Original Cost) and end of life cost (Cost of Removal/Retirement and/or Gross Salvage) through its annual depreciation expense as well as incorporate such costs into their tariff rates. As noted above, to do otherwise results in a significant violation of the match principle (related to customers), who benefit from the use of the property in the receipt of customer service, that they should pay for the consumption of the property used to provide them service.

Service Lives

Several factors contribute to the length of time or average service life which the property achieves. The three (3) major categories under which these factors fall are: (1) physical; (2) functional, and; (3) contingent casualties.

The physical category includes such things as deterioration, wear and tear and the action of the natural elements.. The functional category includes inadequacy, obsolescence and requirements of governmental authorities. Obsolescence occurs when it is no longer economically feasible to use the property to provide service to customers or when technological advances have provided a substitute of superior performance. The remaining factor of contingent casualties relates to retirements caused by accidental damage or construction activity of one type or another.

In performing the life analysis for any property being studied, both past experience and future expectations must be considered in order to fully evaluate the circumstances which may have a bearing on the remaining life of the property. This ensures the selection of an average service life which best represents the expected life of each property investment.

Survivor Curves

The preparation of a depreciation study or theoretical depreciation reserve typically incorporates smooth curves to represent the experienced or estimated survival characteristics of

the property. The "smoothed" or standard survivor curves generally used are the family of curves developed at Iowa State University which are widely used and accepted throughout the utility industry.

The shape of the curves within the Iowa family are dependent upon whether the maximum rate of retirement occurs before, during or after the average service life. If the maximum retirement rate occurs earlier in life, it is a left (L) mode curve; if occurring at average life, it is a symmetrical (S) mode curve; if it occurs after average life, it is a right (R) mode curve. In addition, there is the origin (O) mode curve for plant which has heavy retirements at the beginning of life.

Many times, actual Company data has not completed its life cycle, therefore, the survivor table generated from the Company data is not extended to zero percent surviving. This situation requires an estimate be made with regard to the remaining segment of the property group's life experience. Furthermore, actual Company experience is often erratic, making its utilization for average service life estimating difficult. Accordingly, the Iowa curves are used to both extend Company experience to zero percent surviving as well as to smooth actual Company data.

Study Procedures

Several study procedures were used to determine the prospective service lives recommended for the Company's plant in service. These include the review and analysis of historical retirements, current and future construction, historical experience and future expectations of salvage and cost of removal as related to plant investment. Service lives are affected by many different factors, some of which can be obtained from studying plant experience, others which may rely heavily on future expectations. When physical aspects are the controlling factor in determining the service life of property, historical experience is a valuable tool in selecting service lives. In the case where changing technology or a less costly alternative develops, then historical experience is of lesser value.

While various methods are available to study historical data, the principal methods utilized

to determine average service lives for a Company's property are the Retirement Rate Method, the Simulated Plant Record Method, the Life Span Method, and the Judgment Method.

Retirement Rate Method - The Retirement Rate Method uses actual Company retirement experience to develop a survivor curve (Observed Life Table) which is used to determine the average service life being experienced in the account under study. Computer processing provides the opportunity to review various experience bands throughout the life of the account to observe trends and changes. For each experience band studied, the "observed life table" is constructed based on retirement experience within the band of years. In some cases, the total life of the account has not been achieved and the experienced life table, when plotted, results in a "stub curve." It is this "stub curve" or total life curve, if achieved, which is matched or fitted to a standard Survivor curve. The matching process is performed both by computer analysis, using a least squares technique, and by manually plotting observed life tables to which smooth curves are fitted. The fitted smooth curve provides the basis to determine the average service life of the property group under study.

Simulated Balances Method - In this method of analysis, simulated surviving balances are determined for each balance included in the test band by multiplying each proceeding year's original gross additions installed by the Company by the appropriate factor of each Standard Survivor Curve, summing the products, and comparing the results with the related year end plant balance to determine the "best fitting" curve and life within the test period. Various test bands are reviewed to determine trends or changes to indicate service lives in various bands of years. By definition, the curve with the "best fit" is the curve which produces simulated plant balances that most closely matches the actual plant balances as determined by the sum of the "least squares". The sum of the "least squares" is arrived at by starting with the difference between the simulated balances and the actual balance for a given year, squaring the difference, and the curve which produces the smallest sum (of squared difference) is judged to be the "best fit".

Period Retirements Method - The application of the Period Retirements Method is similar to the "Simulated Plant Balances" Method, except the procedure utilizes a Standard Survivor Curve and service life to simulate annual retirements instead of balances in performing the "least squares" fitting process during the test period. This procedure does tend to experience wider fluctuations due to the greater variations in level of experienced retirements versus additions and balances thereby producing greater variation in the study results.

Life Span Method - The Life Span or Forecast Method is a method utilized to study various accounts in which the expected retirement dates of specific property or locations can be reasonably estimated. In the Life Span Method, an estimated probable retirement year is determined for each location of the property group. An example of this would be a structure account, in which the various segments of the account are "life spanned" to a probable retirement date which is determined after considering a number of factors, such as management plans, industry standards, the original construction date, subsequent additions, resultant average age and the current - as well as the overall - expected service life of the property being studied. If, in the past, the property has experienced interim retirements, these are studied to determine an interim retirement rate. Otherwise, interim retirement rate parameters are estimated for properties which are anticipated to experience such retirements. The selected interim service life parameters (Iowa curve and life) are then used with the vintage investment and probable retirement year of the property to determine the average remaining life as of the study date.

Judgment Method - Standard quantitative methods such as the Retirement Rate Method, Simulated Plant Record Method, etc. are normally utilized to analyze a Company's available historical service life data. The results of the analysis together with information provided by management as well as judgment are utilized in estimating the prospective recommended average

service lives. However, there are circumstances where sufficient retirements have not occurred, or where prospective plans or guidelines are unavailable. In these circumstances, judgment alone is utilized to estimate service lives based upon service lives used by other utilities for this class of plant as well as what is considered to be a reasonable life for this plant giving consideration to the current age and use of the facilities.

Additional Factors

Relative to Monarch Utilities I, LP, historical retirements and net salvage to date contained on the books and records for various property groups were sometime limited and, accordingly, for the such property groups sufficient information did not necessarily exist to provide a comprehensive basis for analyzing the historical retirement and net salvage data to be used as a starting point to estimate future service lives and net salvage factors. This situation occurred both because of the somewhat limited nature of the property investments plus during earlier years, the prior owners had likely not maintained the detailed historical information. However, with the current owner's acquisition, systems have been implemented with the goal of capturing and maintaining the required retirement information. Thus for property groups that have, in more recent years, experienced retirements, etc. the available historical information was analyzed and this information together with industry data was considered in the estimation of average service lives for property groups.

Unfortunately, little or no detailed salvage information (gross salvage and cost of removal) has been captured to date, however, the Company fully recognizes the importance and appropriateness of fully recording any experienced gross salvage and cost of removal especially in light of the fact that group depreciation accounting is being implemented. Systems and processes will be implemented to insure that any and all gross salvage and cost of removal will be

captured to the Company's book depreciation reserve account, in accordance with NARUC utility accounting requirements as opposed to other potential accounts, during future periods.

For any applicable property groups that currently lack historical data for the purpose of life of salvage analysis, such estimates of average service life and net salvage for the Company's depreciable property groups were developed via a review of the study results for various operating companies within the industry and through professional knowledge gained over more than thirty-five years of performing depreciation studies. The referenced industry data is contained on Table 6, within Section 2 of the depreciation study reports. The current estimates, especially with regard to net salvage, as considered at the baseline from which more detailed future information can be used to further update the net salvage component to be included in annual depreciation rates. It is imperative, from a capital recovery process, that current depreciation rates incorporate both the recovery of first cost (original cost) and end of life cost (net salvage) to insure that the full cost of providing service is ratably recovered from customers, that benefit from the property's use, over the life of the property.

Theoretical Depreciation Reserve

The Company maintains a property record containing a summary of its fixed capital investments by property account/group and investment year. This investment data was analyzed and summarized by property group and/or sub group, and vintage and utilized as a basis for the theoretical depreciation calculations.

While factors, including both historic and prospective are considered and incorporated into the service lives utilized for the Company's depreciable plant in service, all average service life and average remaining life calculations set forth in detail and summary form in the provided depreciation study reports costs were prepared based upon Company's Water and Wastewater

Systems as of December 31, 2014. In conjunction with the depreciation study analysis, estimated service lives were selected and utilized for Monarch's property groups to give consideration to both the recent experience of the property groups, as well as the anticipated limited future lives. In summary, the service life estimates recommended for the Company's property should be considered as the lives that most likely will be experienced for Company's current property.

For the preparation of the theoretical depreciation reserves, the expectancy - life factor (reserve ratio) for each vintage, within the applicable property group, was calculated by using the estimated depreciation parameters for each property group (average service life and Iowa curve) along with the June 30, 2010 vintage age of the applicable investment, together with the Straight Line Broad Group method of depreciation. The surviving original cost value as of June 30, 2015, for each year within the property group, was then multiplied by the resulting vintage level reserve ratio, with the product being summed to determine the total theoretical depreciation for each property group. Detail calculations of the Theoretical Depreciation for each property group for Total Water Systems, Total Wastewater Systems, and Shared Equipment are contained within the following sections.

SECTION 4