

## VII. MODELING RESULTS

In general the water distribution piping system can provide 1000 gpm of fire flow north of the Elementary School. However the elevated storage tank does not have enough capacity to maintain fire flow to the water system for a two hour fire duration even with the pumps operating at the Bell and Fagan Pump Stations.

In the areas south of the School the system cannot necessarily meet the fire flow criteria without some pipe improvements. A case in point is the unlooped 6 inch line that serves the Cantrell-Sampson Road area.

There are also some pipes in the system that have substantial head losses with the flow requirements that are needed. The most obvious line is the long pump discharge line from the Fagan PS to the system. This line is 6 inches in diameter and provides from the Fagan Wells a substantial part of the water demands for the approximate 700 connections. Another such line is the suction line for the Bell high service pumps.

## VIII. SYSTEM IMPROVEMENTS

The proposed system improvements are shown in the attached sketch. They are structured to meet the water distribution flow requirements. The TCEQ needed improvements were added to the model and other improvements were evaluated and tested in the model as the simulations proceeded throughout the water system. The primary goal is to provide 20 psi pressure with no high service pumps in operation. This is a condition that is expected if a fire demand occurred during normal operations. The high service pumps are controlled by the level in the elevated tank. The operators indicated that the pumps operate within in a range of 2 feet and that the shut off level is about 6 feet below the overflow point on the elevated tank.

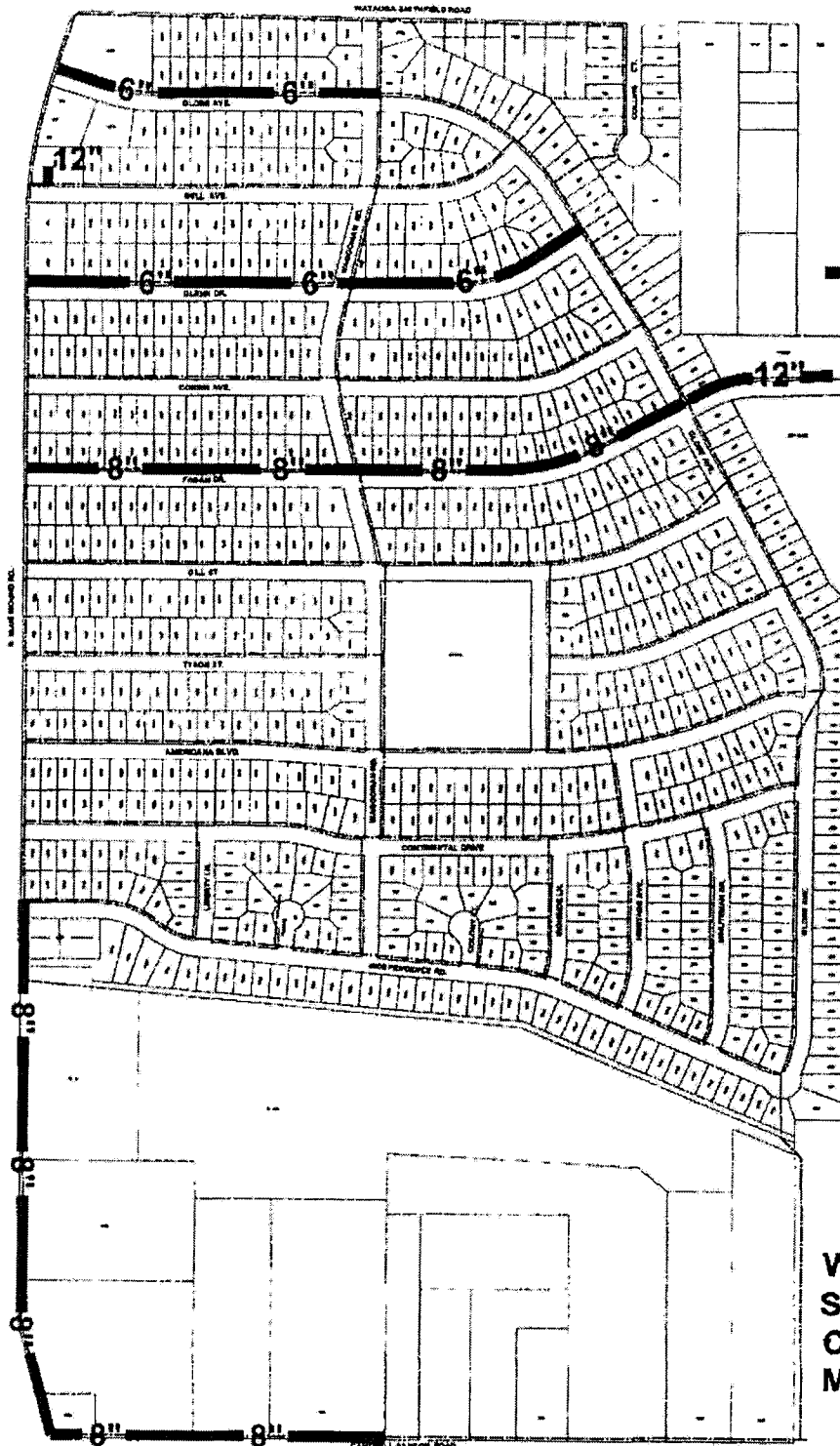
It is recommended that the Utility undertake a maintenance program which will include exercising the gate valves in the system to insure they are all operational. Valves that do not function should be replaces.

In summary the system can maintain 20 psi pressure under 1,000 gpm fire flow conditions after the improvements are completed. Contour graphs are shown in Appendix G. The areas under 20 psi are the suction side of the pumps and ground storage tanks if they appear in the graphs.



SCALE: 1"=600'

**X"** ——— - LINES TO BE REPLA AND REPLACEMENT SIZES

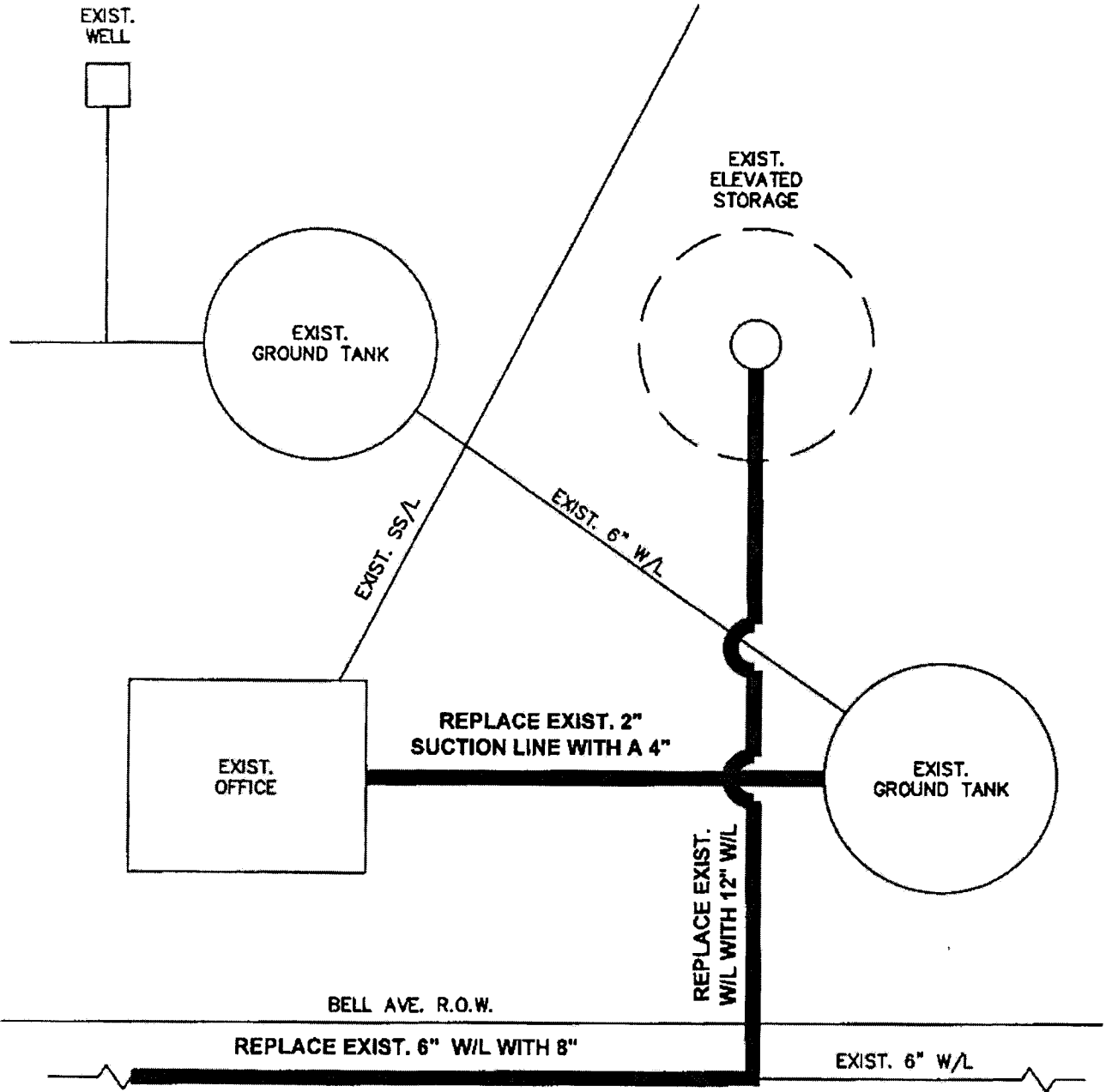


**WATER DISTRIBUTION SYSTEM SERVING THE CITY OF BLUE MOUND  
MONARCH UTILITIES I, L.P. OWNER**

# CivilSolutions Inc

Engineers Surveyors Planners  
TEXAS REGISTERED ENGINEERING FIRM F-7997  
P.O. Box 100247, Fort Worth, Texas, 76185  
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Utility Projects - 2005-10-002-UtilityMap.dwg 7/14/2010 4:25:40 PM



**BELL AVENUE  
WELL YARD**

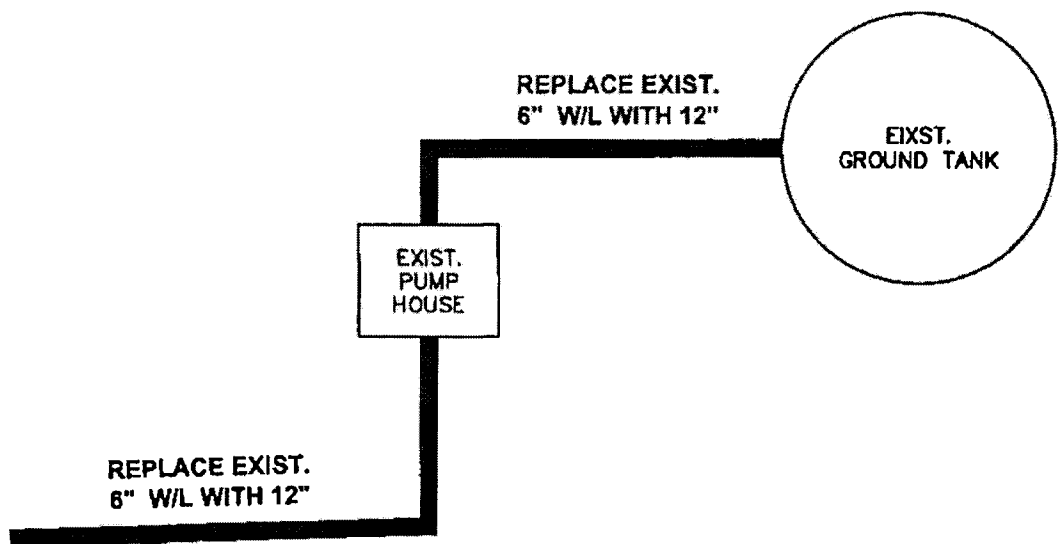
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BELL AVE. R.O.W.

**FAGAN DRIVE  
WELL YARD**

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**CivilSolutions Inc**  
Surveyors Engineers Planners

**Opinion of  
Probable Cost**

Project: **Blue Mound Water System**

Project No.: **10-007**

Owner: **Monarch Utilities I, L.P.**

Prepared By: **BB**

Subject: **Water Facilities**

Date: **7/14/2010**

Item	Description	Quantity	Unit	Unit Price	Amount
<b>Improvements at Bell Ave. Supply Plant</b>					
1	Replace existing 6" with 12"	75.00	L.F.	65.00	4,875
2	Replace existing 2" with 4"	55.00	L.F.	20.00	1,100
3	Replace existing 6" in Bell with 8"	60.00	L.F.	32.00	1,920
<b>Replace 2" with 6" in Globe (Blue Mound to Waggoman)</b>					
1	Replace 2" line with 6"	1,046.00	L.F.	30.00	31,380
2	Driveway Repair	10.00	Ea.	250.00	2,500
3	6" Gate Valves	2.00	Ea.	475.00	950
4	Change Over Services	1.00	Ea.	400.00	400
<b>Repalce 2" with 6" Glenn (Waggoman to Glove)</b>					
1	Replace 2" line with 6"	1,000.00	L.F.	30.00	30,000
2	Driveway Repair	9.00	Ea.	250.00	2,250
3	6" Gate Valve	2.00	Ea.	475.00	950
4	Change Over Services	9.00	Ea.	400.00	3,600
<b>Replace 2" with 6" in Glenn (Blue Mound to Waggoman)</b>					
1	Replace 2" with 6" Water Line	1,430.00	L.F.	30.00	42,900
2	Driveway Repair	16.00	Ea.	250.00	4,000
3	6" Gate Valve	2.00	Ea.	475.00	950
4	Change Over Services	16.00	Ea.	400.00	6,400
<b>Replace 2" with 6" Fagan (Waggoman to Globe)</b>					
1	Replace 2" with 8"	1,430.00	L.F.	45.00	64,350
2	Driveway Repair	19.00	Ea.	250.00	4,750
3	8" Gate Valve	2.00	Ea.	625.00	1,250
4	Change Over Services	19.00	Ea.	400.00	7,600
<b>Repalce 2" with 8" Fagan (Blue Mound to Waggoman)</b>					
1	Replace 2" with 8"	1,370.00	L.F.	45.00	61,650
2	Driveway Repair	19.00	Ea.	250.00	4,750
3	8" Gate Valve	2.00	Ea.	625.00	1,250
4	Change Over Services	19.00	Ea.	400.00	7,600
	Repair/Replace Fire Hydrants	5.00	Ea.	4,500.00	22,500

**CivilSolutions Inc**  
 Surveyors Engineers Planners

**Opinion of  
 Probable Cost**

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Owner: **Monarch Utilities I, L.P.**

Prepared By: **bb**

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Item	Description	Quantity	Unit	Unit Price	Amount
<b>Blue Mound Road from Independence to Cantrell Sampson</b>					
1	8" Water Line	800.00	L.F.	40.00	32,000
2	Creek Crossing	1.00	L.S.	35,000.00	35,000
3	8" Gate Valve	4	Ea.	625	2,500
4	Driveway Repair	4.00	Ea.	250.00	1,000
5	Repair/Replace Fire Hydrant	3.00	Ea.	4,500.00	13,500
<b>Cantrell Sampson Blue Mound Road to Second Fire Hydrant</b>					
1	8" Water Line	1,625.00	L.F.	40.00	65,000
2	8" Gate Valve	2.00	Ea.	625.00	1,250
3	Repair/Replace Fire Hydrant	6.00	Ea.	4,500.00	27,000
<b>Elevated Storage Tank at Fagan Drive Plant</b>					
1	150,000 Gallon Elevated Storage Tank	1.00	Ea.	485,000.00	485,000
2	Yard Piping	1.00	Ea.	25,000.00	25,000
3	Controls	1.00	L.S.	35,000.00	35,000

Sub-Total	\$	948,125
Contingencies		94,813
Engineering		62,576
Other*		
<b>Total</b>	<b>\$</b>	<b>1,105,514</b>

## **IX. OTHER OBSERVATIONS**

During the course of this analysis we developed a few thoughts and observations:

1. The water system is basically a compact looped 6 inch water system with a few undersized pipes.
2. The need for 1,000 gpm fire flow is based on our field observations and applying the ISO fire flow criteria. A 1,000 gpm fire flow is generally the upper limit of flow that a looped 6 inch water system can meet. In some locations depending on the proximity of elevated storage or pumping facilities the fire flow could be stretched to 1,300 gpm. To provide a 1,500 gpm fire flow the system will require major improvements.
3. Our observations do not cover the commercial/industrial areas. In any case the fire flow limitations that may exist in these areas are generally covered by a risk premium that the property insurer applies.
4. There are some closed or partially closed valves in the system. The system needs to be checked and these valves need to be identified. Some may need to be replaced.
5. Before repainting the fire hydrants, they should be operated and flushed. Actual flow test should be completed on approximately 25% to 30% of the fire hydrants. They should be selected randomly.
6. ISO rating scores and criteria for a fire service area are complex evaluations. The evaluation, besides the water distribution system criteria, includes criteria and standards for the fire department and the fire communications. The water system criteria are 40% of the service area evaluation. In some instances the lowest rating portion of the triad of criteria can drag the whole system down to the lowest common denominator. In other words lack of the proper firefighting equipment or training can drag down the overall system rating even though the water system is rated high. The converse is also true.
7. The capacity of the elevated tank is basically too small. If a new elevated tank is constructed, some thought should be given to building it at the Fagan site. The elevation difference between Fagan and the Bell site will need to be addressed before designing the tank.



**X. COMMENTS ON ISO RATINGS FOR THE CITY OF BLUE MOUND**

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

**MONARCH'S RESPONSES TO STAFF'S  
SIXTEENTH REQUESTS FOR INFORMATION**

STAFF RFI NO. 16-5. Refer to Monarch Utilities' response to OPUC RFI 2-3c: "No changes in staffing resulted from the sales of Blue Mound and Midway."

- a. List each individual Monarch Utilities employee who provided services for the Blue Mound and Midways systems.
- b. Provide the percentage of time, annually, spent on the Blue Mound and Midway systems during the most current full year that Blue Mound and Midway systems were owned and operated by Monarch Utilities. Specify the year used.
- c. Refer to your response to Staff RFI No. 16-5(b), provide the dollar amount of salaries and benefits for each employee related to the Blue Mound and Midway systems.
- d. Explain why staffing costs did not change after the Blue Mound and Midway systems were sold.

**RESPONSE**

- a. The employees who provided services to the Blue Mound and Midway systems would have been drawn from a pool of operations personnel located in the Benbrook and Pottsboro Ops Shared Field Offices (see SWWC Cost Allocation Manual for explanation of Shared Field Offices).
- b. Time is recorded by system for specific service orders (expense and capital items); however, time spent on general tasks (e.g. maintenance, inspections, and facility checks) are not recorded by water/wastewater system (see SWWC Cost Allocation Manual).
- c. See Confidential Staff Attachment 16-5.c.
- d. Staffing costs did not change after the Blue Mound and Midway systems were sold because these systems are just a fraction of the total operations in the Benbrook and Pottsboro operations areas.

Prepared by: Edward Taussig  
Sponsored by: Carmelitha Bordelon-Taylor

# DOCKET NO. 45570

## CONFIDENTIAL

STYLE: Application Of Monarch Utilities, I, L.P., To Change Rates for Water and Sewer Service

SUBMITTING PARTY: Monarch Utilities I., L.P.

BRIEF DESCRIPTION OF CONTENTS: Confidential Portion of Monarch Utilities I, L.P.'s Responses to Staff's 16th RFIs

BATE STAMPED PAGE NUMBER RANGE: 1

ENVELOPE # 1

DATE PROVIDED: August 1, 2016

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

MONARCH'S RESPONSES TO STAFF'S  
SIXTEENTH REQUESTS FOR INFORMATION

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- d. Staffing costs did not change after the Blue Mound and Midway systems were sold because these systems are just a fraction of the total operations in the Benbrook and Pottsboro operations areas.

Prepared by: Edward Taussig  
Sponsored by: Carmelitha Bordelon-Taylor

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

**MONARCH'S RESPONSES TO STAFF'S  
SIXTEENTH REQUESTS FOR INFORMATION**

STAFF RFI NO. 16-6. Refer to Attachment RLK-2 ("Monarch I, L.P. Revenue Held in Abeyance" and Attachment RLK-3 ("Monarch I, L.P. Revenue Held in Abeyance, excluding Blue Mound") of the pre-filed direct testimony of Robert L. Kelly:

- a. Provide all supporting workpapers and source Documents, in native form, used to create these two attachments.
- b. Reconcile the attachments to Monarch Utilities' financial statements for each year presented in Attachment RLK-3.
- c. Admit that Monarch Utilities' cost of service and revenue requirement have never been determined by the Public Utility Commission of Texas or any predecessor agency with rate regulation authority over Monarch Utilities.
- d. Admit that the proper calculation of revenues held in abeyance would be affected by adjustments made by the regulatory agency to the cost of service in the past in the event of an evidentiary hearing on the merits.
- e. Provide a copy of any settlement agreement adopted by the Public Utility Commission of Texas or any predecessor regulatory agency that included revenues held in abeyance.

**RESPONSE**

- a. See Attachment Staff 16-6 "Monarch Historical Revenue 2005-15.xlsx". See also the supplementary documents, included in Errata No. 2, previously provided with the testimony of Robert L. Kelly, Attachment RLK-2.
- b. Revenue held in abeyance is not shown on Monarch's financial statements for water or wastewater, and neither is Blue Mound revenue.
- c. Admitted.
- d. Admitted, to the extent that the nature of any past adjustments to revenue held in abeyance would affect future cost of service.
- e. No settlement agreements have been adopted that address revenue held in abeyance.

Prepared by: Robert Kelly  
Sponsored by: Robert Kelly

**Attachment Staff 16-6: Monarch Historical Revenue**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Monarch	16,147,378	17,206,650	18,151,030	22,056,152	22,021,643	22,910,567	25,674,556	23,990,073	25,230,919	27,503,921	28,409,940
Blue Mound											
Water	NA	NA	NA	544,407	634,214	678,783	702,656	712,692	745,624	762,471	648,573
Wastewater	NA	NA	NA	394,521	606,968	685,803	671,691	672,937	677,761	711,673	571,918
<b>Total Blue Mound</b>	-	-	-	938,928	1,241,182	1,364,586	1,374,346	1,385,629	1,423,385	1,474,144	1,220,491

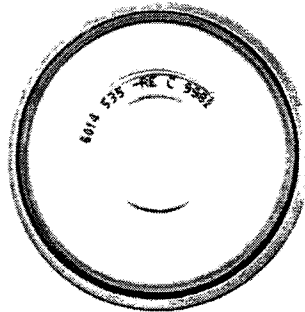
Note A: 2005-2008 Monarch restated from consolidation engine file and 2009-2015 per GL Extract

Note B: 2008-2011 Blue Mound from GL Extract and 2012-2015 Blue Mound from Business Warehouse

Note C: Blue Mound sold on September 11, 2015

PUC DOCKET NO. 45570  
SOAH DOCKET NO. 473-16-2873.WS  
MONARCH UTILITIES I, LP.  
TO CHANGE RATES FOR  
WATER AND SEWER SERVICE

Aug. 1, 2016



Aug. 1, 2016

MONARCH UTILITIES I, LP  
RESPONSES TO  
STAFF'S 16TH RFIS

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

**MONARCH'S RESPONSES TO STAFF'S  
SIXTEENTH REQUESTS FOR INFORMATION**

STAFF RFI NO. 16-7. Refer to the pre-filed direct testimony of James I. Warren. Answer the following questions for Monarch Utilities and all of its affiliates, if any affiliates are affected by the transactions discussed:

- a. Provide the specific journal entries for the three adjustments discussed in lines 22-23, page 9 and lines 1-6, page 10.
- b. Refer to lines 5-6, page 10 ("Finally, the impact was also removed in the calculation of Monarch's NOLC, thereby increasing the NOLC."). Provide all calculations and workpapers supporting this removal.
- c. Provide an explanation on how the NOLC calculation would be affected if the regulatory authority had determined rates in the years producing the NOLC and had disallowed a portion of Monarch Utilities' expenses as not reasonable and necessary in providing utility service.
- d. Refer to the discussion of ITC and EDIT on lines 6-17, page 19. Indicate whether ITC and EDIT were addressed as part of the sales price determination in the purchase of water assets from Tecon Water Holdings, L.P. in July of 2004. If the answer is "yes," provide all supporting Documents.

**RESPONSE**

- a. The adjustments referred to in the pre-filed direct testimony are not actual "journal entries" in a dual entry accounting system sense. These are not adjustments to the books of Monarch Utilities. There were adjustments made to the raw information used to calculate the accelerated tax depreciation component of accumulated deferred income taxes due to the net operating loss carryforward to determine the amount as if the New Mexico Utilities condemnation had never occurred. The information needed to be adjusted to remove any impact of the deferred gain from the condemnation of New Mexico Utilities as the operating loss on the tax returns was lower because the tax returns considered the amortization of the deferred gain on the condemnation of New Mexico Utilities.
- b. See Attachment Staff 16-7 for the calculation demonstrating the removal of the deferred gain amortization. This schedule calculates the amount of net operating loss carry forward specifically attributable to excess tax depreciation (see Column H).
- c. An appropriate portion of the NOLC should be attributed to such disallowed costs.
- d. Neither ITC nor EDIT were addressed as part of the sales price determination in the purchase of water assets from Tecon Water Holdings, L. P. in July of 2004.

Prepared by: Chris Aldinger/Robert Kelly/James Warren  
Sponsored by: James Warren



MONARCH UTILITIES  
 SCHEDULE OF TAXABLE INCOME BY YEAR AND NOL CARRYFORWARD DUE TO TAX DEPRECIATION  
 AS OF JUNE 30 2015

	(A) PER TAX RETURN CONSOLIDATION SCHEDULE	(B) ADJUST FOR DEFERRED GAIN ON NM	(C) = (A) + (B) ADJUSTED NOL REMOVING 1033 GAIN DEFERRAL	(D) ADJUSTED NOL CAUSED BY EXCESS TAX DEPRECIATION	(E) = (C) - (D) ADJUSTED NOL CAUSED BY SOMETHING OTHER THAN ACCELERATED DEPRECIATION	(F) UTILIZATION OF NOL ATTRIBUTABLE TO EXCESS TAX DEPRECIATION	(G) UTILIZATION OF NOL ATTRIBUTABLE TO OTHER THAN EXCESS TAX DEPRECIATION	(H) = (D) - (F) REMAINING NOL ATTRIBUTABLE TO EXCESS TAX DEPRECIATION
2004	(237,318)		(237,318)	(232,134)	(5,184)	232,134	5,184	-
2005	(1,281,792)		(1,281,792)	(452,128)	(829,664)	244,390	448,460	(207,738)
2006	(2,890,370)		(2,890,370)	(1,485,830)	(1,404,540)			(1,485,830)
2007	(2,627,325)		(2,627,325)	(1,880,472)	(746,853)			(1,880,472)
2008	(2,649,641)		(2,649,641)	(2,453,808)	(195,833)			(2,453,808)
2009	(3,632,045)	(1,490,259)	(5,122,304)	(1,115,657)	(4,006,647)			(1,115,657)
2010	(5,560,250)		(5,560,250)	(3,278,269)	(2,281,981)			(3,278,269)
2011	(3,630,557)	(2,834,172)	(6,464,729)	(2,123,806)	(4,340,923)			(2,123,806)
2012	(3,894,153)	(2,578,647)	(6,472,800)	(1,283,358)	(5,189,442)			(1,283,358)
2013	(4,049,251)	(2,386,659)	(6,435,910)	(1,187,425)	(5,248,485)			(1,187,425)
2014	(715,909)	(2,255,901)	(2,971,810)	(1,647,461)	(1,324,349)			(1,647,461)
2014	1,571,865	(2,163,776)	(591,911)	(591,911)	-	(476,524)	(453,644)	(591,911)
6 mos 2015	930,168		930,168					
TOTAL	(28,666,578)		(42,375,992)	(17,732,259)	(25,573,901)	(0)	0	(17,255,735)

THRU 9/30/10  
 9/14 12/31/10