

PRELIMINARY ENGINEERING REPORT

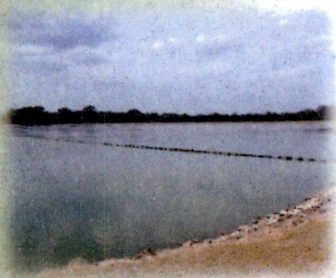
WASTEWATER SYSTEM IMPROVEMENTS
MALVERN WATER WORKS - SEWER DEPARTMENT

CITY OF MALVERN, ARKANSAS

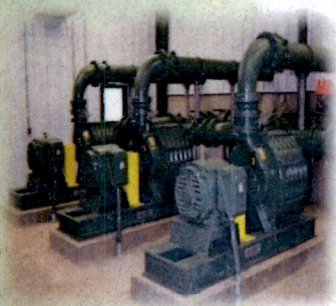
SEPTEMBER 2017



PRESENTED TO:
ARKANSAS WATER AND WASTEWATER
ADVISORY COMMITTEE



PRESENTED FOR:



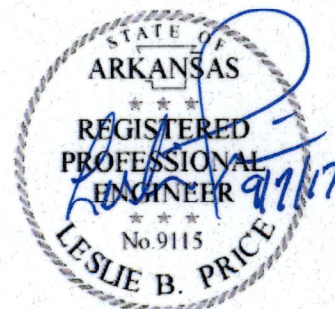
PREPARED BY:



CRIST ENGINEERS, INC.
205 EXECUTIVE COURT
LITTLE ROCK, ARKANSAS
501.664.1552
CRISTENGINEERS.COM



CRIST JOB NO.
1740



WATER / WASTEWATER ADVISORY COMMITTEE

R 6/2005

WASTEWATER PRE-APPLICATION
COVER PAGE

WWAC ID #: 3787

1. Applicant / Owner:	Malvern Water Works	2. CDBG Grantee:			
Representative & Title:	Brenda Weldon, Mayor	Representative & Title:			
Address:	506 Overman Street P.O. Box 638	Address:			
City & Zip Code:	Malvern, AR 72104	City & Zip Code:			
County:	Hot Spring	County:			
Phone:	(501) 332-3634	Phone:			
FAX:	(501) 332-5730	FAX:			
E-Mail Address:	mayor@malvernar.gov	E-Mail Address:			
3. Engineering Firm:	Crist Engineers, Inc.	4. Application Type: (Mark all that apply) <input type="checkbox"/> LMI Service Hookups <input type="checkbox"/> New Collection System or Extension <input checked="" type="checkbox"/> Rehab Existing Collection System <input type="checkbox"/> New Treatment Plant <input checked="" type="checkbox"/> Rehab Existing Treatment Plant <input checked="" type="checkbox"/> Other Flow monitoring, SSES, and Hydraulic Model			
Project Engineer:	Les Price, P.E.				
Address:	205 Executive Court				
City & Zip Code:	Little Rock, AR 72205				
Phone:	(501) 664-1552				
FAX:	(501) 664-8579				
E-Mail Address:	lprice@cristengineers.com				
5. Number of Existing Customers:	3694	Number of New Customers:	N.A.	Projected Number of Customers:	N.A.
6. Arkansas Senate District	13	Arkansas House District	26	U. S. House District	4
7. Provide a brief description of the project: Malvern Wastewater System Improvements includes repairs and hydraulic improvements to the existing wastewater treatment plant; as well as Collection System Improvements including flow monitoring, SSES reporting, SCADA system upgrades and repairs, generator repairs, forcemain and sanitary sewer repairs, a pump station replacement, and other various repairs to the remaining pump stations. The Wastewater Treatment Plant improvements specifically entail repairs to the existing aeration system, repairs to existing disinfection equipment, various hydraulic improvements, replacement of the influent flow meter, replacement of baffle curtains, levee repairs, and installation of an influent composite sampler.					
8. Indicate the Agencies and Dollar Amounts you plan to use for this project:					
\$ _____		Community Development Block Grant Program			
\$ 10,691,700		Arkansas Natural Resources Commission			
\$ _____		Community Resource Group			
\$ _____		USDA, Rural Development			
\$ _____		Other Funding Source: _____			
\$ 10,691,700		Total Funds Requested			
9. I, the undersigned representative of the applicant or grant recipient, certify that the information contained herein and the attached statements, exhibits and reports are true, correct and complete to the best of my knowledge and belief.					
Applicant's Signature: <u>Brenda Weldon</u>		Date: <u>9-13-17</u>			
Application Preparer's Signature: <u>Les Price</u>		Date: <u>9/13/17</u>			

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify)

* 3. Date Received:

Completed by Grants.gov upon submission.

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Malvern Water Works (an Enterprise Fund of the City of Malvern)

* b. Employer/Taxpayer Identification Number (EIN/TIN):

71-6018392

* c. Organizational DUNS:

156041394

d. Address:

* Street1: 506 Overman Street

Street2: P.O. Box 638

* City: Malvern

County: Hot Spring

* State: AR

Province:

* Country: USA

* Zip / Postal Code: 72104

e. Organizational Unit:

Department Name:

Malvern Water Works

Division Name:

Sewer Department

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr.

* First Name: Les

Middle Name:

* Last Name: Price

Suffix:

Title: Project Engineer

Organizational Affiliation:

Crist Engineers, Inc.

* Telephone Number: (501) 664-1552

Fax Number: (501) 664-8579

* Email: lprice@cristengineers.com

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

An Enterprise Fund of a City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

*** 10. Name of Federal Agency:**

United States Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.203

CFDA Title:

Environmental Finance Center Grants

*** 12. Funding Opportunity Number:**

*** Title:**

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

City of Malvern, Hot Spring County, Arkansas

*** 15. Descriptive Title of Applicant's Project:**

Malvern Water Works Wastewater System Improvements

Attach supporting documents as specified in agency instructions.

[Add Attachments](#)

[Delete Attachments](#)

[View Attachments](#)

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="\$10,691,700.00"/>
* b. Applicant	<input type="text"/>
* c. State	<input type="text"/>
* d. Local	<input type="text"/>
* e. Other	<input type="text"/>
* f. Program Income	<input type="text"/>
* g. TOTAL	<input type="text" value="\$10,691,700.00"/>

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

☐ Yes ☒ No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative:  * Date Signed:

Authorized for Local Reproduction

**PRELIMINARY ENGINEERING REPORT: WASTEWATER SYSTEM IMPROVEMENTS
MALVERN WATER WORKS
MALVERN, ARKANSAS**

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MALVERN WATER WORKS
MALVERN, ARKANSAS**

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MALVERN WATER WORKS
MALVERN, ARKANSAS**

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PRELIMINARY ENGINEERING REPORT: WASTEWATER SYSTEM IMPROVEMENTS

MALVERN WATER WORKS

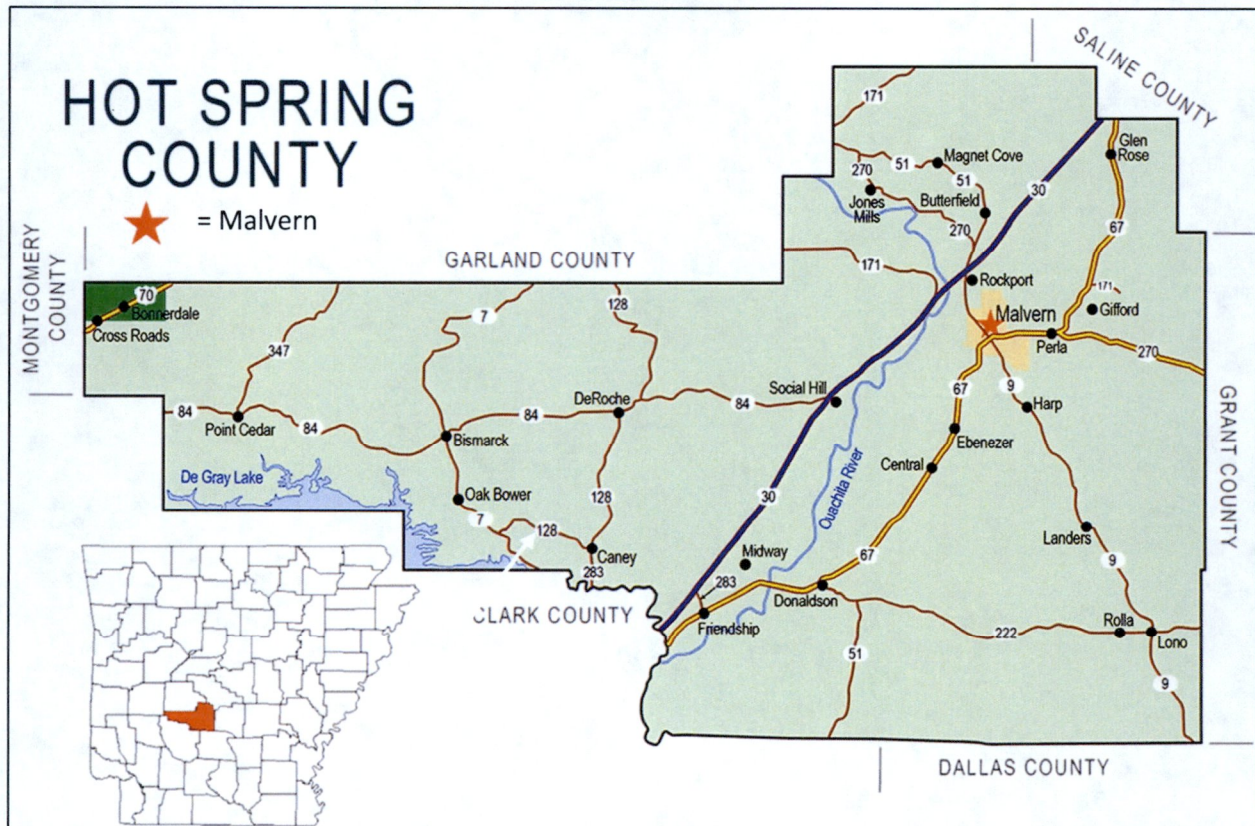
MALVERN, ARKANSAS

I. EXISTING CONDITIONS

A. Project name, location, and area map

The City of Malvern is located in Hot Spring County approximately 45 miles southwest of Little Rock adjacent to Interstate 30 (I-30). The proposed project name is the Malvern Wastewater System Improvements. A location map of Malvern in Hot Spring County, Arkansas is shown in **Figure 1.0**.

Figure 1.0: Location Map of Malvern, Hot Spring County, Arkansas



B. Need for Project

The project includes capacity improvements (hydraulic and treatment) to the existing wastewater treatment facility, repairs to the existing wastewater treatment facility, temporary flow monitoring and sewer system evaluation study, collection system rehabilitation, and various improvements to pump stations throughout the collection system.

Historical effluent flow rates from 2010 to 2014 indicate that the treatment facility has reached its maximum month design capacity of 3.02 million gallons per day (mgd) and has occasionally exceeded the peak hydraulic capacity of 5.53 mgd. Typically, regulatory authorities prefer that the capacity be increased when flows reach 80% of design capacity. The capacity of the aeration system, the influent junction box, the transfer structure, and the effluent flume structure all need to be increased, to meet current needs as well as the 2040 projected flow rates. Improvements to the aeration system involve replacing and adding diffusers as well as sludge removal. The various other capacity improvements include:

- The addition of a 30-inch chlorine contact pipe for the disinfection system chlorine contact piping.
- Effluent hydraulic improvements including construction of an additional outfall.

In addition to the required capacity upgrades, various equipment and structures need to be replaced or rehabilitated to ensure the WWTF continues to meet NPDES permit conditions. These other improvements include:

- Repairs and replacement of existing disinfection system equipment.
- Replacement of the influent flow meter at the influent structure.
- Replacement of baffle curtains at Lagoon No.2.
- Riprap placement to various areas on the interior sides of levees.
- Installation of an influent composite sampler.

The Malvern collection system generally performs well except during periods of wet weather when the system experiences overflows and surcharging at the following locations:

1. Laurel Street and Davis Street area.
2. Morzette Street and Kelly Street area.
3. Swan Street area.

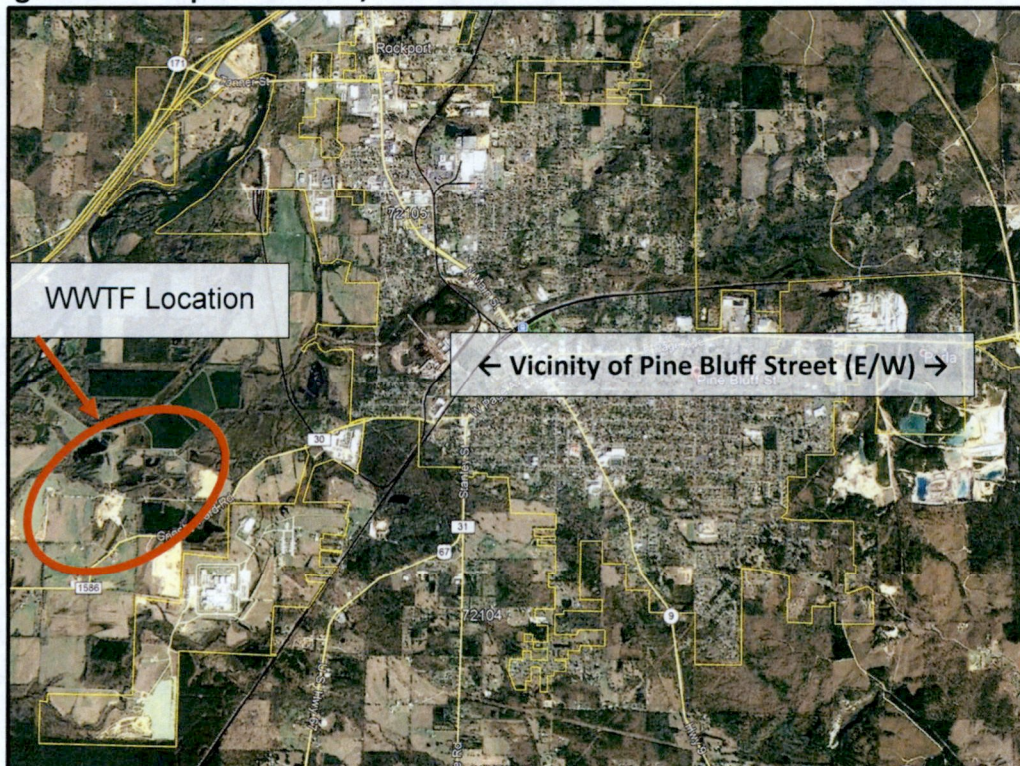
4. Section Line Road area.
5. Sullenberger Avenue and Toler Street area.

Collection System Improvements include temporary flow monitoring on the entire collection system, a Sewer System Evaluation Study (SSES) on three basins within the collection system, a hydraulic model of the collection system, SCADA system repairs and improvements, generator repairs and improvements at various pump stations, collection system repairs and rehabilitation, replacement of the City Park Pump Station, and various pump station improvements. All of the collection system improvements are to ensure reliable conveyance of wastewater to the WWTF, prevent sanitary sewer overflows, and to reduce infiltration and inflow into the system.

C. Existing Collection System

The Malvern wastewater collection system lies generally within two natural drainage basins. That portion of the system lying north of Pine Bluff Street (with runs east and west) generally drains toward Town Creek, which flows to the Ouachita River. That portion of the system lying south of Pine Bluff Street generally drains toward Chatman Creek, which flows southwesterly and joins the Ouachita River southwest of Malvern. A map of Malvern is shown in **Figure 2.0**.

Figure 2.0: Map of Malvern, Arkansas



The initial Malvern wastewater collection system was constructed in the early 1900's to serve the original central business district, but most of the present system was constructed in the 1940's and 1950's. Additions were continually made to the system from the late 1960's through the mid 1980's. Early materials of construction included vitrified clay and concrete pipes with brick masonry manholes; while ductile iron and plastic pipe were included as later construction materials. Mainline pipe diameters range from 4 to 24 inches with the most common diameter being 6 inches. The Malvern wastewater collection system consists of six separate collection system drainage basins and includes seven pump stations. **Table 1.0** shows information on the system pump stations.

Table 1.0: Collection System Pump Station Summary

Name	Type	Pump Information (GPM, FT TDI, HP)	Pump Station Notes
Walco Road	Wetpit/Drypit	No. 1 (2800, 39, 40) No. 2 & 3 (3350, 47, 60)	Pumps and controls installed in 2000. SCADA system: None Has emergency generator.
Riverview	Wetpit	No. 1 & 2 (760, 66, 20)	Pumps and controls installed in 2013. SCADA system: not activated. No emergency generator connection.
Happy Hollow	Wetpit	No. 1 & 2 (520, 50, 15)	Pumps and controls installed in 2013. SCADA system: not activated. No emergency generator connection.
Babcock Terrace	Wetpit	No. 1 & 2 (149, 20, 2.2)	Pumps and controls installed in 2010. SCADA system: no cell modem, not activated. No emergency generator connection.
County Jail	Wetpit	No. 1 & 2 (200, 48, 6.5)	Pumps and controls installed in 2007. SCADA system: None Has emergency generator.
Moline Street	Wetpit	No. 1 & 2 (232, 21, 7) and (104, 51, 7)	Pumps and controls installed in 2001. SCADA System: None No emergency generator connection. No security fence.
City Park	Wetpit/ Wetwell Mounted Pumps	No. 1 & 2 (175, 69, 10)	Pumps and controls installed in 1995. SCADA system: None No emergency generator connection. No security fence.
Sykes	Wetpit	One Pump (N.A.)	Privately Owned. No security fence.

Most of the collection system flows to the Walco Road Pump Station where it is pumped to the WWTF. The Riverview and Happy Hollow Pump Stations collect wastewater from the vicinity of the I-30 interchange and pump to the WWTF. The State Prison facility also pumps wastewater directly to the WWTF.

The Town of Perla currently pumps their wastewater to Malvern for treatment. The connection point is located at manhole 3029, north of Section Line Road in Basin 3 of the Malvern collection system. The wastewater connection is currently metered with payment based upon flow through the meter.

A Flow Monitoring Study and a Sewer System Evaluation Study were conducted on the Malvern collection system in 1999. Major improvements to the collection system were constructed in 2000 and included approximately 16,500 feet of gravity sewer extensions and various low-pressure sewer systems throughout the city. The extensions and low-pressure sewer systems provided sewer service to existing sources. Another flow monitoring study was conducted in 2003 after the various sewer system rehabilitation projects were completed.

The wastewater treatment facility (WWTF) is located southwest of the town center, approximately 1 mile southwest of the intersection of Walco Road and Grigsby Ford Road. The current WWTF was constructed in 2001 and consists of secondary treatment in a multi-cell, partial-mix, aerated lagoon including effluent chlorination/dechlorination. The total surface area of the pond system is approximately 53.1 acres with a total pond volume of approximately 164.9 million gallons. Four pump stations pump wastewater directly to the WWTF. Wastewater from all four pump stations is pumped through an influent flow meter at the WWTF before entering the influent junction box. From the influent junction box, wastewater flows by gravity to aerated lagoon no. 1 where it passes through the aerated lagoon defined by floating plastic baffles. Wastewater then travels from lagoon no. 1 to lagoon no. 2 through a transfer structure. Wastewater flows through lagoon no. 2, as defined by floating plastic baffles, to an effluent structure. Wastewater exists the effluent structure and flows through the effluent Parshall flume. From the effluent flume, wastewater flows into the chlorine inductor wetwell where a chlorine solution is introduced for disinfection. Treated effluent then flows by gravity to the chlorine dioxide inductor wetwell where a sulfur dioxide solution is introduced to remove any residual chlorine in the treated wastewater. Treated wastewater then discharges by gravity through an outfall pipe to the Ouachita River. **Figure 3.0** provides a general location and facility configuration of the existing wastewater treatment plant.

Figure 3.0: WWTF General Location and Layout

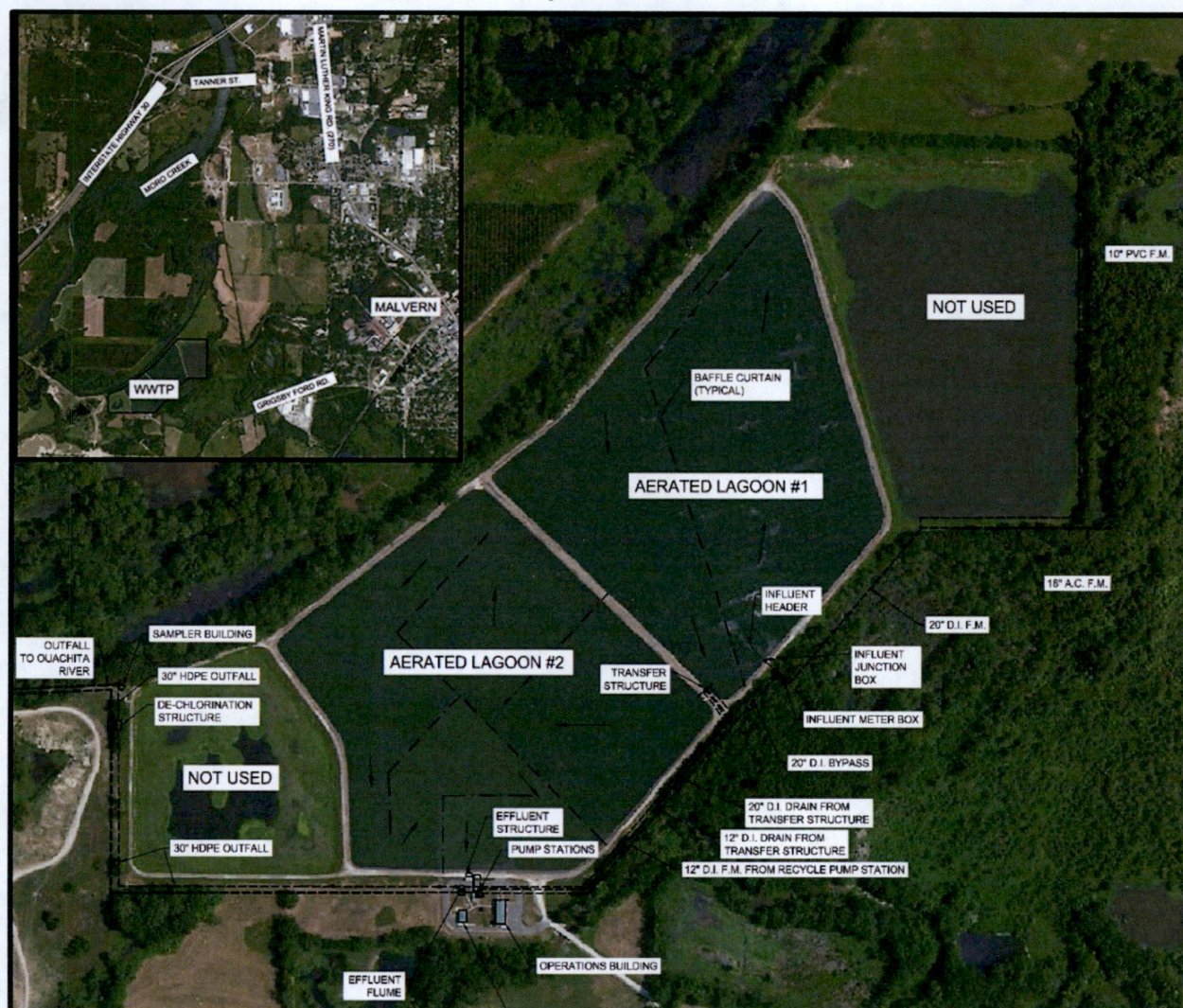


Table 2.0 outlines the characteristics of each of the existing lagoons, based upon an average day flow of 1.85 mgd. The facility can treat an average daily flow of 1.85 mgd with a maximum design capacity of 3.02 mgd which is based upon the maximum month. The maximum hydraulic capacity is 5.53 mgd.

Table 2.0: Characteristics of Existing Lagoon System

Location	Surface Area (Acre)	Average Depth (ft.)	Volume (MG)	Detention Time at 1.85 mgd ⁽¹⁾ (days)
Lagoon No. 1	26.16	10	81.2	43.9
Lagoon No. 2	26.89	10	83.7	45.2

(1) Assumes no reduction factors for sludge accumulation.

D. National Pollutant Discharge Elimination System (NPDES)

The WWTF is authorized to discharge wastewater under the National Pollutant Discharge Elimination System (NPDES) and the Arkansas Water and Air Pollution Control Act through Permit Number AR 0034126. The current permit was effective on November 1, 2015 and expires October 31, 2020. **Table 3.0** outlines the NPDES Effluent Limitations and Monitoring Requirements of the permit.

Table 3.0: NPDES Effluent Limitations and Monitoring Requirements

Effluent Characteristic	Discharge Limitation			Monitoring Requirements	
	Mass (lbs/day; uno)	Concentration (mg/L; uno)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report (mgd)	Report, mgd (Daily Max)	Once/day	Totalizing Meter
CBOD ₅	636	25	37.5	Three/week	24-hr composite
TSS	2,289	90	135	Three/week	24-hr composite
NH ₃ -N	254	10	15	Three/week	24-hr composite
DO	N/A	2.0 (Inst. Min.)		Three/week	Grab
FCB		(colonies/100 ml)			
(Apr-Sept)		200	400	Three/week	Grab
(Oct – Mar)		1,000	2,000	Three/week	Grab
TRC	N/A	0.046 mg/L (Inst. Max)		Three/week	Grab
pH	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	Three/week	Grab
Chronic WET Testing	N/A	Report		Once/quarter	24-hr composite
Overflows	Monthly Total SSOs (occurrences/month)				
Overflow Volume	Monthly Total Volume of SSOs (gal/mo)				

Regulation No. 2, *Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas*, adopted by the Arkansas Pollution Control and Ecology Commission, promulgated on February 28, 2014, sets forth water quality standards for present, future, and potential uses of surface waters of the State. Regulation No. 2

designates the use of surface waters. The reach of the Ouachita River that the current NPDES permit authorizes discharge is designated within the Gulf Coastal Ecoregion, Plate 4 (GC-4). Designated use includes primary and secondary contact recreation, domestic, industrial, and agricultural water supply with perennial aquatic life. The dissolved oxygen standard for critical dilution is 2.0 mg/L as indicated in the current NPDES permit. Primary contact bacteria limit is effective from April to September with a monthly geometric mean of 200 colonies per 100 mL (col/100mL) for fecal coliform with no one sample exceeding 400 col/100mL. During the secondary contact season from October to March the fecal coliform geometric mean limit is 1,000 col/mL with no one sample exceeding 2,000 col/mL. The fecal coliform limit is reflected in the NPDES permit.

Toxic substances are regulated under sub-part 2.508 of Regulation 2; however, they are typically controlled under the whole effluent toxicity (WET) testing established in the NPDES permit that is currently performed quarterly.

The City of Malvern is not currently under any enforcement action.

E. Present Flows and Wastewater Characteristics

Wastewater flow rate data was obtained from Malvern utilizing the discharge monthly reports (DMR's). Historical average day flow rate data for the 5-year period of 2010 to 2014 is given in **Table 4.0**. The annual average daily flow rates varied from a low of 1.767 mgd in 2010 to a high of 2.050 mgd in 2014. The average daily flow rate for the 5-year period of 2010 to 2014 was 1.905 mgd.

Table 4.0: Historical Average Day Flow Rates (mgd)

Month	2010	2011	2012	2013	2014
January	3.286	1.771	2.498	3.131	2.735
February	3.777	1.892	3.392	2.351	2.703
March	2.340	2.223	2.955	2.420	2.450
April	1.861	1.826	2.158	2.730	3.420
May	2.252	3.408	1.347	1.833	2.240
June	1.675	1.314	1.229	2.125	3.099
July	1.222	0.921	0.936	1.223	1.714
August	0.671	1.055	0.987	1.742	1.303
September	0.861	0.915	2.332	1.189	1.006
October	0.878	0.932	1.474	1.344	1.282
November	1.060	2.208	1.618	1.994	1.172
December	1.318	3.512	1.686	1.850	1.477
Average	1.767	1.831	1.884	1.994	2.050

Historical flow rate data, from **Table 4.0: Historical Average Day Flow Rates (mgd)**, was used to estimate peaking factors for maximum month and maximum day, as given in **Table 5.0** below.

Table 5.0: Historical Flow Rates and Resulting Peaking Factors

Flow Rate Category	Rate, mgd	Peaking Factor
Average Day	1.905	1.00
Maximum Month	3.777	1.98
Maximum Day	5.541	2.91

Based on historical average day flow rates, presented in **Table 4.0**, and the yearly historical population for the City of Malvern (including the City of Perla), an average wastewater flow rate per capita per day (gpcd) can be calculated for the years 2010 to 2014. The estimated yearly population, the average day WWTF influent flow rate, and the calculated average day wastewater flow rate per capita per day is presented in **Table 6.0**.

Table 6.0: Per Capita Average Day Wastewater Flow Rates

Year	Estimated Population	Average Day WW Flow Rate	
		mgd	gpcd
2010	10,559	1.767	167
2011	10,663	1.831	172
2012	11,093	1.884	170
2013	11,096	1.994	180
2014	11,067	2.050	185
Average of Rates		1.91	175

1.0 Infiltration/Inflow

The collection system generally performs well except during periods of wet weather. Comparing the historical flow rate data to the historical rainfall data, as presented in **Table 7.0**, shows that the Malvern Wastewater System follows a typical municipal wastewater flow rate pattern in that as seasonal precipitation increases, wastewater influent flow rates increase.

Table 7.0: Historical Flow Rates and Rainfall Data

Month	2010		2011		2012		2013		2014	
	Flow (mgd)	Rainfall (Inches)	Flow (mgd)	Rainfall (Inches)	Flow (mgd)	Rainfall (Inches)	Flow (mgd)	Rainfall (Inches)	Flow (mgd)	Rainfall (Inches)
January	3.286	4.0	1.771	1.0	2.498	3.0	3.131	4.4	2.735	NA
February	3.777	5.1	1.892	2.1	3.392	3.6	2.351	6.0	2.703	2.0
March	2.340	3.0	2.223	3.6	2.955	5.0	2.420	3.3	2.450	NA
April	1.861	2.0	1.826	5.9	2.158	2.1	2.730	4.5	3.420	4.4
May	2.252	5.1	3.408	6.7	1.347	1.7	1.833	4.5	2.240	4.8
June	1.675	3.6	1.314	1.8	1.229	4.8	2.125	4.2	3.099	7.2
July	1.222	2.9	0.921	3.0	0.936	1.5	1.223	6.4	1.714	3.1
August	0.671	0.6	1.055	4.9	0.987	5.4	1.742	3.0	1.303	1.5
September	0.861	0.4	0.915	1.6	2.332	8.5	1.189	4.6	1.006	1.8
October	0.878	1.5	0.932	2.25	1.474	3.5	1.344	3.0	1.282	4.8
November	1.060	6.3	2.208	7.8	1.618	3.3	1.994	4.3	1.172	2.0
December	1.318	2.4	3.512	10.25	1.686	4.0	1.850	7.1	1.477	3.1

Excessive infiltration and inflow into the sanitary sewer system can potentially cause overflows at manholes and other locations which are considered unpermitted discharges. As previously mentioned, Malvern staff has indicated that during heavy rains or long periods of rain, overflows and surcharging related issues occur at five (5) locations, listed as follows:

1. Laurel Street and Davis Street area.
2. Morzette Street and Kelly Street area.
3. Swan Street area.
4. Section Line Road area.
5. Sullenberger Avenue and Toler Street area.

To locate possible infiltration and inflow areas, a Flow Monitoring Study and a Sewer System Evaluation Study (SSES) were conducted on the Malvern collection system in 1999. Flow monitoring studies and sewer system evaluations help identify possible causes and locations of excessive infiltration and inflow into the

collection system. A flow monitoring study was also conducted in 2003 after various sewer system rehabilitation projects were completed.

The Malvern collection system contains a significant amount of very old clay and concrete pipe. Clay and concrete pipe deteriorates as the pipe ages which leads to infiltration and inflow. This project includes an updated flow study on the entire collection system and a sewer system evaluation study on the three basins within the collection system that have the most infiltration/inflow to identify possible sources and locations of excessive infiltration and inflow within the collection system.

Phase 1 of the SSES includes temporary flow monitoring. The initial phase of work will consist of the placement of temporary flow meters and rainfall gauges to establish dry and wet weather flows. Monitoring will occur during the spring or fall to maximize the probability of gathering sufficient rainfall during a 45 to 60-day monitoring period. Data analysis will determine the volume of rainfall dependent infiltration/inflow and prioritize basins for subsequent Phase 2 testing if warranted. Phase 2 of the SSES will include sanitary sewer testing and inspection. This project assumes Phase 2 testing on the three worst basins identified in the flow monitoring study and approximately \$2,000,000 worth of estimated collection system rehabilitation work to be completed on the three basins with the most infiltration and inflow into the system.

Hydraulic models of the collection system also help to identify areas of the collection system that need capacity improvements. A hydraulic model utilizes pipe sizes, manhole elevations, pump capacities, and information obtained from the flow monitoring study (such as flow rates and patterns) to identify deficiencies. This project includes a hydraulic model of the collection system to help identify areas of the collection system that need capacity improvements. The hydraulic model, in this instance, would be created after the temporary flow monitoring study is complete.

Malvern Water Works currently does not specifically measure infiltration and inflow; therefore I/I can only be estimated from wastewater influent flow records and customer base records.

2.0 Present Wastewater Characteristics

Wastewater characterization data was obtained from historical Discharge Monthly Reports (DMR's), which were used to evaluate wastewater loading and effluent parameters at the wastewater treatment facility (WWTF). The data capture was for 2010 through 2014. The historical DMR data includes permit and sample criteria as established by the ADEQ issued NPDES permit. **Table 8.0** provides a summary of the analyzed data from 2010 through 2014.

Table 8.0: NPDES Effluent Characterization 2010 through 2014

Effluent Characterization	Discharge Limitation			2010 through 2014 Effluent Characterization							
	Mass (lbs/day)	Concentration (mg/L)		Monthly				7-Day Average			
	Monthly Avg	Monthly Average	7-Day Avg	Min	Avg	Max	Excursions	Min	Avg	Max	Excursions
Flow	N/A	Report, MGD	MGD	0.67	1.91	3.78	N/A	-	-	-	-
			(Daily Max)	1.06	2.95	5.54	N/A				
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	-	25	37.5	2.80	6.3	12.40	0	3.07	8.31	34.6	0
	636	-	-	6.10	98.32	274.7	0	-	-	-	-
Total Suspended Solids (TSS)	N/A	90	135	9.10	20.31	42.83	0	11.17	24.55	53.5	0
	2289	-	-	101.7	291.7	773.7	0	-	-	-	-
Ammonia Nitrogen (NH ₃ -N)	-	10	15	0.02	2.49	8.66	0	0.03	3.26	9.68	0
	254			0.10	46.40	199.0	0	-	-	-	-
Dissolved Oxygen	N/A	2.0 (Inst. Min.)		5.56	7.82	11.56	0	-	-	-	-
Fecal Coliform Bacteria	-	(colonies/100ml)		-	-	-	-	-	-	-	-
(Apr-Sept)	N/A	200	400	0	6	31	0	0	18	86	0
(Oct-Mar)	N/A	1000	2000	0	22	225	0	0	66	456	0
Total Residual Chlorine	N/A	<0.1 mg/L (Inst. Max.)		0.00	0.10	0.80	6	-	-	-	-
Total Phosphorus	Report	Report	Report	0.93	1.71	3.2	N/A	-	-	-	N/A
Nitrate + Nitrite (NO ₃ + NO ₂ -N)	Report	Report	Report	0.05	2.10	10.0	N/A	-	-	-	N/A
pH	N/A	Min. 6.0 s.u.	Max. 9.0 s.u.	6.0	7.1/7.8	9.5	2	-	-	-	-
N/A = Not Applicable											

Malvern currently does not have any significant industrial users (SIU's).

The WWTP is well operated and consistently meets NPDES effluent limitations. There is a total of eight excursions recorded in the data analysis. Six of these were for Total Chlorine Residual and two were for pH.

The City of Malvern did not have significant performance data on record for removal efficiencies of the treatment system. A purchase order was issued to American Interplex Corporation of Little Rock, Arkansas, to obtain wastewater characterization data at certain points along the treatment process. Table 9.0 outlines the parameter, frequency of testing, and the sampling location, all relevant to the wastewater characterization data.

Table 9.0: System Performance Parameter and Test Location

Parameter	Composite Sample Date					Days	Site Location			No. of Locations
	8/15	8/17	8/18	8/22	8/23		1	2	3	
BOD ₅	X	X	X	X	X	5	X	X	X	3
CBOD ₅	X	-	X	-	X	3	X	-	X	2
Sol. BOD ₅	X	-	X	-	X	3	X	X	X	3
TSS	X	X	X	X	X	5	X	X	X	3
TKN	X	-	X	-	X	3	X	-	X	2
NH ₃ N	X	-	X	-	X	3	X	X	X	3
pH	X	-	X	-	X	3	X	-	X	2
ALK	X	-	X	-	X	3	X	-	X	2
TP	X	-	X	-	X	3	X	-	-	1
DO	X	-	X	-	X	3	X	X	X	3
Parameter Key: BOD ₅ = Biochemical Oxygen Demand, Five Day CBOD ₅ = Carbonaceous Biochemical Oxygen Demand, Five Day Sol. BOD ₅ = Soluble Biochemical Oxygen Demand, Five Day TSS = Total Suspended Solids TKN = Total Kjeldahl Nitrogen NH ₃ -N = Ammonia-Nitrogen pH = Standard units (measure of hydrogen ion activity) ALK = Alkalinity TP = Total Phosphorus DO = Dissolved Oxygen							Site Key: 1 = Influent Structure 2 = Transfer Structure 3 = Effluent Discharge			

The Laboratory System Performance testing data is summarized in **Table 10.0** to **Table 14.0**.

Table 10.0: March 15, 2016 Test Date Summary

Parameter, Unit ⁽¹⁾	Influent Structure (Site 1)	Transfer Structure (Site 2)	Effluent Discharge (Site 3)	March 2016 Effluent Discharge Monthly Avg.	Percent Removal
Flow, MGD	6.12 ⁽³⁾	-	5.15	4.14	-
BOD ₅ , mg/L	34	7.2	<2	-	94.1
BOD ₅ , lbs/day	1,735	-	86	-	-
CBOD ₅ , mg/L	26	-	7.5	6.8	71.2
sBOD ₅ , mg/L	5.4	<2	<2	-	-
sBOD ₅ , lbs/day	276	-	86	-	-
TSS, mg/L	40	10	15	15.5	62.5
TSS, lbs/day	2,042	-	645	476.1	-
NH ₃ -N, mg/L	3.2	9.7	7.16	5.803	-
NH ₃ -N, lbs/day	163	-	308	188.5	-
TKN, mg/L	10	-	9.7	-	-
TRC	-	-	0	0.022	-
TP, mg/L	0.9	-	-	-	-
Alkalinity, mg/L	34	-	<1	-	-
pH, S.U.	6.28	-	7.3	7.3	-
DO, mg/L	2.23	3.77	8.79	8.16 min	-
FCB ⁽²⁾ , N/100 mls	-	-	-	3	-
⁽¹⁾ Parameter key is provided in Table 9.0 . ⁽²⁾ FCB = Fecal Coliform Bacteria. ⁽³⁾ Data from Walco Road Flow Meter (does not include flow from Riverview, Happy Hollow, Moline Street and Prison pump stations).					

Table 11.0: March 17, 2016 Test Date Summary

Parameter, Unit ⁽²⁾	Influent Structure (Site 1)	Transfer Structure (Site 2)	Effluent Discharge (Site 3)	March 2016 Effluent Discharge Monthly Avg.	Percent Removal
Flow, MGD	4.36 ⁽³⁾	-	5.16	4.14	-
BOD ₅ , mg/L	60	8.2	4.7	-	92.2
BOD ₅ , lbs/day	2,182	-	202	-	-
TSS, mg/L	42	11	12 ⁽¹⁾	15.5	71.4
TSS, lbs/day	1,527	-	517	476.1	-
⁽¹⁾ Lab data reported from nearest day. ⁽²⁾ Parameter key is provided in Table 9.0 . ⁽³⁾ Data from Walco Road Flow Meter (does not include flow from Riverview, Happy Hollow, Moline Street and Prison pump stations).					

Table 12.0: March 18, 2016 Test Date Summary

Parameter, Unit ⁽²⁾	Influent Structure (Site 1)	Transfer Structure (Site 2)	Effluent Discharge (Site 3)	March 2016 Effluent Discharge Monthly Avg.	Percent Removal
Flow (MGD)	4.28 ⁽⁴⁾	-	5.09	4.14	-
BOD ₅ , mg/L	71	16	23	-	67.6
BOD ₅ , lbs/day	2,534	-	977	-	-
CBOD ₅ , mg/L	46	-	5.6 ⁽¹⁾	6.8	87.8
sBOD ₅ , mg/L	15	3.2	NA	-	-
sBOD ₅ , lbs/day	535	-	-	-	-
TSS, mg/L	66	12	17	15.5	74.2
TSS, lbs/day	2,356	-	722	476.1	-
NH ₃ -N, mg/L	6.1	8.3	7.69 ⁽¹⁾	5.803	-
NH ₃ -N, lbs/day	218	-	327	188.5	-
TKN, mg/L	9.8	-	10	-	-
TRC	-	-	0*	0.022	-
TP, mg/L	1.1	-	-	-	-
Alkalinity, mg/L	48	-	45	-	-
pH, S.U.	6.34	-	7.2 ⁽¹⁾	7.3	-
DO, mg/L	1.98	5.19	8.61 ⁽¹⁾	8.16	-
FCB ⁽³⁾ , N/100 mls	-	-	-	3	-

⁽¹⁾ Lab data reported from nearest day.

⁽²⁾ Parameter key is provided in **Table 9.0**.

⁽³⁾ FCB = Fecal Coliform Bacteria.

⁽⁴⁾ Data from Walco Road Flow Meter (does not include flow from Riverview, Happy Hollow, Moline Street and Prison pump stations).

Table 13.0: March 22, 2016 Test Date Summary

Parameter Unit ⁽¹⁾	Influent Structure (Site 1)	Transfer Structure (Site 2)	Effluent Discharge (Site 3)	March 2016 Effluent Discharge Monthly Avg.	Percent Removal
Flow, MGD	3.72 ⁽²⁾	-	4.56	4.14	-
BOD ₅ , mg/L	100	6.4	10	-	90.0
BOD ₅ , lbs/day	3,102	-	381	-	-
TSS, mg/L	49	13	16	15.5	67.4
TSS, lbs/day	1,520	-	609	476.1	-
⁽¹⁾ Parameter key is provided in Table 9.0 . ⁽²⁾ Flow data from temporary flow meter at WWTP Influent Structure (includes flow from all pump stations).					

Table 14.0: March 23, 2016 Test Date Summary

Parameter, Unit ⁽¹⁾	Influent Structure (Site 1)	Transfer Structure (Site 2)	Effluent Discharge (Site 3)	March 2016 Effluent Discharge Monthly Avg.	Percent Removal
Flow, MGD	2.98 ⁽³⁾	-	4.43	4.14	-
BOD ₅ , mg/L	84	12	12	-	85.7
BOD ₅ , lbs/day	2,088	-	444	-	-
CBOD ₅ , mg/L	67	-	6.8	6.8	89.9
sBOD ₅ , mg/L	29	<2	NA	-	-
sBOD ₅ , lbs/day	721	-	-	-	-
TSS, mg/L	98	17	16	15.5	83.7
TSS, lbs/day	2,436	-	592	476.1	-
NH ₃ -N, mg/L	8.5	7.0	6.76	5.803	-
NH ₃ -N, lbs/day	211	-	250	188.5	-
TKN, mg/L	15	-	9.5	-	-
TRC	-	-	0.035	0.022	-
TP, mg/L	2.0	-	-	-	-
Alkalinity, mg/L	60	-	47	-	-
pH, S.U.	6.13	-	7.4	7.3	-
DO, mg/L	1.13	4.58	9.43	8.16	-
FCB ⁽²⁾ , N/100 mls	-	-	-	3	-

⁽¹⁾ Parameter key is provided in Table 9.0.

⁽²⁾ FCB = Fecal Coliform Bacteria.

⁽³⁾ Flow data from temporary flow meter at WWTP Influent Structure (includes flow from all pump stations).

The test results for the Influent Structure samples, shown in **Table 10.0** through **Table 14.0**, are lower than typical wastewater influent concentrations. Typical values for influent wastewater are shown in **Table 15.0**.

Table 15.0: Typical Composition of Untreated Domestic Wastewater.

Parameter	Unit	Concentration ⁽¹⁾		
		Low Strength	Medium Strength	High Strength
BOD₅	mg/L	110	190	350
CBOD₅	mg/L	250	430	800
TSS	mg/L	120	210	400
NH₃-N	mg/L	12	25	45
TKN	mg/L	20	40	70
TP	mg/L	4	7	12
⁽¹⁾ Wastewater Engineering Treatment and Reuse, Metcalf and Eddy				

Removal efficiencies for TSS and CBOD should be at an industry-accepted minimum of 65% and 85%, respectively. On March 15th, 2016 (**Table 10.0**) the removal efficiencies for TSS and CBOD were below these minimum requirements. This is most likely due to the low testing values for the influent wastewater. The testing results shown in **Table 10.0** to **Table 14.0** for the effluent discharge are within reasonable values for wastewater effluent.

3.0 Other Major Wastewater Contributors

The City of Malvern has three types of wastewater customer classifications: Residential, Small Commercial, and Large Commercial. The Malvern City Council passed the most recent sewer ordinance in 2011 that stipulated rates, the use of meters, and the classification of customers. All sewer is to be measured through water meters (water use); where sewer usage is measured by the monthly water usage for each customer. The ordinance also defines the minimum monthly charge (or 'minimum bill') for each customer classification and location ('Inside

City' or 'Outside City'). **Table 16.0** shows the minimum monthly charges for each customer classification, as currently established by the sewer ordinance.

Table 16.0: Minimum Monthly Charges

Class of Customer	Inside City	Outside City
Residential	\$12.00	\$24.00
Small Commercial	\$21.00	\$42.00
Large Commercial	\$42.75	\$85.50

Small commercial users are defined as "a user whose wastewater results from commercial operations, trade, or business and consumes less than 6,000 gallons of water per month". A large commercial user is defined as "a commercial user whose wastewater results from commercial operations, trade, or business and consumes more than 6,000 gallons of water per month, excluding contract customers".

The sewer bill is based on monthly water usage, and is billed to customers as a single bill. The amount of wastewater contributed by each customer class can therefore be fairly represented through water sales. **Table 17.0** shows the volume of water sold (in gallons) and the percent of the total water sold by each customer classification from 2011 through 2014, as defined by Malvern Water Works water system records.

Table 17.0: Water Sold by Customer Class, 2011 - 2014

Classification	2011	2012	2013	2014
Residential	192,622,000	212,012,000	174,492,700	178,971,100
	26%	31%	26%	27%
Commercial	14,425,000	11,805,100	11,522,600	10,185,500
	2%	2%	2%	2%
Industrial	182,938,000	201,113,900	177,446,900	204,979,000
	25%	30%	27%	31%
Irrigation	23,459,000	18,892,200	14,346,200	12,834,600
	3%	3%	2%	2%
Wholesale	320,106,000	233,456,800	284,639,100	254,559,300
	44%	34%	43%	38%
Total Water Sold (gallons)	733,550,000	677,280,000	662,447,500	661,529,500

As can be seen in the table, approximately 25% to 31% (an average of 28%) of total water sales is industrial usage and approximately 2% of the total water sales is commercial usage. Based on this information, an estimated 28% of the calculated average day wastewater flow rate of 1.905 mgd is industrial flow; and an estimated 2% of the average day wastewater flow rate of 1.905 mgd is commercial flow. These calculate to give an estimated 533,000 gallons per day for an industrial flow contribution and an estimated 38,000 gallons per day is contributed from commercial customers. Currently, Malvern Water Works Sewer Department does not separately meter industrial and commercial wastewater flow.

F. Financial Information

1.0 Malvern Water Works Sewer Department Financials

The following rates are according to the sewer rate ordinance passed by the Malvern City Council in 2011. From **Table 16.0**, each customer is charged a minimum monthly charge for wastewater. In addition to the minimum monthly charges, the customer is charged a \$0.30 per hundred gallons, or portion thereof, of metered water consumed per month for customers located inside the city. Customer located outside city limits are charged \$0.60 per hundred gallons or a portion thereof of metered water consumed per month. A summary of the existing sewer rates, based upon metered water consumption, are shown in **Table 18.0**.

Table 18.0: Malvern Water Works established Sewer Rates

Minimum Charge Plus Metered Water Used (Gallons)	Inside City		Outside City	
	<i>Residential, Step</i>	<i>Residential, Total</i>	<i>Residential, Step</i>	<i>Residential, Total</i>
Min. Monthly Charge	\$12.00	\$12.00	\$24.00	\$24.00
+ 2,000 gallons	\$6.00	\$18.00	\$12.00	\$36.00
+ 4,000 gallons	\$12.00	\$24.00	\$24.00	\$48.00
+ 6,000 gallons	\$18.00	\$30.00	\$36.00	\$60.00
+ 8,000 gallons	\$24.00	\$36.00	\$48.00	\$72.00
+ 10,000 gallons	\$30.00	\$42.00	\$60.00	\$84.00

Based on the current sewer rates, the monthly sewer bill for a customer with an average usage of 4,000 gallons per month, connected inside the city limits, would be approximately \$24.00. For customers with an average usage of 4,000 gallons per month connected outside the city limits, the monthly bill would be approximately \$48.00.

The Town of Perla currently pumps all of their wastewater to Malvern. The connection point is located at manhole 3029, north of Section Line Road in Basin

3 of the Malvern collection system, located at the old WalMart Shopping Center. The wastewater connection is currently metered, with a Doppler Flow Meter, with payment based upon flow through the meter. Malvern charges Perla for the treatment of wastewater (in gallons) delivered to its system. The Base Rate for Perla, payable without regard to usage, is \$2.00 per 1,000 gallons, per month. The User Rate for Perla is currently \$1.62 per 1,000 gallons, per month.

2.0 Financial Status of Existing System

The Malvern Water Works financials for 2012, 2013, 2014, 2015, and 2016 are shown on the Financial Audit Statements in **Appendix A** and summarized in **Table 19.0**. Malvern Water Works – Sewer Department operation and maintenance expenses are not anticipated to change much as a consequence of this project. There are no new customers being added to the system, as part of this project. Information concerning any existing debts and reserve accounts can also be found in the Financial Statements included in **Appendix A**.

Table 19.0: Summary of Malvern Water Works Financial Information

Account	2011	2012	2013	2014	2015	2016
Total Operating Expenses	\$3,412,364	\$3,417,061	\$3,440,555	\$3,663,880	\$3,431,183	\$3,644,856
Total Other Expenses	\$810,899	\$787,301	\$690,662	\$665,267	\$623,429	\$543,933
TOTAL O & M EXPENSES	\$4,223,263	\$4,204,362	\$4,131,217	\$4,329,147	\$4,054,612	\$4,188,789
TOTAL REVENUES	\$4,977,858	\$4,941,269	\$4,974,265	\$4,844,333	\$4,906,303	\$4,779,504
TOTAL NET INCOME/LOSS	\$754,595	\$736,907	\$843,048	\$515,186	\$851,691	\$590,715

II. OTHER INFORMATION FOR LINE WORK OR EXTENSION WORK

The Malvern Water Works Wastewater Improvements Project does not include installation of additional line work or extension work. Not Applicable.

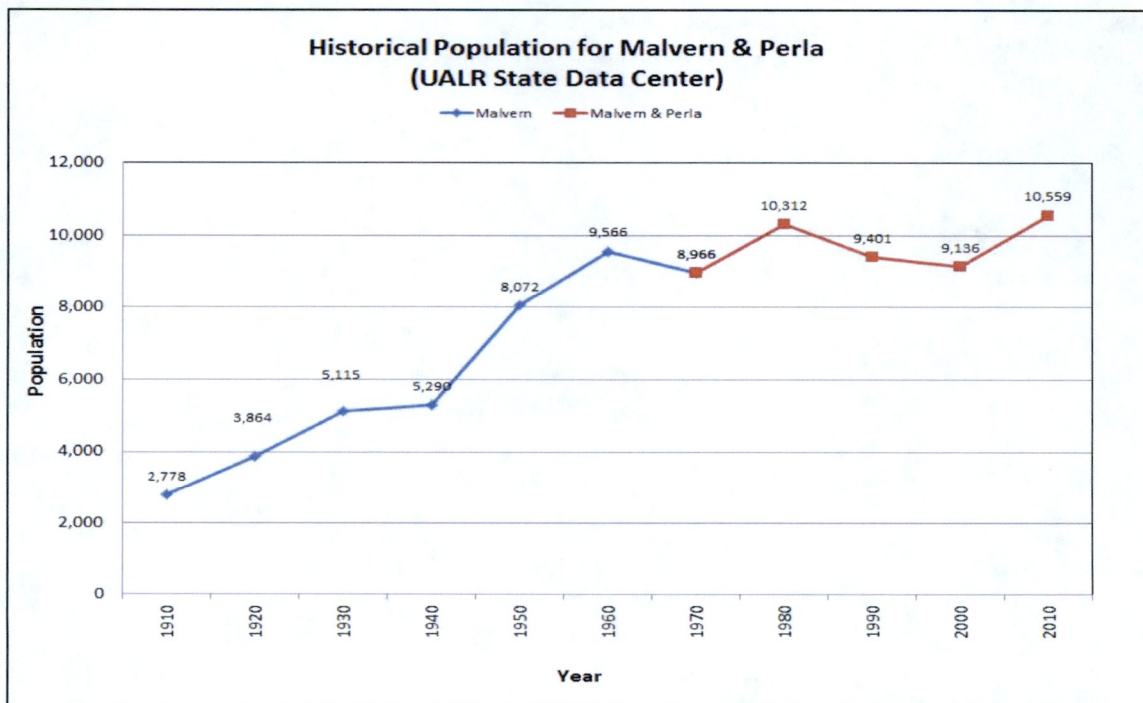
III. FUTURE CONDITIONS

A. Past and Projected Population

An important component of any planning effort is the projection of future population. Anticipated population growth will influence the future needs for utility capacities, especially that of collection lines, pumping facilities, and treatment facilities. Population data includes the Town of Perla due to Malvern treating all of Perla's wastewater.

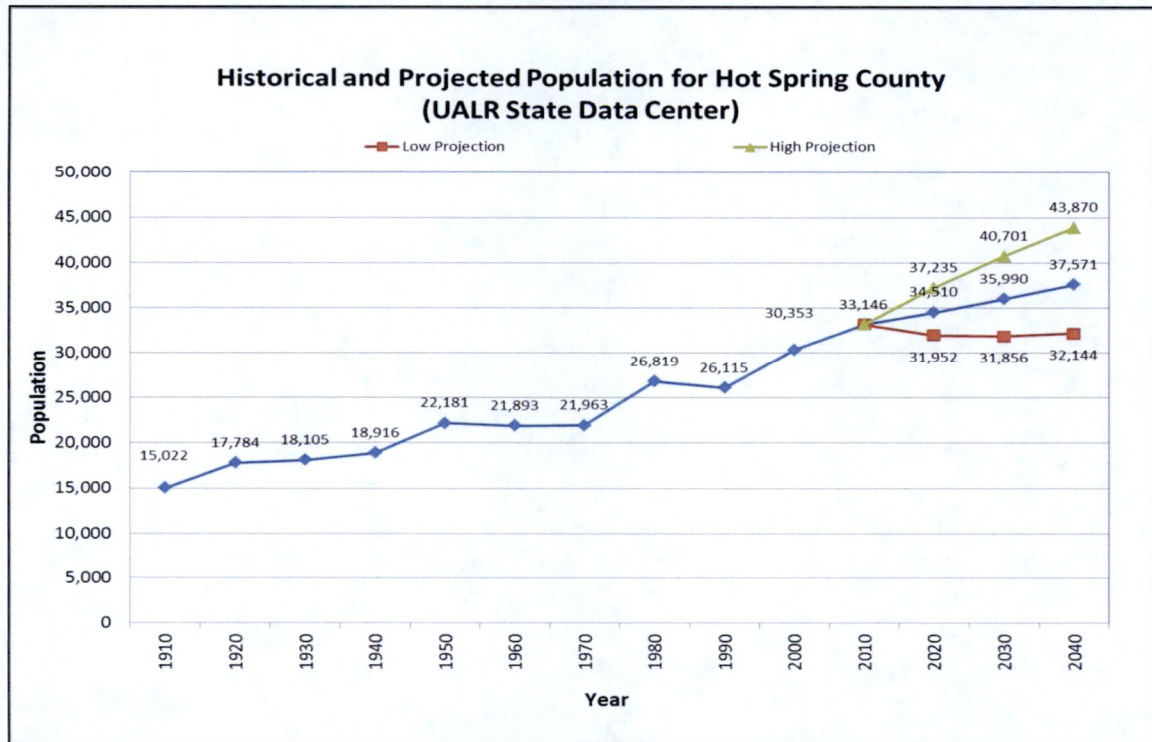
Historical population data for Malvern and Perla from 1910 to 2010 is provided in **Figure 4.0**. The population for Malvern and Perla increased from 2,778 in 1910 to 10,559 in 2010. The UALR State Data Center does not provide projected population estimates for cities.

Figure 4.0: Historical Population for Malvern and Perla



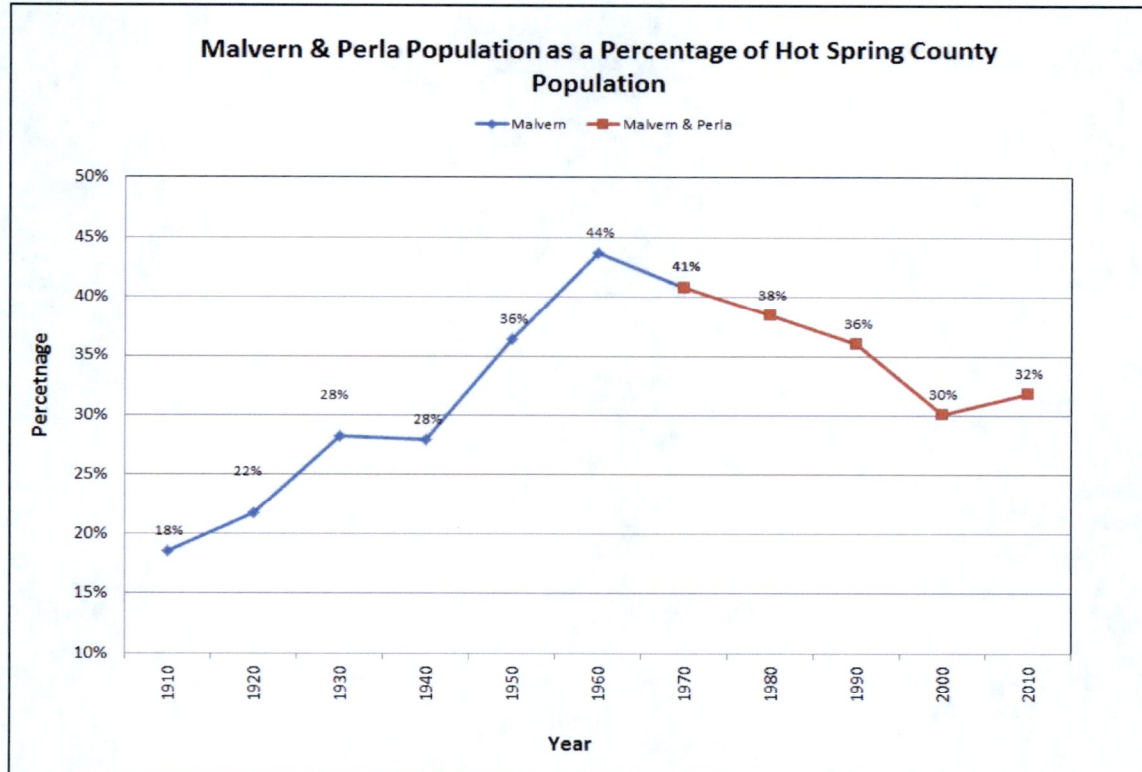
The historical and projected population for Hot Spring County from 1910 to 2040 is provided on **Figure 5.0**. The Hot Spring County population in 1910 was 15,022, while the 2010 population was 33,146. The 2040 projected Hot Spring County population is 37,571.

Figure 5.0: Historical and Projected Population for Hot Spring County



Malvern and Perla's population, as a percentage of Hot Spring County population, is provided on **Figure 6.0**. Since 1990, the Malvern population has been about 32 to 36 percent of the Hot Spring County population. The 2040 projected population for Hot Spring County is 37,571. Based on the projected 2040 population of Hot Spring County and the historical percentage of Malvern and Perla, the projected population for Malvern and Perla in 2040 is 13,525 or an additional 2,966 persons; a 28.1 percent increase from 2010.

Figure 6.0: Malvern and Perla Population as a Percentage of Hot Spring County Population



Future population projections for Malvern and Perla were also evaluated based upon a linear regression analysis which utilizes the historical population data for Malvern and Perla as shown in **Figure 7.0**. Based upon the linear regression analysis, the projected population for Malvern and Perla in 2040 is 13,546 or an additional 2,987 persons; a 28.3 percent increase. For the purposes of estimating, the future population projections for Malvern were based upon the linear regression analysis.

Figure 7.0: Malvern and Perla Population Projection Using Linear Regression Analysis

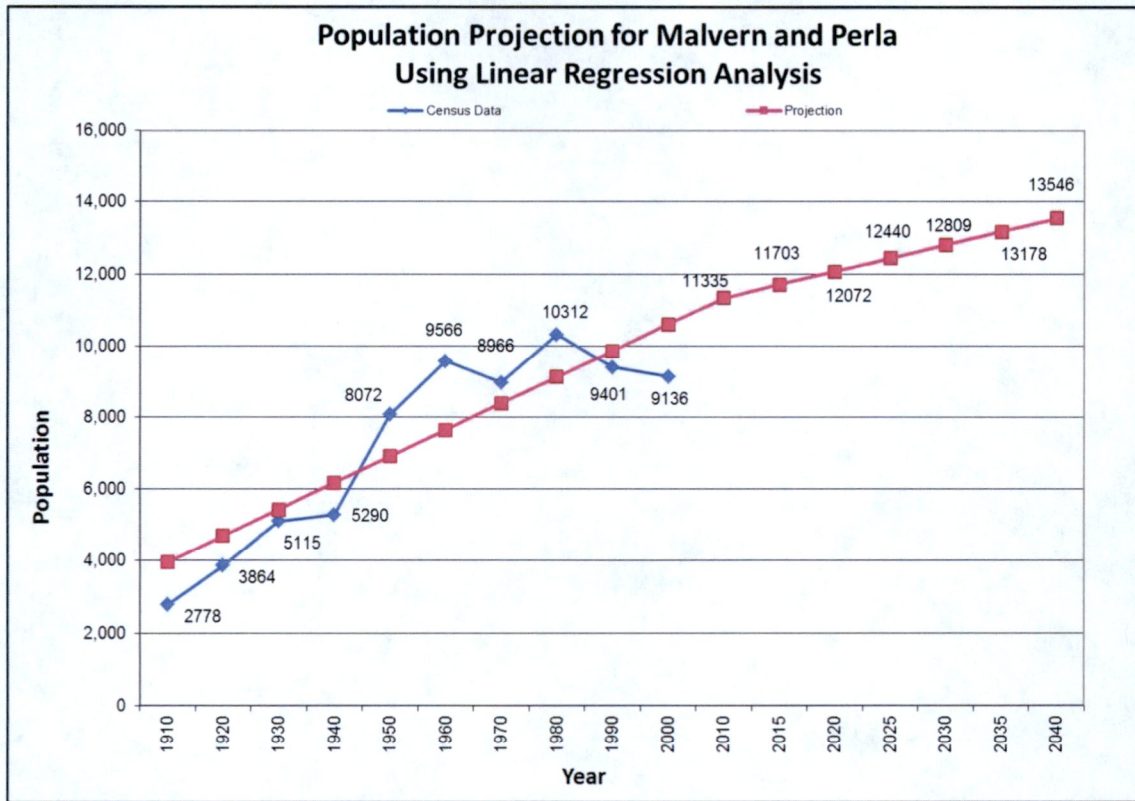


Table 20.0 shows the projected population for Malvern and Perla that is used for design on this project.

Table 20.0: Projected Population of Malvern and Perla

Year	Projected Population
2015	11,703
2020	12,072
2025	12,440
2030	12,809
2035	13,178
2040	13,546

B. Projected Flow Rates

Using the estimated population and the average day wastewater flow rates for the period 2010 to 2014, as given in Section I of this report, per capita average day wastewater flow rates can be calculated. The average per capita wastewater flow rate, calculated by analyzing data from 2010 to 2014, is 175 gpcd. Applying the average rate of 175 gpcd to the projected population, and using the peaking factors developed, yields the projected wastewater flow rates presented in **Table 21.0**.

Table 21.0: Projected Wastewater Flow Rates

Year	Flow Rate (mgd)		
	Average Day	Maximum Month PF = 1.98	Maximum Day PF = 2.91
2020	2.11	4.18	6.15
2025	2.18	4.31	6.34
2030	2.24	4.44	6.52
2035	2.31	4.57	6.71
2040	2.37	4.69	6.90

C. Possible Effluent Limits

Not Applicable. See Section I, Part D.

D. Present and Projected Number of Users

Not Applicable.

IV. DEVELOPMENT AND SCREENING OF ALTERNATIVES

Other than the no action alternative there are few, if any, feasible alternatives. The 'do nothing' approach is not feasible due to the condition of the existing system. The proposed project improvements are major maintenance, upgrades, and repair items. There are no feasible alternatives to the proposed rehabilitation work, hydraulic and capacity upgrades, and collection system SSES.

A. **Alternative 1.0: This Project**

The detailed scope of the recommended improvements is outlined below. A map showing the location of the proposed improvements is included in **Appendix D**.

1.0 Wastewater Treatment Plant Improvements

Hydraulic Improvements: Recommended increase hydraulic capacity of the WWTF to 6.9 mgd (projected 2040 peak day). Improvements will need to be made to the Influent Junction Box, Transfer Structure, and Effluent Flume Structure. An additional outfall will also need to be constructed.

Aeration System: The existing aeration system needs to be rehabilitated to increase capacity and replace some of the existing components. This includes replacing the existing three blowers with larger capacity blowers.

Disinfection System: The existing automatic flow paced chlorination disinfection system is not currently working properly and needs to be rehabilitated in order for the equipment to work based upon flow rates (not manual operation). The existing capacity is adequate for the projected WWTF design rates. The existing automatic dechlorination system is not currently working properly and needs to be rehabilitated in order for the equipment to work based upon the chlorine residual in the sulfur dioxide inductor wetwell (not manual operation). Two of the existing automatic sulfonators are not working and need to be replaced.

Disinfection System Chlorine Contact Piping: The existing disinfection system chlorine contact capacity (6.14 mgd) is adequate until approximately 2020. When flows exceed 6.14 mgd an additional 30-inch chlorine contact pipe (chlorine contact chamber) needs to be installed. The additional 30-inch pipe will increase disinfection system capacity to 12.29 mgd.

Influent Flow Meter: Replace the Doppler influent flow meter with an ultrasonic flow meter at the Influent Junction Box. The ultrasonic flow meter would measure flow over the Influent Junction box weir and transmit a signal to a chart recorder in the Operations Building.

Influent Structure: Apply an epoxy coating to the interior of the structure to protect the concrete surfaces from continuing degradation. This would be accomplished in conjunction with the hydraulic improvements.

Floating Baffle Curtain: Replace the floating baffle curtains in Lagoon No. 2.

Place Additional Riprap on Interior Side of Levees: Place additional riprap in various areas along the interior side of all levees.

Sludge Removal in Lagoon No. 1: Remove an estimated 5 million gallons of sludge that has accumulated in the bottom of Lagoon No. 1 around the influent piping.

Influent Composite Sampler: Provide an influent composite sampler located at the influent junction box. Sampler should be either exterior rated or placed in an insulated building. Sampler will enable staff to sample and test influent characterization of influent wastewater.

2.0 Wastewater Collection System Improvements

Flow Study and SSES: This project includes an updated flow study and sewer system evaluation study (SSES) to identify possible sources and locations of excessive infiltration and inflow within the collection system. Phase 1 of the SSES includes temporary flow monitoring. The initial phase of work will consist of the placement of six (6) temporary flow meters and four (4) rainfall gauges to establish dry and wet weather flows. Monitoring will occur during the spring or fall to maximize the probability of gathering sufficient rainfall during the 45 to 60-day monitoring period. Data analysis will determine the volume of rainfall dependent infiltration/inflow and prioritize basins for subsequent Phase 2 testing if warranted. Phase 2 of the SSES will include sanitary sewer testing and inspection. This project assumes Phase 2 testing on the three worst basins identified in the flow monitoring study and approximately \$2,000,000 worth of estimated collection system rehabilitation work to be completed on the three basins with the most infiltration and inflow into the system.

Hydraulic models of the collection system help to identify areas of the collection system that need capacity improvements. A hydraulic model utilizes pipe sizes, manhole elevations, pump capacities, and information obtained from the flow monitoring study (such as flow rates and patterns) to identify deficiencies. This project includes a hydraulic model of the collection system to help identify areas of the collection system that need capacity improvements. The hydraulic model, in this instance, would be created after the temporary flow monitoring study is complete.

Walco Road Pump Station: Of the seven pump stations in the system, it is important to maintain a high degree of reliability for this pump station. Operation and maintenance needs for the Walco Road Pump Station should always be considered a priority. Major revisions to this pump station were completed in 2000 and the pump station is generally performing well. This project includes the following improvements:

- Install a SCADA system with high wetwell and power fail alarms to the WWTF. The benefit of remote monitoring is the ability to trend operating parameters, such as pump run-time and wetwell levels, so operations can mitigate maintenance needs in a proactive manner rather than reactive.

Riverview Pump Station: This project includes the following improvements:

- Install a generator or a generator plug and automatic transfer switch. The generator or generator plug and transfer switch would allow the station to operate in the event of an electrical service outage.
- The SCADA system needs to be activated to the WWTF.

Happy Hollow Pump Station: This pump station was rehabilitated in 2013 with new pumps and controls and is generally performing well. This project includes the following improvements:

- Install a generator plug and transfer switch.
- The SCADA system needs to be activated to the WWTF.
- Repair the existing force main where it crosses a creek.

Babcock Terrace Pump Station: This station was rehabilitated in 2010 with new pumps and controls and is generally performing well. This project includes the following improvements:

- Install a generator plug and transfer switch.
- Install a cell modem for the SCADA system to monitor high wetwell and power fail alarms at WWTF.

County Jail Pump Station: This station was rehabilitated in 2007 with new pumps and controls and is generally performing well. This project includes the following improvements:

- Install a SCADA system with high wetwell alarm to the WWTF.

Moline Street Pump Station: This station was constructed in 2001 and is generally performing well. This project includes the following improvements:

- Install a new pump control panel with SCADA and cell modem for monitoring at the WWTF.
- Install a generator plug and transfer switch.

City Park Pump Station: This station was rehabilitated in 1995 with new pumps and controls. The pump station has reached its useful life. This project includes the following improvements:

- Replacing the entire pump station, controls, and wetwell and possibly relocate to another site in the vicinity.
- Install a SCADA system and cell modem for monitoring at the WWTF.
- Install a generator plug and transfer switch.

B. Regionalization

Malvern Water Works is the largest wastewater system within 10 miles of the City of Malvern, regionalization is not applicable.

C. Sludge Treatment and Disposal

During installation of a new baffle curtain in Lagoon No. 1, JPS Industries informed Malvern that some sludge has accumulated in the bottom of Lagoon No. 1 around the influent piping. According to information provided by JPS Industries, it is estimated there is approximately 5 million gallons of sludge that needs to be removed at some point in the future. If the sludge is removed within this project, it will be land applied under the conditions of a permit issued by ADEQ.

D. Alternative Conveyance Systems

Not Applicable.

E. Environmental Impact of Project

The proposed project does not involve construction of new systems. Any replacement or upgrade included in this project, occurs on existing wastewater system sites. However, if required, as a part of preparing the Environmental Report, project

information will be sent to numerous resource and regulatory agencies, some of which may identify environmental impacts.

F. Collection System

Not Applicable. No proposed collection system expansion work is part of the proposed project.

V. COST EFFECTIVE ANALYSIS

A. Capital Costs

The following cost estimate, in **Table 22.0**, is a summary for the proposed project, the Malvern Water Works Wastewater System Improvements, and is shown in 2016 dollars. The detailed cost estimates are included in **Appendix B** of this report. The cost estimate information shown includes costs for construction, engineering, and contingencies as well as the assumption that funding will be by the Federal RLF Program administered by the Arkansas Natural Resources Commission (ANRC).

Table 22.0: Cost Estimate Summary

Estimated Item Description	Estimated Cost
Construction (Treatment)	\$ 4,105,000
Flow Monitoring Study and SSES on Three Basins	\$604,000
Construction (Collection System)	\$ 2,528,500
Engineering, Legal, Environmental, and Administration	\$ 1,447,500
Contingency	\$ 1,447,500
Bond Attorney Fee	\$ 50,000
Interest During Construction	\$ 509,200
Total Estimated Cost	\$ 10,691,700

B. Operation, Maintenance, and Replacement Costs

The proceeds from established rates are used for the purpose of operating and maintaining the Malvern Water Works wastewater system. Operation, Maintenance, and Replacement Costs for the proposed alternative are therefore subject to the established sewer rates.

The Malvern Water Works Sewer Department operation expenses for 2012 through 2016 are shown on the statements in **Appendix A** of this report. The proposed project is not expected to significantly change Operation and Maintenance costs.

The funding mechanism for this project has not yet been determined; therefore, the debt service calculation cannot be defined as it is dependent on the financing method and associated interest rates. It is assumed for this report that all costs shown in the cost estimate are included within a single project loan. The monthly debt service for a single project loan financed at 2.50-percent for 20 years, exclusive of coverage, will be approximately \$56,700. For a single project loan financed at 3.00-percent for 30 years, the monthly debt service, exclusive of coverage, will be approximately \$45,100. It is assumed that the loan debt for this project will be funded through a 1-percent sales tax passed in 2017, half of which is allocated to Malvern Water Works for use on water or sewer projects. Annual sales tax revenues are estimated to be in the range of \$800,000 to \$1,000,000 per year.

VI. SELECTED ALTERNATIVE

A. Selected Alternative

There are not any appropriate or feasible alternatives to the proposed project. The proposed project is described in Section IV of this report.

B. Land and Easements

Utility right-of way easements and lands will be obtained by the City of Malvern, working in concert with Malvern Water Works Sewer Department, the City engineer, the landowners, the City Attorney, and any known or potential builders. Each easement will be properly recorded at the County Courthouse.

C. Staffing Requirements

No additions to the present Malvern Water Works Sewer Department staff are anticipated as a consequence of the proposed project.

D. COE Permits

Permits may be required during construction.

E. Other Significant Issues

If required, the Environmental Report will address direct and indirect impacts on any land use, floodplains, wetlands or other important resources, endangered species, historical and archeological properties, water quality, coastal resources, and socio-economic/environmental justice factors as they relate to the selected alternative.

F. Construction Obstacles

No construction obstacles are anticipated.

G. Sludge Management

During installation of a new baffle curtain in Lagoon No. 1, JPS Industries informed Malvern that some sludge has accumulated in the bottom of Lagoon No. 1 around the influent piping. According to information provided by JPS Industries, it is estimated there is approximately 5 million gallons of sludge that needs to be removed at some point in the future. A specific sludge management plan will be further detailed during the design and construction phases of the proposed project.

H. Annual O&M Budget

Copies of the Malvern Water Works operation and maintenance budgets are included in **Appendix A** of this report.

I. Capital Funding Plan

See information presented in Division V Section B of this report.

On June 13, 2017, a special election was held regarding the levying of a 1-percent local sales and use tax within the City of Malvern, Arkansas. The sales tax proclamation was passed by the voters in Malvern, and will be applied beginning January 2018. Half of the proceeds from the 1-percent sales tax is allocated for use by Malvern Water Works to repair problems with both the sewer and the water system, and to help with issues in infrastructure. Prior to this sales tax adoption, Malvern had a lower sales tax than 99.5% of Arkansas' other cities and counties.

The specific use of these funds has not yet been determined by Malvern Water Works; therefore, all loan information and calculations are based on a loan of 100-percent of the project amount.

J. Sewer Rate Information

1.0 Minimum Sewer Bill

The minimum sewer bill is discussed in previous sections of this report.

2.0 Charge for 4,000 Gallons

See information presented in Section I, Part F of this report.

3.0 Other Fees

See information presented in Sections I through VI herein.

4.0 Copy of Present User Charge Rate Schedule(s).

See **Appendix A** financial audit statements, which include the user charge rates for the audited year.

K. Design Criteria

Preliminary design criteria for various parts of the proposed project are included in **Appendix C** of this report.

L. Implementation Schedule

The following table, **Table 23.0**, is an approximate project timetable, assuming the project is funded by the RLF program.

Table 23.0: Project Schedule

Project Tasks	Estimated Duration, Months
Pre-Contract/Contract, includes: Resolution of Intent & Signatory Authority; Negotiate and Procure Professional Services; Regulatory Review and Approval.	3 to 5
WWAC Report and Reviews, includes: Prepare and Submit WWAC Report; Receive WWAC Comment Letter.	4 to 5
ANRC Agreement and Application, includes: Negotiate Memorandum of Agreement with ANRC; Submit Initial Application Form.	1 to 3
Draft Reports, Ordinances, and Reviews, includes: Prepare and Submit Draft Engineering Report (ER); Prepare and Submit Draft Environmental Information Document (EID); Submit Draft Rate and Sewer Use Ordinance (if Required); Regulatory Review and Comment.	8 to 15
Public Hearings and Reports, includes: Advertise for and Conduct Public Meeting; Revise PER and EID as Required; Advertise for and Conduct Public Hearing; Submit Final Engineering Report; Submit Final EID with Public Participation Documents; Regulatory Review and Approvals	6 to 8
Preparation and Approval of Plans, Specifications, and Ordinances, includes: Submit Draft Drawings and Specifications; Submit Draft Project Performance Work Plan; Regulatory Review and Comment; Submit Enacted Ordinances; Submit Final Drawings and Specifications; Submit Final Project Performance Plan; Regulatory Approvals.	18 to 24
Bidding/Pre-Construction, includes: Negotiate Engineering Agreement for Construction; Regulatory Review and Approval; Update Application as Required; Bond Ordinance; Bond Purchase Agreement; Loan Closing; Regulatory Reviews and Approvals.	12 to 14
Construction and Post-Construction (1-year Project Performance).	24 to 36

APPENDIX A

FINANCIAL AUDIT STATEMENTS AND USER RATE CHARGE



CRIST JOB NO.
1740



PRELIMINARY ENGINEERING REPORT
WASTEWATER SYSTEM IMPROVEMENTS
SEPTEMBER 2017

MALVERN WATER WORKS

=====

MALVERN, ARKANSAS

DECEMBER 31, 2012

MALVERN WATER WORKS
MALVERN, ARKANSAS

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MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of the utility's financial condition and activities for the year. This information should be read in conjunction with the financial statements.

Overview

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the utility's financial condition and performance.

The financial statements report information about the utility using full accrual accounting methods as utilized by similar business activities in the private sector. The financial statements include a balance sheet, statement of revenues, expenses and changes in net assets, statement of cash flows, notes to the financial statements and other supporting schedules.

The balance sheet presents the financial position of the utility on a full accrual historical cost basis. This statement presents information on all of the assets and liabilities with the difference reported as net assets. Over time, increases and decreases in net assets are an indicator of whether the financial position of the utility is improving or deteriorating.

While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses, and changes in net assets presents the results of the business activities over the course of the fiscal year and information on how the fund equity changed during the year. All changes in fund equity are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows.

The statement of cash flows presents changes in cash and cash equivalents, resulting from operating, financing, and investing activities. This statement presents cash receipts and disbursement information only.

The notes to the financial statements and supplementary information are provided to disclose information that is essential to a full understanding of the material data provided in the statements.

The financial statements were prepared by Malvern Water Works staff from its detailed transactions for the years ending December 31, 2012 and 2011. The financial statements were audited and adjusted, if material, during the independent external audit process.

Financial Analysis

The financial statements on pages 5 through 9 provide information about the financial activities of Malvern Water Works. The following information is an analysis of the year presented.

Balance Sheet

Total assets as of December 31, 2012 were \$31,150,981 and exceeded liabilities, which were \$21,061,378. Of the total net assets, \$6,103,309 was invested in capital assets; \$2,589,708 was restricted for debt service and capital improvements, and \$1,396,586 was unrestricted

	<u>2012</u>	<u>2011</u>
Current Assets	\$ 1,889,930	\$ 2,171,328
Restricted Assets	2,589,708	1,066,136
Net Capital Assets	26,565,638	25,837,775
Other Assets	105,705	115,330
Current Liabilities	1,348,376	1,099,261
Liabilities Payable from Restricted Assets	330,004	329,767
Long-Term Liabilities	19,382,998	18,391,305
Net Assets:		
Invested in Capital, Net of Related Debt	6,103,309	6,521,017
Restricted for Debt Service	411,993	427,151
Restricted for Capital Improvements	2,177,715	638,985
Unrestricted Net Assets	1,396,586	1,783,083

The current ratio is an indication of short-term liquidity and is calculated by dividing current assets by current liabilities. A resulting number greater than one indicates current assets in excess of current needs that can be applied in future periods. The current ratio of Malvern Water Works was 1.40 for 2012, compared to 1.98 for 2011. Another ratio that is computed from this statement is the debt utilization ratio, which indicates what percentage the total debt is to total assets. This ratio is calculated by dividing total debt by total assets. The debt utilization ratio for the year ending December 31, 2012 was 68%.

Statement of Revenues, Expenses and Changes in Net Assets

For the years ending December 31, 2012 and 2011, operating revenues were \$4,941,269 and \$4,977,858 respectively and operating expenses were \$3,417,061 and \$3,412,364 respectively. Non-operating income was \$14,539 and \$9,348 respectively and non-operating expenses were \$801,840 and \$820,247 respectively. The results were an increase in fund equity in the amount of \$736,907 and \$754,595 respectively.

Construction Projects

The Water Works issued a new bond in the amount of \$2,100,000 during 2012, to fund the replacement of the city's water meters. The total amount of construction in progress related to this project totaled \$1,003,100 at December 31, 2012. The project is expected to be completed during 2013.

Contacting Management

The financial report is designed to provide our customers, citizens, and creditors with a general overview of the finances of Malvern Water Works and to show the accountability for the money it receives. If you have any questions about this report or need further financial information, contact our office at 506 Overman Street; Malvern, Arkansas 72104 or call (501) 332-3634.

TAYLOR, RODGERS, TURNER & MANNING, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT

City Council
Malvern, Arkansas
Malvern Water Works

We have audited the accompanying financial statements of Malvern Water Works ("the Water Works"), a component unit of the City of Malvern, Arkansas, which comprise the balance sheet as of December 31, 2012, and the related statements of revenues, expenses and changes in net assets, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Malvern Water Works as of December 31, 2012, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

The financial statements of Malvern Water Works as of December 31, 2011, were audited by other auditors whose opinion dated May 18, 2012, on those statements was qualified because of the items described below:

- Auditors were unable to confirm a receivable in the amount of \$170,418 as of December 31, 2011, and were unable to satisfy themselves about the receivable through alternative procedures.
- Because of the inadequacy of accounting records of the Northern Malvern Public Water Authority, which was acquired by Malvern Water Works on October 6, 2011, auditors were unable to form an opinion regarding the amounts at which property, plant and equipment (\$697,763) and accumulated depreciation (\$409,936) are recorded in the accompanying balance sheet.
- At December 31, 2011, management had not reclassified certain long-term debt to current liabilities due to violation of its debt covenants. Accounting principles generally accepted in the United States of America require that debt that is callable due to a debt covenant violation be reclassified from long-term liabilities to current liabilities. The amount by which this departure would affect the current and long-term liabilities of Malvern Water Works is \$18,391,305 for the year ending December 31, 2011.

Report on Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The schedule of restricted assets and liabilities, schedule of operating expenses, and schedule of operating revenues and operating expenses compared to budget are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

February 25, 2013
Arkadelphia, Arkansas

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2012 AND 2011

EXHIBIT A
Page 5

	<u>ASSETS</u>	<u>2012</u>	<u>2011</u>
CURRENT ASSETS:			
Cash and Cash Equivalents		\$ 823,292	\$ 1,069,573
Accounts Receivable		424,635	436,897
Inventory		230,321	244,040
Unbilled Revenue		211,362	212,853
Prepaid Expenses		29,902	37,547
Other Receivable		170,418	170,418
TOTAL CURRENT ASSETS		<u>1,889,930</u>	<u>2,171,328</u>
RESTRICTED ASSETS (Schedule I)		<u>2,589,708</u>	<u>1,066,136</u>
CAPITAL ASSETS:			
Land		1,197,371	1,197,371
Property, Plant and Equipment		37,043,662	36,725,905
Construction in Progress		<u>1,298,557</u>	<u>122,099</u>
		39,539,590	38,045,375
Less: Accumulated Depreciation		<u>(12,973,952)</u>	<u>(12,207,600)</u>
TOTAL CAPITAL ASSETS		<u>26,565,638</u>	<u>25,837,775</u>
OTHER ASSETS:			
Bond Issuance Costs			
(Net of Amortization of \$172,587 and \$162,962)		<u>105,705</u>	<u>115,330</u>
TOTAL OTHER ASSETS		<u>105,705</u>	<u>115,330</u>
TOTAL ASSETS		<u><u>\$31,150,981</u></u>	<u><u>\$29,190,569</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2012 AND 2011

EXHIBIT A
Page 6

LIABILITIES AND NET ASSETS

	<u>2012</u>	<u>2011</u>
CURRENT LIABILITIES:		
Accounts Payable	\$ 172,616	\$ 83,530
Accrued Salaries and Payroll Taxes	18,360	11,896
Accrued Absences	62,425	58,768
Other Current Liabilities	15,644	19,614
Current Portion of Long-Term Debt, Net of Current Unamortized Discount/Loss of \$252 and \$1,586, respectively	1,079,331	925,453
TOTAL CURRENT LIABILITIES	<u>1,348,376</u>	<u>1,099,261</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS (Schedule I)	<u>330,004</u>	<u>329,767</u>
LONG-TERM LIABILITIES:		
Long-Term Debt, Net of Current Portion and Net of Unamortized Discount/Loss of \$4,203 and \$9,670, respectively	19,382,998	18,391,305
TOTAL LONG-TERM LIABILITIES	<u>19,382,998</u>	<u>18,391,305</u>
TOTAL LIABILITIES	<u>21,061,378</u>	<u>19,820,333</u>
NET ASSETS:		
Invested in Capital Assets, Net of Related Debt	6,103,309	6,521,017
Restricted Net Assets, Expendable		
Restricted for Debt Service	411,993	427,151
Restricted for Capital Improvements	2,177,715	638,985
Unrestricted Net Assets	1,396,586	1,783,083
TOTAL NET ASSETS	<u>10,089,603</u>	<u>9,370,236</u>
TOTAL LIABILITIES AND NET ASSETS	<u><u>\$31,150,981</u></u>	<u><u>\$29,190,569</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
STATEMENTS OF REVENUES, EXPENSES AND
CHANGES IN NET ASSETS
FOR YEARS ENDED DECEMBER 31, 2012 AND 2011

EXHIBIT B
Page 7

	2012	2011
OPERATING REVENUE:		
Water Sales	\$ 2,874,157	\$ 2,976,157
Sewer Sales	1,700,928	1,670,924
Water Fees and Charges	275,921	276,938
Sewer Fees and Charges	66,465	53,576
Miscellaneous Revenue	23,798	263
TOTAL OPERATING REVENUE	<u>4,941,269</u>	<u>4,977,858</u>
OPERATING EXPENSES (Schedule II)	3,417,061	3,412,364
OPERATING INCOME	<u>1,524,208</u>	<u>1,565,494</u>
OTHER INCOME (EXPENSES):		
Interest Income	14,539	9,348
Interest Expense	(792,215)	(740,812)
Amortization of Issuance Costs	(9,625)	(15,976)
Loss on Abandonment and Disposal of Capital Assets	-	(63,459)
TOTAL OTHER INCOME (EXPENSES)	<u>(787,301)</u>	<u>(810,899)</u>
NET INCOME (LOSS)	<u>736,907</u>	<u>754,595</u>
NET ASSETS AT BEGINNING OF YEAR	9,370,236	7,383,942
Acquisition of Northern Malvern Public Water Authority	-	1,231,699
Liability Assumed from Meter Deposits of Northern Malvern Public Water Authority	(17,540)	-
NET ASSETS AT END OF YEAR	<u><u>\$ 10,089,603</u></u>	<u><u>\$ 9,370,236</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
COMBINED STATEMENTS OF CASH FLOWS
ALL PROPRIETARY FUND TYPES
FOR YEARS ENDED DECEMBER 31, 2012 AND 2011

EXHIBIT C
Page 8

	<u>2012</u>	<u>2011</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash Received from Customers	\$ 4,951,702	\$ 4,849,834
Cash Received in Acquisition of Northern Malvern Public Water Authority	-	309,594
Cash Payments for Goods and Services	(1,562,148)	(1,712,445)
Cash Payments to Employees	(968,342)	(917,398)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>2,421,212</u>	<u>2,529,585</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Increase in Meter Deposits	<u>(4,249)</u>	<u>20,885</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and Construction of Capital Assets	(1,576,799)	(126,069)
Proceeds Received from Disposal of Capital Assets	-	3,476
Proceeds Received from Long-Term Debt	2,100,000	-
Principal Paid on Long-Term Debt	(891,750)	(869,642)
Interest Paid on Long-Term Debt	(787,729)	(737,610)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	<u>(1,156,278)</u>	<u>(1,729,845)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest Received and Other Income and Expense	<u>14,539</u>	<u>9,348</u>
NET CASH PROVIDED BY INVESTING ACTIVITIES	<u>14,539</u>	<u>9,348</u>
NET INCREASE (DECREASE) IN CASH AND RESTRICTED CASH	<u>1,275,224</u>	<u>829,973</u>
CASH AND RESTRICTED CASH - BEGINNING OF YEAR	1,929,000	1,099,027
CASH AND RESTRICTED CASH - END OF YEAR	<u><u>\$ 3,204,224</u></u>	<u><u>\$ 1,929,000</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
COMBINED STATEMENTS OF CASH FLOWS
ALL PROPRIETARY FUND TYPES
FOR YEARS ENDED DECEMBER 31, 2012 AND 2011

EXHIBIT C-1
Page 9

Reconciliation of operating income (loss) to net cash provided by operating activities:

	<u>2012</u>	<u>2011</u>
OPERATING INCOME (LOSS)	<u>\$ 1,524,208</u>	<u>\$ 1,565,494</u>
ADJUSTMENTS TO RECONCILE OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Depreciation	792,076	818,036
Cash Received in Acquisition of Northern Malvern Public Water Authority	-	309,594
Change in Assets and Liabilities:		
Accounts Receivable	(9,606)	(131,369)
Inventory	13,719	(66,030)
Prepaid Expenses	7,645	2,357
Other Assets	(2,067)	(4,401)
Accounts Payable	89,086	41,306
Accrued Payroll Expenses	10,121	6,904
Other Liabilities	(3,970)	(12,306)
TOTAL ADJUSTMENTS	<u>897,004</u>	<u>964,091</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u><u>\$ 2,421,212</u></u>	<u><u>\$ 2,529,585</u></u>
SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES:		
Amortization of Bond Issuance Cost	<u>\$ 9,625</u>	<u>\$ 15,976</u>
Acquisition of Northern Malvern Public Water Authority	<u>\$ -</u>	<u>\$ 922,105</u>
Liability Assumed from Meter Deposits of Northern Malvern Public Water Authority	<u>\$ (17,540)</u>	<u>\$ -</u>
Loss on Abandonment and Disposal of Capital Assets	<u>\$ -</u>	<u>\$ 63,459</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 1. Summary of Significant Accounting Policies:

Malvern Water Works (the "Water Works") is an Enterprise Fund of the City of Malvern, Arkansas and is governed by the City Council of the City of Malvern, Arkansas. The accompanying financial statements and other information reflect Malvern Water Works fund only and do not include other funds of the City of Malvern, Arkansas.

The financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles. The System applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. The System applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements in which case, GASB prevails.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

The Water Works utilizes the allowance method of accounting for uncollectible accounts receivable. The Water Works reviews their customer accounts on a periodic basis and records a reserve for specific amounts that management determines may not be collected. In addition, the Water Works has established a general reserve for potential uncollectible accounts based on historical bad debts. Amounts are written off at the point when collection attempts have been exhausted, which is usually 120 days after the account is past due. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible amounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While management believes the Water Works' processes effectively address its exposure to doubtful accounts, changes in economic, industry or specific customer conditions may require adjustment to the allowance recorded by the Water Works. At December 31, 2012 and 2011, an allowance was not deemed necessary by management. Sales of water and sewer services are made on open account to customers located in Malvern, Arkansas and the surrounding areas and are collateralized to the extent of each customer's meter deposit.

Inventories consist of materials and supplies valued at the lower of cost or market, using the first-in, first-out method.

Certain accounts in the prior year financial statements have been reclassified for comparative purposes to conform to the presentation in the current year financial statements.

Debt issuance expenses and discounts are being amortized over the terms of the respective liabilities using the effective interest method.

For purposes of the Statement of Cash Flows, the Water Works considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 1. Summary of Significant Accounting Policies: (Continued)

Capital assets are stated at cost and depreciation is calculated using the straight-line method over the estimated useful lives of the related assets ranging from three to fifty years. Donated fixed assets are valued at their estimated fair market value on the date donated. Interest costs are capitalized when incurred on debt where proceeds were used to finance the construction of assets.

The Water Works restricts certain assets for the payment of debt service, capital improvements, and repairs and maintenance of the Water Works.

Budgeted revenues and expenses are prepared using the economic resources measurement focus and the accrual basis of accounting. The original budgets adopted by the Water Works were not amended during the years ended December 31, 2012 and 2011.

Management has evaluated subsequent events through February 25, 2013, the date the financial statements were available for issuance.

Note 2. Cash and Certificates of Deposit:

Custodial credit risk is the risk that in the event of a bank failure deposits may not be returned to the Water Works. At December 31, 2012 and 2011, the Water Works' deposits with financial institutions were fully insured or collateralized and totaled \$3,235,397 and \$1,985,453, respectively.

Note 3. Unbilled Revenue:

Unbilled water and sewer revenue of \$211,362 was computed for usage from the last meter reading date of 2012 until the end of December. This amount is computed by allocating water used based on the last meter reading date.

Note 4. Other Receivable:

Other receivable included on the balance sheet in the amount of \$170,418 is for insurance claims related to an instance of employee theft which occurred in prior periods. The Water Works received a payment from the insurance company in the amount of \$148,690 subsequent to year-end. An additional payment of \$74,885 is expected to be received, which would result in proceeds received of an amount greater than that which is recorded in the financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 5. Property, Plant and Equipment:

Property, plant and equipment consist of the following in 2012:

	12/31/2011	Increases	Decreases	Transfers	12/31/2012
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	35,971,679	188,440	(56,860)	122,099	36,225,358
Vehicles	507,682	70,999	-	-	578,681
Office Equipment	246,544	18,803	(25,724)	-	239,623
Construction in Process	122,099	1,298,557	-	(122,099)	1,298,557
	38,045,375	1,576,799	(82,584)	-	39,539,590
Less Accumulated Depreciation	(12,207,600)	(792,076)	25,724	-	(12,973,952)
NET	<u>\$ 25,837,775</u>	<u>\$ 784,723</u>	<u>\$ (56,860)</u>	<u>\$ -</u>	<u>\$ 26,565,638</u>

Property, plant and equipment consist of the following in 2011:

	12/31/2010	Increases	Decreases	Transfers	12/31/2011
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	34,897,759	1,355,016	(281,096)	-	35,971,679
Vehicles	526,027	19,350	(37,695)	-	507,682
Office Equipment	263,604	-	(17,060)	-	246,544
Construction in Process	26,076	122,099	(26,076)	-	122,099
	36,910,837	1,496,465	(361,927)	-	38,045,375
Less Accumulated Depreciation	(11,259,471)	(1,243,121)	294,992	-	(12,207,600)
NET	<u>\$ 25,651,366</u>	<u>\$ 253,344</u>	<u>\$ (66,935)</u>	<u>\$ -</u>	<u>\$ 25,837,775</u>

Note 6. Long-Term Debt:

As of December 31, 2012 the Water Works had nine indebtedness issues outstanding. The bonds are secured by pledge of and payable from revenues derived from operation of the water and sewer systems.

In order to comply with its debt covenants, the Water Works must maintain separate revenue, operating and maintenance accounts, and debt service accounts. In addition, a monthly deposit of 5% of net revenues must be made into a depreciation fund until such time that the remaining balance in the depreciation fund exceeds the total of 5% of annual net revenues plus the cost of probable replacements during the current and next ensuing year. The Water Works was not in compliance with this requirement for the year ended December 31, 2011.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 6. Long-Term Debt: (continued)

Long-Term Debt as of December 31, 2012 and 2011 consists of the following:

	<u>12/31/2012</u>	<u>12/31/2011</u>
Water and Sewer Bonds - Series 1998 (RI.F); original amount \$6,520,000; interest rate of 2.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$343,217.	\$ 3,367,211	\$ 3,697,910
Capital Improvement Revenue Bond (Waterworks Project), Series 2004A (DWSRF); original amount \$3,030,749; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$87,527.	2,397,559	2,480,745
City of Malvern, Arkansas Waterworks and Sewer System Refunding Bonds - Series 2001; original amount \$1,835,000; maturing May 1, 2003 through 2013; interest rates ranging from 2.85% to 4.55%; interest payable semi-annually on May 1 and November 1; current portion is \$185,000.	185,000	365,000
City of Malvern 2.5% Water and Sewer Revenue Bond, Series 2004B (DWSRF-2004); original amount \$10,812,336; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$256,628.	9,389,398	9,637,275
City of Malvern, Arkansas 4.75% Water and Sewer Revenue Bond, Series 2007; original amount \$1,339,000; interest rate of 4.75%; payments due semi-annually on June 1 and December 1; current portion is \$26,346.	1,224,323	1,249,460
City of Malvern Lease-Purchase Agreement, Series 2005; original amount \$1,389,139; interest rate of 4.5%; payments due semi-annually on June 1 and December 1; current portion is \$31,774.	1,202,249	1,232,641
City of Malvern 2005A Water and Sewer Revenue Bond (Bond D), Series 2005; original amount of \$206,000; interest free; one-time servicing fee of \$6,000; payments due annually on June 1; current portion is \$6,867.	157,931	164,798
City of Malvern, Arkansas 1.75% Water and Sewer Revenue Bond, Series 2009; original amount of \$500,000; interest rate of 1.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15. Principal payments began April 15, 2012; current portion is \$19,578.	480,950	500,000
City of Malvern, Arkansas Water and Sewer Revenue Bond, Series 2012; original amount \$2,100,000; interest rate of 2.75%; payments of \$14,253 due monthly on the 29th day of each month; current portion is \$115,778.	2,062,163	-
Deferred Issuance Costs and Discounts	(4,455)	(11,071)
	20,462,329	19,316,758
Less portion considered current	(1,079,331)	(925,453)
Total long-term debt	<u>\$ 19,382,998</u>	<u>\$ 18,391,305</u>

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 6. Long-Term Debt: (continued)

Aggregate maturities of long-term debt as of December 31, 2012 are as follows:

	Principal	Interest	Service Fee	Total
2013	\$ 1,072,715	\$ 567,819	\$ 155,168	\$ 1,795,702
2014	919,334	534,915	148,036	1,602,285
2015	952,107	509,534	139,643	1,601,284
2016	985,944	483,358	132,981	1,602,283
2017	1,021,280	455,963	125,042	1,602,285
Thereafter	15,515,404	3,978,149	1,086,488	20,580,041
Total	<u>\$20,466,784</u>	<u>\$ 6,529,738</u>	<u>\$ 1,787,358</u>	<u>\$28,783,880</u>

Note 7. Public Employees Retirement System:

A. Plan Description

All employees working at least 90 days per annum and at least 80 hours per month are covered under the Arkansas Public Employees Retirement System (APERS), a cost sharing multiple employer retirement system. General responsibility for ensuring proper operation of the System is vested in a nine member Board of Trustees. This Board of Trustees includes the State Auditor, the State Treasurer, and the Director of the Department of Finance and Administration, three state employees and three non-state employees appointed by the Governor of Arkansas.

Members are eligible for full retirement benefits (1) at age 65 with ten years of actual service, (2) at any age with 28 years of actual service or (3) under the contributory plan, at age 60 with 20 years of actual service or, under the non-contributory plan at age 55 with 10 years of credited service. The normal retirement benefit, paid on a monthly basis, is determined based on the member's final average salary (an average of the highest earnings) and the number of years of service. The plans also provides for disability and survivor benefits. The Water Works payroll for covered employees covered by the plan for the year ended December 31, 2012 was \$869,932 and the Water Works total payroll paid for the same period was \$978,463.

B. Contributions Required and Contributions Made

The plan, which applies to all persons hired after December 31, 1997, originally did not allow employee contributions. Arkansas Act 2084 of 2005 requires participants who joined after July 1, 2005 to contribute 5% of their gross wages. The Water Works is required to contribute at an actuarially determined rate. Effective July 1, 2012, the Water Works is required by state law to contribute 14.24% of annual covered payroll. The Water Works contributed \$125,003 for the year ended December 31, 2012, which was equal to the required contributions.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 7. Public Employees Retirement System: (continued)

C. Trend Information

Information relating to ten year historical trends are presented in a separately issued APERS report and provides information about progress made in accumulating sufficient assets to pay benefits when due.

Note 8. Other Post-Employment Benefits:

During the year-ended December 31, 2011, the Water Works implemented the provisions of GASB Statement 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions* ("GASB 45"). GASB 45 requires that employers providing post-employment benefits other than pensions record and disclose annual other post-employment benefit ("OPEB") cost and a net OPEB obligation in their financial statements and disclose other information about their OPEB plans, including the unfunded actuarial liability.

Water Works employees may participate in an OPEB plan (the "OPEB Plan") resulting from Arkansas statutes which provide that any municipal official or employee vested in any retirement plan that has 20 years of service and attains 55 years of age may continue to participate in the Water Works' healthcare plan after retirement provided that they pay 100% of the group premium. Stand-alone financial statements are not issued for the OPEB Plan.

For the years ended December 31, 2012 and 2011, the Water Works had no former employees or history of former employees participating in the OPEB Plan. Therefore, there is no annual required contribution of net OPEB obligation.

The projection of future benefit payments for an ongoing plan involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Note 9. Restricted Funds:

The Water Works has deposits, which are restricted to various uses as follows:

Construction Funds

The water construction funds represent funds that have been accumulated from various sources and are to be used to meet the construction costs in the water system expansion and improvement projects. At December 31, 2012 and 2011, the water construction fund balance totaled \$1,193,165 and \$10,499, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 9. Restricted Funds: (continued)

Depreciation Funds

The depreciation fund was established by Ordinance No. 788 to be used solely for the purpose of paying the costs of replacements of fixed assets made necessary by the depreciation of the system. The depreciation fund totaled \$970,493 and \$402,223 at December 31, 2012 and 2011, respectively.

Debt Service Funds with ADFA

The Water Works is required to deposit monthly with the Arkansas Development Finance Authority, to be held in trust, an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/6 of the next installment of principal next due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Funds available for meeting the purpose for which a deposit is required to be made. The total deposits, held in trust as of December 31, 2012 and 2011 were \$208,776 and \$206,709, respectively.

Reserve Funds for Refunding Bond

The Water Works is required to deposit monthly an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/12 of the next installment of principal due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Fund available for meeting the purpose for which a deposit is required to be made. Amounts of deposits, as of December 31, 2012 and 2011, were \$20,059 and \$37,284, respectively.

Reserve Funds for Refunding Bond

The Water Works was required by the trust indenture to initially deposit in the Reserve Fund an amount equal to the Required Reserve on the Bonds from the proceeds of the Series 1993 Bonds. On the date of each required payment from the Debt Service Fund, monies in the Reserve Fund shall be applied to cure any deficiency in the Debt Service fund. Each month preceding the final maturity date of the Bonds, monies held in the Reserve Fund shall be credited against the payments otherwise due in respect of principal and interest. Total amount on deposit as of December 31, 2012 and 2011 was \$183,158.

Construction Fund for 2005 Lease-purchase Bond

The Water Works is required to deposit funds received from Arkansas Soil and Water Conservation Commission for the purpose of constructing water line extensions. As of December 31, 2012 and 2011 total amounts on deposit were \$14,057 and \$14,056, respectively.

Northern Malvern Public Water Authority

The Northern Malvern Public Water Authority fund represents funds restricted for capital improvements to the Northern Malvern Public Water Authority. The funds were received in the acquisition of Northern Malvern Public Water Authority in 2011. As of December 31, 2012 and 2011, total amount on deposit was \$0 and \$212,207, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 10. Concentrations:

The Water Works has obtained its water from the Ouachita River. This is the sole source of water for the Water Works.

Note 11. Current Rates:

The current water and sewer rates were established by Ordinance No. 2011-02 and 2011-03, respectively, adopted February 14, 2011. The classes of users include: residential I, a user whose water is from residential property that has one meter per single family residence and uses an annual average of under 2,000 gallons per month, residential II, a user whose water is from residential property that has one meter per single family residential and uses annual average over 2,000 gallons per month, small commercial, a user whose water is from commercial operations, trade or business and who consumes an annual average of less than 6,000 gallons of water per month, large user, a user whose water is from commercial operations, trade of business and who consumes an annual average of 6,000 gallon or more of water per month, sprinkler meter, user who has a dedicated meter for the purpose of irrigation, and wholesale, a city, town, improvement district, public facilities board, public water authority, or water users association purchasing water through a master meter.

Rates are as follows for the years ended December 31, 2012:

Class	Base*		Rate per 100 Gallons	
	Inside City	Outside City	Inside City	Outside City
Water Rates:				
Residential I	\$ 9.50	\$ 19.00	0.435	0.87
Residential II	14.00	28.00	0.435	0.87
Small Commercial	21.25	42.50	0.435	0.87
Large User	36.75	73.50	0.435	0.87
Sprinkler Meter	14.00	28.00	0.435	0.87
Wholesale	6.00	6.00	0.30	0.30
Sewer Rates:				
Residential	12.00	24.00	0.30	0.60
Small Commercial	21.00	42.00	0.30	0.60
Large User	42.75	85.50	0.30	0.60

* Base includes 2,000 gallons

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2012

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Note 12. Average Users:

The average number of residential, small commercial and large commercial users during the year ended December 31, 2012 and 2011 were as follows:

	2012	2011
Residential	3,907	3,608
Small commercial	353	345
Large commercial	153	148
Total	<u>4,413</u>	<u>4,101</u>

Note 13. Insurance Coverage:

The Water Works are exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Water Works considers it to be more economically feasible to participate in a public entity risk pool as opposed to purchasing commercial insurance for workers' compensation, vehicle and property insurance. As such, they participate in the Arkansas Municipal League Risk Management Pool ("AML Pool"), which is a public entity risk pool consisting of member political subdivisions of the State of Arkansas. The Water Works pay an annual premium to the AML Pool for its workers' compensation, vehicle and property insurance. The AML Pool for workers' compensation, vehicle and legal property insurance is totally self-insured and each political subdivision that has participated in the AML Pool is not subject to assessment if the funds it paid as premiums are insufficient to meet the obligations of the AML Pool.

The Water Works continue to carry commercial insurance for all other risks of loss, including fire and extended coverage, inland marine coverage, fidelity bond, and employee health, life and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage during the past fiscal years. There has been no significant reduction in the amount of coverage provided.

Note 14. Acquisition:

Effective October 6, 2011, the Northern Malvern Public Water Authority merged with the Malvern Water Works. As a result, cash of \$309,594, property, plant and equipment of \$945,311 (net of accumulated depreciation of \$425,085), customer meter deposits of \$17,540, sales tax payable of \$985, and accounts payable of \$4,681. Rates were not changed as a result of the merger.

TAYLOR, RODGERS, TURNER & MANNING, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

City of Malvern, Arkansas
Malvern Water Works

We have audited the financial statements of Malvern Water Works as of and for the year ended December 31, 2012, and have issued our report thereon dated February 25, 2013. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control over Financial Reporting

In planning and performing our audit, we considered Malvern Water Works' internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Malvern Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted a certain other matter that we reported to management of Malvern Water Works, in a separate letter dated February 25, 2013.

This report is intended solely for the information and use of management, the City Council and Mayor, and others within the entity, and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Arkadelphia, Arkansas
February 25, 2013

**MALVERN WATER WORKS
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED DECEMBER 31, 2012**

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Summary of Auditor's Results

The auditor's report expresses an unqualified opinion on the financial statements of Malvern Water Works ("the Water Works").

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements.

No instances of noncompliance material to the financial statements of the Water Works were disclosed by during the audit.

Findings – Financial Statement Audit

None

Findings and Questioned Costs – Major Federal Award Programs Audit

N/A

SUPPLEMENTARY INFORMATION

MALVERN WATER WORKS
SCHEDULE OF RESTRICTED ASSETS AND LIABILITIES
DECEMBER 31, 2012 AND 2011

SCHEDULE I
Page 22

	<u>2012</u>	<u>2011</u>
RESTRICTED ASSETS:		
Cash and Cash Equivalents	\$ 2,380,932	\$ 859,427
Other Current Assets	208,776	206,709
 TOTAL RESTRICTED ASSETS (To Exhibit A)	 <u>2,589,708</u>	 <u>1,066,136</u>
 LIABILITIES PAYABLE FROM RESTRICTED ASSETS:		
Accrued Interest Payable on Long-Term Debt	150,924	146,438
Customers' Meter Deposits	179,080	183,329
 TOTAL LIABILITIES PAYABLE FROM RESTRICTED ASSETS (To Exhibit A)	 <u>330,004</u>	 <u>329,767</u>
 NET RESTRICTED ASSETS	 <u>\$ 2,259,704</u>	 <u>\$ 736,369</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING EXPENSES
DECEMBER 31, 2012 AND 2011

SCHEDULE II
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	<u>2012</u>	<u>2011</u>
OPERATING EXPENSES:		
Depreciation	\$ 792,076	\$ 818,036
Water Plant Operations and Maintenance	537,311	609,663
Operations and Maintenance - Transmission/Distribution	414,369	362,613
Customer Accounting	376,027	444,666
Administration and General	774,650	693,278
Oxidation Ponds Operations and Maintenance	240,754	220,401
Collection System Operations and Maintenance	281,874	263,707
TOTAL OPERATING EXPENSES	<u>\$ 3,417,061</u>	<u>\$ 3,412,364</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING REVENUES AND
OPERATING EXPENSES - COMPARED TO BUDGET
FOR YEAR ENDED DECEMBER 31, 2012

SCHEDULE III
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	Budget	Actual	Variance
OPERATING REVENUES:			
Water Sales	\$ 3,165,000	\$ 2,874,157	\$ (290,843)
Water Fees and Charges	74,400	275,921	201,521
Sewer Sales	1,652,904	1,700,928	48,024
Sewer Fees and Charges	52,631	66,465	13,834
Miscellaneous	48,000	23,798	(24,202)
TOTAL OPERATING REVENUES	<u>4,992,935</u>	<u>4,941,269</u>	<u>(51,666)</u>
OPERATING EXPENSES:			
Depreciation	120,000	792,076	(672,076)
Water Plant Operations and Maintenance	814,888	537,311	277,577
Operations and Maintenance - Transmission/Distribution	541,688	414,369	127,319
Customer Accounting	447,844	376,027	71,817
Administration and General	812,468	774,650	37,818
Oxidation Ponds Operations and Maintenance	277,188	240,754	36,434
Collection System Operations and Maintenance	370,738	281,874	88,864
TOTAL OPERATING EXPENSES	<u>3,384,814</u>	<u>3,417,061</u>	<u>(32,247)</u>
OPERATING INCOME (LOSS)	<u>1,608,121</u>	<u>1,524,208</u>	<u>(83,913)</u>
OTHER INCOME (EXPENSES):			
Interest Revenue	28,800	14,539	(14,261)
Interest Expense	(1,627,069) *	(792,215)	834,854
Amortization Expense	-	(9,625)	(9,625)
TOTAL OTHER INCOME (EXPENSES)	<u>(1,598,269)</u>	<u>(787,301)</u>	<u>810,968</u>
NET INCOME (LOSS)	<u>\$ 9,852</u>	<u>\$ 736,907</u>	<u>\$ 727,055</u>

See Independent Auditors' Report.

* Budgeted amount includes total principal, interest and service fee payments.

MALVERN WATER WORKS

MALVERN, ARKANSAS

DECEMBER 31, 2013

MALVERN WATER WORKS
MALVERN, ARKANSAS

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DECEMBER 31, 2013

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MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of the utility's financial condition and activities for the year. This information should be read in conjunction with the financial statements.

Overview

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the utility's financial condition and performance.

The financial statements report information about the utility using full accrual accounting methods as utilized by similar business activities in the private sector. The financial statements include a balance sheet, statement of revenues, expenses and changes in net assets, statement of cash flows, notes to the financial statements and other supporting schedules.

The balance sheet presents the financial position of the utility on a full accrual historical cost basis. This statement presents information on all of the assets and liabilities with the difference reported as net assets. Over time, increases and decreases in net assets are an indicator of whether the financial position of the utility is improving or deteriorating.

While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses and changes in net assets presents the results of the business activities over the course of the fiscal year and information on how net assets changed during the year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows.

The statement of cash flows presents changes in cash and cash equivalents, resulting from operating, financing and investing activities. This statement presents cash receipts and disbursement information only.

The notes to the financial statements and supplementary information are provided to disclose information that is essential to a full understanding of the material data provided in the statements.

The financial statements were prepared by Malvern Water Works staff from its detailed transactions for the years ending December 31, 2013 and 2012. The financial statements were audited and adjusted, if material, during the independent external audit process.

Financial Analysis

The financial statements on pages 5 through 9 provide information about the financial activities of Malvern Water Works. The following information is an analysis of the year presented.

Balance Sheet

Total assets as of December 31, 2013 were \$30,821,637 and exceeded liabilities, which were \$19,888,986. Of the total net assets, \$7,795,013 was invested in capital assets; \$1,482,184 was restricted for debt service and capital improvements, and \$1,655,454 was unrestricted.

	<u>2013</u>	<u>2012</u>
Current Assets	\$ 2,053,653	\$ 1,889,930
Restricted Assets	1,482,183	2,589,708
Net Capital Assets	27,189,066	26,565,638
Other Assets	96,735	105,705
Current Liabilities	1,114,884	1,348,376
Liabilities Payable from Restricted Assets	299,370	330,004
Long-Term Liabilities	18,474,732	19,382,998
Net Assets:		
Invested in Capital, Net of Related Debt	7,795,013	6,103,309
Restricted for Debt Service	222,986	411,993
Restricted for Capital Improvements	1,259,198	2,177,715
Unrestricted Net Assets	1,655,454	1,396,586

The current ratio is an indication of short-term liquidity and is calculated by dividing current assets by current liabilities. A resulting number greater than one indicates current assets in excess of current needs that can be applied in future periods. The current ratio of Malvern Water Works was 1.84 for 2013, compared to 1.40 for 2012. Another ratio that is computed from this statement is the debt utilization ratio, which indicates what percentage the total debt is to total assets. This ratio is calculated by dividing total debt by total assets. The debt utilization ratio for the year ending December 31, 2013 was 65%.

Statement of Revenues, Expenses and Changes in Net Assets

For the years ending December 31, 2013 and 2012, operating revenues were \$4,974,265 and \$4,941,269 respectively and operating expenses were \$3,440,555 and \$3,417,061 respectively. Non-operating income was \$10,871 and \$14,539 respectively and non-operating expenses were \$701,533 and \$801,840 respectively. The results were an increase in net assets in the amount of \$843,048 and \$736,907 respectively.

Contacting Management

The financial report is designed to provide our customers, citizens, and creditors with a general overview of the finances of Malvern Water Works and to show the accountability for the money it receives. If you have any questions about this report or need further financial information, contact our office at 506 Overman Street; Malvern, Arkansas 72104 or call (501) 332-3634.

TAYLOR, RODGERS, TURNER & MANNING, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT

City Council
Malvern, Arkansas
Malvern Water Works

Report on the Financial Statements

We have audited the accompanying financial statements of Malvern Water Works ("the Water Works"), a component unit of the City of Malvern, Arkansas, which comprise the balance sheets as of December 31, 2013 and 2012, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Malvern Water Works as of December 31, 2013, and the changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

As discussed in Note 1, the financial statements referred to above present only Malvern Water Works which is an enterprise fund of the City of Malvern, Arkansas and are not intended to present fairly the financial position of the City of Malvern, Arkansas, and the results of its operations and cash flows of its other proprietary fund types and non-expendable trust funds in conformity with generally accepted accounting principles.

Required Supplementary Information

Our audit was performed for the purpose of forming an opinion on the financial statements of Malvern Water Works taken as a whole. The accompanying supplemental information presented herein on pages 22-24 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, are fairly stated, in all material respects, in relation to these financial statements taken as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued a report dated February 26, 2014, on our consideration of Malvern Water Works' internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with the report in considering the results of our audit.

February 26, 2014
Arkadelphia, Arkansas

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2013 AND 2012

EXHIBIT A
Page 5

	<u>2013</u>	<u>2012</u>
<u>ASSETS</u>		
CURRENT ASSETS:		
Cash and Cash Equivalents	\$ 1,077,262	\$ 823,292
Accounts Receivable	477,532	424,635
Inventory	223,900	230,321
Unbilled Revenue	248,739	211,362
Prepaid Expenses	26,220	29,902
Other Receivable	-	170,418
TOTAL CURRENT ASSETS	<u>2,053,653</u>	<u>1,889,930</u>
RESTRICTED ASSETS (Schedule I)	<u>1,482,183</u>	<u>2,589,708</u>
CAPITAL ASSETS:		
Land	1,197,371	1,197,371
Property, Plant and Equipment	39,804,969	37,043,662
Construction in Progress	10,896	1,298,557
	<u>41,013,236</u>	<u>39,539,590</u>
Less: Accumulated Depreciation	<u>(13,824,170)</u>	<u>(12,973,952)</u>
TOTAL CAPITAL ASSETS	<u>27,189,066</u>	<u>26,565,638</u>
OTHER ASSETS:		
Bond Issuance Costs		
(Net of Amortization of \$181,557 and \$172,587)	<u>96,735</u>	<u>105,705</u>
TOTAL OTHER ASSETS	<u>96,735</u>	<u>105,705</u>
TOTAL ASSETS	<u><u>\$ 30,821,637</u></u>	<u><u>\$ 31,150,981</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2013 AND 2012

EXHIBIT A
Page 6

LIABILITIES AND NET ASSETS

	<u>2013</u>	<u>2012</u>
CURRENT LIABILITIES:		
Accounts Payable	\$ 85,092	\$ 172,616
Accrued Salaries and Payroll Taxes	23,439	18,360
Accrued Absences	68,987	62,425
Other Current Liabilities	18,045	15,644
Current Portion of Long-Term Debt, Net of Current Unamortized Discount/Loss of \$0 and \$252, respectively	919,321	1,079,331
TOTAL CURRENT LIABILITIES	<u>1,114,884</u>	<u>1,348,376</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS (Schedule I)	<u>299,370</u>	<u>330,004</u>
LONG-TERM LIABILITIES:		
Long-Term Debt, Net of Current Portion and Net of Unamortized Discount/Loss of \$0 and \$4,203, respectively	18,474,732	19,382,998
TOTAL LONG-TERM LIABILITIES	<u>18,474,732</u>	<u>19,382,998</u>
TOTAL LIABILITIES	<u>19,888,986</u>	<u>21,061,378</u>
NET ASSETS:		
Invested in Capital Assets, Net of Related Debt	7,795,013	6,103,309
Restricted Net Assets, Expendable		
Restricted for Debt Service	222,986	426,185
Restricted for Capital Improvements	1,259,198	2,163,523
Unrestricted Net Assets	1,655,454	1,396,586
TOTAL NET ASSETS	<u>10,932,651</u>	<u>10,089,603</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 30,821,637</u>	<u>\$ 31,150,981</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
STATEMENTS OF REVENUES, EXPENSES AND
CHANGES IN NET ASSETS
FOR YEARS ENDED DECEMBER 31, 2013 AND 2012

EXHIBIT B
Page 7

	<u>2013</u>	<u>2012</u>
OPERATING REVENUE:		
Water Sales	\$ 2,953,353	\$ 3,065,417
Sewer Sales	1,658,410	1,700,928
Fees and Charges	55,622	64,118
Penalties	69,557	87,008
Miscellaneous Revenue	237,323	23,798
TOTAL OPERATING REVENUE	<u>4,974,265</u>	<u>4,941,269</u>
OPERATING EXPENSES (Schedule II)	3,440,555	3,417,061
OPERATING INCOME	<u>1,533,710</u>	<u>1,524,208</u>
OTHER INCOME (EXPENSES):		
Interest Income	10,871	14,539
Interest Expense	(692,563)	(792,215)
Amortization of Issuance Costs	(8,970)	(9,625)
TOTAL OTHER INCOME (EXPENSES)	<u>(690,662)</u>	<u>(787,301)</u>
NET INCOME (LOSS)	<u>843,048</u>	<u>736,907</u>
NET ASSETS AT BEGINNING OF YEAR	10,089,603	9,370,236
Liability Assumed from Meter Deposits of Northern Malvern Public Water Authority	-	(17,540)
NET ASSETS AT END OF YEAR	<u>\$10,932,651</u>	<u>\$10,089,603</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
COMBINED STATEMENTS OF CASH FLOWS
ALL PROPRIETARY FUND TYPES
FOR YEARS ENDED DECEMBER 31, 2013 AND 2012

EXHIBIT C
Page 8

	2013	2012
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash Received from Customers	\$ 4,886,331	\$ 4,951,702
Cash Received from Grant	168,078	-
Cash Payments for Goods and Services	(1,720,219)	(1,562,148)
Cash Payments to Employees	(926,971)	(968,342)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>2,407,219</u>	<u>2,421,212</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Increase (Decrease) in Meter Deposits	<u>150</u>	<u>(4,249)</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and Construction of Capital Assets	(1,473,646)	(1,576,799)
Proceeds Received from Long-Term Debt	-	2,100,000
Principal Paid on Long-Term Debt	(1,074,820)	(891,750)
Interest Paid on Long-Term Debt	(723,347)	(787,729)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	<u>(3,271,813)</u>	<u>(1,156,278)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest Received and Other Income and Expense	<u>10,871</u>	<u>14,539</u>
NET CASH PROVIDED BY INVESTING ACTIVITIES	<u>10,871</u>	<u>14,539</u>
NET INCREASE (DECREASE) IN CASH AND RESTRICTED CASH	<u>(853,573)</u>	<u>1,275,224</u>
CASH AND RESTRICTED CASH - BEGINNING OF YEAR	3,204,224	1,929,000
CASH AND RESTRICTED CASH - END OF YEAR	<u>\$ 2,350,651</u>	<u>\$ 3,204,224</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2013 AND 2012

EXHIBIT C-1
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Reconciliation of operating income (loss) to net cash provided by operating activities:

	<u>2013</u>	<u>2012</u>
OPERATING INCOME (LOSS)	<u>\$ 1,533,710</u>	<u>\$ 1,524,208</u>
ADJUSTMENTS TO RECONCILE OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Depreciation	850,218	792,076
Change in Assets and Liabilities:		
Accounts Receivable	86,688	(9,606)
Inventory	6,421	13,719
Prepaid Expenses	3,682	7,645
Other Assets	(18)	(2,067)
Accounts Payable	(87,524)	89,086
Accrued Payroll Expenses	11,641	10,121
Other Liabilities	2,401	(3,970)
TOTAL ADJUSTMENTS	<u>873,509</u>	<u>897,004</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u><u>\$ 2,407,219</u></u>	<u><u>\$ 2,421,212</u></u>
SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES:		
Amortization of Bond Issuance Cost	<u>\$ 8,970</u>	<u>\$ 9,625</u>
Liability Assumed from Meter Deposits of Northern Malvern Public Water Authority	<u>\$ -</u>	<u>\$ (17,540)</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

Page 10

Note 1. Summary of Significant Accounting Policies:

Malvern Water Works (the "Water Works") is an Enterprise Fund of the City of Malvern, Arkansas and is governed by the City Council of the City of Malvern, Arkansas. The accompanying financial statements and other information reflect Malvern Water Works fund only and do not include other funds of the City of Malvern, Arkansas.

The financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles. The System applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. The System applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements in which case, GASB prevails.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

The Water Works utilizes the allowance method of accounting for uncollectible accounts receivable. The Water Works reviews their customer accounts on a periodic basis and records a reserve for specific amounts that management determines may not be collected. In addition, the Water Works has established a general reserve for potential uncollectible accounts based on historical bad debts. Amounts are written off at the point when collection attempts have been exhausted, which is usually 120 days after the account is past due. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible amounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While management believes the Water Works' processes effectively address its exposure to doubtful accounts, changes in economic, industry or specific customer conditions may require adjustment to the allowance recorded by the Water Works. At December 31, 2013 and 2012, an allowance was not deemed necessary by management. Sales of water and sewer services are made on open account to customers located in Malvern, Arkansas and the surrounding areas and are collateralized to the extent of each customer's meter deposit.

Inventories consist of materials and supplies valued at the lower of cost or market, using the first-in, first-out method.

Certain accounts in the prior year financial statements have been reclassified for comparative purposes to conform to the presentation in the current year financial statements.

Debt issuance expenses and discounts are being amortized over the terms of the respective liabilities using the effective interest method.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 1. Summary of Significant Accounting Policies: (Continued)

For purposes of the Statement of Cash Flows, the Water Works considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

The Water Works capitalizes all expenditures in excess of \$5,000 and with a useful life of more than one year. Capital assets are stated at cost and depreciation is calculated using the straight-line method over the estimated useful lives of the related assets ranging from three to fifty years. Donated fixed assets are valued at their estimated fair market value on the date donated. Interest costs are capitalized when incurred on debt where proceeds were used to finance the construction of assets.

The Water Works restricts certain assets for the payment of debt service, capital improvements, and repairs and maintenance of the Water Works.

Budgeted revenues and expenses are prepared using the economic resources measurement focus and the accrual basis of accounting. The original budgets adopted by the Water Works were not amended during the years ended December 31, 2013 and 2012.

Management has evaluated subsequent events through February 26, 2014, the date the financial statements were available for issuance.

Note 2. Cash and Certificates of Deposit:

Custodial credit risk is the risk that in the event of a bank failure deposits may not be returned to the Water Works. At December 31, 2013 and 2012, the Water Works' deposits with financial institutions were fully insured or collateralized and totaled \$2,330,334 and \$3,235,397, respectively.

Note 3. Unbilled Revenue:

Unbilled water and sewer revenue of \$248,739 was computed for usage from the last meter reading date of 2013 until the end of December. This amount is computed by allocating water used based on the last meter reading date.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 4. Property, Plant and Equipment:

Property, plant and equipment consist of the following in 2013:

	12/31/2012	Increases	Decreases	Transfers	12/31/2013
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	36,225,358	-	-	2,630,647	38,856,005
Vehicles	578,681	130,660	-	-	709,341
Office Equipment	239,623	-	-	-	239,623
Construction in Process	1,298,557	1,342,986	-	(2,630,647)	10,896
	39,539,590	1,473,646	-	-	41,013,236
Less Accumulated Depreciation	(12,973,952)	(850,218)	-	-	(13,824,170)
NET	<u>\$ 26,565,638</u>	<u>\$ 623,428</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 27,189,066</u>

Property, plant and equipment consist of the following in 2012:

	12/31/2011	Increases	Decreases	Transfers	12/31/2012
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	35,971,679	188,440	(56,860)	122,099	36,225,358
Vehicles	507,682	70,999	-	-	578,681
Office Equipment	246,544	18,803	(25,724)	-	239,623
Construction in Process	122,099	1,298,557	-	(122,099)	1,298,557
	38,045,375	1,576,799	(82,584)	-	39,539,590
Less Accumulated Depreciation	(12,207,600)	(792,076)	25,724	-	(12,973,952)
NET	<u>\$ 25,837,775</u>	<u>\$ 784,723</u>	<u>\$ (56,860)</u>	<u>\$ -</u>	<u>\$ 26,565,638</u>

Note 5. Long-Term Debt:

As of December 31, 2013 the Water Works had eight indebtedness issues outstanding. The bonds are secured by pledge of and payable from revenues derived from operation of the water and sewer systems.

In order to comply with its debt covenants, the Water Works must maintain separate revenue, operating and maintenance accounts, and debt service accounts. In addition, a monthly deposit of 5% of net revenues must be made into a depreciation fund until such time that the remaining balance in the depreciation fund exceeds the total of 5% of annual net revenues plus the cost of probable replacements during the current and next ensuing year.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 5. Long-Term Debt: (continued)

Long-Term Debt as of December 31, 2013 and 2012 consists of the following:

	12/31/2013	12/31/2012
Water and Sewer Bonds - Series 1998 (RLF); original amount \$6,520,000; interest rate of 2.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$343,217.	\$ 3,023,991	\$ 3,367,211
Capital Improvement Revenue Bond (Waterworks Project), Series 2004A (DWSRF); original amount \$3,030,749; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$87,527.	2,310,019	2,397,559
City of Malvern, Arkansas Waterworks and Sewer System Refunding Bonds - Series 2001; original amount \$1,835,000; maturing May 1, 2003 through 2013; interest rates ranging from 2.85% to 4.55%; interest payable semi-annually on May 1 and November 1; current portion is \$185,000.	-	185,000
City of Malvern 2.5% Water and Sewer Revenue Bond, Series 2004B (DWSRF-2004); original amount \$10,812,336; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$256,628.	9,132,770	9,389,398
City of Malvern, Arkansas 4.75% Water and Sewer Revenue Bond, Series 2007; original amount \$1,339,000; interest rate of 4.75%; payments due semi-annually on June 1 and December 1; current portion is \$26,346.	1,197,977	1,224,323
City of Malvern Lease-Purchase Agreement, Series 2005; original amount \$1,389,139; interest rate of 4.5%; payments due semi-annually on June 1 and December 1; current portion is \$31,774.	1,170,475	1,202,249
City of Malvern 2005A Water and Sewer Revenue Bond (Bond D), Series 2005; original amount of \$206,000; interest free; one-time servicing fee of \$6,000; payments due annually on June 1; current portion is \$6,867.	151,064	157,931
City of Malvern, Arkansas 1.75% Water and Sewer Revenue Bond, Series 2009; original amount of \$500,000; interest rate of 1.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15. Principal payments began April 15, 2012; current portion is \$19,578.	461,372	480,950
City of Malvern, Arkansas Water and Sewer Revenue Bond, Series 2012; original amount \$2,100,000; interest rate of 2.75%; payments of \$14,253 due monthly on the 29th day of each month; current portion is \$115,778.	1,946,385	2,062,163
Deferred Issuance Costs and Discounts	-	(4,455)
	19,394,053	20,462,329
Less portion considered current	(919,321)	(1,079,331)
Total long-term debt	\$ 18,474,732	\$ 19,382,998

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 5. Long-Term Debt: (continued)

Aggregate maturities of long-term debt as of December 31, 2013 are as follows:

	Principal	Interest	Service Fee	Total
2014	\$ 919,321	\$ 534,915	\$ 148,036	\$ 1,602,272
2015	952,107	509,534	140,643	1,602,284
2016	985,944	483,358	132,981	1,602,283
2017	1,021,280	455,964	125,042	1,602,286
2018	1,057,766	427,702	116,814	1,602,282
Thereafter	14,457,635	3,550,445	969,677	18,977,757
Total	<u>\$ 19,394,053</u>	<u>\$ 5,961,918</u>	<u>\$ 1,633,193</u>	<u>\$ 26,989,164</u>

Note 6. Public Employees Retirement System:

A. Plan Description

All employees working at least 90 days per annum and at least 80 hours per month are covered under the Arkansas Public Employees Retirement System (APERS), a cost sharing multiple employer retirement system. General responsibility for ensuring proper operation of the System is vested in a nine member Board of Trustees. This Board of Trustees includes the State Auditor, the State Treasurer, and the Director of the Department of Finance and Administration, three state employees and three non-state employees appointed by the Governor of Arkansas.

Members are eligible for full retirement benefits (1) at age 65 with ten years of actual service, (2) at any age with 28 years of actual service or (3) under the contributory plan, at age 60 with 20 years of actual service or, under the non-contributory plan at age 55 with 10 years of credited service. The normal retirement benefit, paid on a monthly basis, is determined based on the member's final average salary (an average of the highest earnings) and the number of years of service. The plans also provides for disability and survivor benefits. The Water Works payroll for covered employees covered by the plan for the year ended December 31, 2013 was \$903,580 and the Water Works total payroll paid for the same period was \$937,901.

B. Contributions Required and Contributions Made

The plan, which applies to all persons hired after December 31, 1997, originally did not allow employee contributions. Arkansas Act 2084 of 2005 requires participants who joined after July 1, 2005 to contribute 5% of their gross wages. The Water Works is required to contribute at an actuarially determined rate. Effective July 1, 2013, the Water Works is required by state law to contribute 14.88% of annual covered payroll. The Water Works contributed \$135,229 for the year ended December 31, 2013, which was equal to the required contributions.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 6. Public Employees Retirement System: (continued)

C. Trend Information

Information relating to ten year historical trends are presented in a separately issued APERS report and provides information about progress made in accumulating sufficient assets to pay benefits when due.

Note 7. Other Post-Employment Benefits:

During the year-ended December 31, 2011, the Water Works implemented the provisions of GASB Statement 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions* ("GASB 45"). GASB 45 requires that employers providing post-employment benefits other than pensions record and disclose annual other post-employment benefit ("OPEB") cost and a net OPEB obligation in their financial statements and disclose other information about their OPEB plans, including the unfunded actuarial liability.

Water Works employees may participate in an OPEB plan (the "OPEB Plan") resulting from Arkansas statutes which provide that any municipal official or employee vested in any retirement plan that has 20 years of service and attains 55 years of age may continue to participate in the Water Works' healthcare plan after retirement provided that they pay 100% of the group premium. Stand-alone financial statements are not issued for the OPEB Plan.

For the years ended December 31, 2013 and 2012, the Water Works had no former employees or history of former employees participating in the OPEB Plan. Therefore, there is no annual required contribution of net OPEB obligation.

The projection of future benefit payments for an ongoing plan involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Note 8. Restricted Funds:

The Water Works has deposits, which are restricted to various uses as follows:

Construction Funds

The water construction funds represent funds that have been accumulated from various sources and are to be used to meet the construction costs in the water system expansion and improvement projects. At December 31, 2013 and 2012, the water construction fund balance totaled \$112,566 and \$1,193,165, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 8. Restricted Funds: (continued)

Depreciation Funds

The depreciation fund was established by Ordinance No. 788 to be used solely for the purpose of paying the costs of replacements of fixed assets made necessary by the depreciation of the system. The depreciation fund totaled \$1,146,632 and \$970,493 at December 31, 2013 and 2012, respectively.

Debt Service Funds with ADFA

The Water Works is required to deposit monthly with the Arkansas Development Finance Authority, to be held in trust, an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/6 of the next installment of principal next due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Funds available for meeting the purpose for which a deposit is required to be made. The total deposits, held in trust as of December 31, 2013 and 2012 were \$208,794 and \$208,776, respectively.

Reserve Funds for Refunding Bond

The Water Works is required to deposit monthly and amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/12 of the next installment of principal due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Fund available for meeting the purpose for which a deposit is required to be made. Amounts of deposits, as of December 31, 2013 and 2012, were \$0 and \$20,059, respectively.

Reserve Funds for Refunding Bond

The Water Works was required by the trust indenture to initially deposit in the Reserve Fund an amount equal to the Required Reserve on the Bonds from the proceeds of the Series 1993 Bonds. On the date of each required payment from the Debt Service Fund, monies in the Reserve Fund shall be applied to cure any deficiency in the Debt Service fund. Each month preceding the final maturity date of the Bonds, monies held in the Reserve Fund shall be credited against the payments otherwise due in respect of principal and interest. Total amount on deposit as of December 31, 2013 and 2012 was \$0 and \$183,158, respectively.

Construction Fund for 2005 Lease-purchase Bond

The Water Works is required to deposit funds received from Arkansas Soil and Water Conservation Commission for the purpose of constructing water line extensions. As of December 31, 2013 and 2012 total amount on deposit was \$14,057.

Note 9. Concentrations:

The Water Works has obtained its water from the Ouachita River. This is the sole source of water for the Water Works.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

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Note 10. Current Rates:

The current water and sewer rates were established by Ordinance No. 2011-02 and 2011-03, respectively, adopted February 14, 2011. The classes of users include: residential I, a user whose water is from residential property that has one meter per single family residence and uses an annual average of under 2,000 gallons per month, residential II, a user whose water is from residential property that has one meter per single family residential and uses annual average over 2,000 gallons per month, small commercial, a user whose water is from commercial operations, trade or business and who consumes an annual average of less than 6,000 gallons of water per month, large user, a user whose water is from commercial operations, trade of business and who consumes and annual average of 6,000 gallon or more of water per month, sprinkler meter, user who has a dedicated meter for the purpose of irrigation, and wholesale, a city, town, improvement district, public facilities board, public water authority, or water users association purchasing water through a master meter.

Rates are as follows for the years ended December 31, 2013:

Class	Base*		Rate per 100 Gallons	
	Inside City	Outside City	Inside City	Outside City
Water Rates:				
Residential I	\$ 9.50	\$ 19.00	0.435	0.87
Residential II	14.00	28.00	0.435	0.87
Small Commercial	21.25	42.50	0.435	0.87
Large User	36.75	73.50	0.435	0.87
Sprinkler Meter	14.00	28.00	0.435	0.87
Wholesale	6.00	6.00	0.30	0.30
Sewer Rates:				
Residential	12.00	24.00	0.30	0.60
Small Commercial	21.00	42.00	0.30	0.60
Large User	42.75	85.50	0.30	0.60

* Base includes 2,000 gallons

Note 11. Insurance Coverage:

The Water Works are exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Water Works considers it to be more economically feasible to participate in a public entity risk pool as opposed to purchasing commercial insurance for workers' compensation, vehicle and property insurance. As such, they participate in the Arkansas Municipal League Risk Management Pool ("AML Pool"), which is a public entity risk pool consisting of member political subdivisions of the State of Arkansas. The Water Works pay an annual premium to the AML Pool for its workers' compensation, vehicle and property insurance. The AML Poole for workers' compensation, vehicle and legal property insurance is totally self-insured and each political subdivision that has participated in the AML Pool is not subject to assessment if the

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2013

Page 18

Note 11. Insurance Coverage: (continued)

funds it paid as premiums are insufficient to meet the obligations of the AML Pool.

The Water Works continue to carry commercial insurance for all other risks of loss, including fire and extended coverage, inland marine coverage, fidelity bond, and employee health, life and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage during the past fiscal years. There has been no significant reduction in the amount of coverage provided.

TAYLOR, RODGERS, TURNER & MANNING, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

City of Malvern, Arkansas
Malvern Water Works

We have audited the financial statements of Malvern Water Works as of and for the year ended December 31, 2013, and have issued our report thereon dated February 26, 2014. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control over Financial Reporting

In planning and performing our audit, we considered Malvern Water Works' internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Malvern Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering an entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Arkadelphia, Arkansas
February 26, 2014

**MALVERN WATER WORKS
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED DECEMBER 31, 2013**

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Summary of Auditor's Results

The auditor's report expresses an unqualified opinion on the financial statements of Malvern Water Works ("the Water Works").

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements.

No instances of noncompliance material to the financial statements of the Water Works were disclosed by during the audit.

Findings – Financial Statement Audit

None

Findings and Questioned Costs – Major Federal Award Programs Audit

N/A

SUPPLEMENTARY INFORMATION

MALVERN WATER WORKS
SCHEDULE OF RESTRICTED ASSETS AND LIABILITIES
DECEMBER 31, 2013 AND 2012

SCHEDULE I
Page 22

	<u>2013</u>	<u>2012</u>
RESTRICTED ASSETS:		
Cash and Cash Equivalents	\$ 1,273,389	\$ 2,380,932
Other Current Assets	208,794	208,776
TOTAL RESTRICTED ASSETS (To Exhibit A)	<u>1,482,183</u>	<u>2,589,708</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS:		
Accrued Interest Payable on Long-Term Debt	120,140	150,924
Customers' Meter Deposits	179,230	179,080
TOTAL LIABILITIES PAYABLE FROM RESTRICTED ASSETS (To Exhibit A)	<u>299,370</u>	<u>330,004</u>
NET RESTRICTED ASSETS	<u><u>\$ 1,182,813</u></u>	<u><u>\$ 2,259,704</u></u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING EXPENSES
DECEMBER 31, 2013 AND 2012

SCHEDULE II
Page 23

	<u>2013</u>	<u>2012</u>
OPERATING EXPENSES:		
Salaries and Wages	\$ 937,901	\$ 902,251
Payroll Taxes	76,500	69,545
Employee Benefits	407,760	372,653
Bad Debts	-	23,359
Chemicals and Supplies	326,481	355,057
Communications	42,487	39,162
Computer	24,686	27,951
Depreciation	850,218	792,076
Dues and Subscriptions	16,705	12,405
Equipment Parts and Small Tools	16,449	17,524
Insurance	51,864	45,672
Legal and Professional	21,463	26,322
Meter Reading	45,698	96,529
Office	23,102	24,843
Outside Labor and Materials	63,873	95,914
Postage	34,978	25,856
Repairs and Maintenance	180,769	182,767
Street Breaks and Boring	23,740	30,600
Utilities	274,671	262,336
Miscellaneous	21,210	14,239
TOTAL OPERATING EXPENSES	<u>\$ 3,440,555</u>	<u>\$ 3,417,061</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
BUDGETARY COMPARISON SCHEDULE
FOR YEAR ENDED DECEMBER 31, 2013

SCHEDULE III
Page 24

	Budget	Actual	Variance
OPERATING REVENUES:			
Water Sales	\$ 3,135,000	\$ 2,953,353	\$ (181,647)
Sewer Sales	1,639,404	1,658,410	19,006
Fees and Charges	76,991	55,622	(21,369)
Penalties	50,040	69,557	19,517
Miscellaneous Revenue	48,000	237,323	189,323
TOTAL OPERATING REVENUES	4,949,435	4,974,265	24,830
OPERATING EXPENSES:			
Salaries and Wages	1,024,170	937,901	86,269
Payroll Taxes	76,056	76,500	(444)
Employee Benefits	429,420	407,760	21,660
Bad Debts	30,000	-	30,000
Chemicals and Supplies	443,820	326,481	117,339
Communications	43,000	42,487	513
Computer	30,000	24,686	5,314
Depreciation	348,088	850,218	(502,130)
Dues and Subscriptions	24,600	16,705	7,895
Equipment Parts and Small Tools	20,000	16,449	3,551
Insurance	55,885	51,864	4,021
Legal and Professional	20,004	21,463	(1,459)
Meter Reading	52,600	45,698	6,902
Office	27,600	23,102	4,498
Outside Labor and Materials	127,504	63,873	63,631
Postage	27,000	34,978	(7,978)
Repairs and Maintenance	194,000	180,769	13,231
Street Breaks and Boring	38,000	23,740	14,260
Utilities	285,200	274,671	10,529
Miscellaneous	11,400	21,210	(9,810)
TOTAL OPERATING EXPENSES	3,308,347	3,440,555	(132,208)
OPERATING INCOME (LOSS)	1,641,088	1,533,710	(107,378)
OTHER INCOME (EXPENSES):			
Interest Revenue	28,800	10,871	(17,929)
Interest Expense	(1,618,265) *	(692,563)	925,702
Amortization Expense	-	(8,970)	(8,970)
TOTAL OTHER INCOME (EXPENSES)	(1,589,465)	(690,662)	898,803
NET INCOME (LOSS)	\$ 51,623	\$ 843,048	\$ 791,425

See Independent Auditors' Report.

* Budgeted amount includes total principal, interest and service fee payments.

MALVERN WATER WORKS

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MALVERN, ARKANSAS

DECEMBER 31, 2014

MALVERN WATER WORKS
MALVERN, ARKANSAS

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DECEMBER 31, 2014

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MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of the utility's financial condition and activities for the year. This information should be read in conjunction with the financial statements.

Overview

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the utility's financial condition and performance.

The financial statements report information about the utility using full accrual accounting methods as utilized by similar business activities in the private sector. The financial statements include a balance sheet, statement of revenues, expenses and changes in net assets, statement of cash flows, notes to the financial statements and other supporting schedules.

The balance sheet presents the financial position of the utility on a full accrual historical cost basis. This statement presents information on all of the assets and liabilities with the difference reported as net assets. Over time, increases and decreases in net assets are an indicator of whether the financial position of the utility is improving or deteriorating.

While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses and changes in net assets presents the results of the business activities over the course of the fiscal year and information on how net assets changed during the year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows.

The statement of cash flows presents changes in cash and cash equivalents, resulting from operating, financing and investing activities. This statement presents cash receipts and disbursement information only.

The notes to the financial statements and supplementary information are provided to disclose information that is essential to a full understanding of the material data provided in the statements.

The financial statements were prepared by Malvern Water Works staff from its detailed transactions for the years ending December 31, 2014 and 2013. The financial statements were audited and adjusted, if material, during the independent external audit process.

Financial Analysis

The financial statements on pages 5 through 9 provide information about the financial activities of Malvern Water Works. The following information is an analysis of the year presented.

Balance Sheet

Total assets as of December 31, 2014 were \$30,272,801 and exceeded liabilities, which were \$18,824,964. Of the total net assets, \$7,949,310 was invested in capital assets; \$1,547,090 was restricted for debt service and capital improvements, and \$1,951,437 was unrestricted.

	<u>2014</u>	<u>2013</u>
Current Assets	\$ 2,328,560	\$ 2,053,653
Restricted Assets	1,547,090	1,482,183
Net Capital Assets	26,308,704	27,189,066
Other Assets	88,447	96,735
Current Liabilities	1,111,042	1,114,884
Liabilities Payable from Restricted Assets	308,090	299,370
Long-Term Liabilities	17,405,832	18,474,732
Net Assets:		
Invested in Capital, Net of Related Debt	7,949,310	7,795,013
Restricted for Debt Service	222,828	222,986
Restricted for Capital Improvements	1,324,262	1,259,198
Unrestricted Net Assets	1,951,437	1,655,454

The current ratio is an indication of short-term liquidity and is calculated by dividing current assets by current liabilities. A resulting number greater than one indicates current assets in excess of current needs that can be applied in future periods. The current ratio of Malvern Water Works was 2.10 for 2014, compared to 1.84 for 2013. Another ratio that is computed from this statement is the debt utilization ratio, which indicates what percentage the total debt is to total assets. This ratio is calculated by dividing total debt by total assets. The debt utilization ratio for the year ending December 31, 2014 was 62%.

Statement of Revenues, Expenses and Changes in Net Assets

For the years ending December 31, 2014 and 2013, operating revenues were \$4,844,333 and \$4,974,265 respectively and operating expenses were \$3,663,880 and \$3,440,555 respectively. Non-operating income was \$14,199 and \$10,871 respectively and non-operating expenses were \$679,466 and \$701,533 respectively. The results were an increase in net assets in the amount of \$515,186 and \$843,048 respectively.

Contacting Management

The financial report is designed to provide our customers, citizens, and creditors with a general overview of the finances of Malvern Water Works and to show the accountability for the money it receives. If you have any questions about this report or need further financial information, contact our office at 506 Overman Street; Malvern, Arkansas 72104 or call (501) 332-3634.

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

Page 3

INDEPENDENT AUDITORS' REPORT

City Council
Malvern, Arkansas
Malvern Water Works

Report on the Financial Statements

We have audited the accompanying financial statements of Malvern Water Works ("the Water Works"), a component unit of the City of Malvern, Arkansas, which comprise the balance sheets as of December 31, 2014 and 2013, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Malvern Water Works as of December 31, 2014, and the changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

As discussed in Note 1, the financial statements referred to above present only Malvern Water Works which is an enterprise fund of the City of Malvern, Arkansas and are not intended to present fairly the financial position of the City of Malvern, Arkansas, and the results of its operations and cash flows of its other proprietary fund types and non-expendable trust funds in conformity with generally accepted accounting principles.

Required Supplementary Information

Our audit was performed for the purpose of forming an opinion on the financial statements of Malvern Water Works taken as a whole. The accompanying supplemental information presented herein on pages 22-24 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, are fairly stated, in all material respects, in relation to these financial statements taken as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued a report dated February 24, 2015, on our consideration of Malvern Water Works' internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with the report in considering the results of our audit.

James, Rodgers, Manning & Ryker

February 24, 2015
Arkadelphia, Arkansas

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2014 AND 2013

EXHIBIT A
Page 5

	<u>2014</u>	<u>2013</u>
<u>ASSETS</u>		
CURRENT ASSETS:		
Cash and Cash Equivalents	\$ 1,403,174	\$ 1,077,262
Accounts Receivable	441,418	477,532
Inventory	207,833	223,900
Unbilled Revenue	256,819	248,739
Prepaid Expenses	19,316	26,220
TOTAL CURRENT ASSETS	<u>2,328,560</u>	<u>2,053,653</u>
RESTRICTED ASSETS (Schedule I)	<u>1,547,090</u>	<u>1,482,183</u>
CAPITAL ASSETS:		
Land	1,197,371	1,197,371
Property, Plant and Equipment	39,770,670	39,804,969
Construction in Progress	55,970	10,896
	<u>41,024,011</u>	<u>41,013,236</u>
Less: Accumulated Depreciation	<u>(14,715,307)</u>	<u>(13,824,170)</u>
TOTAL CAPITAL ASSETS	<u>26,308,704</u>	<u>27,189,066</u>
OTHER ASSETS:		
Bond Issuance Costs		
(Net of Amortization of \$189,845 and \$181,557)	88,447	96,735
TOTAL OTHER ASSETS	<u>88,447</u>	<u>96,735</u>
TOTAL ASSETS	<u><u>\$30,272,801</u></u>	<u><u>\$30,821,637</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2014 AND 2013

EXHIBIT A
Page 6

	<u>2014</u>	<u>2013</u>
<u>LIABILITIES AND NET ASSETS</u>		
CURRENT LIABILITIES:		
Accounts Payable	\$ 40,132	\$ 85,092
Accrued Salaries and Payroll Taxes	24,160	23,439
Accrued Absences	74,939	68,987
Other Current Liabilities	18,249	18,045
Current Portion of Long-Term Debt	953,562	919,321
TOTAL CURRENT LIABILITIES	<u>1,111,042</u>	<u>1,114,884</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS (Schedule I)	<u>308,090</u>	<u>299,370</u>
LONG-TERM LIABILITIES:		
Long-Term Debt, Net of Current Portion and Net of	<u>17,405,832</u>	<u>18,474,732</u>
TOTAL LIABILITIES	<u>18,824,964</u>	<u>19,888,986</u>
NET ASSETS:		
Invested in Capital Assets, Net of Related Debt	7,949,310	7,795,013
Restricted Net Assets, Expendable		
Restricted for Debt Service	222,828	222,986
Restricted for Capital Improvements	1,324,262	1,259,198
Unrestricted Net Assets	<u>1,951,437</u>	<u>1,655,454</u>
TOTAL NET ASSETS	<u>11,447,837</u>	<u>10,932,651</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 30,272,801</u>	<u>\$ 30,821,637</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
STATEMENTS OF REVENUES, EXPENSES AND
CHANGES IN NET ASSETS
FOR YEARS ENDED DECEMBER 31, 2014 AND 2013

EXHIBIT B
Page 7

	2014	2013
OPERATING REVENUE:		
Water Sales	\$ 3,003,618	\$ 2,953,353
Sewer Sales	1,686,577	1,658,410
Fees and Charges	86,148	55,622
Penalties	53,925	69,557
Miscellaneous Revenue	14,065	237,323
TOTAL OPERATING REVENUE	<u>4,844,333</u>	<u>4,974,265</u>
OPERATING EXPENSES (Schedule II)	3,663,880	3,440,555
OPERATING INCOME	<u>1,180,453</u>	<u>1,533,710</u>
OTHER INCOME (EXPENSES):		
Interest Income	14,199	10,871
Interest Expense	(671,178)	(692,563)
Amortization of Issuance Costs	(8,288)	(8,970)
TOTAL OTHER INCOME (EXPENSES)	<u>(665,267)</u>	<u>(690,662)</u>
NET INCOME	<u>515,186</u>	<u>843,048</u>
NET ASSETS AT BEGINNING OF YEAR	10,932,651	10,089,603
NET ASSETS AT END OF YEAR	<u><u>\$11,447,837</u></u>	<u><u>\$10,932,651</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2014 AND 2013

EXHIBIT C
 Page 8

	<u>2014</u>	<u>2013</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash Received from Customers	\$ 4,788,928	\$ 4,886,331
Cash Received from Grant	-	168,078
Cash Payments for Goods and Services	(1,709,946)	(1,720,219)
Cash Payments to Employees	(955,575)	(926,971)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>2,123,407</u>	<u>2,407,219</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Increase in Meter Deposits	<u>16,373</u>	<u>150</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and Construction of Capital Assets	(55,970)	(1,473,646)
Proceeds Received from Sale of Capital Assets	6,300	-
Principal Paid on Long-Term Debt	(1,034,659)	(1,074,820)
Interest Paid on Long-Term Debt	(678,831)	(723,347)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	<u>(1,763,160)</u>	<u>(3,271,813)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest Received and Other Income and Expense	<u>14,199</u>	<u>10,871</u>
NET CASH PROVIDED BY INVESTING ACTIVITIES	<u>14,199</u>	<u>10,871</u>
NET INCREASE (DECREASE) IN CASH AND RESTRICTED CASH	<u>390,819</u>	<u>(853,573)</u>
CASH AND RESTRICTED CASH - BEGINNING OF YEAR	2,350,651	3,204,224
CASH AND RESTRICTED CASH - END OF YEAR	<u><u>\$ 2,741,470</u></u>	<u><u>\$ 2,350,651</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2014 AND 2013

EXHIBIT C-1
 Page 9

Reconciliation of operating income to net cash provided by operating activities:

	<u>2014</u>	<u>2013</u>
OPERATING INCOME	\$ 1,180,453	\$ 1,533,710
ADJUSTMENTS TO RECONCILE OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Depreciation	936,332	850,218
(Gain) Loss on Sale of Capital Assets	(6,300)	-
Change in Assets and Liabilities:		
Accounts Receivable	28,034	86,688
Inventory	16,067	6,421
Prepaid Expenses	6,904	3,682
Other Assets	-	(18)
Accounts Payable	(44,960)	(87,524)
Accrued Payroll Expenses	6,673	11,641
Other Liabilities	204	2,401
TOTAL ADJUSTMENTS	<u>942,954</u>	<u>873,509</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 2,123,407</u>	<u>\$ 2,407,219</u>
SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES:		
Amortization of Bond Issuance Cost	<u>\$ 8,288</u>	<u>\$ 8,970</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 1. Summary of Significant Accounting Policies:

Malvern Water Works (the "Water Works") is an Enterprise Fund of the City of Malvern, Arkansas and is governed by the City Council of the City of Malvern, Arkansas. The accompanying financial statements and other information reflect Malvern Water Works fund only and do not include other funds of the City of Malvern, Arkansas.

The financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles. The System applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. The System applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements in which case, GASB prevails.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

The Water Works utilizes the allowance method of accounting for uncollectible accounts receivable. The Water Works reviews their customer accounts on a periodic basis and records a reserve for specific amounts that management determines may not be collected. In addition, the Water Works has established a general reserve for potential uncollectible accounts based on historical bad debts. Amounts are written off at the point when collection attempts have been exhausted, which is usually 180 days after the account is past due. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible amounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While management believes the Water Works' processes effectively address its exposure to doubtful accounts, changes in economic, industry or specific customer conditions may require adjustment to the allowance recorded by the Water Works. At December 31, 2014 and 2013, an allowance was not deemed necessary by management. Sales of water and sewer services are made on open account to customers located in Malvern, Arkansas and the surrounding areas and are collateralized to the extent of each customer's meter deposit.

Inventories consist of materials and supplies valued at the lower of cost or market, using the first-in, first-out method.

Debt issuance expenses and discounts are being amortized over the terms of the respective liabilities using the effective interest method.

For purposes of the Statement of Cash Flows, the Water Works considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

Page 11

Note 1. Summary of Significant Accounting Policies: (Continued)

The Water Works capitalizes all expenditures in excess of \$5,000 and with a useful life of more than one year. Capital assets are stated at cost and depreciation is calculated using the straight-line method over the estimated useful lives of the related assets ranging from three to fifty years. Donated fixed assets are valued at their estimated fair market value on the date donated. Interest costs are capitalized when incurred on debt where proceeds were used to finance the construction of assets.

The Water Works restricts certain assets for the payment of debt service, capital improvements, and repairs and maintenance of the Water Works.

Budgeted revenues and expenses are prepared using the economic resources measurement focus and the accrual basis of accounting. The original budgets adopted by the Water Works were not amended during the years ended December 31, 2014 and 2013.

Management has evaluated subsequent events through February 24, 2015, the date the financial statements were available for issuance.

Note 2. Cash and Certificates of Deposit:

Custodial credit risk is the risk that in the event of a bank failure deposits may not be returned to the Water Works. At December 31, 2014 and 2013, the Water Works' deposits with financial institutions were fully insured or collateralized and totaled \$2,791,063 and \$2,330,334, respectively.

Note 3. Unbilled Revenue:

Unbilled water and sewer revenue of \$256,819 was computed for usage from the last meter reading date of 2014 until the end of December. This amount is computed by allocating water used based on the last meter reading date.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 4. Property, Plant and Equipment:

Property, Plant and Equipment activity consist of the following in 2014:

	12/31/2013	Increases	Decreases	Transfers	12/31/2014
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	38,856,005	-	-	10,896	38,866,901
Vehicles	709,341	-	(45,195)	-	664,146
Office Equipment	239,623	-	-	-	239,623
Construction in Process	10,896	55,970	-	(10,896)	55,970
	41,013,236	55,970	(45,195)	-	41,024,011
Less Accumulated Depreciation	(13,824,170)	(936,332)	45,195	-	(14,715,307)
NET	<u>\$ 27,189,066</u>	<u>\$ (880,362)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 26,308,704</u>

Property, Plant and Equipment activity consist of the following in 2013:

	12/31/2012	Increases	Decreases	Transfers	12/31/2013
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	36,225,358	-	-	2,630,647	38,856,005
Vehicles	578,681	130,660	-	-	709,341
Office Equipment	239,623	-	-	-	239,623
Construction in Process	1,298,557	1,342,986	-	(2,630,647)	10,896
	39,539,590	1,473,646	-	-	41,013,236
Less Accumulated Depreciation	(12,973,952)	(850,218)	-	-	(13,824,170)
NET	<u>\$ 26,565,638</u>	<u>\$ 623,428</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 27,189,066</u>

Note 5. Long-Term Debt:

As of December 31, 2014 the Water Works had eight indebtedness issues outstanding. The bonds are secured by pledge of and payable from revenues derived from operation of the water and sewer systems.

In order to comply with its debt covenants, the Water Works must maintain separate revenue, operating and maintenance accounts, and debt service accounts. In addition, a monthly deposit of 5% of net revenues must be made into a depreciation fund until such time that the remaining balance in the depreciation fund exceeds the total of 5% of annual net revenues plus the cost of probable replacements during the current and next ensuing year.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 5. Long-Term Debt: (continued)

Long-Term Debt as of December 31, 2014 and 2013 consists of the following:

	12/31/2014	12/31/2013
Water and Sewer Bonds - Series 1998 (RLF); original amount \$6,520,000; interest rate of 2.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$369,691.	\$ 2,667,782	\$ 3,023,991
Capital Improvement Revenue Bond (Waterworks Project), Series 2004A (DWSRF); original amount \$3,030,749; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$93,816.	2,219,401	2,310,019
City of Malvern 2.5% Water and Sewer Revenue Bond, Series 2004B (DWSRF-2004); original amount \$10,812,336; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$273,315.	8,867,082	9,132,770
City of Malvern, Arkansas 4.75% Water and Sewer Revenue Bond, Series 2007; original amount \$1,339,000; interest rate of 4.75%; payments due semi-annually on June 1 and December 1; current portion is \$28,939.	1,170,365	1,197,977
City of Malvern Lease-Purchase Agreement, Series 2005; original amount \$1,389,139; interest rate of 4.5%; payments due semi-annually on June 1 and December 1; current portion is \$34,732.	1,137,255	1,170,475
City of Malvern 2005A Water and Sewer Revenue Bond (Bond D), Series 2005; original amount of \$206,000; interest free; one-time servicing fee of \$6,000; payments due annually on June 1; current portion is \$6,867.	144,197	151,064
City of Malvern, Arkansas 1.75% Water and Sewer Revenue Bond, Series 2009; original amount of \$500,000; interest rate of 1.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15. Principal payments began April 15, 2012; current portion is \$20,677.	441,253	461,372
City of Malvern, Arkansas Water and Sewer Revenue Bond, Series 2012; original amount \$2,100,000; interest rate of 2.75%; payments of \$14,253 due monthly on the 29th day of each month; current portion is \$125,525.	1,712,059	1,946,385
Deferred Issuance Costs and Discounts	18,359,394	19,394,053
Less portion considered current	(953,562)	(919,321)
Total long-term debt	\$ 17,405,832	\$ 18,474,732

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 5. Long-Term Debt: (continued)

Aggregate maturities of long-term debt as of December 31, 2014 are as follows:

	Principal	Interest	Service Fee	Total
2015	\$ 953,562	\$ 504,916	\$ 140,078	\$ 1,598,556
2016	987,556	478,566	132,434	1,598,556
2017	1,022,792	451,250	124,514	1,598,556
2018	1,059,308	422,943	116,305	1,598,556
2019	1,097,164	393,594	107,798	1,598,556
Thereafter	13,239,012	2,761,959	856,843	16,857,814
Total	<u>\$ 18,359,394</u>	<u>\$ 5,013,228</u>	<u>\$ 1,477,972</u>	<u>\$ 24,850,594</u>

Note 6. Public Employees Retirement System:

A. Plan Description

All employees working at least 90 days per annum and at least 80 hours per month are covered under the Arkansas Public Employees Retirement System (APERS), a cost sharing multiple employer retirement system. General responsibility for ensuring proper operation of the System is vested in a nine member Board of Trustees. This Board of Trustees includes the State Auditor, the State Treasurer, and the Director of the Department of Finance and Administration, three state employees and three non-state employees appointed by the Governor of Arkansas.

Members are eligible for full retirement benefits (1) at age 65 with ten years of actual service, (2) at any age with 28 years of actual service or (3) under the contributory plan, at age 60 with 20 years of actual service or, under the non-contributory plan at age 55 with 10 years of credited service. The normal retirement benefit, paid on a monthly basis, is determined based on the member's final average salary (an average of the highest earnings) and the number of years of service. The plans also provides for disability and survivor benefits. The Water Works payroll for covered employees covered by the plan for the year ended December 31, 2014 was \$962,248.

B. Contributions Required and Contributions Made

The plan, which applies to all persons hired after December 31, 1997, originally did not allow employee contributions. Arkansas Act 2084 of 2005 requires participants who joined after July 1, 2005 to contribute 5% of their gross wages. The Water Works is required to contribute at an actuarially determined rate. Effective July 1, 2014, the Water Works is required by state law to contribute 14.76% of annual covered payroll. The Water Works contributed \$140,405 for the year ended December 31, 2014, which was equal to the required contributions.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 6. Public Employees Retirement System: (continued)

C. Trend Information

Information relating to ten year historical trends are presented in a separately issued APERS report and provides information about progress made in accumulating sufficient assets to pay benefits when due.

Note 7. Other Post-Employment Benefits:

During the year-ended December 31, 2011, the Water Works implemented the provisions of GASB Statement 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions* ("GASB 45"). GASB 45 requires that employers providing post-employment benefits other than pensions record and disclose annual other post-employment benefit ("OPEB") cost and a net OPEB obligation in their financial statements and disclose other information about their OPEB plans, including the unfunded actuarial liability.

Water Works employees may participate in an OPEB plan (the "OPEB Plan") resulting from Arkansas statutes which provide that any municipal official or employee vested in any retirement plan that has 20 years of service and attains 55 years of age may continue to participate in the Water Works' healthcare plan after retirement provided that they pay 100% of the group premium. Stand-alone financial statements are not issued for the OPEB Plan.

For the years ended December 31, 2014 and 2013, the Water Works had no former employees or history of former employees participating in the OPEB Plan. Therefore, there is no annual required contribution of net OPEB obligation.

The projection of future benefit payments for an ongoing plan involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Note 8. Restricted Funds:

The Water Works has deposits, which are restricted to various uses as follows:

Construction Funds

The water construction funds represent funds that have been accumulated from various sources and are to be used to meet the construction costs in the water system expansion and improvement projects. At December 31, 2014 and 2013, the water construction fund balance totaled \$0 and \$112,566, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 8. Restricted Funds: (continued)

Depreciation Funds

The depreciation fund was established by Ordinance No. 788 to be used solely for the purpose of paying the costs of replacements of fixed assets made necessary by the depreciation of the system. The depreciation fund totaled \$1,324,262 and \$1,146,632 at December 31, 2014 and 2013, respectively.

Debt Service Funds with ADFA

The Water Works is required to deposit monthly with the Arkansas Development Finance Authority, to be held in trust, an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/6 of the next installment of principal next due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Funds available for meeting the purpose for which a deposit is required to be made. The total deposits, held in trust as of December 31, 2014 and 2013 were \$208,794 and \$208,794, respectively.

Reserve Funds for Refunding Bond

The Water Works is required to deposit monthly and amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/12 of the next installment of principal due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Fund available for meeting the purpose for which a deposit is required to be made. Amounts of deposits, as of December 31, 2014 and 2013, were \$0 and \$0, respectively.

Reserve Funds for Refunding Bond

The Water Works was required by the trust indenture to initially deposit in the Reserve Fund an amount equal to the Required Reserve on the Bonds from the proceeds of the Series 1993 Bonds. On the date of each required payment from the Debt Service Fund, monies in the Reserve Fund shall be applied to cure any deficiency in the Debt Service fund. Each month preceding the final maturity date of the Bonds, monies held in the Reserve Fund shall be credited against the payments otherwise due in respect of principal and interest. Total amount on deposit as of December 31, 2014 and 2013 was \$0 and \$0, respectively.

Construction Fund for 2005 Lease-purchase Bond

The Water Works is required to deposit funds received from Arkansas Soil and Water Conservation Commission for the purpose of constructing water line extensions. As of December 31, 2014 and 2013 total amount on deposit was \$14,033.

Note 9. Concentrations:

The Water Works has obtained its water from the Ouachita River. This is the sole source of water for the Water Works.

The Water Works had sales of \$882,783 to the Arkansas Department of Correction for the year ending December 31, 2014. This represented approximately 19% of total water and sewer sales.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 10. Current Rates:

The current water and sewer rates were established by Ordinance No. 2011-02 and 2011-03, respectively, adopted February 14, 2011. The classes of users include: residential I, a user whose water is from residential property that has one meter per single family residence and uses an annual average of under 2,000 gallons per month, residential II, a user whose water is from residential property that has one meter per single family residential and uses annual average over 2,000 gallons per month, small commercial, a user whose water is from commercial operations, trade or business and who consumes an annual average of less than 6,000 gallons of water per month, large user, a user whose water is from commercial operations, trade of business and who consumes and annual average of 6,000 gallon or more of water per month, sprinkler meter, user who has a dedicated meter for the purpose of irrigation, and wholesale, a city, town, improvement district, public facilities board, public water authority, or water users association purchasing water through a master meter.

Rates are as follows for the years ended December 31, 2014:

Class	Base*		Rate per 100 Gallons	
	Inside City	Outside City	Inside City	Outside City
Water Rates:				
Residential I	\$ 9.50	\$ 19.00	0.435	0.87
Residential II	14.00	28.00	0.435	0.87
Small Commercial	21.25	42.50	0.435	0.87
Large User	36.75	73.50	0.435	0.87
Sprinkler Meter	14.00	28.00	0.435	0.87
Wholesale	6.00	6.00	0.30	0.30
Sewer Rates:				
Residential	12.00	24.00	0.30	0.60
Small Commercial	21.00	42.00	0.30	0.60
Large User	42.75	85.50	0.30	0.60

* Base includes 2,000 gallons

Note 11. Insurance Coverage:

The Water Works are exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Water Works considers it to be more economically feasible to participate in a public entity risk pool as opposed to purchasing commercial insurance for workers' compensation, vehicle and property insurance. As such, they participate in the Arkansas Municipal League Risk Management Pool ("AML Pool"), which is a public entity risk pool consisting of member political subdivisions of the State of Arkansas. The Water Works pay an annual premium to the AML Pool for its workers' compensation, vehicle and property insurance. The AML Pool for workers' compensation, vehicle and legal property insurance is totally self-insured and each political subdivision that has participated in the AML Pool is not subject to assessment if the

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

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Note 11. Insurance Coverage: (continued)

funds it paid as premiums are insufficient to meet the obligations of the AML Pool.

The Water Works continue to carry commercial insurance for all other risks of loss, including fire and extended coverage, inland marine coverage, fidelity bond, and employee health, life and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage during the past fiscal years. There has been no significant reduction in the amount of coverage provided.

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

City of Malvern, Arkansas
Malvern Water Works

We have audited the financial statements of Malvern Water Works as of and for the year ended December 31, 2014, and have issued our report thereon dated February 24, 2015. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control over Financial Reporting

In planning and performing our audit, we considered Malvern Water Works' internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Malvern Water Works' internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Malvern Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering an entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Turner, Rodgers, Manning & Payler

Arkadelphia, Arkansas
February 24, 2015

**MALVERN WATER WORKS
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED DECEMBER 31, 2014**

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Summary of Auditor's Results

The auditor's report expresses an unqualified opinion on the financial statements of Malvern Water Works ("the Water Works").

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements.

No instances of noncompliance material to the financial statements of the Water Works were disclosed by during the audit.

Findings – Financial Statement Audit

None

Findings and Questioned Costs – Major Federal Award Programs Audit

N/A

SUPPLEMENTARY INFORMATION

MALVERN WATER WORKS
SCHEDULE OF RESTRICTED ASSETS AND LIABILITIES
DECEMBER 31, 2014 AND 2013

SCHEDULE I
Page 22

	<u>2014</u>	<u>2013</u>
RESTRICTED ASSETS:		
Cash and Cash Equivalents	\$ 1,338,296	\$ 1,273,389
Other Current Assets	208,794	208,794
 TOTAL RESTRICTED ASSETS (To Exhibit A)	 <u>1,547,090</u>	 <u>1,482,183</u>
 LIABILITIES PAYABLE FROM RESTRICTED ASSETS:		
Accrued Interest Payable on Long-Term Debt	112,487	120,140
Customers' Meter Deposits	195,603	179,230
 TOTAL LIABILITIES PAYABLE FROM RESTRICTED ASSETS (To Exhibit A)	 <u>308,090</u>	 <u>299,370</u>
 NET RESTRICTED ASSETS	 <u>\$ 1,239,000</u>	 <u>\$ 1,182,813</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING EXPENSES
DECEMBER 31, 2014 AND 2013

SCHEDULE II
Page 23

	<u>2014</u>	<u>2013</u>
OPERATING EXPENSES:		
Salaries and Wages	\$ 962,248	\$ 937,901
Payroll Taxes	72,160	76,500
Employee Benefits	399,347	407,760
Bad Debts	77,139	-
Chemicals and Supplies	365,685	326,481
Communications	42,777	42,487
Computer	17,843	24,686
Depreciation	936,332	850,218
Dues and Subscriptions	18,619	16,705
Equipment Parts and Small Tools	17,334	16,449
Insurance	51,233	51,864
Legal and Professional	21,947	21,463
Meter Reading	15,338	45,698
Office	26,061	23,102
Outside Labor and Materials	120,528	63,873
Postage	30,382	34,978
Repairs and Maintenance	176,809	180,769
Street Breaks and Boring	22,900	23,740
Utilities	276,388	274,671
Miscellaneous	12,810	21,210
TOTAL OPERATING EXPENSES	<u>\$ 3,663,880</u>	<u>\$ 3,440,555</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
BUDGETARY COMPARISON SCHEDULE
FOR YEAR ENDED DECEMBER 31, 2014

SCHEDULE III
Page 24

	Budget	Actual	Variance
OPERATING REVENUES:			
Water Sales	\$ 2,892,000	\$ 3,003,618	\$ 111,618
Sewer Sales	1,620,000	1,686,577	66,577
Fees and Charges	60,000	86,148	26,148
Penalties	60,000	53,925	(6,075)
Miscellaneous Revenue	2,400	14,065	11,665
TOTAL OPERATING REVENUES	<u>4,634,400</u>	<u>4,844,333</u>	<u>209,933</u>
OPERATING EXPENSES:			
Salaries and Wages	1,018,842	962,248	56,594
Payroll Taxes	77,941	72,160	5,781
Employee Benefits	428,179	399,347	28,832
Bad Debts	30,000	77,139	(47,139)
Chemicals and Supplies	419,850	365,685	54,165
Communications	48,000	42,777	5,223
Computer	18,000	17,843	157
Depreciation	168,000	936,332	(768,332)
Dues and Subscriptions	20,500	18,619	1,881
Equipment Parts and Small Tools	20,000	17,334	2,666
Insurance	58,093	51,233	6,860
Legal and Professional	19,000	21,947	(2,947)
Meter Reading	21,600	15,338	6,262
Office	27,600	26,061	1,539
Outside Labor and Materials	98,800	120,528	(21,728)
Postage	33,600	30,382	3,218
Repairs and Maintenance	187,600	176,809	10,791
Street Breaks and Boring	38,000	22,900	15,100
Utilities	278,600	276,388	2,212
Miscellaneous	11,400	12,810	(1,410)
TOTAL OPERATING EXPENSES	<u>3,023,605</u>	<u>3,663,880</u>	<u>(640,275)</u>
OPERATING INCOME	<u>1,610,795</u>	<u>1,180,453</u>	<u>(430,342)</u>
OTHER INCOME (EXPENSES):			
Interest Revenue	8,400	14,199	5,799
Interest Expense	(1,618,265) *	(671,178)	947,087
Amortization Expense	-	(8,288)	(8,288)
TOTAL OTHER INCOME (EXPENSES)	<u>(1,609,865)</u>	<u>(665,267)</u>	<u>944,598</u>
NET INCOME	<u>\$ 930</u>	<u>\$ 515,186</u>	<u>\$ 514,256</u>

See Independent Auditors' Report.

* Budgeted amount includes total principal, interest, and service fee payments.

MALVERN WATER WORKS

=====

MALVERN, ARKANSAS

DECEMBER 31, 2015

MALVERN WATER WORKS
MALVERN, ARKANSAS

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Malvern Water Works

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Malvern, AR 72105
(501) 332-3634

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MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of the utility's financial condition and activities for the year. This information should be read in conjunction with the financial statements.

Overview

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the utility's financial condition and performance.

The financial statements report information about the utility using full accrual accounting methods as utilized by similar business activities in the private sector. The financial statements include a balance sheet, statement of revenues, expenses and changes in net assets, statement of cash flows, notes to the financial statements and other supporting schedules.

The balance sheet presents the financial position of the utility on a full accrual historical cost basis. This statement presents information on all of the assets and liabilities with the difference reported as net assets. Over time, increases and decreases in net assets are an indicator of whether the financial position of the utility is improving or deteriorating.

While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses and changes in net assets presents the results of the business activities over the course of the fiscal year and information on how net assets changed during the year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows.

The statement of cash flows presents changes in cash and cash equivalents, resulting from operating, financing and investing activities. This statement presents cash receipts and disbursement information only.

The notes to the financial statements and supplementary information are provided to disclose information that is essential to a full understanding of the material data provided in the statements.

The financial statements were prepared by Malvern Water Works staff from its detailed transactions for the years ending December 31, 2015 and 2014. The financial statements were audited and adjusted, if material, during the independent external audit process.

Financial Analysis

The financial statements on pages 5 through 9 provide information about the financial activities of Malvern Water Works. The following information is an analysis of the year presented.

Balance Sheet

Total assets and deferred outflows of resources as of December 31, 2015 were \$30,402,264 and exceeded liabilities and deferred inflows of resources, which were \$18,999,015. Of the total net assets, \$8,692,530 was invested in capital assets; \$1,948,350 was restricted for debt service and capital improvements, and \$762,369 was unrestricted.

	<u>2015</u>	<u>2014</u>
Current Assets	\$ 2,048,099	\$ 2,132,957
Restricted Assets	1,948,350	1,742,693
Net Capital Assets	26,096,601	26,308,704
Other Assets	80,454	88,447
Deferred Outflows of Resources	228,760	-
Current Liabilities	1,142,073	1,111,042
Liabilities Payable from Restricted Assets	330,805	308,090
Long-Term Liabilities	17,411,349	17,405,832
Deferred Inflows of Resources	114,788	-
Net Assets:		
Invested in Capital, Net of Related Debt	8,692,530	7,949,310
Restricted for Debt Service	445,158	418,431
Restricted for Capital Improvements	1,503,192	1,324,262
Unrestricted Net Assets	762,369	1,755,834

The current ratio is an indication of short-term liquidity and is calculated by dividing current assets by current liabilities. A resulting number greater than one indicates current assets in excess of current needs that can be applied in future periods. The current ratio of Malvern Water Works was 1.79 for 2015, compared to 1.92 for 2014. Another ratio that is computed from this statement is the debt utilization ratio, which indicates what percentage the total debt is to total assets. This ratio is calculated by dividing total debt by total assets. The debt utilization ratio for the year ending December 31, 2015 was 63%.

Statement of Revenues, Expenses and Changes in Net Assets

For the years ending December 31, 2015 and 2014, operating revenues were \$4,906,303 and \$4,844,333 respectively and operating expenses were \$3,431,183 and \$3,663,880 respectively. Non-operating income was \$17,488 and \$14,199 respectively and non-operating expenses were \$640,917 and \$679,466 respectively. The results were a net income of \$851,691 and \$515,186 respectively.

Contacting Management

The financial report is designed to provide our customers, citizens, and creditors with a general overview of the finances of Malvern Water Works and to show the accountability for the money it receives. If you have any questions about this report or need further financial information, contact our office at 506 Overman Street; Malvern, Arkansas 72104 or call (501) 332-3634.

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT

City Council
Malvern, Arkansas
Malvern Water Works

We have audited the accompanying financial statements of Malvern Water Works ("the Water Works"), a component unit of the City of Malvern, Arkansas, which comprise the balance sheets as of December 31, 2015 and 2014, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Malvern Water Works as of December 31, 2015, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements referred to above present only Malvern Water Works which is an enterprise fund of the City of Malvern, Arkansas and are not intended to present fairly the financial position of the City of Malvern, Arkansas, and the results of its operations and cash flows of its other proprietary fund types and non-expendable trust funds in conformity with generally accepted accounting principles.

Other Matters*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (pages 1 and 2), budgetary comparison information (page 26), and information for cost sharing plans (page 27) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Restricted Assets and Liabilities and Schedule of Operating Expenses on pages 24-25 are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Turner, Rodgers, Manning & Plyler, PLLC

March 18, 2016
Arkadelphia, Arkansas

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2015 AND 2014

Page 5

	<u>2015</u>	<u>2014</u>
<u>ASSETS</u>		
CURRENT ASSETS:		
Cash and Cash Equivalents	\$ 1,124,067	\$ 1,207,571
Accounts Receivable	430,507	441,418
Inventory	229,216	207,833
Unbilled Revenue	246,269	256,819
Prepaid Expenses	18,040	19,316
TOTAL CURRENT ASSETS	<u>2,048,099</u>	<u>2,132,957</u>
RESTRICTED ASSETS (Schedule I)	<u>1,948,350</u>	<u>1,742,693</u>
CAPITAL ASSETS:		
Land	1,197,371	1,197,371
Property, Plant and Equipment	40,446,031	39,770,670
Construction in Progress	60,000	55,970
	<u>41,703,402</u>	<u>41,024,011</u>
Less: Accumulated Depreciation	<u>(15,606,801)</u>	<u>(14,715,307)</u>
TOTAL CAPITAL ASSETS	<u>26,096,601</u>	<u>26,308,704</u>
OTHER ASSETS:		
Bond Issuance Costs		
(Net of Amortization of \$197,838 and \$189,845)	80,454	88,447
TOTAL OTHER ASSETS	<u>80,454</u>	<u>88,447</u>
TOTAL ASSETS	<u>30,173,504</u>	<u>30,272,801</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Deferred Outflows of Resources Related to Pension	<u>228,760</u>	<u>-</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$30,402,264</u>	<u>\$30,272,801</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2015 AND 2014

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LIABILITIES AND NET ASSETS

	<u>2015</u>	<u>2014</u>
CURRENT LIABILITIES:		
Accounts Payable	\$ 39,373	\$ 40,132
Accrued Salaries and Payroll Taxes	31,506	24,160
Accrued Absences	65,877	74,939
Other Current Liabilities	15,946	18,249
Current Portion of Long-Term Debt	989,371	953,562
TOTAL CURRENT LIABILITIES	<u>1,142,073</u>	<u>1,111,042</u>
 LIABILITIES PAYABLE FROM RESTRICTED ASSETS (Schedule I)		
	<u>330,805</u>	<u>308,090</u>
 LONG-TERM LIABILITIES:		
Long-Term Debt, Net of Current Portion	16,414,700	17,405,832
Net Pension Liability	996,649	-
TOTAL LONG-TERM LIABILITIES	<u>17,411,349</u>	<u>17,405,832</u>
 TOTAL LIABILITIES	<u>18,884,227</u>	<u>18,824,964</u>
 DEFERRED INFLOWS OF RESOURCES:		
Deferred Inflows of Resources Related to Pension	<u>114,788</u>	<u>-</u>
 TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	<u>18,999,015</u>	<u>18,824,964</u>
 NET ASSETS:		
Invested in Capital Assets, Net of Related Debt	8,692,530	7,949,310
Restricted Net Assets, Expendable		
Restricted for Debt Service	445,158	418,431
Restricted for Capital Improvements	1,503,192	1,324,262
Unrestricted Net Assets	762,369	1,755,834
TOTAL NET ASSETS	<u>11,403,249</u>	<u>11,447,837</u>
 TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET ASSETS	<u><u>\$30,402,264</u></u>	<u><u>\$30,272,801</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
STATEMENTS OF REVENUES, EXPENSES AND
CHANGES IN NET ASSETS
FOR YEARS ENDED DECEMBER 31, 2015 AND 2014

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	2015	2014
OPERATING REVENUE:		
Water Sales	\$ 3,057,012	\$ 3,003,618
Sewer Sales	1,712,730	1,686,577
Fees and Charges	73,243	86,148
Penalties	56,498	53,925
Miscellaneous Revenue	6,820	14,065
TOTAL OPERATING REVENUE	<u>4,906,303</u>	<u>4,844,333</u>
OPERATING EXPENSES (Schedule II)	3,431,183	3,663,880
OPERATING INCOME	<u>1,475,120</u>	<u>1,180,453</u>
OTHER INCOME (EXPENSES):		
Interest Income	17,488	14,199
Interest Expense	(632,924)	(671,178)
Amortization of Issuance Costs	(7,993)	(8,288)
TOTAL OTHER INCOME (EXPENSES)	<u>(623,429)</u>	<u>(665,267)</u>
NET INCOME	<u>851,691</u>	<u>515,186</u>
NET ASSETS AT BEGINNING OF YEAR	11,447,837	10,932,651
GASB 68 IMPLEMENTATION ADJUSTMENT	(896,279)	
NET ASSETS AT END OF YEAR	<u>\$ 11,403,249</u>	<u>\$ 11,447,837</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2015 AND 2014

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	<u>2015</u>	<u>2014</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash Received from Customers	\$ 4,907,690	\$ 4,788,928
Cash Payments for Goods and Services	(1,529,562)	(1,709,946)
Cash Payments to Employees	(987,879)	(955,575)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>2,390,249</u>	<u>2,123,407</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Increase in Meter Deposits	<u>26,717</u>	<u>16,373</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and Construction of Capital Assets	(720,060)	(55,970)
Proceeds Received from Sale of Capital Assets	-	6,300
Principal Paid on Long-Term Debt	(955,323)	(1,034,659)
Interest Paid on Long-Term Debt	(636,926)	(678,831)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	<u>(2,312,309)</u>	<u>(1,763,160)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest Received and Other Income and Expense	<u>17,488</u>	<u>14,199</u>
NET INCREASE IN CASH AND RESTRICTED CASH	<u>122,145</u>	<u>390,819</u>
CASH AND RESTRICTED CASH - BEGINNING OF YEAR	2,741,470	2,350,651
CASH AND RESTRICTED CASH - END OF YEAR	<u>\$ 2,863,615</u>	<u>\$ 2,741,470</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2015 AND 2014

Page 9

Reconciliation of operating income to net cash provided by operating activities:

	<u>2015</u>	<u>2014</u>
OPERATING INCOME	<u>\$ 1,475,120</u>	<u>\$ 1,180,453</u>
ADJUSTMENTS TO RECONCILE OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Depreciation	932,161	936,332
Pension Related Adjustment	(13,602)	-
(Gain) Loss on Sale of Capital Assets	-	(6,300)
Change in Assets and Liabilities:		
Accounts Receivable	21,461	28,034
Inventory	(21,383)	16,067
Prepaid Expenses	1,276	6,904
Other Assets	(8)	-
Accounts Payable	(759)	(44,960)
Accrued Payroll Expenses	(1,716)	6,673
Other Liabilities	(2,301)	204
TOTAL ADJUSTMENTS	<u>915,129</u>	<u>942,954</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 2,390,249</u>	<u>\$ 2,123,407</u>
SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES:		
Amortization of Bond Issuance Cost	<u>\$ 7,993</u>	<u>\$ 8,288</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 1. Summary of Significant Accounting Policies:

Malvern Water Works (the "Water Works") is an Enterprise Fund of the City of Malvern, Arkansas and is governed by the City Council of the City of Malvern, Arkansas. The accompanying financial statements and other information reflect Malvern Water Works fund only and do not include other funds of the City of Malvern, Arkansas.

The financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles. The System applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. The System applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements in which case, GASB prevails.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

The Water Works utilizes the allowance method of accounting for uncollectible accounts receivable. The Water Works reviews their customer accounts on a periodic basis and records a reserve for specific amounts that management determines may not be collected. In addition, the Water Works has established a general reserve for potential uncollectible accounts based on historical bad debts. Amounts are written off at the point when collection attempts have been exhausted, which is usually 180 days after the account is past due. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible amounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While management believes the Water Works' processes effectively address its exposure to doubtful accounts, changes in economic, industry or specific customer conditions may require adjustment to the allowance recorded by the Water Works. At December 31, 2015 and 2014, an allowance was not deemed necessary by management. Sales of water and sewer services are made on open account to customers located in Malvern, Arkansas and the surrounding areas and are collateralized to the extent of each customer's meter deposit.

Inventories consist of materials and supplies valued at the lower of cost or market, using the first-in, first-out method.

Debt issuance expenses and discounts are being amortized over the terms of the respective liabilities using the effective interest method.

For purposes of the Statement of Cash Flows, the Water Works considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

The Water Works restricts certain assets for the payment of debt service, capital improvements, and repairs and maintenance of the Water Works.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 1. Summary of Significant Accounting Policies: (Continued)

The Water Works capitalizes all expenditures in excess of \$5,000 and with a useful life of more than one year. Capital assets are stated at cost and depreciation is calculated using the straight-line method over the estimated useful lives of the related assets ranging from three to fifty years. Donated fixed assets are valued at their estimated fair market value on the date donated. Interest costs are capitalized when incurred on debt where proceeds were used to finance the construction of assets.

Budgeted revenues and expenses are prepared using the economic resources measurement focus and the accrual basis of accounting. The original budgets adopted by the Water Works were not amended during the years ended December 31, 2015 and 2014.

Management has evaluated subsequent events through March 18, 2016, the date the financial statements were available for issuance.

Note 2. Unbilled Revenue:

Unbilled water and sewer revenue of \$246,269 was computed for usage from the last meter reading date of 2015 until the end of December. This amount is computed by allocating water used based on the last meter reading date.

Note 3. Public Fund Deposits and Investments:

State law generally requires that City funds be deposited in federally insured banks located within the State of Arkansas. The deposits may be in the form of checking accounts, savings accounts, and/or time deposits.

Public funds may also be invested in direct obligations of the United States of America and obligations on which the principal and interest are fully guaranteed by the United States of America. All cash funds of the Systems, except bonds funds held by the trustees of prior bond issues, are deposited in accounts in the name of Malvern Water Works in financial institutions permitted by law.

Custodial Credit Risk: Custodial credit risk is the risk that in the event of a bank failure, a government's deposits may not be returned to it. Malvern Water Works does not have a policy for custodial credit risk. At December 31, 2015 and 2014, the Water Works' deposits with financial institutions were fully insured or collateralized and totaled \$3,126,593 and \$2,791,063, respectively.

Federal Deposit Insurance Corporation coverage allows for \$250,000 of coverage on all accounts deposited within each financial institution participating in the FDIC program. We were unable to determine the amount of FDIC coverage for Malvern Water Works' accounts and investments. FDIC coverage is provided on an entity level to be shared jointly by all City of Malvern accounts and investments at a financial institution.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 3. Public Fund Deposit and Investments (Continued):

Investment Interest Rate Risk: Malvern Water Works does not have an investment interest rate risk. All investments are twelve to thirty-six month certificates of deposit and the Systems are under no obligation to renew upon maturity.

Investment Credit Risk: Malvern Water Works does not have a formal investment policy. All investments are short-term certificates of deposit with banks authorized by state law to receive deposits of public funds and with which the System has a collateral agreement.

Foreign Currency Risk: Malvern Water Works has no exposure to foreign currency risk.

Note 4. Property, Plant and Equipment:

Property, Plant and Equipment activity consist of the following in 2015:

	12/31/2014	Increases	Decreases	Transfers	12/31/2015
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	38,866,901	250,261	-	172,753	39,289,915
Vehicles	664,146	293,016	(40,669)	-	916,493
Office Equipment	239,623	-	-	-	239,623
Construction in Process	55,970	176,783	-	(172,753)	60,000
	41,024,011	720,060	(40,669)	-	41,703,402
Less Accumulated Depreciation	(14,715,307)	(932,163)	40,669	-	(15,606,801)
NET	<u>\$ 26,308,704</u>	<u>\$ (212,103)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 26,096,601</u>

Property, Plant and Equipment activity consist of the following in 2014:

	12/31/2013	Increases	Decreases	Transfers	12/31/2014
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	38,856,005	-	-	10,896	38,866,901
Vehicles	709,341	-	(45,195)	-	664,146
Office Equipment	239,623	-	-	-	239,623
Construction in Process	10,896	55,970	-	(10,896)	55,970
	41,013,236	55,970	(45,195)	-	41,024,011
Less Accumulated Depreciation	(13,824,170)	(936,332)	45,195	-	(14,715,307)
NET	<u>\$ 27,189,066</u>	<u>\$ (880,362)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 26,308,704</u>

Note 5. Long-Term Debt:

As of December 31, 2015 the Water Works had eight indebtedness issues outstanding. The bonds are secured by pledge of and payable from revenues derived from operation of the water and sewer systems.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

Page 13

Note 5. Long-Term Debt: (continued)

In order to comply with its debt covenants, the Water Works must maintain separate revenue, operating and maintenance accounts, and debt service accounts. In addition, a monthly deposit of 5% of net revenues must be made into a depreciation fund until such time that the remaining balance in the depreciation fund exceeds the total of 5% of annual net revenues plus the cost of probable replacements during the current and next ensuing year.

Long-Term Debt as of December 31, 2015 and 2014 consists of the following:

	<u>12/31/2015</u>	<u>12/31/2014</u>
Water and Sewer Bonds - Series 1998 (RLF); original amount \$6,520,000; interest rate of 2.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$383,684.	\$ 2,298,090	\$ 2,667,782
Capital Improvement Revenue Bond (Waterworks Project), Series 2004A (DWSRF); original amount \$3,030,749; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$97,129.	2,125,583	2,219,401
City of Malvern 2.5% Water and Sewer Revenue Bond, Series 2004B (DWSRF-2004); original amount \$10,812,336; interest rate of 2.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$284,780.	8,592,013	8,867,082
City of Malvern, Arkansas 4.75% Water and Sewer Revenue Bond, Series 2007; original amount \$1,339,000; interest rate of 4.75%; payments due semi-annually on June 1 and December 1; current portion is \$30,330.	1,141,426	1,170,365
City of Malvern Lease-Purchase Agreement, Series 2005; original amount \$1,389,139; interest rate of 4.5%; payments due semi-annually on June 1 and December 1; current portion is \$36,312.	1,102,523	1,137,255
City of Malvern 2005A Water and Sewer Revenue Bond (Bond D), Series 2005; original amount of \$206,000; interest free; one-time servicing fee of \$6,000; payments due annually on June 1; current portion is \$6,867.	137,330	144,197
City of Malvern, Arkansas 1.75% Water and Sewer Revenue Bond, Series 2009; original amount of \$500,000; interest rate of 1.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15. Principal payments began April 15, 2012; current portion is \$21,249.	420,576	441,253
City of Malvern, Arkansas Water and Sewer Revenue Bond, Series 2012; original amount \$2,100,000; interest rate of 2.75%; payments of \$14,253 due monthly on the 29th day of each month; current portion is \$129,020.	1,586,530	1,712,059
	17,404,071	18,359,394
	(989,371)	(953,562)
Less portion considered current	\$ 16,414,700	\$ 17,405,832
Total long-term debt		

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 5. Long-Term Debt: (continued)

Aggregate maturities of debt as of December 31, 2015 are as follows:

	Principal	Interest	Service Fee	Total
2016	\$ 989,371	\$ 478,566	\$ 132,981	\$ 1,600,918
2017	1,022,792	451,250	124,514	1,598,556
2018	1,059,308	422,943	116,305	1,598,556
2019	1,097,164	393,594	107,798	1,598,556
2020	1,136,396	363,077	98,982	1,598,455
Thereafter	12,099,040	2,748,269	757,861	15,605,170
Total	<u>\$ 17,404,071</u>	<u>\$ 4,857,699</u>	<u>\$ 1,338,441</u>	<u>\$ 23,600,211</u>

Note 6. Restricted Funds:

The Water Works has deposits, which are restricted to various uses as follows:

Depreciation Funds

The depreciation fund was established by Ordinance No. 788 to be used solely for the purpose of paying the costs of replacements of fixed assets made necessary by the depreciation of the system. The depreciation fund totaled \$1,503,192 and \$1,324,262 at December 31, 2015 and 2014, respectively.

Debt Service Funds with ADFA

The Water Works is required to deposit monthly with the Arkansas Development Finance Authority, to be held in trust, an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/6 of the next installment of principal next due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Funds available for meeting the purpose for which a deposit is required to be made. The total deposits, held in trust as of December 31, 2015 and 2014 were \$208,802 and \$208,794, respectively.

Construction Fund for 2005 Lease-purchase Bond

The Water Works is required to deposit funds received from Arkansas Soil and Water Conservation Commission for the purpose of constructing water line extensions. As of December 31, 2015 and 2014, total amount on deposit was \$14,036.

Meter Deposits

The Water Works meter deposits in the operating bank account. At December 31, 2015 and 2014, the amount in the operating bank account set aside for meter deposits was \$222,320 and \$195,603, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 7. Concentrations:

The Water Works has obtained its water from the Ouachita River. This is the sole source of water for the Water Works.

The Water Works had sales of \$801,027 to the Arkansas Department of Correction for the year ending December 31, 2015. This represented approximately 17% of total water and sewer sales.

Note 8. Current Rates:

The current water and sewer rates were established by Ordinance No. 2011-02 and 2011-03, respectively, adopted February 14, 2011. The classes of users include: residential I, a user whose water is from residential property that has one meter per single family residence and uses an annual average of under 2,000 gallons per month, residential II, a user whose water is from residential property that has one meter per single family residential and uses annual average over 2,000 gallons per month, small commercial, a user whose water is from commercial operations, trade or business and who consumes an annual average of less than 6,000 gallons of water per month, large user, a user whose water is from commercial operations, trade of business and who consumes and annual average of 6,000 gallon or more of water per month, sprinkler meter, user who has a dedicated meter for the purpose of irrigation, and wholesale, a city, town, improvement district, public facilities board, public water authority, or water users association purchasing water through a master meter.

Rates are as follows for the years ended December 31, 2015:

Class	Base*		Rate per 100 Gallons	
	Inside City	Outside City	Inside City	Outside City
Water Rates:				
Residential I	\$ 9.50	\$ 19.00	0.435	0.87
Residential II	14.00	28.00	0.435	0.87
Small Commercial	21.25	42.50	0.435	0.87
Large User	36.75	73.50	0.435	0.87
Sprinkler Meter	14.00	28.00	0.435	0.87
Wholesale	6.00	6.00	0.30	0.30
Sewer Rates:				
Residential	12.00	24.00	0.30	0.60
Small Commercial	21.00	42.00	0.30	0.60
Large User	42.75	85.50	0.30	0.60

* Base includes 2,000 gallons

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 9. Insurance Coverage:

The Water Works are exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Water Works considers it to be more economically feasible to participate in a public entity risk pool as opposed to purchasing commercial insurance for workers' compensation, vehicle and property insurance. As such, they participate in the Arkansas Municipal League Risk Management Pool ("AML Pool"), which is a public entity risk pool consisting of member political subdivisions of the State of Arkansas. The Water Works pay an annual premium to the AML Pool for its workers' compensation, vehicle and property insurance. The AML Pool for workers' compensation, vehicle and legal property insurance is totally self-insured and each political subdivision that has participated in the AML Pool is not subject to assessment if the funds it paid as premiums are insufficient to meet the obligations of the AML Pool.

The Water Works continue to carry commercial insurance for all other risks of loss, including fire and extended coverage, inland marine coverage, fidelity bond, and employee health, life and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage during the past fiscal years. There has been no significant reduction in the amount of coverage provided.

Note 10. Arkansas Public Employees Retirement System:

Implementation of GASB 68 – Restatement of Prior Year Ending Net Position

In June 2012, GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, which became effective for fiscal years beginning after June 15, 2014. The Statement establishes standards for public pension plan obligations for participating employers.

Under the new statement, a cost-sharing employer whose employees receive pensions through a trust will report in the financial statements a net pension liability, deferred outflows or inflows of resources related to pensions, and pension expense based on its proportionate share of the collective net pension liability of all employers in the plan. A net pension liability can be volatile due to changes in actuarial estimates and the actual investment return. Accordingly, the effect of this was to add \$996,649 to net pension liability, add \$228,760 to deferred outflows of resources related to pension, add \$114,788 to deferred inflows of resources related to pension and reduce unrestricted net position by \$896,279 as of December 31, 2015.

Plan Description

The general administration and responsibility for the proper operation of the System is vested in the nine members of the Board of Trustees of the Arkansas Public Employees Retirement System (The Board). Membership includes three state and three non-state employees, all appointed by the Governor, and three ex-officio trustees, including the Auditor of the State, the Treasurer of the State, and the Director of the Department of Finance and Administration.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Plan Description (Continued)

The state of Arkansas issues an annual report that includes financial statements and required supplementary information for the APERS. That report may be obtained by writing to Arkansas Public Employees Retirement System, One Union National Plaza, 124 West Capitol, Suite 400, Little Rock, Arkansas 72201.

Funding Policy: The Utility contributes an actuarially determined amount to the plan, which was 14.50% of annual covered payroll for the year ending December 31, 2015. Contributions made by the Utility were \$144,879 and \$140,405 for the years ended December 31, 2015 and 2014, respectively.

Benefits Provided

Benefit provisions are set forth in Arkansas Code Annotated, Title 24, Chapters 5 and 6 and may only be amended by the Arkansas General Assembly. APERS provides retirement, disability, and death benefits. Retirement benefits are determined as a percentage of the member's highest 3-year average compensation times the member's years of service. The percentage used is based upon whether a member is contributory or non-contributory as follows:

Contributory, prior to 07/01/2005	2.07%
Contributory, on or after 07/01/2005	2.03%
Non-Contributory	1.72%

Members are eligible to retire with a full benefit under the following conditions:

- at age 65 with 5 years of service,
- at any age with 28 years actual service.
- at age 60 with 20 years of actual service if under the old contributory plan (prior to July 1, 2005), or
- at age 55 with 35 years of credited service for elected or public safety officials.

Members may retire with a reduced benefit at age 55 with at least 5 years of actual service or at any age with 25 years of service.

Members are eligible for disability benefits with 5 years of service. Disability benefits are computed as an age and service benefit, based on service and pay at disability. Death benefits are paid to a surviving spouse as if the member had 5 years of service and the monthly benefit is computed as if the member had retired and elected the Joint & 75% Survivor option. A cost-of-living adjusting of 3% of the current benefit is added each year.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Contributions

Contribution requirements are set forth in Arkansas Code Annotated, Title 24, Chapter 4. The contributions are expected to be sufficient to finance the costs of benefits earned by members during the year and make a level payment that, if paid annually over a reasonable period of future years, will fully cover the unfunded costs of benefit commitments for services previously rendered (A.C.A. 24-2-701)(a). Members who began service prior to July 1, 2005 are not required to make contributions to APERS. Members who began service on or after July 1, 2005 are required to contribute 5% of their salary. Employers are required to contribute at a rate established by the Board of Trustees of APERS based on an actuary's determination of a rate required to fund the plan (A.C.A. 24-2-703(c)(3)). Employers contributed 14.76% of compensation for the fiscal year ended June 30, 2015. Effective July 1, 2015, state law requires employers to contribute 14.50% of annual covered payroll.

APERS Fiduciary Net Position

Detailed information about APERS's fiduciary net position is available in the separately issued APERS Financial Report available at <http://www.apers.org/annualreports>.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources to Pensions

The collective Net Pension Liability was measured as of June 30, 2015, and the total pension liability used to calculate the Net Pension Liability was determined by an actuarial valuation as of that date. Each employer's proportion of the Net Pension Liability was based on the employer's share of contributions to the pension plan relative to the total contributions of all participating employers.

Actuarial Assumptions

The total pension liability in the June 30, 2015 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level of Percent of Payroll, Closed (Level Dollar, Closed for District Judges New Plan and Paid Off Old Plan and District Judges Still Paying Old Plan)
Remaining Amortization Period	23 years (14 years for District Judges New Plan/Paid Off Old Plan and 21 years for District Judges Still Paying Old Plan)
Asset Valuation Method	4-year smoothed market; 25% corridor (Market Value for Still Paying Old Plan)

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Actuarial Assumptions (Continued)

Actuarial Assumptions:

Investment Rate of Return	7.75%
Salary Increases	3.75 – 10.35% including inflation (3.75% - 7.71% including inflation for District Judges)
Post-Retirement Cost of Living Increases	3% Annual Compounded Increase
Mortality Table	Based on RP-2000 Combined Health mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females
Average Service Life of All Members	4.5972

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of June 30, 2015 are summarized in the table below:

Asset Allocation	Target	Long-Term Expected Real Rate of Return
Fixed Income	28%	1.3%
Domestic Equity	31%	5.4%
International Equity	21%	5.6%
Real Estate	10%	5.0%
Private Equity	7%	7.4%
Commodities	1%	2.3%
Cash	2%	0.0%
	<u>100%</u>	

Discount Rate

A single discount rate of 7.75% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.75%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2015

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Discount Rate (Continued)

contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

At December 31, 2015, the Utility reported deferred outflows of resources and deferred outflows of resources and deferred inflows of resources related to pensions from the following resources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ -	\$ 65,339
Changes in assumptions	147,084	
Net difference between projected and actual earnings on pension plan investments	-	49,449
Utility contributions subsequent to the measurement date	81,676	-
Total	<u>\$ 228,760</u>	<u>\$ 114,788</u>

\$81,676 reported as deferred outflows of resources related to pensions resulting from Utility contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2016, any other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<u>Year Ended December 31.</u>	<u>Differences in Experience</u>	<u>Changes in Assumptions</u>	<u>Differences in Earnings</u>	<u>Net Reduction in Pension Expense</u>
2016	\$ (14,211)	\$ 31,991	\$ (9,890)	\$ 7,890
2017	(14,211)	31,991	(9,890)	7,890
2018	(14,211)	31,991	(9,890)	7,890
2019	(14,211)	31,991	(9,890)	7,890
2020	(8,495)	19,120	(9,889)	736
	<u>\$ (65,339)</u>	<u>\$ 147,084</u>	<u>\$ (49,449)</u>	<u>\$ 32,296</u>

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

City of Malvern, Arkansas
Malvern Water Works

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Malvern Water Works as of and for the year ended December 31, 2015, and the related notes to the financial statements, and have issued our report thereon dated March 18, 2016.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Malvern Water Works' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Malvern Water Works' internal control. Accordingly, we do not express an opinion on the effectiveness of the Malvern Water Works' internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Malvern Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering an entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Turner, Rodgers, Manning & Plyler, PLLC

Arkadelphia, Arkansas

March 18, 2016

**MALVERN WATER WORKS
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED DECEMBER 31, 2015**

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Summary of Auditor's Results

The auditor's report expresses an unqualified opinion on the financial statements of Malvern Water Works ("the Water Works").

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements.

No instances of noncompliance material to the financial statements of the Water Works were disclosed by during the audit.

Findings – Financial Statement Audit

None

Findings and Questioned Costs – Major Federal Award Programs Audit

N/A

SUPPLEMENTARY INFORMATION

MALVERN WATER WORKS
SCHEDULE OF RESTRICTED ASSETS AND LIABILITIES
DECEMBER 31, 2015 AND 2014

SCHEDULE I
Page 24

	<u>2015</u>	<u>2014</u>
RESTRICTED ASSETS:		
Cash and Cash Equivalents	\$ 1,739,548	\$ 1,533,899
Other Current Assets	208,802	208,794
TOTAL RESTRICTED ASSETS	<u>1,948,350</u>	<u>1,742,693</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS:		
Accrued Interest Payable on Long-Term Debt	108,485	112,487
Customers' Meter Deposits	222,320	195,603
TOTAL LIABILITIES PAYABLE FROM RESTRICTED ASSETS	<u>330,805</u>	<u>308,090</u>
NET RESTRICTED ASSETS	<u>\$ 1,617,545</u>	<u>\$ 1,434,603</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING EXPENSES
DECEMBER 31, 2015 AND 2014

SCHEDULE II
Page 25

	<u>2015</u>	<u>2014</u>
OPERATING EXPENSES:		
Salaries and Wages	\$ 986,163	\$ 962,248
Payroll Taxes	80,024	72,160
Employee Benefits	391,738	399,347
Bad Debts	20,074	77,139
Chemicals and Supplies	256,728	365,685
Communications	38,355	42,777
Computer	12,870	17,843
Depreciation	932,161	936,332
Dues and Subscriptions	16,381	18,619
Equipment Parts and Small Tools	22,620	17,334
Insurance	42,764	51,233
Legal and Professional	17,201	21,947
Meter Reading	15,319	15,338
Office	22,342	26,061
Outside Labor and Materials	91,482	120,528
Postage	28,710	30,382
Repairs and Maintenance	106,846	176,809
Street Breaks and Boring	33,100	22,900
Utilities	308,996	276,388
Miscellaneous	7,309	12,810
TOTAL OPERATING EXPENSES	<u>\$ 3,431,183</u>	<u>\$ 3,663,880</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
BUDGETARY COMPARISON SCHEDULE
FOR YEAR ENDED DECEMBER 31, 2015

SCHEDULE III
Page 26

	Budget	Actual	Variance
OPERATING REVENUES:			
Water Sales	\$ 2,896,000	\$ 3,057,012	\$ 161,012
Sewer Sales	1,623,000	1,712,730	89,730
Fees and Charges	82,000	73,243	(8,757)
Penalties	50,000	56,498	6,498
Miscellaneous Revenue	4,000	6,820	2,820
TOTAL OPERATING REVENUES	4,655,000	4,906,303	251,303
OPERATING EXPENSES:			
Salaries and Wages	1,014,743	986,163	28,580
Payroll Taxes	88,579	80,024	8,555
Employee Benefits	461,396	391,738	69,658
Bad Debts	30,000	20,074	9,926
Chemicals and Supplies	386,645	256,728	129,917
Communications	47,100	38,355	8,745
Computer	16,698	12,870	3,828
Depreciation	637,000 ^	932,161	(295,161)
Dues and Subscriptions	19,584	16,381	3,203
Equipment Parts and Small Tools	18,000	22,620	(4,620)
Insurance	39,260	42,764	(3,504)
Legal and Professional	24,000	17,201	6,799
Meter Reading	24,000	15,319	8,681
Office	31,300	22,342	8,958
Outside Labor and Materials	142,550	91,482	51,068
Postage	32,000	28,710	3,290
Repairs and Maintenance	151,300	106,846	44,454
Street Breaks and Boring	40,000	33,100	6,900
Utilities	272,000	308,996	(36,996)
Miscellaneous	10,450	7,309	3,141
TOTAL OPERATING EXPENSES	3,486,605	3,431,183	55,422
OPERATING INCOME	1,168,395	1,475,120	306,725
OTHER INCOME (EXPENSES):			
Interest Revenue	11,200	17,488	6,288
Interest Expense	(1,690,500) *	(632,924)	1,057,576
Amortization Expense	-	(7,993)	(7,993)
TOTAL OTHER INCOME (EXPENSES)	(1,679,300)	(623,429)	1,055,871
NET INCOME	\$ (510,905)	\$ 851,691	\$ 1,362,596

See Independent Auditors' Report.

* Budgeted amount includes total principal, interest, and service fee payments.

^ Includes amounts budgeted for capital purchases.

MALVERN WATER WORKS
REQUIRED SUPPLEMENTAL INFORMATION
FOR COST SHARING PLANS
FOR THE YEAR ENDED DECEMBER 31, 2015

SCHEDULE IV
Page 27

Schedule of Proportionate Share of the Net Pension Liability and Related Ratios Last Fiscal Year

District's proportion of the net pension liability (asset) per APERS at 6/30/2015	0.0408079%
District's proportionate share of the net pension liability - per APERS at 6/30/2015	\$ 751,573
District's covered-employee payroll	775,026
District's proportionate share of the net pension liability as a percentage of its covered-employee payroll	96.97%
Plan fiduciary net position as a percentage of the total pension liability	84.15%

Schedule of Required Contributions Last Fiscal Year

Contractually required contribution	\$ 109,306
Contributions in relation to the contractually required contribution	<u>(109,306)</u>
Contribution deficiency (excess)	-
District's covered-employee payroll	775,026
Contributions as a percentage of covered-employee payroll	14.10%

Notes to schedules:

Fiscal Year 2015 was the first year of implementation, and is based on actuarial valuation as of June 30, 2015; therefore, only one year is shown.

See Independent Auditors' Report.

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

March 18, 2016

To the City Council and Management of
Malvern Water Works

We have audited the financial statements of Malvern Water Works for the year ended December 31, 2015. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter dated October 2, 2015. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Malvern Water Works are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during 2015. We noted no transactions entered into by the governmental unit during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a

result of audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated March 18, 2016.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the governmental unit's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the governmental unit's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to the Management's Discussion and Analysis, Budgetary Comparison Schedule, and Supplemental Information for Cost Sharing Plans, which is required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Restricted Assets and Liabilities and the Schedule of Operating Expenses, which accompany the financial statements but are not required supplementary information. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements.

Malvern Water Works
Page Three
March 18, 2016

We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

Restriction on Use

This information is intended solely for the use of the City Council and management of Malvern Water Works and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

Turner, Rodgers, Manning & Plyler, PLLC

TURNER, RODGERS, MANNING & PLYLER, PLLC

MALVERN WATER WORKS

=====

MALVERN, ARKANSAS

DECEMBER 31, 2016

MALVERN WATER WORKS
MALVERN, ARKANSAS

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DECEMBER 31, 2016

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Malvern Water Works

506 Overman
Malvern, AR 72104
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Page 1

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of the utility's financial condition and activities for the year. This information should be read in conjunction with the financial statements.

Overview

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the utility's financial condition and performance.

The financial statements report information about the utility using full accrual accounting methods as utilized by similar business activities in the private sector. The financial statements include a balance sheet, statement of revenues, expenses and changes in net assets, statement of cash flows, notes to the financial statements and other supporting schedules.

The balance sheet presents the financial position of the utility on a full accrual historical cost basis. This statement presents information on all of the assets and liabilities with the difference reported as net assets. Over time, increases and decreases in net assets are an indicator of whether the financial position of the utility is improving or deteriorating.

While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses and changes in net assets presents the results of the business activities over the course of the fiscal year and information on how net assets changed during the year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows.

The statement of cash flows presents changes in cash and cash equivalents, resulting from operating, financing and investing activities. This statement presents cash receipts and disbursement information only.

The notes to the financial statements and supplementary information are provided to disclose information that is essential to a full understanding of the material data provided in the statements.

The financial statements were prepared by Malvern Water Works staff from its detailed transactions for the years ending December 31, 2016 and 2015. The financial statements were audited and adjusted, if material, during the independent external audit process.

Financial Analysis

The financial statements on pages 5 through 9 provide information about the financial activities of Malvern Water Works. The following information is an analysis of the year presented.

Balance Sheet

Total assets and deferred outflows of resources as of December 31, 2016 were \$30,239,687 and exceeded liabilities and deferred inflows of resources, which were \$18,245,723. Of the total net assets, \$8,975,199 was invested in capital assets; \$2,130,238 was restricted for debt service and capital improvements, and \$888,527 was unrestricted.

	<u>2016</u>	<u>2015</u>
Current Assets	\$ 2,391,794	\$ 2,048,099
Restricted Assets	2,130,238	1,948,350
Net Capital Assets	25,355,427	26,096,601
Other Assets	7,806	80,454
Deferred Outflows of Resources	354,422	228,760
Current Liabilities	1,291,424	1,142,073
Liabilities Payable from Restricted Assets	308,198	330,805
Long-Term Liabilities	16,598,171	17,411,349
Deferred Inflows of Resources	47,930	114,788
Net Assets:		
Invested in Capital, Net of Related Debt	8,975,199	8,692,530
Restricted for Debt Service	446,809	445,158
Restricted for Capital Improvements	1,683,429	1,503,192
Unrestricted Net Assets	888,527	762,369

The current ratio is an indication of short-term liquidity and is calculated by dividing current assets by current liabilities. A resulting number greater than one indicates current assets in excess of current needs that can be applied in future periods. The current ratio of Malvern Water Works was 1.85 for 2016, compared to 1.79 for 2015. Another ratio that is computed from this statement is the debt utilization ratio, which indicates what percentage the total debt is to total assets. This ratio is calculated by dividing total debt by total assets. The debt utilization ratio for the year ending December 31, 2016 was 61%.

Statement of Revenues, Expenses and Changes in Net Assets

For the years ending December 31, 2016 and 2015, operating revenues were \$4,779,504 and \$4,906,303 respectively and operating expenses were \$3,644,856 and \$3,431,183 respectively. Non-operating income was \$17,137 and \$17,488 respectively and non-operating expenses were \$561,070 and \$640,917 respectively. The results were a net income of \$590,715 and \$851,691 respectively.

Contacting Management

The financial report is designed to provide our customers, citizens, and creditors with a general overview of the finances of Malvern Water Works and to show the accountability for the money it receives. If you have any questions about this report or need further financial information, contact our office at 506 Overman Street; Malvern, Arkansas 72104 or call (501) 332-3634.

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT

City Council
Malvern, Arkansas
Malvern Water Works

We have audited the accompanying financial statements of Malvern Water Works ("the Water Works"), a component unit of the City of Malvern, Arkansas, which comprise the balance sheets as of December 31, 2016 and 2015, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Malvern Water Works as of December 31, 2016 and 2015, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (pages 1 and 2), budgetary comparison information (page 26), and information for cost sharing plans (page 27) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Restricted Assets and Liabilities and Schedule of Operating Expenses on pages 24-25 are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Emphasis of Matter

As discussed in Note 1, the financial statements referred to above present only Malvern Water Works and do not purport to, and do not present fairly the financial position of the City of Malvern, Arkansas, as of December 31, 2016 and 2015, the changes in its financial position, or, where applicable, its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Turner, Rodgers, Manning & Plyler, PLLC

March 1, 2017

Arkadelphia, Arkansas

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2016 AND 2015

Page 5

	<u>2016</u>	<u>2015</u>
<u>ASSETS</u>		
CURRENT ASSETS:		
Cash and Cash Equivalents	\$ 1,438,102	\$ 1,124,067
Accounts Receivable	461,462	430,507
Inventory	235,261	229,216
Unbilled Revenue	237,894	246,269
Prepaid Expenses	19,075	18,040
TOTAL CURRENT ASSETS	<u>2,391,794</u>	<u>2,048,099</u>
RESTRICTED ASSETS (Schedule I)	<u>2,130,238</u>	<u>1,948,350</u>
CAPITAL ASSETS:		
Land	1,197,371	1,197,371
Property, Plant and Equipment	40,569,794	40,446,031
Construction in Progress	133,636	60,000
	<u>41,900,801</u>	<u>41,703,402</u>
Less: Accumulated Depreciation	<u>(16,545,374)</u>	<u>(15,606,801)</u>
TOTAL CAPITAL ASSETS	<u>25,355,427</u>	<u>26,096,601</u>
OTHER ASSETS:		
Bond Issuance Costs		
(Net of Amortization of \$270,486 and \$197,838)	7,806	80,454
TOTAL OTHER ASSETS	<u>7,806</u>	<u>80,454</u>
TOTAL ASSETS	<u>29,885,265</u>	<u>30,173,504</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Deferred Outflows of Resources Related to Pension	<u>354,422</u>	<u>228,760</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 30,239,687</u>	<u>\$ 30,402,264</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
BALANCE SHEETS
DECEMBER 31, 2016 AND 2015

Page 6

LIABILITIES AND NET ASSETS

	<u>2016</u>	<u>2015</u>
CURRENT LIABILITIES:		
Accounts Payable	\$ 66,461	\$ 39,373
Accrued Salaries and Payroll Taxes	37,062	31,506
Accrued Absences	69,905	65,877
Other Current Liabilities	17,710	15,946
Current Portion of Long-Term Debt	1,100,286	989,371
TOTAL CURRENT LIABILITIES	<u>1,291,424</u>	<u>1,142,073</u>
LIABILITIES PAYABLE FROM RESTRICTED ASSETS (Schedule I)	<u>308,198</u>	<u>330,805</u>
LONG-TERM LIABILITIES:		
Long-Term Debt, Net of Current Portion	15,279,942	16,414,700
Net Pension Liability	1,318,229	996,649
TOTAL LONG-TERM LIABILITIES	<u>16,598,171</u>	<u>17,411,349</u>
TOTAL LIABILITIES	<u>18,197,793</u>	<u>18,884,227</u>
DEFERRED INFLOWS OF RESOURCES:		
Deferred Inflows of Resources Related to Pension	<u>47,930</u>	<u>114,788</u>
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	<u>18,245,723</u>	<u>18,999,015</u>
NET ASSETS:		
Invested in Capital Assets, Net of Related Debt	8,975,199	8,692,530
Restricted Net Assets, Expendable		
Restricted for Debt Service	446,809	445,158
Restricted for Capital Improvements	1,683,429	1,503,192
Unrestricted Net Assets	888,527	762,369
TOTAL NET ASSETS	<u>11,993,964</u>	<u>11,403,249</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET ASSETS	<u>\$30,239,687</u>	<u>\$30,402,264</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
STATEMENTS OF REVENUES, EXPENSES AND
CHANGES IN NET ASSETS
FOR YEARS ENDED DECEMBER 31, 2016 AND 2015

Page 7

	<u>2016</u>	<u>2015</u>
OPERATING REVENUE:		
Water Sales	\$ 2,977,698	\$ 3,057,012
Sewer Sales	1,664,181	1,712,730
Fees and Charges	69,690	73,243
Penalties	55,489	56,498
Miscellaneous Revenue	12,446	6,820
TOTAL OPERATING REVENUE	<u>4,779,504</u>	<u>4,906,303</u>
OPERATING EXPENSES (Schedule II)	3,644,856	3,431,183
OPERATING INCOME	<u>1,134,648</u>	<u>1,475,120</u>
OTHER INCOME (EXPENSES):		
Interest Income	17,137	17,488
Interest Expense	(488,421)	(632,924)
Amortization of Issuance Costs	(72,649)	(7,993)
TOTAL OTHER INCOME (EXPENSES)	<u>(543,933)</u>	<u>(623,429)</u>
NET INCOME	<u>590,715</u>	<u>851,691</u>
NET ASSETS AT BEGINNING OF YEAR	11,403,249	11,447,837
GASB 68 IMPLEMENTATION ADJUSTMENT	-	(896,279)
NET ASSETS AT END OF YEAR	<u>\$11,993,964</u>	<u>\$ 11,403,249</u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
COMBINED STATEMENTS OF CASH FLOWS
ALL PROPRIETARY FUND TYPES
FOR YEARS ENDED DECEMBER 31, 2016 AND 2015

Page 8

	<u>2016</u>	<u>2015</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash Received from Customers	\$ 4,742,650	\$ 4,907,690
Cash Payments for Goods and Services	(1,480,943)	(1,529,562)
Cash Payments to Employees	(999,608)	(987,879)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>2,262,099</u>	<u>2,390,249</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Increase in Meter Deposits	<u>17,282</u>	<u>26,717</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and Construction of Capital Assets	(232,809)	(720,060)
Principal Paid on Long-Term Debt	(1,023,845)	(955,323)
Interest Paid on Long-Term Debt	(528,310)	(636,926)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	<u>(1,784,964)</u>	<u>(2,312,309)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest Received and Other Income and Expense	<u>17,137</u>	<u>17,488</u>
NET INCREASE IN CASH AND RESTRICTED CASH	<u>511,554</u>	<u>122,145</u>
CASH AND RESTRICTED CASH - BEGINNING OF YEAR	2,863,615	2,741,470
CASH AND RESTRICTED CASH - END OF YEAR	<u><u>\$ 3,375,169</u></u>	<u><u>\$ 2,863,615</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
 COMBINED STATEMENTS OF CASH FLOWS
 ALL PROPRIETARY FUND TYPES
 FOR YEARS ENDED DECEMBER 31, 2016 AND 2015

Page 9

Reconciliation of operating income to net cash provided by operating activities:

	<u>2016</u>	<u>2015</u>
OPERATING INCOME	<u>\$ 1,134,648</u>	<u>\$ 1,475,120</u>
ADJUSTMENTS TO RECONCILE OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Depreciation	973,982	932,161
Pension Related Adjustment	129,060	(13,602)
Change in Assets and Liabilities:		
Accounts Receivable	(22,580)	21,461
Inventory	(6,045)	(21,383)
Prepaid Expenses	(1,035)	1,276
Other Assets	15,631	(8)
Accounts Payable	27,088	(759)
Accrued Payroll Expenses	9,584	(1,716)
Other Liabilities	1,766	(2,301)
TOTAL ADJUSTMENTS	<u>1,127,451</u>	<u>915,129</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u><u>\$ 2,262,099</u></u>	<u><u>\$ 2,390,249</u></u>
SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES:		
Amortization of Bond Issuance Cost	<u><u>\$ 72,648</u></u>	<u><u>\$ 7,993</u></u>

The accompanying notes are an integral part of these financial statements.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

Page 10

Note 1. Summary of Significant Accounting Policies:

Malvern Water Works (the "Water Works") is an Enterprise Fund of the City of Malvern, Arkansas and is governed by the City Council of the City of Malvern, Arkansas. The accompanying financial statements and other information reflect Malvern Water Works fund only and do not include other funds of the City of Malvern, Arkansas.

The financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles. The Works applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. The Works applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements in which case, GASB prevails.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

The Water Works utilizes the allowance method of accounting for uncollectible accounts receivable. The Water Works reviews their customer accounts on a periodic basis and records a reserve for specific amounts that management determines may not be collected. In addition, the Water Works has established a general reserve for potential uncollectible accounts based on historical bad debts. Amounts are written off at the point when collection attempts have been exhausted, which is usually 180 days after the account is past due. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible amounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While management believes the Water Works' processes effectively address its exposure to doubtful accounts, changes in economic, industry or specific customer conditions may require adjustment to the allowance recorded by the Water Works. At December 31, 2016 and 2015, an allowance was not deemed necessary by management. Sales of water and sewer services are made on open account to customers located in Malvern, Arkansas and the surrounding areas and are collateralized to the extent of each customer's meter deposit.

Inventories consist of materials and supplies valued at the lower of cost or market, using the first-in, first-out method.

Debt issuance expenses and discounts are being amortized over the terms of the respective liabilities using the effective interest method.

For purposes of the Statement of Cash Flows, the Water Works considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

The Water Works restricts certain assets for the payment of debt service, capital improvements, and repairs and maintenance of the Water Works.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

Page 11

Note 1. Summary of Significant Accounting Policies: (Continued)

The Water Works capitalizes all expenditures in excess of \$5,000 and with a useful life of more than one year. Capital assets are stated at cost and depreciation is calculated using the straight-line method over the estimated useful lives of the related assets ranging from three to fifty years. Donated fixed assets are valued at their estimated fair market value on the date donated. Interest costs are capitalized when incurred on debt where proceeds were used to finance the construction of assets.

Budgeted revenues and expenses are prepared using the economic resources measurement focus and the accrual basis of accounting. The original budgets adopted by the Water Works were not amended during the years ended December 31, 2016 and 2015.

Management has evaluated subsequent events through March 1, 2017, the date the financial statements were available for issuance.

Note 2. Unbilled Revenue:

Unbilled water and sewer revenue of \$237,894 was computed for usage from the last meter reading date of 2016 until the end of December. This amount is computed by allocating water used based on the last meter reading date.

Note 3. Public Fund Deposits and Investments:

State law generally requires that City funds be deposited in federally insured banks located within the State of Arkansas. The deposits may be in the form of checking accounts, savings accounts, and/or time deposits.

Public funds may also be invested in direct obligations of the United States of America and obligations on which the principal and interest are fully guaranteed by the United States of America. All cash funds of the Workss, except bonds funds held by the trustees of prior bond issues, are deposited in accounts in the name of Malvern Water Works in financial institutions permitted by law.

Custodial Credit Risk: Custodial credit risk is the risk that in the event of a bank failure, a government's deposits may not be returned to it. Malvern Water Works does not have a policy for custodial credit risk. At December 31, 2016 and 2015, the Water Works' deposits with financial institutions were fully insured or collateralized and totaled \$3,394,613 and \$3,126,593, respectively.

Federal Deposit Insurance Corporation coverage allows for \$250,000 of coverage on all accounts deposited within each financial institution participating in the FDIC program. We were unable to determine the amount of FDIC coverage for Malvern Water Works' accounts and investments. FDIC coverage is provided on an entity level to be shared jointly by all City of Malvern accounts and investments at a financial institution.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 3. Public Fund Deposit and Investments (Continued):

Investment Interest Rate Risk: Malvern Water Works does not have an investment interest rate risk. All investments are twelve to thirty-six month certificates of deposit and the Water Works is under no obligation to renew upon maturity.

Investment Credit Risk: Malvern Water Works does not have a formal investment policy. All investments are short-term certificates of deposit with banks authorized by state law to receive deposits of public funds and with which the Water Works has a collateral agreement.

Foreign Currency Risk: Malvern Water Works has no exposure to foreign currency risk.

Note 4. Property, Plant and Equipment:

Property, Plant and Equipment activity consists of the following in 2016:

	12/31/2015	Increases	Decreases	Transfers	12/31/2016
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	39,289,915	31,983	-	80,000	39,401,898
Vehicles	916,493	47,190	(35,410)	-	928,273
Office Equipment	239,623	-	-	-	239,623
Construction in Process	60,000	153,636	-	(80,000)	133,636
	41,703,402	232,809	(35,410)	-	41,900,801
Less Accumulated Depreciation	(15,606,801)	(973,983)	35,410	-	(16,545,374)
NET	<u>\$ 26,096,601</u>	<u>\$ (741,174)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 25,355,427</u>

Property, Plant and Equipment activity consists of the following in 2015:

	12/31/2014	Increases	Decreases	Transfers	12/31/2015
Land	\$ 1,197,371	\$ -	\$ -	\$ -	\$ 1,197,371
Plant and Equipment	38,866,901	250,261	-	172,753	39,289,915
Vehicles	664,146	293,016	(40,669)	-	916,493
Office Equipment	239,623	-	-	-	239,623
Construction in Process	55,970	176,783	-	(172,753)	60,000
	41,024,011	720,060	(40,669)	-	41,703,402
Less Accumulated Depreciation	(14,715,307)	(932,163)	40,669	-	(15,606,801)
NET	<u>\$ 26,308,704</u>	<u>\$ (212,103)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 26,096,601</u>

Note 5. Long-Term Debt:

As of December 31, 2016 the Water Works had eight indebtedness issues outstanding. The bonds are secured by pledge of and payable from revenues derived from operation of the water and sewer systems.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

Page 13

Note 5. Long-Term Debt: (continued)

In order to comply with its debt covenants, the Water Works must maintain separate revenue, operating and maintenance accounts, and debt service accounts. In addition, a monthly deposit of 5% of net revenues must be made into a depreciation fund until such time that the remaining balance in the depreciation fund exceeds the total of 5% of annual net revenues plus the cost of probable replacements during the current and next ensuing year.

Long-Term Debt as of December 31, 2016 and 2015 consists of the following:

	12/31/2016	12/31/2015
Water and Sewer Bonds - Series 1998 (RLF); original amount \$6,520,000; interest rate of 0.50% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$412,169.	\$ 1,904,243	\$ 2,298,090
Capital Improvement Revenue Bond (Waterworks Project), Series 2004A (DWSRF); original amount \$3,030,749; interest rate of 1.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$108,403.	2,024,239	2,125,583
City of Malvern 2.5% Water and Sewer Revenue Bond, Series 2004B (DWSRF-2004); original amount \$10,812,336; interest rate of 1.5% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15; current portion is \$324,091.	8,291,808	8,592,013
City of Malvern, Arkansas 4.75% Water and Sewer Revenue Bond, Series 2007; original amount \$1,339,000; interest rate of 2.75%; payments due semi-annually on June 1 and December 1; current portion is \$54,103.	1,107,591	1,141,426
City of Malvern Lease-Purchase Agreement, Series 2005; original amount \$1,389,139; interest rate of 3.9%; payments due semi-annually on June 1 and December 1; current portion is \$40,202.	1,065,043	1,102,523
City of Malvern 2005A Water and Sewer Revenue Bond (Bond D), Series 2005; original amount of \$206,000; interest free; one-time servicing fee of \$6,000; payments due annually on June 1; current portion is \$6,867.	130,463	137,330
City of Malvern, Arkansas 1.75% Water and Sewer Revenue Bond, Series 2009; original amount of \$500,000; interest rate of 1.75% plus servicing fee of 1%; payments due semi-annually on April 15 and October 15. Principal payments began April 15, 2012; current portion is \$21,838.	399,327	420,576
City of Malvern, Arkansas Water and Sewer Revenue Bond, Series 2012; original amount \$2,100,000; interest rate of 2.75%; payments of \$14,253 due monthly on the 29th day of each month; current portion is \$132,613.	1,457,514	1,586,530
	16,380,228	17,404,071
Less portion considered current	(1,100,286)	(989,371)
Total long-term debt	\$ 15,279,942	\$ 16,414,700

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 5. Long-Term Debt: (continued)

Aggregate maturities of debt as of December 31, 2016 are as follows:

	Principal	Interest	Service Fee	Total
2017	\$ 1,100,286	\$ 278,685	\$ 124,041	\$ 1,503,012
2018	1,124,750	262,930	115,332	1,503,012
2019	1,149,805	246,763	106,445	1,503,013
2020	1,175,465	230,069	97,377	1,502,911
2021	981,495	213,460	88,361	1,283,316
Thereafter	10,848,427	1,405,228	638,841	12,892,496
Total	<u>\$ 16,380,228</u>	<u>\$ 2,637,135</u>	<u>\$ 1,170,397</u>	<u>\$ 20,187,760</u>

Note 6. Restricted Funds:

The Water Works has deposits, which are restricted to various uses as follows:

Depreciation Funds

The depreciation fund was established by Ordinance No. 788 to be used solely for the purpose of paying the costs of replacements of fixed assets made necessary by the depreciation of the system. The depreciation fund totaled \$1,683,429 and \$1,503,192 at December 31, 2016 and 2015, respectively.

Debt Service Funds with ADFA

The Water Works is required to deposit monthly with the Arkansas Development Finance Authority, to be held in trust, an amount equal to 1/6 of the interest to become due on the next ensuing interest payment date plus 1/6 of the next installment of principal next due on the Bonds. The required deposits shall be reduced by any amount in the Debt Service Funds available for meeting the purpose for which a deposit is required to be made. The total deposits, held in trust as of December 31, 2016 and 2015 were \$193,171 and \$208,802, respectively.

Construction Fund for 2005 Lease-purchase Bond

The Water Works is required to deposit funds received from Arkansas Soil and Water Conservation Commission for the purpose of constructing water line extensions. As of December 31, 2016 and 2015, total amount on deposit was \$14,036.

Meter Deposits

The Water Works meter deposits in the operating bank account. At December 31, 2016 and 2015, the amount in the operating bank account set aside for meter deposits was \$239,602 and \$222,320, respectively.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 7. Concentrations:

The Water Works has obtained its water from the Ouachita River. This is the sole source of water for the Water Works.

The Water Works had sales of \$806,939 to the Arkansas Department of Correction for the year ending December 31, 2016. This represented approximately 17% of total water and sewer sales.

Note 8. Current Rates:

The current water and sewer rates were established by Ordinance No. 2011-02 and 2011-03, respectively, adopted February 14, 2011. The classes of users include: residential I, a user whose water is for residential property that has one meter per single family residence and uses an annual average of under 2,000 gallons per month; residential II, a user whose water is for residential property that has one meter per single family residential and uses an annual average over 2,000 gallons per month; small commercial, a user whose water is for commercial operations, trade or business and who consumes an annual average of less than 6,000 gallons of water per month; large user, a user whose water is for commercial operations, trade of business and who consumes an annual average of 6,000 gallon or more of water per month; sprinkler meter, user who has a dedicated meter for the purpose of irrigation; and wholesale, a city, town, improvement district, public facilities board, public water authority, or water users association purchasing water through a master meter.

Rates are as follows for the year ended December 31, 2016:

Class	Base*		Rate per 100 Gallons	
	Inside City	Outside City	Inside City	Outside City
Water Rates:				
Residential I	\$ 9.50	\$ 19.00	0.435	0.87
Residential II	14.00	28.00	0.435	0.87
Small Commercial	21.25	42.50	0.435	0.87
Large User	36.75	73.50	0.435	0.87
Sprinkler Meter	14.00	28.00	0.435	0.87
Wholesale	6.00	6.00	0.30	0.30
Sewer Rates:				
Residential	12.00	24.00	0.30	0.60
Small Commercial	21.00	42.00	0.30	0.60
Large User	42.75	85.50	0.30	0.60

* Base includes 2,000 gallons

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 9. Insurance Coverage:

The Water Works is exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The Water Works considers it to be more economically feasible to participate in a public entity risk pool as opposed to purchasing commercial insurance for workers' compensation, vehicle and property insurance. As such, they participate in the Arkansas Municipal League Risk Management Pool ("AML Pool"), which is a public entity risk pool consisting of member political subdivisions of the State of Arkansas. The Water Works pay an annual premium to the AML Pool for its workers' compensation, vehicle and property insurance. The AML Pool for workers' compensation, vehicle and legal property insurance is totally self-insured and each political subdivision that has participated in the AML Pool is not subject to assessment if the funds it paid as premiums are insufficient to meet the obligations of the AML Pool.

The Water Works continues to carry commercial insurance for all other risks of loss, including fire and extended coverage, inland marine coverage, fidelity bond, and employee health, life and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage during the past fiscal years. There has been no significant reduction in the amount of coverage provided.

Note 10. Arkansas Public Employees Retirement System:

Implementation of GASB 68 – Restatement of Prior Year Ending Net Position

In June 2012, GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, which became effective for fiscal years beginning after June 15, 2014. The Statement establishes standards for public pension plan obligations for participating employers.

Under the new statement, a cost-sharing employer whose employees receive pensions through a trust will report in the financial statements a net pension liability, deferred outflows or inflows of resources related to pensions, and pension expense based on its proportionate share of the collective net pension liability of all employers in the plan. A net pension liability can be volatile due to changes in actuarial estimates and the actual investment return.

Plan Description

The general administration and responsibility for the proper operation of the System is vested in the nine members of the Board of Trustees of the Arkansas Public Employees Retirement System (The Board). Membership includes three state and three non-state employees, all appointed by the Governor, and three ex-officio trustees, including the Auditor of the State, the Treasurer of the State, and the Director of the Department of Finance and Administration.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Plan Description (Continued)

The state of Arkansas issues an annual report that includes financial statements and required supplementary information for the APERS. That report may be obtained by writing to Arkansas Public Employees Retirement System, One Union National Plaza, 124 West Capitol, Suite 400, Little Rock, Arkansas 72201.

Funding Policy: The Utility contributes an actuarially determined amount to the plan, which was 14.50% of annual covered payroll for the year ending December 31, 2016. Contributions made by the Utility were \$144,907 and \$144,879 for the years ended December 31, 2016 and 2015, respectively.

Benefits Provided

Benefit provisions are set forth in Arkansas Code Annotated, Title 24, Chapters 5 and 6 and may only be amended by the Arkansas General Assembly. APERS provides retirement, disability, and death benefits. Retirement benefits are determined as a percentage of the member's highest 3-year average compensation times the member's years of service. The percentage used is based upon whether a member is contributory or non-contributory as follows:

Contributory, prior to 07/01/2005	2.07%
Contributory, on or after 07/01/2005	2.03%
Non-Contributory	1.72%

Members are eligible to retire with a full benefit under the following conditions:

- at age 65 with 5 years of service,
- at any age with 28 years actual service.
- at age 60 with 20 years of actual service if under the old contributory plan (prior to July 1, 2005), or
- at age 55 with 35 years of credited service for elected or public safety officials.

Members may retire with a reduced benefit at age 55 with at least 5 years of actual service or at any age with 25 years of service.

Members are eligible for disability benefits with 5 years of service. Disability benefits are computed as an age and service benefit, based on service and pay at disability. Death benefits are paid to a surviving spouse as if the member had 5 years of service and the monthly benefit is computed as if the member had retired and elected the Joint & 75% Survivor option. A cost-of-living adjusting of 3% of the current benefit is added each year.

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Contributions

Contribution requirements are set forth in Arkansas Code Annotated, Title 24, Chapter 4. The contributions are expected to be sufficient to finance the costs of benefits earned by members during the year and make a level payment that, if paid annually over a reasonable period of future years, will fully cover the unfunded costs of benefit commitments for services previously rendered (A.C.A. 24-2-701)(a). Members who began service prior to July 1, 2005 are not required to make contributions to APERS. Members who began service on or after July 1, 2005 are required to contribute 5% of their salary. Employers are required to contribute at a rate established by the Board of Trustees of APERS based on an actuary's determination of a rate required to fund the plan (A.C.A. 24-2-703(c)(3)). Employers contributed 14.50% of compensation for the fiscal year ended June 30, 2016. The contribution rate for the fiscal year beginning July 1, 2016 remained at 14.50%.

APERS Fiduciary Net Position

Detailed information about APERS's fiduciary net position is available in the separately issued APERS Financial Report available at <http://www.apers.org/annualreports>.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources to Pensions

The collective Net Pension Liability was measured as of June 30, 2016, and the total pension liability used to calculate the Net Pension Liability was determined by an actuarial valuation as of that date. Each employer's proportion of the Net Pension Liability was based on the employer's share of contributions to the pension plan relative to the total contributions of all participating employers.

Actuarial Assumptions

The total pension liability in the June 30, 2016 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level of Percent of Payroll, Closed (Level Dollar, Closed for District Judges New Plan and Paid Off Old Plan and District Judges Still Paying Old Plan)
Remaining Amortization Period	23 years (14 years for District Judges New Plan/Paid Off Old Plan and 21 years for District Judges Still Paying Old Plan)
Asset Valuation Method	4-year smoothed market; 25% corridor (Market Value for Still Paying Old Plan)

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Actuarial Assumptions (Continued)

Actuarial Assumptions:

Investment Rate of Return	7.50%
Salary Increases	3.25 – 9.85% including inflation (3.25% - 6.96% including inflation for District Judges)
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality Table	Based on RP-2000 Combined Health mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females
Average Service Life of All Members	4.4487

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate rates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Water Works' target asset allocation as of June 30, 2016 are summarized in the table below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Broad Domestic Equity	38%	6.82%
International Equity	24%	6.88%
Real Assets	16%	3.07%
Absolute Return	5%	3.35%
Domestic Fixed	17%	0.83%
Total	100%	
Total Real Rate of Return		5.04%
Plus: Price Inflation - Actuary Assumption		2.50%
Net Expected Return		7.54%

Discount Rate

A single discount rate of 7.50% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.50%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer

MALVERN WATER WORKS
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016

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Note 10. Arkansas Public Employees Retirement System: (Continued)

Discount Rate (Continued)

contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

At December 31, 2016, the Water Works reported deferred outflows of resources and deferred outflows of resources and deferred inflows of resources related to pensions from the following resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,245	\$ (47,288)
Changes in Proportion and differences between employer contributions and proportionate share of contribution	22,007	\$ (642)
Changes in assumptions	101,018	
Net difference between projected and actual earnings on pension plan investments	230,152	
Total	<u>\$ 354,422</u>	<u>\$ (47,930)</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31,	Differences in Experience	Changes in Assumptions	Differences in Earnings	Net Reduction in Pension Expense
2017	\$ (10,015)	\$ 21,974	\$ 46,030	\$ 57,989
2018	(10,015)	21,974	46,030	57,989
2019	(10,015)	21,974	46,030	57,989
2020	(10,015)	21,974	46,031	57,990
2021	(5,983)	13,122	46,031	53,170
	<u>\$ (46,043)</u>	<u>\$ 101,018</u>	<u>\$ 230,152</u>	<u>\$ 285,127</u>

TURNER, RODGERS, MANNING & PLYLER, PLLC

Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

City of Malvern, Arkansas
Malvern Water Works

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Malvern Water Works as of and for the year ended December 31, 2016, and the related notes to the financial statements, and have issued our report thereon dated March 1, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Malvern Water Works' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Malvern Water Works' internal control. Accordingly, we do not express an opinion on the effectiveness of the Malvern Water Works' internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Malvern Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering an entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Turner, Rodgers, Manning & Plyler, PLLC

Arkadelphia, Arkansas

March 1, 2017

**MALVERN WATER WORKS
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED DECEMBER 31, 2016**

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Summary of Auditor's Results

The auditor's report expresses an unqualified opinion on the financial statements of Malvern Water Works ("the Water Works").

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements.

No instances of noncompliance material to the financial statements of the Water Works were disclosed by during the audit.

Findings – Financial Statement Audit

None

Findings and Questioned Costs – Major Federal Award Programs Audit

N/A

SUPPLEMENTARY INFORMATION

MALVERN WATER WORKS
SCHEDULE OF RESTRICTED ASSETS AND LIABILITIES
DECEMBER 31, 2016 AND 2015

SCHEDULE I
Page 24

	<u>2016</u>	<u>2015</u>
RESTRICTED ASSETS:		
Cash and Cash Equivalents	\$ 1,937,067	\$ 1,739,548
Other Current Assets	<u>193,171</u>	<u>208,802</u>
TOTAL RESTRICTED ASSETS	<u>2,130,238</u>	<u>1,948,350</u>
 LIABILITIES PAYABLE FROM RESTRICTED ASSETS:		
Accrued Interest Payable on Long-Term Debt	68,596	108,485
Customers' Meter Deposits	<u>239,602</u>	<u>222,320</u>
TOTAL LIABILITIES PAYABLE FROM RESTRICTED ASSETS	<u>308,198</u>	<u>330,805</u>
 NET RESTRICTED ASSETS	<u><u>\$ 1,822,040</u></u>	<u><u>\$ 1,617,545</u></u>

See Independent Auditors' Report.

MALVERN WATER WORKS
SCHEDULE OF OPERATING EXPENSES
DECEMBER 31, 2016 AND 2015

SCHEDULE II
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	<u>2016</u>	<u>2015</u>
OPERATING EXPENSES:		
Salaries and Wages	\$ 1,009,195	\$ 986,163
Payroll Taxes	81,683	80,024
Employee Benefits	391,421	405,340
Pension Expense - GASB 68 Adjustment	129,060	(13,602)
Bad Debts	14,274	20,074
Chemicals and Supplies	313,518	256,728
Communications	37,158	38,355
Computer	14,641	12,870
Depreciation	973,982	932,161
Dues and Subscriptions	11,493	16,381
Equipment Parts and Small Tools	21,826	22,620
Insurance	43,078	42,764
Legal and Professional	17,693	17,201
Meter Reading	15,422	15,319
Office	21,083	22,342
Outside Labor and Materials	83,480	91,482
Postage	26,494	28,710
Repairs and Maintenance	113,040	106,846
Street Breaks and Boring	31,270	33,100
Utilities	278,517	308,996
Miscellaneous	16,528	7,309
TOTAL OPERATING EXPENSES	<u>\$ 3,644,856</u>	<u>\$ 3,431,183</u>

See Independent Auditors' Report.

MALVERN WATER WORKS
BUDGETARY COMPARISON SCHEDULE
FOR YEAR ENDED DECEMBER 31, 2016

SCHEDULE III
Page 26

	Budget	Actual	Variance
OPERATING REVENUES:			
Water Sales	\$ 3,037,000	\$ 2,977,698	\$ (59,302)
Sewer Sales	1,678,000	1,664,181	(13,819)
Fees and Charges	73,000	69,690	(3,310)
Penalties	54,000	55,489	1,489
Miscellaneous Revenue	4,800	12,446	7,646
TOTAL OPERATING REVENUES	4,846,800	4,779,504	(67,296)
OPERATING EXPENSES:			
Salaries and Wages	1,029,192	1,009,195	19,997
Payroll Taxes	86,133	81,683	4,450
Employee Benefits	452,633	391,421	61,212
Pension Expense - GASB 68 Adjustment	-	129,060	(129,060)
Bad Debts	30,000	14,274	15,726
Chemicals and Supplies	392,445	313,518	78,927
Communications	42,800	37,158	5,642
Computer	17,898	14,641	3,257
Depreciation	276,000	973,982	(697,982)
Dues and Subscriptions	20,475	11,493	8,982
Equipment Parts and Small Tools	19,000	21,826	(2,826)
Insurance	43,250	43,078	172
Legal and Professional	89,000	17,693	71,307
Meter Reading	16,000	15,422	578
Office	28,700	21,083	7,617
Outside Labor and Materials	251,200	83,480	167,720
Postage	31,000	26,494	4,506
Repairs and Maintenance	162,966	113,040	49,926
Street Breaks and Boring	32,000	31,270	730
Utilities	323,000	278,517	44,483
Miscellaneous	10,450	16,528	(6,078)
TOTAL OPERATING EXPENSES	3,354,142	3,644,856	(290,714)
OPERATING INCOME	1,492,658	1,134,648	(358,010)
OTHER INCOME (EXPENSES):			
Interest Revenue	14,400	17,137	2,737
Interest Expense	(1,606,500)	(488,421)	1,118,079
Amortization Expense	-	(72,649)	(72,649)
TOTAL OTHER INCOME (EXPENSES)	(1,592,100)	(543,933)	1,048,167
NET INCOME	\$ (99,442)	\$ 590,715	\$ 690,157

See Independent Auditors' Report.

* Budgeted amount includes total principal, interest, and service fee payments.

^ Includes amounts budgeted for capital purchases.

MALVERN WATER WORKS
REQUIRED SUPPLEMENTAL INFORMATION
FOR COST SHARING PLANS
FOR THE YEAR ENDED DECEMBER 31, 2016

SCHEDULE IV
Page 27

Schedule of Proportionate Share of the Net Pension Liability and Related Ratios Last Fiscal Year

District's proportion of the net pension liability (asset) per APERS at 6/30/2016	0.0551249%
District's proportion of the net pension liability (asset) per APERS at 6/30/2015	0.0408079%
District's proportionate share of the net pension liability - per APERS at 6/30/2016	\$ 1,318,229
District's proportionate share of the net pension liability - per APERS at 6/30/2015	996,649
District's covered-employee payroll	999,359
District's proportionate share of the net pension liability as a percentage of its covered-employee payroll	131.91%
Plan fiduciary net position as a percentage of the total pension liability	84.15%

Schedule of Required Contributions Last Fiscal Year

Contractually required contribution	\$ 144,907
Contributions in relation to the contractually required contribution	(144,907)
Contribution deficiency (excess)	-
District's covered-employee payroll	999,359
Contributions as a percentage of covered-employee payroll	14.50%

See Independent Auditors' Report.

APPENDIX B

DETAILED COST ESTIMATES



CRIST JOB NO.
1740



PRELIMINARY ENGINEERING REPORT
WASTEWATER SYSTEM IMPROVEMENTS
SEPTEMBER 2017

Table 4-7 Estimate of Probable Construction Costs for Collection and Conveyance Immediate Term Projects			
Priority	Location	Scope of Work	Estimate
1.	Collection System	Temporary flow monitoring study on entire collection system including 6 flow meters and 4 rain gauges to establish dry and wet weather flows.	\$45,000
2.	Collection System	Sanitary sewer evaluation study (SSES) for the top 3 priority basins as identified in the temporary flow monitoring study. This is assumed to be Basins 4, 5, and 6	\$359,000
3.	Collection System	Hydraulic model of the collection system	\$200,000
Subtotal			\$604,000
Contingency (20%)			\$120,800
Engineering, Legal, Environmental, Administration (20%)			\$120,800
Total Cost Estimate of Immediate Term Improvements			\$845,600

Table 4-8 Estimate of Probable Construction Costs for Collection and Conveyance Near Term Projects			
Priority	Location	Scope of Work	Estimate
1.	Collection System	Sewer system rehabilitation as identified in SSES	\$2,000,000
2.	Walco Road PS	Install SCADA system with high wetwell and power fail alarms to WWTF	\$15,000
3.	Riverview PS	Install generator and automatic transfer switch on elevated platform	\$51,000
4.	Riverview PS	Activate SCADA system to WWTF	\$1,000
5.	Happy Hollow PS	Install generator plug and manual transfer switch	\$3,000
6.	Happy Hollow PS	Activate SCADA system to WWTF	\$1,000
7.	Happy Hollow Force Main	Repair Force Main at Creek Crossing	\$34,000
8.	Babcock Terrace PS	Install generator plug and manual transfer switch	\$3,000
9.	Babcock Terrace PS	Install cell modem for SCADA system to monitor high wetwell and power fail alarms to WWTF	\$2,000
10.	Moline Street PS	Install new pump control panel with SCADA and cell modem for monitoring at WWTF	\$20,000
11.	Moline Street PS	Install generator plug and manual transfer switch	\$3,000
12.	City Park PS	Replace station, install SCADA system with cell modem, install generator plug and manual transfer switch, and install security fencing around site	\$388,000
13.	County Jail PS	Install SCADA system with high wetwell alarm to WWTF	\$7,000
14.	Riverview PS	Grout around discharge pipes to stop leak	\$500
Construction Subtotal			\$2,528,500
Contingency (20%)			\$505,700
Engineering, Legal, Environmental, Administration (20%)			\$505,700
Total Cost Estimate of Near Term Improvements			\$3,539,900

Crist Engineers, Inc.
Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Walco Road Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	SCADA System	l.s.	1	\$ 15,000.00	\$ 15,000.00
Construction Cost Total					\$ 15,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Riverview Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Generator and automatic transfer switch	l.s.	1	\$ 36,000.00	\$ 36,000.00
2	Activate SCADA to WWTF	l.s.	1	\$ 1,000.00	\$ 1,000.00
3	Elevated platform for generator and transfer switch	l.s.	1	\$ 15,000.00	\$ 15,000.00
Construction Cost Total					\$ 52,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Happy Hollow Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Manual transfer switch and generator inlet	l.s.	1	\$ 3,000.00	\$ 3,000.00
2	SCADA activated to WWTP	l.s.	1	\$ 1,000.00	\$ 1,000.00
Construction Cost Total					\$ 4,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Happy Hollow Force Main Creek Crossing

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	10-inch (Not Sure Size) D.I. Force Main	l.f.	125	\$ 75.00	\$ 9,375.00
2	Concrete Encasement	l.f.	50	\$ 50.00	\$ 2,500.00
3	Connect to Existing Force Main	ea.	2	\$ 3,500.00	\$ 7,000.00
4	10-inch Valves	ea.	2	\$ 4,000.00	\$ 8,000.00
5	Riprap on Creek Slopes	l.s.	1	\$ 5,000.00	\$ 5,000.00
6	Seeding, Sodding and Final Cleanup	l.s.	1	\$ 550.00	\$ 550.00
7	Storm Water Permit & Silt Control	l.s.	1	\$ 1,000.00	\$ 1,000.00
8	Trench and Excavation Safety	l.s.	1	\$ 575.00	\$ 575.00
Construction Cost Total					\$ 34,000.00

Crist Engineers, Inc.
Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Babcock Terrace Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Manual transfer switch and generator inlet	l.s.	1	\$ 3,000.00	\$ 3,000.00
2	Add cell modem to exist SCADA system to monitor high wetwell and power fail alarms to WWTP	l.s.	1	\$ 2,000.00	\$ 2,000.00
Construction Cost Total					\$ 5,000.00

Crist Engineers, Inc.
Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Moline Street Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	New pump control panel with SCADA and cell modem for monitoring at WWTP	I.s.	1	\$ 20,000.00	\$ 20,000.00
2	Manual transfer switch and generator inlet	I.s.	1	\$ 3,000.00	\$ 3,000.00
Construction Cost Total					\$ 23,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - City Park Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Pumps and Controls with SCADA	l.s.	1	\$ 45,000.00	\$ 45,000.00
2	Excavation	c.y.	100	\$ 15.00	\$ 1,500.00
3	6' Diameter Concrete Wetwell	l.s.	1	\$ 20,000.00	\$ 20,000.00
4	Reinf Concrete Flatwork	c.y.	15	\$ 500.00	\$ 7,500.00
5	Reinf Concrete Check Valve Vault	l.s.	1	\$ 15,000.00	\$ 15,000.00
6	54"x48" Aluminum Access Hatch	ea.	2	\$ 3,000.00	\$ 6,000.00
7	Grout in Wetwell	c.y.	2	\$ 200.00	\$ 400.00
8	Electrical	l.s.	1	\$ 20,000.00	\$ 20,000.00
9	4" Tideflex Check Valve & PVC Drain	ea.	2	\$ 500.00	\$ 1,000.00
10	Site Fencing	l.f.	200	\$ 30.00	\$ 6,000.00
11	Hoist	l.s.	1	\$ 15,000.00	\$ 15,000.00
12	Cover Structure over Controls	l.s.	1	\$ 10,000.00	\$ 10,000.00
13	Miscellaneous Piping	l.s.	1	\$ 25,000.00	\$ 25,000.00
14	4 ft. Diameter Manhole (25' Deep)	ea.	2	\$ 9,500.00	\$ 19,000.00
15	Miscellaneous Gravity Sewer Piping	l.s.	1	\$ 10,000.00	\$ 10,000.00
16	Check Valves	ea.	2	\$ 2,500.00	\$ 5,000.00
17	Plug Valves	ea.	2	\$ 2,500.00	\$ 5,000.00
18	Emergency Pump-out Connection	ea.	1	\$ 8,000.00	\$ 8,000.00
19	Miscellaneous Site Work	l.s.	1	\$ 5,000.00	\$ 5,000.00
20	Demolish Existing Pump Station	l.s.	1	\$ 5,000.00	\$ 5,000.00
21	Class 7 Crushed Stone	tons	200	\$ 35.00	\$ 7,000.00
22	80 mil Epoxy Coating in Wetwell	l.s.	1	\$ 12,000.00	\$ 12,000.00
23	6" or 8" Force Main	l.f.	2000	\$ 50.00	\$ 100,000.00
24	Asphalt/Concrete Street Replacement	l.f.	200	\$ 75.00	\$ 15,000.00
25	Connect to Existing Manhole	ea.	1	\$ 1,500.00	\$ 1,500.00
26	Seeding, Sodding and Final Cleanup	l.s.	1	\$ 6,000.00	\$ 6,000.00
27	Trench and Excavation Safety	l.s.	1	\$ 3,500.00	\$ 4,100.00
28	Storm Water Permit & Silt Control	l.s.	1	\$ 10,000.00	\$ 10,000.00
29	Manual transfer switch and generator inlet	l.s.	1	\$ 3,000.00	\$ 3,000.00
Construction Cost Total					\$ 388,000.00

Crist Engineers, Inc.
Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - County Jail Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Install SCADA system	l.s.	1	\$ 7,000.00	\$ 7,000.00
Construction Cost Total					\$ 7,000.00

Crist Engineers, Inc.
Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Riverview Pump Station

Date: October 2015

Job No. 1534

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Grout around discharge pipes to stop leaks	l.s.	1	\$ 500.00	\$ 500.00
Construction Cost Total					\$ 500.00

Table 3-15 Estimate of Probable Construction Costs for Treatment Near Term Projects			
Item No.	Location	Scope of Work Summary	Estimate
1.	Aeration System	Rehabilitation of the existing aeration system including replacing the existing diffusers and installing additional diffusers to increase capacity. This includes sludge removal	\$2,422,000
2.	WWTF	Construct hydraulic Improvements to facilitate projected peak day flow rates	\$981,000
3.	Disinfection System	Rehabilitate automatic flow paced system and replace broken equipment	\$60,000
4.	Chlorine Contact Piping	Install additional 30-inch pipe (This should be installed when hydraulic and aeration system improvements are constructed)	\$291,000
5.	Influent Flow Meter	Replace the influent flow meter with ultrasonic flow meter at the Influent Structure	\$45,000
6.	Lagoon No. 2	Replace Baffle Curtains	\$216,000
7.	Interior Levees	Place riprap in various areas on interior side of levees.	\$85,000
8.	Influent Structure	Install an influent composite sampler	\$5,000
Construction Subtotal			\$4,105,000
Contingency (20%)			\$821,000
Engineering, Legal, Environmental, Administration (20%)			\$821,000
Total Estimate of Probable Construction Costs			\$5,747,000

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Aeration System

Date: March 2016

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Blowers (3 - 250 HP)	l.s.	1	\$ 407,000.00	\$ 407,000.00
2	Diffusers, Ballasts, etc.	l.s.	1	\$ 1,300,000.00	\$ 1,300,000.00
3	Pump Out Lagoons	l.s.	1	\$ 50,000.00	\$ 50,000.00
4	Electrical	l.s.	1	\$ 150,000.00	\$ 150,000.00
5	Remove Existing Blowers	l.s.	1	\$ 15,000.00	\$ 15,000.00
6	Miscellaneous Repairs to Existing Air Laterals	l.s.	1	\$ 50,000.00	\$ 50,000.00
7	Miscellaneous Piping Modifications	l.s.	1	\$ 25,000.00	\$ 25,000.00
8	Miscellaneous	l.s.	1	\$ 50,000.00	\$ 50,000.00
9	Sludge Removal	l.s.	1	\$ 225,000.00	\$ 225,000.00
10	Temporary Aerators for Lagoon 2 During Construction	l.s.	1	\$ 150,000.00	\$ 150,000.00
Construction Cost Total					\$ 2,422,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - WWTF Hydraulic Improvements

Date: January 2016

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
Effluent Flume Structure					
1	Reinforced Concrete Walls	c.y.	15	\$ 750.00	\$ 11,250.00
2	Reinforced Concrete Base	c.y.	5	\$ 500.00	\$ 2,500.00
3	1.5 foot FRP Flume	l.s.	1	\$ 5,000.00	\$ 5,000.00
4	Excavation	c.y.	50	\$ 15.00	\$ 750.00
5	Miscellaneous Piping Modifications & Fittings	l.s.	1	\$ 50,000.00	\$ 50,000.00
6	Bypass Pumping	l.s.	1	\$ 5,000.00	\$ 5,000.00
7	Electrical	l.s.	1	\$ 3,000.00	\$ 3,000.00
8	Flow Meter	l.s.	1	\$ 4,000.00	\$ 4,000.00
9	20" D.I. Pipe	l.f.	125	\$ 200.00	\$ 25,000.00
10	36" D.I.	l.f.	10	\$ 275.00	\$ 2,750.00
11	Core Drill Effluent Structure	l.s.	1	\$ 5,000.00	\$ 5,000.00
12	Chlorine Induction Structure	l.s.	1	\$ 15,000.00	\$ 15,000.00
13	Class 7 Crushed Stone	tons	150	\$ 35.00	\$ 5,250.00
14	Asphalt Pavement Replacement	s.y.	50	\$ 150.00	\$ 7,500.00
15	Seeding, Sodding & Cleanup	l.s.	1	\$ 2,500.00	\$ 2,500.00
16	SWPPP and Siltation Control	l.s.	1	\$ 2,500.00	\$ 2,500.00
17	Trench and Excavation Safety	l.s.	1	\$ 3,000.00	\$ 3,000.00
Subtotal Construction Costs					\$ 150,000.00
Influent Junction Box and Pipe Modifications					
1	24" D.I. Pipe	l.f.	150	\$ 200.00	\$ 30,000.00
2	20" D.I. Pipe	l.f.	100	\$ 190.00	\$ 19,000.00
3	16" D.I. Pipe	l.f.	70	\$ 180.00	\$ 12,600.00
4	Miscellaneous Piping Modifications & Fittings	l.s.	1	\$ 50,000.00	\$ 50,000.00
5	Core Drill Effluent Structure	ea.	1	\$ 5,000.00	\$ 5,000.00
6	Concrete Pipe Support	ea.	4	\$ 1,000.00	\$ 4,000.00
7	Riprap	tons	15	\$ 45.00	\$ 675.00
8	Class 7 Crushed Stone on top of Levee	tons	25	\$ 35.00	\$ 875.00
9	Seeding, Sodding & Cleanup	l.s.	1	\$ 1,500.00	\$ 1,500.00
10	SWPPP and Siltation Control	l.s.	1	\$ 1,000.00	\$ 1,000.00
11	Trench and Excavation Safety	l.s.	1	\$ 1,350.00	\$ 1,350.00
12	Levee Protection	l.s.	1	\$ 5,000.00	\$ 5,000.00
13	Reinforced Concrete Walls	c.y.	28	\$ 750.00	\$ 21,000.00
14	Reinforced Concrete Slab	c.y.	5	\$ 500.00	\$ 2,500.00
15	FRP Grating	l.s.	1	\$ 1,500.00	\$ 1,500.00
16	Handrail	l.s.	1	\$ 2,875.00	\$ 2,875.00
17	24" Gate Valve	ea.	1	\$ 15,000.00	\$ 15,000.00
18	Epoxy Coating on Existing Influent Structure	l.s.	1	\$ 10,000.00	\$ 10,000.00
19	Sheet Pile Levee Protection	l.s.	1	\$ 15,000.00	\$ 15,000.00
20	Excavation	c.y.	75	\$ 15.00	\$ 1,125.00
Subtotal Construction Costs					\$ 200,000.00

Additional 24" Outfall					
1	24-inch HDPE Gravity Sewer	l.f.	3510	\$ 110.00	\$ 386,100.00
2	4 ft. Dia. Manholes 0' to 6' Deep	ea.	10	\$ 4,200.00	\$ 42,000.00
3	4' Dia. Manholes Extra Depth	v.f.	25	\$ 260.00	\$ 6,500.00
4	36" Bore and Encasement	l.f.	65	\$ 635.00	\$ 41,275.00
5	Core Drill Existing Manhole/Structure	ea.	1	\$ 5,000.00	\$ 5,000.00
6	Acceptance Testing by CCTV	l.f.	3510	\$ 4.00	\$ 14,040.00
7	Class 7 Crushed Stone	tons	300	\$ 35.00	\$ 10,500.00
8	Seeding, Sodding & Cleanup	l.s.	1	\$ 10,000.00	\$ 10,000.00
9	SWPPP and Siltation Control	l.s.	1	\$ 18,000.00	\$ 18,000.00
10	Trench and Excavation Safety	l.s.	1	\$ 5,585.00	\$ 5,585.00
Subtotal Construction Costs					\$ 539,000.00
Transfer Structure Modifications					
1	20" D.I. Pipe	l.f.	110	\$ 200.00	\$ 22,000.00
2	Miscellaneous Piping Modifications & Fittings	l.s.	1	\$ 20,000.00	\$ 20,000.00
3	Core Drill Effluent Structure	ea.	2	\$ 5,000.00	\$ 10,000.00
4	20" Gate Valve or Plug Valve	ea.	2	\$ 10,000.00	\$ 20,000.00
5	Concrete Pipe Support	ea.	4	\$ 2,500.00	\$ 10,000.00
6	Riprap	tons	15	\$ 45.00	\$ 675.00
7	Class 7 Crushed Stone on top of Levee	tons	25	\$ 35.00	\$ 875.00
8	Seeding, Sodding & Cleanup	l.s.	1	\$ 1,000.00	\$ 1,000.00
9	SWPPP and Siltation Control	l.s.	1	\$ 500.00	\$ 500.00
10	Trench and Excavation Safety	l.s.	1	\$ 1,950.00	\$ 1,950.00
11	Levee Protection	l.s.	1	\$ 5,000.00	\$ 5,000.00
Subtotal Construction Costs					\$ 92,000.00
Construction Cost Total					\$ 981,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Chlorination/Dechlorination System

Date: March 2016

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Rehabilitate Inst. & Controls in Operations & Chem Bldgs	l.s.	1	\$ 20,000.00	\$ 20,000.00
2	New Sulfur Dioxide Feeders	ea.	2	\$ 8,000.00	\$ 16,000.00
3	Effluent Sample Pump	ea.	1	\$ 3,000.00	\$ 3,000.00
4	Effluent Chlorine Analyzer, Pre-Dechlorination	ea.	1	\$ 6,000.00	\$ 6,000.00
5	Effluent Chlorine Analyzer, Post-Dechlorination	ea.	1	\$ 6,000.00	\$ 6,000.00
6	Install Post Dechlorination Analyzer	l.s.	1	\$ 5,000.00	\$ 5,000.00
7	Miscellaneous	l.s.	1	\$ 4,000.00	\$ 4,000.00
Construction Cost Total					\$ 60,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Chlorine Contact Piping

Date: January 2016

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	30-inch HDPE Gravity Sewer	l.f.	1800	\$ 110.00	\$ 198,000.00
2	5 ft. Dia. Manholes 0' to 6' Deep	ea.	7	\$ 4,800.00	\$ 33,600.00
3	5' Dia. Manholes Extra Depth	v.f.	42	\$ 265.00	\$ 11,130.00
4	Core Drill Existing Manhole/Structure	ea.	2	\$ 5,000.00	\$ 10,000.00
5	Acceptance Testing by CCTV	l.s.	1800	\$ 4.00	\$ 7,200.00
6	Asphalt Pavement Replacement	s.y.	50	\$ 150.00	\$ 7,500.00
7	Seeding, Sodding & Cleanup	l.s.	1	\$ 6,000.00	\$ 6,000.00
8	SWPPP and Siltation Control	l.s.	1	\$ 9,000.00	\$ 9,000.00
9	Trench and Excavation Safety	l.s.	1	\$ 3,570.00	\$ 3,570.00
10	Miscellaneous Ductile Iron Pipe	l.s.	1	\$ 5,000.00	\$ 5,000.00
Construction Cost Total					\$ 291,000.00

Crist Engineers, Inc.

Preliminary Cost Summary

Project: Malvern, Arkansas Master Plan - Influent Flow Meter (Ultrasonic at Influent Structure)

Date: March 2016

Item No.	Description	Unit	Total Quantities	Unit Costs	Total Costs
1	Metal Roof Structure	l.s.	1	\$ 10,450.00	\$ 10,450.00
2	Excavation	c.y.	100	\$ 15.00	\$ 1,500.00
3	Reinf Concrete Flatwork	c.y.	5	\$ 500.00	\$ 2,500.00
4	Fill Material	c.y.	700	\$ 10.00	\$ 7,000.00
5	Ultrasonic Flow Meter and Chart Recorder	l.s.	1	\$ 10,000.00	\$ 10,000.00
6	Electrical	l.s.	1	\$ 5,000.00	\$ 5,000.00
7	Valve Extension	l.s.	1	\$ 500.00	\$ 500.00
8	Class 7 Crushed Stone	tons	30	\$ 35.00	\$ 1,050.00
9	Demolition	l.s.	1	\$ 2,500.00	\$ 2,500.00
10	Riprap	tons	100	\$ 45.00	\$ 4,500.00
Construction Cost Total					\$ 45,000.00

APPENDIX C

DESIGN CRITERIA AND DESIGN INFORMATION



CRIST JOB NO.
1740



PRELIMINARY ENGINEERING REPORT
WASTEWATER SYSTEM IMPROVEMENTS
SEPTEMBER 2017

9/6/2017

Aerated Lagoon Model
1534 - Malvern, Arkansas

Wastewater Characteristics:

Item	Value	Units
Flow Rate	4.69	mgd
Inf BOD5	10170	lb/day
Inf NH3-N	1565	lb/day
Inf BOD5	260	mg/L
Inf TKN	40	mg/L

Model Characteristics:

Item	Value	Units
K20	0.276	day ⁻¹
"Theta"	1.037	
KT	0.276	day ⁻¹

Process Characteristics:

Item	Value	Units
* Temp	20	deg C
* AOR(BOD5)	1.1	lb/lb
* AOR(TKN)	4.6	lb/lb
* eff BOD	20	mg/L
O2 Req'd	18384	lbs/day
Unit AOR =	1.81	lb/lb BOD
BOD Rem	92.31%	

Model Results:

Item	Value	Units
t	13.03	days

Oxygen Transfer Data

Item	Value	Units
Cs(20) =	9.092	mg/L
Csw(T) =	9.092	mg/L
Csc* =	9.856	mg/L
Co =	2.000	mg/L
Alpha =	0.75	
Beta =	0.95	
Theta =	1.024	
Ot =	18.25	%
O2 tsfr =	16.00%	
AirRate =	8.89	scfm/unit
AOR/SOR =	0.6074	lb/lb
UnitSOTR =	1.48	lbs O2/hr
TotUnit =	1190	ea

Lagoon Characteristics:

Item	Value	Units
t	35.24	days
* # cells	4	ea
* depth	10	ft
vol	165.29	mil gals
VOL	507.30	ac-ft
avg area	50.73	acres
eff L	1487	ft
eff W	1487	ft
* s	2.5	on 1
sd	25	
2sd	50	
d/6	1.67	

Lagoon Performance Characteristics:

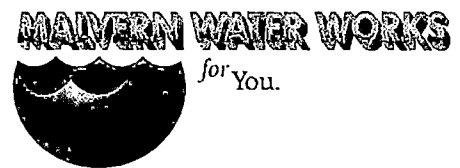
Parameter	Units	Cell 1	Cell 2	Cell 3	Cell 4	Total
% of Vol =	%	0.25	0.25	0.25	0.25	1.00
t =	days	8.81	8.81	8.81	8.81	35.24
T =	deg C	20	20	20	20	
KT =	day ⁻¹	0.276	0.276	0.276	0.276	
Inf BOD =	lb/day	10169.8	2963	864	252	
Eff BOD =	lb/day	2963	864	252	73	
Removal =	%	70.86%	20.65%	6.02%	1.75%	99.28%
Eff BOD =	mg/L	76	22	6	2	
AOR =	lbs/day	18384	5357	1561	455	
SOR =	lbs/day	30268	8820	2570	749	
Diffusers =	each	849	247	72	21	1190
Air rate =	scfm	7550	2200	641	187	10578

APPENDIX D

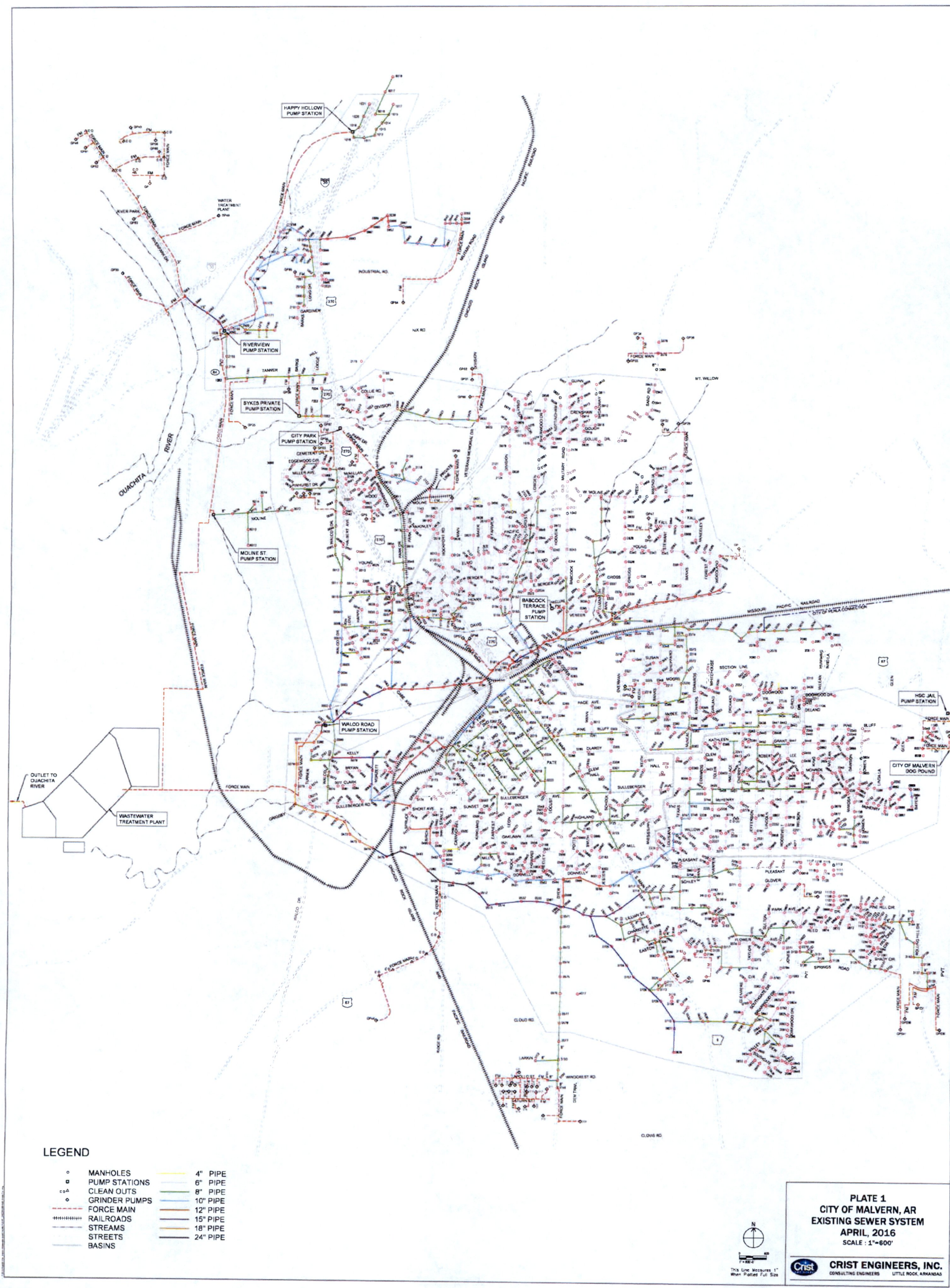
MAPS AND EXHIBITS



CRIST JOB No.
1740



PRELIMINARY ENGINEERING REPORT
WASTEWATER SYSTEM IMPROVEMENTS
SEPTEMBER 2017



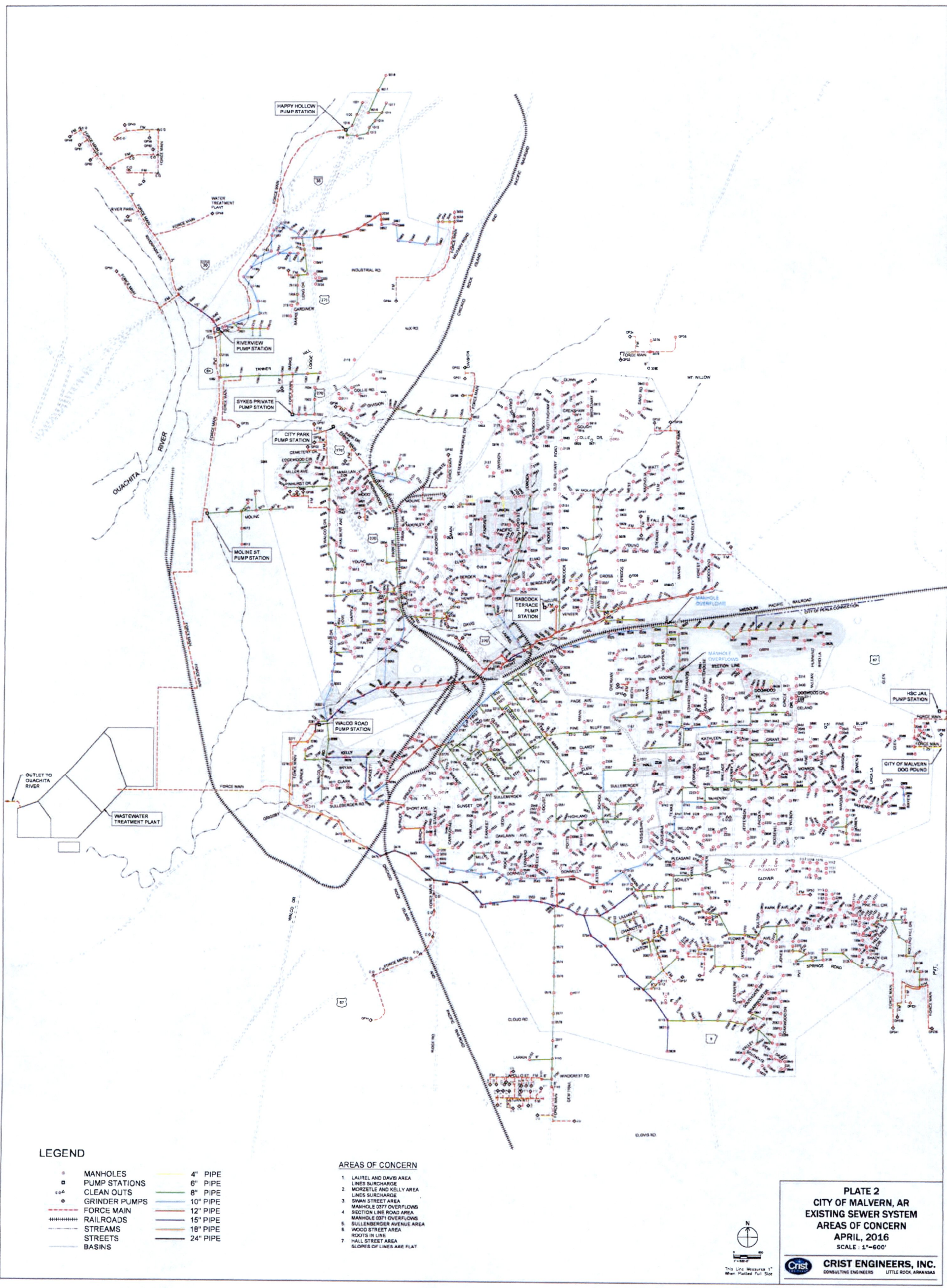
LEGEND

- MANHOLES
- PUMP STATIONS
- CLEAN OUTS
- GRINDER PUMPS
- FORCE MAIN
- RAILROADS
- STREAMS
- STREETS
- BASINS
- 4" PIPE
- 6" PIPE
- 8" PIPE
- 10" PIPE
- 12" PIPE
- 15" PIPE
- 18" PIPE
- 24" PIPE



PLATE 1
CITY OF MALVERN, AR
EXISTING SEWER SYSTEM
APRIL, 2016
SCALE: 1"=600'

CRIST ENGINEERS, INC.
CONSULTING ENGINEERS
LITTLE ROCK, ARKANSAS



LEGEND

- MANHOLES
- PUMP STATIONS
- CLEAN OUTS
- GRINDER PUMPS
- FORCE MAIN
- RAILROADS
- STREAMS
- STREETS
- BASINS
- 4" PIPE
- 6" PIPE
- 8" PIPE
- 10" PIPE
- 12" PIPE
- 15" PIPE
- 18" PIPE
- 24" PIPE

AREAS OF CONCERN

- LAUREL AND DAVIS AREA
LINES SURCHARGE
- MORZELLE AND KELLY AREA
LINES SURCHARGE
- SWAN STREET AREA
MANHOLE 0377 OVERFLOWS
- SECTION LINE ROAD AREA
MANHOLE 0377 OVERFLOWS
- SULLENBERGER AVENUE AREA
WOOD STREET AREA
- ROOTS IN LINE
- HALL STREET AREA
SLORES OF LINES ARE FLAT

PLATE 2
CITY OF MALVERN, AR
EXISTING SEWER SYSTEM
AREAS OF CONCERN
APRIL, 2016
SCALE: 1"=600'

CRIST ENGINEERS, INC.
CONSULTING ENGINEERS
LITTLE ROCK, ARKANSAS



Arkansas
Natural Resources Commission
101 East Capitol - Suite 350
Little Rock, Arkansas 72201

Hasler

PRIORITY MAIL

09/19/2017

US POSTAGE \$008.50⁰



ZIP 72201
011E11670189

Loretta Reiber
NPDES Permits, Water Division
5301 Northshore Drive
North Little Rock, AR 72118-5317