

Timothy M. Keller
State Auditor



Sanjay Bhakta, CPA, CGFM, CFE, CGMA
Deputy State Auditor

State of New Mexico
OFFICE OF THE STATE AUDITOR

Via Email and U.S. Mail

January 9, 2017

Ted Hart, Mayor
City Councilors
City of Moriarty
201 Broadway
Moriarty, NM 87035

Dear Mayor and Councilors:

As a result of concerns raised by the City of Moriarty ("City"), the Office of the State Auditor ("OSA") designated the City for a special audit ("Report") to assess whether weaknesses in the City's utility billing and water meter reading systems resulted in the misappropriation of City assets.

The Report, which covers the period of April 1, 2010, through August 31, 2015, includes 14 findings involving the lack of controls over water utility processes. The identified problems include:

- At least \$4,000 in under-billing in Fiscal Year 2015 due to unauthorized changes to customer accounts, including those of a former elected official and city employee;
- discrepancies in bulk water sales, misuse of a bulk water account, and delays in implementing rate increases in accordance with a City resolution; and
- a gap of 115 million gallons between the City's reported production and use of water, which amounts to a potential loss between \$300,000 and \$1.4 million (depending on whether the rate would have been billed at residential or bulk).

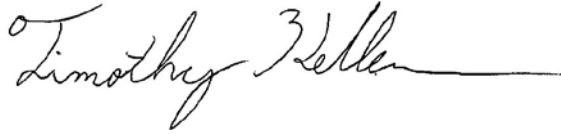
These shortcomings created an environment susceptible to fraud, waste and abuse and require prompt corrective action by the City to protect public resources. The OSA will also be referring certain matters to law enforcement to investigate any potential criminal violations.

In an effort to safeguard taxpayer money, we urge that the City to promptly implement the recommendations outlined in the Report. In addition, the City should review the OSA Risk Advisory issued in July 2016 regarding internal controls with respect to municipal utilities.

2540 Camino Edward Ortiz, Suite A, Santa Fe, New Mexico 87507
Phone (505) 476-3800 * Fax (505) 827-3512
www.osanm.org * 1-866-OSA-FRAUD

We appreciate the City's cooperation and professionalism during the audit process, as well its commitment to addressing these issues. Please let us know if we can be of assistance as the City works to strengthen its processes.

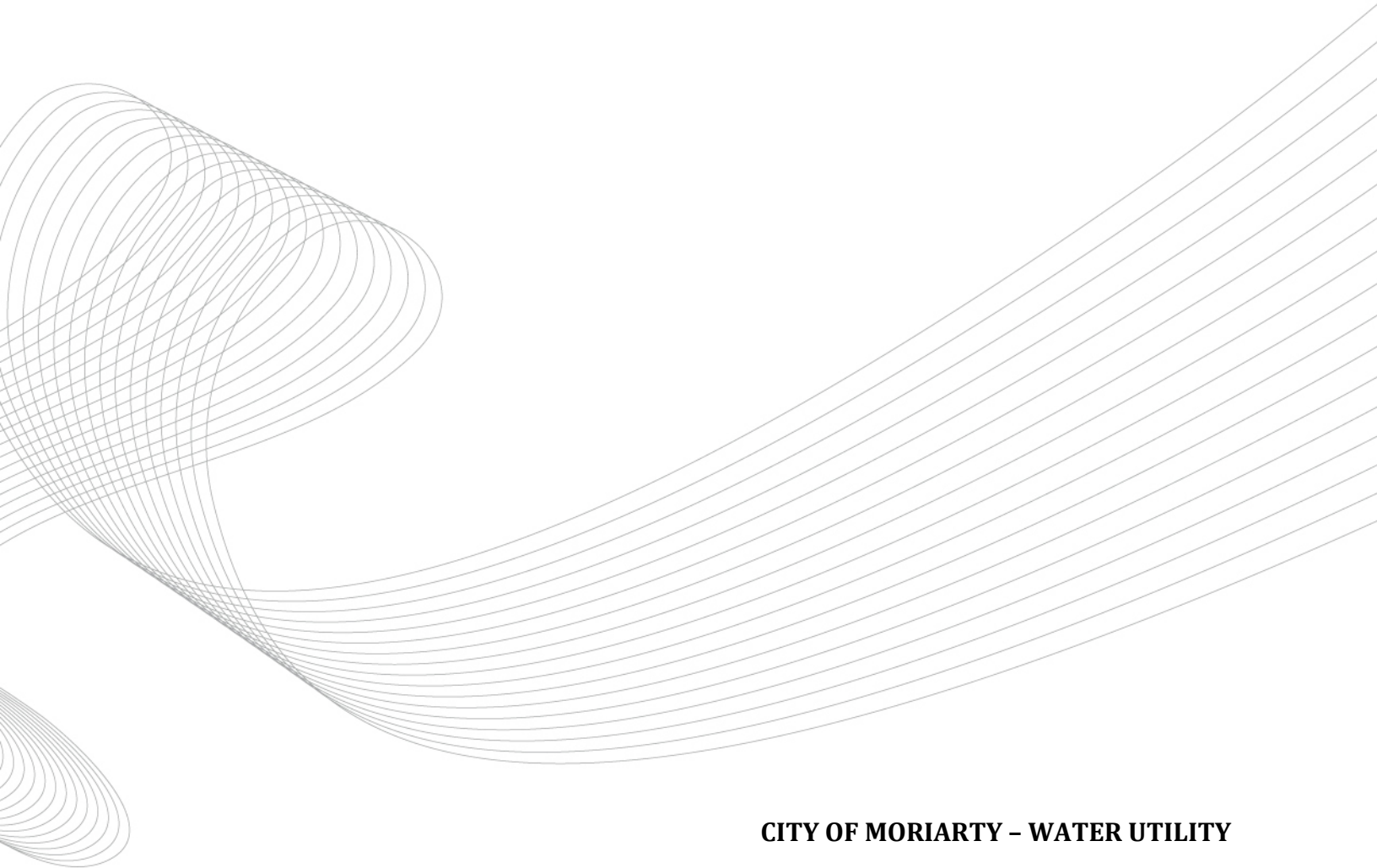
Sincerely,

A handwritten signature in black ink that reads "Timothy M. Keller". The signature is written in a cursive style with a long horizontal line extending to the right.

Timothy M. Keller

State Auditor

cc: Jaime Rumbaoa, Moss Adams LLP



CITY OF MORIARTY - WATER UTILITY

FORENSIC CONSULTING REPORT

September 23, 2016

MOSS-ADAMS_{LLP}

Certified Public Accountants | Business Consultants

September 23, 2016

Mr. Ted Hart
City Mayor
201 Broadway
Moriarty, NM 87035

Mr. Tim Keller
New Mexico State Auditor
Santa Fe, New Mexico

Subject: Forensic Consulting Services

Dear Mayor Hart and Mr. Keller:

Thank you for the opportunity to provide forensic consulting services to the City of Moriarty (the "City") to determine if the City's personnel exploited control weaknesses in the City's utility billing and water meter reading systems to facilitate misappropriation of City's assets. This report summarizes our forensic consulting procedures, findings, and recommendations as it relates to our assistance with your evaluation of the Water Utility operations for the period from April 1, 2010 through August 31, 2015.

This engagement was performed in accordance with Standards for Consulting Services established by the American Institute of Certified Public Accountants as outlined in our contract dated July 8, 2016 and engagement letter dated June 28, 2016. The scope of this engagement is outlined in the body of our report. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

City management is responsible for maintaining the accounting records and for establishing and maintaining effective internal control over compliance with applicable laws, regulations, and related billing policies of the City. We were not engaged to, and did not conduct an audit or examination, the objective of which would be the expression of an opinion on the internal controls, or activities of the Funds under attestation standards. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. In addition, our consulting procedures do not provide legal determination of the City's compliance with applicable laws and regulations.

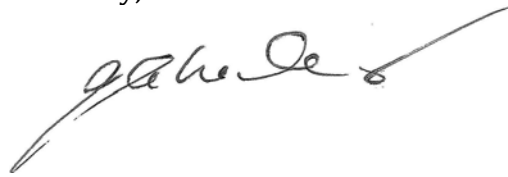
Mr. Ted Hart, City Mayor
Mr. Tim Keller, New Mexico State Auditor
September 23, 2016

This report was developed based on information obtained from our interviews with current employees of the City, our observations of the Water Utility operations, and review of selected supporting documentation and records.

This report is intended solely for the use of the City's management, Council members, and their designated legal counsel and the New Mexico Office of the State Auditor. This report should not be disclosed to, used or relied upon by any other third-party. Moss Adams LLP does not accept any responsibility to any other party to whom this report may be shown or into whose hands it may come.

We appreciate the opportunity to help you with this matter. Please do not hesitate to call me at (505) 878-7200 if you have any questions or need further assistance regarding this important matter. Moss Adams would like to sincerely thank the staff and volunteers of the City for their help in assisting us with our procedures.

Sincerely,

A handwritten signature in black ink, appearing to read "Jaime Rumbaoa", with a long, sweeping flourish extending to the right.

Jaime Rumbaoa, Senior Manager for
Moss Adams LLP
Albuquerque, New Mexico

TABLE OF CONTENTS

CITY OF MORIARTY – WATER UTILITY FORENSIC CONSULTING REPORT

EXECUTIVE SUMMARY	1-2
BACKGROUND.....	3-4
OBJECTIVE AND SCOPE.....	4
PROCEDURES PERFORMED.....	4-7
FINDINGS AND RECOMMENDATIONS.....	7-25
EXHIBIT A – CALCULATION OF UNBILLED CONSUMPTION.....	26-27
EXHIBIT B – RECONCILIATION OF WATER PRODUCED AND BILLED	28
EXHIBIT C – SELECTED NEPTUNE 90 DAY REPORTS.....	29-31
EXHIBIT D – WATER FUND FINANCIAL SUMMARY	32

EXECUTIVE SUMMARY

The City management and its Council members are responsible for providing City members reasonable assurance that Water Fund transactions are properly accounted for, and that the City has an adequate system of internal accounting and operational controls necessary to meet these responsibilities. The procedures performed in this report were developed with the City to assist the City in determining if the City's personnel exploited control weaknesses in the City's utility billing and water meter reading systems to facilitate misappropriation of City's assets for the period from April 1, 2010 through August 31, 2015.

This report is the result of the Office of the State Auditor special designation on November 4, 2015 based on the concerns reported by the City to both the Office of the State Auditor and to the independent auditor who performed their fiscal year 2015 financial statements audit.

We conducted interviews, obtained financial accounting records and other documents relative to the consulting procedures we were engaged to perform. Based on our review of the supporting documentation and the procedures we performed, we noted the following issues:

- Unauthorized manual changes were made to remote-read meter data in the billing system that resulted in estimated under-billings of \$4,033.65.
- Unauthorized use of City's bulk water account resulting in the misuse of 90,380 gallons resulting to a loss of \$1,107, unusual activity and lack of meter and system to monitor transactions for bulk effluent water.
- Lack of controls surrounding bulk water and bulk effluent water sales such as unreconciled usage activity variance of 565,248 gallons resulting in potential loss \$7,401, and delays in implementing rate increases resulting in under billings to customers.
- Lack of controls over the reconciliation between production and use of water, from April 2010 to August 2015, the City reported water produced from wells totaling 747.22 million gallons and amounts billed for residential, commercial and bulk water totaling 631.59 million gallons, leaving an unbilled unreconciled balance of 115.63 million gallons.
- Lack of segregation of duties which allowed the accounting staff and billing clerk access to perform multiple incompatible functions including access to most applications through a shared computer and ability to collect, deposit and record transactions.
- Lack of internal controls relative to the billing and meter reading processes such as non-compliance with backup and retention policies, reverse flow issues with Neptune auto-meter readers, ability to record manual changes to master file data without proper authorization, unsecured check stock, and unresolved work order issues. In addition, billing adjustments are processed with limited supporting documentation and without formal approval.
- Lack of Information Technology (IT) general controls relative to user authentication through a shared computer and shared credential login, lack of vendor reviews and IT policies and procedures that can be improved relative to passwords, backup and disaster recovery.

This report contains our observations and recommendations to further assist the City in evaluating concerns of mismanagement and abuse that have been reported regarding the Water Utility. Our procedures were limited to the areas and periods described in the objective and scope section of this report, documents available, and interviews performed. Had we reviewed other periods or areas or documents, other matters may have been identified warranting the City's attention.

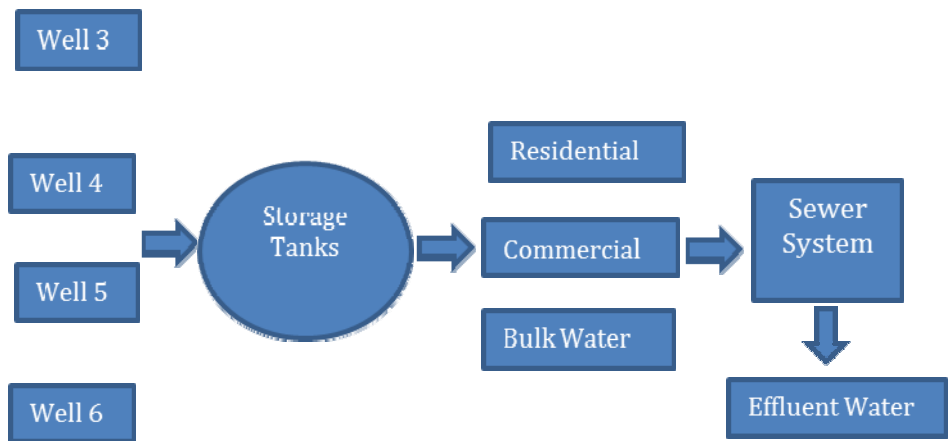
BACKGROUND

The City of Moriarty provides water services to over 140 commercial, 800 residential and 141 bulk water accounts within the City's limit.

The Public Works Department is responsible for overseeing and providing for maintenance and construction of City infrastructure including water and wastewater systems. The City potable water is originally derived and metered from four (4) City wells then transported through the City's infrastructure to residential, commercial and bulk water customers. The City uses the Neptune system to record auto readings for digital meters, manual meter readings for older meters and WaterPlus system for the bulk meter.

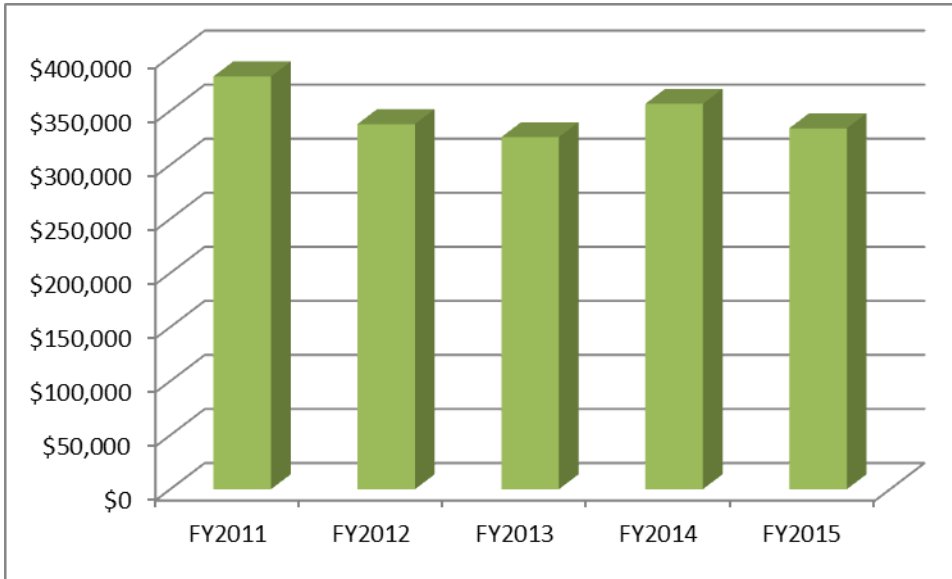
In calendar year 2014, the City upgraded its water meters to remote-read, digital meters for its residential accounts. The City has installed over 900 of the new remote-read, digital water meters in service. Approximately 62 of the old manual-read water meters remain in use, primarily on commercial accounts. Bulk water is available at a terminal near the Public Works office and is controlled by a WaterPlus meter where customers are allotted water through prepayment or by time of purchase credit payment.

The following chart shows distribution of water to different customers:



There is one terminal each for the bulk water and effluent water. The bulk water terminal is metered and tracked while the effluent water is not.

Water revenue for the fiscal year 2011 through 2015 is presented below:



OBJECTIVE AND SCOPE

The procedures listed below were developed with the City to assist the City in determining if the City's personnel exploited control weaknesses in the City's utility billing and water meter reading systems to facilitate misappropriation of City's assets for the period from April 1, 2010 through August 31, 2015.

PROCEDURES PERFORMED

This section describes the procedures performed to accomplish the objectives of the forensic consulting procedures as specified in our Contract. Moss Adams performed the following forensic consulting services relative to the Water Utility operations:

1. ***Policies and Procedures:*** we will obtain, review, and summarize all relevant policies and procedures of the City.

We obtained and reviewed the following documents:

- Financial policies and procedures as adopted on June 28, 2005
 - Water and Sewer Ordinance (No. O-2009-01)
 - Resolutions 12-13-09 and 14-15-17 to increase water rates.
2. ***Internal Controls:*** we will conduct interviews of current and former employees (Billing and Utility Clerk, Accounting Clerk/Controller, Superintendent of Public Works, Water Meter Inspector, Information Technology Administrator, etc.) to gain an understanding of the process flow over meter reading, billing and adjustments, cash

receipt process, and Information Technology as it relates to the applicable systems (Abila, Caselle, Neptune, etc.). We will also test internal controls to determine if the controls are consistently applied.

Below are our key considerations but are not limited to the following:

Meter Reading

- For the old water meters that are used for commercial customers, we will gain an understanding of how usage data is collected, processes used to edit or change readings, and whether the data is reviewed prior to being entered into the billing system.
- For the remote-read digital meters that are used for residential accounts, we will gain an understanding of how the data is processed and obtained, how the components (software, data collector, receiver, etc.) interface, and determine whether data transmitted from automated meters to base stations are encrypted. We will also determine if there is a process to verify random automated readings compared with manual readings.
- We will review how usage data from the water meters is transferred into the billing system, ensuring that data is not altered prior to input in the billing system. If the process is automated and interfaced, we will review interface program and data mapping.
- We will determine if a work order system is in place to track service, maintenance and billing issues. If present, we will review process flow to include work order prioritization.

Billing and Cash Receipts

- We will determine if application controls are in place for the billing software such as flag accounts for certain criteria (negative consumption, zero consumption, no meter reading, duplicate reading, high consumption, etc.) and whether the City reviews those accounts prior to billing.
- We will review if correct rates are used (especially if tiered rate structure is in place) when billing customers based on consumption.
- We will gain an understanding of how the billing statements are mailed to customers. If statements are available online, we will gain an understanding of the controls that are in place.
- We will review the processes involved in applying cash receipts from customers to their individual accounts in the general ledger.

Billing Adjustments

- **We will review the processes for recording billing adjustments and determine if the City has a method to track adjustments whether due to billing errors or leak, and whether there is a process in place to approve adjustments.**

We interviewed the following personnel sometime in July and August 2016: City Clerk, City Attorney, Public Works Supervisors, Utility Billing Clerk, General Office Clerk, IT Consultant and a representative from the vendor who installed the remote-read water meters. We arranged a meeting with the former Billing Clerk in August 2016. However, she did not show up at the time of the scheduled meetings and did not respond to our follow up calls.

We observed the Public Work Supervisor perform a drive by meter reading for the Neptune remote-read water meters. We noted that a file used to do the drive-by reading is encrypted and could not be edited. We also observed Maintenance Workers perform meter reading for the manual/old meters which are mainly used for commercial accounts. For the old meter readers that were replaced, we selected 10 meters and we compared the ending reading to what was reflected in the billing software noting no exceptions.

We also tested the accuracy of the Neptune remote-read water meter by selecting three meters. We filled a 5 gallon bucket and noted a reading accuracy between 97% and 100%. These reading results are considered acceptable based on our discussion with a consultant from the vendor that helped the City install the Neptune meters.

In addition to potable water, the City also treats waste water, provides bulk effluent and sells bulk effluent water to customers. Bulk effluent water is available at a terminal in the wastewater facility. The terminal is not metered and customers self-report usage to the City on a monthly basis. We observed a customer in August 2016 who filled 2,000 gallon storage tank and noted that they log in their usage on a spreadsheet that they use to report usage to the City.

See Findings and Recommendations Section for the identified deficiencies in the internal control.

3. *Systems (Abila, Caselle, Neptune)*

- **We will review users' access listing for the meter reading system, billing and general ledger to determine appropriateness of access.**
- **We will determine if logging mechanism (audit log) is in place and activated.**
- **We will review other general Information Technology control areas such as password policy, encryption, and data security.**

We performed IT general control walkthroughs for the following relevant systems:

- Abila- MIP (general ledger)
- Caselle (billing software)
- Neptune (remote-read meter reader software)

- Xpress Bill Pay (customer online and payment system)
- WaterPlus (bulk water sale system)

See Findings and Recommendations Section for the identified deficiencies in the internal control.

4. ***Revenue/Receipts: We will randomly test 40 cash receipts for the period from April 2010 through August 2015. Our testing procedures will include coordination with the current department personnel to obtain adequate support to perform our test. We will test all selected transactions from initiation to recording the appropriateness of the supporting deposit tickets and related back up documentation and may also reach out to third party vendors and other payors to confirm if they paid amounts due.***

We selected the 40 cash receipts/billings based on our: (a) comparison of the available auto-reading data (January through August 2015), (b) review of consumption reports, and (c) interviews with City personnel. The following attributes were tested for the selected 40 transactions: (i) meter reading per billing agrees with auto-reading and manual-reading data, (ii) correct billing rate is used in accordance with the City Resolutions at the time, (c) tax rate is properly determined, and (d) amount was properly reflected in the general ledger.

See Findings and Recommendations Section for the results of the above procedures.

5. ***Billing adjustments: We will randomly test 40 billing adjustments from April 2010 through August 2015 and will determine if those adjustments are properly supported, authorized and correctly reflected in the billing software and general ledger.***

We selected 40 billing adjustments and tested for the following attributes: (a) adjustment was approved, (b) adjustment was accurately and timely reflected in the customer's account, and (c) adjustment is adequately supported and is reasonable.

See Findings and Recommendations Section for the results of the above procedures.

FINDINGS AND RECOMMENDATIONS

Our procedures identified the following findings:

Based on the results of our walkthrough and test of selected invoices, we noted the following:

- (1) The Neptune remote-read data was modified through a manual unauthorized entry when uploaded to the billing software. We compared the remote-read data from Neptune based on the available files (January through August 2015) and we determined that unauthorized manual changes were made to twelve (12) accounts. These unauthorized manual changes to the meter data resulted to under-billings of \$4,033.65 as of August 31, 2016 (see Exhibit A). Exhibit A also includes value of water at bulk rate as consumptions for some accounts were well beyond any reasonable residential use.

We obtained the 90 day reports from Neptune which contains details of the usage activity (hourly and daily) and noted that there are periodic spikes in water usage. See 90 day reports in Exhibit C.

(2) Bulk water is sold through a terminal that is controlled by a system (WaterPlus). There are two types of customers: prepaid and credit. We noted the following issues:

(a) We reconciled the meter ending read to the total gallon dispensed/billed per WaterPlus and noted the following discrepancy:

<u>Water bulk sales through 8.16.16</u>	
Per meter reading	5,949,919
Per WaterPlus software	5,384,671
Variance	<u>565,248</u>

The variance resulted in a potential loss of \$7,401, using the bulk water rate of \$13.10 for each 1,000 gallon in accordance with the City Resolution 14-15-17 effective on July 1, 2015.

(b) Delays in implementing rate increases as follows: (i) Resolution to increase the water rate from \$12.00 to \$12.25 (for each 1,000 gallon) effective October 1, 2012 was implemented only on November 7, 2012; (ii) Resolution to increase rate from \$12.25 to \$13.10 effective July 1, 2015 was only implemented on August 14, 2015. These two delays resulted in billings of 253,230 gallons using the old rate.

(c) Unauthorized use of the City’s bulk water account that was recorded under the former Superintendent of the Public Works user name. The review of the account’s activity revealed unusually high usage in 2014 as follows:

<u>1 (City of Moriarty)</u>	<u>Gallons</u>
2011	5,846
2012	12,512
2013	8,601
2014	107,891
2015	17

Based on our review of the transaction details for 2014 in the WaterPlus system, we noted various water transactions occurring mainly in November and December of 2014 with dispenses of 2,000 gallons per fill-up. Per our discussion with the Public Work Supervisors, we confirmed that the City only has a 600 gallon tank that they use to back flush clogged sewers. Transactions with more than 600 gallons of water dispensed in the bulk water terminal totaled 90,380 gallons. There was no documentation available to support or authorize large usage volumes that were greater than the City’s 600 gallon tank capacity. Using the bulk water rate of \$12.25 for each 1,000 gallons in accordance with the City Resolution 12-13-09 effective on October 1, 2012 the unauthorized dispensing of 90,380 gallons results in lost revenues to the City of \$1,107.15. The City has a camera that records activity at the station but video data is overwritten every 30 days so we were unable to observe activity during the period of our review.

(d) We also reviewed bulk water billing/usage for the largest bulk water customer which shows a decrease in usage from 422,016 gallons in 2013 to 89,064 gallons in 2014, which the City could not explain.

	Gallons
2011	41,038
2012	422,923
2013	420,016
2014	89,064
2015	84,035

- (3) Bulk effluent water is sold through another terminal independent of bulk water and does not have meter or system to track each usage transaction. In addition, usage transactions are self-reported by customers each month and the City is at risk of losses for any usage transactions that are not reported. We recommend that a meter be installed to track effluent water usage and a billing system be implemented similar WaterPlus for the regular bulk water.
- (4) The testing of commercial accounts which still use the manual water meter revealed some reading issues that need to be corrected in the following month. Based on our testing, we noted the following:

Account No.	Adjustment Date	Adjustment Amount
4.0185.03	8/3/2011	\$ (807.81)
4.0301.00	9/30/2013	\$ (850.50)
4.0157.01	11/22/2011	\$ (1,383.38)
4.0157.01	4/29/2015	\$ (1,417.50)
5.4131.21	12/4/2014	\$ (1,577.05)
4.1109.01	11/4/2014	\$ (1,665.59)
2.0675.01	9/4/2013	\$ (1,811.69)
4.1003.00	1/2/2014	\$ (1,867.16)
2.0631.01	8/19/2011	\$ (1,984.39)
4.0185.03	1/3/2013	\$ (5,207.03)
3.0077.01	5/2/2012	\$ (5,458.79)
4.0123.01	2/10/2015	\$ (10,932.97)
4.0152.02	3/7/2011	\$ (21,537.43)
4.0177.01	6/4/2012	\$ (27,133.51)
4.0152.02	8/12/2010	\$ (89,402.55)
		<u>\$ (173,037.35)</u>

We recommend that another person should verify the reading and sign off on the manual reading sheet before billing is made in the system. The adjustments above are deemed reasonable and appropriate based on the review of meter readings and other supporting documents.

- (5) The City’s backup and retention policy as contained in Resolution#9-10-25 was not followed. This is evidenced by the following missing data/documents:
- Neptune auto-read data from the date of the meters were installed in June 2014 through December 2014.
 - Manual readings for the conventional water meters from July 2014 through August 2015.
 - Some old water meters that were replaced, including those for all twelve accounts that have issues, as noted in Finding 1.
- (6) The review of the Neptune remote-read data revealed three (3) accounts that appear to have reverse flow issues. The details of the 3 accounts are as follows:

<u>Billing Date</u>	<u>Meter Reading</u>		<u>Variance</u>
	<u>Per Neptune</u>	<u>Per Billing</u>	
<u>1401 Elsie St (meter #1852351616)</u>			
3/31/2015	9,999,999.9	-	9,999,999.9
4/30/2015	9,999,999.9	-	9,999,999.9
5/31/2015	9,999,999.9	-	9,999,999.9
6/30/2015	9,999,999.9	-	9,999,999.9
7/31/2015	9,999,999.9	-	9,999,999.9
8/31/2015	9,999,999.9	-	9,999,999.9
<u>206 Center Ave (meter #1852365446)</u>			
3/31/2015	9,999,999.7	-	9,999,999.7
4/30/2015	9,999,999.7	-	9,999,999.7
5/31/2015	9,999,999.7	-	9,999,999.7
6/30/2015	9,999,999.7	-	9,999,999.7
7/31/2015	9,999,999.7	-	9,999,999.7
8/31/2015	9,999,999.7	-	9,999,999.7
<u>Airport Lot #58 (meter #1852340182)</u>			
1/31/2015	9,999,713.6	-	9,999,713.6
2/28/2015	9,999,713.6	-	9,999,713.6
3/31/2015	9,999,713.6	-	9,999,713.6
4/30/2015	9,999,656.2	-	9,999,656.2
5/31/2015	9,999,585.8	-	9,999,585.8
6/30/2015	9,999,492.0	-	9,999,492.0
7/31/2015	9,999,434.2	-	9,999,434.2
8/31/2015	9,999,313.2	-	9,999,313.2

We confirmed with the vendor for the Neptune that each meter has controls in place to prevent reverse flow. However, we reviewed the historical usage for these accounts and noted

that there are very minimal activities, and there is no way that each property could consume almost 10 million gallons of water in such a short period of time and we also observed that meter #1852340182, reading is going down every month. City personnel later confirmed that these meters were installed backwards.

- (7) Due to the small size of the Accounting Department, a segregation of duties issues exists. The Billing Clerk has access to the general ledger, water meter system and can accept water receipts from customers through a shared computer. In addition, all Accounting staff have access to the shared computer, the general ledger, copy of blank checks, and cash drawer and can also make cash deposits to the bank.
- (8) Work orders are not submitted in a timely manner and are not monitored for timely completion. All work orders related to new meter, termination and other changes should be supported by work orders.
- (9) Changes to master data in applications such as customer data to the billing system should be monitored and approved before changes can be made in the system. This will ensure that only authorized changes are made in the system.
- (10) Copies of bank check stock are currently stored in an unlocked cabinet that can be accessed by all Accounting personnel. We recommend that checks be stored in a locked cabinet or in a vault and that access should be limited to certain staff.
- (11) The commercial account (MESD) has been reported to have leakages for over a year; however, no work order has been submitted at this point. In addition, meter ID on the actual meter is 23322191 compared to 99133800 as reflected in the billing software.
- (12) In our walkthroughs of the IT General Controls, we noted the following deficiencies:
 - (a) Authentication and User Segregation. We noted user authentication is not required for Neptune and WaterPlus. Additionally, the software for Neptune and WaterPlus resides on a desktop that uses a communal login and all staff have access to this machine. Additionally, some applications have only one, shared login (Neptune and WaterPlus). We recommend proper user segregation be established by assigning users individual accounts and rights, which are not to be shared.
 - (b) Password policies. We noted all password policies except for Xpress Bill Pay (which is not user configurable) were deficient such as no expiration was enabled. In some cases, no password was required. Additionally, we obtained a listing of all usernames and passwords for all employees to all systems. We recommend this list be destroyed, and, if necessary, a non-digital copy of only administrator passwords for relevant systems be kept in a secure location. We also recommend passwords be 8 characters in length at a minimum; meet complexity requirements; and be changed every 90 days for all relevant financial systems. This includes the domain, which currently only requires a 5 character password.
 - (c) Daily backups are currently held for 30 days. As a result, only certain data was available for the purpose of our audit. We recommend annual backups of servers be performed to media and retained by the City for a minimum of three years.
 - (d) SOC 1 and Vendor Reviews. The City relies on Envision IT Solutions to design and maintain

its IT systems, and it also relies on Xpress Bill Pay for processing online payments of utility bills. However, no review is performed of either vendor, to include reviews of the user control considerations in Xpress Bill Pay's SSAE 16 SOC 1 report. We recommend the City perform an annual, documented review of all third-party vendors that provide or maintain financial systems.

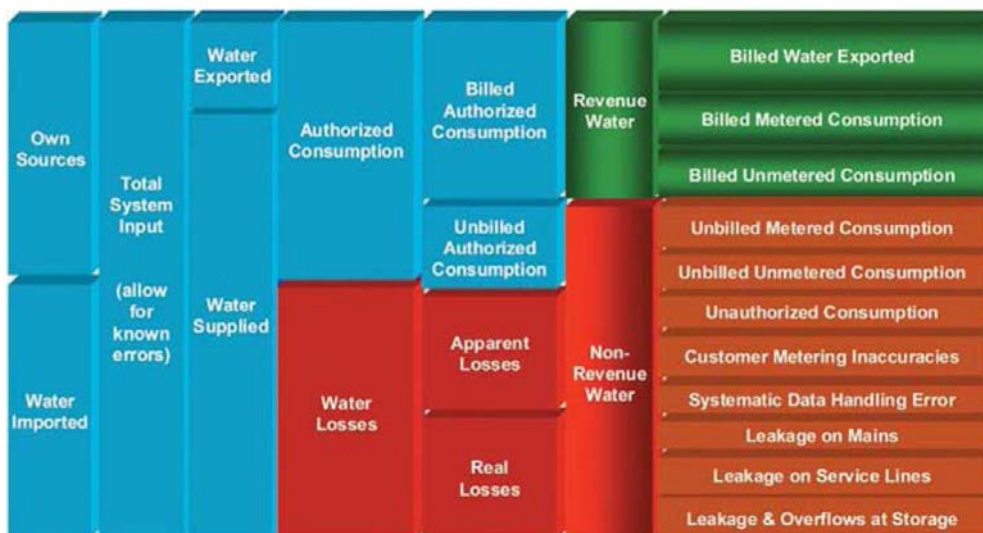
(e) Disaster Recovery Plan. There is currently no formal disaster recovery plan for IT systems. This coupled with a lack of vendor reviews and a limited backup window increases the likelihood of data loss in the event of a disaster. We also noted that the City does not have a fire sprinkler system anywhere in the building. We recommend Moriarty consider developing a disaster recovery plan that includes the recovery of IT systems and perform annual tests to ensure IT systems will be sufficiently recovered in the event of a disaster.

(f) The billing software has not been upgraded in a long time hence available security features for the recent version are not in place.

(13) Based on our test of 40 billing adjustments, we noted that the adjustments are not properly supported and approved. We noted that the City implemented a process for the City Council to approve all credit adjustments; however, this process is not formalized.

(14) Review water produced from wells (based on the monthly report to Taxation and Revenue Department) compared to water billed/sold to customers. Based on the schedule we prepared in Exhibit B, we noted that water loss each year from 2010 through 2015 ranges from 10.9 million to 33.3 million gallons per year or a water loss (unaccounted water) ranging from 9% to 27%, higher than the acceptable water losses of 10% to 15% for public water system based on Environmental Protection Agency (EPA) report (Control and Mitigation of Drinking Water Losses in Distribution Systems).

Below is the Water Balance Table developed by International Water Association (IWA) and American Water Works Association (AWWA) that can be used to analyze the components of water losses.



Source: AWWA/IWA Water Balance Table

In addition, EPA provides for the development of a Water Loss Control Program to locate and reduce water losses and thus maintain or increase revenue.

OTHER MATTERS

During our walk through and interviews, other matters were brought to our attention that we considered control deficiencies that should require additional consideration by the City.

- Evaluate current water rate structure, compare to the City’s rates to other cities and consider the long term needs and financial viability of the Water Fund. Based on our review of the audited financial statements from fiscal year 2011 through 2015, we noted that the City lost \$365,434 during that period, excluding the effect of transfers and non-recurring transactions (see Exhibit D). The City’s Water Fund had a positive fund balance as of June 30, 2015 however without transfers from the General Fund, this fund may have had a deficit at fund balance. The City has yet to replace old meters for most commercial accounts and is considered to have old water infrastructure. It is important that the Water Fund be self-sufficient without financial support from the General Fund. Using the information in the table below, the City charges about half of what its closest neighboring utilities (Homestead) and one third of what is being charged in Edgewood.

Water Rates for Consumption of 6,000 gallons per Month for Selected Water Utilities					
Customer Type	Moriarty Current Rates	Edgewood (Entranosa) 2014 Rates*	Homestead Water Company 2011 Rates**	Tucumcari 2014 Rates*	Santa Rosa 2014 Rates*
Residential	\$15.51	\$45.14	\$29.03	\$28.25	\$16.57
Commercial	\$15.51	\$45.14	\$29.03	\$35.90	\$16.57

* Source: NMED Drinking Water Bureau, 2015 Municipal and Wastewater User Charge Survey for December 2014 Rates

** Source: NMPRC, Homestead Water Company First Revised Rate No. 1, <http://www.nmprc.state.nm.us/consumer-relations/company-directory/water/homestead-water-co/rates/rate01.pdf>.

- The City does not keep written customer agreements for online payment processing. We recommend that the City put a process in place to address this issue.
- Obtain and maintain the 90 day report on a regular basis for all the remote-read meters. This report contains the daily and hourly usage levels and serves as a reference in the future in case an issue or question arises for a particular meter.



We have discussed these comments and suggestions with the City’s personnel and we will be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

The following findings and recommendations are presented as prescribed by the State Auditor's Office. The City's responses were not subjected to auditing or additional consulting procedures and, accordingly, we express no opinion on them.

FINDING 1 - Modification of the Neptune Auto Reader Data in the Billing System

CONDITION

Based on the review of the Neptune auto reader data from January through August 2015, we noted that unauthorized manual changes were made to twelve (12) customer accounts. This includes the accounts of a former elected official and a former employee which resulted in under-billings of \$3,115.95.

See Exhibit A for the details.

CRITERIA

The modification is a violation under the Tampering with Public Records under NMSA 30-26-1. In addition, data from the auto reader should be accurately reflected in the billing system.

EFFECT

Violation of NMSA 30-26-1 (Tampering with Public Records) is subject to a fourth degree felony. In addition, the changes resulted in estimated under-billings of \$4,033.65 as of August 31, 2016.

CAUSE

Client personnel claimed that the former Billing Clerk was directed by the former Superintendent of Public Works to modify billing data. However, we attempted to talk to the former Billing Clerk and she didn't respond to our calls.

RECOMMENDATION

We recommend that the City perform the following after the system has been upgraded:

- Ensure that meter data cannot be modified in the billing software. Consider implementing an interface program, if available, to eliminate human intervention.
- Review of billings should be performed by someone independent from the Billing Clerk.
- Exception reporting should be implemented in the billing software and consumption reports should be reviewed on a regular basis.

MANAGEMENT RESPONSE

This finding is consistent with what City management discovered, prompting the referral of this issue to the State Auditor. The former Superintendent of Public Works and former Utility Billing Clerk have been terminated from their positions with the City of Moriarty. The City has initiated the hiring process for a new Superintendent of Public Works, with the goal to have that person in place to assist in implementing the reforms recommended in this report. Similarly, the City is initiating the process to upgrade its utility billing software, again with the goal of implementing the recommended reforms.

City management recommends that the State Auditor refer this issue to the Attorney General's office for a criminal investigation and possible criminal prosecution.

FINDING 2 - Lack of Controls Over Bulk Water Sales

CONDITION

Our review of bulk water sales controls revealed the following deficiencies:

- (a) Discrepancy between meter reading of 5,949,919 gallons and WaterPlus software billed 5,384,671 gallons resulted in an unreconciled/unbilled 565,248 gallons.
- (b) Delays in implementing rate increases as follows: (i) Resolution to increase rate from \$12.00 to \$12.25 (for each 1,000 gallon) effective October 1, 2012 was implemented only on November 7, 2012; (ii) Resolution to increase rate from \$12.25 to \$13.10 effective July 1, 2015 was only implemented on August 14, 2015. These delays affected billings of 253,230 gallons which were billed with the old rate.
- (c) Unauthorized use of the City's bulk water account under the user name of former Superintendent of the Public Works. Using the bulk water rate of \$12.25 for each 1,000 gallons in accordance with the City Resolution 12-13-09 effective on October 1, 2012 the unauthorized dispensing of 90,380 gallons results in lost revenues to the City of \$1,107.15.
- (d) The City doesn't perform analysis by customer of billing/usage. Consequently, the City could not explain why the largest bulk water customer usage decreased from 422,016 gallons in 2013 to 89,064 gallons in 2014.

CRITERIA

Good internal controls provide consistency of financial records to the source document. Ordinances for rate increases provide effective dates that need to be complied with. Consumption/usage report should be reviewed to identify unusual transactions.

EFFECT

The above issues resulted in loss of water and revenue to the City.

CAUSE

There is a lack of controls surrounding the bulk water business process.

RECOMMENDATION

We recommend the following:

- (a) Perform timely reconciliations and investigate the variance identified between the water meter usage and the WaterPlus software usage billed. It could be a system issue wherein a transaction is erroneously deleted or there might be some source that is running through the water meter that is not being captured in the billing system.
- (b) Ensure that rate increases are reflected in the billing system and WaterPlus on a timely basis in accordance with the City Resolution.
- (c) City bulk water account should be monitored for reasonableness to ensure that all activities are consistent with the intended uses by the Public Works.

(d) Analyze transactions for large users and determine if significant increases or decreases in the usage activity are reasonable.

MANAGEMENT RESPONSE

The City will implement these recommendations. The City has initiated the hiring process for a new Superintendent of Public Works, with the goal to have that person in place to assist in implementing the reforms recommended with this special audit.

FINDING 3 – Lack of Meter and System to Monitor Bulk Effluent Sales

CONDITION

Bulk effluent water is sold through another terminal separate from bulk water and does not have any meter or system to track each usage transaction. Transactions are self-reported by customers each month the City uses self-reported amounts to complete the monthly billing.

CRITERIA

Good internal controls dictate maintaining preventative and detective controls to ensure assets are properly safeguarded.

EFFECT

If customers fail to self-report the City will not bill the customer resulting in lost revenues.

CAUSE

There is a lack of controls surrounding the bulk water business process.

RECOMMENDATION

We recommend that a meter be installed to track effluent water usage and a billing system be implemented similar WaterPlus for the regular bulk water.

MANAGEMENT RESPONSE

City management intends to install a system for bulk effluent water purchases similar to the WaterPlus system used for bulk water purchases.

FINDING 4 – Manual Meter Reading Errors for Commercial Accounts

CONDITION

The testing of commercial accounts which still use the manual water meter revealed some reading issues for 15 accounts that need to be corrected in the following month. We understand that the City plans to replace these old meters in the future.

CRITERIA

Good internal controls provide consistency of financial records to the source document. In this case, consistency of the meter readings to the billing data.

EFFECT

Due to the lack of additional verification, some billing errors may occur and not be detected timely.

CAUSE

There is a lack of controls surrounding the manual meter reading process.

RECOMMENDATION

We recommend that another person should verify the reading and sign off on the manual reading sheet before billing is made in the system.

MANAGEMENT RESPONSE

With the hiring of a new Superintendent of Public Works, the City will implement a process whereby manual meter reads are verified and approved before being entered into the billing system.

FINDING 5 - Compliance with Document and Data Retention Policy

CONDITION

The City's backup and retention policy as contained in Resolution#9-10-25 was not followed. This is evidenced by the following missing data/documents:

- Neptune auto-read data from the date of the meters were installed in June 2014 through December 2014.
- Manual readings for the conventional water meters from July 2014 through August 2015.
- Some old water meters that were replaced, including those for all twelve accounts that have issues, as noted in Finding 1.

CRITERIA

Financial records (physical and electronics) need to be preserved/maintained for at least 3 years in accordance with applicable state and federal regulations.

EFFECT

The City is not in compliance with its policy and applicable state and federal retention rules. In addition, validity and accuracy of the billing transactions could not be verified.

CAUSE

The City did not monitor compliance with its retention policy.

RECOMMENDATION

We recommend that the City emphasize its retention policy through communication and trainings as necessary to ensure that data have backup and is preserved for at least 3 years.

MANAGEMENT RESPONSE

The City will implement an annual checklist to ensure data is backed up and preserved. The City has initiated the hiring process for a new Superintendent of Public Works, with the goal to have that person in place to assist in implementing the reforms recommended with this special audit.

FINDING 6 – Installation Issues for Some Neptune Auto Meter Readers

CONDITION

The review of the Neptune remote-read data revealed three (3) accounts that might have some reverse flow issues.

CRITERIA

By standards, auto meter readers like Neptune do not allow reverse flow.

EFFECT

The three meters experienced data reading errors since installation in June 2014 and may have resulted in billing losses to the City.

CAUSE

The meters were installed backwards per the City and as indicated in the meter reading data.

RECOMMENDATION

We recommend that the City, with the help of its consultants, perform reviews of these meters as well as other meters reported as defective to ensure that reading data is accurate and reliable.

MANAGEMENT RESPONSE

The City will implement this recommendation. City management reviewed these three accounts and found that the City's utility billing software did generate bills for the account that had flow, even though the meter was "counting down" rather than "counting up."

FINDING 7 – Segregation of Duties

CONDITION

The Billing Clerk has access to the general ledger, water meter system and can accept water receipts from customers through a shared computer. In addition, all Accounting staff have access to the shared computer, the general ledger, copy of blank check stock, and cash drawer can also make cash deposits to the bank.

CRITERIA

Good internal control provides segregation of duties in the following areas: authorization, recording, and custody. This is to ensure that there is a check and balance between functions to prevent and detect errors or fraud.

EFFECT

The current structure provided accounting staff the ability to make unauthorized transactions or changes in the system.

CAUSE

Due to the small size of the organization, the City was limited in implementing a better control structure.

RECOMMENDATION

We understand the limitation facing the City. However, there are certain controls and procedures that can be implemented as follows:

- The Billing Clerk should not have access to the general ledger and should not be able to deposit receipts as well as reconcile accounts.
- Reconciliation of accounts should be performed by someone that is not involved in the billing, cash receipt and recording process.
- Effective monitoring and timely review to prevent or detect error or fraud.

MANAGEMENT RESPONSE

The General Ledger software has password capabilities to limit access and rights. The clerk's office will assign passwords and appropriate rights. The billing clerk will not do deposits or reconcile accounts. A dual control with other staff that is not involved with billing, will take place to receipt and record.

The City Treasurer and the City Clerk, as management, reconcile the General Ledger to the bank statements on a monthly basis. The monitoring of these functions happens at least monthly, as the balancing could not be performed if the daily reconciliation is not correct. We will continue to diligently monitor these daily activities to detect and assure there are no errors or fraud.

FINDING 8 – Timely Completion and Monitoring of Work Orders

CONDITION

Work orders are not submitted in a timely manner and are not monitored for timely completion. All work orders related to new meter, termination and other changes should be supported by work orders.

CRITERIA

Work order serves as an audit trail for any billing and Public Works transactions such as new meter, meter replacement, termination, meter issues, etc.

EFFECT

Delay in submitting work orders and lack of monitoring affects timely completion of a certain job or process requested by customers.

CAUSE

There is no written work order process in place.

RECOMMENDATION

We recommend that the City adopt policies and procedures related to the work order system. In addition, the policy should cover timely completion and monitoring of open work orders.

MANAGEMENT RESPONSE

The City will implement this recommendation.

FINDING 9 – Changes in Master Data for Applications

CONDITION

Changes to master data in applications such as customer data to the billing system should be monitored and approved before changes can be made in the system. This will ensure that only authorized changes can be made in the system.

CRITERIA

Changes to master data in applications should be authorized in accordance with an organization change management policy, if any.

EFFECT

Changes in the customers have no supporting approval. There could have been some unauthorized changes to data and transactions.

CAUSE

There is a lack of change management control procedures.

RECOMMENDATION

We recommend that the City implement a procedure to approve any changes in master data in all systems and application. This can be documented in a work order system or a form can be developed to serve as an audit trail.

MANAGEMENT RESPONSE

The City will utilize the implementation of a work order system to ensure that changes to master data are done by work order.

FINDING 10 – Store Copies of Blank Check Stock in a Secured Location

CONDITION

Copies of blank check stock are currently stored in an unlocked cabinet that can be accessed by all Accounting personnel.

CRITERIA

Sensitive documents such as blank check stock should be stored in a secured location to prevent unauthorized use.

EFFECT

All Accounting Staff can access the blank check stock.

CAUSE

There is a lack of internal control surrounding the security of blank checks.

RECOMMENDATION

We recommend that the copies of blank check stock be secured and locked at all times. In addition, access should be limited to staff involved in the cutting of checks.

MANAGEMENT RESPONSE

Blank checks are currently stored in the City's vault room. The City will implement this recommendation by ensuring that the vault room remains locked. Only the City Clerk, City Treasurer and Deputy Clerk have keys to access the vault room.

FINDING 11 - Timely Resolution to a Reported Issue

CONDITION

Meter reader for a commercial account (MESD) has been reported to have leakages for over a year; however, no work order has been submitted at this point. In addition, meter ID on the actual meter is 23322191 compared to 99133800 as reflected in the billing software.

CRITERIA

Meter reader issue should be resolved in a timely manner. Meter ID should be consistent with what was reflected in the billing software.

EFFECT

The issue has been unresolved for over a year resulting in loss of water. In addition, the meter ID is not accurate in the system.

CAUSE

The location of the meter has been flooded due to the leakage for a while. Hence, there is a delay in addressing the issue.

RECOMMENDATION

We recommend that the City resolve reported meter issue on a timely basis. In addition, meter information should be accurately reflected in the billing system to avoid loss of water and billing errors.

MANAGEMENT RESPONSE

The implementation of the meter reading verification process in Finding 4 and the work order system in Finding 8, along with the hiring a new Superintendent of Public Works will ensure that reported issues are resolved in a timely fashion.

FINDING 12 – IT General Controls

CONDITION

Our review of IT general controls for relevant applications revealed the following:

- (a) Authentication and User Segregation. We noted authentication is not required for Neptune and WaterPlus. Additionally, the software for Neptune and WaterPlus resides on a desktop that uses a communal login, and all staff have access to this machine. Additionally, some applications have only one shared login (Neptune and WaterPlus).
- (b) Password policies. We noted all password policies except for Xpress Bill Pay (which is not user configurable) were deficient such as no password expiration was enabled. In some cases, no password was required. Additionally, we obtained a listing of all usernames and passwords for all employees to all systems.
- (c) Daily backups are currently held for 30 days. As a result, only certain data was available for the purpose of our audit.
- (d) SOC 1 and Vendor Reviews. The City relies on Envision IT Solutions to design and maintain its IT systems, and it also relies on Xpress Bill Pay for processing online payments of utility bills. However, no review is performed of either vendor, to include reviews of the user control considerations in Xpress Bill Pay’s SSAE 16 SOC 1 report.
- (e) Disaster Recovery Plan. There is no formal disaster recovery plan for IT systems. This coupled with a lack of vendor reviews and a limited backup window increases the likelihood of data loss in the event of a disaster. We also noted that the City does not have a fire sprinkler system anywhere in the building.
- (f) The billing software has not been upgraded in a long time hence available security features for the recent version are not in place.

CRITERIA

IT, including systems and infrastructure are essential and integral to the efficiency of the City’s operations. IT internal controls are essential to maintain the confidentiality, integrity, and availability of data. IT internal controls are as important as the internal controls that surround the input of financial transactions into the City’s general ledger.

In accordance with ISACA’s Control Objectives for Information and related Technology (COBIT) 4.1, framework (DS4, Ensure Continuous Service), a Disaster Recovery Plan needs to be developed and tested to reduce impact of a major disruption on key business functions and processes. Framework DS5 (Ensure System Security) provides that the need to maintain integrity of information and

protect IT assets requires a security management process. This process includes establishing and maintaining IT security and roles and responsibilities, policies, standards, and procedures. Security management also includes performing security monitoring and periodic testing and implementing corrective actions for identified security weakness or incidents. Effective security management protects all IT assets to minimize the business/financial impact of security vulnerabilities and incidents.

In accordance with ISACA's Control Objectives for Information and related Technology (COBIT) 4.1 framework, a change management process (AI6 and AI7) includes controls that provide reasonable assurance that system changes of financial reporting significance are authorized, appropriately tested before being moved to production and that segregation of duties exist between IT staff responsible for moving a system change into production and the IT staff involved in the development.

EFFECT

The absence of a formal Disaster Recovery Plan may pose question as to the City's ability to respond and recover its critical data and applications in the event of an unforeseen disaster.

Without strong internal controls over the City's IT infrastructure and applications, there is the potential for the confidentiality, integrity, and/or availability of data to be compromised. This compromise could be by an internal user of the system, by an external source (hacker), could be intentional or unintentional, and could be the result of a disaster.

Absence of the other required processes for change management poses risks of unauthorized or incorrect modification in the system that may result in processing errors in the system.

CAUSE

The City is a small organization, has limited staff and currently outsources IT functionality to a third party consultant.

RECOMMENDATION

We recommend the following:

- (a) We recommend proper user segregation be established by assigning individual user accounts and rights, which are not to be shared. The City should consider the current segregation of duties outside the system to ensure the incompatibilities of duties are prevented.
- (b) We recommend this list be destroyed, and, if necessary, a non-digital copy of only administrator passwords for relevant systems be kept in a secure location. We also recommend passwords be 8 characters in length at a minimum; meet complexity requirements; and be changed every 90 days for all relevant financial systems. This includes the domain, which currently only requires a 5 character password.
- (c) We recommend annual backups of servers (including monthly Neptune meter reader data) be performed to media and retained by the City for a minimum of three years.
- (d) We recommend Moriarty perform an annual, documented review of all third-party vendors that provide or maintain financial systems.

- (e) We recommend Moriarty consider developing a disaster recovery plan that includes the recovery of IT systems which include critical applications and perform annual tests to ensure IT systems will be sufficiently recovered in the event of a disaster.
- (f) Consider upgrading the billing software and incorporate latest security features to strengthen overall control structure.

MANAGEMENT RESPONSE

The City will implement these recommendations.

FINDING 13 – Unapproved Billing Adjustments

CONDITION

Based on our test of 40 billing adjustments, we noted that the adjustments are not properly supported and approved. We noted that the City implemented a process for the City Council to approve all credit adjustments; however, this process is not formalized.

CRITERIA

A billing adjustment should be approved to ensure validity of the credit and that it should accompany supporting documentation.

EFFECT

All billing adjustments for the period under review have minimal support and lack authorization or approval.

CAUSE

The City does not have any procedures in place for billing adjustments process.

RECOMMENDATION

We recommend the following:

- Supporting documentation should be attached and maintained for each billing adjustment.
- The billing adjustment approval by the City Council should be formalized either by adopting a written policy or through a resolution adopted by City Council.

MANAGEMENT RESPONSE

The City has implemented a process whereby all billing adjustments are made by City Council approval. Any such adjustments are individually itemized on the City Council agenda and require a City Councilor to sign off on each itemized adjustment. Only the City Clerk's user account is authorized to make adjustments in the billing software.

FINDING 14 – Unreconciled Water Variance (Produced vs. Billed)

CONDITION

Review water produced from wells (based on the monthly report to Taxation and Revenue Department) compared to water billed/sold to customers. Based on the schedule we prepared in Exhibit B, we noted that water loss each year from 2010 through 2015 ranges from 10.9 million to 33.3 million gallons per year or a water loss (unaccounted water) ranging from 9% to 27%, higher than the acceptable water losses of 10% to 15% from public water system based on EPA report (Control and Mitigation of Drinking Water Losses in Distribution Systems).

CRITERIA

Water produced from wells should be reconciled to the consumption report based on billings to consumers. AWWA and IWA provides for a Water Balance Table under M36 standard (Manual Practice for Water Audits and Loss Control). In addition, EPA provides for the development of a Water Loss Control Program to locate and reduce water losses and thus maintain or increase revenue.

EFFECT

There is unreconciled balance of 115.63 million gallons from April 2010 through August 2015 that could result to potential loss of \$1,466,726 (using bulk rates of \$12.25 to \$13.10) or \$321,070 (using residential rates of \$2.70 to \$2.85).

CAUSE

The City does not have any procedures in place to analyze components of the water losses.

RECOMMENDATION

We recommend that the City perform monthly reconciliation between water produced on all wells compared to water billed for a particular month. Any variances should be reconciled to areas such as usage by Fire Department for various fire hydrants and other locations that don't have meters. It is important to follow standards set by AWWA and IWA as well as those prescribed by EPA.

MANAGEMENT RESPONSE

The City will implement this recommendation.

Exhibit A - Calculation of Unbilled Consumption

<u>Billing Date</u>	<u>Meter Read (in thousand Gal.)</u>			<u>At 8/31/2016</u>		
	<u>Per Neptune</u>	<u>Per Billing</u>	<u>Variance</u>	<u>Quantity</u>	<u>Underbillings Res/Com Rate</u>	<u>Value at Bulk Rate</u>
<u>Meter #1852263159</u>						
1/31/2015						
2/28/2015	-	-	-			
3/31/2015	-	-	-			
4/30/2015	23	-	23			
5/31/2015	26	-	26			
6/30/2015	35	-	35			
7/31/2015	40	-	40			
8/31/2015	44	-	44	44	\$ 111.60	\$ 576.40
<u>Meter #1852299305</u>						
1/31/2015	485	48	437			
2/28/2015	564	56	508			
3/31/2015	569	56	513			
4/30/2015	574	57	517			
5/31/2015	580	58	522			
6/30/2015	585	58	527			
7/31/2015	590	59	531			
8/31/2015	595	59	536	536	1,513.80	7,021.60
<u>Meter #1852358887</u>						
1/31/2015	26	26	-			
2/28/2015	102	102	-			
3/31/2015	111	111	-			
4/30/2015	119	119	-			
5/31/2015	129	129	-			
6/30/2015	144	129	15			
7/31/2015	144	129	15			
8/31/2015	146	129	17	17	38.55	222.70
<u>Meter #1852364250</u>						
3/31/2015	28	22	6			
4/30/2015	32	22	10			
5/31/2015	32	22	10			
6/30/2015	33	22	11			
7/31/2015	40	22	18			
8/31/2015	53	22	31	31	74.55	406.10
<u>Meter #1852383970</u>						
3/31/2015	35	9	26			
4/30/2015	41	9	32			
5/31/2015	48	9	39			
6/30/2015	48	9	39			
7/31/2015	48	9	39			
8/31/2015	48	9	39	39	97.35	510.90
<u>Meter #1852353910</u>						
1/31/2015	342	34	308			
2/28/2015	483	48	435			
3/31/2015	603	60	543			
4/30/2015	608	60	548			
5/31/2015	614	61	553			
6/30/2015	619	61	558			
7/31/2015	629	62	567	567	1,602.15	7,427.70

Exhibit A- Calculation of Unbilled Consumption (continued)

Billing Date	Meter Read (in thousand Gal.)			Quantity	At 8/31/2016		
	Per Neptune	Per Billing	Variance		Underbillings Res/Com Rate	Value at Bulk Rate	
<u>Meter #1852742523</u>							
1/31/2015	26	2	24				
2/28/2015	39	3	36				
3/31/2015	56	5	51				
4/30/2015	90	9	81				
5/31/2015	175	17	158				
6/30/2015	182	18	164				
7/31/2015	187	22	165				
8/31/2015	190	25	165	165	456.45	2,161.50	
<u>Meter #1852264624</u>							
1/31/2015	40	40	-				
2/28/2015	43	43	-				
3/31/2015	45	45	-				
4/30/2015	52	52	-				
5/31/2015	57	57	-				
6/30/2015	80	80	-				
7/31/2015	100	81	19				
8/31/2015	108	89	19	19	43.65	248.90	
<u>Meter #1852273432</u>							
1/31/2015	91	91	-				
2/28/2015	231	231	-				
3/31/2015	239	231	8				
4/30/2015	239	231	8				
5/31/2015	239	231	8				
6/30/2015	239	231	8				
7/31/2015	239	231	8				
8/31/2015	239	231	8	8	18.00	104.80	
<u>Meter #1852263672</u>							
1/31/2015	27	-	27				
2/28/2015	27	-	27				
3/31/2015	27	-	27				
4/30/2015	27	-	27				
5/31/2015	27	-	27				
6/30/2015	27	-	27				
7/31/2015	27	-	27				
8/31/2015	27	-	27	27	64.05	353.70	
<u>Meter #1852383640</u>							
1/31/2015	6	-	6				
2/28/2015	6	-	6				
3/31/2015	6	-	6				
4/30/2015	6	-	6				
5/31/2015	6	-	6				
6/30/2015	6	-	6				
7/31/2015	6	-	6				
8/31/2015	6	-	6	6	13.50	78.60	
<u>Meter #1852351631</u>							
1/31/2015	9	-	9				
2/28/2015	9	-	9				
3/31/2015	9	-	9				
4/30/2015	9	-	9				
5/31/2015	9	-	9				
6/30/2015	9	-	9				
7/31/2015	9	-	9				
8/31/2015	9	-	9	9	20.25	117.90	
				9			
				1,468	\$ 4,033.65	\$ 19,230.80	

Exhibit B – Reconciliation of Water Produced and Billed

Month	2015			2014		
	Gallons (in thousand)			Gallons (in thousand)		
	Produced	Billed	Variance	Produced	Billed	Variance
January	8,702	6,431	2,271	8,215	7,438	777
February	8,037	6,666	1,371	7,413	5,442	1,971
March	10,241	7,554	2,687	11,422	7,854	3,568
April	11,150	9,099	2,051	12,502	9,645	2,857
May	11,038	10,609	429	12,615	10,260	2,355
June	14,755	11,820	2,935	14,853	12,355	2,498
July	15,274	13,613	1,661	12,698	11,805	893
August	14,216	11,507	2,709	11,235	7,897	3,338
September	-	-	-	11,481	9,598	1,883
October	-	-	-	9,831	8,679	1,152
November	-	-	-	8,614	2,947	5,667
December	-	-	-	10,300	10,780	(480)
	93,413	77,299	16,114	131,178	104,700	26,478

Month	2013			2012		
	Gallons (in thousand)			Gallons (in thousand)		
	Produced	Billed	Variance	Produced	Billed	Variance
January	8,593	7,623	970	8,664	13,603	(4,939)
February	7,519	6,282	1,237	7,932	7,676	256
March	8,219	5,703	2,516	9,518	7,092	2,426
April	11,149	9,047	2,102	11,193	8,723	2,470
May	13,887	11,718	2,169	11,027	11,712	(685)
June	15,149	13,009	2,140	16,197	14,927	1,270
July	12,620	11,118	1,502	15,039	14,998	41
August	12,405	11,471	934	14,397	11,041	3,356
September	10,431	9,061	1,370	12,221	11,560	661
October	9,244	7,591	1,653	9,762	7,784	1,978
November	7,627	6,158	1,469	7,914	6,813	1,101
December	8,958	7,561	1,397	8,232	5,245	2,987
	125,799	106,342	19,457	132,097	121,174	10,923

Month	2011			2010		
	Gallons (in thousand)			Gallons (in thousand)		
	Produced	Billed	Variance	Produced	Billed	Variance
January	10,593	7,038	3,555	-	-	-
February	10,656	14,307	(3,651)	-	-	-
March	9,796	9,505	291	-	-	-
April	13,609	11,613	1,996	19,454	7,783	11,671
May	13,673	11,184	2,489	14,006	9,770	4,236
June	17,033	16,468	565	19,356	14,848	4,508
July	12,700	14,011	(1,311)	15,166	12,343	2,823
August	13,352	11,289	2,063	13,411	12,073	1,338
September	12,207	9,360	2,847	13,535	10,643	2,892
October	10,379	9,681	698	10,730	9,378	1,352
November	8,529	6,351	2,178	8,947	6,433	2,514
December	9,131	7,505	1,626	8,466	6,444	2,022
	141,658	128,312	13,346	123,071	89,715	33,356

Total variance from April 2010 through August 2015	119,674
Less: Bulk water sale (not included in the above billings)	4,045
Adjusted variance	<u>115,629</u>

Exhibit C – Selected Neptune 90 Day Reports

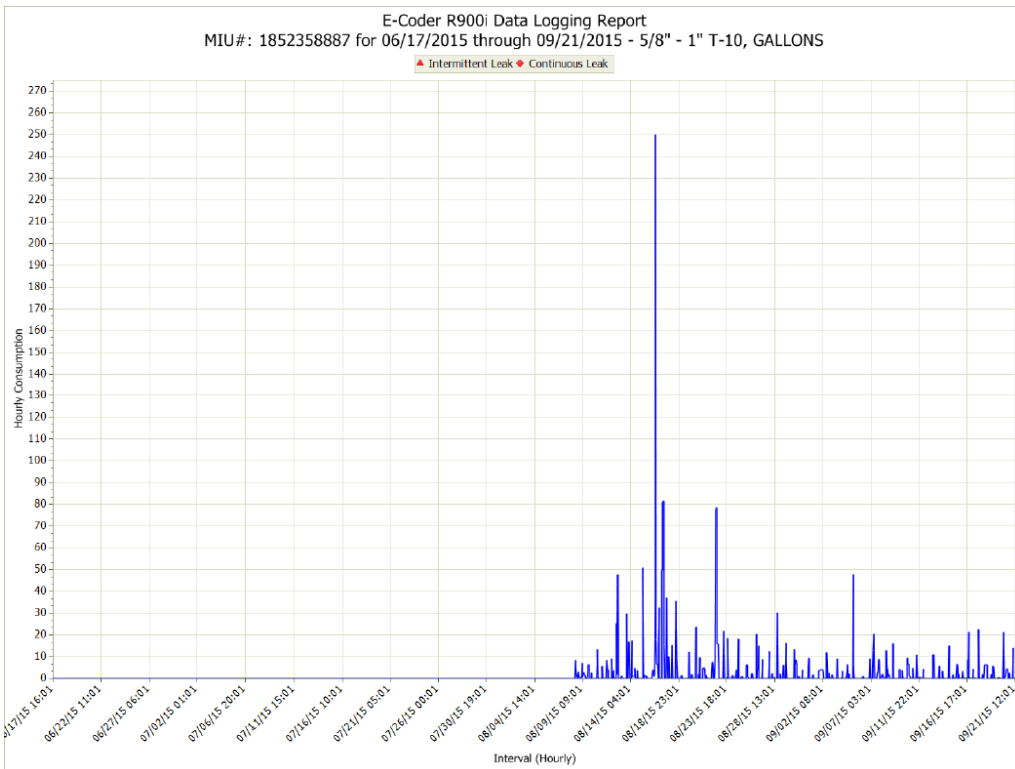
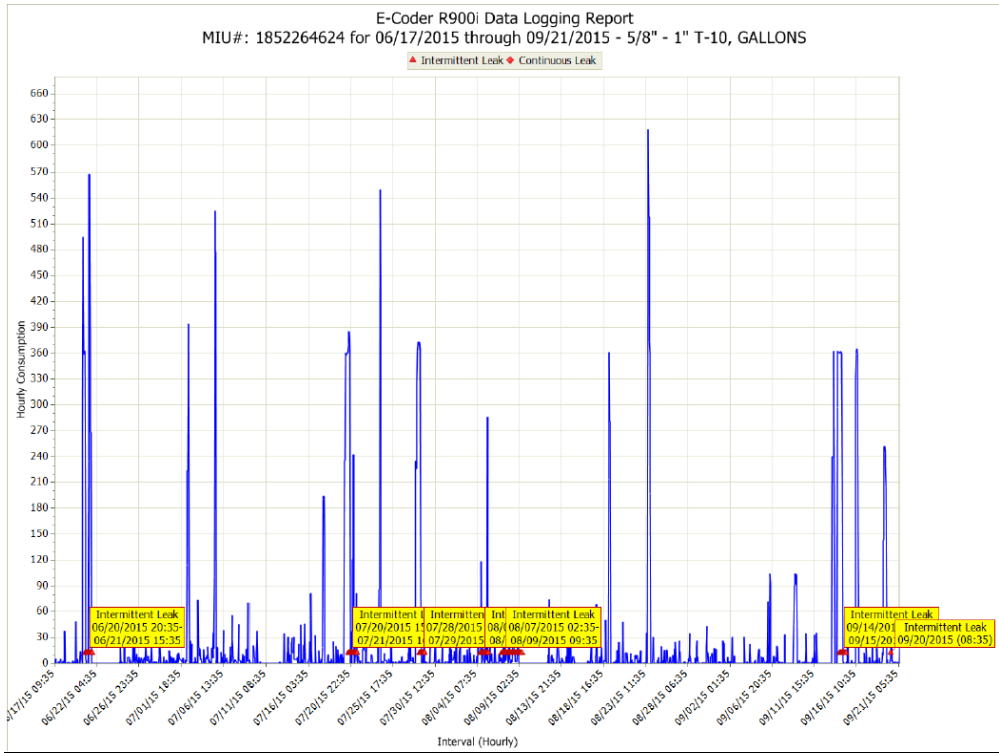


Exhibit C – Selected Neptune 90 Day Reports (continued)

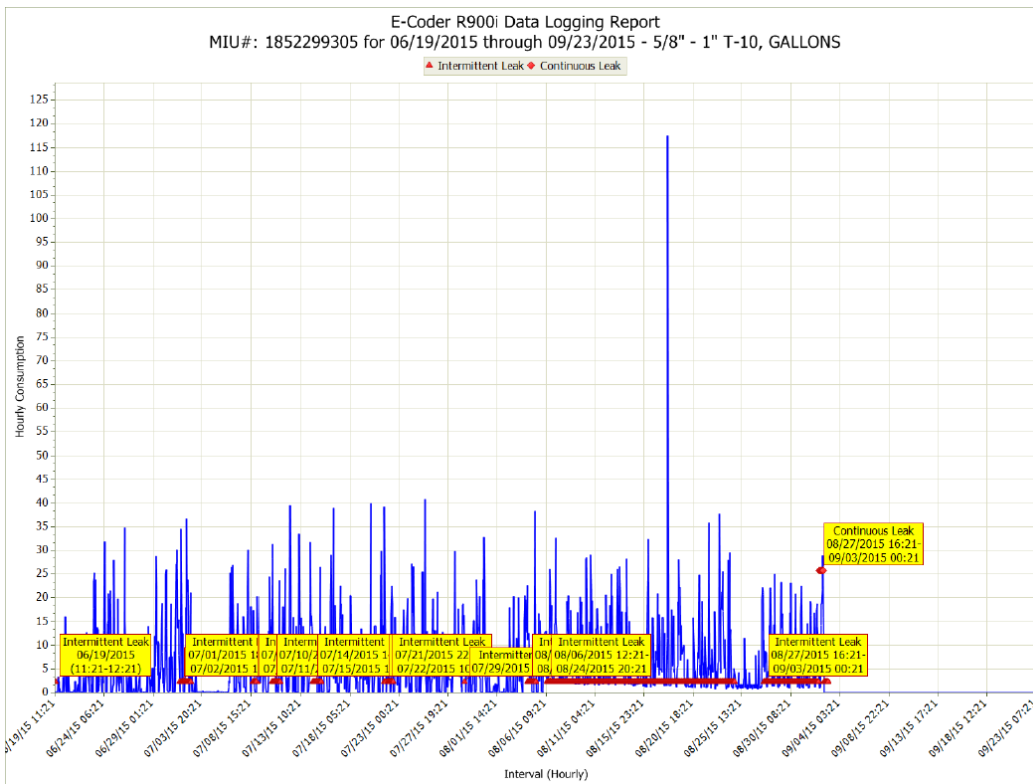
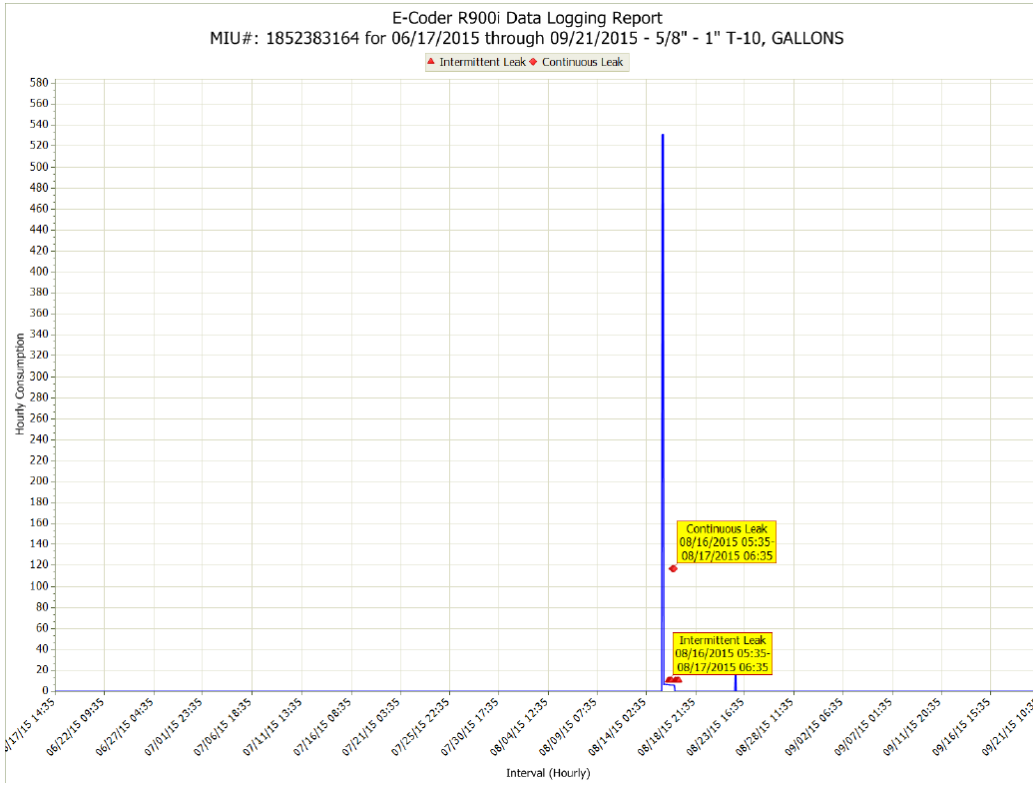


Exhibit D – Water Fund Financial Summary

	<u>FY2015</u>	<u>FY2014</u>	<u>FY2013</u>	<u>FY2012</u>	<u>FY2011</u>	<u>Total</u>
Revenues	\$ 333,836	\$ 356,410	\$ 325,656	\$ 337,704	\$ 381,785	\$ 1,735,391
Operating expenses	143,988	330,047	512,655	393,316	431,056	1,811,062
Operating income (loss)	189,848	26,363	(186,999)	(55,612)	(49,271)	(75,671)
Non-operating income (expenses)	(5,943)	-	(2,882)	(48,807)	(39,676)	(97,308)
Other financing sources (uses)	947,409	(92,344)	(329,972)	-	(29,299)	495,794
Change in net position	<u>\$ 1,131,314</u>	<u>\$ (65,981)</u>	<u>\$ (519,853)</u>	<u>\$ (104,419)</u>	<u>\$ (118,246)</u>	<u>\$ 322,815</u>
Transfers	\$ (947,409)	\$ 92,344	\$ 329,972	\$ -	\$ 29,299	\$ (495,794)
Negative operating expenses	(192,455)	-	-	-	-	(192,455)
	<u>\$ (8,550)</u>	<u>\$ 26,363</u>	<u>\$ (189,881)</u>	<u>\$ (104,419)</u>	<u>\$ (88,947)</u>	<u>\$ (365,434)</u>