

FINAL

**MANAGEMENT AUDIT REPORT
OF
PUBLIC WORKS DEPARTMENT
CUSTOMER SERVICES DIVISION**

REPORT NO. 00-132



**CITY OF ALBUQUERQUE
OFFICE OF INTERNAL AUDIT**



City of Albuquerque

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Office of Internal Audit

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Internal Audit Committee
City of Albuquerque
Albuquerque, New Mexico

Audit: Public Works Department
Customer Services Division
00-132

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INTRODUCTION

The Office of Internal Audit performed an audit of the Public Works Department (PWD) Customer Services Division (CSD). This was one of the scheduled audits for Fiscal Year (FY) 2000. Established in 1978, CSD services over 155,000 water and sewer accounts as of December 31, 2002.

In addition to water and wastewater billing, CSD also bills for refuse collection. The system that facilitates the processing of these accounts is called the Utility Billing System (UTBS). The meter reading system is called "ITRON" hand held computers. The most current audited financial statements, for the fiscal year ended June 30, 2001, showed \$107.8 million in water and sewer revenues.

The UTBS is used in all phases of the billing, receipting, collecting, and recording cycles. The ITRONS are used by the water representatives to record water usage. The water usage data is uploaded to the City's main computer system that houses the UTBS software program. Billings are generated by the UTBS. In addition, certain control reports are also generated by the UTBS. These reports are reviewed by the CSD personnel to determine if the data processed meets the control criteria. Examples of other reports generated on a daily, weekly, and/or monthly basis are:

1. Work orders generated for meter repairs.
2. High and low water consumption listing.
3. Detailed collection report.
4. Aged accounts receivable report.

The audit was conducted in accordance with Government Auditing Standards, except Standard 3.33, requiring an external quality control review.

SCOPE

This study and its conclusions are based on a review of the internal control structure and an examination of various transactions and reports. Our fieldwork was completed on August 28, 2002.

This report is based on our examination of the auditee's activities through the completion date of our fieldwork and does not reflect events or accounting transactions subsequent to that date. Our audit did not include an examination of all the functions, transactions and activities related to CSD's revenue procedures and controls. Our audit test work was limited to the following areas:

- Evaluate the policies and procedures in place for water and sewer billings.
- Review hardware and software controls in place for utility billings and collection systems.
- Examine policies and procedures in place for the collection of current and past due utility billings.
- Review policies and procedures in place for the deposit of monies received for utility billings.
- Examine the program strategy that applies to CSD.
- Check compliance with City rules and regulations related to the above items.

FINDINGS

The following findings concern areas that we believe could be improved by the implementation of the related recommendations.

1. PWD SHOULD ENSURE THAT STOPPED METERS ARE REPAIRED TIMELY.

A stopped meter is a broken meter that is not recording the water usage for an account. According to a study performed by PWD personnel as of May 17, 2001, there were approximately 3,000 stopped meters of record. However of the 3,000 stopped meters shown on the UTBS, 1,323 had been repaired but were still being estimated because the UTBS had not been updated to reflect the repair. Also, of the actual 1,576 stopped meters:

9 percent were residential accounts,

91 percent were commercial, industrial, and institutional accounts,
160 stopped meters had gone unrepaired for more than three years,
116 stopped meters had gone unrepaired for more than two years,
367 had gone unrepaired for more than one year, and
933 had gone unrepaired for less than one year.

On stopped meter accounts, the City loses 60,000 units of billable revenue each month due to underreporting of water usage. A unit is equal to 748 gallons of water. Because sewer usage is tied to water usage, the related loss in billable sewer is approximately 20,000 units per month. The current charge for water is \$1.0664 per unit and the current charge for sewer usage is \$.652 per unit.

60,000 units times \$1.0664 is \$63,984 per month lost water revenues
20,000 units times \$.652 is \$13,040 per month lost sewer revenues
Total lost revenue \$77,024 per month or \$924,288 annually

When an account is being estimated, an account can be overcharged or undercharged. At the time a stopped meter is repaired or replaced, the reading begins all over again and a new actual/correct reading begins at that time. Therefore, there is no way to determine what the actual usage was before the repair or replacement. The City loses the opportunity to recover revenues lost due to underestimating which leads to under billing water and sewer usage. While some may be overcharged, the PWD study believes that as a whole the City is losing approximately \$925,000 annually in water and sewer revenues. Also, the study by PWD stated that method of estimating stopped meters should be changed to include a longer “trend” period than the one-year it currently uses now.

The Water Operations Division stated that it does not have the manpower to make the repairs on a timely basis (See Finding No. 2).

RECOMMENDATION:

PWD should take steps to ensure that repairs to stopped meters are performed on a timely basis. PWD should increase the manpower needed to effect these repairs.

As repairs are completed to stopped meters, PWD should update the UTBS record to reflect the meter as working, so that estimates are no longer used. Workflow and communication should be improved.

PWD should change its estimating methods and use a standardized or estimating

approach that would give a consistent means of estimating based on seasonal patterns or account patterns.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. Since July 1, 2002 the Water Division has replaced over 2500 stopped, broken and/or aging water meters. A PWD FY/04 objective is to complete the repair of broken meters within an average of 90 days from first being reported. Updating completed work orders into UTBS is a manual process, but program enhancements are underway to automate the process. CSD has developed revised monthly estimation factors, and is working to program these changes into the UTBS.”

2. PWD SHOULD LOOK AT ALTERNATIVE METHODS FOR BILLING AND READING METERS.

The number of customer accounts being estimated has increased due to an increase in City water customers and staffing shortages. The number of water accounts has grown steadily from 146,000 accounts in FY99 to 151,700 in FY01. That is an increase of 5,700 accounts or 4 percent. As of FY01, there were 23 water representative (meter reader) positions. One of these positions had been vacant for over 1-½ years, one position was on injury time and could not be filled, leaving 21 positions to read 23 routes. Day to day absences such as sick leave and vacation also contributed to the reduction in available manpower to read 23 routes.

CSD currently has in place a pilot program that would use a sensor to read the water meter from a vehicle rather than a person having to physically view and read the meter and enter the reading into a hand-held data recorder.

RECOMMENDATION

PWD management should look at alternative methods for reading water meters and billing water customers, to reduce the number of man-hours needed for meter reading.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. PWD has initiated a pilot program of installing automated meter reading (AMR) equipment, and will prepare and submit a report by the end of FY/03. PWD plans to expand the use of AMR

technology for large meters (3-inch size and larger) and, beginning in FY/04, to convert 8,000 smaller meters to the use of AMR.”

3. PWD SHOULD ENSURE VEHICLES ARE AVAILABLE FOR ALL WATER REPRESENTATIVES.

CSD has eleven vehicles with mileage of more than 100,000 miles. The total vehicle inventory for the Division is 28 vehicles. Although the need is recognized, the funding has not been available for vehicle replacement. This resulted in increased maintenance costs.

When vehicles are in for repair, water representatives share vehicles to do their routes. When this happens one reader has a vehicle with parts available for meter repairs or equipment available for rereads/customer inquiries. The other water representative is dropped off and walks his route reading meters. Because this water representative is on foot he can only read meters and does not have the equipment available to make repairs or deal with reread/customer inquiries. Therefore, when vehicles are not available, there is a less efficient delivery of services by the water representatives and others in the Division. It is critical to have enough vehicles to meet the demands of the daily route meter reading requirements. Having the proper equipment available to achieve the goals of the Division is important.

RECOMMENDATION:

PWD should request funding for CSD vehicle replacements during the next budget cycle.

PWD should prioritize vehicle assignments to ensure that vehicles are available for meter reading personnel.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. Since August 2002, the CSD has received 4 new small trucks, and has placed orders for another 12 small trucks for the water representatives. Additional vehicles are planned for procurement in future budget years to ensure an appropriate level of vehicle life-cycle retirement is attained. Short-term emergency vehicle needs can be met by using vehicles loaned from the Fleet Management Division of PWD.”

4. PWD SHOULD ENSURE THAT ADJUSTMENT FORMS ARE PROPERLY DOCUMENTED AND APPROVED.

Request for Adjustment Forms are used to increase or decrease the amount due to the City from a customer for water and sewer charges. Examples of adjustments include, an estimated water use reading adjusted to the actual reading, misread corrections based on calls from customers, and insufficient funds in customer accounts for checks or direct debits. A Request for Adjustment Form must be reviewed and approved prior to a customer account being changed to prevent inaccuracies or misuse of the adjustment process.

A random sample of seventy-seven adjustment forms was reviewed. Twelve percent of the Request for Adjustment Forms were not signed as reviewed or signed by the preparer. Eight percent did not have proper documentation as to the reason for the adjustment.

Approximately 500 adjustment forms are posted weekly, which is 26,000 adjustments forms annually. Therefore, the error rate in the sample projects to 3,120 adjustments missing a reviewer or preparer signature and 2,080 adjustment forms missing proper documentation as to the reason for the adjustment.

A CSD official stated that the fiscal area has been short staffed and may not have had enough personnel to properly complete and review the Request for Adjustment Form. This breakdown in internal control could result in customer water and sewer accounts being understated or overstated. In addition, revenues may be understated or overstated.

RECOMMENDATION

PWD should take steps to ensure that its policies and procedures regarding completion, review and approval of Request for Adjustment Forms are followed.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. CSD management will ensure these requirements are followed.”

5. PWD SHOULD MORE AGGRESSIVELY SEEK FORECLOSURE OF OUTSTANDING LIENS.

A lien is a charge upon real or personal property for the satisfaction of a debt. As of October 2001, the City had 189 liens filed for non-payment of water bills. Ninety-eight liens totaling approximately \$151,000 meet the criteria to proceed to foreclosure.

Thirty of these liens for a total of \$20,473 are older than 5 years. Liens have a four-year statute of limitations. PWD is responsible for initiating the lien process and the foreclosure process with the City's Legal Department.

The City is losing additional revenues. One of the criteria for foreclosure is that the amount due must be at least \$750. One hundred accounts times a \$750 minimum equal \$75,000 in lost revenue. This does not take into account the staff hours necessary to maintain these accounts.

Page 30 of the Customer Services Procedures Manual, Section (G) states, "Those accounts meeting the following criteria should be considered for foreclosure:

- (1) Account has a \$750.00 total balance and has a lien(s) filed for a six-month period;
- (2) Repeated collection attempts have failed;
- (3) Account has illegal connections on a repeated basis;
- (4) Account has a special request for foreclosure on account by collections staff, supervisors, hearing officer, etc.; and/or
- (5) Service has been terminated by meter removal, etc."

RECOMMENDATION

PWD should more aggressively pursue liens and foreclosures.

PWD should establish a system to notify the Legal Department to renew liens prior to expiration.

PWD should establish a system to notify the Legal Department to foreclose on liens that meet foreclosure criteria.

EXECUTIVE RESPONSE FROM PWD

"We agree with the finding. CSD will develop an internal reporting system to improve the monthly review of outstanding liens, expirations, and advise the Legal Department of foreclosure actions needed. CSD will also explore means of filing liens electronically, and will review existing work procedures toward obtaining improved efficiencies."

REGULAR BASIS.

Users who have access to the “Adjustment Supervisor Review Screen” in the UTBS are never prompted to change their passwords. Instead, users are required to communicate with the System Administrator to change their passwords. Therefore, it is probable that user passwords do not get changed on a regular basis.

When the UTBS was initially developed a feature prompting the users to change their passwords was not considered. Furthermore, no one has made a request to add an enhancement to the system. The CSD does not have a policy requiring users with access to this function to change their passwords regularly. If users are not required to change their passwords on a regular basis, system access may not be secure and unauthorized adjustments could get approved and posted to customer (employee) accounts. Good system practices include maintaining system access on a regular basis.

RECOMMENDATION

PWD should add an enhancement to the UTBS – Adjustment Supervisor Review Screen that prompts the users to change their passwords on a regular basis.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. We will request from the DFAS/Information Systems Division (ISD) a list of all users who have access to this function and update the passwords accordingly. DFAS/ISD will produce this list every six months to review user access and change passwords.”

7. CSD SHOULD REGULARLY REVIEW AND UPDATE USER ACCOUNTS THAT HAVE ACCESS TO THE UTILITY BILLING SYSTEM.

Six of nineteen generic user accounts that have access to the UTBS are no longer used but remain active. Three of fifteen active user accounts sampled belong to individuals no longer employed by the PWD-CSD. User accounts with access to the UTBS are not periodically reviewed and updated. If user accounts are not regularly reviewed and updated, an account that grants access to highly sensitive areas might remain active and enable an unauthorized person the ability to create significant damage to important records. Good security procedures require that user accounts are periodically reviewed and updated.

RECOMMENDATION

PWD should regularly review and update user accounts that have access to the UTBS. Unused accounts and accounts where an employee has transferred or terminated should be disabled.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. We will request a list of users from DFAS/ISD and take steps necessary to remove all inactive users. Review of user identifications will be updated every six months, and whenever active employees retire or transfer.”

8. PWD SHOULD PRIORITIZE RESOURCES TO ACHIEVE DESIRED OUTCOMES.

At the end of FY01, CSD had not met any of its desired outcome measures as required as part of the City’s Performance Measures Budgeting Process.

The CSD outcome measures for FY01 are as follows:

- Reduce the number of meter reading’s that are “estimated.”
Projected rate 4 percent, actual rate 7 percent
- Maintain 60/90-day delinquency rate.
Projected rate .65 percent, actual rate .77 percent
- Percentage of direct bank payment accounts.
Projected rate 13 percent, actual rate 11.5 percent

The reasons given by CSD for not meeting its FY01 outcome measures were: staffing shortages, staff turnover, lack of timely training, injury leave and sick leave.

The possible effects of not meeting these measures are as follows (presented by outcome measure):

- The increase in the number of estimated accounts leads to an increase in the number of adjustments to customer accounts, which increases the work and decreases efficiency. In addition, estimates are used for stopped meters, which may lead to lost revenues.
- The increase in the 60/90-day delinquency rate may lead to an increase in uncollectable accounts receivable.

- The more accounts that are processed through automatic bank payments, the less amount of work is required by the Treasury Division of DFAS and the less work is necessary by CSD. This is an efficiency and cost issue. Not accomplishing the goal reduces the efficiency of the Division and increases its cost to operate.

The PWD program strategy for the Customer Services Division is, “To accurately bill city water and wastewater.” Its outcome strategy outcomes are, “Accurate and timely billings.” Not meeting its projected outcome measures affects CSD’s ability to achieve its program strategy.

For the City’s Performance Plan initiative, CSD had as a quality measure a pilot program for automated meter reading. For FY01 the projection was to have 60 meter reading accounts in the pilot program. This measure was not met.

RECOMMENDATION

PWD should prioritize its resources to achieve desired outcomes.

PWD management should fully staff the meter reading function of CSD or look at alternative billing methods to reduce the number of estimated accounts being billed (See Finding No. 2).

PWD management should fully staff the collection function of CSD and provide timely training to new staff.

PWD management should actively promote the use of direct bank payments for utility payments. This could be done by including a flyer and/or sign up sheet in the customer’s monthly water bill.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. CSD has added staff during FY/03 for meter reading operations, and is now at full complement. Automatic meter reading equipment is currently being pilot tested, and a report will be completed by the end of FY/03. CSD is also in the process of revising some of its customer notification letters, and will examine work-flow requirements to improve customer collections. CSD will improve its marketing of automatic bank draft features, and customers will have online electronic bill payment capability by the end of FY03.”

9. PUBLIC WORKS CUSTOMER SERVICE MANAGEMENT SHOULD DEVELOP STANDARD WRITTEN POLICIES AND PROCEDURES FOR THE GEOGRAPHIC INFORMATION SYSTEMS (GIS) FUNCTION.

There are no policies and procedures for the GIS function in the PWD. The GIS enables PWD Information Systems personnel to create a map of Albuquerque that shows the location of all water meters. Policies and procedures have not been developed for this function. If policies and procedures do not exist, an individual new to this function might not have guidance or reference source to perform his/her job correctly. Standard written policies and procedures are the foundation for good work practices.

RECOMMENDATION

PWD management should develop standard written policies and procedures for the GIS function.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. Development of the policies and procedures manuals will be coordinated between the Customer Services Division and PWD’s Information Technology Division support staff by the end of FY/03.”

10. PWD SHOULD ENSURE THAT THE SAME PERSON DOES NOT HAVE THE AUTHORIZATION TO ENTER AND APPROVE ADJUSTMENTS TO THE UTBS.

Two employees in CSD have authorization to enter and approve adjustments in the UTBS. One of the individuals is a systems analyst who serves as a back up for the UTBS administrator and has been given this authority because of his position. The other individual is the fiscal supervisor who serves as a back up to the adjustments clerk. If the same person can both enter and approve adjustments, there is a lack of internal control. Furthermore, this person might make and approve unauthorized adjustments. Good accounting practices include segregating duties involved in transactions so there are checks and balances.

RECOMMENDATION

PWD management should ensure that the same person does not have the authorization to enter and approve adjustments to the UTBS.

EXECUTIVE RESPONSE FROM PWD

“We agree with the finding. CSD will apply proper internal controls by assigning separate levels of authority and personnel for adjustments approval and entry.”

CONCLUSION

By implementing these recommendations, the PWD will more correctly administer its responsibilities for the Customer Services Division. We appreciate the assistance and cooperation of PWD personnel during the audit.

Principal Auditor

Senior Information Systems Auditor

REVIEWED:

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APPROVED:

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