



THE CITY OF FORT
SMITH WATER
METERS AND THE
CITY OF FORT
SMITH MUNIS ERP
SYSTEM

METER & SYSTEM DISCREPANCIES

Utility Department

INTRODUCTION

In early 2019, the customer service center for the Utilities Department received an increased number of calls related to unusually high water bills. This prompted a water meter and Munis system process review.

BACKGROUND

Over 24 million gallons of water a day is managed by the City's Utilities Department and accounts for approximately \$50 million in revenue annually. In January 2018, the City of Fort Smith issued a bid advertisement for new meters and commenced a multi-year project to replace old water meters with new positive displacement meters equipped with Encoder Receiver Transmitters (ERT®) to improve the efficiency and effectiveness of the meter reading process. The new ERT'd water meters allow for the automated capture of water reads versus field technicians manually reading water meters. Zenner Performance Meters won the bid for the meters having the lowest bid of \$1,222,503. Resolution R-21-18 was adopted on February 6, 2018 accepting the bid. Itron Inc. was the vendor selected to provide the ERTs for the contract amount of \$1,325,725.13.

The City of Fort Smith entered into an agreement with Tyler Munis in 2016 and implemented the ERP system (Munis®) in 2017. The Utility Collections and Billing module was implemented in December 2018. The Collections and Billing module provides billing and customer information management for water, sewer, sanitation and applicable taxes. The module also has a work/service order tracking function and allows the City to track routine account maintenance, such as replacing, connecting, or performing tests on a meter.

AUDIT SCOPE AND OBJECTIVES

The scope of the audit considered the transition of meter records in the City's former ArcBest IT system to the Munis system. Our audit objective, as refined during the audit of the City meters for the course of our work, was as follows:

1. To determine if meters from ArcBest were converted and captured correctly in Munis.
2. To evaluate the physical inventory process for meter inventory and the related reconciliation to Munis.
3. Customer accounts were charged with appropriate usage charges and related taxes.
4. To determine if meter base charges were properly charged for the correct meter size.
5. To determine if Tap Records process is complete and accurate.

PROCEDURES PERFORMED

To obtain sufficient evidence to achieve audit objectives and support our conclusions, we performed the following:

PLANNING

- Conducted interviews and process walkthroughs with key individuals;
- Identified key risks and controls;
- Identified potential areas for process improvements and control gaps;
- Refined work plan based on risks, standards, and processes, and developed test plans; and
- Performed sampling of meters and issued data request for detailed testing.

FIELDWORK

- Obtained reports from Arcbest, Munis system and Meter Department.
- Examined tap records, service locations, physical meter locations, and Munis to determine if meters are captured correctly.
- Documented findings and confirmed with process owners

REPORTING

- Prepared a draft report to include testing results and recommendations
- Discussed draft findings with process owners and management, obtained management responses, and assessed management responses.

AUDIT METHODOLOGY

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Practice of Internal Auditing as promulgated by the Institute of Internal Auditors. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. The scope of our work did not constitute an evaluation of the overall internal control structure of the Utility Department. Management is responsible for establishing and maintaining a system of internal controls to ensure that City assets are safeguarded; financial activity is accurately reported and reliable; and management and employees are in compliance with laws, regulations, and policies and procedures. The objectives are

to provide management with reasonable, but not absolute assurance that the controls are in place and effective.

CONCLUSIONS AND SIGNIFICANT ISSUES

We believe that we have obtained sufficient and appropriate evidence to adequately support the conclusions provided below as required by professional auditing standards. Each conclusion is aligned with the related Audit Objective for consistency and reference. For detailed findings, recommendations, management responses, comments and assessment of responses see the “Detailed Findings, Recommendations, Management Responses, and Assessment of Responses” section of this report.

- **WATER SERVICE LOCATIONS WITHOUT WATER METERS ARE NOT PROPERLY CAPTURED IN CITY RECORDS. (HIGH)** - Water meters were found to be installed at service locations that did not reflect a water meter in Munis and some of those actually had usage on the water meter. Identified addresses at service locations that had at least one other account for the same address. Additionally, water services are not retired properly in Munis and are not recorded in the City Tap Record card files or in the City’s tap card program.
- **ANNUAL PHYSICAL INVENTORY COUNTS AND WATER METER INVENTORY MAINTENANCE ARE NOT PERFORMED. (HIGH)** - The Meter Maintenance Supervisor noted that no physical inventory counts of water meters assets were actually being performed on a regular basis. Water meter inventory maintenance is not consistently performed in Munis.
- **PROPER SERVICE CHARGE STATUSES ARE NOT MAINTAINED. (HIGH)** - Accounts were found with service charges set at an “Active” status; however, there was no meter at the service location or in Munis and the active services are billed to the customer even though there is no water usage.
- **SERVICE CHARGES ARE NOT BILLED CORRECTLY TO ACCOUNTS. (HIGH)** - Accounts did not have a water base charge. Additionally, identified accounts with discrepancies between the water base charge and the meter size.
- **ALL SERVICE LOCATIONS (WITH METERS) WERE NOT CONVERTED FROM ARC BEST TO MUNIS. (HIGH)** - The Munis Meter Inventory shows meters “In Inventory” with an Encoder Receiver Transmitter (ERT) assigned to the meter. The ERT is not attached and assigned to a meter until it is installed at a water service location. Additionally, identified meters with associated accounts or locations that were in the ArcBest System. However, there are no accounts for those same locations in Munis.
- **PULLED METERS ARE NOT IDENTIFIED IN MUNIS. (HIGH)** - Meters may be pulled for non-payment or at the customer’s request. Once the meter is removed from Munis there is no procedure in place to monitor the service location for water usage. Identified some locations that had straight-pipes, old meters, etc....in which they were receiving water and were not billed for services.
- **THE TAP RECORD PROCESS IS INCOMPLETE. (HIGH)** - The records technician adds the new account to Munis, determines the amount to be charged for the new tap in accordance with City ordinance 61-11, adds the tap charges to Munis, and enters the tap record in Waterick, prints and files the tap card. However, no one verifies that the charges are entered, that the charges are correct, and that the charges are billed in a timely manner. There is no reconciliation of the tap records

DETAILED FINDINGS, RECOMMENDATIONS, MANAGEMENT RESPONSES, AND ASSESSMENT OF RESPONSES

FINDING #1 - #2 - #3 - WATER SERVICE LOCATIONS WITHOUT WATER METERS ARE NOT PROPERLY CAPTURED IN CITY RECORDS. (HIGH)

BACKGROUND:

Every customer account in Munis has an address or a service location that may or may not have a water meter assigned to the account. A meter reading file of each customer account is exported from Munis and imported into FCS (the meter reading system used by the metering department). However, those service locations not reflecting a water meter even though a water meter may be installed are not included in the meter reading file. The electronic meter reading process cannot determine whether a water meter is actually installed and in the case of a manual read meter, the meter reader will not look for a meter reading if the address is not in the Munis file.. Occupants of these locations can get water without a city meter by obtaining another water meter elsewhere and installing it themselves. Therefore, accounts without a City water meter may receive free services because usage is not captured and the City loses revenue from the unbilled services.

Additionally, water services that have been removed from the water distribution system should be properly documented. Water services are removed when a building is demolished, when a service has been abandoned, and when an existing water service is replaced with a new water service. The Water Line Maintenance section of Utilities is issued a work order in the Utility Lucity software system to retire an existing water service, completes the job, and completes the Lucity work order. The water service retirement information is recorded in Lucity but there is no process in place to update Munis or the City tap record files with the retired water service information. Munis will then show an available water service and the City tap records will also show an active water service even though service has been continued and recorded in Lucity.

FINDING 1:

IA identified 354 water services not reflecting a water meter in Munis and tested 136 of those services. From the 136 water services tested, 37 had meters installed and 99 did not have a meter installed. Some of the service locations were properties that were under construction at the time and did not have a water meter and were not being billed. 32 of the water services had water meters that were installed and updated properly in Munis at a later time. However, five (5) water meters were found to be installed at service locations that did not reflect a water meter in Munis and some of those actually had usage on the water meter. *(See Exhibits A-1 and A-2)*

FINDING 2:

IA identified fourteen (14) addresses at service locations that had at least one other account for the same address. These duplicate addresses were found to be the result of retired water services not being properly maintained in Munis and a lack of verification of existing services in Munis prior to adding a new service to Munis. All active accounts identified were properly receiving one monthly bill. *(See Exhibits B-1 and B-2)*

FINDING 3:

Water services are not retired properly in Munis and are not recorded in the City Tap Record card files or in the City's the tap card program. The City Tap Record is a record of the location that the water tap is made on the water main and also includes the water meter location and is maintained in a card file. The current tap record card files are not up-to-date and the retired services may be included in reports to management as available services in Munis.

RECOMMENDATIONS:

It is recommended that management identify water service locations where Munis indicates that meters are not installed and verify if a meter is actually installed and update any service locations where a water meter is found to be installed. This would ensure that water flows are captured and billed for all service locations in Munis.

Additionally, it is recommended that management implement a Retired Water Services policy that ensures retired services are documented properly and timely, and that accurate historical information is available for each location.

UTILITY DEPARTMENT'S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department's Management Response:

Finding #1: The nonexistent service order for the Jeffrey Way location cannot be explained at this time. Jeffrey Way is unique as the water meters were installed on a private water distribution line. In the past, developers were allowed to install a water distribution line and the City would install only a water meter, read the water meter, and bill the customer. This practice has been discontinued for future developments to provide full accountability of the Department.

Accounts and water meters that were not pulled from ArcBest into Tyler Munis has been an ongoing issue since 2019. The Utility Department is working to locate all water meter locations, obtain GPS coordinates of the water meter location, and ensure the water meter and ERT information is correct. The Utility Department is using both current information from Munis and archive data available from ArcBest.

Finding #2: Often taps are removed in the field and this information is not captured in Munis. The Utility Department is aware of the need to perform an address clean-up in Munis to capture only those service locations that are active. This will be done by reviewing tap information in Lucity, Tap Cards, and Waterrick, against service addresses in Munis.

The address clean-up project in Munis was hopefully to be completed by the end of 2021, however, it is behind schedule due to Covid-19 and staffing issues. This project is now scheduled for completion by the end of the second quarter 2022.

Finding #3: Water taps being physically retired are initiated in the Building Permit Department, and then sent to Utility Engineering for completion. There is currently no real defined process for this action. Billing has never been involved with the entire process.

A process for retiring water service taps will be mapped out to include all stakeholders. Once this process is properly mapped, a Standard Operating Procedure (SOP) will be developed to provide the steps for all staff to follow when retiring water and sewer taps.

Additionally the Utility Department will be moving away from the “City Tap Record Card” and transition to the use of electronic records. The use of the current Waterrick software will be replaced with Lucity to ensure all crews and staff have access to the information and the historical records are tracked and maintained properly. (This will be discussed more in-depth in response to Finding #11.)

Implementation Date:

The GPS location of all water meters is currently underway. The time frame for project completion is now set for end of 2022 due to Covid-19 delaying the initial project time line, and maintains its dependency on weather, work load, and other factors. As the Utility Department begins replacing water meters, the new water meter data will be captured that includes all new water meter installations’ GPS data being recorded at the time of the installation and tied to the proper service address. This will allow for water meter locations to be tracked in the City’s GIS system.

The water meter account reconciliation is scheduled to be completed by the end of the second quarter 2022.

The water meter retirement process map will be completed by end of 2021. The Utility Department will ask Internal Audit to review the process map to ensure all items are properly captured. The SOP will be completed by the end of the first quarter 2022.

Responsible Party:

Lance McAvoy, Utility Director

Assessment of Response:

Management’s response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #4 – ANNUAL PHYSICAL INVENTORY COUNTS AND WATER METER INVENTORY MAINTENANCE ARE NOT PERFORMED. (HIGH)

BACKGROUND:

As the City's water meter department purchases and receives water meters, the meter department verifies the meters received, records the meters received in an excel spreadsheet, and creates an ASCII file. The ASCII file is then imported into Munis and Munis shows the meter inventory status to be "In Inventory". However, there is no actual physical inventory taken on a periodic basis. Therefore, there is no verification of the meters on hand in the warehouse and there is no reconciliation of the meters on hand to the meters "In Inventory" in Munis.

The Meter Maintenance Supervisor keeps a separate excel spreadsheet for each meter size in the water meter inventory. A Line Maintenance Sign Out sheet is used to track the meters issued to Line Maintenance crews. As water meters are issued to the work crews the meter inventory spreadsheets are updated with the check out information (meter number, check out date, and crew).

The 2019 Water Meter Inventory Management Audit noted that annual physical inventory counts of water meter assets are not performed to ensure completeness and accuracy of water meter asset records as required by the City's Fixed Asset policy. Management's response noted that an inventory SOP was to be written. IA has not identified a SOP for meter inventory.

FINDING 4:

The Meter Maintenance Supervisor noted that no physical inventory counts of water meters assets were actually being performed on a regular basis. **Apparently, no action was taken on the 2019 Audit Finding described above.**

Water meter inventory maintenance is not consistently performed in Munis. IA identified three active customer accounts that showed the assigned meter to be "In Inventory" and one active customer account that showed the assigned meter to be "Junk". The accounts identified are read and billed monthly. However, the Munis meter inventory does not reflect the correct meter status and meter inventory reports may not be correct. (See Exhibits J-1 and J-2).

Additionally, the Meter Maintenance Supervisor maintains separate excel spreadsheets for the meter inventory due to the inaccuracies of the Munis Meter Inventory.

RECOMMENDATIONS:

It is recommended that management perform periodic physical water meter inventory counts and reconciliations to the Munis meter inventory to ensure completeness and accuracy of the water meter asset records. The Munis system should be an accurate record of meter inventory and it should not be necessary to maintain an excel spreadsheet separate from Munis.

Management should implement a plan to correct and maintain the water Meter Inventory in Munis. City staff who are preparing reports on the meter inventory use the Munis Meter Inventory module to

obtain the data for their reports. Therefore, it is essential that the Munis Meter Inventory be correct in order for reports to be accurate.

Lucity work orders should be reconciled with the Munis service orders to ensure that water meters have been removed from the Munis meter inventory.

UTILITY DEPARTMENT’S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department’s Management Response:

The initial timeline to develop a Standard Operating Procedure (SOP) was slated to be finished by the end of first quarter 2021. Covid-19, and personnel shortages in the water meter team and Water Line Maintenance division has hampered this process. This delay should have been communicated to Internal Audit and the failure to do so is solely the error of the Utility Director.

Utility Management agrees an inventory of the water meters is needed and will be conducting the inventory alongside the water meter testing. This will provide the current staff time to ensure the water meters are located, counted, tested, and if needed deployed or placed back in inventory.

Tracking of water meters is occurring using the Excel spreadsheet to ensure some form of tracking is being completed. Staff have identified numerous challenges using the Munis Inventory Module and are currently working with ITS as to how to mitigate the challenges.

The Meter Maintenance Supervisor will work with the Customer Service Program Manager to correct customer water meter errors when found in the field by updating the Munis data. The GPS inventory of water meters installed in the field will be used to verify the Munis water meter data and corresponding inventory data to ensure all water meter data is complete and correct.

Implementation Date:

Complete storage inventory and testing of the water meters will be completed by the end of third quarter 2022.

The SOP for water meter inventories will be completed by the end of first quarter 2022.

Update accounts with proper water meter information will be completed by the end of 2022.

Responsible Party:

Lance McAvoy, Utility Director

Assessment of Response:

Management’s response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #5 – PROPER SERVICE CHARGE STATUSES ARE NOT MAINTAINED. (HIGH)

BACKGROUND:

Water and sewer base charges, water and sewer volume charges, sanitation charges, and related taxes are billed when the accounts are in the Active status, the Final Bill Status, or the Shut-Off status. Accounts that are in the Inactive Status are not billed.

FINDING 5:

Accounts were found with service charges set at an “Active” status; however, there was no meter at the service location or in Munis and the active services are billed to the customer even though there is no water usage. (See Exhibit C-1 and Exhibit C-2). Note: These discrepancies are reflected as balances due in the account receivables. Some customers appear to be paying for services not received and could be due a refund. Additionally, customers who are not paying because they are not receiving the services being billed may also be reflected in account receivables as amounts due to the City.

Additionally, IA identified a meter that was removed from the water volume service charge but the related services were not changed from “Active” to “Inactive”. (See Exhibit C-3) Also, eight (8) compound meters were changed from a dual register read to a single register read. A compound meter has two water volume service charges (one for each register) and the single register meter has only one volume charge. The compound meter was removed from both of the water volume service charges and the single meter was added to the first water volume charge; however, the second water volume service charge was not set to “Inactive” and the service stop date was not set. Therefore, the second water volume charge and meter will be reflected in reports to management. (See Exhibit C-4)

RECOMMENDATIONS:

It is recommended that management implement a procedure that when an account is set up in Munis that the services charges are “Inactive” until a meter is assigned to the account. Also, if a meter is removed, that the related services charges are set to the “Inactive” status. This will prevent the account from being billed for services they do not actually receive.

It is also recommended that management identify accounts that do not indicate a meter in Munis, verify if a meter is installed at that location, and ensure that the service charges are correct. Additionally, management should identify the compound meters that were replaced with single register meters and ensure that the services on the removed meter are set to “Inactive” and have a set end date. This will eliminate both meters showing in meter inventory reports that are prepared for management.

UTILITY DEPARTMENT’S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department's Management Response:

Customers are responsible for asking for service installation and water meter setting. Normally a service is installed and the service installation is billed to the customer. Most of the time the water meter is set at the same time and thus the charge is added to the bill. If the meter is not be in use or billed for use, the meter will be locked and the water base fee will be entered into Munis for proper billing.

Additionally the Utility Department is working to locate all water meter locations, obtain GPS coordinates of the water meter location, and ensure the water meter and ERT information is correct. The Utility Department is using both current information from Munis and archive data available from ArcBest. Once this project is completed, the Utility Department will compare data with what is currently in Munis and correct the records.

Implementation Date:

The GPS project is scheduled for completion by the end of 2022 and the account reconciliation should be completed by end of first quarter 2023.

Responsible Party:

Lance McAvoy, Utility Director

Assessment of Response:

Management's response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #6- #7– SERVICE CHARGES ARE NOT BILLED CORRECTLY TO ACCOUNTS. (HIGH)

BACKGROUND:

Active customers are billed for water and sewer base charges, water and sewer volume charges, sanitation, and applicable taxes. The water base charges account for approximately 13% of water revenues. In 2020 the City billed \$3,138,093 in water base charges.

Additionally, the City charges a water base charge according to the size of the meter. Therefore, the water base charge should match the meter size.

Meter Size	Meter Base Charge	Meter Size	Meter Base Charge
5/8 and 3/4 inch meter	\$4.97	1 1/2 inch meter	\$21.24
1 inch meter	\$9.98	2 inch meter	\$30.69

Discrepancies between the base charge and the meter size could result in either under billed or over billed base charges to the customer.

FINDING 6:

From the 136 service locations selected for testing (Finding 1), two (2) accounts did not have a water base charge. Therefore, the City has not been charging and receiving the revenue for these missing base charges. (See Exhibit D-1)

FINDING 7:

From the Munis list of 37,871 accounts, IA used Pivot Tables in Excel to compare the actual water base charge for every account to the proper base charge for the meter size shown for the account. This test identified 44 accounts with discrepancies between the water base charge and the meter size. This is an error rate of only .1 percent.

IA physically sampled 6 accounts and found 5 incorrect meter sizes and 1 incorrect base charge were assigned to customer accounts in Munis (See Exhibit D-2). Note: This does not include discrepancies between 3/4” meters and 5/8” meters because the base charge rate is the same amount for 3/4” meters and 5/8” meters.

RECOMMENDATIONS:

The 44 discrepancies identified should be reviewed and corrected. In an ideal system entry of the meter size (with a code for the size) would cause the base charge to be automatically generated, thus eliminating errors. The potential for programming this control should be explored by ITS.

Additionally, all accounts should be reviewed to ensure all base charges, volume charges, sanitation charges, and applicable taxes are included to be billed.

UTILITY DEPARTMENT’S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department’s Management Response:

Finding #6: The Utility Department agrees with the finding. The errors found during the Internal Audit discovery process will be provided to Utility Billing for correction. New water meter sizes will be updated for the old existing water meters (non-Zenner) as water meters are changed out for new ones.

Finding #7: Utility Department is working to locate all water meter locations, obtain GPS coordinates of the water meter location, and ensure the water meter and ERT information is correct. The Utility Department is using both current information from Munis and archive data available from ArcBest. Once this project is completed, it the Utility Department will compare data with what is currently in Munis and correct the records.

Implementation Date:

The forty-four (44) accounts will be corrected by end of September 2021.

Water meter change out should be completed by end of third quarter 2022.

The GPS project is scheduled for completion by the end of 2022 and the account reconciliation should be completed by end of first quarter 2023.

Responsible Party:

Lance McAvoy, Utility Director

Assessment of Response:

Management’s response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #8 - #9 – ALL SERVICE LOCATIONS (WITH METERS) WERE NOT CONVERTED FROM ARCBEST TO MUNIS. (HIGH)

BACKGROUND:

In December of 2018 the Utility Department implemented the new Munis ERP system. The accounts with a terminated status and that had no balance due in ArcBest were not converted from ArcBest into Munis. However, some of those accounts and other service locations with no balance due actually did show as having a meter installed in the ArcBest system.

FINDING 8:

The Munis Meter Inventory shows meters “In Inventory” with an Encoder Receiver Transmitter (ERT) assigned to the meter. The ERT allows the water meters to be read by sending and receiving radio frequency transmissions from the water meter to a meter reading device. The ERT is not attached and assigned to a meter until it is installed at a water service location. Therefore, there should be no meters in inventory with an ERT assigned to the meter. (See Exhibit E-1)

FINDING 9:

IA identified 181 meters in Munis meter inventory reflecting an ERT assigned to the meter. A review of those meters identified 122 meters with associated accounts or locations that were in the ArcBest System. However, there are no accounts for those same locations in Munis. Therefore, the physical inventory is not correct, the meters are not properly captured in Munis, and the City loses revenue because the meters are not read to capture water usage. Additionally, there were service locations in ArcBest that did not have an account number but did have meters installed. IA tested 10 of the meters identified and found the meters were actually installed at the location and not in inventory as reflected in Munis. Therefore the customers are not billed for water usage, the City loses revenue, and the warehouse meter inventory is overstated. (See Exhibit E-2 and Exhibit E-3)

RECOMMENDATIONS:

It is recommended that management ensure meters that are reflected to be in inventory in Munis are actually physically in inventory and not attached to an ERT. ERT’s are not assigned to meters until the meter and ERT are installed at a location.

It is recommended that management identify all service locations that had a water meter in ArcBest and were not converted to Munis. Verify that a new account has not been added in Munis and add the missing service locations to Munis and coordinate with the Metering Department to verify that all meter numbers and ERT IDs are correct at the service locations prior to updating in Munis. It is possible that since a terminated Account that was not converted from Arcbest to Munis any occupants at that location could be receiving free services because the account is not in Munis and therefore the account is not uploaded to be read during the cycle run.

The status of these accounts should be assessed from a billing standpoint. For any accounts identified in this assessment that are receiving unbilled service, the City should evaluate billing for some period of time for unbilled service.

UTILITY DEPARTMENT’S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department’s Management Response:

Finding #8: The Utility Department agrees in part with the finding. A water meter that has an ERT and is “pulled” from the field may retain its ERT and be placed back in inventory. Therefore it is possible water meters with an ERT assigned to it could be in inventory and not assigned to an account.

The Utility Department does agree that that is not the case in all of the instances in Exhibit E-1.

Finding #9: The Utility Department is working to locate all water meter locations, obtain GPS coordinates of the water meter location, and ensure the water meter and ERT information is correct. The Utility Department is using both current information from Munis and archive data available from ArcBest. Once this project is completed, it the Utility Department will compare data with what is currently in Munis and correct the records.

Additionally the Utility Department will continue to work towards a resolution as discussed with Finding #4.

Responsible Party:

Lance McAvoy, Utility Director

Implementation Date:

Both the GPS location program and inventory program will be completed by the end of 2022.

Assessment of Response:

Management’s response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #10 – PULLED METERS ARE NOT IDENTIFIED IN MUNIS. (HIGH)

BACKGROUND:

ArcBest was a customized program and placed a meter number of “PULLED” on all accounts that did not have a meter when the meter reading file was created. This enabled the meter readers to verify that there was no meter at the service location and that there was no tampering with the water service. Munis does not have this option. Meter numbers are unique and cannot be duplicated.

FINDING 10:

Meters may be pulled for non-payment or at the customer’s request. Once the meter is removed from Munis there is no procedure in place to monitor the service location for water usage. IA identified some locations that had straight-pipes, old meters, etc....in which they were receiving water and were not billed for services. (See Exhibit F-1)

RECOMMENDATIONS:

It is recommended that management write a policy and procedure to periodically monitor locations for pulled meters and ensure that the service location is not receiving free water services, free sewer services, and free sanitation services.

UTILITY DEPARTMENT’S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department’s Management Response:

The Utility Department agrees with the finding. If a Munis service order is opened to “remove meter” and the meter is removed without a new meter being installed, the service location information for each account is lost. This includes the information of the exact location of the water meter for the water meter reads to use to identify if a straight has been installed or not.

Beginning in July 2021 all water meters that are shut off will be left in place and a locking mechanism will be placed on the water meter to prevent it from being turn on or a straight being installed. This will allow the water meters to stay in place and once AMR and AMI are initiated, the tracking of all water use will be done remotely and water use on vacant accounts will be detected. This will allow the water meter information to be maintained in Munis.

The “removed meter” service order request designation will only be used when a water service is removed.

Responsible Party:

Lance McAvoy, Utility Director

Implementation Date:

Currently in place and will be used moving forward.

Assessment of Response:

Management's response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

FINDING #11 – THE TAP RECORD PROCESS IS INCOMPLETE. (HIGH)

BACKGROUND:

The Utility Department's Records Technician is responsible for the maintenance of the City's Tap Records. The City tap records contain the location of the water service's connection to the City's water main and the location of the water meter for each address in the city. The tap record is also used to aid in the location of water services and water meter locations that are not easily located when repairs are needed. Maintenance of the City's Tap Record includes adding new tap records to the tap card program, printing the tap card, filing the tap cards in the tap card file, and maintaining the tap card files. The tap cards are maintained in a card file cabinet and there is currently no electronic file of the City's tap records. The records technician enters the tap records into Waterick. Waterick is a DOS based program used to create the tap cards. Waterick is expected to be migrated to Lucity in the future.

FINDING 11:

The records technician adds the new account to Munis, determines the amount to be charged for the new tap in accordance with City ordinance 61-11, adds the tap charges to Munis, and enters the tap record in Waterick, prints and files the tap card. However, no one verifies that the charges are entered, that the charges are correct, and that the charges are billed in a timely manner. There is no reconciliation of the tap records. (See Exhibits G-1, G-2, G-3, and G-4)

RECOMMENDATIONS:

Management should implement a Tap Records process to ensure that a historical file of the City's tap records are maintained and that an electronic file is available. Additionally, the tap records process should ensure separation of duties. Separation of duties allows for someone other than the person that determines the charges to enter them into the system to be billed. Additionally, having someone other than the person that determines the charges and prepares the tap records to reconcile the tap records to the work orders in Lucity.

Management should outline the plan for the migration of the tap records from Waterick to Lucity.

UTILITY DEPARTMENT'S MANAGEMENT RESPONSE:

The Utility Department agrees with the finding.

Utility Department's Management Response:

The Utility Department is working to modernize the Tap Record process. Currently the process uses Waterick and actual cards to maintain the location of water taps. These cards have not been updated in years so some of them are no longer valid and others may be missing.

Waterick is accessible to only two (2) employees and the cards are located on the second floor of the Carnall facility. If Water Line Maintenance needs information and one or both of the staff who have access to Waterick are out, they would need to come to Carnall to find the needed data by looking at the tap card. Again, the card may not be up to date or may be missing.

The process is being developed to utilize Lucy to properly track and document the water tap information. Currently the plan is to document the full process for new water and sewer taps, write and SOP, and train staff on the SOP. ITS is looking to convert the data in the Waterick program to be transferred to Lucy. The Records Technician will reconcile the information in Lucy and Waterick to ensure the available data is collected properly. The tap cards may play a part of the tap reconciliation in the event an address in Munis does not have a corresponding tap record.

Once all data is properly converted to Lucy, Waterick and tap cards will be discontinued, however they will be available for historical data back-up.

The new process will require the Records Technician to enter the tap information into Munis, for future billing, and open a work request in Lucy. The Water Line Maintenance crew will install the new water tap and the supervisor will place the charges in Munis to ensure all appropriate field charges are collected. The Sewer Line Maintenance crew will install the sewer tap and the supervisor will place the charges in Munis to ensure all appropriate field charges are collected. The Analytics Team will review the charges to ensure they are correct prior to the billing of the taps.

Responsible Party:

Lance McAvoy, Utility Director

Implementation Date:

The tap record process map and SOP are awaiting Lucy upgrade and Tap Record development. The time from for having the new process is by the end of 2022. Internal Audit will be requested to review the process map and SOP to ensure all perceived risks are mitigated to the fullest extent possible.

Full conversion of the old Tap Record Cards is scheduled to be completed by the end of 2023.

Assessment of Response:

Management's response, as presented, sufficiently addresses the issues identified and corrective actions are appropriate.

OTHER FINDINGS/OBSERVATIONS TO BE CONSIDERED FOR CORRECTION

- A. During the account set up process three accounts appear to have been set up in error and have not been corrected or edited and now appear to be available accounts in Munis. *Exhibit H-1, H-2 These accounts should be corrected,*

Management Response: The Utility Department agrees with the observation. See Response to Finding #1 and Finding #2.

- B. Service orders are made to inspect a water service for many reasons. Including obtaining a reread, inspecting for high usage, turn on a service, turn off service, and pulling a meter for non-payment. A service order was made to perform an inspection to obtain the meter number and meter reading; yet another service was not made to add the meter to the account when the meter information was obtained. Additionally, a meter action was not taken to add the meter to the account and the customer is not being billed for water and sewer volume usage and the City is not receiving the revenue on the unbilled charges. *Exhibit A-2, page 9 This issue should be corrected.*

Management Response: The Utility Department agrees with the observation. The Utility Department will review its process for service orders and capturing all pertinent information in Munis.

- C. The number of days between date a meter was actually installed and the date that the meter information was updated in Munis ranges from 0 days to 277 days. The delay in updating the meter on an account prevents the water and sewer volume charges from billing in a timely manner and the customer may receive a high bill for usage from the time the meter was actually installed to the first meter reading after the meter is updated in Munis. Meters installed should be updated in Munis within 7 days. *Exhibit I-1*

Management Response: The Utility Department agrees with the observation. This is being investigated internally, but the new tap request process should mitigate this challenge once it is documented, the SOP is generated, and the Department moves forward.

- D. Unsecured meters were noted in the bed of a utility truck. Meters should be secured inside locked containers which cannot be easily removed from the vehicle while being transported or stored in utility vehicles.

Management Response: The Utility Department disagrees with the observation. The water meters located in the back of the utility truck were observed while the truck was in the controlled, fenced in area of the Kelley Hwy. Facility. Water meters that are transported in bulk as part of the water meter change out program and future water meter maintenance program are transported in the back of a full size van which is locked and secured during transport from Kelley Hwy. Facility to the point of installation, and from the field back to the Kelley Hwy. Facility.

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- E. The status of meters pulled by customer service technicians may not be recorded in Munis in a timely manner; the pulled meter may actually be in the customer service technician's service vehicle. Management should ensure that meters are only pulled with a Munis service order and that the service order is completed when the meter is pulled. The meters issued and the meters returned should be reconciled with the completed service orders and sign out sheets.

Management Response: The Utility Department agrees with the observation. Water meters are no longer pulled unless it is to remove the service location. The water meters are now shutoff and locked to prevent unauthorized reestablishment of service. If a water meter is actually pulled, a process will be developed to place the water meter back in to inventory.

Assessment of Response:

While management was not required to respond to the observations, Internal Audit (IA) appreciates the Utility Director addressing and correcting the items brought to the attention of the Utility Department. IA agrees with the corrective actions except for the unsecured meters observation.

IA understands that the meters are transported in bulk in a van as part of the change out program, however the observation pertained to the meters that were not secured and left in the back of a utility truck that was not in use for the day. IA also understands that Management accepts a level of risk, however Best Practice would be to secure the meters as much as possible to eliminate that loss. The utility trucks have tool boxes and when the truck is out on service calls, those meters are not longer in a secured area and exposed.