



CITY OF RICHMOND
CITY AUDITOR

DATE: December 2, 2020

TO: Ms. Lenora Reid
Acting Chief Administrative Officer

FROM: Louis Lassiter *LL*
City Auditor

SUBJECT: Department of Public Utilities
Wholesale Water Contracts audit

The City Auditor's Office has completed the Department of Public Utilities - Wholesale Water Contracts audit and the final report is attached.

We would like to thank the Administration staff for their cooperation and assistance during this audit.

Attachment

cc: The Richmond Audit Committee
The Richmond City Council
Robert Steidel, DCAO of Operations
Calvin Farr, Jr., Director of Department of Public Utilities

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City of
RICHMOND
Office of the City Auditor

Audit Report# 2021-08
Department of Public Utilities
Wholesale Water Contracts
December 2, 2020



Audit Report Staff

Lou Lassiter, City Auditor
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Highlights

Audit Report to the Audit Committee, City Council, and the Administration

Why We Did This Audit

The Office of the City Auditor conducted this audit as part of the FY20 audit plan approved by the Audit Committee. The main objective for this audit was to evaluate water contracts and sales to other localities to determine compliance to contract terms and if the agreements recover costs for the City.

What We Recommend

Director of the Department of Public Utilities:

- Estimate the average usage for the one water meter that was replaced in August 2020 that had not generated billings for 9 ½ years and back bill accordingly and as deemed proper by the Director in discussion with the locality.
- Further research the seven standby water meters and determine whether water is flowing through those meters and bill accordingly.
- Develop and implement a plan to replace the outdated standby meters.
- Further research the billing variances and prior balances noted in the Auditors’ testing.
- Create an automated process to read all wholesale, water meters, where feasible, to reduce the number of billing errors due to manual keying.
- Ensure the Chesterfield County billing includes the adjustment of \$60,750.
- Create an enhanced reconciliation process to capture and reconcile capital project costs to ensure all relevant projects are billed timely.



Wholesale Water Contracts Audit

Background - The City of Richmond’s Water Treatment Plant can treat up to 132 million gallons of water per day (MGD) from the James River. The Treatment Plant along with the distribution system of water mains, pumping stations and storage facilities provide water to approximately 62,000 customers in the City of Richmond. The Treatment Plant also provides water to the surrounding areas through wholesale contracts with Henrico, Chesterfield, and Hanover Counties according to specific terms and agreements. Overall, the Plant provides water for approximately 500,000 people.

What Works Well

Henrico Cost of Service Model

The Auditors reviewed and recalculated the Henrico Cost of Service (COS) model for FY19 and found no exceptions. The City received all true-up funds for FY19 as calculated and the amount calculated was correct.

Hanover and Chesterfield Counties - Operating Costs Annual True-Up

The Auditors reviewed the Hanover and Chesterfield Counties’ Operating Costs for FY19 and performed a recalculation. There were no exceptions.

Hanover and Chesterfield Counties - Annual Capital Cost Billing Percentage

All billed FY2019 capital cost expenditures were in agreement with the terms and conditions of their contracts.

Operating Costs – Monthly Billings and Payments

The Auditors traced four monthly operating amounts from the City’s Financial System (RAPIDS) to 117 generated bills for the three Counties. One hundred percent of payments for these bills were deposited and recorded in Customer Information System (CIS).

Needs Improvement

Finding #1 – Meter Readings/Inactive Meters - The Auditors analyzed 36 water meter readings for each month related to Henrico and Hanover counties’ water services for May 2019 and May 2020, and compared the readings to the consumption bills and noted of the 36 water meter readings tested in May 2019:

- Twenty seven were billed accurately.
- One was a fire hydrant, hence not related to the wholesale water contracts.
- Eight meters had initial field readings that did not match the confirmed billings. The variances caused a total difference of (\$186,429).

Of the 36 meter readings tested in May 2020:

- Thirty three were billed accurately.
- One was a fire hydrant, hence not related to the wholesale water contracts.
- Two meters had initial field readings that did not match the confirmed billings. The total variance for these two readings was \$15.20, which was immaterial.

The Auditors noted nine of the 36 meter readings had zero consumption (inactive). Upon informing DPU management, they conducted a field inspection for eight inactive meters as one was turned off at the request of Henrico County. They found seven of the meters were standby meters, which had reached the end of their life cycle, they did not have additional valves which are required by current standards, and were technologically obsolete. One of the meters was active, however had not been generating readings since February 2011. DPU replaced that meter in August 2020 and started billing in September 2020. The billings for September and October were \$1,906 and \$5,207, respectively for a two month average of \$3,556. If this represents an average usage since February 2011 (9 years & 6 months) this could represent up to approximately \$405,000 of water usage not billed depending if minimum usage/billings were met.

Finding #2 – Under Billed Capital Costs – Capital Cost revenues were not captured timely for some Chesterfield projects causing them to be understated by \$60,750 during FY2019. The employee responsible for capturing the capital project costs used a manual process to key the figures in the cost of service spreadsheet, which led to missing the two projects in FY2019 and missed costs for three capital projects in FY2018. The auditors could not determine what reconciliation efforts were made by staff to ensure all capital projects were captured.

Management concurred with 7 of 7 recommendations. We appreciate the cooperation received from management and staff while conducting this audit.

BACKGROUND, OBJECTIVES, SCOPE, METHODOLOGY, MANAGEMENT RESPONSIBILITY and INTERNAL CONTROLS

This audit was conducted in accordance with the Generally Accepted Government Auditing Standards promulgated by the Comptroller General of the United States. 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 the audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on the audit objectives.

BACKGROUND

Overview

The City of Richmond's Water Treatment Plant can treat up to 132 million gallons of water per day (MGD) from the James River. The Water Treatment Plant along with the distribution system of water mains, pumping stations, and storage facilities provide water to approximately 62,000 customers in the City of Richmond. It also provides water to the surrounding localities through wholesale water contracts with Henrico, Chesterfield, and Hanover Counties. The Water Treatment Plant provides water to approximately 500,000 people.

Water Treatment Process

The water treatment process starts by pulling water from the James River into a mile long channel. The purpose of the channel is to let the largest particles settle at the bottom, and then flow into the Treatment Plant. Treatment begins with potassium permanganate which begins breaking down particles in the water for removal. Next, the microscopic coagulation process begins. Chemicals are added to make the particles in the water stick together to make it possible to remove them. The flocculation process follows, which is a particle aggregation process in which a large number of small particles form a smaller number of larger particles. After the flocculation process, the larger particles settle at the bottom of the sedimentation basins.

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Vacuum-like equipment runs across the bottom of the basins. From the sedimentation process, the water moves to filtering, where the water becomes potable. Water then flows into the finished water basins where the final chemicals are added to make it ready for distribution via the pumping stations.

The City has 12 Pump Stations, 11 of which, at the time of the audit, partially served Chesterfield, Hanover and Henrico Counties as depicted on the following table:

Pump Station	Locality Served
Jahnke Road, Cofer, Byrd park Reserve PS	City of Richmond and Chesterfield County
Huguenot	City of Richmond
Trafford, Koran 1 (Located at Water Treatment Plant), Byrd Park Main PS, Columbus	City of Richmond and Counties of Hanover and Henrico
Westhampton and Church Hill, Korah 3 (Located at Water Treatment Plant)	City of Richmond and Henrico County
Korah 2	City of Richmond and Counties of Chesterfield, Hanover, and Henrico

Wholesale Water Contracts

The City entered into three wholesale water contracts to supply water to Hanover, Henrico, and Chesterfield Counties as follows:

Hanover County

The City of Richmond and Hanover County entered into a wholesale water contract on September 26, 1994. The County purchased 15.15% of the City's water utility capacity (20 MGD). The contract expires June 30, 2035. Costs for providing water to Hanover County consist of three types:

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Joint Capital Costs

Joint Capital Costs include Hanover's share of capitalized interest recorded in the water utility's average cost of long term debt. The Joint Capital Costs are billed based on the agreed-upon percentages by City and Hanover County engineers.

Direct County Capital Costs

Direct capital costs include any capital costs for newly constructed facilities or capital improvements to existing facilities that solely serve Hanover County.

Operating Costs

Operating expenditures include:

- 100% of all source of supply and water purification expenses.
- 100% of all power and pumping expenses.
- 50% of all distribution expenses.
- 100% of all operations support expenses.
- 50% of all executive and administration expenses.
- 80% of all social security tax expenses.
- A percentage of payments in lieu of any real estate and personal property taxes, which is calculated annually. The percentage is the sum of the total joint capital costs and direct county capital costs as a percentage of total capital costs.

Chesterfield County

The City of Richmond and Chesterfield County entered into a wholesale water contract on December 1, 1989, which was amended on October 24, 1994. The contract expires July 1, 2045. The County purchased 20.5% (27.06 MGD) of the City's water utility capacity. Costs for providing water to Chesterfield County consist of three types:

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Joint Capital Costs

Joint capital costs include Chesterfield County's share of capitalized interest recorded in the water utility's average cost of long term debt. The joint capital costs are billed based on the agreed-upon percentages by City and Chesterfield County engineers.

Direct County Capital Costs

Direct capital costs include any capital costs for newly constructed facilities or capital improvements to existing facilities that solely serve Chesterfield County.

Operating Expenses

Operating expenditures include:

- 100% of all water purification, power and pumping expenses.
- 100% of all operations support expenses.
- 50% of all distribution expenses.
- 50% of all executive and administration expenses.
- 80% of all social security taxes expenses.
- A percentage of payments in lieu of any real estate and personal property taxes, which is calculated annually. The percentage is the sum of the total joint capital costs and direct County capital costs as a percentage of total capital costs.

According to the Hanover and Chesterfield Contracts, a preliminary cost study must be completed by October 1st each year following the close of the City's fiscal year and any variances should be trued-up. If the Counties owe more, they pay the difference to bring the account to zero. Conversely, if the Counties overpay, the City either applies a credit or refunds the Counties for the difference. Operating expenditures are billed monthly which are based on the Counties' average day usage as a percentage of total water utility average day usage.

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Henrico

The City of Richmond and Henrico County entered into a wholesale water contract on September 29, 1994. The contract expires July 1, 2040. Henrico agreed to buy a maximum of 35 MGD of water from the City on any calendar day after January 1, 2007. The City bills the County monthly based on meter readings for the delivery of water. The City provides, installs and maintains a meter at each point of delivery of water to the County. Prices are based on an annual cost allocation study for the prior year plus 5% for estimated increases in cost.

Wholesale Water Contract Meters

The following table depicts the City's 43 meters used to bill the Counties under the three wholesale water contracts:

Locality	No. of Large Meters	No. of Small Meters	Total
Chesterfield	2	-	2
Hanover	2	-	2
Henrico	6	33	39

The City uses different methods to read the small and large meters. Several of the large meters are read through the Supervisory Controls and Data Acquisition (SCADA) software, which produces the data that is keyed into the Customer Information System (CIS). CIS holds customers' information, such as name, service locations, rate codes, services use, billing history, and billing address. The remaining meters (both large and small) are read monthly by the DPU Commercial Meter Unit. They manually read the meters and visually inspect them each month. They visit the meters over two days at the beginning of each month. Commercial Meter Technicians log the meter readings in a form which is keyed into CIS while they are in the field.

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Inspection and Exception Reports

DPU staff uses a maintenance tracking software called Mainsaver. The system is set-up to generate work orders for inspections for each meter/pump station on a semi-annual or annual basis. The Water Treatment Plant equipment is serviced and calibrated during the inspections. As a safeguard, daily exception reports are generated through CIS. These reports compare the current meter reading to the prior reading noting anomalies, such as high, low, or zero readings. Any anomalies are investigated by the Customer Service Unit.

OBJECTIVE

The objective for this audit was to evaluate water contracts and sales to other localities to determine compliance to contract terms and if the agreements recover costs for the City.

SCOPE

The scope of the audit covers the three wholesale water contracts with the Counties of Chesterfield, Hanover, and Henrico and the internal controls over the recovery of expenditures and relevant revenues for the 24 months ending June 30, 2020 and the current environment.

METHODOLOGY

The Auditors performed the following procedures to complete this audit:

- Interviewed staff;
- Performed a walkthrough of the Water Treatment Plant to gain an understanding of the water purification process;
- Reviewed the wholesale water contracts for content and tested compliance;
- Reviewed meter readings, bills, and payments to ensure accuracy and completeness of payments;
- Recreated calculations used in annual cost studies and true ups to derive County costs, and
- Performed other tests, as deemed necessary.

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MANAGEMENT RESPONSIBILITY

City of Richmond management is responsible for ensuring resources are managed properly and used in compliance with laws and regulations; programs are achieving their objectives; and services are being provided efficiently, effectively, and economically.

INTERNAL CONTROLS

According to the Government Auditing Standards, internal control, in the broadest sense, encompasses the agency's plan, policies, procedures, methods, and processes adopted by management to meet its mission, goals, and objectives. Internal control includes the processes for planning, organizing, directing, and controlling program operations. It also includes systems for measuring, reporting, and monitoring program performance. An effective control structure is one that provides reasonable assurance regarding:

- Efficiency and effectiveness of operations;
- Accurate financial reporting; and
- Compliance with laws and regulations.

Based on the audit test work, the Auditors concluded the internal controls over the Wholesale Water Contracts are in place to ensure billings for joint capital costs, direct capital costs and operating expenditures are properly calculated and in conformance with the contracts' terms and conditions. However, improvements are needed as follows:

- Properly recording the field meter readings.
- Outdated standby meters.
- Reconciliation of active meters against billings.
- Capturing and requesting capital costs timely.

These observations are discussed throughout this report.

FINDINGS and RECOMMENDATIONS

What Works Well

Henrico Cost of Service Model

The Auditors reviewed and recalculated the Henrico Cost of Service (COS) model for FY19 and found no exceptions. The City received all true-up funds for FY19 as calculated and the amount calculated was correct.

Hanover and Chesterfield Counties - Operating Costs Annual True-Up

The Auditors reviewed the Hanover and Chesterfield Counties Operating Costs for FY19. The Auditors performed a recalculation based on general ledger expenditures and files supplied by DPU and found no exceptions. The City received all true up funds for FY19 per the calculation and amount calculated as owed for Hanover County was correct. The amount calculated as owed for Chesterfield County was correct, except for an immaterial variance of \$34.

Hanover and Chesterfield Counties - Annual Capital Cost Billing Percentage

All billed FY2019 capital cost expenditures were in agreement with the terms and conditions of their contracts.

Operating Costs – Monthly Billings and Payments

The Auditors traced four monthly operating amounts from the City's Financial System (RAPIDS) to 117 generated bills for the three Counties. One hundred percent of payments for these bills were deposited and recorded in CIS.

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What Needs Improvement

Finding #1 – Meter Readings/Inactive Meters

Condition: The Auditors analyzed 36 water meter readings for each month related to Henrico and Hanover counties' water services for May 2019 and May 2020, and compared the readings to the consumption bills and noted:

May 2019

Of the 36 water meter readings tested:

- Twenty seven were billed accurately.
- One was a fire hydrant, hence not related to the wholesale water contracts.
- Eight meters had initial field readings that did not match the confirmed readings for billing. The variances caused a total difference of (\$186,429). The variances may be due to meter reading errors that were subsequently corrected in the system prior to billing. DPU management is researching the differences.

The Auditors also noted nine of the 36 meters had the same readings as the previous month's readings, resulting in zero consumption. One of these meters was turned off at the request of Henrico County. According to DPU management, staff keyed the same consumption readings as some of those meters had been inactive for many years. Although these meters were inactive, two had previous balances of \$49,281 and \$525.

May 2020

Of the 36 meter readings tested:

- Thirty three were billed accurately.
- One was a fire hydrant, hence not related to the wholesale water contracts.
- Two meters had initial field readings that did not match the confirmed readings for billing. The Auditors could not conclude as these bills were not provided. However, the total variance for these two readings was \$15.20, which was immaterial.

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The Auditors also noted the same nine inactive meters from May 2019 should've had the same readings from month to month. However, only seven had the same readings as the previous month's readings, resulting in zero consumption. The other two had keying errors that were corrected through subsequent billings.

Upon inquiring to DPU management about the inactive meters, they conducted a field inspection for eight inactive meters. They concluded that seven of the eight meters inspected were standby meters. Their field inspection also revealed that the seven meters had reached the end of their life cycle, did not have additional valves which are required by current standards, and were technologically obsolete meaning that they are normally closed and not in use unless requested by Henrico. They found one of the eight meters was active, however had not been generating readings since February 2011. DPU replaced that meter in August 2020 and started billing in September 2020. The billings for September and October were \$1,906 and \$5,207, respectively for a two month average of \$3,556.

DPU also developed a Policy to research the stopped meters to determine the period the meters were stopped and bill appropriately for any missed consumption. They couldn't conclude if water was flowing from the meters.

Criteria: According to the Henrico wholesale water contract, "The City will provide, install, and maintain a meter at each point of delivery of water to the County...all water delivered to the County at each point shall be measured through the meter. The costs and expenses associated with such metering facilities shall be included in the appropriate parts of the cost allocation study." The contract also notes that the City should read all meters monthly and Henrico has the right to read the meters at the same time to verify the readings. The County can test and verify the accuracy of the meters, at their own expense, with City staff present.

Additionally, according to City Code §28-61, "If a gas or water meter fails to register or record properly the quantity of gas or water used, consumed or wasted on any premises for any cause

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and the owner or occupant of such premises or the consumer thereof has received the usual or necessary supply of gas or water during the time of such failure, the Director may charge such owner, occupant or consumer for such quantity of gas or water used, consumed or wasted as is shown to be the average amount of gas or water used, consumed or wasted on such premises for the preceding six months or for a longer period if deemed proper by the Director. Whenever this information is not available, the amount to be charged shall be determined by the Director from the best information available.”

Cause: According to DPU management, they were aware of the water meters that were not recording any consumption for some time and that staff responsible for the meter readings used the same readings to record and keep track of those meters. Management also stated they did not replace those meters due to a variety of reasons:

- The meter replacements had to be coordinated with Henrico County.
- Coordination with Henrico presented difficulties with alternative water supply demands while replacing the meters. Also, they had to consider traffic and Virginia Department of Transportation.
- Procurement delays,
- Budget restrictions with the Counties,
- Compatibility and technological issues with replacing older equipment.

Additionally, the water meter readings are taken manually and then uploaded into CIS to generate the billings.

Effect: The City could be losing revenues if water is flowing through the inactive meters. The Auditors cannot quantify this amount as further research is to be performed by DPU staff. The meter replaced in August 2020, which had not generated readings since February 2011, began billing again in September 2020. The billings for September and October were \$1,906 and \$5,207, respectively. If this represents an average usage since February 2011 (9 years & 6

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months) this could represent up to approximately \$405,000 of water usage not billed depending if minimum usage/billings were met.

Recommendations:

- 1. We recommend the Director of the Department of Public Utilities further research the seven standby water meters and determine whether water is flowing through those meters and bill accordingly.*
- 2. We recommend the Director of the Department of Public Utilities estimate the average usage for the one water meter that was replaced in August 2020 that had not generated billings for 9 ½ years and back bill accordingly and as deemed proper by the Director in discussion with the locality.*
- 3. We recommend the Director of the Department of Public Utilities develop and implement a plan to replace the outdated standby meters.*
- 4. We recommend the Director of the Department of Public Utilities further research the billing variances and prior balances noted in the Auditors' testing.*
- 5. We recommend the Director of the Department of Public Utilities create an automated process to read all wholesale water meters, where feasible, to reduce the number of billing errors due to manual keying.*

Finding #2 – Under Billed Capital Costs

Condition: The Auditors analyzed the FY2019 capital project costs for the Chesterfield County Wholesale Water Contract to ensure all capital project costs in the City's financial system (RAPIDS) were captured and billed according to the contract terms. The FY2019 annual billing included 12 capital projects totaling \$3,929,768. In contrast, the data in RAPIDS contained 15 projects totaling \$4,007,727 as follows:

	FY2019 Cost	Chesterfield's Share of Cost
<i>Amount Billed</i>	\$3,929,768	\$1,317,507
<i>Actual In RAPIDS</i>	\$4,007,727	\$1,378,258
<i>Variance</i>		(60,750)

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The Auditors noted the variance was caused by two of the 15 projects in RAPIDS which had expenditures during FY2019. These capital projects were not captured in the annual billing. The following table depicts the total expenditures for these two projects and Chesterfield's share of the cost:

<i>Project No.</i>	<i>Total Expenditures</i>	<i>Chesterfield's Shared %</i>	<i>Chesterfield's Share of Cost</i>
100415	\$40,815	57.84%	\$23,607
104536	\$37,143	100%	\$37,143
<i>Total under billed</i>			\$60,750

Additionally, Capital Project No. 100273 had expenditures in RAPIDS. However, Chesterfield's portion of the project had been maximized. This means that Chesterfield's share of the expenditures was zero and properly excluded from the annual billing. The Auditors also noted the FY2019 annual billing included FY2018 expenditures for two projects that were not captured in the FY2018 annual billing. The breakdown for these expenditures were as follows:

<i>Project No.</i>	<i>Total Expenditures</i>	<i>Chesterfield's Shared %</i>	<i>Chesterfield's Share of Cost</i>
100197	\$15,358	20.50%	\$3,148
100276	\$29,813		\$6,112

The Auditors also analyzed the FY2019 capital project costs for the Hanover County Wholesale Water Contract to ensure all capital project costs in RAPDIS were captured and billed according to the contract terms. All FY2019 expenditures were included on the annual billing. However, the FY2019 annual billing included FY2018 expenditures for three projects that were not captured in the FY2018 annual billing. The breakdown for these expenditures were as follows:

<i>Project No.</i>	<i>Total Expenditures</i>	<i>Hanover's Shared %</i>	<i>Hanover's Share of Cost</i>
100197	\$15,358	15.16%	\$2,328
100276	\$29,813		\$4,520
104649	\$2,563	100%	\$2,563

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Criteria: The Wholesale Water Contracts for Chesterfield and Hanover Counties state, "Since actual costs cannot be determined until after the close of the City's fiscal year and completion of the City's annual audit, a preliminary cost study shall be completed by October 1 each year following the close of the City's fiscal year, with a final study completed within a month of completion of the City's annual audit."

Cause: The employee responsible for capturing the capital project costs used a manual process to key the figures in the cost of service spreadsheet, which led to missing the two projects in FY2019 and missed costs for three capital projects in FY2018. The auditors could not determine what reconciliation efforts were made by staff to ensure all capital projects were captured.

Also, DPU staff billing process is to bill based on the change in the reported life to date expenditures.

Effect: Revenues were not captured timely for these projects causing them to be understated by \$60,750 during FY2019.

Recommendations:

- 6. We recommend the Director of the Department of Public Utilities ensure the Chesterfield County billing includes the adjustment of \$60,750.*
- 7. We recommend the Director of the Department of Public Utilities create an enhanced reconciliation process to capture and reconcile capital project costs to ensure all relevant projects are billed timely.*

**APPENDIX A: MANAGEMENT RESPONSE FORM
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#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
1	We recommend the Director of the Department of Public Utilities further research the seven standby water meters and determine whether water is flowing through those meters and bill accordingly.	Y	DPU concurs with this recommendation and will further coordinate with Henrico County to determine usage and bill accordingly. DPU will also enhance the notification process with Henrico County when access is needed.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Mar-21
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
2	We recommend the Director of the Department of Public Utilities estimate the average usage for the one water meter that was replaced in August 2020 that had not generated billings for 9 ½ years and back bill accordingly and as deemed proper by the Director in discussion with the locality.	Y	DPU concurs with this recommendation and is currently reviewing usage from the new meter installation to determine the path forward. DPU will consider usage patterns pre and post of COVID-19.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Jan-21
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
3	We recommend the Director of the Department of Public Utilities develop and implement a plan to replace the outdated standby meters.	Y	DPU concurs with this recommendation and has initiated steps to implement a meter testing program based on size and useful life. Henrico County meters will receive priority replacement.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Aug-21
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
4	We recommend the Director of the Department of Public Utilities further research the billing variances and prior balances noted in the Auditors' testing.	Y	DPU concurs with this recommendation and will provide an explanation of the eight initial field readings that did not match the billings and will document the cause of the previous balances and how those balances are to be cleared.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Dec-20
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
5	We recommend the Director of the Department of Public Utilities create an automated process to read all wholesale water meters, where feasible, to reduce the number of billing errors due to manual keying.	Y	DPU concurs with this recommendation and has started using a new software (i.e. WaterSource) to replace ERTS on meters 6" and larger. WaterSource transmits readings electronically, whereby eliminating manual intervention.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Aug-21
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

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#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
6	We recommend the Director of the Department of Public Utilities ensure the Chesterfield County billing includes the adjustment \$60,750.	Y	DPU concurs with this recommendation and will include the \$60,750 in the FY2020 Cost of Service to Chesterfield County.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Dec-20
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
7	We recommend the Director of the Department of Public Utilities create an enhanced reconciliation process to capture and reconcile capital project costs to ensure all relevant projects are billed timely.	Y	DPU concurs with this recommendation and will review our reconciliation process to identify opportunities for improvement and develop an enhanced documented reconciliation process.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director, Senior		31-Dec-21
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION