

DEPARTMENT OF ENVIRONMENTAL SERVICES  
BUREAU OF WATER  
STOCKROOM INVENTORY OBSERVATION

Office of Public Integrity  
Date: January 29, 2015

## I. EXECUTIVE SUMMARY

The Office of Public Integrity (OPI) observed the annual physical inventory of the Department of Environmental Services (DES), Bureau of Water on October 25, 2014. This inventory includes the Water stockroom, the Street Lighting stockroom, the Department of Recreation and Youth Services (DRYS), Bureau of Recreation inventory and the DES Cemeteries inventory maintained by the Bureau of Water. The results of the inventory indicate that the Bureau of Water maintains adequate inventory control.

- ◆ OPI did not note any variances in our sample selection of water stockroom inventory items indicative of the differences between the physical counts and the quantities recorded in the perpetual records. In the previous inventory we noted a 1.1% variance.
- ◆ OPI noted variances in 0.4% of street lighting stockroom inventory items indicative of differences between the physical counts and the quantities recorded in the perpetual records. This is slightly lower than the 0.6 % error rate noted in the previous inventory.
- ◆ OPI noted variances in 0.05% of DRYS, Bureau of Recreation inventory items indicative of differences between the physical counts and the quantities recorded in the perpetual records. We did not note any variances in the previous inventory.
- ◆ OPI did not note any variances in the DES, Cemeteries inventory items. We also did not note any variances during the 2013 inventory.

## II. BACKGROUND, OBJECTIVES, AND SCOPE

### A. Assignment

The Office of Public Integrity routinely observes and participates in annual physical inventories of various City stockrooms to independently ensure the accuracy of the inventory counts and to evaluate internal controls in the inventory maintenance process. The Bureau of Water conducted its annual physical inventory of the Water, Street Lighting, Bureau of Recreation and Cemeteries stockrooms on October 25, 2014. OPI participated in these counts at the request of the Department of Environmental Services.

### B. Background

The Materials and Equipment unit of the Director's Office stores and manages an inventory of supplies and materials necessary to operate and

maintain the water distribution system. As of October 25, 2014, the inventory consisted of 3,308 line items valued at \$3,002,536. Also, in addition to the main inventory storage area on Felix Street, the Bureau of Water stores some inventory at the Hemlock Lake treatment facilities. OPI verified the inventory at that location on May 19, 2014. The inventory at Hemlock Lake consisted of 36 line items valued at \$218,543.

In 2007, City management transferred the Street Lighting unit from the Bureau of Water to the Bureau of Architecture and Engineering. However, the Materials and Equipment unit of the Bureau of Water continues to store and manage the street lighting inventory of supplies and materials. The Street Lighting unit oversees the City's street lighting system. As of October 25, 2014, the inventory consisted of 501 line items valued at \$1,153,610.

In June 2008, City management transferred the DRYS, Bureau of Recreation stockroom to the Materials and Equipment unit of the Bureau of Water. As of October 25, 2014, this inventory consisted of 1,957 line items valued at \$472,365.

In January 2013, the Bureau of Water began storing Cemetery inventory items in their warehouse. As of October 25, 2014 the Cemetery inventory consisted of 142 items valued at \$30,045.

Bureau of Water personnel utilize an automated inventory system that assists in controlling quantities and providing various management information. A perpetual inventory record is an essential feature of this system.

C. Objectives and Scope

The objectives of this review are to assure an accurate and complete physical inventory count and to assess the effectiveness of inventory controls.

Management is responsible for establishing and maintaining a system of internal accounting and administrative control. Fulfilling this responsibility requires estimates and judgments by management to assess the expected benefits and related costs of control procedures. The objectives of a system are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of accurate, informative reports that are fairly stated.

Because of inherent limitations in any system of internal accounting and administrative control, errors or irregularities may nevertheless occur and

not be detected. Also, projection of any system evaluation to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the degree of compliance with procedures may deteriorate.

The recommendations presented in this report include the more significant areas of potential improvement that came to our attention during the course of the examination, but do not include all possible improvements that a more extensive review might develop.

### III. RESULTS OF REVIEW

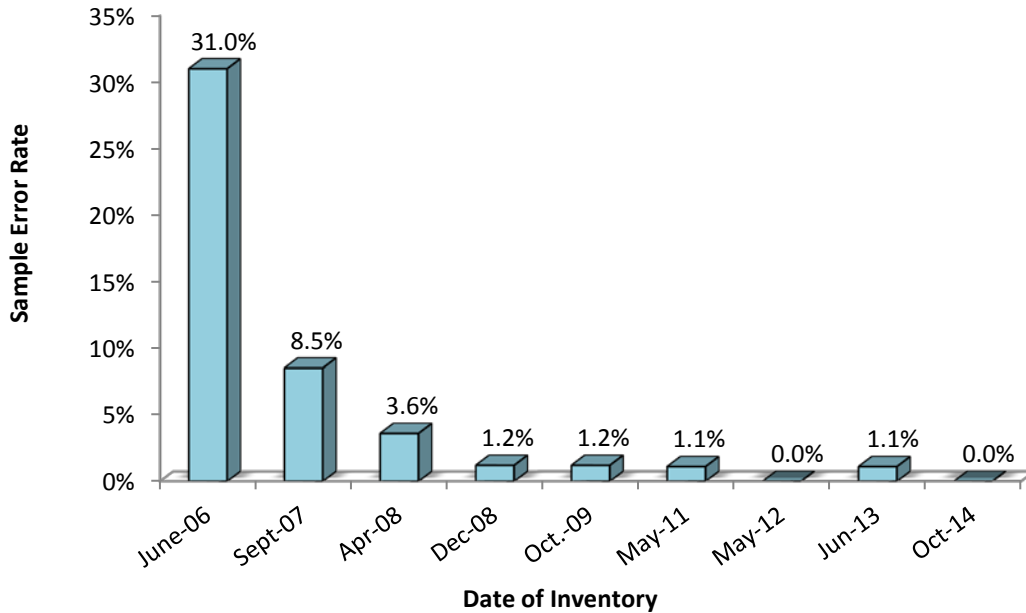
The results of this physical inventory indicate that Water Bureau personnel have continued to maintain adequate control over the inventories.

#### A. Variance Analysis - Water Stockroom

The Office of Public Integrity selected a statistical sample of items included in the stockroom inventory. The sample selection assures proper representation throughout the entire population of inventory items and allows us to accurately project the results against the entire inventory. The range of unit costs included in the sample extends from \$0.01 to \$40,000. OPI compared the actual count of each of these selected items to perpetual records and noted any variances.

Of the 178 inventory items tested in the sample, OPI noted no variances. The sample error rate is therefore 0%. The following graph presents historical error rates as a reference.

Bureau of Water  
Water Stockroom Inventory  
Sample Error Rate Percentages



When OPI extends the sample error rate of 0% to the entire population of 3,308 different stock items, the projection indicates that the actual number of errors in the population is in the range of 0 to 46 stock items. When comparing the current error rate of 0% to the prior error rates of 1.1% in 2013, 0% in 2012 and 1.1% in 2011, it appears that, based on the results of the sample selection, Bureau of Water personnel have continued to maintain adequate control over the stockroom inventory. Additionally, it appears that conducting cycle counts throughout the year has assisted in achieving and maintaining these lower variance rates.

◆ Recommendation

Bureau management should continue to make inventory control a priority.

B. Variance Analysis - Street Lighting Stockroom

Due to the relatively small number of street lighting inventory line items, OPI examined 100% of the inventory rather than selecting a statistical sample. As a result, the error rate noted represents the true error rate in

the population of street lighting inventory items. The range of unit costs included in the inventory extends from \$0.13 to \$6,817.34. The Office of Public Integrity compared the actual count of each of these items to perpetual records and noted any variances.

Of the 501 line items in the street lighting inventory, we noted variances in 2 items. The true error rate is therefore 0.4%. This variance is consistent with the 0.6% error rate noted in May 2013 and the 0.9% error rate noted in May 2012. This variance represents the implementation of corrective actions by Water personnel when compared to both the error rate of 21% noted in September 2007 and the error rate of 20% that we noted in the 2006 inventory. The following graph presents historical error rates as a reference.

**Bureau of Water  
Street Lighting Stockroom Inventory  
Inventory Variance Error Rate Percentages**

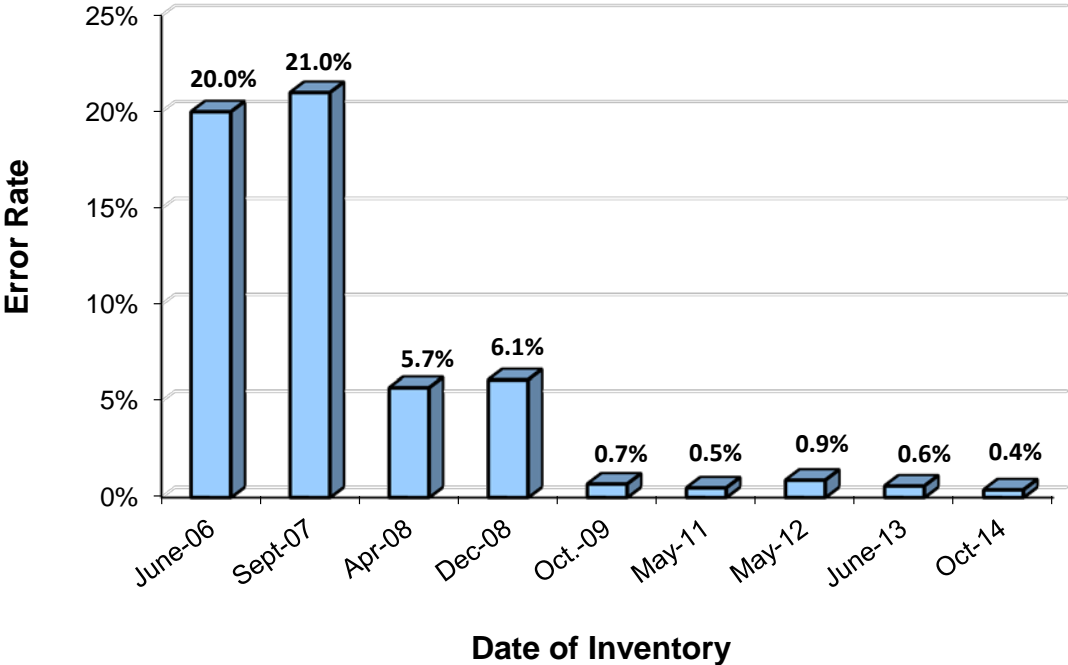


Table I (attached) presents the variance analysis of the street lighting inventory for those items in which a variance exists. It demonstrates individual variances between actual physical counts and quantities recorded in the perpetual records, and presents positive and negative variances separately. Additionally, the table includes the net variance. To

eliminate counting errors, Bureau of Water personnel recounted all items in which a difference existed between the quantities recorded in the perpetual record and the actual quantities on hand during the physical inventory.

◆ Recommendation

Bureau management should continue to make inventory control a priority.

C. Variance Analysis – DRYS Stockroom

OPI examined 100% of the DRYS Bureau of Recreation inventory items maintained by the Bureau of Water. As a result, the error rate noted represents the true error rate in the population of recreation inventory items. The range of unit costs included in the sample extends from \$0.00 to \$10,772.00. OPI compared the actual count of each of these selected items to perpetual records and noted any variances.

Of the 1,957 line items in the recreation inventory, variances exist in one item. The true error rate is therefore 0.05%. This variance is consistent with the 0.1% variance rate noted in May 2013 and the 0.0% error rate noted in May 2012. The following graph presents historical error rates as a reference.

Bureau of Water  
DRYS Stockroom Inventory  
Inventory Variance Error Rate Percentages

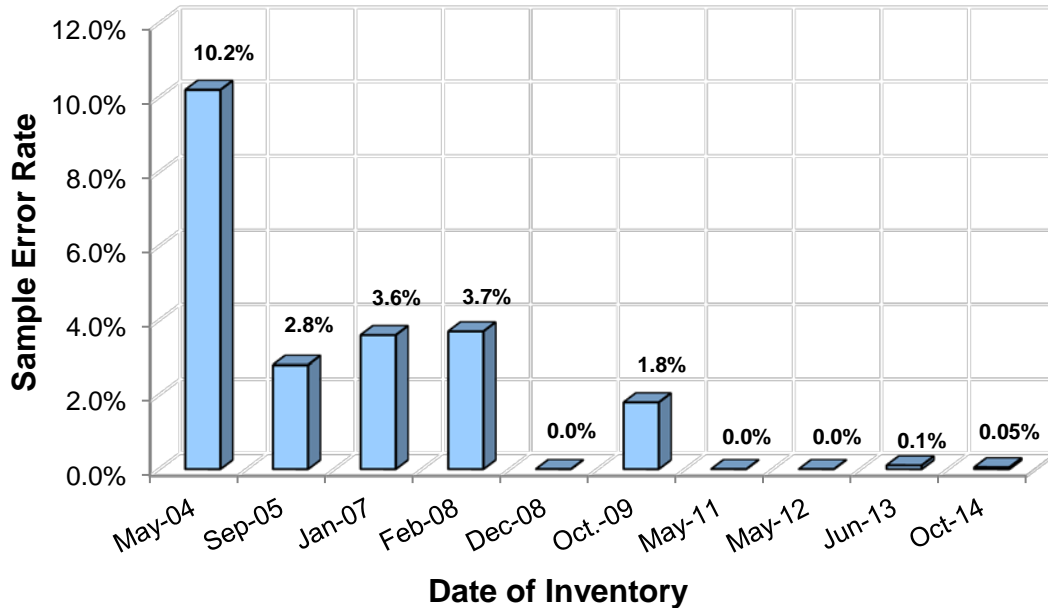


Table II (attached) presents the variance analysis for the item in which a variance exists. To eliminate counting errors, Bureau of Water personnel recounted all items in which a difference existed between the quantities recorded in the perpetual record and the actual quantities on hand during the physical inventory.

◆ Recommendation

Bureau management should continue to make inventory control a priority.

D. Variance Analysis - Cemeteries Inventory

Due to the relatively small number of cemetery inventory line items, OPI examined 100% of the inventory rather than selecting a statistical sample. As a result, the error rate noted represents the true error rate in the population of cemetery inventory items. The range of unit costs included in the sample extends from \$0.33 to \$1,705.69. OPI compared the actual count of each item to perpetual records and noted any variances.



Of the 142 line items, OPI did not note any variances. The true error rate is therefore 0%. This is the same error rate noted in the 2013 inventory. This was the second inventory conducted of the Cemetery stock room.

◆ Recommendation

Bureau management should continue to make inventory control a priority.

IV. DEPARTMENTAL RESPONSE

The response of the Department of Environmental Services to this report begins on the next page.

TABLE I: Department of Environmental Services  
 Bureau of Water  
 Street Lighting Stock Room Inventory – October 25, 2014  
Schedule of Inventory Variances Only

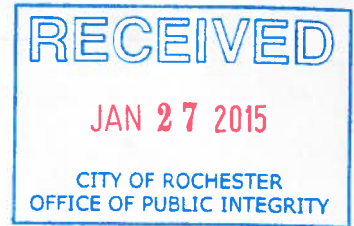
Stock Number	Part Description	Booked Quantity On Hand	Actual Quantity Counted	Item Count Variance		Unit Cost	Dollar Variance	
				Over	Short		Over	Short
7A74B	Fixt.Rn20 250H w/sf,phs	41	42	1		\$928.00	\$928.00	
9A101	Sterner Harp Fixture	<u>24</u>	<u>23</u>	<u>-</u>	<u>1</u>	863.64		<u>\$-863.64</u>
		<u>65</u>	<u>65</u>	<u>1</u>	<u>1</u>		<u>\$928.00</u>	<u>\$-863.64</u>
Net Variance .....								<u>\$ 64.36</u>

TABLE II: Department of Environmental Services  
 Bureau of Water  
 Recreation Stock Room Inventory – October 25, 2014  
Schedule of Inventory Variances Only

<u>Stock Number</u>	<u>Part Description</u>	<u>Booked Quantity On Hand</u>	<u>Actual Quantity Counted</u>	<u>Item Count Variance</u>		<u>Unit Cost</u>	<u>Dollar Variance</u>	
				<u>Over</u>	<u>Short</u>		<u>Over</u>	<u>Short</u>
130008	Gloves Leather M Green	<u>58</u>	<u>59</u>	<u>1</u>		\$3.29	<u>\$3.29</u>	<u>\$0.00</u>
		<u>58</u>	<u>59</u>	<u>1</u>			<u>\$3.29</u>	<u>\$0.00</u>
Net Variance .....								<u>\$3.29</u>



Inter-Departmental Correspondence



To: Daniel Mastrella, Internal Audit/OPI  
From: Norman H. Jones, Commissioner/DES  
Date: January 20, 2015

Subject: Inventory Audit Results – Water Bureau Materials & Equipment Stockroom

The Water Bureau conducted its physical inventories of the Water Materials, St. Lighting, DRYS, and Cemeteries databases on October 25, 2014. The previous inventory of these areas was performed June 8, 2013. The Office of Public Integrity observed these inventories.

At the time of the most recent audit, the Materials & Equipment stockroom maintained 5,766 items, comprised of 257,757 physically counted units, valued at \$4,657,556.

The audit results were outstanding.

Based on OPI's examining 100% of the following databases:

- DRYS inventory of 1,957 items had only 1 variance for 0.05% valued at \$3.29
- Cemeteries inventory of 142 items had zero variances for 0.0%
- Street Lighting inventory of 501 items has 2 variances for 0.4% valued at \$64.36

Based on OPI's statistical analysis based on a sample selection of 178 items:

- Water inventory of 3,308 items has a sample error rate of 0.0%

Based on a 100% physical verification of the Water inventory using our third party contracted vendor the actual results for Water were:

- 6 variances of the 3,308 items for a real variance of 0.18% valued at \$16.68

The combined actual overall results based on a 100% physical audit of all inventories, as performed by our third party contracted vendor found:

- 9 variances of 5,766 items for 0.16% error rate or 99.84% accuracy
- \$84.33 increase of the \$4,627,556 inventory for better than \$99.99% accuracy

The results of the OPI audit, in conjunction with the complete physical inventory, confirmed that the staff at the Water Bureau's Materials & Equipment stockroom has continued to maintain adequate control over all inventories.

Based on their consistently acceptable audits, and ongoing commitment to excellence, I am confident that the Materials & Equipment staff will continue to make inventory control a top priority. Please contact me as needed.

Attachments: October 25, 2014 findings

Rm

XC: R. Morrison  
L. Cichocki-Lalka