

## EXECUTIVE SUMMARY

The Office of Public Integrity (OPI) observed the annual physical inventory of the Bureau of Water stockroom on September 29, 2007. The results of the inventory indicate that the variance rate for Water has decreased since the last inventory observed by OPI on June 17, 2006 but is higher than the variance rate at the April 24, 2004 physical inventory. The variance for Street Lighting has increased slightly from the previous inventory and remains significantly higher than the variance rate at the April 2004 physical inventory. This increase warrants management attention to ensure adequate control of the inventory. We noted the following findings during this review:

- ◆ OPI determined variances in 8.5% of our sample selection of water stockroom inventory items indicative of differences between the physical counts and the quantities recorded in the perpetual records. This is significantly lower than the variance rate noted in the previous inventory.
- ◆ OPI determined variances in 21% of street lighting stockroom inventory items indicative of differences between the physical counts and the quantities recorded in the perpetual records. This is slightly higher than the 20% error rate noted in the previous inventory.
- ◆ OPI noted 17 out of 1,336 water stockroom inventory items and 22 out of 340 street lighting inventory items in which stockroom personnel did not accurately update the perpetual inventory system with the quantities counted during the physical inventory count. This represents an error rate of 1.3% for water and 6.5% for street lighting. The effect of this condition is to negate the benefit of taking a physical inventory.
- ◆ OPI determined that Bureau personnel did not record some inventory items on the perpetual inventory system. These items have a combined value of \$40,795.40 and are stored at the Hemlock treatment facilities.

## 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. The Bureau of Water conducted its

annual physical inventory of the water and street lighting stockrooms on September 29, 2007. 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 September 29, 2007, the inventory consisted of 1,336 line items valued at \$883,401.

The Street Lighting unit was transferred to the Bureau of Architecture and Engineering in 2007, 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 September 29, 2007, the inventory consisted of 340 line items valued at \$412,170.

Bureau of Water stockroom 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. This Bureau moved to its new facility on Felix Street in December 2006.

## C. Objective 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 the variance rate for the water stockroom has significantly decreased since the last inventory date while the street lighting variance has increased slightly.

#### 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 \$8,650.00 to \$0.07. OPI compared the actual count of each of these selected items to perpetual records and noted any variances.

Of the 165 inventory items tested in the sample, variances exist in 14 items. This represents a sample error rate of 8.5%. The following graph presents historical error rates as a reference.

Bureau of Water  
 Water Stockroom Inventory  
Sample Error Rate Percentages

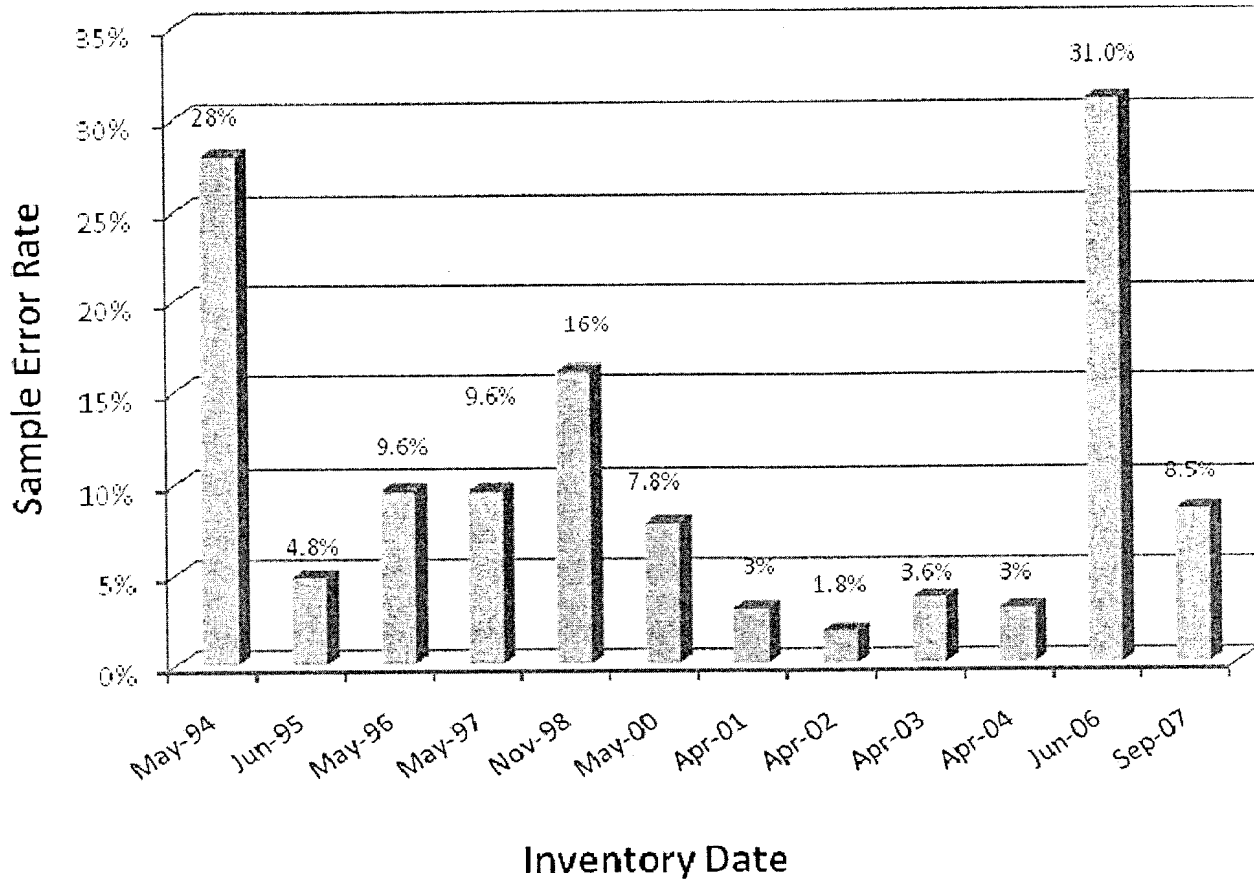


Table I (attached) presents the variance analysis of the statistical sample selection for those items in which a variance exists. It demonstrates individual variances between actual physical counts and quantities recorded in the perpetual records, and presents positive and negative variances separately.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

When OPI extends the sample error rate of 8.5% to the entire population of 1,336 different stock items, the projection indicates that the actual number of errors in the population is in the range of 59 and 216 stock items. The error rate of 8.5% is lower than the prior error rate of 31% in the June 2006 inventory, however it is higher than the 3% variance noted in the April 2004 inventory. The positive and negative variances currently existing may indicate ineffective posting procedures to the perpetual records of the automated inventory system, control weaknesses in computer processing, improper identification of items within inventory, or theft.

◆ Recommendation

Bureau management should determine the causes of the variances, take corrective action and 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, we 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 entire population of street lighting inventory items. The range of unit costs included in the inventory extends from \$2,715.00 to \$0.01. The Office of Public Integrity compared the actual count of each of these items to perpetual records and noted any variances. Of the 340 line items in the street lighting inventory, variances exist in 72 items. The true error rate is 21%. This variance rate is slightly higher than the variance rate of 20% noted in June 2006 but significantly higher than the error rate of 4.9% that we noted in the 2004 inventory. The following graph presents historical error rates as a reference.

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

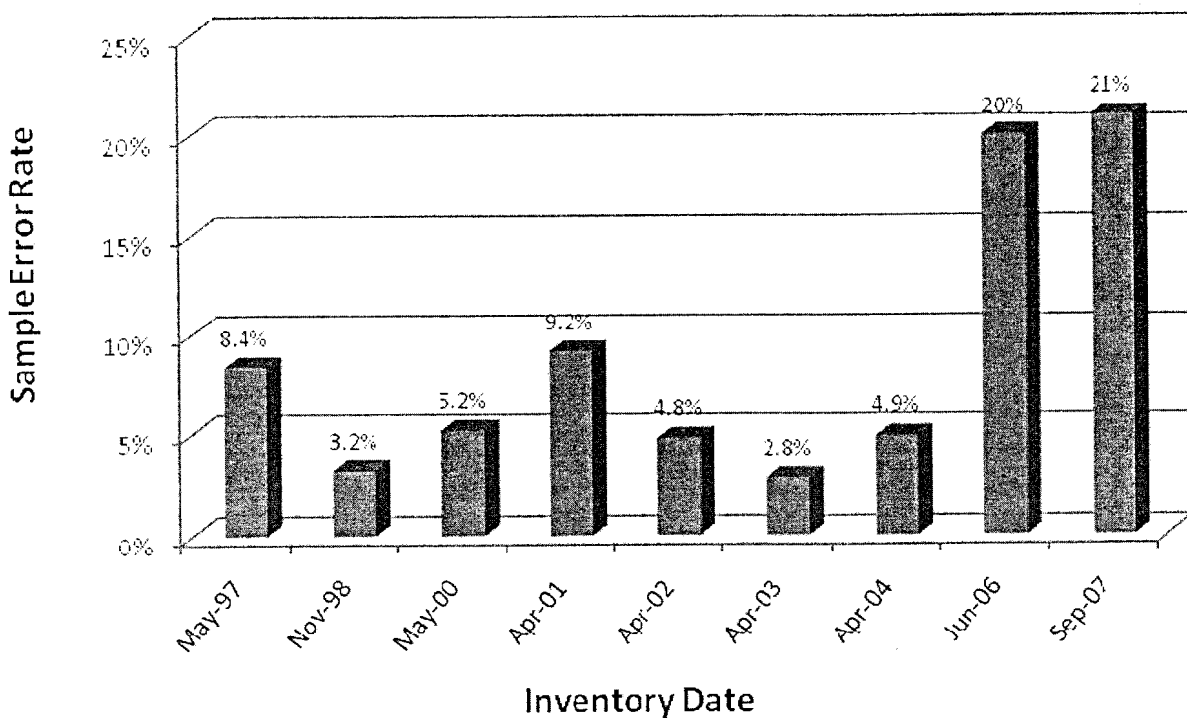


Table II (attached) presents the variance analysis for those items in which a variance exists. It demonstrates individual variances between actual physical counts and quantities recorded in the perpetual records, and presents positive and negative variances separately. Additionally, the table includes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

When OPI compares the error rate of 21% to the prior error rate of 4.9% in April 2004, the variance rate has increased significantly. The positive and negative variances currently existing may indicate ineffective posting procedures to the perpetual records of the automated inventory system, control weaknesses in computer processing, improper identification of items

within inventory, or theft. Bureau of Water personnel should establish procedures enabling them to maintain adequate control over the stockroom inventory.

◆ Recommendation

Bureau management should determine the causes of the variances, implement corrective action, and continue to make inventory control a priority.

C. Inaccurate Updates To The Automated Inventory System

Bureau of Water personnel record quantities counted on preprinted count sheets, and clerical staff update the perpetual records by transferring this information to the automated inventory system. As a result, the quantities recorded on the count sheets should agree to the post-inventory perpetual records generated by the automated inventory system.

The Office of Public Integrity noted 17 items out of 1,336 water stockroom inventory line items and 22 of the 340 street lighting inventory line items in which the quantities recorded on the count sheets do not agree to the quantities recorded on the post-inventory perpetual records. This may have occurred because Bureau personnel did not clearly indicate on the count sheets the updates that clerical staff needed to make on the automated system. These discrepancies represent an error rate of 1% for Water and 6.5% for Street Lighting. Consequently, the perpetual inventory records do not always reflect accurate quantities counted at the physical inventory.

The effect of this condition is to negate the benefit of taking a physical inventory and to perpetuate inaccurate records within the automated system, a key management tool.

◆ Recommendation

Bureau of Water personnel should accurately update all counted inventory items on the automated perpetual inventory system. Additionally, the Bureau should periodically conduct cycle counts. The Bureau should correct current errors on the perpetual inventory records so that the errors do not carry over into future periods.

D. Items Not Recorded On Perpetual Inventory

In addition to the main inventory storage area on Felix Street, the Bureau of Water also stores some inventory at the Hemlock Lake treatment facilities. Accordingly, OPI also verified the inventory at that location.

We noted that the Bureau's perpetual inventory records did not include four inventory line items stored at the Hemlock facilities. The total value of these line items is \$40,795.40

The automated inventory system provides management with critical inventory information. A perpetual inventory record is an essential feature of this system and assists in controlling and managing quantities. When Bureau personnel do not record all inventory, the results are inaccurate records within the automated system, and management's inability to determine if the inventory stock items are properly controlled.

◆ Recommendation

Bureau inventory personnel should record all inventory items, upon receipt, on the perpetual inventory system.

IV. DEPARTMENTAL RESPONSE

The response of the Department of Environmental Services follows.





TABLE II: Department of Environmental Services

Bureau of Water

Street Lighting Inventory - September 29, 2007

Schedule of Inventory Variances Only

Stock Number	Part Description	Booked	Actual	Item Count Variance		Unit	Dollar Variance	
		Quantity On Hand	Quantity Counted	Over	Short	Cost	Over	Short
0L007	70W NONCYCLING HPS LAMP	552	444	0	108	\$ 12.05	\$ 0.00	\$(1,301.40)
0L010	100W NONCYCLING HPS LAMP	237	238	1	0	12.05	12.05	0.00
1L110	LUM 100W HPS RES BZ	2	3	1	0	493.00	493.00	0.00
1L285	LUM 85W QL RES	1	0	0	1	650.00	0.00	(650.00)
1L320	FIXTURE ACORN 100H USED	1	0	0	1	200.00	0.00	(200.00)
1L451	BALLAST KIT 100W HPS	53	59	6	0	128.80	772.80	0.00
1L507	LUM REBUILT RES 70W/BK	19	17	0	2	333.83	0.00	(667.66)
1L510	LUM REBUILT RES. 100W/BK	8	3	0	5	335.70	0.00	(1,678.50)
1L530	FIXTURE USED RES 100W	16	6	0	10	275.00	0.00	(2,750.00)
1L824	SIDE RIB RSL 350	89	88	0	1	12.40	0.00	(12.40)
1L838	SIDE RIB w/STUD RSL 350	50	69	19	0	21.50	408.50	0.00
1L855	STARTING AID RES PT LUM PS-55	38	51	13	0	74.10	963.30	0.00
1L868	HOUSING SHIELD-RES LUM 180 DEG.	10	6	0	4	50.20	0.00	(200.80)
1L877	WIRING HARNESS FOR RES. LUMS	67	106	39	0	8.20	319.80	0.00
1L878	WIRING HARNESS (male) FOR RES LUM	55	40	0	15	7.20	0.00	(108.00)
1L880T	REFRACTOR GASKET-TOP	29	30	1	0	18.60	18.60	0.00
1L895	TOP COVER W/ GASKET&PC RECEPTACLE	89	41	0	48	150.00	0.00	(7,200.00)
1L896	TOP COVER W/O GASKET&PC RECEPTACLE	88	66	0	22	82.70	0.00	(1,819.40)
1L907	BALLAST 70W HPS RES PT LUM	82	91	9	0	48.40	435.60	0.00
1L910	BALLAST 100W HPS RES. PT LUM	58	85	27	0	52.40	1,414.80	0.00
1L915	BALLAST 150W HPS PT LUM	15	16	1	0	122.70	122.70	0.00
2L110	COBRAHEAD 100H S/S TYPE III	192	214	22	0	125.50	2,761.00	0.00
2L215	COBRAHEAD 150W S/S REBUILD	3	0	0	3	50.00	0.00	(150.00)
2L216	COBRAHEAD 150W L/S REBUILD	1	0	0	1	55.00	0.00	(55.00)
2L246	COBRAHEAD 250W USED TYPE III	1	0	0	1	71.50	0.00	(71.50)
2L315	COBRAHEAD 150H L/S TYPE III	52	50	0	2	138.00	0.00	(276.00)
2L325	COBRAHEAD 250H L/S TYPE III	63	64	1	0	143.00	143.00	0.00
2L340	COBRAHEAD 400H L/S TYPE III	57	36	0	21	146.00	0.00	(3,066.00)
2L611	GLASS REFRACTOR L/S #637 NEW	16	21	5	0	27.60	138.00	0.00
2L626	COBRAHEAD POWER DOOR 250W L/S - OLD STY	0	6	6	0	114.75	688.50	0.00
2L652	COBRAHEAD POWER DOOR 250H REBUILD	2	0	0	2	40.00	0.00	(80.00)
3L004	4' MAST ARM-GALV	0	2	2	0	42.00	84.00	0.00
3L008	8' MAST ARM GALV	105	107	2	0	80.55	161.10	0.00
3L008BK	8' MAST ARM BLACK (GALV)	14	15	1	0	137.80	137.80	0.00
3L012	12' MAST ARM - GALV	50	52	2	0	120.80	241.60	0.00
3L016	16' MAST ARM - GALV	9	8	0	1	108.00	0.00	(108.00)
4L005	PLASTIC PULLBOX COVER	75	51	0	24	12.10	0.00	(290.40)
4L009	SMALL PULLBOX W/COVER-10"ROUND	28	26	0	2	19.30	0.00	(38.60)
4L010	PLASTIC PULL BOX w/ COVER	30	14	0	16	37.40	0.00	(598.40)
4L120D	HANDHOLE w/ CONCRETE CVR PEM1220PCX	21	20	0	1	105.75	0.00	(105.75)
4P200	SLR3 PLASTIC COVER	40	41	1	0	8.30	8.30	0.00
5D530NC	NUT COVERS FOR METAL POLES/BLK	1	2	1	0	0.00	0.00	0.00
5L001	STANDARD BASE COVER (SHROUD)	163	173	10	0	20.00	200.00	0.00
5L002	ANCHOR BOLT SET 5/8" (4)	62	52	0	10	10.00	0.00	(100.00)
5L002A	ANCHOR BOLTS 3/4"x21"x3" STD FRP	9	2	0	7	27.00	0.00	(189.00)
5L002B	ANCHOR BOLTS 3/4"x30"x4" FRP	171	178	7	0	27.00	189.00	0.00
5L004FB	FESTOON BOXES - GREEN	3	0	0	3	0.00	0.00	0.00
5L014	POLE FRP w/o SHROUD	93	144	51	0	400.00	20,400.00	0.00
5L014G	POLE 14' W/ HH, GFI/BRZ	8	6	0	2	453.00	0.00	(906.00)
5L014H	POLE 14' w/HH	4	0	0	4	230.00	0.00	(920.00)

TABLE II: Department of Environmental Services

Bureau of Water

Street Lighting Inventory - September 29, 2007

Schedule of Inventory Variances Only

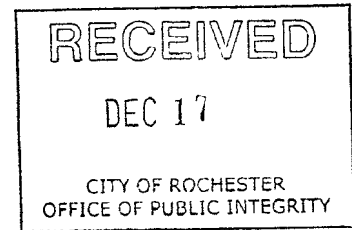
Stock Number	Part Description	Booked	Actual	Item Count Variance		Unit	Dollar Variance	
		Quantity On Hand	Quantity Counted	Over	Short	Cost	Over	Short
5L015ZH	POLE 12' w/HH, FB/BRZ	1	0	0	1	410.00	0.00	(410.00)
5L020M	POLE 20' w/4' ARM, w/o ADAPTER,10.5" bc	2	1	0	1	240.00	0.00	(240.00)
5L021	POLE 20' FRP w/ ARM12.5" bc (Atlantic)	1	0	0	1	500.00	0.00	(500.00)
5L0214	POLE 20' FRP w/o ARM,5" TENON 10.5" bc	1	2	1	0	525.00	525.00	0.00
5L022M	POLE 20' w/ ARM,ADAPTER,5"TENON,10.5"BC	3	1	0	2	628.00	0.00	(1,256.00)
5L024F	POLE 25' w/ 4' ARM, FB, GFI	1	0	0	1	753.00	0.00	(753.00)
5L025	POLE 25' w/BASE CVR,HH,ARM, 12.5"BC	1	0	0	1	653.00	0.00	(653.00)
5L030BK	HANDHOLE CVR OVAL for FRP 2.5"x5"	10	12	2	0	20.00	40.00	0.00
5L101	POLE 30' GALV SING. DAVIT-USED	7	1	0	6	175.00	0.00	(1,050.00)
5L102	POLE 35' GALV SING. DAVIT-USED	10	24	14	0	200.00	2,800.00	0.00
5L450A	POLE 12' S RIVER CORRIDOR	5	4	0	1	555.50	0.00	(555.50)
7F1A3K	FIXT ANCESTRA 100H POST TOP- LAKE AVE	5	4	0	1	844.80	0.00	(844.80)
8LA5	FLOWER POT HOLDER/ARM	1	0	0	1	30.00	0.00	(30.00)
9A101	STERNER HARP FIXTURE	9	6	0	3	863.54	0.00	(2,590.92)
9L352	ROD GALV 5/8"-11x6'	116	107	0	9	7.68	0.00	(69.12)
9L425B	HARP-BROWNS RACE	7	2	0	5	0.01	0.00	(0.05)
9L520	B&L 3-GLOBE FIXTURE (w/o GLOBE)	7	1	0	6	1,500.00	0.00	(9,000.00)
9L522	B&L SMALL GLOBE (BOXED)	9	0	0	9	150.00	0.00	(1,350.00)
9L523	B&L 12' NON-FLUTED GREEN POLES	7	1	0	6	850.00	0.00	(5,100.00)
9L524	B&L SHORT ROUND ANCHOR BOLT COVER	7	1	0	6	50.00	0.00	(300.00)
9L525	B&L GLASS REFRACTORS	16	3	0	13	65.00	0.00	(845.00)
9L553	STRAUB RELIEF GRIP-MESH ASSEMBLY	15	14	0	1	9.05	0.00	(9.05)
		<u>3,073</u>	<u>2,927</u>	<u>245</u>	<u>391</u>		<u>\$33,478.45</u>	<u>(\$49,099.25)</u>

NET VARIANCE .....

(\$15,620.80)



## Inter-Departmental Correspondence



To: Dan Markese, Office of Public Integrity  
From: Paul Holahan, DES/Commissioner *PH*  
Date: December 15, 2007  
Subject: **SEPTEMBER 2007 INVENTORY AUDIT RESPONSE**

The Water Bureau conducted its physical inventories of both the Water materials and Street Lighting materials stockrooms on September 29, 2007. The last physical inventory of these areas was performed June 17, 2006. The Office of Public Integrity (OPI) observed these inventories.

The results of the Water materials inventory indicated a marked decrease in the variation rate over the previous count from 31% to 8.5%. The results of the Street Lighting materials inventory indicated a 1% increase in the variance rate over the previous count from 20% to 21%.

The OPI indicated that these variances may be caused by ineffective posting, control weaknesses in computer processing, improper identification of items in the system, and theft.

As recommended by the OPI, our standard procedure immediately following the annual physical inventories is to assess the effectiveness of our operation, identify causes of variances and weaknesses in our procedures, and implement sound corrective actions to continually improve our operation.

Our assessment of the causes of the variances after this inventory identified the following:

- **All materials at the West Avenue location were either packaged for transport to the new Felix Street facility or the Hemlock operations stockyard, sold by closed bid, sold as scrap, or disposed of as junk. Not all transactions were properly posted to the inventory database prior to the physical inventory.**  
*The volume of materials processed in the months prior to the move to Felix Street and the detailed preparation of those materials and records to ensure accountability and security presented a monumental task. Follow-through on some of the tasks did not happen in a timely manner. One example was the failure to transfer four line items from the Felix warehouse to the Hemlock stockyard. This was a one-time situation.*
- **Caccamise Electric, the Street Lighting service contractor for many years, unloaded many items from their warehouse to the West Avenue warehouse prior to our return to Felix Street. The materials were never in the City's database, and were left on-site with little or no information. Additionally, when Caccamise lost the contract this year, they delivered many more unmarked items from their warehouse to our Felix Street warehouse.**  
*Efforts were concentrated after the physical inventory to resolve the problems. As of this date, all known problems have been resolved.*

- **All materials brought to Felix Street were organized by group, labeled, stocked in their newly-assigned locations, and cycle-counted by water bureau personnel. Street Lighting personnel assisted with the Street Lighting materials organization, counts, and computer record updates. However, not all items were cycle-counted prior to the physical inventory. Some items that were initially cycle-counted (and records adjusted) were subsequently changed, but the “on-hand” quantities were not adjusted accordingly.**

*We have begun an aggressive cycle-count program. We will count all water materials at least twice a year, and the high-volume items seven times a year.*

*We will count the Street Lighting materials at least twice a year, and the high-volume items four times a year.*

*The ability of Street Lighting personnel to adjust quantities of materials in the database has been disabled. Only Water Materials personnel now have this capability. This ensures that the Water Materials staff is solely responsible for the integrity of this data.*

- **When the actual item count varies from the booked quantity, the “quantity-on-hand” field in the database is updated by the end of the physical inventory. 17 Water materials variances were not properly updated (1.3% variance); 22 Street Lighting variances were not properly updated (6.5% variance).**

*All line item quantities will be compared to the actual count quantities in all future inventories. The final count number will be highlighted on the counters’ sheets to positively identify the final count number.*

- Other smaller-scale problems that contributed to the variance rates:
  - unsealed packages were sometimes counted at the listed quantity on package (opened packages must be individually counted);

some items were counted individually instead of by the stated unit of measure;

some incomplete units were counted; when pieces of units are stripped from the main assembly, the entire assembly is issued out to that job. The remaining pieces are no longer considered as inventoried units.

These items have been identified and are being addressed.

We are planning our next physical inventory for April 2008 to ensure our corrective actions are successful. Please contact me at your earliest convenience for further discussion or comments. Thank you.

xc: R. Morrisson  
G. Giudice



Inter-Departmental Correspondence

RECEIVED  
JUN 04 2008  
CITY OF ROCHESTER  
OFFICE OF PUBLIC INTEGRITY

To: Daniel Markese, Office of Public Integrity  
From: Paul Holahan, Commissioner of Environmental Services *PH*  
Date: May 29, 2008  
Subject: **Results from Inventory Audit – Water & Street Lighting Stockrooms**

The Bureau of Water conducted its physical inventories of both the water materials and street lighting stockrooms on April 26, 2008. The last physical inventory of these stockrooms was performed on September 29, 2007.

I am pleased the results of the physical inventory indicate that the variance rates for the water and street lighting stockrooms both declined. The variance rate for the water stockroom decreased from 8.5% to 3.6%, with the variance for the street lighting stockroom decreasing from 21.0% to 5.7%.

The department will continue to make inventory control a top priority in the management of this bureau.

cc: Robert Morrison  
Gary Giudice