Audit of the Department of Utilities Inventory

Report # 2017-04|July 2017

Strengthening the Physical Security of Department of Utilities Inventory Could Reduce the Risk of Fraud, Waste, and Abuse

While the Department of Utilities' Inventory Count Procedures Appear Robust, the Execution Breaks Down

The Department of Utilities' Inventory Systems Contain Errors and Omissions

The Department of Utilities Lacks Formal User Access Policies and Procedures Regarding Their Inventory Systems

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RECOMMENDATIONS

We made 23 recommendations aimed at improving compliance, reducing risk, and improving processes related to the Department of Utilities inventory management. They include the following:

Improving Compliance

- Optimize inventory levels in accordance with policies.
- Enforce inventory policies for the tracking of water meters.
- Review the Cityworks FIFO issue with the Finance and IT departments to develop a plan to ensure compliance with financial reporting guidelines.
- Work with DOU IT to produce inventory on hand reports that correctly value inventory.
- Review and adjust the process for tracking Big Inventory.

Reducing Risk

- Decrease the amount of old and stagnant inventory.
- Review appropriateness of employees with access to the inventory warehouses.
- Establish a policy that prohibits employees from borrowing City-owned tools and equipment for personal use.
- Develop a plan and establish a reasonable timeline for consolidating inventory into fewer warehouses.
- Develop a process to review user accounts on a regular basis to ensure the number of users and their level of permission are commensurate with their responsibilities.

Improving Processes

- Establish and implement consistent procedures for the tracking of tools and equipment.
- Develop a process to ensure all warehouses are included in the inventory counts.
- Add a procedure that requires all paperwork and necessary inventory transactions be processed in the inventory systems prior to the inventory count process.
- Reconcile the Water Meter Receipt and Issue Log with Cityworks.
- Formalize specific count methodologies in a written policy.
- Review staffing and workload to optimize staffing resources.
- Formalize a procedure for accurately recording inventory count adjustments in a written policy.
- Consider incorporating blind counts into the inventory count process.
- Develop performance measures to increase data accuracy.
- Set minimum data requirements for inventory records.
- Review and modify the account number field.
- Establish a formal process to document the review and approval of new user access to the inventory systems.
- Formalize logical access to the inventory systems.

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BACKGROUND

The Department of Utilities is responsible for the City's water, wastewater, and storm drainage services. To support these services, the department maintains an inventory of parts, tools, and supplies with a current value of more than $2 million dollars. This audit assesses the controls over the Department of Utilities inventory management and identifies areas of risk and opportunities for potential savings.

FINDINGS

Strengthening the Physical Security of Department of Utilities Inventory Could Reduce the Risk of Fraud, Waste, and Abuse
We believe the Department of Utilities can reduce costs and increase inventory accuracy by strengthening their controls over the physical security of their inventory. We found that:
- Approximately 25 percent of financial inventory on hand appears to be stagnant;
- Non-Logistics Services personnel have physical access to warehouses;
- Tools and equipment are not consistently tracked; and
- The department has not clearly defined their inventory consolidation plan.

While the Department of Utilities' Inventory Count Procedures Appear Robust, the Execution Breaks Down
Internal controls promote efficiency, reduce risk of loss, and help to ensure compliance with laws and regulations. While the Department of Utilities has established internal controls in their inventory policies, we found that the execution of these inventory policies was generally lacking. Specifically, we found:
- The pre-count process created errors and information gaps;
- Counting methodologies are not consistent;
- Inventory count adjustments are not accurately captured in Cityworks;
- Optimizing staffing resources could benefit Logistics Services; and
- Accountability of water meters has significantly improved.

The Department of Utilities' Inventory Systems Contain Errors and Omissions
While we did not find evidence of fraud, the Department of Utilities' financial accounting records can be adversely impacted by errors and omissions in the department's inventory systems. When we reviewed the Department of Utilities' inventory systems for accuracy and reliability, we found:
- System accuracy may be below recommended levels;
- Key data fields are not being consistently entered into the systems;
- Some Cityworks transactions may contain first-in, first-out (FIFO) errors;
- Cityworks financial inventory valuation may not be accurate; and
- Financial inventory items not tracked in an inventory system were misreported.

The Department of Utilities Lacks Formal User Access Policies and Procedures Regarding Their Inventory Systems
While there is an informal understanding that supervisors or managers should approve new user access, it is not always documented or documentation no longer exists. We reviewed user access privileges in the Department of Utilities' inventory systems and found the following:
- User access privileges are not always formally approved; and
- Five former City employees have not been removed from Maintenance Connection.

Introduction

In accordance with the City Auditor's 2016-17 Audit Plan we have completed the *Audit of the Department of Utilities Inventory*. We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. 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. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The City Auditor's Office would like to thank the Department of Utilities for their cooperation during the audit process.

Background

The City of Sacramento Department of Utilities is responsible for the City's water, wastewater, and storm drainage services. In providing these services, the Department of Utilities works in conjunction with other City departments as well as regional, state, and federal agencies towards the maintenance, development, and rehabilitation of the City's water resources infrastructure. The department supports economic development, works to protect the environment, and improves the quality of life in the City of Sacramento.

To support their mission, the Department of Utilities maintains an inventory of parts, tools, and supplies with a current value of more than $2 million dollars. The department's inventory policies state "Managing the acquisition, production, storage and distribution of inventory is critical to controlling cost, accountability, operational efficiency, and mission readiness."

Inventory

For the purposes of this audit, we have broadly defined inventory as physical materials or goods held by the Department of Utilities. Figure 1 below provides examples of the types of inventory managed by the Department of Utilities.

Figure 1: Types of Inventory Managed by the Department of Utilities
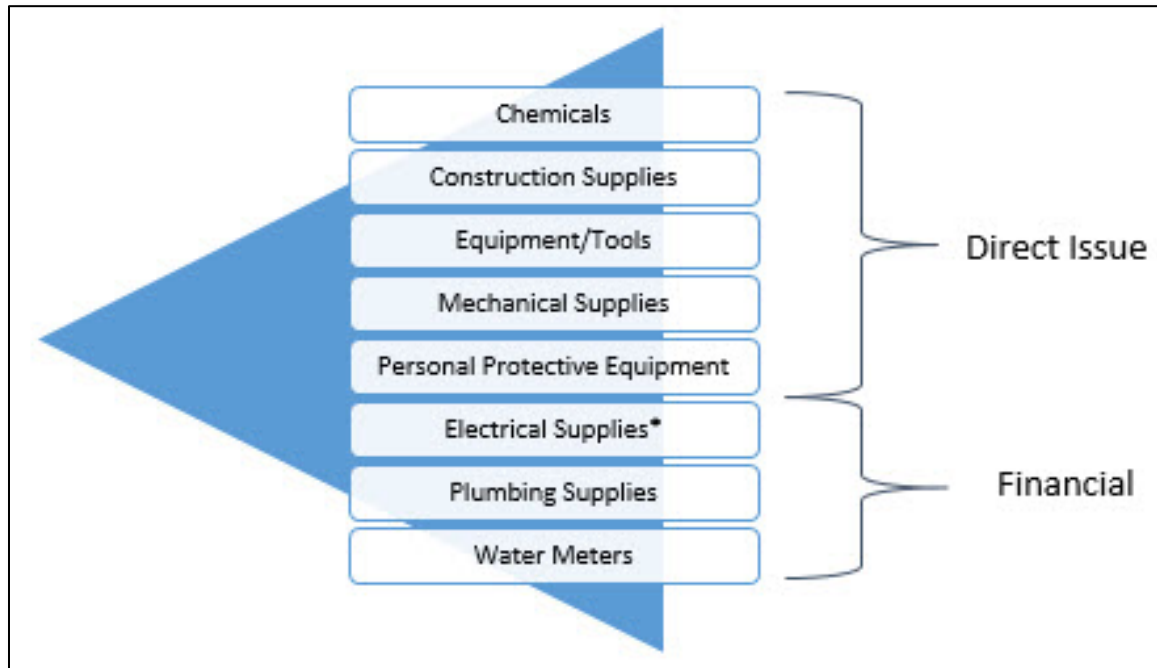
At the beginning of fiscal year 2016/2017 (FY 2016/17), electrical supplies were switched from financial inventory to direct issue inventory.
Source: Auditor generated based on information provided by Logistics Services.

The types of inventory seen in Figure 1 above fall into two categories: direct issue inventory and financial inventory. *Direct issue inventory* is inventory whose value is expensed at the time the item is *purchased*. *Financial inventory* is inventory whose value is expensed at the time the item is *used*. During the time between the purchase of financial inventory and the use of financial inventory, its value is included in the City's accounting records on the statement of net position[1], while the value of direct issue inventory is not.

The responsibility for the management and warehousing of this inventory is divided between members of the Logistics Services group and staff members at the City's two water treatment plants. The Logistics Services group is responsible for the management and warehousing for the bulk of the Department of Utilities inventory as well as for providing some oversight of inventory located at the water treatment plants. However, employees at each of the two water treatment plants are responsible for the daily management and warehousing of their own inventory.

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[1] According to the City of Sacramento's Comprehensive Annual Financial Report (CAFR) for FY 2015/16, "the statement of net position includes all the City's assets and liabilities, as well as any deferred outflows or inflows of resources."

Logistics Services

The Department of Utilities' Logistics Services group provides multiple services in support of the department. These include: contracts and procurement, facilities and fleet, and inventory management and warehousing. Figure 2 illustrates the responsibilities of the Logistics Services inventory management and warehouse team.

Figure 2: Inventory Management and Warehousing Responsibilities

Superior warehouse customer service.

Warehouse inventory, receipt and distribution of stock, and tracking of all required tools and equipment.

Managing inventory levels, inventory controls, and stock movement.

Evaluating suppliers, inventory documentation, financial results, and shrinkage.

Providing 24/7 emergency logistical support for emergency incidents.

Knowing the quantity, location, condition, and value of assets it manages.

Safeguard assets from physical deterioration, theft, loss, or mismanagement.
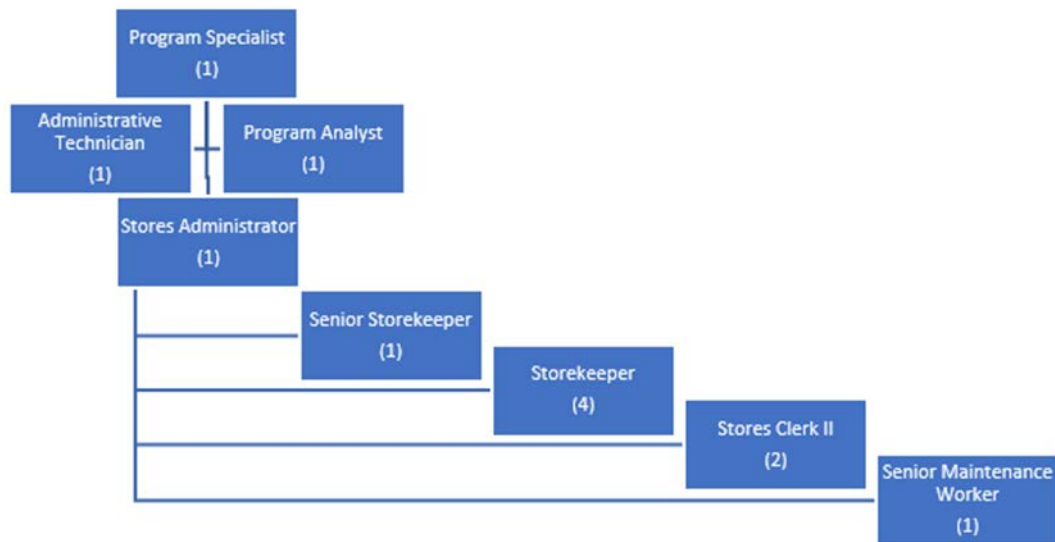
Source: Logistics Services intranet homepage.

The Logistics Services group consists of 12 full time employees. A dedicated staff provides supervision and support to keep the department operational. Figure 3 below illustrates the organization of the Department of Utilities' Logistics Services group.

Figure 3: Logistics Services Organizational Chart

Source: Auditor generated based on information provided by Logistics Services.

Water Treatment Plants

Although the Logistics Services group provides some oversight of each water treatment plant's inventory, each water treatment plant is responsible for the daily management and warehousing of their own inventory. The City of Sacramento has two water treatment plants: Sacramento River Water Treatment Plant and E.A. Fairbairn Water Treatment Plant. Water from the Sacramento River feeds into the Sacramento River Water Treatment Plant while water from the American River feeds into E.A. Fairbairn Water Treatment Plant. As the treatment processes at both water treatment plants are the same, the types of inventory stored at each water treatment plant is also similar.

The bulk of the inventory located at the two water treatment plants is chemicals, which are used in the treatment process for drinking water. Most of these chemicals are stored in large tanks that are linked to the Department of Utilities' Supervisory Control and Data Acquisition (SCADA) system, which allows the department to monitor chemical consumption from the control rooms at each of the water treatment plants. Other types of inventory, such as equipment and tools, are also on-site to ensure the two water treatment plants remain in service.

Warehouse Locations and Staffing

The Department of Utilities uses the term "warehouse" to refer to locations where inventory is stored and managed by the Logistics Services group. This encompasses both stationary warehouses (large structures and buildings) and

mobile warehouses (vehicles). The Department of Utilities manages eight stationary warehouses located throughout the City and approximately 45 mobile warehouses. Five of the eight stationary warehouses are located at the South Area Corporation Yard (SACY). The North Area Corporation Yard (NACY), 35th Avenue, and 27th Street each have one stationary warehouse.

Some stationary warehouses provide counter service so that employees can pick up inventory needed to fulfill work orders and service requests while other stationary warehouses are used only for storage. Of the eight stationary warehouses that the Logistics Services group manages, three provide counter service: Building 18, Building 22, and 35th Avenue. These three warehouses are staffed throughout the work week. The other five stationary warehouse locations are for inventory storage only. Figure 4 below lists the location of the stationary warehouses and their staffing levels.

Figure 4: Stationary Warehouse Locations and Staffing Levels

Warehouse Name	Physical Location	Provides Counter Service	Daily Staffing
Building 7	SACY	No	-
Building 8	SACY	No	-
Building 18	SACY	Yes	1 employee
Building 22	SACY	Yes	4 employees
Yard 22	SACY	No	-
35th Avenue	35th Avenue	Yes	3 employees
27th Street	27th Street	No	-
NACY	NACY	No*	-

Although the NACY warehouse is not staffed during regular working hours, a member of the Logistics Services group visits it twice a day, at the beginning and end of the work day.
Source: Auditor generated based on information provided by Logistics Services.

Inventory Systems

The City of Sacramento's system of record for financial reporting is the Electronic Citywide Accounting and Personnel System (eCAPS). For inventory tracking and management, however, the Department of Utilities uses three inventory systems: Cityworks, Maintenance Connection, and Intellitrack. Figure 5 below indicates the systems used to track and manage inventory at each warehouse. Cityworks and Maintenance Connection are work order systems with inventory management modules. These two systems are used to track inventory and link the inventory issued to specific work orders. Intellitrack is a check in/out tracking system which uses a mobile computerized bar code scanner. This system is used to track tools and equipment.

Figure 5: Inventory Systems Used at Each Warehouse

Cityworks
- Building 7
- Building 8
- Building 22
- Yard 22
- 27th Street
- NACY
- Mobile Warehouses

Maintenance Connection
- 35th Avenue

IntelliTrack
- Building 18
- Building 22
- 35th Avenue
- Mobile Warehouses
- Water Treatment Plants

Note: Not all inventory contained at these locations is tracked in an inventory system.
Source: Auditor generated based on information provided by Logistics Services.

Until the beginning of fiscal year 2016/2017 (FY 2016/17), the Department of Utilities tracked most of its financial inventory in Cityworks and Maintenance Connection. At that time, the approximate breakdown by value of which systems tracked financial inventory was as follows: 83 percent in Cityworks, 6 percent in Maintenance Connection, and 11 percent was not tracked in a system. At the beginning of FY 2016/17, the department changed how they categorized financial inventory and direct issue inventory. As a result, all financial inventory that was in Maintenance Connection became direct issue inventory. A summary of the various systems used for tracking financial and direct issue inventory can be seen in Figure 6 below.

Figure 6: Systems Used for Financial and Direct Issue Inventory
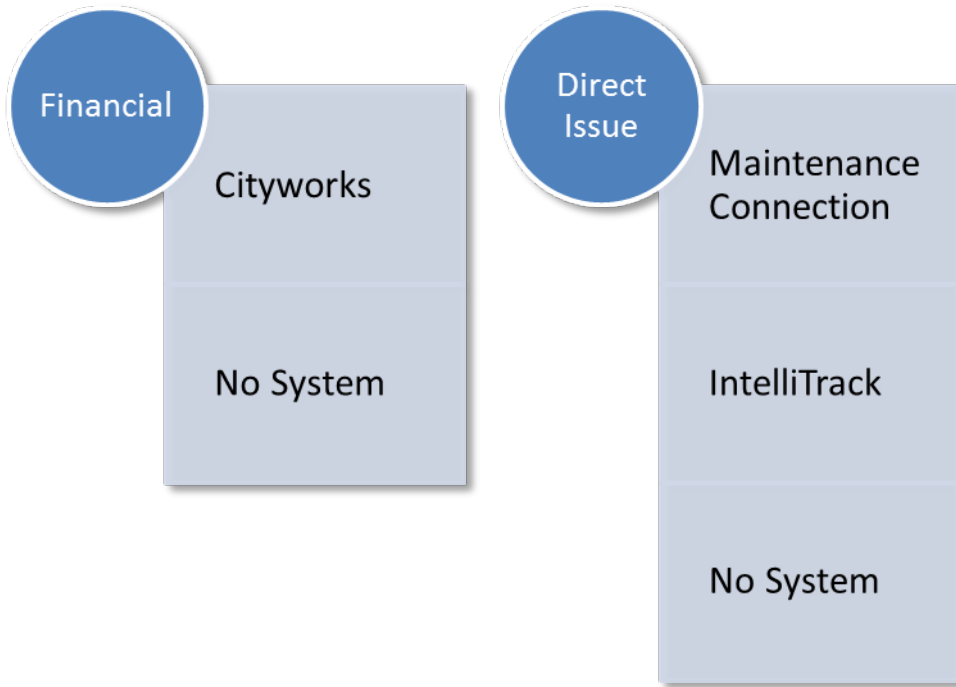
Source: Auditor generated based on information provided by Department of Utilities Fiscal Operations.

Inventory Management Best Practices

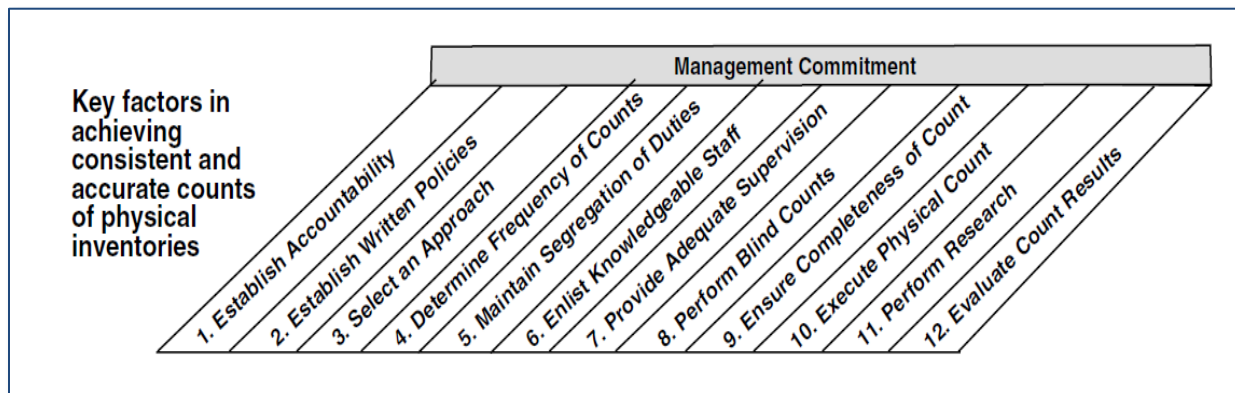In 2002, the United States Government Accountability Office (GAO) published an *Executive Guide on Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property*[2] (GAO's *Executive Guide*). The purpose of the GAO's *Executive Guide* is to provide a framework with the intention of improving the accuracy and reliability of the government's inventory data. The GAO's *Executive Guide* states "This Executive Guide, while intended to assist federal agencies in achieving the objectives of the Chief Financial Officers (CFO) Act of 1990 and subsequent related legislation, is also applicable to any governmental and nongovernmental entity holding inventory or property and equipment."

In developing their *Executive Guide*, the GAO conducted a study of the processes and procedures used by seven "leading-edge" companies to identify the key factors that contributed to their success. They found 12 key factors essential to achieving consistent and accurate counts of physical inventory, illustrated in Figure 7 below. Management's commitment to the process is listed at the top of the chart to indicate that it must be present throughout the process. Management's level of commitment to an effective and reliable

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[2] United States Government Accountability Office, Report Number GAO-02-447G, *Executive Guide on Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property,* March 2002.

inventory process includes developing a disciplined and structured culture which fosters integrity and a commitment to competence.

Figure 7: GAO Guidance on Inventory Management

Source: GAO's Executive Guide on Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property.

The Department of Utilities has already adopted some of these best practices as outlined in the GAO's *Executive Guide*. For example, the department has established written inventory control policies and procedures that determine the frequency of inventory counts and provide detail on the segregation of employee duties. Throughout this audit report, we reference the GAO's *Executive Guide* and make recommendations to aid the Department of Utilities in further implementing these best practices.

Objective, Scope, and Methodology

The objective of the *Audit of Department of Utilities Inventory* was to assess the controls over the Department of Utilities inventory and to identify areas of risk and opportunities for potential savings. In addition, we assessed the controls in place designed to deter and detect fraud in relation to inventory. Our scope included Department of Utilities inventory records for fiscal years 2014 through 2017.

In conducting our review, we defined the types of inventory, summarized inventory data, and conducted data mining for potential issues such as errors and omissions. In order to assess the accuracy and completeness of the inventory systems, we performed surprise counts to verify the existence of listed items and selected samples of purchases to determine if they were appropriately recorded. We observed, and participated in, the mid-year FY 2016/17 inventory count to determine staff's level of adherence to established

policies and procedures. In addition, we reviewed the inventory systems'
administrator and user access privileges for appropriateness.

Finding 1: Strengthening the Physical Security of Department of Utilities Inventory Could Reduce the Risk of Fraud, Waste, and Abuse

According to the GAO's *Executive Guide*, "Physical controls and accountability [of inventory] reduce the risk of (1) undetected theft and loss, (2) unexpected shortages of critical items, and (3) unnecessary purchases of items already on hand. These controls improve visibility and accountability over the inventory, which help ensure continuation of operations, increased productivity, and improved storage and control of excess or obsolete stock." A 2008 management review of Department of Utilities inventory processes and controls performed by Lorick Associates Consulting resulted in recommendations that addressed many of the potential risks outlined by the GAO's *Executive Guide*. While we did find that the Department of Utilities had already implemented many of the recommendations made in the 2008 management review, we found excessive access and inconsistent tracking of inventory that could provide opportunities for fraud, waste, and abuse. Specifically, we found:

- Approximately 25 percent of financial inventory on hand appears to be stagnant;
- Non-Logistics Services personnel have physical access to warehouses;
- Tools and equipment are not consistently tracked; and
- The department has not clearly defined their inventory consolidation plan.

While we did not find evidence of fraud or abuse, the potential exists. We believe the Department of Utilities can reduce costs and increase inventory accuracy by strengthening their controls over the physical security of their inventory. We recommend the Department of Utilities review both the number and appropriateness of employees with access to inventory warehouses. We also recommend the Department of Utilities establish and implement consistent procedures for the tracking of tools and equipment. In addition, consolidating inventory into fewer warehouses may help to improve the department's ability to manage inventory.

Approximately 25 Percent of Financial Inventory on Hand Appears to Be Stagnant

According to the GAO's *Testimony on Inventory Management and how Greater Use of Best Practices Could Reduce DOD's Logistics Costs*[3] (GAO's *Testimony),*

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[3] Government Accountability Office, Report Number GAO/T-NSIAD-97-214, *Testimony on Inventory Management and how Greater Use of Best Practices Could Reduce DOD's Logistics Costs,* July 24, 1997.

"Ordering supplies only as they are needed, combined with quick logistics response times, enable companies to reduce or eliminate inventory levels, buy only the items that are currently needed, reduce or eliminate the possibility of inventory spoilage or obsolescence, and reduce overall supply system costs." In addition, inventory that sits stagnant, or unused, in warehouses for long periods of time increases the potential for damage, obsolescence, and theft. The Department of Utilities has formalized their intent to optimize inventory in an inventory policy which states "Inventory stocking levels shall be kept at the lowest level consistent with providing acceptable, cost effective support to the operating groups. Items to be stocked and stocking levels are to be determined based on factors of demand (usage), cost, availability of the part from local vendors, lead time, criticality of the equipment requiring the part, and seasonal requirements."

As stated previously, the Department of Utilities' inventory is stored in eight stationary warehouses and approximately 45 mobile warehouses. The amount and value of the inventory stored at each warehouse is fluid depending on various factors such as weather conditions or special projects, which can affect how much inventory the department keeps on hand. As of December 16, 2016, the value of the Department of Utilities' financial inventory on hand was over $2.5 million. This value of financial inventory is significantly less than previous fiscal year-end balances, as seen in Figure 8 below.

Figure 8: Fiscal Year-End Value of Financial Inventory on Hand
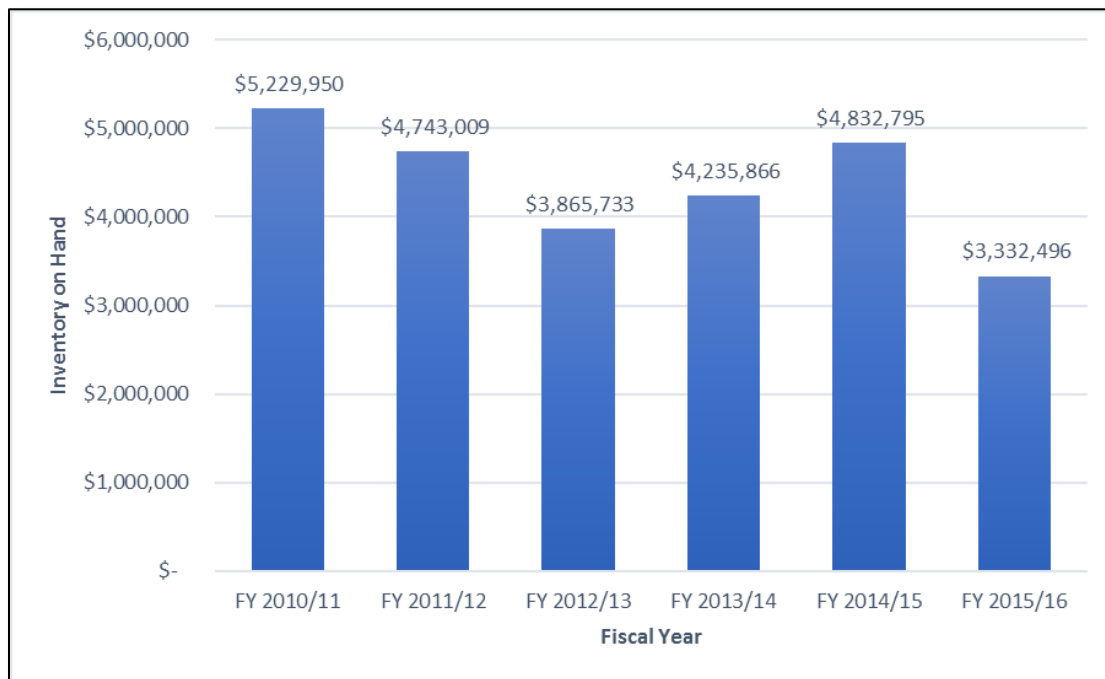
Source: Auditor generated based on year-end accounting record reconciliations.

We performed testing of the Department of Utilities' financial inventory to determine if the department had old inventory still on hand. Based on this testing, we found that more than one million dollars, or 40 percent, of the department's financial inventory on hand as of December 16, 2016 appeared to have been purchased prior to July 1, 2013. This means that over one million dollars worth of financial inventory may have been sitting on a shelf since at least July 2013. Further, we tested whether or not the types of financial inventory identified as having potentially been sitting on a shelf since July 2013 had been used since it was purchased. We found over $641,000[4] of these types of financial inventory appeared to have remained unused, or sat stagnant, since at least July 2013; this equates to approximately 25 percent of the Department of Utilities' financial inventory on hand as of December 2016.

Although this stagnant financial inventory appears to have remained unused since at least July 2013, Logistics Services must continually store this financial inventory in their warehouses and perform physical counts of the financial inventory. We tested the $641,000 of potentially stagnant financial inventory to see if any adjustments had been made to the amount of on hand financial inventory due to the results of physical counts, which is a possible indicator of theft. Based on this testing, we found that since July 2013, the department recorded a net loss of over $14,000[5] of this potentially stagnant financial inventory. While it cannot be determined what happened to this missing financial inventory, it illustrates that the potential for theft exists.

There may be legitimate reasons to have some level of stagnant inventory on hand. For example, specialized inventory that is only used when there is an emergency would likely have a low turnover rate. However, in our opinion, the amount of potentially old and stagnant financial inventory currently maintained by the Department of Utilities is inefficient.

We recommend the department review their current inventory levels and determine the appropriate course of action for decreasing the amount of old and stagnant inventory. While the department has recognized the benefits of optimizing their inventory levels, as described in their inventory policies, the department does not currently have a formal process for determining the types and quantities of inventory that should be kept on hand.

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[4] It should be noted that more than half of this stagnant financial inventory is "Big Inventory." Big Inventory is defined and discussed further in Finding 3 of this report.

[5] This net loss resulted from an approximate $9,000 gain of inventory and an approximate $23,000 loss of inventory between July 1, 2013 and December 16, 2016.

This lack of a formal process appears to have resulted in approximately 25 percent of the department's financial inventory on hand sitting stagnant on a shelf for more than three years. In our opinion, all inventory should be optimized to reduce the risks associated with having stagnant inventory on hand. We recommend the Department of Utilities develop and implement strategies to optimize their inventory levels in accordance with their inventory policies.

RECOMMENDATIONS:

We recommend the Department of Utilities:

1. Review current inventory levels and determine the appropriate course of action to decrease the amount of old and stagnant inventory.
2. Develop and implement strategies to optimize inventory levels in accordance with inventory policies.

Non-Logistics Services Personnel Have Physical Access to Warehouses

According to the United States Department of Defense's *User's Guide on Controlling Locks, Keys and Access* Cards[6], "An effective access control (lock and key or electronic) program will help minimize the possibility of unauthorized access to a facility and/or assets in a facility. Possession of keys and access control cards represent primary authorization for an individual to enter a facility or have access to a particular asset. Possession of keys and access control cards by unauthorized individuals severely affects security and neutralizes the primary purpose of an access control program." While some Department of Utilities warehouses, or sections of a warehouse, require a physical key for entry, many of the warehouses use electronic key card (badge[7]) access as the main form of entry.

Physical access to each of the eight stationary warehouses is granted based on an employee's need to enter a particular warehouse. This is because some of the department's warehouse spaces are shared with other Utilities groups or other City departments. When a warehouse space is shared, non-Logistics Services personnel have access to the Department of Utilities' inventory stored

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[6] United States Department of Defense, Report Number UG-2040-SHR, *User's Guide on Controlling Locks, Keys and Access Cards*, July 2000.

[7] Electronic key card (badge) access refers to when employees are granted access to a door, room, building, or area by an access control system that determines access authority from the employee's identification badge. When an employee uses their badge to access a facility, it is automatically recorded by the electronic key card system.

in those warehouses. This increases the potential for the misuse and theft of the department's inventory. For example, during the FY 2016/17 mid-year physical count of Building 7, we found that some inventory had been moved by non-Logistics Services personnel and that one of the inventory items was missing. This illustrates that the potential for theft or misuse of inventory exists.

Per the department's inventory policies, the Stores Administrator is responsible for authorizing access to the warehouses. Further, the inventory policies state, "Warehouse access to Building # 8, will be limited exclusively to warehouse staff and management." Building 8 is specifically identified in the inventory policies because it houses the majority of the department's water meter inventory, which generally has a higher turnover rate. However, over time the department has made numerous exceptions to this policy which have resulted in 23 employees outside of Logistics Services staff having access to Building 8. Figure 9 below illustrates the level and extent of employee access to the Department of Utilities' warehouses; the value of financial inventory contained in each warehouse at the end of FY 2015/16 is included for context. As seen in Figure 9, a significant number of non-Logistics Services personnel have access to the Department of Utilities' warehouses.

Figure 9: Employee Access to Department of Utilities Warehouses
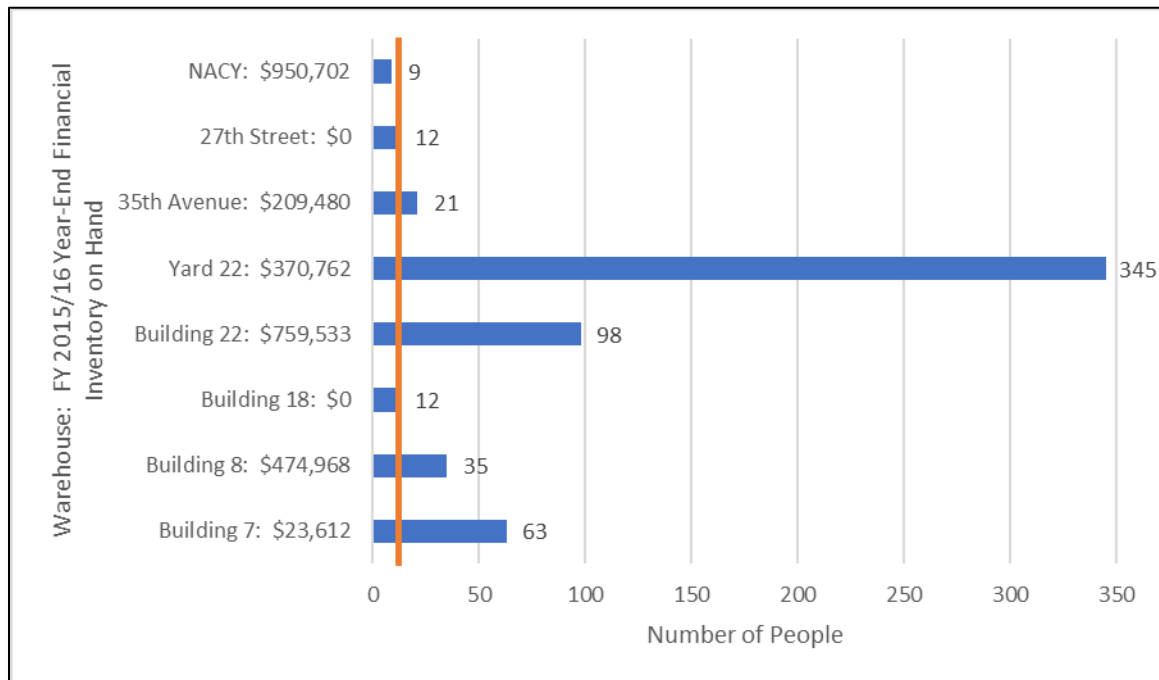
Note: The orange vertical line represents the number of Logistics Services personnel (12).
Source: Auditor generated based on warehouse access data.

While the excessive employee access to the Department of Utilities' warehouses does not necessarily constitute causation for the $14,000 loss of stagnant inventory described above, it demonstrates a potential relationship which may exist. In our opinion, minimizing the number of non-Logistics Services personnel who have access to the warehouses can decrease the risk of misuse or theft of inventory. We recommend the Department of Utilities review the number and appropriateness of employees with access to the warehouses and specifically define in the inventory policies which positions can be granted access to which warehouses.

RECOMMENDATION:

We recommend the Department of Utilities:

3. Review the number and appropriateness of employees with access to the inventory warehouses and formalize which positions can be granted access to each warehouse in the inventory policies.

Tools and Equipment are Not Consistently Tracked

The Department of Utilities tracks tools and equipment using a check-in/check-out process to ensure the department knows where these assets are located. Assets that are "checked-in" reside in a warehouse and are the responsibility of warehouse staff while assets that are "checked-out" are the responsibility of an individual employee. The GAO's *Executive Guide* states, "Accurate and reliable data are essential to an efficient and effective operating environment." For the tracking of tools and equipment, we would expect to find consistency in the amount and type of information tracked by the Department of Utilities resulting in accurate and reliable data. However, when we reviewed the process for tracking tools and equipment, we found that not all locations tracked their tools, tracking logs were incomplete, and tracking logs did not require enough information to accurately document transactions in the inventory system.

The department is working towards housing the majority of their tools and equipment in Building 18 at the South Area Corporation Yard (SACY). However, for convenience, some tools and equipment are stored at each of the water treatment plants as well as in the tool room at the department's 35th Avenue location. As stated previously, the Department of Utilities uses the system IntelliTrack to track tools and equipment such as radios, drills, and chainsaws. Although IntelliTrack is used at Building 18 and the tool room at 35th Avenue, the majority of tools and equipment located

Figure 10: Tool Room at 35th Avenue
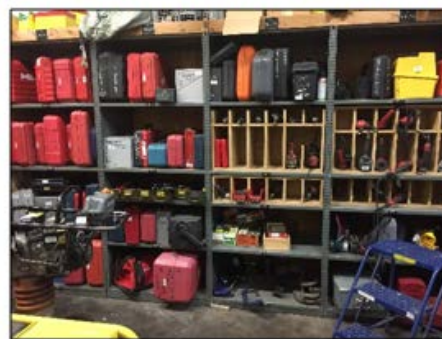
Source: Auditor photographs.

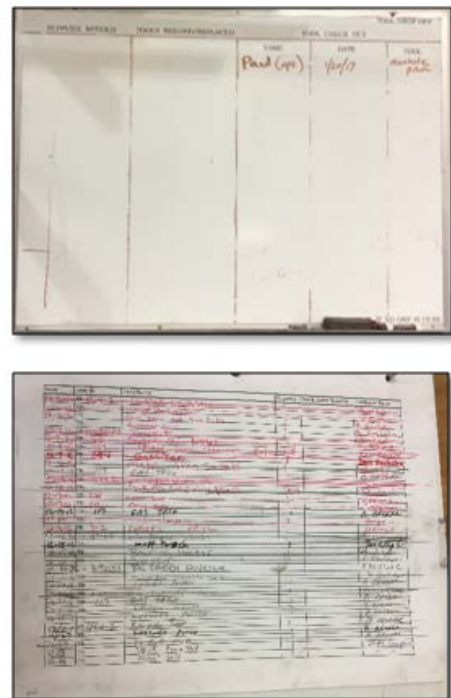at the water treatment plants are not tracked in any inventory system.

Equipment and tools that are tracked using IntelliTrack are assigned asset identification numbers. The asset identification number is a unique identifying number that distinguishes equipment and tools from each other. However, staff at one of the water treatment plants has developed their own method of numbering and identifying their equipment and tools that is inconsistent with the asset identification numbers in IntelliTrack. The other water treatment plant has not compiled a list of their equipment and tools. This indicates the department lacks clear criteria for when items should be assigned an asset identification number, which compromises the department's ability to accurately track inventory.

We noted that both the water treatment plants use dry erase boards as their tracking logs while Building 18 at SACY and the tool room at 35th Avenue use paper check-in/out sheets. The information required on the tracking logs is inconsistent and does not provide enough information to accurately document the transaction in IntelliTrack. For example, not all of the tracking logs request the date of the transaction and none require the asset identification number. These inconsistencies and lack of appropriate information limit the ability of the Department of Utilities to capture accurate and reliable data. In our opinion, dry erase boards should not be used to track equipment and tools because transactions can be easily erased, resulting in an unreliable and inaccurate audit trail. For example, as of February 2017, at least 11 assets were assigned to former employees in IntelliTrack. This indicates that the Department of Utilities may not know where these assets are currently located.

Figure 11: Example of White Board and Check-In/Out Sheet

Source: Auditor photographs.

While the tracking logs request various information, employees often leave blank spaces, as seen in Figure 11 above. Failure to require employees to provide work order numbers increases the potential risk of employees borrowing City-owned tools and equipment for personal use. When employees borrow tools or equipment for personal use, it unnecessarily fatigues the asset and increases the risk of damage to the asset.

To ensure the Department of Utilities captures accurate, reliable, and complete data for their tools and equipment inventory, we recommend the department establish and implement consistent procedures for the tracking of tools and

equipment. This includes establishing and applying clear criteria for assigning asset identification numbers and requiring that tracking logs be completed in full. Further, as the Department of Utilities currently lacks a formal policy that prohibits employees from borrowing City-owned tools and equipment for personal use, we recommend the department formalize a policy that prohibits employees from borrowing City-owned tools and equipment for non-City business.

RECOMMENDATIONS:

We recommend the Department of Utilities:

4. Establish and implement consistent procedures for the tracking of tools and equipment, including establishing and applying clear criteria for assigning asset identification numbers.
5. Establish a policy that prohibits employees from borrowing City-owned tools and equipment for personal use and document employee acknowledgement.

The Department Has Not Clearly Defined Their Inventory Consolidation Plan

According to the GAO's *Executive Guide*, "…managers and other decisionmakers need to know how much inventory there is and where it is located in order to make effective budgeting, operating, and financial decisions and to create a government that works better and costs less." Consolidating their inventory into fewer warehouses can improve the Department of Utilities' ability to know how much inventory they have and where it is located. Additionally, lowering inventory levels and consolidating inventory into fewer warehouses can decrease the risk of misuse, damage, obsolescence, and theft.

The Department of Utilities has been working towards reducing the amount of inventory on hand as well as consolidating this inventory into fewer warehouses. For example, in April 2017, the department completed the consolidation of financial inventory in Building 7 to Building 22. The Department of Utilities has also made progress consolidating their direct issue inventory, as described in the section above regarding tools and equipment. However, the department does not have a clearly defined plan or timeline for completing the remaining consolidation. For example, Logistics Services management has expressed their intent to move all inventory in Building 8 to Building 22, but has not indicated when this transfer will occur. In our opinion, establishing a timeline will help the project stay on track. We recommend the

Department of Utilities develop a plan and establish a reasonable timeline for consolidating inventory into fewer warehouses.

RECOMMENDATION:

We recommend the Department of Utilities:

6. Develop a plan and establish a reasonable timeline for consolidating inventory into fewer warehouses.

Finding 2: While the Department of Utilities' Inventory Count Procedures Appear Robust, the Execution Breaks Down

The GAO's *Executive Guide* states "The ability to accurately count physical inventories is critical in verifying that inventory actually exists and that on-hand balances agree with financial and logistical records." The Department of Utilities' inventory policies appeared to outline a robust inventory count process. However, when we observed staff while they were conducting the FY 2016/17 mid-year inventory count, we found that the execution of these inventory policies was generally lacking. Specifically, we found:

- The pre-count process created errors and information gaps;
- Counting methodologies are not consistent;
- Inventory count adjustments are not accurately captured in Cityworks;
- Optimizing staffing resources could benefit Logistics Services; and
- Accountability of water meters has significantly improved.

Internal controls promote efficiency, reduce risk of loss, and help to ensure compliance with laws and regulations. While the Department of Utilities has established internal controls in their inventory policies, improved implementation can help reduce errors and improve accuracy. We recommend the Department of Utilities review, update, and enforce their inventory policies to ensure their internal controls are effective.

The Pre-Count Process Created Errors and Information Gaps

According to the GAO's *Executive Guide*, "the inventory count process is an integral component of an organization's internal control environment." Included in the Department of Utilities' inventory policies is a description of the pre-count process that details the procedures to be performed prior to conducting a physical count of inventory. These procedures can include such activities as organizing work areas and storage locations, identifying and segregating items, ensuring all inventory items have labels or identification, verifying that items are in the correct location, pre-counting slow moving items, and identifying excess or obsolete inventories.

As part of the pre-count process, Logistics Services personnel establish an inventory count schedule that determines which warehouses will be counted on which days. We reviewed the schedule during the pre-count process for completeness. Based on our review, two mobile warehouses that contained inventory were not included in the schedule. We also noted that three mobile warehouses that did not contain inventory, were on the schedule. While the

value of the direct issue inventory located in the two mobile warehouses excluded from the schedule cannot be determined due to data limitations, the value of the financial inventory located in these two mobile warehouses totaled over $7,500. To help ensure all inventory is properly accounted for, we recommend the Department of Utilities include all warehouses on the inventory count schedule, regardless of whether the system states they contain inventory or not. Including all warehouses in the inventory count schedule will help to improve overall system accuracy by ensuring that inventory is not inadvertently excluded from the count.

We also recommend that all paperwork and inventory transactions be processed prior to conducting inventory counts. Performing an inventory count before all outstanding inventory transactions have been processed can lead to inaccurate reconciliations between inventory count results and system records. Based on our observations, we found that inventory counts were performed without paperwork and necessary inventory transactions being processed. This led to Logistics Services personnel attributing some count discrepancies to these outstanding transactions without research or verification.

In our opinion, completing paperwork and processing all outstanding inventory transactions in the inventory systems before performing the inventory count can improve accuracy and reduce the amount of discrepancies. As completing outstanding paperwork and processing necessary inventory transactions in the inventory systems is not explicitly required anywhere in their inventory policies, we recommend the Department of Utilities add this step to the pre-count process.

RECOMMENDATIONS:

We recommend the Department of Utilities:

7. Develop a process to ensure all warehouses are included in the inventory counts.
8. Add a procedure that requires all paperwork and necessary inventory transactions be processed in the inventory systems prior to the inventory count process.

Counting Methodologies are Not Consistent

To better understand how the Department of Utilities' inventory policies are executed, we observed and participated in the FY 2016/17 mid-year inventory count process. The process involved performing a complete wall-to-wall count of all inventory in the Cityworks system as well as counting any IntelliTrack tools

and/or equipment in the mobile warehouses. Based on our observations, we found that the counting methods used depended on the employee performing the count. For example, quantity of pipe is recorded in the inventory system by length. In some instances, we observed employees visually estimating the length of pipe while in other instances a measuring tape was used. Additionally, employees inconsistently measured pipe by either its "usable length" or its "total length." As seen in the figure below, depending on which method was used employees may come up with different results when determining length of pipe.

Figure 12: Example of "Useable Length" vs "Total Length"
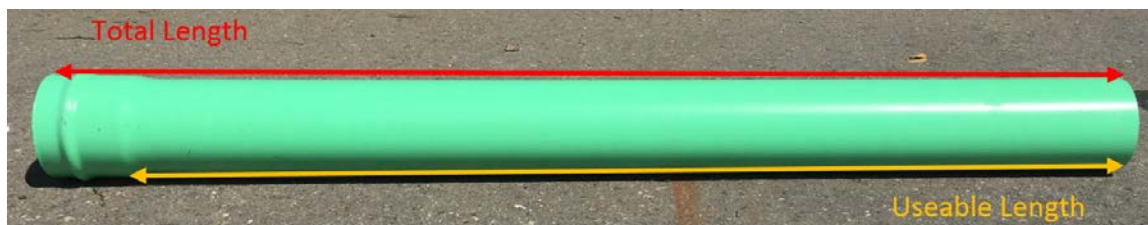
Note: The "usable length" of the pipe, as defined by Logistics Services personnel, is the length of the pipe excluding the length of the connector piece on the end (see orange arrows). The "total length" of the pipe, as defined by Logistics Services personnel, is the length of the pipe including the length of the connector piece on the end (see red arrows).
Source: Auditor photographs.

We also observed inconsistency in the overall counting methodology. We found that employees inconsistently performed blind counts and non-blind counts of the inventory. Blind counts are when the employee performs the inventory count without prior knowledge of the on hand quantity listed in the inventory records. The current version of the Department of Utilities' inventory policies does not require blind counts. However, the GAO's *Executive Guide* highly regards blind counts and, as shown in Figure 7, lists them as the eighth key factor in achieving consistent and accurate counts of physical inventory stating that "Blind counts offer the greatest degree of assurance of accurate and reliable counts."

These examples illustrate the importance of specificity and clarity in written procedures, which can help to improve the overall accuracy and consistency of the inventory count. In our opinion, the count methodologies should not vary between staff members as it can materially affect the count of an item and result in unreliable inventory data. We recommend the Department of Utilities formalize specific count procedures in a written policy and review these procedures with staff to ensure consistency. Additionally, we recommend the Department of Utilities consider incorporating blind counts into their count

procedures to further increase the accuracy and reliability of their inventory counts.

RECOMMENDATIONS:

We recommend the Department of Utilities:

9. Formalize specific count methodologies in a written policy.
10. Consider incorporating blind counts into the inventory count process.

Inventory Count Adjustments are Not Accurately Captured in Cityworks

When an inventory count reveals that the quantity of an item does not agree with the quantity indicated in the inventory system, an adjustment is made to the inventory system. The purpose of this continuous process is to ensure the inventory system remains complete, accurate, and up-to-date. To achieve this, the Department of Utilities has incorporated language from the GAO's *Executive Guide* into their inventory policies, stating that:

> Creating accurate and reliable inventory data is essential to an efficient operating environment in the Department of Utilities (DOU). The Parts and Supplies Inventory represents a significant portion of DOU assets. Therefore, managers and other decision makers need to know how much inventory there is and where it is located in order to make effective budgeting, operating, and financial decisions and to create a government that works better and costs less.

As mentioned previously, we observed and participated in the FY 2016/17 mid-year inventory count process. We noted in our observations that count sheets did not always accurately reflect the actual count of a warehouse. For example, if items in a mobile warehouse were counted and the quantity was greater than what was stated in Cityworks, Logistics Services employees reported on the count sheet that the count matched the Cityworks quantity and physically removed the extra items from the mobile warehouse[8]. The extra items were then stored in a pile in Building 18, as seen in Figure 13 below, until the inventory counts of the mobile warehouses were completed. The excess inventory was then moved from Building 18 to Building 22, although details of this transfer of inventory were not recorded in Cityworks.

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[8] This occurred only if the serviceworker did not choose to keep the extra inventory items in the mobile warehouse. Inventory items that were selected to stay in the mobile warehouse were accurately reflected on the count sheet.

Figure 13: Excess Inventory from Mobile Warehouses

Source: Auditor photographs.

Conversely, when the quantity of items in a mobile warehouse was less than what was stated in Cityworks, Logistics Services employees recorded on the count sheet that the count matched the Cityworks quantity and replaced the missing inventory items with inventory from Building 22. Again, none of these transactions were recorded in Cityworks.

Figure 14 below illustrates the inventory count adjustments made in Cityworks due to the mid-year FY 2016/17 physical count. Positive count adjustments, shown in green, are adjustments made because the number of items counted was *greater* than the number of items indicated in Cityworks. Negative adjustments, shown in blue, are adjustments made because the number of items counted was *fewer* than the number of items indicated in Cityworks. As seen in the figure, more negative adjustments were made than positive adjustments, resulting in a net inventory loss.

Figure 14: Mid-Year FY 2016/17 Cityworks Inventory Count Adjustments
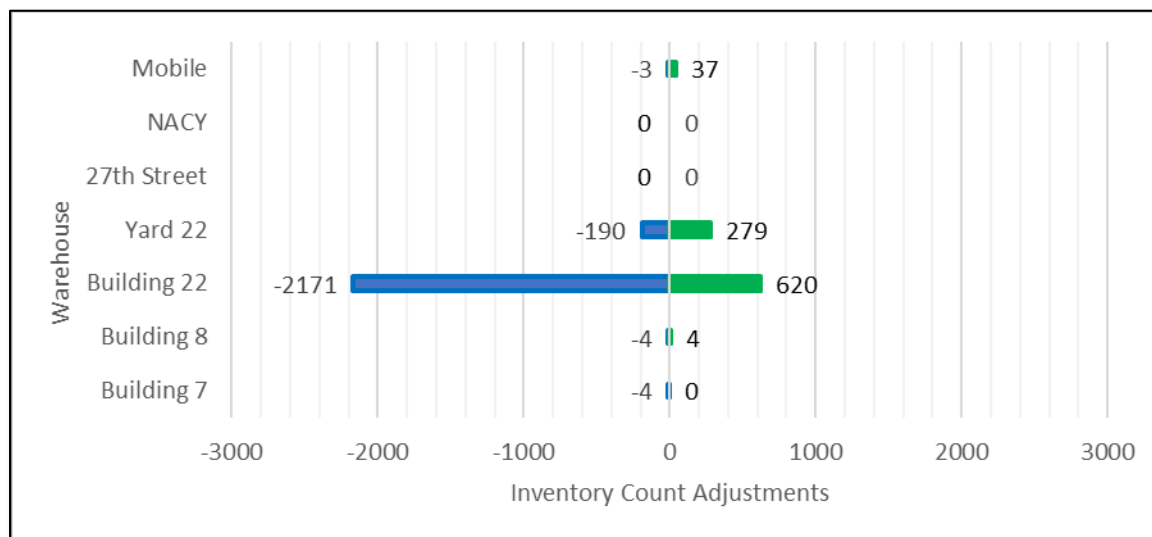
Source: Auditor generated based on Cityworks data.

At the end of the FY 2016/17 mid-year inventory count process, we attempted to reconcile inventory count sheets with inventory count adjustments made in Cityworks. Due to this method of processing inventory count adjustments out of Building 22 instead of the warehouse where they occurred, the count sheets did not reconcile with inventory count adjustment reports in Cityworks. For example, the count sheet for *one* mobile warehouse indicated that 19 items were missing, totaling more than $500; this should have resulted in a negative adjustment of 19 in Cityworks. However, the actual adjustments in Cityworks for the *entire* mobile warehouse fleet indicate that only 3 negative adjustments were made, totaling less than $250. This raises the concern that adjustments for the rest of the mobile warehouse fleet may also be inaccurate.

This method of inaccurately recording the mobile warehouse inventory counts, and subsequently removing or adding inventory to Building 22 without recording any adjustments in the inventory system, creates additional work for Logistics Services personnel who must then reconcile the inventory in Building 22. Additional research is required to confirm the source of discrepancies in Building 22. This method of processing inventory count adjustments undermines the use of Cityworks as an inventory tracking system because the movement of parts is not tracked accurately. This compromises the Department of Utilities' ability to accurately track and account for their inventory.

As a result, this method of recording inventory count results hinders the department's ability to determine whether adjustments made in the inventory system were appropriate. Additionally, this weakens the department's ability to hold employees accountable for poor inventory management. We recommend the Department of Utilities require that count sheets accurately reflect inventory count results and that correct inventory count adjustments be recorded in Cityworks to ensure reliable inventory data as well as to promote accountability of inventory management.

RECOMMENDATION:

We recommend the Department of Utilities:

11. Formalize a procedure for accurately recording inventory count adjustments in a written policy.

Optimizing Staffing Resources Could Benefit Logistics Services

Staffing level determinations for any organization are based on multiple factors such as workload and budgetary constraints. Factors that specifically affect

inventory warehouse staffing levels can also include inventory volume, number of transactions, and warehouse space. Generally, higher inventory volume increases the number of transactions and larger warehouse space may indicate the need for higher staffing levels. As discussed previously in this report, the Department of Utilities' inventory levels have decreased since FY 2010/11 and the department is working towards consolidating their inventory into fewer warehouses. However, during this time their approved staffing level has remained fairly constant. The reduction in inventory levels and warehouse space may indicate the need to review staffing levels, workload, and distribution of work to optimize staffing resources.

To provide some context, we performed a benchmark survey of warehouse staffing levels at comparable organizations. It is important to note that while the City of Sacramento has significantly more stationary warehouses than the other service areas surveyed, only three of these stationary warehouses provide counter service. As seen in Figure 15 below, the City of Sacramento has the second lowest inventory to staffing ratio of the service areas we surveyed, indicating the number of staff in relation to the value of financial inventory on hand is higher than most of these other service areas.

Figure 15: Inventory Benchmark Survey

Service Area	Staffing Level	Financial Inventory on Hand (in millions)	Inventory to Staffing Ratio (in millions)	Number of Stationary Warehouses
City of Fresno	6	$4.1	$0.68	3
City of Long Beach	2	$3.6	$1.80	1
City of Oakland	13	$6.0	$0.46	2
City of Sacramento	9	$3.3	$0.37	8*
Sacramento County	5	$1.0	$0.20	2

Note: Only three of these stationary warehouses provide counter service; the other five are used for storage.
Source: Auditor generated based on benchmark survey results.

Based on the results of this inventory benchmark survey, it appears that other service areas are responsible for up to $1.8 million worth of inventory per staff member while City of Sacramento averages $0.37 million per employee. This lower level of inventory per staff member indicates that the City of Sacramento may have the opportunity to more efficiently manage inventory without reducing or removing inventory controls.

To assess the workload of employees that manage inventory, we observed staff at two of the three stationary warehouses that provide counter service[9]. Figure

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[9] We did not observe Building 18, which is staffed with only one employee.

16 below illustrates the breakdown of daily warehouse tasks based on our observations as well as an estimated deduction for administrative tasks.

Figure 16: Estimated Breakdown of Daily Warehouse Tasks
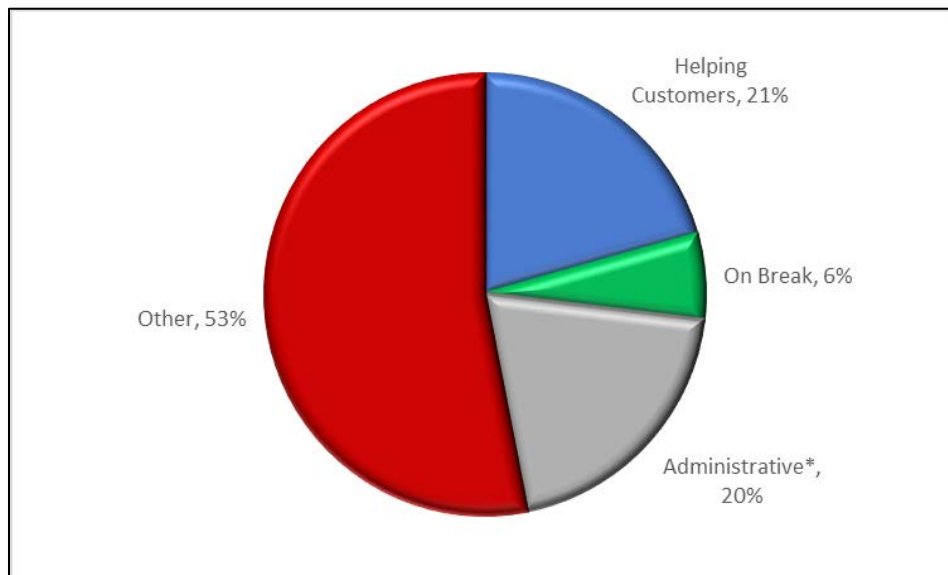
Note: Time for administrative tasks was estimated.
Source: Auditor generated based on auditor observations.

We estimate that approximately 53 percent, or nearly 30 hours each day (see Appendix A), of the current staffing resources allocated to these two warehouses is available for performing additional operational tasks and enhancing inventory control activities. Operational tasks could include purchasing and stocking while inventory control activities could include incorporating blind counts. While this analysis is based on a limited number of observations, and various factors can cause fluctuations in daily workload, the results of our observations support reevaluating Logistics Services staffing levels and workloads to include additional inventory controls.

Based on observations of warehouse staff, it appears that the current approved staffing level for Logistics Services could be optimized to strengthen inventory controls. Reducing or removing inventory controls increases the risk of misuse and theft of inventory. We recommend the Department of Utilities perform a review of warehouse staffing levels, employee workload, and distribution of work to optimize staffing resources and ensure robust inventory controls.

RECOMMENDATION:

We recommend the Department of Utilities:

12. Review staffing, workload, and distribution of work to optimize staffing resources.

Accountability of Water Meters Has Significantly Improved

A 2007 audit of the Department of Utilities' inventory estimated that approximately 4,492 water meters with a projected value of $1,352,092 could not be located at the time of the audit. The audit recommended the department "install fundamental physical controls over inventory…[and] establish controls to prevent and detect material losses." As a result of this audit, the Department of Utilities implemented a semi-annual reconciliation of water meter activity in addition to the physical count process described above. This includes performing a physical count of the water meters by serial number using the Water Meter Receipt and Issue Log. Implementing these controls has significantly decreased the number of missing water meters. However, we believe that implementing additional controls could bring the department to one hundred percent accountability.

When new water meters are purchased, a transaction is processed in Cityworks detailing how many water meters were purchased, the types of water meters, and their values. As an added control over water meter activity, the Logistics Services group also inputs the serial number of each individual water meter into their Water Meter Receipt and Issue Log. The serial log is then used to track when a water meter leaves inventory, which employee removed it, and the work order number that indicates where the water meter was installed. According to Cityworks, as of January 2017, water meters accounted for approximately $370,000, or 16 percent, of the department's financial inventory.

To determine the effectiveness of the controls put in place as a result of the 2007 audit, we observed the semi-annual reconciliation of water meter activity. Based on the results of the physical count of the water meters by serial number, we found that there were 84 water meters with an estimated value of over $95,000 that were not accounted for. Although not perfect, we recognize this is a significant improvement since the 2007 audit.

We provided the list of missing water meters to the Logistics Services group for further research. Using inventory records, work order systems, and the department's Customer Information System[10] (CIS), they were able to account for 60 of the 84 water meters. The remaining 24 missing water meters have an estimated value of approximately $17,000. As seen in Figure 17 below, the
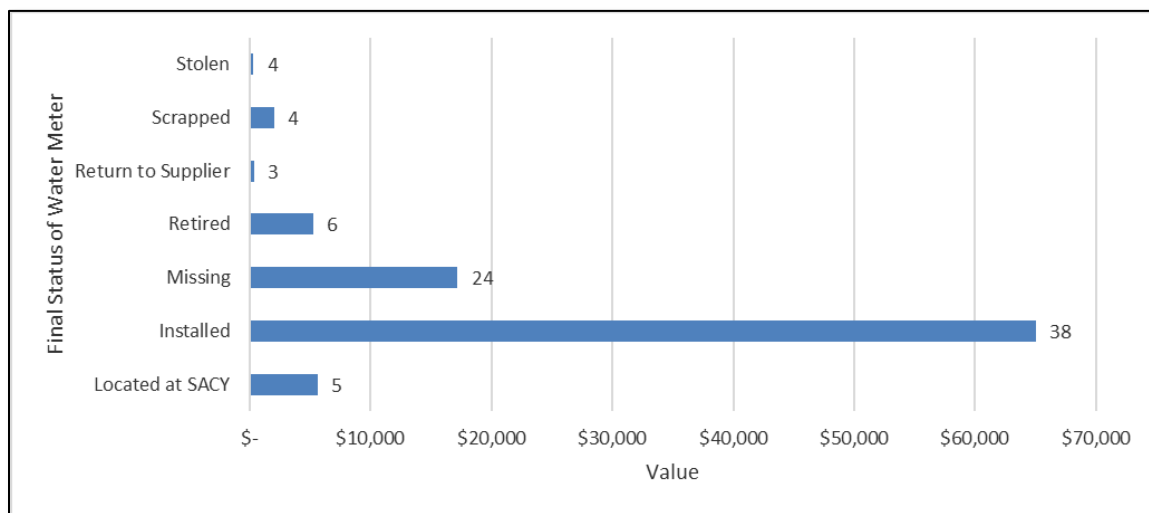
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[10] Customer Information System (CIS) is the Department of Utilities' billing system.

majority of the 60 missing water meters that were accounted for are currently in use (installed).

Figure 17: Final Status of Missing, Stolen, and Previously Unaccounted for Water Meters

Source: Auditor generated based on Water Meter Receipt and Issue Log, Cityworks inventory data, Cityworks work order data, and CIS data.

During our review of the Water Meter Receipt and Issue Log, we noticed that the number of water meters indicated on the serial log as inventory on hand did not always reconcile with inventory on hand reports from Cityworks. For example, the Water Meter Receipt and Issue Log indicated that there was only one Neptune 3" Compound meter in inventory, while Cityworks reported there were two. Upon further review, we found that at the time of the count, there were three Neptune 3" Compound meters on hand. While this example demonstrates that discrepancies between the Water Meter Receipt and Issue Log and Cityworks exist, the magnitude of these discrepancies was not determined.

As it appears the cause of many of the unaccounted for water meters was missing information in the Water Meter Receipt and Issue Log, we recommend that the Department of Utilities update their policies to include reconciling the water meter serial number log with Cityworks. This additional step should aid the Department of Utilities in ensuring accurate and reliable water meter data in accordance with the GAO's *Executive Guide*, as well as aid the department in achieving their goal of one hundred percent accountability.

Additionally, while the Department of Utilities' inventory policies state that "All meters will be stored and locked in Building No. 8," we found that in January

2017, approximately $15,500 worth of water meters were stored in other warehouses. As seen in Figure 9 in Finding 1, a significant number of non-Logistics Services personnel have access to the Department of Utilities' warehouses. Storing water meters in multiple warehouses increases the number of employees with access to these valuable inventory items.

While the results of our water meter inventory testing indicate a vast improvement from the 2007 audit findings, enforcing inventory policy and developing additional controls could aid the Department of Utilities in accounting for one hundred percent of their water meter inventory. We recommend the Department of Utilities review, update, and enforce their inventory policies related to the tracking of water meters in an effort to reach this goal.

RECOMMENDATIONS:

We recommend the Department of Utilities:

13. Add an additional step to the water meter serial number count that reconciles the Water Meter Receipt and Issue Log with Cityworks.
14. Review, update, and enforce inventory policies related to the tracking of water meters.

Finding 3: The Department of Utilities' Inventory Systems Contain Errors and Omissions

According to the GAO's *Executive Guide,* "...the lack of reliable information impairs the government's ability to (1) know the quantity, location, condition, and value of assets it owns, (2) safeguard its assets from physical deterioration, theft, loss, or mismanagement, (3) prevent unnecessary storage and maintenance costs or purchase of assets already on hand, and (4) determine the full costs of government programs that use these assets." When we reviewed the Department of Utilities' inventory systems for accuracy and reliability, we found that the systems contained errors and omissions. Specifically, we found:

- System accuracy may be below recommended levels;
- Key data fields are not being consistently entered into the systems;
- Some Cityworks transactions may contain first-in, first-out (FIFO) errors;
- Cityworks financial inventory valuation may not be accurate; and
- Financial inventory items not tracked in an inventory system were misreported.

While we did not find evidence of fraud, the Department of Utilities' financial accounting records can be adversely impacted by errors and omissions in the department's inventory systems. To address these issues, we recommend the Department of Utilities develop performance measures aimed at increasing data accuracy. In addition, we recommend setting minimum data requirements for inventory records. In our opinion, the Department of Utilities should evaluate the current inventory systems to ensure proper functionality.

System Accuracy May Be Below Recommended Levels

The GAO's *Executive Guide* states that inventory accuracy goals should be set at 95 percent or higher. The Department of Utilities has adopted this standard in their inventory policies, which state "A tolerance level of 95% is used to see how much above or below the actual count is compared to the record count. When a count is taken outside of this tolerance level, an examination or recount is taken to understand the root cause of the error (i.e. theft, recording errors, etc)."

To assess the accuracy rate of the Department of Utilities' inventory systems, we selected a sample of items from each system and performed a surprise blind count. Each count contained a random sample[11] of approximately 50 items or item types. For Cityworks and Maintenance Connection, the accuracy rate

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[11] The selected sample size is not statistically significant.

indicates how often the physical count of an item type reconciled with the system. For IntelliTrack, the accuracy rate indicates how often the physical count of an item, identification number, location information, or assignee information reconciled with the system.

As a result of this sampling, we estimate the accuracy rates of the surprise count to be approximately 80 percent for Cityworks, 39 percent for Maintenance Connection, and 48 percent for IntelliTrack. Although the accuracy rates of the surprise count may not be representative of the accuracy rate of the entire system, these low percentages calculated on a limited sample raise concerns that the accuracy rates for each system may be below the GAO recommended 95 percent. As a result, the department may not know what inventory they have or where it is located. Figure 18 below illustrates the results of the surprise count; for context, the inventory on hand in each system at the end of FY 2015/16 is also displayed.

Figure 18: Surprise Count Accuracy Rate Compared to GAO Recommended System Accuracy
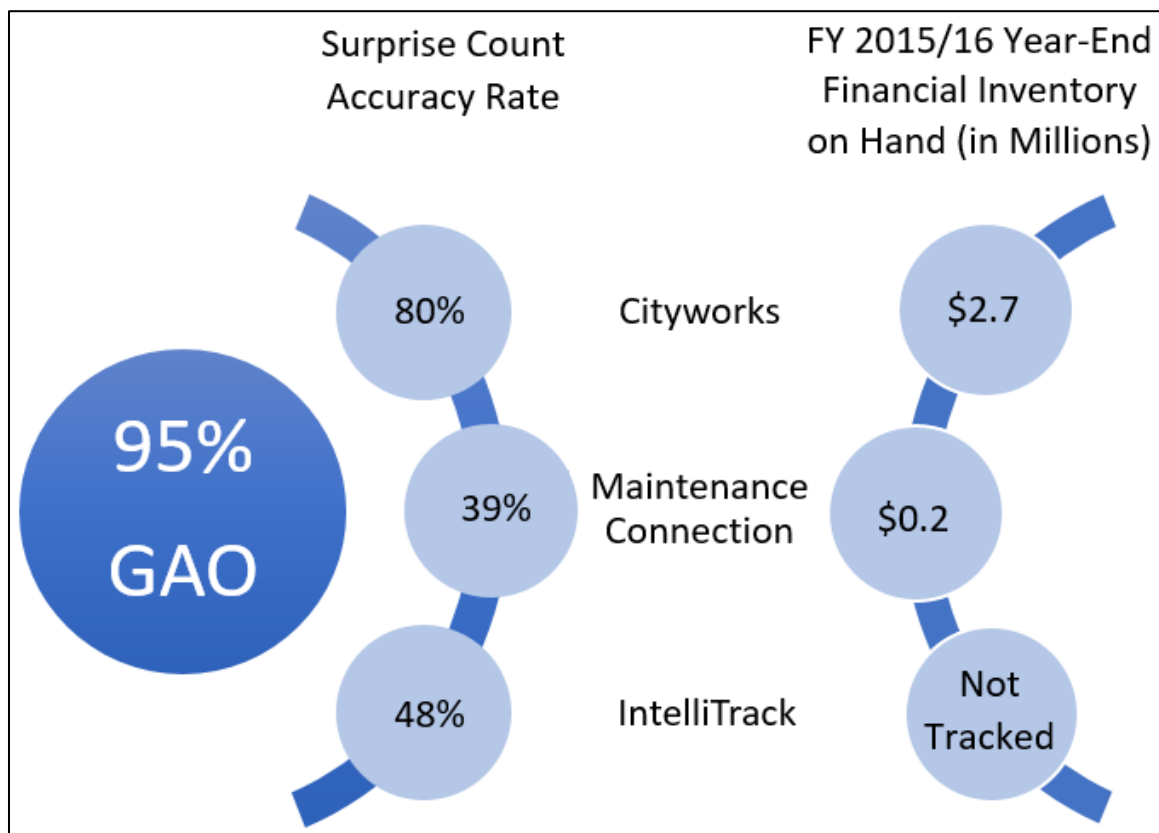
Source: Auditor generated based on results from surprise count and data from Cityworks, Maintenance Connection, and IntelliTrack.

According to the GAO's *Executive Guide*, "There are many factors that can cause the record of on hand inventory to differ from the physical quantity counted, including omission of items from the count, incorrect counts, errors in cutoff, and improper recording or reconciliation of count results." Although it cannot be determined precisely what caused these errors in the Department of Utilities' inventory systems, it appears that issues outlined in Finding 1 and Finding 2 of this report may have contributed. For example, the failure to track inventory count adjustments accurately in Cityworks increases the risk of processing an incorrect adjustment. Similarly, the inconsistency in the method of tracking tools and equipment has resulted in some tools and/or equipment being assigned to former employees and therefore being unaccounted for.

The Department of Utilities has not formally tracked the accuracy rates of their inventory systems. As seen in the figure above, the results of the surprise count raise concerns that the accuracy rate of each system may be below the 95 percent accuracy goal recommended in the GAO's *Executive Guide*, which limits the department's ability to know the true quantity and value of inventory on hand. Without accurate counts, the department cannot efficiently and effectively manage their inventory. To meet the GAO recommended accuracy goal, we recommend the Department of Utilities develop specific performance measures aimed at increasing data accuracy. Additionally, in our opinion, the department can enhance their accountability by publishing the accuracy rates of their inventory systems.

RECOMMENDATION:

We recommend the Department of Utilities:

15. Develop performance measures aimed at increasing data accuracy and publish accuracy rates for enhanced accountability.

Key Data Fields are Not Being Consistently Entered into the Systems

The GAO's *Executive Guide* states that "Proper inventory accountability requires that detailed records of produced or acquired inventory be maintained, and that this inventory be properly reported in the entity's financial management records and reports. For example, detailed asset records are necessary to help provide for the physical accountability of inventory and the efficiency and effectiveness of operations." We reviewed the Department of Utilities' inventory systems for completeness and level of detail.

We performed data analysis on system generated inventory on hand reports, issue reports, and receive reports to determine the completeness of transactions entered into the inventory systems. Based on our review, we found a significant number of omissions in key data fields. As seen in Figure 19 below, omissions were found in the following key data fields: account number, purchase order number, invoice number, work order number, purchase date, and cost. Without this information, management is limited in their ability to calculate lead time, perform cost analysis, or accurately determine where inventory items were issued to.

Figure 19: Omissions in Key Data Fields

System	Key Data Field	Percent Omission
Cityworks	Account Number	16%
Cityworks	Purchase Order Number	9%
Cityworks	Invoice Number	8%
Cityworks	Work Order Number	2%
IntelliTrack	Purchase Date	98%
IntelliTrack	Cost	99%

Source: Auditor generated based on data from Cityworks and IntelliTrack.

Of the six key data fields listed in Figure 19 above, account number is the only field designated by warehouse staff. The other key data fields are pre-determined from purchasing records and work orders. The account number field is used to indicate what items are received or issued for, such as special projects or when items become obsolete. Omissions in this key data field limit the department's ability to know how much inventory they purchase and use for special projects and when items become obsolete.

The Department of Utilities does not clearly define how items should be labeled in the inventory systems when they are no longer usable. Currently, items that are damaged, scrapped, or outdated are all issued as obsolete. This lack of separation between issuing obsolete, damaged, and scrapped parts hinders the Department of Utilities from performing analysis that could lead to increased efficiencies in purchasing and storage of inventory. For example, we found nearly $6,000 worth of inventory items that were issued as obsolete and then purchased again between July 2013 and December 2016. According to the Department of Utilities, the majority of this inventory was non-compliant with California lead requirements and therefore needed to be replaced with parts that were in compliance. In this instance, more accurate labeling would have helped to identify whether these purchases were appropriate. Figure 20 below illustrates the value of financial inventory issued as obsolete, meaning it could also have been damaged or scrapped, from FY 2010/11 through FY 2015/16.

Figure 20: Cityworks Financial Inventory Issued as Obsolete from FY 2010/11 through FY 2015/16
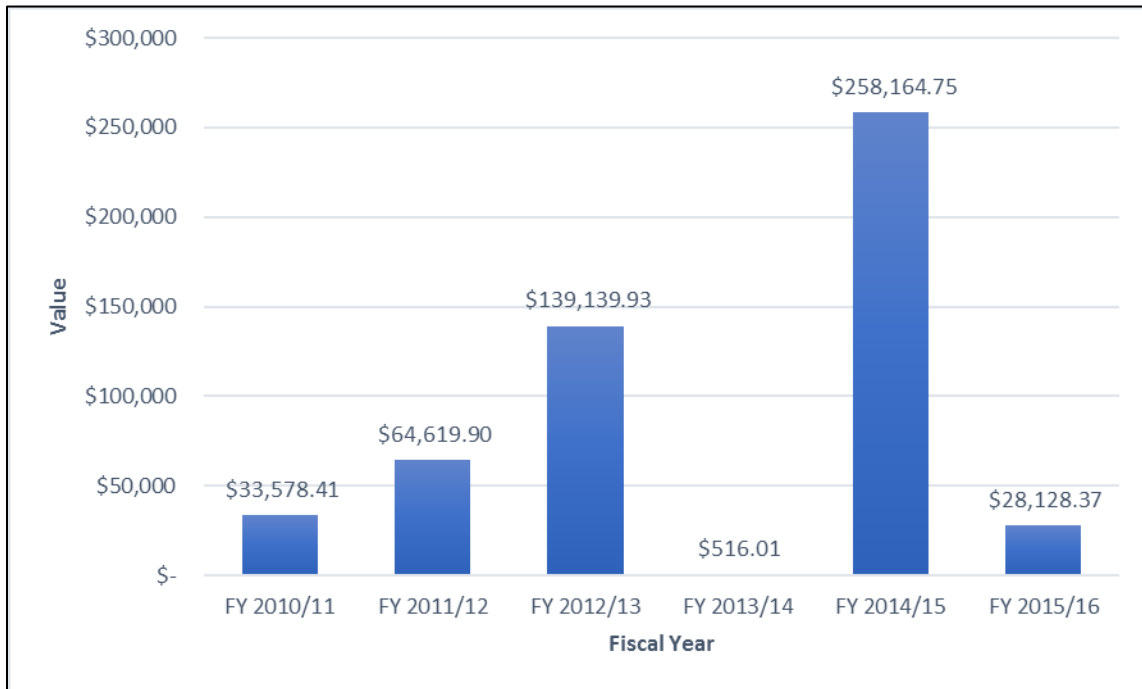
Source: Auditor generated based on Cityworks data.

While the Department of Utilities' inventory policies set minimum data requirements for the Water Meter Receipt and Issue Log, they do not set them for any of their inventory systems—Cityworks, Intellitrack, and Maintenance Connection. To ensure detailed records of inventory data, we recommend the Department of Utilities set minimum data requirements for each inventory system. Additionally, we recommend the department review and modify the account number field to more accurately identify the purpose for receiving or issuing inventory.

RECOMMENDATIONS:

We recommend the Department of Utilities:

16. Determine the key data fields for each inventory system and set minimum data requirements for inventory records.
17. Review and modify the account number field to more accurately identify the purpose for receiving or issuing inventory.

Some Cityworks Transactions May Contain First-in, First-Out (FIFO) Errors

As stated in their inventory policies, the Department of Utilities has chosen the accounting method first-in, first-out (FIFO) for the tracking and reporting of their financial inventory. Under the FIFO method, the first inventory items purchased are *assumed* to be the first items issued, even though they may not be. The FIFO accounting method is one of the commonly accepted methods under Generally Accepted Accounting Principles (GAAP).

We tested the Cityworks system to ensure the department's selected financial accounting method, FIFO, was being executed correctly. We verified that all financial inventory items in Cityworks had FIFO selected as their default accounting method; this means the system should automatically execute transactions in accordance with FIFO. However, based on our testing, we found that in some cases Cityworks does not appear to be executing transactions using the FIFO method. Therefore, it appears the FIFO transaction errors may be due to an underlying system error that would need to be fixed by the software vendor.

Errors in FIFO transactions can change the value of inventory. Figure 21 below illustrates how FIFO errors resulted in the incorrect unit prices being selected for 6" x 4" sleeve taps. This item has two unit prices, as seen in the figure below, due to a pricing change. FIFO requires that the first items purchased be the first items issued. Therefore, the unit price that this item is issued at is dependent on the purchase dates for each unit price. The Cityworks Quantity Issued column illustrates how the transactions occurred in Cityworks while the FIFO Quantity Issued column demonstrates what should have happened if the system had applied FIFO correctly. For example, on December 16, 2015 two 6" x 4" sleeve taps were issued. Cityworks issued one sleeve tap at the unit price $569.63 and one at the unit price $378.94, totaling $948.57. However, based on when these items were purchased, FIFO would require that both of these items be issued at the unit price $569.63, totaling $1,139.26. This error resulted in a variance of $(190.69). While the magnitude of the FIFO errors cannot be determined for the entire system, this example illustrates that a potential issue may exist for any inventory with multiple unit prices.

Figure 21: Example of FIFO Error

Transaction Date	Cityworks Quantity Issued Unit Price		FIFO Quantity Issued Unit Price		Variance
	$569.63	$378.94	$569.63	$378.94	
12/16/2015	1	1	2	0	$(190.69)
1/26/2016	0	1	1	0	$(190.69)
3/30/2016	0	1	1	0	$(190.69)
10/10/2016	1	0	0	1	$190.69
2/2/2017	1	0	0	1	$190.69
Net Variance					$(190.69)

Note: Positive variance means Cityworks overvalued the item while negative variance means Cityworks undervalued the item.

Source: Auditor generated based on Cityworks data.

Item prices can change over time, which can affect the inventory on hand value of the item. The Department of Utilities adjusts their financial accounting records based on transaction reports from Cityworks; this indicates these adjustments may not be in accordance with FIFO. Therefore, the value of inventory stated in the department's financial accounting records may not be accurate. According to the Department of Utilities, the Cityworks FIFO issue has previously been discussed with both the City's Finance Department and the Information Technology Department. However, a solution has not yet been determined or implemented. To ensure the Department of Utilities accurately reports inventory in their financial statements, we recommend the department revisit the Cityworks FIFO issue with the Finance Department and Information Technology Department to develop a plan to facilitate compliance with financial reporting guidelines.

RECOMMENDATION:

We recommend the Department of Utilities:

18. Review the Cityworks FIFO issue with the Finance Department and Information Technology Department to develop a plan to ensure compliance with financial reporting guidelines.

## Cityworks Financial Inventory Valuation May Not Be Accurate

As stated previously, the GAO's *Executive Guide* notes that inventory should be accurately recorded in financial records and reports to ensure accountability over inventory. During the background phase of this audit, the Department of Utilities executive management team identified the valuation of financial

inventory as their highest known concern regarding their inventory. According to the department, the inventory system Cityworks valued inventory on hand incorrectly. Instead of valuing each inventory item at the unit price purchased, the inventory on hand report valued all inventory at the most recent unit price. This method of valuation may understate the value of inventory when unit prices decrease and may overstate the value of inventory when unit prices increase.

We contacted the Department of Utilities' Information Technology (DOU IT) team to request a Cityworks inventory on hand report that detailed all unit prices for each inventory item, instead of only the most recent unit price. DOU IT was able to create an inventory on hand report similar to the one previously used by Logistics Services personnel with this additional detail. We reconciled this new inventory on hand report with the inventory on hand report that valued all inventory at the most recent unit price and found that the improper valuation report both overvalued and undervalued inventory. Figure 22 below illustrates the magnitude of these valuation errors. As seen in the figure, in January 2017, the improper valuation report overvalued inventory by approximately $21,500 and undervalued inventory by approximately $22,500, creating an imbalance with the Department of Utilities' financial accounting records.

Figure 22: Magnitude of Cityworks Inventory on Hand Report Valuation Errors
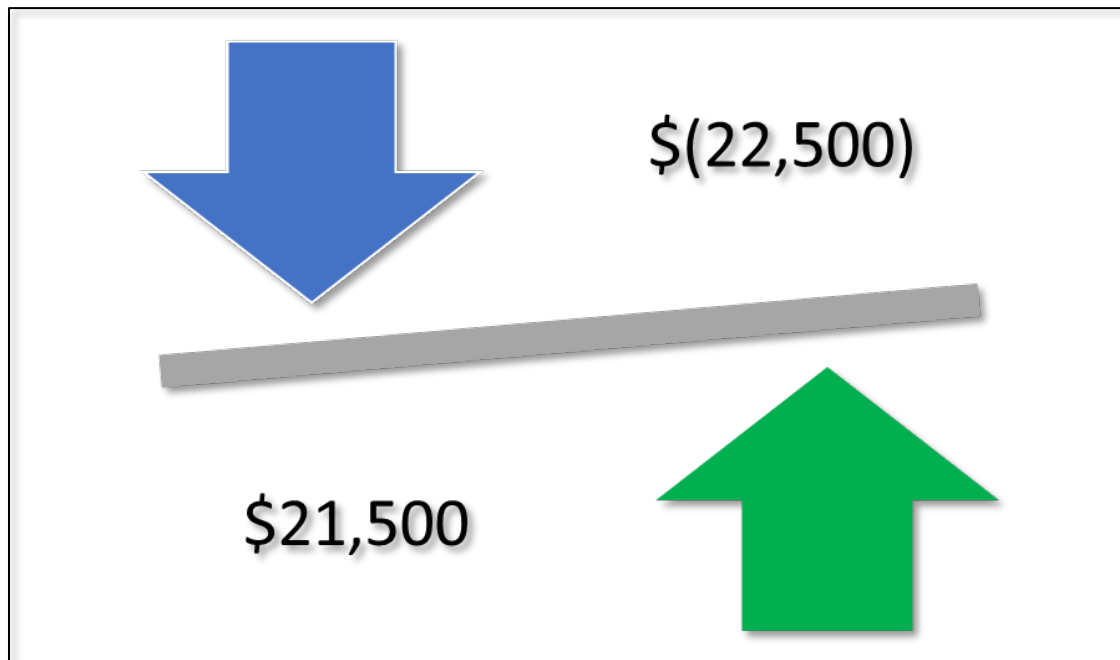
Note: Depending on inventory on hand levels and inventory pricing changes, the magnitude of the inventory on hand report valuation errors can change significantly.
Source: Auditor generated based on Cityworks data.

While the Department of Utilities has been aware of the limitations in their inventory on hand report for many years, the department assumed the report overstated the value of their inventory as prices generally rise. Based on our analysis, we found the net effect of the incorrect inventory on hand report valuation was to undervalue inventory by approximately $1,000, or 0.06 percent of the department's inventory on hand in January 2017. Because the Department of Utilities knew their inventory on hand report valued inventory incorrectly, in their annual reconciliation process they have not adjusted their financial accounting records to match the incorrect valuation. The department has attempted to keep their financial accounting records accurate by adjusting the financial accounting records when inventory is received, issued, and when discrepancies are found during the inventory count process. However, the risk of inaccurate valuation of inventory remains. To ensure inventory is properly reported on the financial statement of net position, we recommend the Department of Utilities work with DOU IT to produce inventory on hand reports that account for multiple unit prices of an item and use this report in their annual inventory reconciliation.

RECOMMENDATION:

We recommend the Department of Utilities:

19. Work with DOU IT to produce inventory on hand reports that account for multiple unit prices of an item and use this report in the annual inventory reconciliation.

Financial Inventory Items Not Tracked in an Inventory System were Misreported

The Department of Utilities possesses some financial inventory items that are physically large. The department refers to these items collectively as "Big Inventory." These items range in value from $1,000 to $36,000. While much of the Big Inventory is located at 35th Avenue, it is not stored inside the warehouse due to its large size. Some of the items are kept in a locked container while the majority is located in a shared space outside. Other direct issue inventory items such as parts and supplies are sometimes kept with Big Inventory. The following figures illustrate examples of Big Inventory and how most of it is usually stored.

Big Inventory is not tracked within any of the Department of Utilities' inventory systems. Instead, an electronic spreadsheet is used to track the movement of this inventory. To determine the accuracy of the Big Inventory spreadsheet, we performed a wall-to-wall count of Big Inventory and compared the results to the spreadsheet. Based on this testing, two items that had been removed from inventory and put into service were still listed on the Big Inventory spreadsheet. Because these items had been placed into service, they should no longer have been included on the Big Inventory spreadsheet or the Department of Utilities' financial statement of net position. One of the items, valued at $1,000, was placed in service in November 2014; this resulted in the FY 2014/15 financial statement of net position to overstate the value of Big Inventory by $1,000. The other item, valued at $4,000, was placed in service in April 2016; this resulted in the FY 2015/16 financial statement of net position to overstate the value of Big Inventory by an additional $4,000, for a total overstatement of $5,000.

Figure 23: Example of Big Inventory Storage

Source: Auditor photographs.

In addition to the value of the inventory being incorrect, it is of concern that the prior year's count sheet provided by the Department of Utilities indicated that during the FY 2015/16 year-end inventory count, these items were identified as being physically present, while documentation from work orders indicate the items had been put into service. Unfortunately, this spreadsheet does not record who enters transactions and historical data can be easily erased. In our opinion, inventory is more effectively tracked using an inventory system. As this is financial inventory, Cityworks would be the most likely option for tracking Big Inventory in one of the Department of Utilities' current inventory systems.

While the magnitude of these misstatements may not be large, this example illustrates control weaknesses in the current process for tracking and reporting of Big Inventory. If a similar error occurred on some of the higher valued Big Inventory items, the impact could have been much greater. It is important to accurately count these high value items and document poor performance of count teams. To ensure the Department of Utilities complies with GAAP financial reporting guidelines, we recommend the department review and adjust the process for tracking Big Inventory to ensure this inventory is accurately reflected on the financial statement of net position each fiscal year.

RECOMMENDATION:

We recommend the Department of Utilities:

20. Review and adjust the process for tracking Big Inventory to ensure this inventory is accurately reflected on the financial statement of net position.

Finding 4: The Department of Utilities Lacks Formal User Access Policies and Procedures Regarding Their Inventory Systems

"User access" refers to the process by which authorized individuals access a computer system and unauthorized individuals are prevented from doing so. The Institute of Internal Auditor's *Global Technology Audit Guide on Identity and Access Management*[12] (IIA's GTAG 9) states that "When a user is granted an identity through the provision process, an evaluation of the access rights being granted or changed should be part of the business owner's approval and the IT Department's review of the access request." We reviewed the extent and appropriateness of user access privileges in the three Department of Utilities inventory systems. Based on our review, we found:

- User access privileges are not always formally approved; and
- Five former City employees have not been removed from Maintenance Connection.

Lack of formal user access policies and procedures can lead to unauthorized users having excessive access to the Department of Utilities' inventory systems. We recommend the department develop policies and procedures related to user access and their privileges. In addition, the department should document the reason for providing user access and who approves the access.

User Access Privileges are Not Always Formally Approved

According to the GAO's *Federal Information System Controls Audit Manual,*[13] "In order to adequately control user accounts, an entity should institute policies and procedures for authorizing logical [user] access to information resources and document such authorizations." We found that management has not developed a policy that clearly establishes a formal process for documenting approval of new users in the Department of Utilities' inventory systems. When we requested documentation for the approval of a sample of users, the department was unable to provide any.

While there is an informal understanding that supervisors or managers should approve new user access, it is not always documented or documentation no longer exists. The lack of a formal policy could lead to confusion over who is

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[12] Institute of Internal Auditors, *Global Technology Audit Guide on Identity and Access Management,* November 2007.

[13] Government Accountability Office, Report Number GAO-09-232G, *Federal Information System Controls Audit Manual,* February 2009.

responsible for granting user access and could ultimately result in unauthorized users or users with permission levels that do not match the access levels needed to perform their jobs. We recommend the Department of Utilities establish a formal process for the review and approval of new user access to the inventory systems and formalize logical access in a written policy.

RECOMMENDATIONS:

We recommend the Department of Utilities:

21. Establish a formal process to document the review and approval of new user access to the inventory systems.
22. Formalize logical access to the inventory systems in a written policy.

Five Former City Employees Have Not Been Removed from Maintenance Connection

Employee responsibilities may change over time as new employees are added, current employees move within the organization, or employees leave the department. The IIA's GTAG 9 states that "As part of its IAM [Identity and Access Management] monitoring process, the organization should establish a methodology to periodically review the access rights granted to all identities residing in its IT environment." We found that ongoing monitoring was not performed to ensure users continued to have the correct levels of permission. During our review of user access privileges, we noted that five former City employees' user access had not been removed from Maintenance Connection. One of these employees had been separated from the City for more than 18 months. We recommend the Department of Utilities develop a process to review user accounts on a regular basis to ensure the number of users and their level of permission are commensurate with their responsibilities.

RECOMMENDATION:

We recommend the Department of Utilities:

23. Develop a process to review user accounts on a regular basis to ensure the number of users and their level of permission are commensurate with their responsibilities.

Appendix A: Estimated Breakdown of Daily Warehouse Tasks

Current Staffing Levels

To assess the workload of employees that manage inventory, we observed staff at two of the three stationary warehouses that provide counter service: Building 22 and 35th Avenue. The daily staffing for these two warehouses can be seen in the figure below.

Warehouse	Daily Staffing (Number of Employees)	Daily Staffing (Hours)
Building 22	4	32
35th Avenue	3	24
Total	7	56

Source: Auditor generated based on information provided by Logistics Services.

Helping Customers

The following tables were created based on observations performed during the course of the audit. Based on our observations, the total amount of time spent helping customers by employees is 11.6 hours (see figures below) each day. This equates to approximately 21 percent of the total daily staffing.

Date	Day of Week	Location	Begin Time	End Time	Duration of Observation (Hours)	Total Number of Customers	Number of Customers Helped (Per Hour)
4/10/2017	Monday	Building 22	6:30 AM	11:10 AM	4.7	48	10.3
4/11/2017	Tuesday	35th Avenue	6:30 AM	12:00 PM	5.5	36	6.6
4/5/2017	Wednesday	Building 22	11:00 AM	2:00 PM	3.0	20	6.7
4/6/2017	Thursday	35th Avenue	12:00 PM	3:30 PM	3.5	12	3.4
4/7/2017	Friday	Building 22	2:00 PM	4:35 PM	2.6	15	5.8

Source: Auditor generated based on observations performed during the course of the audit.

Warehouse	Average Transaction Time (Minutes)	Average Time Helping Customers (Hours Per Day)
Building 22	7.5	10.4
35th Avenue	1.5	1.2
Total		11.6

Source: Auditor generated based on observations performed during the course of the audit.

On Break

The City of Sacramento's various labor agreements determine how much break time an employee is entitled to each day. For Department of Utilities warehouse staff, each employee is entitled to a 15 minute break twice per day. This equates to 30 minutes (15 minutes X 2 times per day) of break time for each employee each day. Therefore, the total amount of time spent on break by warehouse staff is 210 minutes (30 minutes X 7 employees), or 3.5 hours, each day. This equates to approximately six percent of the total daily staffing.

Administrative Time

For the purposes of this analysis, it was assumed that each employee spends approximately 20 percent of their workday on administrative tasks. Therefore, the total estimated amount of administrative time spent by employees is 11.2 hours (56 hours X 0.20) each day.

Other

Other time for warehouse staff includes operational tasks and inventory control activities. Operational tasks could include purchasing and stocking while inventory control activities could include incorporating blind counts. Other time was calculated as the remaining time after employees help customers, perform administrative tasks, and take scheduled breaks (56 hours – 11.6 hours – 3.5 hours – 11.2 hours = 29.7 hours). Therefore, the total amount of time remaining as Other time is nearly 30 hours each day. This equates to approximately 53 percent of the total daily staffing.

City of SACRAMENTO
Department of Utilities

MEMORANDUM

DATE: July 12, 2017

TO: Jorge Oseguera, City Auditor

FROM: William O. Busath, Director Department of Utilities

CC: Fran Halbakken, Assistant City Manager

SUBJECT: **Audit of the Department of Utilities Inventory**

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1. This letter is in response to the City Auditor's Audit of the Department of Utilities Inventory.

2. The Department of Utilities ("DOU"; "Department"), Logistics Section and Finance Division acknowledge receipt and concur with the recommendations from the City Auditor's draft report.

3. Corrective actions are actively being taken. In addition, internal operating procedures are being updated and staff training has begun to ensure implementation of the recommendations. It is DOU's understanding that the City Auditor will review completed recommendations for effectiveness of policy, procedure and implementation.

4. I would like to take this opportunity to thank the City Auditor and staff for their efforts in identifying process improvements in this audit. DOU decided to fund a position in the City Auditor's office to improve our practices and procedures and to identify areas where efficiencies might be realized. We are pleased with the outcome of this audit both for DOU and for the City. Please feel free to contact me directly should you have any questions.

5. Below is the response of the Logistics Section and Fiscal Operations to the 23 audit recommendations identified in the audit report:

AUDIT RECOMMENDATIONS AND DEPARTMENTAL RESPONSE:

1. **Review current inventory levels and determine the appropriate course of action to decrease the amount of old and stagnant inventory.**

   Response: Logistics, with technical support from Water Distribution, is currently conducting a top to bottom physical review and assessment of the stagnant parts provided by the Inventory Audit. Logistics staff has segmented the inventory based on the probability of future use and parts history. The methods below will be used to decrease the amount of old stagnant inventory:

   - Vendor exchange or credit
   - Auction
   - Establish an eBay Business Account
   - Rework / modify existing plumbing parts
   - Use stagnant parts for training
   - Identify stagnant stock versus insurance stock
   - Scrap

2. **Develop and implement strategies to optimize inventory levels in accordance with inventory policies.**

   Current Warehouse Stocking Policy
   Inventory stocking levels shall be kept at the lowest level consistent with providing acceptable, cost effective support to the operating groups. Items to be stocked and stocking levels are to be determined based on factors of demand (usage), cost, availability of the part from local vendors, lead time, criticality of the equipment requiring the part, and seasonal requirements. Stock levels shall be reviewed with the affected customers and adjusted depending on current needs.

   Response: Logistics is creating a purchasing plan to ensure that items are available when they are needed, that neither too much nor too little is purchased, and keeping track of existing inventory and its use. Stores staff will be implementing common inventory-management strategies as outlined below:

   - Just-in-time purchasing method
   - Materials requirement planning
   - Inventory levels and optimizing order size
   - Reduction in supplier lead time
   - Inventory segmentation data review
   - Documentation procedures for stocking of new items
   - Calculating more appropriate replenishment variables
   - Reduce obsolete inventory

3. **Review the number and appropriateness of employees with access to the inventory warehouses and formalize which positions can be granted access to each warehouse in the inventory policies.**

   Response: The review is almost complete. Logistics has been working with Security and Emergency Preparedness to review existing employee access to the warehouses. Building

22 access has been reduced considerably from 98 to 15 people.   All the tools, equipment, and inventory has been moved from buildings 7 and 8 to the main warehouse. The remaining warehouses have had access reviewed and in most instances access has been reduced.   Logistics shares Yard 22 with Traffic Signals and Street Lighting; access is currently under review.

4. **Establish and implement consistent procedures for the tracking of tools and equipment, including establishing and applying clear criteria for assigning asset identification numbers.**

   Response: A procedure has been written and will be reviewed with the City Auditor no later than October 31, 2017

5. **Establish a policy that prohibits employees from borrowing City owned tools and equipment for personal use and document employee acknowledgement.**

   Response: Suggested policy- *The protection of City owned tools, equipment, construction materials, inventory, supplies, and warehouse items are vital to the interest and success of the City.   No City property, including without limitation, tools, equipment, construction materials, inventory, supplies, and warehouse items may be removed from City property for personal use. Operation and Maintenance employees are required to sign this acknowledgement upon being hired with the City.*

6. **Develop a plan and establish a reasonable timeline for consolidating inventory into fewer warehouses.**

   Response: Complete. All tools equipment and inventory has been removed from Building 7 and 8. All the tools and equipment have been removed from the Gold Room and have been moved to the tool crib in Building 18.

7. **Develop a process to ensure all warehouses are included in the inventory counts.**

   Response: Complete. The following statement has been added to DOU Inventory Control Policies: "The Stores Administrator will review and approve the inventory calendar for accuracy before it is published."

8. **Add a procedure that requires all paperwork and necessary inventory transactions be processed in the inventory systems prior to the inventory count process.**

   Response: Complete. New Cut-off and Count Team Instructions which include improved cutoff guidelines have been prepared and incorporated in the DOU Inventory Policies and Procedures.

9. **Formalize specific count methodologies in a written policy.**

   Response: Complete. An updated inventory count process was used for our FY16/17 year-end pre-inventory meeting on June 19, 2017.

10. **Consider incorporating blind counts into the inventory count process.**

Response: This recommendation has been implemented. All physical counts will be blind counts; that is, personnel conducting physical counts shall have no prior knowledge or access to the on-hand quantity balance in the inventory records. Procedure # 5 of the Inventory Count Process states; "When physically counting the number of individually priced items in inventory, count each item and record the quantity of that item. Do not show any quantities on the count sheets except for the amounts recorded by the counters."

11. **Formalize a procedure for accurately recording inventory count adjustments in a written policy.**

    Response: Complete. A formalized procedure for accurately recording inventory count adjustments has been written and included in the Inventory Planning and Preparation section of DOU Inventory Control Policies and Procedures.

12. **Review staffing, workload, and distribution of work to optimize staffing resources.**

    Response: We are currently reviewing staffing, workload, and distribution of work to optimize staffing resources and will submit a response by December 31, 2017.

13. **Add an additional step to the water meter serial number count that reconciles the Water Meter Receipt and Issue Log with Cityworks.**

    Response: Complete. The current policy has been updated to state; "Warehouse staff will perform a semi-annual reconciliation of the Water Meter serial numbers using the Water Meter Receipt and Issues log. This process will include a blind physical count of the water meters reconciled with Cityworks and a count comparison to the Water Meter Receipt and Issues log. Any unresolved discrepancies will be reported to the DOU Integrated Planning and Business Operations Division Manager." Additionally, the Water Meter Receipt and Issues log has been updated to include the Cityworks material identification number.

14. **Review, update, and enforce the inventory policies related to the tracking of water meters.**

    Response: Logistics is currently updating the water meter tracking policy, and will submit it for review to the City Auditor no later than November 30, 2017.

15. **Develop performance measures aimed at increasing data accuracy and publish accuracy rates for enhanced accountability.**

    Response: This recommendation is underway. Logistics has developed four performance measures: 1) An inventory accuracy goal of 95%, this is the actual quantity on hand versus the system reporting, 2) Storage utilization percentage, which is the average occupied square foot versus the total storage capacity, 3) Report the reduction of slow moving parts in stock by monitoring the number of days parts are on hand, and 4) Increasing the Inventory Turnover Ratio, by showing how many times the warehouse inventory is sold and replaced over a period of time. Logistics is reporting Warehouse Inventory Accuracy on a link on the O & M Intranet page detailing blind count accuracy for each inventory system.

16. **Determine the key data fields for each inventory system and set minimum data requirements for inventory records.**

Response: Logistics is currently reviewing the key data fields for each inventory system. Once the review is completed, we will work with IT to see if the key data fields can be made mandatory. If the key data fields cannot be made mandatory, minimum data requirements will be spelled out in an updated Inventory Control Policies by January 31, 2018.

17. **Review and modify the account number field to more accurately identify the purpose for receiving or issuing inventory.**

    Response: Complete. Reduced account number fields from 163 to 27 while more accurately identifying the purpose for receiving and issuing inventory.

18. **Review the Cityworks FIFO issue with the Finance Department and Information Technology Department to develop a plan to ensure compliance with financial reporting guidelines.**

    Response: Fiscal Operations will review the FIFO issue with Finance to ensure GAAP and CAAFR compliance by December 31, 2017.

19. **Work with DOU IT to produce material on hand reports that account for multiple unit prices of an item and use this report in the annual inventory reconciliation.**

    Response: Logistics will work with Central IT to produce material on hand reports that account for multiple unit prices of an item by March 31, 2018.

20. **Review and adjust the process for tracking Big Inventory to ensure this inventory is accurately reflected on the financial statement of net position.**

    Response: Logistics and Fiscal Operation are currently reviewing the Big Inventory. The Big Inventory's stagnant status is being reviewed as part of the City Auditors first recommendation. Logistics and Fiscal Operations will respond to this recommendation no later than December 31, 2017.

21. **Establish a formal process to document the review and approval of new user access to the inventory systems.**

    Response: Logistics, along with IT, will establish a formal process to document the review and approval of new user access to the inventory systems by March 31, 2018.

22. **Formalize logical access to the inventory systems in a written policy.**

    Response: A written policy will be established for approval of access to users of the inventory systems as prior March 31, 2018.

23. **Develop a process to review user accounts on a regular basis to ensure the number of users and their level of permission are commensurate with their responsibilities.**

    Response: A policy and procedure will be established by March 31, 2018 to review user accounts on a regular basis to ensure the number of users and their level of permission are commensurate with their responsibilities.