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Public Works Department  
**Audit of High Risk  
Material Management**

**Report #16-01**

**September 19, 2016**

**Final Report - Public Version**

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## Executive Summary

Clark County has a decentralized system of procurement, warehousing and disposal. Materials management is delegated as a departmental or separately elected official responsibility. Material was classified as “durable” equipment with expected life to be over one year including major components, test equipment and gas power tools; and “expendable” items with limited life such as repair parts, supplies, and components. “High risk” means an elevated risk of loss, damage or misuse based on value, portability or other characteristics of the equipment or supplies. Public Works tracks high risk items the same as low risk items, so this was an evaluation of the overall equipment and supply tracking systems.

This audit tested internal controls of equipment and supplies controlled by Public Works. Our objectives were to evaluate the effectiveness of controls within three key areas:

1. High risk non-capital equipment and equipment controls
2. Accountability and control of high risk supplies, repair parts, and components
3. General security of facilities and software related to material management

We found **control of high risk durable equipment was moderately effective and is improving**. We evaluated approximately 200 pieces of equipment from nine separate divisions. All but one durable piece of equipment we identified was located. However, we found errors in the database that made equipment management less effective. The 15% error rate for 194 tested durable equipment items ranged from a low of 5% errors at the central warehouse to a high of 33% at the 149<sup>th</sup> street facility. Errors most often identified were missing serial numbers, model numbers, or purchase information.

**Control of expendable supplies was marginally effective**. We identified and tested 651 line items of expendable parts and supplies from four areas. Inventory accuracy varied greatly, ranging from a low of 3% for the fleet warehouse to 22% for the Traffic and Signals warehouse, with an overall 6% error rate for Public Works expendable supplies, parts and components. We found excess quantities of grant funded items retained after contract closure which had unresolved disposition requirements, as well as fuel system error reporting procedures that requires additional oversight.

Within the physical security objective we found **access controls and security of the 78<sup>th</sup> Street Operations Center were not effective**. (Text omitted per Note r.1, page V)

Throughout the audit, we found most Public Works employees to be responsive, quickly addressing issues as they were identified. We did note some resistance to expanding accountability; we recommend management address this with a combination of clear policies and procedures with active monitoring that reinforces accountability.

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### Note (r.1):

This audit identified security issues related to physical security and software security that could expose employees or assets to significantly increased risk if the weaknesses were common knowledge. To facilitate transparency while ensuring the issues are addressed, the basic report without the sensitive areas is released as the “Public Release Version” of the report. Serious security related findings are addressed in an “Internal Use Only Version” report. These areas will be revisited during the audit follow-up, and progress will be reported to the public.

***Per RCW 42.56.420, results of an evaluation of internal information system controls and any related remediation plan by Clark County is exempt from public disclosure and not included in the final report.***

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***“The duty to make certain that public property is adequately protected and that its use is properly managed is one of the fundamental responsibilities of government officials.”***

*State Auditor’s Budgeting, Accounting and Reporting System (BARS) Manual, section 3.3.8.40*

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## Introduction

The Public Works Department provides many essential services for the County. As of January, 2016 it consisted of ten divisions ranging from Transportation to Fleet Management. Public Works is perhaps the most diverse organization in the County.

Public Work’s primary lines of business and services as of the start of 2016 are as depicted in figure 1. It includes all aspects of planning, design, construction and maintenance within the areas shown.

The Department has begun the process for accreditation by the American Public Works Association (APWA) and expects to achieve this recognition in 2017.

<u>Divisions within Public Works</u>	<u>2016 Staff</u>
ADMINISTRATION AND FINANCE	(20)
FLEET SERVICES DIVISION	(23)
VEGETATION MANAGEMENT	(16)
CLEAN WATER	(20)
WASTE WATER	(15)
ENGINEERING AND CONSTRUCTION	(64)
PARKS DIVISION	(36)
TRANSPORTATION AND ASSET MGT	(35)
DEVELOPMENT ENGINEERING	(10)
<u>ROAD MAINTENANCE AND OPS</u>	<u>(84)</u>
TOTAL	(323)

*Fig 1: Source: 2015 PW Organization Chart*

For Fiscal Year 2016, the Department had approximately 323 employees. Public Works’ administrative headquarters is on the fourth floor of the Public Service Center in downtown Vancouver. The primary workplace is a fenced facility at 4700 NE 78th Street in Vancouver, referred to as the “Operations Center”. Other facilities include a secondary facility on 149<sup>th</sup> Avenue, and a series of smaller specialized storage and equipment facilities throughout the county.

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## Purpose

The purpose of this audit is to assess the effectiveness and efficiency of security and inventory controls in use by Clark County Public Works (PW).

To conduct this assessment, we examined all non-capital equipment, materials, components and repair parts with a focus on high risk / high value (HR/HV) assets. "High risk" means an elevated risk of loss, damage or misuse based on value, portability or other characteristics of the equipment or supplies. We chose a stratified statistical sample from each major category of material and user organization. Our underlying assumption is that Public Works would use their best inventory techniques and procedures to protect their highest risk assets.

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## Why This Audit Focus

Selection of this audit topic was based on several factors including:

- ✓ Results of similar audits in other jurisdictions;
- ✓ No local audit work had been done in this area for over ten years.
- ✓ County-wide concerns voiced by employees within Public Works, Facilities and General Services.

This audit is the second in a series of three separate audits focusing on high risk supplies and equipment planned within Clark County using similar criteria.

The major organizations with the highest risk based on size, complexity of operations and existing procedures are the Sheriff's Office, Public Works, and General Services. We completed an audit of the Sheriff's Office in 2014, and plan to complete an audit of General Services in 2017. While other areas also have elevated risk, we believe the information provided by these three organizations would provide an accurate representation of the policies and procedures used to address the risk county-wide.

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## Summarized Objectives, Scope, and Methodology

This performance audit was undertaken to determine if Clark County Public Works provides adequate security, storage and controls for high risk, high value (HRHV) tools, equipment, supplies, and parts.

Due to the variety of operating requirements within Public Works, we essentially conducted equipment and inventory audits within eight individual organizations simultaneously. Seven of them were divisions that reported to the Public Works Director, while Fleet Services reports separately. One organization – Clark County



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Regional Emergency Services or “CRESA” – is not part of Public Works but has fifty-one Public Works grant funded high frequency emergency band radios on a long term loan.

We completed this audit through interviews; researching similar audits and best practices; reviewing laws, regulations and policies; and analyzing inventory data.

We conducted a physical count of nearly 200 hand tools and pieces of test equipment, as well as over 650 lines of supplies and repair parts in nearly a dozen locations. The inventory sampling that we completed was scientifically developed to represent the entire inventory population. We found it reasonable that the error rate of the entire population is an accurate reflection of the sample.

Work on this audit was conducted between November 2015 and July 2016. More detailed information on this work is available in *Appendix A: Full Audit Methodology*.

The audit used data sampling to support its conclusions. Data was stratified by division and dollar value. If the inventory of a single group was too large to complete a 100% inventory, a minimum of 10% of the inventory was selected randomly and individual high risk items added, as in the case of both Fleet Services and Traffic and Signals Warehouse. Samples of equipment were identified based on highest risk populations and risk of loss (gas powered tools and test equipment were high risk, for example). Using this technique, we believe the results accurately represent the characteristics of the entire population of equipment and supplies. A random number generator was used to select representative samples after the population was stratified.

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 findings and conclusions based on our audit objectives. We believe the evidence obtained in this audit does provide a reasonable basis for the findings and conclusions, based on our audit objectives.

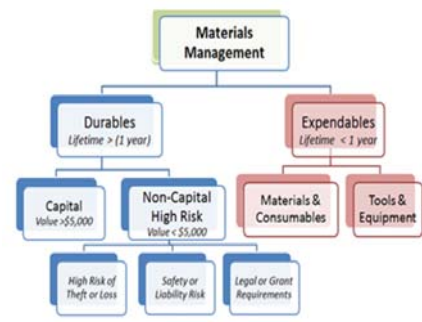
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## Understanding Logistics

### Logistics Terminology

It is important to clearly define the key terms to be used in this audit.

**Materials Management** is defined as the life cycle management of all manners of materials and supplies required for operations within the organization. It includes two main categories of materials: Expendables and durables as explained in *figure 2*.



*Fig 2: Materials Management Structure*

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## Definitions

**Expendable supplies** consist of two main types of materials: Consumables, are used in their entirety as part of operations, and include cleaning supplies and chemicals, copy paper, toner, pens and markers, repair parts, fuel and lubricants, and similar items. The second category is Tools and Equipment, which are expected to have a useful life of one year or less. Examples of “equipment” include hand tools, inexpensive or limited life power tools, work clothes and general personal safety equipment.



We chose a variety of **supplies, materials, and repair parts** as the expendable equipment to test in this audit.

**Durable equipment** also includes two main types of assets: capital assets and non-capital assets that require extra safeguards. Capital assets have multi-year lives over which they are depreciated, and a minimum dollar value set by the organization. They can range from land and buildings to computers and test equipment. Non-capital assets that require extra safeguards are assets that do not meet the minimum dollar threshold for capitalization but require extra safeguards for other reasons. See *Table 1* (below) for the best practice risk categories.

Common names	Risk Type	Examples
<b>Small and Attractive Assets</b> <i>(non-capitalized, value under \$5,000 expected life over one year)</i>	Theft or loss - Items that are physically small and have a relatively high value.	- Laptops - Tablet computers, PDAs - Audio and visual equipment - Tools and equipment important to operations such as leaf blowers, mowers and portable generators.
<b>High Risk Assets</b> <i>(non-capitalized, value under \$5,000 expected life over one year)</i>	Public safety and/or potential liability- Items that require additional security or need to be kept from public	- Weapons - Pharmaceutical drugs - Large quantities of toxic chemicals
<b>Grant Funded Assets</b> <i>(non-capitalized, value under \$5,000 expected life over one year)</i>	Legal compliance with contracts or grant requirements	Assets purchased with funds received through contracts or grants that have use or reporting requirements.

*Table 1: Government Finance and Officer Association (GFOA) High Value Non-Capitalized Durable Assets*



We chose **tools and test equipment** with a focus on gasoline powered items as the primary high risk **durable** equipment to test in this audit. While this was our focus, we did include other items when appropriate, such as high-value traffic signals equipment.

**High Risk Material:** Items with an elevated risk of liability, loss, misappropriation or misuse based on value, portability or other characteristics of the equipment or supplies.

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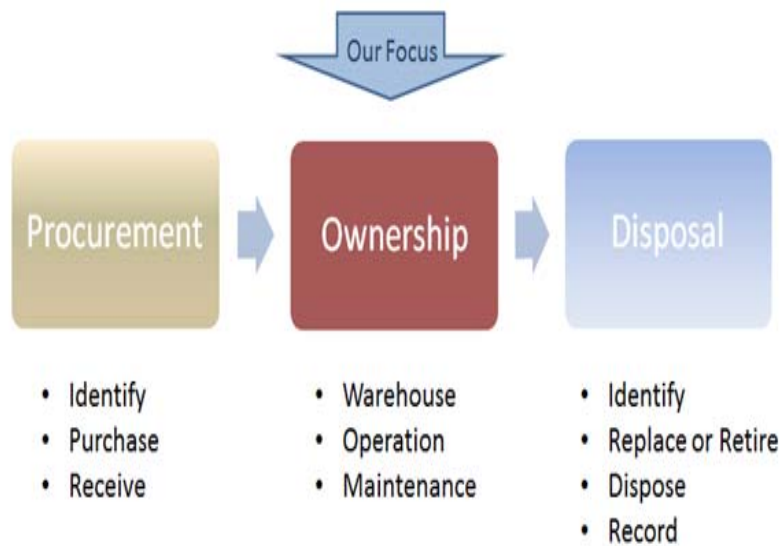
## Materials Life Cycle Phases

Within materials management, there are three major processes: procurement, ownership and disposal – see *figure 3*, below. Some work has been done with the procurement and disposal processes in recent years.

In 2012 and 2013, fleet related audits have addressed full life cycle evaluation of fleet light vehicles, and in 2013 a procurement card audit addressed one aspect of the procurement process. Additionally, organizations have received assistance with internal control reviews that have addressed some areas, including the Infrastructure Services’ disposal processes for laptop, desktop and server computers in 2013.

Despite logistics being an integral part of all county operations, there has only been limited audit work related to materials management, and none of it focused on the ownership phase of the materials life cycle.

➔ We focused this audit on the “ownership” phase of materials management.



*Fig 3: Materials Management Structure*

*(Courtesy of APICS, American Production and Inventory Control Society)*

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## Audit Results

### Objective I: Evaluate control of high risk tools and equipment

**Summary:** Steady progress is being made to improve record accuracy and completion.



**Conclusion: Control of high risk durable equipment was moderately effective and is improving.** Accuracy and completeness of records issues are being addressed.

### **Finding 1: Tools and equipment locations are identified, but database is missing key data**

#### **Discussion:**

We verified by inspection the serial number, model number, and location of select pieces of equipment were present in the record and matched the equipment. Price and purchase dates are added later from PW records or estimated for old equipment.

Of 194 pieces of equipment or tools tested, only one old item – a small snow blower auxiliary engine - was not physically located and was likely disposed of many years ago.

While all but one tools and equipment we tested were physically accounted for, data error rates were high due to incomplete information entered into the inventory database. “Errors” were defined as any inaccurate or missing data in fields defined as necessary by Public Works. For example equipment missing both a serial number and purchase price count as two errors. Most common were missing serial numbers, purchase information and model descriptive data.

Error rates ranged between 5% and 30% with some of the smaller divisions. Of the two largest divisions, Fleet Services (also the newest division to use FATS) displayed a 25% error rate, while Public Works overall had a 15% error rate.



*Photo 1: Semi-Permanent Inventory Label*

- a) Public Works Central Equipment Warehouse had only a 5% error rate.
- b) Steady progress with data scrubbing and marking is visible with the Public Works prioritized approach.
- c) Bar code scanners are improving effectiveness of durable inventory work with groups that use them.

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**(R1) We recommend that Public Works update tool inventory records to complete missing data key to accurately identifying the equipment.**

- a) Establish a specific end date goal for completing the equipment database.
- b) Use a consistent “synthetic” purchase date five or six years in the past for old equipment that is past its estimated useful life; this will allow reports to run accurately and save time over research, yet will provide useful information when reporting equipment age and value. Consider using estimated replacement cost for with old equipment’s acquisition cost.
- c) For expensive test equipment with “synthetic” purchase dates, consider using estimated replacement cost as their initial acquisition cost.

***Additional progress reported by Public Works:*** Staff is working to address these issues. The specific fleet tools and equipment record discrepancies in FATS that were identified have been corrected. Traffic & Signals report progress in marking and adding serial numbers to high value test equipment and updating records.

## **Finding 2: There is no policy for identification and marking of mechanics’ tools**

**Discussion:** All high value tools and equipment should be permanently marked to identify ownership and improve accountability in a mixed-use environment. Based on our audit, about 75% of Public Works’ County owned tools are permanently marked.

Individually owned personal tools are used by about 12 mechanics on a daily basis, with



**Photo 2: Mechanic’s Tool Box Contents**

many of their tools purchased with an annual tool allowance. Multiple mechanics tool boxes have similar tools, and some shop tools are similar to tools individuals bring to work. In some work locations shop tools and personal tools are used and stored in close proximity and mixing up ownership is more likely if tools are unmarked. In Clark County, mechanics’ tools not required to be marked.

According to the County’s Snap-on tool vendor, marking tools has “no effect” on their warranty or trade-in value and is considered a best practice. Unmarked tools are currently assumed to belong to the employee; in an environment where all tools are required to be marked, policy should be that unmarked tools are assumed to belong to the employer.

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**(R2) We recommend Public Works implement a tool policy to require all tools be marked permanently, consistent with best practices.**

- a) Personal tools should be permanently marked using a consistent system.
- b) High value equipment that does not have a manufacturer serial number visible should have one permanently engraved in a visible location.
- c) Durable bar code tags are recommended for high risk County property where practical.
- d) Policy should specify that assumed ownership of unmarked tools on county property is the County.

**Additional progress reported by Public Works:**

- *The Fleet Manager and his staff are working on a draft policy for this. Senior Management will be reviewing it and should have it finalized by the end of September. Fleet employees are already working on marking their tools.*
- *Traffic & Signals staff report all equipment in the signal shop that is logged in the FATS system now has serial numbers. The numbers were etched onto the equipment.*
- *Traffic & Signals staff reports they plan to have serial numbers etched in all engineering equipment tracked in the FATS systems by mid-September.*
- *Traffic & Signals staff report they have now secured new fenced area that Signal equipment can be stored in at the 149<sup>th</sup> street facility, providing a more secure location.*
- *Traffic & Signals staff report that undocumented previous WSDOT advice from local representative had been that Clark County did not have to track the specific equipment by project, and if the spare equipment was used as replacement equipment on another federally funded project, it was acceptable use.*
- *Staff estimates they have 95% of their tools etched or marked permanently.*

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## Objective II: Evaluate control of high risk expendable supplies

**Summary:** Warehouse records accuracy and completeness vary greatly. Inventory includes excess old-stock spares and obsolete parts.



**Conclusion:** Control of expendable supplies is marginally effective due to the wide variety of errors and varying degree of oversight efforts found between divisions. We found both grant funded supply tracking and fuel tracking/reporting are concerns.

### **Finding 3: Warehouse expendable supplies and parts record accuracy is inconsistent**

#### **Discussion:**

Inventories were conducted jointly by auditees and auditors. Designated PW staff member identified the shelf location of items and counted them out loud. An auditor verified the location or package marking and verified the count, recording the result. PW staff monitored the progress. A copy of the record was shared after the inventory.

Annual inventory accuracy standards, when expressed as an error rate, are typically 5% or below. An error for expendable items refers to a variance in count between what is on hand and the inventory software list. An incorrect quantity only counts as a single error, regardless of how “off” the count may be. Best in class or best practice data error rates are expected to be below two percent variance in count. Clark County Public Works has identified a standard for warehouse operations in their procedures as an allowable tolerance of 5%.

Fleet Services warehouse had a 3% error rate on supplies, repair parts and components. The Traffic and Signals warehouse error rate was 22% for the same class of supplies and parts. Much of this was attributable to physical failure of a label system from excess moisture as well as the mixing of purchased items with non-purchased items.



*Photo 3: Fleet Warehouse Parts Storage*

Both Fleet and the Traffic and Signals warehouses have a larger percent of obsolete, slow moving, and used parts than expected. Fleet has made at least two efforts over the past five years to remove excess inventory, but still carries some stock that is not demand or risk driven. The need for repair parts to be on hand for emergency vehicle repairs must be a three way balance between the cost of storing

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excess parts for extended periods of time, the need to store parts that have limited availability, and the risk they will become obsolete. One best practice for automotive repair parts is for 20% or less of the parts on hand for less than 12 months. Our testing showed that 37% of the parts kept on hand by Fleet management had been on hand over two years. While not achieving best practice, they are making progress reducing non-critical, slow-moving repair parts.

Due to the large number of parts and components on hand that are funded from multiple sources, we were unable to quantify the percent of total stock held longer than 12 months. Staff has acknowledged there is opportunity to greatly reduce the volume without significant risk of a loss in equipment readiness.

Traffic and Signals has new, grant funded equipment and supplies that have been retained after the grant contracts were closed. There were additionally used but serviceable items on hand that had been purchased with grant funds. WSDOT provided general advice that the affected contracts must be reopened and any materials and supplies purchased with grant dollars and temporarily retained by Clark County reimbursed fully to the contract. Used operational parts purchased at one time by a grant still belong to the grant after being replaced unless released in writing by the grant or contract agency.



*Photo 4: Fleet Warehouse Components*

**(R3) We recommend Public Works meet with senior WSDOT representatives and get immediate, specific guidance how to properly dispose of all grant funded equipment and supplies on hand excess to their current contracts. Positively identify excess grant funded durable and expendable items to WSDOT and dispose of them appropriately before year end. This is at high risk of increasingly serious problems if not addressed immediately.**

- a) Memorialize the results of the meeting in writing. See the attached draft flow chart in *Appendix B* for a suggested disposal determination process.
- b) Identify and track all grant funded durable and expendable equipment and supplies separately from locally funded items, and maintain clear separation until the correct disposition process is clear from WSDOT.



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## **Additional progress reported by Public Works:**

- *Traffic and Signals staff report they will, as time allows from current high priority projects, review all equipment lists from grant funded capital projects which had spare equipment and bring it under improved control in their new storage area. This is expected to be complete by the end of September, 2016.*
- *Traffic and Signals staff report after the current Orchards TSO project is substantially complete (likely January or February of 2017), they will be working to reduce all outdated equipment that we no longer need to reduce the total number of items that need to be counted.*

## **(R4) We recommend Public Works adopt improved inventory control practices in the Traffic and Signals Warehouse.**

- a) Evaluate staffing for Traffic and Signals warehouse to determine if it is adequate.
- b) Establish performance measures in warehouses that are aligned with organizational objectives and support “just in time” warehouse standards where appropriate.
- c) Annually, evaluate slow moving, legacy stock against actual demand and risk to determine appropriate stock levels. Retire stock that does not meet a specific need based on documented equipment failure rates or other objective criteria.

## **Additional progress reported by Public Works:**

- *Fleet Services staff has submitted documentation for corrections and adjustments for all parts and supplies that had unexplained variances. The remaining Public Works divisions are working on the deficiencies and have them corrected by the end of September, 2016.*
- *Traffic and Signals staff report they are making progress resolving inventory corrections and variances.*

## **Finding 4: Fleet Services fuel system management controls are not effective**

**Discussion:** Clark County has nine fuel sites, of which four are metered and dispensing is monitored by the Phoenix system. Unusual large negative variances in the fuel management system were not reported outside of Public Works and were not resolved in a timely manner. Internal controls did not include a requirement that the records be reconciled beyond the individual who tracks fuel use on a daily basis. We identified math and transcription errors in the data reviewed.

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Our audit showed unusual shortages were reported in the Operations Center gasoline storage tank in both first quarter 2015 (1,620 gallons) and in second quarter 2015 (406 gallons). This is a newer tank (2012) with no indication of leakage. No further excessive shortages were identified in 2015 or first quarter 2016.



*Photo 5: Operations Center Fuel Dispenser*

The short readings were caused by an incompatibility between the manual “stick” tank measuring procedures used and the air quality stage one filtering installed on our largest gasoline tank. Dispensing fuel created a vacuum in the tank; it had to be equalized to produce an accurate volume measure. It took over a year to identify the condition and take corrective action. The in-tank fuel level measurement system is not affected by this problem. Manual measuring the fuel in this tank is fundamentally incompatible with the environmental protection system.

The shortage should have been identified to the State Auditor as potential waste, fraud or abuse once a simple reason was not identified within a few months. Instead, it was adjusted within the financial system at year end without resolving the cause.

**(R5) We recommend Public Works develop policy to identify acceptable fuel storage variances, and how to respond to exceptional ones. Procedures for conducting fuel system management should be updated and electronically available for review.**

***Additional progress reported by Public Works:** Fleet Services staff is updating desk manuals to ensure they reflect the latest procedures and equipment in use. It will be kept in electronic form for easy future updating. Expected completion is October, 2016.*

**(R6) We recommend management review the gasoline fuel measurement process for tanks with stage 1 filter systems installed. If manual fuel measurements are to continue, they need to be preceded by a vacuum equalization procedure before measuring is done. We recommend you consider changing procedures to rely on the automatic tank measurement system that is installed.**

***Additional progress reported by Public Works:** Cause of negative variation has been identified and manual tank measuring is no longer used for refueling, it will only be used for periodic verification and then will have new procedures. To verify all sources of error were minimized, the dispensing pumps were tested for accuracy of dispensing.*

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## Objective III: Evaluate physical security of the facilities and access controls

**Summary:** The 78<sup>th</sup> Street Operations Center is not secure. Facility access and use policies are inconsistent between user divisions. No single entity or group is responsible for physical security of the facility or its contents. As a result, controls are not applied consistently.



**Conclusion:** Security and access controls at the 78<sup>th</sup> Street Operations Center were not effective.

### Finding 5: Security of equipment and work vehicles is improving

**Discussion:** We conducted three separate unscheduled visits to the facility between February and August of 2016 to evaluate and document vehicle and access security practices with photographs. On two visits, we walked through the facility and randomly selected a minimum of 40 vehicles to check for unsecured power tools and unlocked doors. In the February visit we found ten of forty or 25% of the vehicles sampled had unsecured equipment or crew compartments; by the June walk-thru we only found three of 40 or 8% with security issues.



*Photo 6: Keys on Front Seat*

We found storage containers and tool storage areas were generally locked during visits, although there were occasional exceptions.



*Photo 7: Unsecure Tools in Truck*

(R7) (Text omitted per Note r.1, page V)

### Finding 6: Access to the 78<sup>th</sup> Street Operations Center is not well controlled

**Discussion:** We attempted to determine which division within Public Works had overall security responsibility for the 78<sup>th</sup> Street Operations Center. We discovered there was no single security manager although there are multiple divisions using the facility with varying levels of responsibility for aspects of security or access.

(Text omitted per Note r.1, page V)

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The west gate provides access not only to the Operations Center, but also to a separate area within the facility housing buses for Educational School District (ESD) 112.

**(R8) We recommend that the Public Works Director work with the Chief Information Officer and Facilities Manager to develop effective workplace security policy and guidance. We also recommend an on-site manager be designated to coordinate site access and physical security at the 78th Street Operations Center.**

**(R9) We recommend the Public Works Director evaluate security at all controlled workplace entrances and determine if they meet workplace security needs.**

- a) Establish a memorandum of use agreement with ESD 112, which currently stores and operates busses out of the 78<sup>th</sup> Street Operations Center without an agreement. The current use increases risk and may benefit ESD 112 inappropriately.
- b) Determine, with all other user divisions and ESD 112, if additional security upgrades are appropriate
- c) (Text omitted per Note r.1, page V)

### **Finding 7: Software security and controls are not fully effective**

**Discussion:** We examined administrative and software controls related only to software that was used in control and use of equipment and supplies within Public Works.

There are material weaknesses in the management of specialty software security within Public Works used for control of equipment, tools and supplies including FATS, MMS, Phoenix and Faster.

**(R10)** (Text omitted per Note r.1, page V)

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## Summary

- Public Works was able to account for nearly all durable tools and equipment we sampled, and is continuing to improve database accuracy.
- There are long-term vulnerabilities in physical security and software security at the 78<sup>th</sup> Street Operations Center that need addressing. They have not yet resulted in any reported losses. Similar vulnerabilities may exist at other facilities that were not reviewed.
- Accountability of expendable components, supplies and parts is inconsistent throughout Public Works. The areas most in need of work require more complete supply and equipment records, removal of excess non-essential old stock and resolving appropriate disposition of grant funded supplies through WSDOT.
- Fuel management and accountability requires improved management oversight.

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## Appendix A: Full Audit Methodology

### Objectives

Objective 1: Determine if high risk **durable** assets are effectively controlled.

Objective 2: Determine if high risk **expendable** part, components and supply items are effectively controlled.

Objective 3: Evaluate the **control environment** in which Public Works operates. This includes physical and software access security. Determine if it is effective in controlling high-value expendable supplies and high risk durable items which include small and attractive assets.

### Scope

This audit will focus on the ownership phase of materials management although some results may lead to work in other phases. Access controls for storage areas will be included within the audit.

Inclusions - Bulk expendables with an elevated risk of danger, abuse or loss

- Fuel (gasoline only)
- Common automotive service supplies such as repair parts, fluids, filters and tires

Inclusions – Durables not capitalized with a value below \$5000 with an expected lifetime of at least one year with an elevated risk of danger, abuse or loss. This includes items that cross divisional boundaries:

- Data tablets such as iPads, Microsoft Surfaces and other similar technologies
- Landscape equipment (chainsaws, pole saws and other gas powered tools)

Exclusions

- Rock, crushed aggregate
- Vehicles (Audit completed in 2013)
- Desktop computers and laptops (Planned within upcoming General Services Material Management audit in 2016 or 2017)

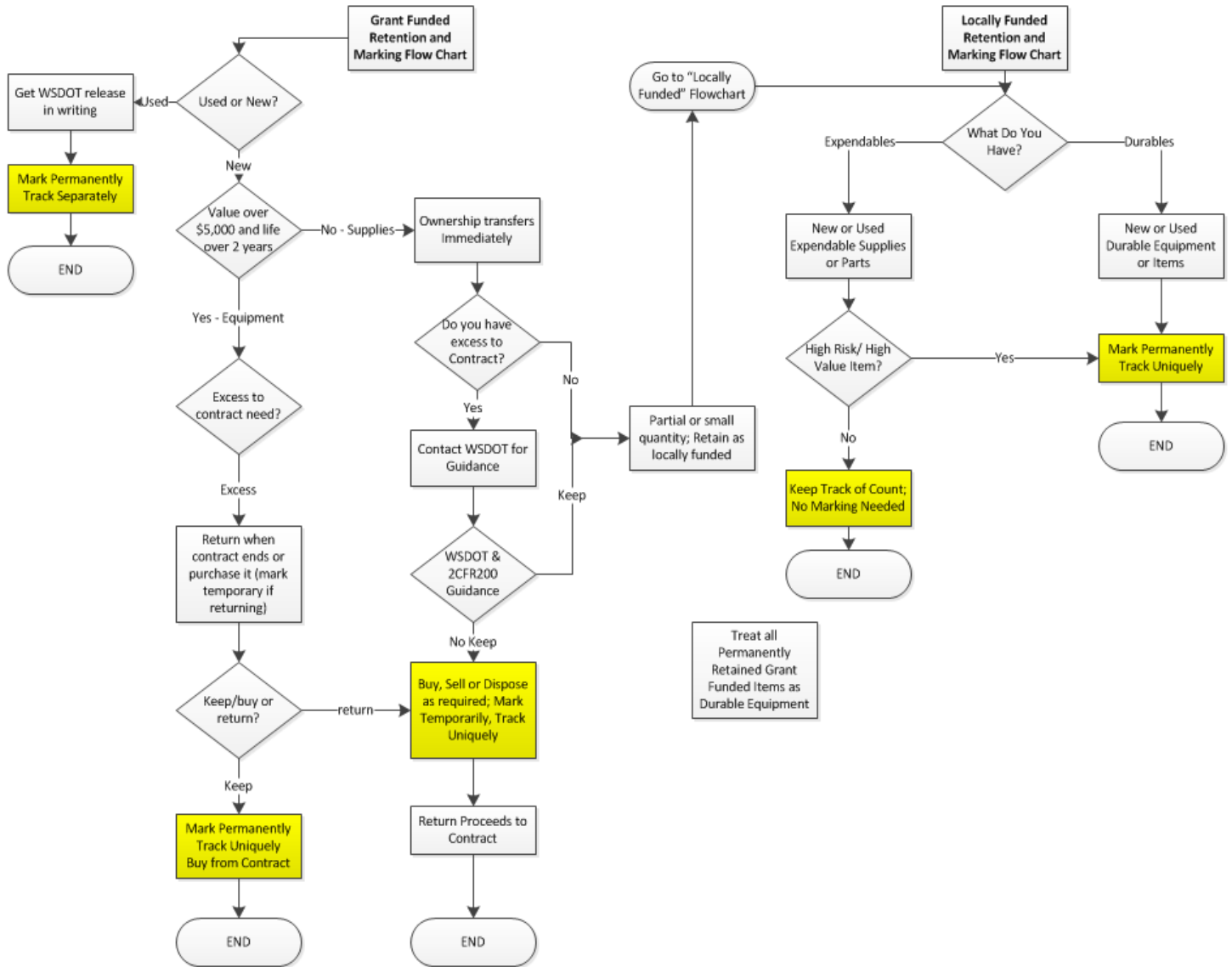
### Methodology

- 1) Review applicable state federal laws and regulations, GASB and GFOA standards and best practices as well as local policies and procedures.
- 2) Identify governance structure, authority and issues through document research and interviews with key management and operational personnel.

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- 3) Interview staff responsible for performing various related duties and/or oversight functions.
- 4) Review the work of auditors in other jurisdictions and research professional literature to identify best practices regarding training requirements, procedures, inventories and asset management.
- 5) Determine if the items require a full inventory or if sampling can provide reasonable assurance in identifying risk. Choose appropriate approach for each group of items based on risk, materiality and assurance level needed.
- 6) Identify the total group of eligible **durable** items. Conduct select inventories of durable equipment representative of the entire population.
- 7) Identify the total group of eligible **expendable** items that are warehoused and issued by the Public Works Department, their locations, quantities and controls.
- 8) Conduct select expendable inventories on both durable and expendable items and resolve results with records of items, quantities and types that are supposed to be on hand through existing inventory records plus issue and draw documentation.

Appendix B: Suggested Grant Funded Item Disposition Flow Chart





Appendix C: Management Comments



proud past, promising future

CLARK COUNTY  
WASHINGTON

PUBLIC WORKS

September 13, 2016

Mr. Tom Nosack, Internal Auditor  
Clark County Auditor's Office  
PO Box 5000  
Vancouver, WA 98666

Dear Tom,

I appreciate the work performed by the audit team during the internal audit of Public Works. The audit provided valuable feedback regarding how we handle high risk materials and secure our facilities. Public Works welcomes the opportunity to improve our processes to ensure we are meeting current policies and practices.

Our Senior Management Team is preparing internal action plans to address the audit findings and in some divisions, we are already in process of implementing the recommendations to ensure the safe guarding of our assets.

We would like to thank your audit team for undertaking this important work.

Sincerely,

Heath H. Henderson, P.E.  
Public Works Director / County Engineer

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