DATE ISSUED: March 11, 2019

TO: Audit Committee

FROM: Public Utilities Department

SUBJECT: Performance Audit of Public Utilities Department’s Water Meter Cover Replacement Program – March 2019 Activity Progress Report

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Council District(s): Citywide

OVERVIEW:
This March 2019 Activity Progress Report provides information on the Public Utilities Department’s (PUD’s) activities and actions taken in support of recommendations in the City Auditor’s Performance Audit of the PUD’s Water Meter Cover Replacement Program. This report provides an update on the recommendations completed during the months of October 2018 through February 2019 per Department Management’s Response Memo (Attachment 1).

PROPOSED ACTIONS:
This item is for information only.

DISCUSSION OF ITEM:
As a result of the City Auditor’s Performance Audit of the Public Utilities Department’s (PUD’s) Water Meter Cover Replacement Program, PUD has implemented several new initiatives to address the issues identified in the audit report and regain the public trust. This report demonstrates PUD’s commitment to improve productivity, oversight, and accountability within the meter boxes/lids crews and establish and enforce productivity standards, per the City Auditor’s Recommendations 1, 2, 5, 6, 7, 8, 9 and 10, listed below.

Recommendation 1: To improve productivity, oversight, and accountability within the Box and Lid Group, PUD should establish and enforce productivity standards, goals, quotas, or similar performance targets based on reasonable expectations about how much time crews should spend in the field and what crews should be able to accomplish in that time, on average, given known resource constraints. Finalized performance targets should be communicated to all employees in the group so that all are aware of these expectations. In response to this recommendation, the PUD leadership team created a new Standard Operating Procedure (SOP) specific to daily performance targets. Local 127 is meeting with staff, and once union approval is obtained, the SOP will be disseminated to all impacted staff through tailgate training. (Attachment 2).

- The development of this SOP demonstrates PUD’s commitment to work in close coordination with employees and their representative groups towards the mutual goal of optimizing work processes and providing the highest quality level of service possible to City ratepayers.
- This SOP provides management with tangible and specific metrics that they can use to identify and reward high-performing work groups.

Recommendation 2: To maximize the Box and Lid Group’s available productive time, PUD should require work crews to spend additional time in the field completing service requests. In addition, PUD should formalize policies related to employee work schedules, including when they should leave and return to the work yard and when they should start and end their time in the field. These policies should be communicated to all employees in the group so that all are aware of these expectations. In response to this recommendation, PUD developed formal written work standards which were
documented in a memorandum dated October 16, 2018 from the Water Construction and Maintenance Division (WCM) Deputy Director and communicated to all WCM field staff, including the Box and Lid Group. (Attachment 3).

- The addition of these specific work standards will ensure that employee work schedules are structured in a way that supports maximum productivity.
- These work standards help reduce uncertainty by providing clear direction to employees with regard to expectations about the appropriate amount of time to spend in the field on a given day.

Recommendation 5: PUD should identify or develop and use data fields in the IAM system that provide more complete and accurate information about site conditions (box/lid size, whether in concrete or dirt, etc.). In response, PUD identified fields in the EAM (formerly IAM) system, created drop-down menus for size and site condition, and trained staff on how to accurately enter the information. (Attachment 4).

- The identified EAM enhancements will improve the quality of data collected by the Department and available to management and operations employees.
- Improvements to EAM will enhance crew readiness and reduce the frequency of wasted trips, such as those that result from crews arriving to the job site without all the tools and equipment needed to complete a given job.
- Enhanced data collection and reporting precision will globally improve the Department’s planning, operations, and Asset Management functions.

Recommendation 6: PUD should research and implement the capability to attach pictures to a service request within the IAM system. Alternatively, PUD should standardize the use of the Get It Done app for all field crews that refer work to the Box and Lid Group, including meter readers. In response to this recommendation, PUD tested the capability of the Get It Done app and determined that its use created duplicate notifications. Therefore, use of the EAM system was selected for WCM staff and training was conducted. (Attachments 5 and 6).

- Enhancing service requests by attaching a picture will help alleviate staff confusion and uncertainty, meaning fewer wasted trips and a higher proportion of time in the field spent on completing work.
- Over time, the accumulation of pictures in EAM will bolster the Department’s understanding of the entire water/wastewater infrastructure.
- Customer Support Division meter readers will continue to send pictures via e-mail and notifications via hand-held devices.
- Pictures stored in the system are currently not viewable on laptops. PUD is working with the Department of Information Technology to identify the cause of the missing functionality described above.

Recommendation 7: PUD should train all PUD field crews, including meter readers, on how to properly identify and report box/lid problems. This training should be made available to field crews after being hired and once a year as refresher training during PUD’s annual spring training. In response to this recommendation, PUD conducted training for all WCM and CSD Division field crews responsible for identifying and reporting box and lid problems. (Attachments 7 and 8).

- Training all field crews to identify box/lid problems will result in more accurate documentation and will improve information hand-offs between involved personnel.
- The discussed training will ensure that staff are using consistent methods when identifying and reporting issues from the field.
- Regular refresher trainings facilitate knowledge retention and will serve as an accountability mechanism to make sure staff are aware of the proper procedures and are applying them on the job.
- More accurate reports of box/lid problems will result in fewer wasted trips made by responding work crews.

Recommendation 8: PUD should develop and distribute a pocket reference guide for field crews that refer problems to the Box and Lid Group so that field crews can more accurately diagnose problems in the field. In its Management Response to the Auditor, PUD agreed to develop and distribute a reference guide electronically to every crew member for upload to cell phones, tablets and/or hand-held readers, along with providing hard-copies for each service vehicle. The guides and upload instructions were developed and distributed to the appropriate crews. (Attachments 9, 10 and 11).

- The development of the electronic reference guide ensures that staff are equipped with the knowledge needed to perform their job at all times.
Distributing reference guides to involved field crews will improve the consistency and specificity of their reports, which in turn, will improve the ability of others to respond to reported issues. By developing both electronic and hard-copy guides, the Department ensures that important reference materials are accessible to crews in the field regardless of whether cellular/internet service is available.

**Recommendation 9:** To improve management oversight of the box/lid replacement process, PUD should develop monitoring procedures and measures - which should include generating reports from the IAM system on an ongoing basis – to ensure that no trips are wasted in the process of completing box/lid replacements. In response, PUD created “follow-on” codes for staff to use in the EAM system to identify the different steps taken per visit. Reports will be generated weekly by the schedulers/planners to identify, research, and document reasons for any duplicate steps. Staff were trained on use of the new follow-on codes. (Attachment 12)

- The developed “follow-on” codes will improve the quality, consistency, and detail of data maintained within the EAM system.
- Consistent use of “follow-on” codes will elevate the robustness of information pass-alongs between administrative staff, operations staff, and management.
- Adoption of “follow-on” codes will reduce the frequency of wasted trips.
- Augmented monitoring of procedures and performance will facilitate ongoing evaluation and improvement of the box/lid replacement process.

**Recommendation 10:** PUD should develop a more efficient routing procedure for box/lid replacements. For example, every work day, the box/lid supervisor could group service requests in one specific area of the City and assign crews to complete replacement work there that day. To ensure work is completed throughout the City, the crews could have a rotation of work areas that would take them to a different area every day. One application of this approach might be to group service requests within the same Council District and work in a different Council District every day. In response, the Boxes and Lids Group Planner/Scheduler uses the map feature in EAM to lasso work in the North, Central, and South areas of the City and distributes accordingly to work teams daily. Priority work such as broken lids identified through the Get it Done application are also distributed to these same work teams daily.

- More efficient routing procedures will increase the number of service requests completed by field crews on a given day.
- More efficient routes will reduce the average amount of time that crews spend traveling between work sites.
- Increasing the efficiency of routes is consistent with the City’s Climate Action Plan and will translate into cost savings related to decreased fuel usage by Department vehicles.
- By adopting more efficient routing procedures, daily wear and tear on Department vehicles will be reduced, leading to decreased maintenance costs and increased longevity of the vehicles and equipment (e.g., trailers).
- Efficient routes will lead to improved response times with regard to addressing priority work.
- Higher productivity resulting from more efficient routes improves the Department’s ability to address and minimize any existing or future work backlogs.

The Department is on target to complete the remaining three recommendations provided by the City Auditor’s Office within timelines provided in the Management’s Response Memo.

**City Strategic Plan Goal(s)/Objective(s):**

- **Goal #1:** Provide high quality public service.
- **Objective #2:** Improve external and internal coordination and communication.
- **Objective #4:** Ensure equipment and technology are in place so that employees can achieve high quality public service.

- **Goal #2:** Work in partnership with all of our communities to achieve safe and livable neighborhoods.
- **Objective #1:** Protect lives, property, and the environment through timely and effective response in all communities.
- **Objective #3:** Invest in quality infrastructure.
- **Objective #4:** Foster services that improve quality of life.

**Fiscal Considerations:**

N/A

**Charter Section 225 Disclosure of Business Interests:**

N/A
Environmental Impact:
N/A

Equal Opportunity Contracting Information (if applicable):
N/A

Previous Council and/or Committee Actions:
This item will be presented to the Independent Rate and Oversight Committee on March 18, 2019.

Key Stakeholders and Community Outreach Efforts:
N/A

Matthew Vespi
Interim Public Utilities Department Director

Johnnie Perkins
Deputy Chief Operating Officer, Infrastructure/Public Works

Attachment(s):

1. Attachment 1 - PUD Management Response dated August 30, 2018
2. Attachment 2 – CoSD Audit Recommendation No. 1 Jan 2019 Deliverable
3. Attachment 3 – CoSD Audit Recommendation No. 2 Oct 2018 Deliverable
4. Attachment 4 – CoSD Audit Recommendation No. 5 Jan 2019 Deliverable
5. Attachment 5 – CoSD Audit Recommendation No. 6 Jan 2019 Deliverable
6. Attachment 6 – CoSD Audit Recommendation No. 6 Jan 2019 Deliverable
7. Attachment 7 – CoSD Audit Recommendation No. 7 Feb 2019 Deliverable
8. Attachment 8 – CoSD Audit Recommendation No. 7 Feb 2019 Deliverable
9. Attachment 9 – CoSD Audit Recommendation No. 8 Feb 2019 Deliverable
10. Attachment 10 – CoSD Audit Recommendation No. 8 Feb 2019 Deliverable
11. Attachment 11 – CoSD Audit Recommendation No. 8 Feb 2019 Deliverable
12. Attachment 12 – CoSD Audit Recommendation No. 9 Jan 2019 Deliverable