



Office of the City Manager

INFORMATION CALENDAR
November 3, 2022

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: Liam Garland, Director, Public Works

Subject: Audit Status Report: Unified Vision of Zero Waste Activities Will Help Align Service Levels with Billing and Ensure Customer Equity

INTRODUCTION

The Office of the City Auditor presented to the City Council a September 20, 2016 Report: Unified Vision of Zero Waste Activities Will Help Align Service Levels with Billing and Ensure Customer Equity. The City Auditor conducted the audit to assess whether the City of Berkeley is correctly billing customers based on their actual refuse collection levels; whether all Berkeley residents are signed up to receive refuse, recycling, and plant debris collection service as required by the Berkeley Municipal Code; and whether there are opportunities for improving both refuse and service delivery operations. This is the final status report on the efforts made to implement the Audit Report's recommendations, which are slated for no further follow-up action as recommended by the City Auditor for all audits more than five years old.

CURRENT SITUATION AND ITS EFFECTS

The Audit Report included twelve (12) recommendations for the Office of the City Manager and Departments of Finance, Information Technology, and Public Works to review, implement, and report to Council regarding the status of recommendations. This is the fifth and final status report on the recommendations. Public Works has continued to make progress since the last status update. The Auditor's Office verified six recommendations as implemented and has dropped the remaining six recommendations. Please see Attachment 1 for a detailed table of audit report recommendations, corrective actions, and implementation progress.

BACKGROUND

Public Works' Zero Waste Division is responsible for the collection of residential material, including refuse, recycling, and composting; collection and processing of commercial material, including refuse, recycling, and composting; off-site hauling and composting of green/food waste for all customers; off-site hauling, sorting, and marketing of construction and demolition debris for all customers; and manages contracts related to the above work.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

With the implementation of the Audit's recommendations, the Zero Waste Division will continue to help reduce the volume of waste landfilled and:

- Increase residential composting, recycling, and source reduction.
- Increase commercial composting, recycling, and source reduction.
- Increase recycling of construction and demolition (C&D) debris.
- Expand efforts to eliminate waste at its source.
- Increase waste diversion in public buildings.

All of these above-noted items promote the City's zero waste goal and are included in the approved Climate Action Plan Goals for Waste Reduction and Recycling.

POSSIBLE FUTURE ACTION

Public Works will continue to take timely and focused action(s) to address outstanding and partially implemented recommendations. The Zero Waste Division is working with the Information Technology and Finance Departments to select the software solution(s) needed to facilitate the implementation of the audit recommendations.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

Public Works will update Council periodically on the progress, resources available, and any additional funding needed to address those recommendations that remain outstanding and partially implemented.

CONTACT PERSON

Greg Apa, Solid Waste and Recycling Manager, (510) 981-6359

Attachment:

1. Audit Findings and Recommendations Response Form

ATTACHMENT No. 1

Audit Title: Unified Vision of Zero Waste Activities Will Help Align Service Levels with Billing and Ensure Customer Equity					
Findings and Recommendations	Lead Dept.	Agree, Partially Agree, or Do Not Agree and Corrective Action Plan	Expected or Actual Implementation Date	Status of Outstanding Audit Recommendations and Implementation Progress Summary	
Finding: Integrated thinking about zero waste operations will help ensure accurate billings and customer equity					
1.1	Agree to a common and unified vision for zero waste operations. Discuss the long-term zero waste goals, objectives, and key initiatives and share that information with those responsible for day-to-day operations. Use meetings and informal communications to regularly encourage staff to embrace a unified view of zero waste operations.	City Manager's Office and Team Response: Public Works, Finance, and Information Technology	Agree	October 2016	January 23, 2018 Update Implemented Since late 2015, Zero Waste, 311, and IT (called collectively the Customer Solutions Group or Group) have met on a monthly basis to discuss operational issues that affect the three divisions. Given that this Group was already in place and per the Auditor's recommendation, the Group opted to include Finance as a participant instead of creating of a separate team and meeting. The meetings' monthly agenda identifies that the Group's primary focus is the development and continuous implementation of a common approach by all members to ensure a unified vision for zero waste operations for all community members. In addition, the meetings' agenda details those customers' issues as they occur, so that, the Group's members resolve them. These resolutions are applied by the Group to continue its efforts to strive towards the City's zero waste goals and the initiatives needed to attain these goals.
1.2	Form a zero waste team comprised of managers and line staff involved with zero waste operations (i.e., waste collection, billings, customer calls, systems support). Include a diverse pool of people who can share ideas, resources, and knowledge. Have the team members' work collectively to evaluate their respective functions; the interrelationships among their departmental activities; and the practices, policies, and procedures they use to perform their zero waste account management and operations functions. Ensure that the team understands that their	Team Response: Public Works, Finance, and Information Technology	Agree	October 2016	September 20, 2016 Update Implemented Zero Waste, 311, and IT meet on a monthly basis to discuss operational issues that affect the three divisions. This meeting schedule has been in existence for over one year. Since there was already a setup in place, we decided to include Finance as a participant versus create a separate team. We expanded the group and meeting scope to accommodate the Auditor's recommendations. At every meeting, it will be the first agenda item to make sure all participants are made aware of the team's concept. We will consider this completely implemented by October 2016, as at that time we will have met twice within the capacity required by this audit recommendation. This will be a regular meeting for the foreseeable future. The team members do understand that the Zero Waste operation is an enterprise with different parts and that the success of the operation depends on each of these distinctive units working together.

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			December 2019	<p>IT administration, IT-311 and Zero Waste have commenced efforts, such as, an As-Is (existing software) review to improve customer interface with the City and a To-Be (future software) for the development of an RFP to solicit new software for new customer interface, refuse billing and routing systems. These reviews were facilitated by the City's software consultant, Third Wave. The RFP is tentatively scheduled for a late 2018 release.</p> <p>Rather than the purchase of another software system to integrate the existing inefficient (i.e., requires another software program to be bolted on to existing software), and inadequate software, a new routing and customer billing system would replace the CX and RouteSmart™ systems, integrate with ERMA and would be customer driven resolution and coordinated billing system.</p> <p>March 12, 2019 Update Partially Implemented</p>
			January 2021	<p>IT released an RFP on behalf of Public Works for Zero Waste Management software on October 18, 2018. The RFP was for a Zero Waste Management System and Professional Services consisting of a Waste Billing System, a Waste Computerized Maintenance Management System and a Route Optimization System. One proposal was received. If the proposal is accepted, software installation and implementation is anticipated to begin immediately upon contract execution in May 2019, with software operational by December 2019</p> <p>March 24, 2020 Update Partially Implemented</p>
			July 2024	<p>IT released an RFP for a Zero Waste Management System and Professional Services consisting of a Waste Billing System, a Waste Computerized Maintenance Management System will allow a follow-up RFP for Route Optimization System on October 18, 2018. One proposal was received. IT and Legal are in the process of finalizing a contract with the vendor with software installation to follow.</p> <p>November 13, 2022 Update Dropped</p> <p>Contract awarded to AMCS, July 2020, to install new customer account & financial software platform to be up and running by mid-2024.</p>
1.4	Require the zero waste team formed in response to	Team Response:	Agree	October 2016 September 20, 2016 Update Implemented.

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<p>recommendation 1.2 to have regular meetings, e.g., quarterly, to share information about their operations and the known or expected changes and events that may impact cross-functional efforts. These meetings may need to be more frequent at first and less frequent over time. The team should use their meeting time to:</p> <ul style="list-style-type: none"> ▪ Identify continued barriers to change. ▪ Decide on solutions that will help overcome barriers. ▪ Share information about the challenges preventing staff from meeting operational objectives. ▪ Make cross-departmental decisions to improve processes and customer service. <p>Also see recommendation 1.2.</p>	Public Works, Finance, and Information Technology			<p>As mentioned in response to recommendation 1.2, we expanded our existing monthly meeting to include Finance. The purpose of those meetings has always been to share information about operational and staff challenges. We expanded the meeting to include specific suggestions for this recommendation.</p> <p>This initiative will be a continuous process that will be put in place for years to come as it becomes part of managing the operations of Zero Waste.</p>
1.5	In collaboration with Information Technology and as part of Enterprise Resource Planning, budget for, select, and install an account management system designed for zero waste activities. Use information from the zero waste team evaluation (recommendation 1.2) and zero waste strategy analyses	Team Response: Public Works and Finance	Agree	<p>January 23, 2018 Update Not Implemented</p> <p>The current Customer Relationship Management (CRM) system will not integrate with RouteSmart™ due to both FUND\$ and CRM system limitations. The City is currently engaged in the Enterprise Resource Planning process to replace the FUND\$ and then integrate the CRM system, which according to the current schedule by June 2019. The long term solution will be to procure a new customer management, operations and billing software that will fully integrate the RouteSmart™ with the new ERP. Zero Waste Division and the Customer Solutions Group is actively engaging with IT to ensure that the new ERP system recognizes that Zero Waste Division is an enterprise funded operation. That is, it would be desirable to utilize RouteSmart system's</p>

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<p>(recommendation 1.8) to identify the critical business needs that should be included in the purchase of new zero waste account management system, or that should be considered when determining whether sufficient middleware options exist to fully integrate existing systems with the new account management software. Also see recommendations 1.2 and 1.8.</p>			July 2019	<p>capabilities to generate customer driven service requests (work orders), whereas the current ERP system is a City staff internally generated system input. IT has recognized that to provide seamless CRM service that a Request for Proposals (RFP) for an application that delivers the most efficient financial and operational software system that specifically handles the Zero Waste collection services will be written in FY2018 as part of Phase 2 of the ERP project.</p> <p><u>September 25, 2018 Update</u> Partially Implemented IT administration, IT-311 and Zero Waste have commenced efforts, such as, an As-Is (existing software) review to improve customer interface with the City and a To-Be (future software) for the development of an RFP to solicit new software for new customer interface, refuse billing and routing systems. These reviews were facilitated by the City's software consultant, Third Wave. The RFP is tentatively scheduled for a late 2018 release.</p> <p>Rather than the purchase of another software system to integrate the existing inefficient (i.e., requires another software program to be bolted on to existing software), and inadequate software, a new routing and customer billing system would replace the CX and RouteSmart™ systems, integrate with ERMA and would be customer driven resolution and coordinated billing system.</p>
			December 2019	<p><u>March 12, 2019 Update</u> Partially Implemented IT released an RFP on behalf of Public Works for Zero Waste Management software on October 18, 2018. The RFP was for a Zero Waste Management System and Professional Services consisting of a Waste Billing System, a Waste Computerized Maintenance Management System and a Route Optimization System. One proposal was received. If the proposal is accepted, software installation and implementation is anticipated to begin immediately upon contract execution in May 2019, with software operational by December 2019.</p>
			January 2021	<p><u>March 24, 2020 Update</u> Partially Implemented IT released an RFP for a Zero Waste Management System and Professional Services consisting of a Waste Billing System, a Waste Computerized Maintenance Management System will allow a follow-up RFP for Route Optimization System on October 18, 2018. One proposal was received. IT and Legal are in the process of finalizing a contract with the vendor with software installation to follow.</p>
			July 2024	<p><u>November 13, 2022 Update.</u></p>

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<p>perform an independent review of the calculations and data entry for accuracy. Have the reviewer report back on any errors.</p> <p>Ensure that management is also notified of the errors, verifies that the corrections were made, and signs off on the review.</p>			July 2024	<p>produced two other times to make sure all the error was fixed and the Manager of the unit signed off on the final report before finalizing system changes.</p> <p><u>January 23, 2018 Update:</u> Implemented The initial base rates were approved by Resolution No. 66,600-N.S. effective July 1, 2014 for FY2015. The Department of Public Works administration calculates the next Fiscal Year's rates based on the previous Fiscal Year's rates. The rates are calculated utilizing the current CPI, the published April annual rate, or 3%, whichever is greater. These new FY rates and calculations are verified and signed off by Zero Waste Division Manager. The completed approved Rate Tables are then forwarded to the Finance Department Revenue Collections Manager for final verification and FUNDS\$ system input for billing.</p> <p><u>November 13, 2022 Update</u> Implemented Contract awarded to AMCS, July 2020, to install new customer account & financial software platform to be up and running by mid-2024. New Rates were proposed at a 12/07/2022 Council Work Session that was to include the cost of AMCS. The Proposition 218 rate approval process was put on hold by City Agenda Committee in January 2022.</p>
<p>1.8 Request that Information Technology use the CX module data extracts, such as the one used for this audit, to provide Public Works staff with the data they need to analyze zero waste strategies. Use the data extracts to further identify the critical business needs for new zero waste account management software.</p> <p>Also see recommendation 1.5.</p>	Public Works	Agree	Originally Expected: December 2016	<p><u>September 20, 2016 Update</u> We will ask IT to provide our fiscal services and zero waste strategy staff with CX data using existing data extracts, and use that for data analytics using software such as Excel. We will use these extracts to help identify the reporting needs of a new zero waste account management system.</p> <p>If needed, IT staff can provide reports or training to Public Works staff so they are able to run the reports themselves or extract the information in the format needed, if feasible.</p> <p><u>January 23, 2018 Update</u> Not Implemented The CX module data utilized for this Audit was specifically designed to support the data request and this is what is called a bolt-on module, which means, it retrieves specific data requested from the CRM. Any module development requires IT to code, test and implement these bolt-on modules for a specific request. To analyze all appropriate data to identify a critical Zero Waste Division business need(s) would require the utilization of data residing in RouteSmart™. The Current CRM system will not integrate or auto-populate with RouteSmart™ due to CRM system limitations. Per</p>

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			December 2019	<p>the current IT ERP implementation schedule, the City is scheduled to upgrade and/or replace the CRM system in June 2019.</p> <p>The long term solution will be to procure a new customer management, operations and billing software that will integrate and fully utilize the RouteSmart™ data. An RFP for an application that delivers the most efficient financial and operational software system specific to the Zero Waste Division operational and the solid waste industry requirements is scheduled to be developed in FY2018 as part of Phase 2 of the ERP project.</p> <p><u>September 25, 2018 Update</u> Partially Implemented</p> <p>IT provided extensive CX data in support of the Commercial Route expansion. During the expansion which involved adding over 400 accounts, critical limitations of the CZX software were identified. Additionally, IT facilitated the key departments to complete an As-Is analysis of existing software to identify areas of improvement. The departments have completed a To-Be analysis of future software which was the basis for a Request For Proposals (RFP) to solicit new software for new customer interface, refuse billing and routing systems. Both the CX (customer account management and billing software) and RouteSmart™ (collection routing software) systems are planned for replacement within the next year. These reviews were facilitated by the City's software consultant, Third Wave. The RFP is tentatively scheduled for late 2018 release. IT administration, IT-311 and Zero Waste are collaborating to ensure a unified approach.</p> <p>This new routing and customers billing software will the CX and RouteSmart™ Systems and integrate with Erma, the City's new financial software system. The new software will be customer driven and provide enhanced, coordinated billing system.</p>
			December 2019	<p><u>March 12, 2019 Update</u> Partially Implemented</p> <p>IT released an RFP on behalf of Public Works for Zero Waste Management software on October 18, 2018. The RFP was for a Zero Waste Management System and Professional Services consisting of a Waste Billing System, a Waste Computerized Maintenance Management System and a Route Optimization System. One proposal was received. If the proposal is accepted, software installation and implementation is anticipated to begin immediately upon contract execution in May 2019, with software operational by December 2019.</p>
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<p>1.9 Perform, or contract for, a fully comprehensive route audit to align service delivery with billing rates. Use the route audit to:</p> <ul style="list-style-type: none"> ▪ Make CX module and/or RouteSmart system updates to ensure customers are billed correctly for their City-provided services. ▪ Ensure that all residential accounts are receiving required services. ▪ Ensure that the commercial accounts that the City is responsible for receive and pay for the zero waste services required by City policy. Verify that roll-off bin customers serviced by the Zero Waste Division are accurately billed. 	Public Works	Agree	<p>Originally expected: July 2018</p> <p>December 2019</p>	<p><u>September 20, 2016 Update</u> As part of the route audit, actual service levels will be compared against data in the CX module and appropriate updates made to ensure that all residential and commercial accounts are receiving required services and billed correctly for those services. Route books will also be updated to reflect the results of the route audit.</p> <p><u>January 23, 2018 Update</u> Not Implemented IT has created a table for monthly routing development that extracts customer information from the FUND\$ and provides the data to be then downloaded into RouteSmart™. Due to the FUND\$ system limitations, this link takes hours to download information into RouteSmart™. The company, RouteSmart™, has stated that this integration process should take minutes. The City will be replacing the ERP system in June 2019 and then the CRM system would be upgraded or replaced. The long term solution is to integrate the new customer management, operations and billing software with RouteSmart™. With RouteSmart™ full utilization and the integration of a work order system, the invoicing system could be customer based, i.e. customers' billing and services are directly linked with the new EFP implementation, to allow the City to more easily reconcile services provided with customers' invoices.</p> <p><u>September 25, 2018 Update</u> Partially Implemented IT facilitated the key departments to complete an As-Is analysis of existing software to identify areas of improvement. The departments have completed s To-Be analysis of future software which was the basis for a Request For Proposals (RFP) to solicit new software for new customer interface, refuse billing and routing systems. Both the CX (customer account management and billing software) and RouteSmart™ (collection routing software) systems are planned for replacement within the next year. These reviews were facilitated by the City's software consultant, Third Wave. The RFP is</p>

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1.10	Public Works	Agree.	December 2016	<u>September 20, 2016 Update</u> We agree that the actual service levels should be compared against route books but believe that enforcing the policy to have drivers do onsite comparisons is no longer an efficient use of our drivers’ time. We are exploring other options, such as using student interns to do the comparisons. <u>January 23, 2018 Update</u> Implemented The Zero Waste drivers are reminded monthly to verify actual service levels with the route books for their collection routes by the Zero Waste Management Team. The Zero Waste dispatcher(s) are in constant communication with the drivers to ensure service levels are correct. If service levels are not corrected, Zero Waste Supervisor(s)

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			June 2020	<p><u>March 12, 2019 Update</u> Partially Alternately Implemented Given the roll-out issues associated with the November 1st implementation of the City's new enterprise resource planning system, "Erma", staff time has been rerouted to resolve. This project is on hold.</p>

