



City of Alameda

Zero Waste Implementation Plan **2025**

**Creating a sustainable,
safe urban environment.**



Prepared by:
City of Alameda and HF&H Consultants

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Multi-Family Community

Executive Summary

Introduction

Purpose

Through numerous efforts and programs, the City of Alameda (City) has positioned itself as a leader in sustainability. As an island community, the City understands the unique challenges and privileges of their geographic position and strives to ensure the City's actions support the City's general mission statement to create a "sustainable urban environment that is safe." Through the development of numerous plans, as further described in Section 1.A, the City has set an ambitious goal of reducing greenhouse gas emissions through improvements to transportation, buildings, energy

use, and waste management. A focus on reducing waste has been a recurring theme in meeting the City's environmental goals. In meeting these goals, and in recognition of the unique and diverse communities living within the City, equity has increasingly been at the forefront of the City's efforts. Utilizing an equity lens in the development of programs and policies is recognized as a key factor to ensure widespread support of new programs and long-term success. This success is also driven through long-term investments and the City's commitment to its zero waste goals as demonstrated

by the continuous updates to its Zero Waste Implementation Plan (ZWIP), originally developed in 2010. This report serves as the second update to the ZWIP (2025 ZWIP Update) and aims to review the City's waste diversion from the landfill as compared to its prior diversion goals, develop policies and programs to move the City further toward zero waste, and conduct sufficient community outreach to ensure such policies and programs are aligned with the community's desires and are implemented equitably among the City's diverse population.

The overarching vision of the 2025 ZWIP Update can be summarized in the following three pillars, which serve to deepen the community's engagement in existing programs and develop new ones tailored for portions of the community that have historically received less focus:





Projected Outcome

The City's current diversion rate, as of 2023, is 80%. If the programs and policies outlined in this plan are fully implemented, it is expected to add an additional 4.46% to the City's diversion rate. To achieve this, programs will need to be effectively implemented, and the City will need to fund consistent efforts towards long-term behavior change to achieve and maintain these performance levels, as further described here.

The expected diversion from each of the programs and policies in this plan does not bridge the entire gap to reach the City's 89% diversion goal. However, the programs and policies drive the City closer to this diversion goal while simultaneously supporting key values and themes set forth in the City's General Plan including equity, access, and the empowerment of residents and communities.

This plan aims to strengthen the foundational elements of a zero-waste community established by the 2010 and 2018 ZWIPs, deepen community engagement to achieve widespread adoption of zero waste practices, and connect with critically underserved groups in the City's community. This approach will require the City to evaluate programs and recommend changes to respond to

the City's changing social, economic, and political culture, and to capitalize on new diversion opportunities.

Additionally, this plan will be implemented at the same time as a number of substantial State-level policies, such as new Extended Producer Responsibility (EPR) laws and continued implementation of existing state laws like Senate Bill (SB) 1383, which, combined with the efforts described later in this plan, move the City much closer to that 89% goal. The impacts of these state policies are expected to be significant, with packaging EPR targeting a 65% recovery of plastic and packaging waste, textile EPR establishing an extensive take-back and collection infrastructure for clothing and apparel, and full enforcement of SB 1383 focused

on the remaining organics in the disposal stream. As the state implements these programs, the City will be expected to participate and will have opportunities to enhance those programs, specific to Alameda, along the way. While there is some expectation of funding from industry for the EPR programs, it is likely that the City will incur some costs associated with implementing these programs. Consistent funding of these efforts will be important to realizing the circular economy opportunities that are presented by these new policies.

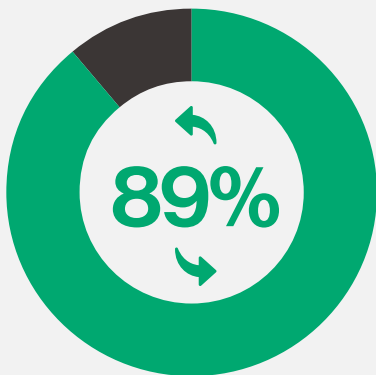
As a result of the focus on equity and access for historically underserved portions of the community and this highly dynamic regulatory environment, the 2025 ZWIP Update does not include a goal date at which the City will achieve 89% diversion. It is recommended that staff communicate annually to the community and City Council about the status of each program,

current diversion status and any recommended changes. This will help staff and City Council cooperatively navigate the dynamism that is expected at this stage in Alameda's Zero Waste efforts. It will also help ensure the City continues to make progress toward the 89% diversion goal and carries out the Council-approved programs from the 2025 ZWIP Update. Additional recommendations for how to ensure transparency and accountability through annual updates are included in Section 4.A.3.

The success and effectiveness of each program and policy in this plan relies on City Council's adoption of this 2025 ZWIP Update in addition to appropriately funding each program through the City's biennial budgeting process. Individual programs recommended by the 2025 ZWIP Update will be brought to City Council separately for approvals and funding as needed through the budgeting process.

How will it work?

Through the development of numerous plans, the City has set an ambitious goal of reducing greenhouse gas emissions through improvements to transportation, buildings, energy use, and waste management.



DIVERSION RATE GOAL

As a result of the focus on equity and access for historically underserved portions of the community and this highly dynamic regulatory environment, the 2025 ZWIP Update does not include a goal date at which the City will achieve 89% diversion. While previous ZWIPs included a specific goal date, this ZWIP does not propose a goal date as at this stage of Alameda's Zero Waste journey the programs and practices presented herein will need to be continued (and measured) on an ongoing basis.

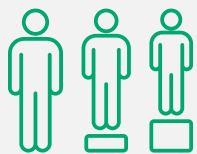
Strategy to Achieve ZWIP Goals

Equitable Participation

A key element of the City's success in increasing its diversion rate from 2018 to 2022 is the City's prioritization of expanding the community's access to, and participation in, zero waste programs. These efforts have been largely successful for certain segments of the population, mainly those with existing means and motivations to implement zero waste practices. The City's remaining path to reaching the 89% diversion goal relies on additional participation from different segments of the community, particularly those that previously had low engagement or face unique barriers to participation in the City's zero waste efforts. The 2025 ZWIP Update focuses on these priority populations that include the City's **small businesses, unhoused community, low-income community, multi-family dwelling unit residents, and small construction projects**. While these community groups may not make up the largest portion of the City's population, the lack of deep engagement with these communities has led to missed diversion opportunities. As the City approaches its 89% diversion goal, the incremental impact of new programs and policies becomes smaller; however, the importance of implementing these programs and engaging the priority populations described here cannot be understated. Equitable participation and engagement from all sectors of the community establishes the zero

waste culture and foundation the City needs to push beyond a potential diversion plateau. Additionally, developing strong relationships and trust among all sectors of the community allows the City to more easily capitalize on new diversion opportunities that arise, whether it is through the implementation of state policies or a shifting local landscape.

Ensuring the entirety of the City's community is participating relies on an on-going investment both in and from the community, through an equity-focused lens. Additional information about the unique barriers and reasons these groups were selected as priority populations is included in Section 3.A.1. This 2025 ZWIP Update is primarily focused on the aforementioned members of the community that are not currently participating in the City's zero waste programs. A robust community engagement strategy, as further described below and in Section 3.B of this report, identified education and access as key barriers to participation by these communities. Individualized approaches were developed as part of the 2025 ZWIP Update to address these specific barriers. This approach not only supports the 2025 ZWIP Update's equity goals but also unlocks new diversion potential through increased participation.



Equitable participation and engagement from all sectors of the community establishes the zero waste culture and foundation the City needs to push beyond a potential diversion plateau.



In addition to individual and collective behavior change at the local level, upstream solutions on a broader scale are necessary to address the true root cause of waste production.

Looking Upstream

For the priority populations listed above, long-lasting engagement will require a strategic focus on behavior change and upstream solutions that reduce the amount of waste generated overall prior to entering the waste stream. While downstream management of waste, such as mandatory composting and recycling collection, are important for diversion, the City will need to go above and beyond these standard diversion programs to bridge the remaining gap towards its diversion target and drive lasting change. Even when fully implemented, downstream solutions reach a threshold at which they are limited in the amount of waste they can continue to capture. Shifting to upstream solutions that prevent single-use materials from being generated or used in the first place is necessary to unlock remaining diversion potential. Lasting impact comes from transforming how people think, consume, and dispose of materials. By fostering a shift in mindset—encouraging mindful consumption and reuse—people become more intentional in their actions, making sustainable choices part of their daily routines. Behavioral change also has the potential to ripple through communities, influencing broader societal norms and ultimately creating a culture

of sustainability. This behavior change contributes to a collective effort that can drive significant environmental change. The 2025 ZWIP Update therefore focuses on behavior change and reuse as two key strategies in the development of recommended programs.

In addition to individual and collective behavior change at the local level, upstream solutions on a broader scale are necessary to address the true root cause of waste production. In an effort toward a more circular economy, the State of California (State) has increasingly introduced EPR policies that aim to shift the responsibility for waste and pollution to the producers of the products. As discussed above, the programs proposed in this plan will not meet the City's full diversion target. However, State-level policies and EPR can help bridge the gap by shifting the composition of the waste stream to materials designed for recyclability, reducing confusion for consumers, supporting source reduction and reuse, restoring confidence in the recycling system, and providing financial support for diversion programs. Specific EPR policies, such as Senate Bill (SB) 54 and SB 707, and related legislation such as Assembly Bill (AB) 1201 and SB 343, are discussed in Sections 3.A.2 and 4.A.2.

Community Engagement

Education and outreach at the community level is critical to the success of zero waste programs. The City has historically engaged with key community organizations to support its zero waste programs, such as Community Action for a Sustainable Alameda (CASA) and Alameda's Business Associations and partnered with agencies like the Alameda County Waste Management Authority (StopWaste). These partnerships have been integral to achieving the City's diversion efforts thus far. In this next phase of zero waste programming, the City must continue to foster these existing relationships while expanding efforts to engage with those outside of these communities. Considering the unique nature of each of the priority populations presented above, individualized outreach tactics must be implemented. This 2025 ZWIP Update explores more innovative and tailored education approaches such as Community-Based Social Marketing (CBSM), which focuses on identifying barriers

and opportunities, and targets specific audiences and behaviors to drive lasting behavior change. Additionally, education is most representative when affected communities are proactively engaged and given a platform to make their voices heard.

To ensure effective and equitable solutions were developed as part of this 2025 ZWIP Update, a significant amount of community engagement activities were conducted. These efforts focused on creating opportunities to share resources and ideas between different portions of the community, identifying barriers for the City's priority populations, and developing creative solutions to such barriers. Community engagement activities included holding community meetings, facilitating focus groups, surveying the general public, participating in equity scans, and presenting to City Council. The details of these community engagement efforts are further described in Section 3.B.

Key themes from these community engagement activities included:

- Increasing education and outreach
- Supporting specific sectors (e.g., multi-family properties and small businesses)
- Promoting reuse
- Reducing illegal dumping
- Improving City zero waste leadership
- Ensuring accountability

This extensive community engagement is a demonstration of the 2025 ZWIP Update's commitment to equity and engagement to foster long-term community participation. As part of the implementation of the 2025 ZWIP, on-going engagement with key community stakeholders and City Council is recommended, as further described below.



Zero Waste Plan Summary

Proposed Programs and Policies

Based on the public input received, assessment of historical performance, and guidance from City staff, twelve programs and policies were proposed to support the City in increasing its diversion rate are proposed and meeting its equity and engagement goals. Some programs have been designed as shorter-term pilot studies in order to determine effectiveness prior to scaling. In addition to the diversion increase expected at these program's full maturity, enhancements to or scaling of the pilot programs in the future could lead to diversion increases beyond the 4.46%. Other programs focus on on-going efforts by the City and will require continuous resourcing in order to remain effective. The status and effectiveness of each program and policy should be monitored within the first to third year of implementation to determine if the program should be continued. Annually, as the City develops its budget for the upcoming year, an evaluation of the current programs can be presented to the City Council with a recommendation for how to improve, maintain, or discontinue the program. These recommendations would come with any budget request or modifications required to implement the changes.

THREE PRIORITY PROGRAMS

- 1 Enhancing the bulky item collection program
- 2 Managing illegal dumping
- 3 Supporting low-income & unhoused communities

Figure ES-1 presents the total start-up costs, on-going costs, and the maximum potential diversion for the 12 programs proposed in Section 4, at the programs' full maturity. Costs represent the funds needed in addition to any current budget the City already allocates to these

programs. The full list of proposed programs and the potential diversion and resource needs for each program are detailed in Section 4 and summarized in Attachment D.

Funding Approach

If the City Council adopts the 2025 ZWIP Update, thereby providing general approval for the proposed programs, a budget for each selected program will need separate approval as part of the City's budgeting process. The City has a number of potential revenue sources to consider for future budgeting including the City's franchise agreement, Alameda County Source Reduction and Recycling Initiative of 1990 (Measure D) funding, and the General Fund. Additional funding sources and considerations are further described in Section 4.C of this report. The 2025 ZWIP Update assumes that the City will continue to use a mix of funding sources to implement the proposed zero waste programs and each funding plan will be analyzed and discussed during the biennial budget process for consideration by City Council.

Staffing Approach

The 2025 ZWIP Update anticipates the Department of Public Works Zero Waste Program as the designated lead department to oversee and monitor development of the programs and monitor progress towards the diversion target. However, the City will rely on substantial cooperation and support from other departments including Planning, Building, and Transportation, Housing and Human Services, and Economic Development, in addition to procuring external support from third-party contractors and partnering with community groups, such as CASA. See Section 4.B, Staffing Summary, for additional information on anticipated staffing requirements to implement the proposed programs.

12	\$1,072,000	\$1,527,000	6,829	4.46%
Number of Proposed Programs	Total One-Time Costs (all programs)	Total On-Going Annual Costs Per Year (all programs)	Total Diverted Tons Per Year (all programs)	Total Change in Diversion % (all programs)

FIGURE ES-1. SUMMARY OF PROPOSED PROGRAM COSTS AND DIVERSION



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01

01

Introduction

A Why Zero Waste?

Alameda's Commitment to Climate Resiliency

Over the past several decades, the City of Alameda (City) has established itself as a leader in sustainability and zero waste programs. In 1997, Alameda became the first city in the County of Alameda (County) to implement single-stream recycling. Just five years later in 2002, the City began implementing food scraps composting. Since then, the City has continued to demonstrate how communities can enjoy the manifold benefits of reducing waste, including reductions in litter and pollution, healthier ecosystems and waterways, and reduced greenhouse gas emissions through strategic policy and program implementation.

As an island community, the City is particularly vulnerable to the threat of rising seas and groundwater levels resulting from increased global temperatures. In 2008, the City adopted its first Local Action Plan for Climate Protection with a goal of reducing City-wide greenhouse gas emissions to 25% below 2005 levels by the year 2020. Within this plan, waste prevention and recycling were identified as key strategies for reaching the City's climate goals. In 2019, the City adopted its first Climate Action and Resiliency Plan (CARP), which set the ambitious goal of reducing emissions by 50% below 2005 levels by 2030 and becoming carbon neutral as soon as possible. The City recently conducted a Mid-Cycle CARP Update, approved by City Council approval in April, 2025, with a goal of reducing greenhouse gas emissions, increasing quality of life, and building a resilient, thriving City. In the most recent CARP, waste reduction continues to be an integral component to reducing greenhouse gas emissions and achieving the City's overall climate goals. The CARP covers climate adaptation, hazard mitigation, and greenhouse gas reduction and serves as an umbrella for other City plans and initiatives¹. In 2023, the City prioritized the second update to the ZWIP, and engaged HF&H Consultants, LLC (HF&H) to conduct the 2025 ZWIP Update. The 2025 ZWIP Update seeks to build upon the aforementioned plans to create solutions that align with the City's historic environmental and equity goals.

¹ Initiatives and plans under the CARP umbrella include: the Local Hazard Mitigation Plan, General Plan Safety Element, Oakland Alameda Adaptation Committee, Equitable Building Decarbonization Plan, Urban Forest Plan, Transportation Choices Plan, Active Transportation plan, and the Zero Waste Implementation Plan. When CARP is referred to, it includes these initiatives.

B Establishing Zero Waste Goals

County and State-Wide Goals

The State of California (State) and the Alameda (County) in particular have both been nation-wide leaders in implementing successful solid waste policies. The City's zero waste efforts have been informed by various County and State-wide waste diversion policies and programs, including the following:

- **Assembly Bill (AB) 939**, passed in 1989, established a 50% diversion target for each jurisdiction in the State by 2000
- **Senate Bill (SB) 1383, the Short-Lived Climate Pollutions Reduction Act**, was passed in 2016 and set State-wide goals for reducing greenhouse gas emissions. While SB 1383 did not set jurisdiction-level diversion targets, the SB 1383 regulations, effective January 1, 2022, created a multitude of new requirements for jurisdictions' recycling programs with the goal of eliminating organic material from landfills.
- **The California Green Building Standards Code (CALGreen)**, and its subsequent adoption into the City's Municipal Code, established a 65% diversion target for regulated construction and demolition projects.
- **The Alameda County Source Reduction and Recycling Initiative of 1990 (Measure D)** established a County-wide diversion target of 75% by 2010.

City Zero Waste Goals

In response to County and State-wide policies and the findings and recommendations in the City's Local Plan for Climate Protection, the City established the first Zero Waste Implementation Plan (ZWIP), which was adopted by the City Council in 2010. The 2010 ZWIP set the City on a path to continue meeting State and local diversion targets while also initiating a long-term, systematic, approach to achieving zero waste. This approach took into consideration that true zero waste is an aspirational goal, and some materials will continue to require disposal options. As such, the plan established a goal of achieving 89% City-wide diversion or 1.2 pounds per day of disposal per person, by 2020. In order to achieve this goal, the plan identified key initiatives to focus on, as shown in Figure 1.

By 2016, the City had surpassed the diversion targets set by both AB 939 and Measure D. However, despite these efforts, the City was still shy of reaching its 89% diversion goal by approximately 10%. In response to this shortfall and with SB 1383 on the horizon, the City initiated a comprehensive review and update of the original ZWIP in 2018 (2018 ZWIP Update) to establish a roadmap to meet SB 1383 compliance and achieve the City's 2020 diversion target.

The 2018 ZWIP Update identified five key strategies necessary to meet State requirements and reach 89% diversion, as shown alongside the 2010 ZWIP goals.

2010 Goals

- Utilize a whole-system approach to policy and program design
- Reduce the overall amount of consumption
- Minimize waste and maximizing recycling
- Support producer responsibility

FIGURE 1: 2010 AND 2018 ZWIP GOALS

2018 Goals

- Support zero waste culture
- Provide technical assistance to commercial and multi-family properties
- Create a food recovery program and enhance organics management
- Update the construction and demolition debris (C&D) ordinance
- Expand the City's high diversion franchise agreement

The results of the analysis conducted as part of the 2018 ZWIP Update concluded that the City was not on track to obtain 89% diversion by 2020. Rather than amend the goal or timeline, which was proposed as an option, the City Council adopted the 2018 ZWIP Update with the intent of implementing the identified strategies and continuing progress towards the zero waste goal without tying the goal to a specific date.

This 2025 ZWIP Update proposes a plan to continue progress toward the City's original 89% diversion goal without reinstating a specific timeline for reaching that goal. While previous ZWIPs incorporated definitive timelines and end dates, the 2025 ZWIP Update is structured to maintain flexibility to adapt to the changing needs of the City over time. Each proposed program, throughout its development and at program maturity, has the potential to be expanded, reconfigured, maintained, or discontinued depending on its success. Annual evaluations will allow the City to pivot funding and focus on the programs and policies most appropriate for the current state of the City's social, economic, and political environment. Therefore, due to the dynamic nature of implementing the proposed programs, this 2025 ZWIP Update does not propose to meet the zero waste goal by a specific date.

Report Organization

The 2025 ZWIP Update is organized into multiple sections:

01

Section 1 provides an introduction and background of the 2025 ZWIP Update and outlines the organization and key assumptions and limitations of the report.

02

Section 2 provides a summary of the City's current progress towards zero waste, including successes and challenges in implementing the adopted strategies from the 2018 ZWIP Update and opportunities for increasing the City's overall diversion.

03


Section 3 describes how the development of the 2025 ZWIP Update was strategically designed to overcome barriers to achieving zero waste and key program areas for development. Section 3 additionally outlines the 2025 ZWIP Update's purpose and vision and how this differs from previous ZWIP iterations.

04

Section 4 summarizes a final list of proposed programs and policies, including implementation considerations, diversion, and costs. Attachment C provides a more detailed description of the proposed programs.

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Attachments to this report provide additional details to the information in the body of the report. Please see the attachments for more details about program progress, survey results, proposed program descriptions, and cost and diversion analysis.



Education and outreach at the community level is critical to the success of zero waste programs.

Key Assumptions and Limitations

The following key assumptions were made in producing this report:

1. Data Sources

- *HF&H has not independently audited cost or performance data provided by the City and the City's franchise hauler, Alameda County Industries (ACI), and HF&H assumes that data to be accurate.*
- *The most recently available CalRecycle data for disposal (2022) at the time this analysis was conducted was used as the basis for comparison of progress from 2018. CalRecycle has since published disposal data from 2023; however, this data was not available until after the cost and diversion analyses for the 2025 ZWIP were completed and 2023 data has therefore not been included in the analysis.*

2. Cost and Diversion Analysis

- *The costs and diversion analysis figures presented in this report are estimates, and the manner in which the programs are implemented will impact actual costs and diversion.*
- *City staff costs are based on hourly wage rates and include an additional 40% to account for the City's estimated overhead costs.*
- *All costs are estimates based on the information and data provided during this process, and selected programs will be budgeted by the City for budget approval by the City Council.*

3. The report relies on representations made by City staff and management, which were assumed to be accurate.

4. The final focus areas and proposed programs were selected by City staff based on analysis of potential diversion related to community needs, and HF&H does not guarantee implementation of these programs will meet the City's diversion target.

5. The State has and will continue to pass laws and regulations that impact diversion goals and requirements for local jurisdictions. Aspects of the 2025 ZWIP Update may need to be re-evaluated in response to substantive legislative or regulatory changes.



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02

Current Challenges and Successes

Current Program Progress

The 2018 ZWIP Update included five strategies for the City to achieve its zero waste goal, as shown in Figure 1 above. Each strategy contained multiple program components, many of which were implemented by the City. The 2018 ZWIP Update did not identify quantitative metrics for all programs; therefore, the programs were qualitatively evaluated on a scale of completeness compared to what was recommended in the 2018 ZWIP Update. Qualitative measurements were determined based on perceived success of the programs (determined through City staff interviews) and how fully specific tasks were implemented. Quantitative data was also evaluated

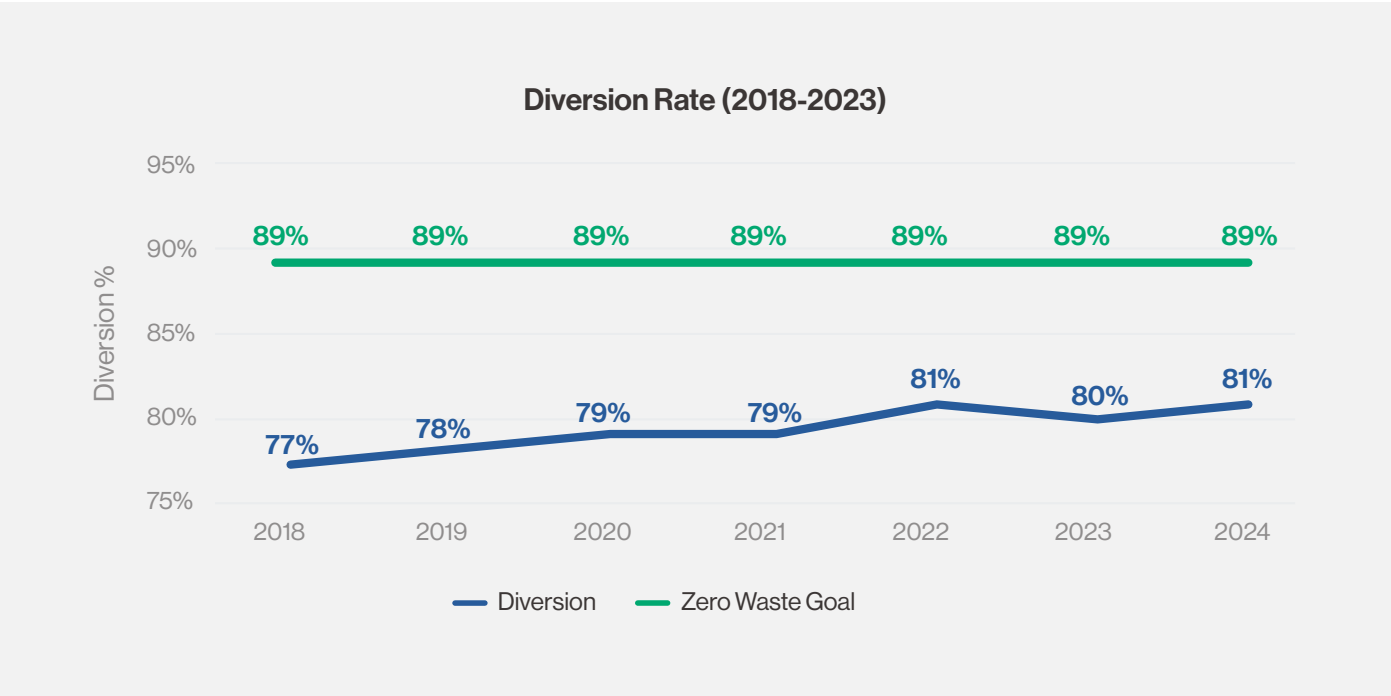
where available. Please see Attachment A for a full evaluation of the City's progress toward implementing each of the strategies, including summary status and a detailed checklist of each action item identified in the 2018 ZWIP Update. Additionally, Attachment A highlights challenges faced during implementation, such as the COVID-19 pandemic, unique challenges with the multi-family sector, lack of clear action steps, and resource limitations. It also highlights opportunities identified, including those related to the multi-family sector, bulky item collection, source reduction, business support, and construction and demolition debris (C&D) diversion.



Diversion Trends

As described in Section 1, the City set the goal of achieving an 89% diversion, or 1.2 pounds disposed per person per day (PPD), rate by 2020.² The City has not yet reached its 2020 target but has seen an increased diversion over time from 2018 to 2024. The City had a diversion rate of 77% (2.5 PPD) in 2018, which increased to 81% diversion (2.1 PPD) by 2022. The increase in diversion from 2018 to 2022 is a testament to the City’s efforts in implementing waste reduction and recycling programs since the 2018 ZWIP Update. At the time of writing this report, the latest available data from CalRecycle showed that the City’s diversion rate had dropped to 80% in 2023.³ This decline demonstrates how sensitive the diversion progress is to changes in social, cultural, economic, and political atmospheres, as well as how small amounts of waste tonnage not diverted can strongly impact the diversion rates at this stage in the progress towards Zero Waste or 89% diversion. Reduced momentum due to shifting priorities, inconsistent efforts in zero waste programs and outreach, changing consumer habits (as seen following the COVID 19 pandemic), and global market disruptions such as China’s National Sword policy⁴, can all dramatically impact diversion rates. Since the substantive drafting of this report, new data from CalRecycle for 2024 shows the City’s diversion rate recovering to 81%. In order to continue this increasing diversion trend, the City will need to continue resourcing current zero waste efforts while also investing in strategic enhancements, new programs, and deeper community engagement.

FIGURE 2. DIVERSION RATE EQUIVALENT (2018-2023)



Please see Attachment A for additional diversion figures, explanation of the diversion calculation approach, and description of the City’s overall disposal and diversion progress.

2 The City measures diversion according to CalRecycle’s calculations of per capital disposal, measured as pounds of waste disposed per person per day (PPD). This is then converted into a diversion percentage equivalent. Explanation and examples of the diversion equivalent calculation are included in Attachment A.

3 While the diversion figure for 2023 is included in this section, data published by CalRecycle in 2022 was the most recently available public data from CalRecycle at the time the analysis for this report was conducted, and therefore 2022 data has been used for the purposes of cost and diversion analysis in Section 4. The City has submitted a disposal tonnage modification request to CalRecycle, which may increase the City’s 2023 diversion number to 79%, if approved.

4 China’s National Sword policy, implemented in 2018, restricted the import of waste, particularly of plastic and paper, into China. The policy set strict contamination standards for recyclable materials and banned certain types of waste, which decreased the recycling market capacity previously available to the United States.



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section 03

03

A New Path Forward

2025 ZWIP Update Purpose and Vision

Vision

As discussed in Section 1.A, the City has made a strong commitment to climate resiliency and environmental protection, as seen in its Local Action Plan for Climate Mitigation, CARP initiatives, ZWIP, General Plan, and other City policies. Additionally, a shared priority among all these plans is supporting under-served and under-represented communities and the active engagement of these populations in all levels of City decision making. This objective remains at the forefront of the City's General Plan, CARP, and Diversity, Equity, Inclusion, and Belonging initiatives. To align with these environmental and equity goals, the 2025 ZWIP Update aims to integrate zero waste activities within all facets of the City's community. As a result, the 2025 ZWIP Update focuses on establishing meaningful connections with people in the community who have previously been left out of planning processes or faced barriers to participation in zero waste programs.

The priority populations include:

Multi-Family Properties



Multi-Family properties face unique barriers that have been challenging to address for the City and many jurisdictions. For example, the use of shared service makes educating individual tenants more complicated compared to single-family homes with clear points of contact. High turnover of tenants also makes it difficult to provide consistent on-going education and often results in significant amounts of waste during move-in and move-outs. Additionally, in recent years, the City has seen more development of multi-family complexes and an influx of young professionals and others moving to the island. Engaging the increasing multi-family population and new residents that may not yet have strong ties to the City's historic culture will be critical. The City previously conducted technical assistance to the commercial and multi-family sectors in response to recommendations from the 2018 ZWIP Update. While this assistance was largely successful, the unique barriers faced by multi-family properties warrants continued investment.

Small Businesses

Small businesses often have fewer resources than larger businesses to implement new programs and have historically received less focused support on zero waste initiatives. For example, the City's previous technical assistance efforts from the 2018 ZWIP Update focused on large businesses, because higher volumes of waste produced by large generators meant increased diversion potential per education effort. This left small businesses with the requirements to comply with City ordinances but without additional targeted support to aid them in implementing the requirements.

Low-Income Community

Taking part in the City's zero waste programs can be especially difficult for low-income individuals, due to various financial and logistical obstacles. Focus group discussions conducted during the development of the 2025 ZWIP Update uncovered that while the benefits of zero waste are recognized, the time commitment required to engage in these programs can be a barrier when juggling other priorities, such as work or childcare. Logistical challenges, such as limited transportation options for dropping off materials for disposal or reuse, or inadequate information about how to use existing programs can also hinder participation. Furthermore, programs that involve upfront costs, like switching to reusables, create an initial financial barrier.

Unhoused Community

The unhoused community faces significant structural socioeconomic barriers that make proper disposal and diversion of waste more difficult. Most pronounced is the fact that, most often, zero waste programs are designed for solid waste ratepayers. Engaging with the City's Housing and Human Services Department throughout the development of the 2025 ZWIP Update has helped build the collaboration needed to address the unique challenges for this community. However, the City will need to build connections with the unhoused community in a manner that fosters trust, addresses barriers, and economically empowers the community.

Small Construction Projects

The City regulates construction and demolition projects in order to comply with the requirements of CALGreen. The City requires projects valued at and over \$100,000". Logistically, permits with a job value of at least \$100,000 must have a Waste Management Plan for review and approval to proceed to a final occupancy inspection.. Small projects under this threshold have not been included in the City's C&D diversion program and have therefore had less opportunities to receive education and increase their diversion. There is an opportunity to expand requirements to small construction projects, but it is important to note that small projects have different operational constraints compared to large projects. For example, these projects produce a lower volume of materials and have less room on project sites for multiple debris boxes. Therefore, flexible options will be needed for this sector in order to increase diversion.

In addition to identifying who in the community needs to be engaged, the 2025 ZWIP Update identifies how this will be done.

The City has successfully implemented a number of recycling and composting efforts and achieved an impressive 81% diversion rate in 2022; however, the City's diversion rate declined in 2023 and there is still a gap in meeting its zero waste goals. In this next phase, the City needs to move beyond standard diversion programs in order to address this gap.

True zero waste must be foundational at the community level, and therefore the 2025 ZWIP Update focuses on upstream solutions like reuse and behavior change.

Behavior Change.

The 2025 ZWIP Update vision focuses on meaningful engagement with the community in order to drive long lasting behavior change. The proposed programs will be only as successful as their implementation in the community, and targeted education and engagement is necessary. Generalized education and outreach approaches applied uniformly across the community will not be effective at supporting the unique needs and barriers of each community and material stream. The 2025 ZWIP Update envisions using more innovative approaches to education and outreach, specifically Community-Based Social Marketing (CBSM), which can be used to identify and implement the most effective messaging and approaches to change targeted behaviors for specific audiences. As demonstrated by the City's reduction in diversion from 2022 to 2023, these programs are extremely susceptible to changes in social, cultural, economic, and political landscapes. To withstand this volatility, it is essential that the City develop tools to continuously engage with all sectors of the community, establish a culture of zero waste throughout the City, and consistently resource new and existing programs. Although the programs in the 2025 ZWIP Update alone are not likely to result in the City meeting its 89% diversion target, the 2025 ZWIP Update establishes the

foundational elements to build upon in order to continue progress in the long-term. It is also worth noting that the focus on equity and improved access described in this 2025 ZWIP Update will also have synergistic benefits, providing more diversion from the implementation of state-level programs like SB 54 (packaging), SB 707 (textiles), and SB 1383 (organics).

While the 2018 ZWIP Update mentions potential future consideration of downstream solutions like mixed waste processing (i.e., processing the collected landfill stream to extract recyclable and compostable materials), the 2025 ZWIP Update generally prioritizes behavior change and upstream solutions to reduce overall disposal and the amount of recoverable materials in the landfill stream. However, the 2025 ZWIP Update does contemplate that, in addition to a focus on behavior change, the collected C&D stream and illegally dumped material stream will undergo additional processing to increase diversion, as described in Attachment C. Each of these programs have unique circumstances that warrant the addition of mixed waste processing. If the City decides to pursue other forms of mixed waste processing in the future, it must be implemented carefully and not at the expense of its progress made from behavior change programs.



The 2025 ZWIP Update vision focuses on meaningful engagement with the community in order to drive long lasting behavior change.

Reuse.

While the City has successfully implemented downstream diversion programs such as mandatory recycling and composting, the most effective way to reduce waste is to stop it from being generated at the source. By promoting reuse, the City can encourage residents and businesses to repair, repurpose, and donate items instead of discarding them. This not only reduces the demand for raw materials and energy used in manufacturing new goods, but it also alleviates the strain on downstream solid waste management. Reuse practices foster a more sustainable community by creating a culture of conservation, extending the lifespan of products, and reducing overall waste generation, all of which contribute to long-term environmental benefits and cost savings for the community. The City has begun these efforts through encouraging use of reusables in its food ware ordinance, and the 2025 ZWIP Update builds on these efforts to support implementation of this ordinance and reuse markets as a whole.

Overall, the City's 2025 ZWIP Update vision above can be summarized in the following three pillars:



High impact solutions developed through deep and lasting community engagement



Manifold benefits distributed equitably across the community



Targeted programs focused on reuse and behavior change

Emerging Context

The City's ability to achieve the 2025 ZWIP Update vision will be impacted by emerging environmental, regulatory, and technological context. The 2025 ZWIP Update is designed to be adaptable and needs to be re-evaluated on a consistent and on-going basis as context changes. **Examples of emerging areas that require on-going monitoring include:**



Equity and Climate Impacts.

The City has seen a new sense of urgency in two key areas: climate change and equity. As climate emergencies increase and the City remains vulnerable as an island community, more connections are being drawn to zero waste programs and climate mitigation (e.g., methane emissions from landfills and fossil fuel extraction for plastics manufacturing). Additionally, it is recommended to implement these programs in a manner that distributes their benefits equitably across the community. Identifying disproportionate impacts to marginalized communities of waste and climate change is critical to how the City shapes its programs. This will require engagement of underserved and underrepresented communities and those who have historically faced barriers in participation in the City's zero waste programs. The City will need to continue to evaluate the 2025 ZWIP Update throughout its implementation to ensure these priority populations are represented and supported. Additionally, as climate emergencies increase and ecological landscapes shift over time, the City will need to evaluate the 2025 ZWIP Update to ensure the City's environmental priorities are addressed.



Legislative Landscape.

The regulatory landscape in California around zero waste has continued to evolve over the last few decades as California aims to be on the forefront of emerging issues. For example, the Plastic Pollution Prevention and Packaging Producer Responsibility Act (SB 54) was signed into law on June 30, 2022, and is the most comprehensive extended producer responsibility (EPR) law for single-use packaging and single-use plastic food ware in the nation. If properly implemented, SB 54 will make a positive impact on communities, local governments, and the environment. The SB 54 statute requires all packaging and food ware in the State to be recyclable or compostable by 2032 and includes required producer targets for source reduction, recycling rates, and reuse and refill. Jurisdictions are required to collect in their program any materials determined recyclable or compostable by CalRecycle. Producers must join a Producer Responsibility Organization (PRO) that is responsible for paying all costs of implementation, enrolling producers, creating programs, increasing recycling rates, and reducing pollution in disadvantaged communities.

The City has seen a new sense of urgency in two key areas: climate change and equity. As climate emergencies increase and the City remains vulnerable as an island community, more connections are being drawn to zero waste programs and climate mitigation.

A primary goal of SB 54 is to shift the responsibility for pollution and the costs to manage materials to the producers of the materials, rather than consumers or jurisdictions. The SB 54 regulations are still in development at the time of this 2025 ZWIP Update, and the bill's implementation shall be informed by the final regulations. The definitions of recyclability and compostability under SB 54 rely on AB 1201 and SB 343, two bills aimed at improving “truth in labeling” by reducing misleading claims of recyclability and compostability by setting specific standards for products to be labeled as such. Together, these laws reduce consumer confusion, improve material sorting, and enhance compliance with broader zero waste goals, empowering local jurisdictions to implement clearer and more effective recycling and composting programs.

In addition to packaging and truth in labeling, the State continues to pursue solutions across the State's material streams. SB 707, the Responsible Textile Recovery Act of 2024, introduces a pioneering EPR framework for textiles. For local jurisdictions, SB 707 will ideally alleviate the burden of managing textile waste by shifting responsibilities to producers, thereby reducing costs and enhancing the effectiveness of local recycling programs. Additionally, the law supports the development of upcycling and recycling infrastructure, benefiting local businesses and communities.

These bills represent a foundational shift in the policy framework around single-use waste and problematic materials, and the City needs to be prepared to shift with it. The City will need to be prepared for the implementation of specific policies; however, in the bigger picture, the City has the opportunity to stay ahead of the curve by adopting upstream solutions that SB 54 and future policies will support. The City will need to monitor legislation and determine whether the 2025 ZWIP Update should be revisited in light of changing policy approaches or regulatory requirements.



Technology and Social Engagement.

With ever emerging and changing technologies and methods for communication (e.g., AI, social media platforms) the City will need dynamic approaches to public engagement. Proposed programs will need mechanisms for adapting over time to meet current approaches. Technology can also be used to measure the success of programs. For example, cameras mounted on recycling collection vehicles may be used in the future to track progress toward a targeted behavior (e.g., proper source separation) in a Community Based Social Marketing (CBSM) campaign. In addition to communication and programmatic changes, changing technology can impact diversion rates through new sorting and processing technology, as well as upstream changes in product design. The City will need to continuously evaluate its approaches to meet shifting technological and social landscapes.

Focus Areas and Priority Programs

With the 2025 ZWIP Update vision and context in mind, HF&H and City staff identified four program focus areas, shown below, to guide the community engagement meetings described in Section 3.B. Subsequently, City staff presented an update on the status of the ZWIP to City Council on October 15, 2024, as described in Section 3.B. This update included community engagement efforts conducted, the four areas of focus, and three proposed priority programs. The priority programs identified by City staff focused on increasing diversion and meeting the 89% diversion target while achieving equity goals, and included enhancing the bulky item collection program, managing illegal dumping, and supporting the low-income and unhoused communities. City staff sought feedback from City Council on the presented draft focus areas and priority programs. The input received on these focus areas and priority programs informed the selection of the 12 proposed programs in Section 4.

FOCUS AREAS



BEHAVIOR CHANGE

Provide targeted assistance to the multi-family sector to increase diversion

Provide resources to small businesses to achieve zero waste

Increase access to bulky item collection services



REUSE

Support businesses in complying with the City's food ware ordinance

Support "bring-your-own" initiatives

Promote and increase access to reuse markets



WASTE REDUCTION

Rebrand the zero waste program to increase awareness and promote behavior change

Demonstrate leadership by improving zero waste practices at City facilities and events

Provide support for the unhoused community

Reduce instances of illegal dumping



CONSTRUCTION & DEMOLITION

Support construction projects to implement best practices for waste diversion

Support, incentivize, and promote deconstruction practices

PRIORITY PROGRAMS

01

Enhancing the bulky item collection program



02

Managing illegal dumping



03

Supporting the low-income and unhoused communities



Community Engagement




The development of the 2025 ZWIP Update was heavily influenced by community engagement, aiming to foster the City's zero waste culture and address barriers limiting participation. The 2025 ZWIP Update reflects a community-driven approach to creating more effective and equitable zero waste programs and incorporates the following stakeholder engagement activities.

Engagement Activities

Community Meetings

The City conducted 10 meetings and presentations with diverse stakeholders between June and August of 2024. The targeted audiences and meeting dates are listed in Figure 3 below.

FIGURE 3. SUMMARY OF COMMUNITY MEETINGS

 <p>COMMUNITY MEETINGS</p> <hr/> <p>Joint CARP and ZWIP Workshop (6/25/24)</p> <hr/> <p>Businesses and Commercial Generators (7/10/24)</p> <hr/> <p>Community-Based Organizations: In-person (7/15/24) and Virtual (8/26/24)</p> <hr/> <p>Youth and Families Meeting (7/17/24)</p>	 <p>BUSINESS COMMUNITY PRESENTATIONS</p> <hr/> <p>Chamber of Commerce Government Relations Committee (8/14/24)</p> <hr/> <p>Downtown Alameda Business Association (DABA) Monthly Mixer (8/21/24)</p> <hr/> <p>West Alameda Business Association (WABA) Monthly Mixer (8/28/24)</p>	 <p>CITY OPERATIONS MEETINGS</p> <hr/> <p>Executive Assistants, Purchasing, and Community and Economic Development Staff (8/20/24)</p> <hr/> <p>Operations, Maintenance, Streets, and Capital Improvement Staff (8/20/24)</p>
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Audiences were presented with the list of focus areas shown in Section 3.A.3, for which they could discuss and share support, concerns, and considerations. Participants could also raise additional commentary for programs not explicitly expressed in the focus areas. A few of the areas that received the highest public support included:

- **Increase Public Education.** There was widespread support and call for increased public education, with tailored messaging that is accessible to all in the community.
- **Support Multi-Family Sector.** Participants highlighted that the multi-family sector faces unique challenges, and specific education is needed to help remove barriers.
- **Support Businesses with Zero Waste Practices and Reusables.** There was a desire to support local businesses in complying with the food ware ordinance and transitioning to reusable food ware.
- **Enhance Use of Bulky Program.** There was significant support for the existing bulky program; however, participants stated that additional education is needed to ensure the program is used effectively.
- **Reduce Illegal Dumping.** There is a desire to reduce illegal dumping in the City, and participants drew a connection between improving the bulky program as a method to reduce illegal dumping.



The development of the 2025 ZWIP Update was heavily influenced by community engagement, aiming to foster the City's zero waste culture and address barriers limiting participation.

Focus Group Discussions

Focus group discussions are unique from more general community meetings in that they provide a targeted approach to engaging communities that may have historically lacked equitable representation in decision making processes. An intimate discussion with limited members (generally 10-15 members at a maximum) of a unique community creates an environment where participants can share candid responses, ascertain vignettes, and develop a common understanding or collective ownership of a communal problem.

During the development of the 2025 ZWIP Update, the City held two focus group discussions in July of 2024. The first was held for property managers of multi-family homes, business parks, or other commercial developments, and the second was held for housing insecure and low-income communities. During both focus group discussions, participants were presented with the overarching goals and focus areas of the City's zero waste plan. They were then encouraged to share ideas, concerns, and questions around the City's goals and plans. Key themes from each focus group are presented below.

Property Managers

- **Cost Concerns.** Many managers expressed concerns about the cost of managing waste, particularly when material was illegally dumped on their property or when tenants did not follow proper waste management practices.
- **Tenant Compliance.** Participants highlighted that it can be difficult to motivate or require tenants to abide by proper waste management practices due to lack of accountability and turnover.

Housing Insecure and Low-Income

- **Education.** Many participants expressed a lack of engagement from the City and ACI on available zero waste services and why these programs are important. Particularly, a lack of information on bulky recycling services, including how to use the service properly and the benefits of the service, was highlighted as an area of improvement.
- **Increased Access to Programs.** Participants expressed interest for more resources to assist them in utilizing existing zero waste programs. For example, they expressed interest in support for seniors who are unable to use the service properly (e.g., how to measure the 3 cubic yards) and the benefits.

Survey

A statistically valid survey was conducted in September 2024 to gauge Alameda residents' attitudes toward zero waste. The survey included a random sample of 350 residents and demographic characteristics were monitored. Fifty-four percent of respondents were from single-family homes, 38% from multi-family properties, and 8% from another type of home. Some trends highlighted by the survey results are listed below. More details and survey trends are included in Attachment B.

Making Progress

The three highest ranked strategies were all programs that were fully implemented by the City after the 2018 ZWIP Update. This demonstrates the success of that implementation and understanding of the programs within the community.

Motivations.

Responses showed that environmentalism is an important driver that motivates individuals to support zero waste initiatives. The top three reasons participants cited as important for participation in the ZWIP programs were related to environmental protection.

Barriers.

The most commonly reported barrier to properly sorting waste into recycling and composting bins was that "it is confusing." Sixty-five percent of the respondents felt they did not understand how to properly sort their materials. There was also lack of awareness about ZWIP programs, as only 31% of respondents had seen, heard, or read about the ZWIP. Once given more information about the ZWIP, 88% of respondents were supportive. This reinforces that more consistent branding and education campaigns by the City will be helpful for gaining community awareness and support for zero waste programs.

Program Effectiveness.

When presented with a list of programs from the 2018 ZWIP Update, respondents marked their perception of how effective that strategy is at helping the City achieve its zero waste goals. The top three and bottom three strategies are shown below.

Strategies ranked most effective:

- *Bulky item collection service*
- *Mandatory recycling and composting service*
- *Providing education to businesses on recycling/composting*

Strategies ranked least effective:

- *Encouraging customers to bring reusable cups and containers to businesses*
- *Requiring straws and utensils to be provided only upon request*
- *Providing education to residents on recycling/composting*

The three highest ranked strategies were all programs that were fully implemented by the City after the 2018 ZWIP Update. This demonstrates the success of that implementation and understanding of the programs within the community. The lowest ranked strategies include two related to reuse and source reduction of food ware. This shows that further education and outreach may be needed on the effectiveness of source reduction as a next level diversion strategy beyond the existing compost and recycling programs. With this consideration in mind, the 2025 Update proposes focusing on education and technical assistance first, to help shift public opinion and build the support needed to implement more robust source reduction and reuse policies in the future.

Equity Scans

The City conducted two rounds of “Equity Scans” of key programs to ensure that these programs were grounded in equity through a collaborative stakeholder process. The City’s equity scans, based on the process developed by the San Francisco Department of the Environment, included gathering a varied group of stakeholders to analyze programs or policies to determine potential improvements to the equity of access and implementation of programs. During the scans, the desired result, data needs, key stakeholders, strategies for equity, and implementation strategies were discussed. The first Equity Scan session focused on programs related to on-call cleanups, illegal dumping, and support for the unhoused community, with staff representing the City’s Zero Waste Program, Building and Code Enforcement, and Housing and Human Services Departments.

Major themes from the first Equity Scan session focused on bulky item collection, illegal dumping, and support for unhoused communities included:

- **Leverage Current Agreement to Expand Education Around On-Call Cleanup:** No changes are needed to the process of collecting bulky items from residents, but the City needs to focus on utilizing ACI to increase participation by multi-family customers through additional outreach. A survey conducted by ACI or the City to determine how the program is getting utilized based on customer type, area, and material type will also help sharpen the City’s focus in future years.
- **Develop Tracking and Enforcement of Illegal Dumping:** Raising awareness among City departments on the programs currently available will help determine if any additional resources are needed. Furthermore, the program would benefit from a stronger enforcement mechanism to help incentivize residents to use the available on-call cleanup services from ACI.
- **Collaborate Around Unhoused Support:** Participants gained further understanding around the existing encampment cleanups and services and where there may be opportunities for synergy around City collection services and diversion opportunities. To encourage use of the facilities instead of illegal dumping, Zero Waste Program staff will determine whether access to the available material drop-off facilities can expand to those without identification or a physical address. There may also be an opportunity to co-locate a Zero Waste Day near an encampment cleanup and to expand the event to include hazardous waste collection and a community garage sale or swap where all community members are welcome to participate. Participants acknowledged the need to take a holistic approach and emphasized that zero waste support needs to be combined with other City support services such as mental health and hygiene services.
- **Install Steps for Program Accountability:** City staff determined that there needs to be a system for feedback and accountability to the public and elected officials. Staff envisioned developing a board or public committee that hosts quarterly meetings and solicits feedback from a diverse group of stakeholders that may not be currently engaged or are underrepresented.



Engaging with the City’s Housing and Human Services Department throughout the development of the 2025 ZWIP Update has helped build the collaboration needed to address the unique challenges for the unhoused community.

The second Equity Scan reviewed the City's food ware ordinance and included City Zero Waste Program staff, Economic Development Department staff, and representatives from DABA, WABA, and the Alameda Chamber of Commerce. Major themes from the second Equity Scan included:

- **Improve Internal City Collaboration Prior to Outreach to Businesses:** Participants voiced issues with receiving mixed messaging from different City representatives and departments and asked that the City improve internal messaging to present requirements during the initial business licensing and inspection processes. Zero Waste Program staff can also look further into internal opportunities for funding that businesses can access, such as the City's Façade Improvement Grant, as they research available funding opportunities in the City and the region. Lastly, the City staff recognized that internal events and facilities must comply with the food ware ordinance and that the City needs to serve as a model for its business community.
- **Enhance Outreach Materials and Coordinate Approach:** On the topic of the Zero Waste Program rebrand, participants asked that educational materials are updated to clearly answer what covered businesses need to do, how to do it, and how to pay for the changes. The representatives from each of the business associations also offered to provide feedback and insight into the educational materials and to directly contact businesses to find success stories and those that need further assistance. Furthermore, City staff noted that there may be some opportunities to utilize CBSM when designing the education materials and how it is best distributed to the community.
- **Develop a Foundation of Reuse Culture:** Participants expressed that a regional approach and/or strong support from customers for reusables could help ease the transition to reusable food ware. Additionally, many businesses are unaware of how to practically implement a cost-effective reusable program that customers are willing to participate in. This highlights the need to build momentum around the use of reusables through education, pilot programs, and modeling of best practices prior to broadly encouraging this change.

For full descriptions and implementation steps for each program, see Attachment C: Proposed Program Descriptions

City Council Meetings

On October 15, 2024, City staff presented an update and sought City Council feedback on key components of the 2025 ZWIP Update. This presentation included:

- Background on the 2025 ZWIP Update's objective, structure, and progress
- A summary of engagement activities conducted
- The focus areas and proposed priority programs described in Section 3.A.3.
- Key points of feedback received from City Council at the October 15, 2024 meeting included the following:

There was overall support for the 2025 ZWIP Update and City Council did not indicate any major changes needed for the proposed focus areas and priority programs

- There is an opportunity for cross-connection between the CARP and ZWIP efforts
- On-going education and outreach is a priority to include in the ZWIP
- The City wishes to lead by example with waste reduction efforts
- Ensuring there is capacity and availability for the bulky program is a priority, and there was a desire to focus on bulky item collection rather than centralized bulky item drop off events.
- The multi-family sector is a beneficial point of focus
- Additional efforts are needed to address illegal dumping, including potential enforcement options
- There is a desire to engage youth and schools in zero waste programming⁵

⁵ It is anticipated that engagement with schools will initially come from ACI, who provides services to the Alameda Unified School District. A schools program was therefore not included as a new recommended program under the 2025 ZWIP Update. The City will continue to monitor ACI's implementation of the schools program as part of the franchise agreement oversight and consider future changes to school programming as needed. The City may also consider an education campaign for schools as part of the annual CBSM campaigns described in Program #3 in Section 4.A.1.

Takeaways

Key takeaways from the overall engagement process for the 2025 ZWIP Update include:

Community Engagement Takeaways



Increase education and outreach to empower residents to successfully implement zero waste practices, using clear and coordinated messaging.



Remove barriers to participation in current recycling programs and increase opportunities for diversion of materials.



Provide additional support to specific communities, such as multi-family properties, small businesses, and low-income and unhoused communities.



Provide more opportunities for reuse.



Reduce illegal dumping and identify program overlaps that support this goal, such as enhancing the bulky item program.



Improve coordination between City departments and demonstrate zero waste leadership by the City.



Use a combination of incentives, feedback, and enforcement to ensure accountability.



City of Alameda

Zero Waste
Implementation
Plan 2025

section 04

04

Proposed Programs

A Programs and Policies

Based on the public input received, assessment of historical performance, and guidance from City staff, the following programs and policies are proposed. These programs were selected to investigate untapped diversion potential, meet the City's overarching equity goals, and establish opportunities to adapt to changes at the state and local levels. Some programs have been designed as shorter-term pilot studies, while others

focus on on-going engagement. Each program should be reviewed periodically, at a minimum between years one and three of the program, for effectiveness and the potential to implement future program features. This list is intended to be a high-level summary of the programs. Attachment C provides a more detailed description of each program, including background, assumptions, and key steps for program implementation.

Proposed Programs Summary

PROGRAM 1: CONDUCT A CITY ZERO WASTE REBRAND

Target Audience/Community: City-Wide General

Target Materials Diverted: All/General

Description:

As part of the recommendations from the 2018 ZWIP Update, the City planned to conduct a rebrand of the current Zero Waste Program under the Public Works Department as a new initiative called "Zero Waste Alameda." This rebrand was not conducted, as described in Attachment A, but the City now has the opportunity to initiate these efforts. Compelling and consistent branding allows initiatives to be immediately recognized as part of the City's zero waste efforts and requirements. This branding along with robust public education creates a positive public impression and aims to increase participation, reduce confusion, and ultimately support behavior change.

This program will include hiring a design firm to develop a new brand profile for the program (e.g., logo, colors) and template materials, as well as developing robust public education and outreach materials. This program proposes that the City update current education materials and the Zero Waste Program webpage with the new branding, as well as develop a suite of new public education and outreach materials (e.g., brochures, guides, flyers, videos) that can be distributed as part of the other recommended programs. The program will also include collaborating with third parties, such as working with ACI to update their education materials and identifying influential community organizations for collaborations on education campaigns and messaging. The program may be rebranded as "Zero Waste Alameda," as previously recommended in the 2018 ZWIP Update, or as another name determined by City staff and the selected design firm. Regardless of the selected name, it is critical that the branding be used consistently and persistently in order to ensure recognition and retain momentum of the City's efforts.

One-Time Start Up Cost	\$242,000
On-Going Annual Cost per Year	---
On-Going Full Time Equivalent Staff per Year	---
Diverted Tons per Year	1,496
Change in Diversion	0.98%

For full descriptions and implementation steps for each program, see Attachment C: Proposed Program Descriptions

PROGRAM 2: CONDUCT A MULTI-FAMILY DWELLING BULKY PROGRAM CBSM CAMPAIGN

Target Audience/Community: Multi-Family Properties

Target Materials Diverted: Bulky Items

Description:

Bulky item collection programs are a helpful tool to divert waste, encourage behavior change, and address illegal dumping and improper disposal of materials. Under the City's new franchise agreement (updated as a result of recommendations from the 2018 ZWIP Update), the City's bulky item collection program was expanded to allow single-family and multi-family residents to place bulky items out once per year for collection by the City's franchise hauler, ACI. However, despite prior education efforts by ACI and the City, the program has been underutilized, with an overall participation rate of approximately 40% and nearly 90% of usage by single-family residents. This participation rate is not out of line with other regional programs, suggesting there is opportunity for the City to collaborate with other jurisdictions to share ideas and solutions for increasing bulky program utilization. Community stakeholders reported that multi-family residents are not utilizing the bulky item collection service because they are not aware of the program, and more robust messaging is needed in order to reach these residents. The multi-family sector in particular is an important sector to support and target for bulky item collection programs, considering the unique challenges that sector faces (e.g., high tenant turnover, high volumes of waste during move-in and move-outs, communication barriers with property managers).

This program proposes that the City conduct a Community Based Social Marketing (CBSM) campaign targeted at increasing awareness of and participation in the bulky item collection program at multi-family properties. This campaign will also serve as the first CBSM plan developed as part of the City's ongoing CBSM program described below in Program #3. This campaign will follow CBSM principles, including identifying barriers to participation, selecting behaviors to target, and conducting a pilot study. The CBSM pilot program is intended to produce a set of tested, educational treatments that can be applied to other buildings in the City with similar conditions; however, the pilot program may need to identify treatments for several different types of barriers in order to scale the education tools across the City, as each property has different barriers. Potential educational tools may include door hangers, postcards, digital media, in-person engagements, and community events. Results from the campaign may also indicate a need for other programmatic changes such as when bulky item pickup is offered or how to schedule a pickup. Following the pilot program, the City will conduct on-going education for multi-family properties, using the identified educational approaches. Particularly considering the issue of high turnover at multi-family properties, new tenants will need to be educated using on-going CBSM strategies to support effectiveness of education efforts. The program anticipates that the City will engage a third-party contractor with experience in CBSM programs to conduct the CBSM campaign.

Additionally, considering the goal of the program is to increase participation in the bulky item collection program, this program assumes that increased participation will exceed the capacity of the current bulky item collection route. The City will need to evaluate the results of the program and meet and negotiate with ACI regarding adding a second bulky item collection route. This potential new cost is reflected in the on-going annual cost per year for this program, and such costs will be lower if not adding a new route.

One-Time Start Up Cost	\$186,000
On-Going Annual Cost per Year	\$565,000
On-Going Full Time Equivalent Staff per Year	0.45
Diverted Tons per Year	1,473
Change in Diversion	0.96%

PROGRAM 3: CONDUCT ANNUAL CBSM CAMPAIGNS

Target Audience/Community: Multi-Family Properties/City-Wide (audience may vary annually)

Target Materials Diverted: All/General

Description:

Education is critical to achieving culture change at the community level. However, with numerous types of educational approaches and sectors with distinct needs, there is a high likelihood for education to be ineffective unless specifically tailored and adapted to the audience. CBSM tools, as described above, can be used to identify barriers and benefits in various sustainability programs, such as participation in recycling initiatives.

This program proposes that the City conduct on-going CBSM campaigns to identify the barriers and benefits to participation in waste reduction programs and offer targeted education to various communities across the City. The first CBSM campaign will be targeted at Multi-Family properties, as described above in Program #2. The focus of these campaigns will shift year to year based on the specific needs of each target audience identified through CBSM processes; however, the program proposes to place an initial focus on educating the multi-family sector. Targeting the multi-family sector will help increase diversion and address the unique barriers and benefits of the sector described above, as well as create positive ripple effects to all other programs by increasing participation and fostering a culture of sustainability with residents of the City. There was significant support during the stakeholder engagement process for enhanced education and support for the multi-family sector, and specific feedback was provided on program features that will be most effective for that sector. Other sectors the City can consider targeting with a CBSM campaign include low-income communities, schools, and small businesses. Regardless of the target program, a variety of CBSM strategies can be used to drive behavior change, such as social norms, public commitments, and visual prompts. Throughout all of the CBSM approaches, providing multilingual materials and using visuals to explain the process can help overcome language barriers and make the information more accessible to all.

The program will include conducting an annual evaluation of the prior year's CBSM campaign to inform the design of the next year's campaign and a standard operating budget of \$250,000 to pay for the staffing and direct costs of implementing the identified campaign. The size of the CBSM campaigns may vary depending on the behaviors targeted and the operating budget may cover one or multiple CBSM campaigns each year. The City may consider conducting these annual CBSM campaigns after the completion of the multi-family bulky program campaign (Program #2), in order to minimize strain on City staff resources and provide an opportunity to apply lessons learned from the pilot program to refine future CBSM strategies, ensuring a more effective approach for the broader program implementation. The program anticipates that the City will engage a third-party contractor with experience in CBSM programs to conduct the program.

One-Time Start Up Cost	---
On-Going Annual Cost per Year	\$413,000
On-Going Full Time Equivalent Staff per Year	0.02
Diverted Tons per Year	2,260
Change in Diversion	1.48%



PROGRAM 4: DEVELOP GUIDELINES FOR PERMITTED CITY EVENTS

Target Audience/Community: City-Permitted Events

Target Materials Diverted: All/General

Description:

With numerous attendees, high volumes of food service, and multiple parties involved in oversight, a single event can generate significant amounts of waste in a short amount of time. Under State law, events and venues are required to implement basic waste reduction programs (AB 2176) and recover edible food if over a certain size (SB 1383). The City's special events application includes the requirements to comply with the City's food ware ordinance and arrange for collection of solid waste, recyclable materials, and organic materials through ACI. However, there is an opportunity for the City to take a further leadership role in improving diversion at events and venues in the City. The City can implement upstream practices such as encouraging source reduction and increasing education, as well as downstream practices such as improving sorting stations and donating items to aid in compliance.

This program proposes that the City implement a zero waste program for special events requiring a City permit to operate (approximately 42 per year) in order to set an example and serve as a role model for the community. These efforts will include developing policies and guides, which may address areas such as source reduction, use of sustainable vendors, education and signage, acceptable food ware alternatives, encouragement for reuse, suggested features (e.g., water hydration stations to refill water bottles), food recovery, downstream management of waste, clean-up programs, and reporting. In particular, including more robust reporting requirements will be critical to allow the City to monitor program progress over time and identify specific areas of improvement. Additionally, the City will provide infrastructure and education materials, monitor events, and provide on-going support with zero waste event practices. In alignment with the goals of the 2025 ZWIP Update, it is recommended that the program place a focus on reuse as a key strategy to improve diversion. In order to ensure the program is implemented effectively, the City will need to monitor events and enforce the requirements if not met. Such monitoring may include having City staff on-site both before the event to inspect event set up and ensure proper systems are in place and after the event to evaluate how the event was implemented. The City will have the ability to enforce the program, through mechanisms like education, penalties, or permit revocation in the case of repeated violations, in order to ensure accountability for the program.

One-Time Start Up Cost	\$34,000
On-Going Annual Cost per Year	\$17,000
On-Going Full Time Equivalent Staff per Year	0.14
Diverted Tons per Year	5
Change in Diversion	Less than 0.01%

PROGRAM 5: DEVELOP ZERO WASTE POLICIES FOR CITY DEPARTMENTS

Target Audience/Community: City Departments

Target Materials Diverted: All/General

Description:

In order to demonstrate the importance of zero waste behavior, the City has the opportunity to lead by example within its own departments and facilities. In recent years, the City has started the process to update its Environmentally Preferable Purchasing Policy, particularly to align with the recycled paper procurement requirements under the State's SB 1383 regulations. While these are beneficial first steps, the City has the opportunity to develop a more targeted and holistic model, with more dynamic monitoring, to successfully increase diversion and demonstrate culture change. This aligns with priorities in the community, as the City setting the example was a theme heard during the stakeholder engagement process for this 2025 ZWIP Update.

This program proposes that the City develop internal staff policies to encourage zero waste and support implementation of the policies through trainings and monitoring. The guidelines would be developed in a manner that allows for variation by department, based on specific needs. This will include the Zero Waste Program staff conducting interviews with each department and developing department-specific action plans to implement policies and actions applicable to that department. For example, some departments may require a dishwasher for reusable food ware programs whereas other departments may focus on solutions such as removing desk-side trash containers to encourage use of sorting stations and reusable materials. A list of example policy components has been included in Attachment C.

The program will include incentives to encourage participation (e.g., funding, recognition, competitions) as well as selection of a "sustainability ambassador" in each department, to improve internal buy-in to the programs. To set departments up for success, the program includes trainings for department staff (including janitorial staff) on the new requirements. These trainings will occur in the first year of the program and annually thereafter. This training will allow Zero Waste Program staff to educate other department staff as well as provide outreach materials and tangible resources (e.g., containers) for their department to use on an on-going basis. Annual reporting on the status of the action plan by each department, as well as on-going monitoring and audits will allow Zero Waste Program staff to provide recommendations for improvement to each department and identify where additional support or accountability may be needed.

One-Time Start Up Cost	\$37,000
On-Going Annual Cost per Year	\$23,000
On-Going Full Time Equivalent Staff per Year	0.11
Diverted Tons per Year	746
Change in Diversion	0.49%



The City has the opportunity to develop a more targeted and holistic model, with more dynamic monitoring, to successfully increase diversion and demonstrate culture change.

PROGRAM 6: PROVIDE SMALL BUSINESSES SUPPORT AND RESOURCES

Target Audience/Community: Small Business

Target Materials Diverted: All/General

Description:

Local businesses are vital members of the community in Alameda and continue to be critical to the success of City-wide zero waste efforts. In response to recommendations in the 2018 ZWIP Update, the City previously contracted with a third-party contractor to conduct technical assistance to commercial generators and the multi-family sector. This assistance placed an initial focus on targeting “large generators” with high volumes of waste. While this focus on large generators had a positive impact on diversion, it left small businesses without support to implement programs like the mandatory food ware ordinance. Additionally, the technical assistance focused mainly on mandatory composting and recycling requirements without a focus on reuse and general zero waste programs. A theme heard throughout the community engagement process for the 2025 ZWIP Update was that more engagement with and support for local businesses will be needed during implementation of zero waste programs.

This program proposes that the City provide additional resources and support specifically to small businesses to implement zero waste practices within their business operations. This will include reinitiating technical assistance visits conducted by a third-party contractor. These visits will be targeted at small businesses rather than large generators, with a greater focus on zero waste practices and reuse. The City can develop a “Zero Waste Start-Up Kit” to provide to local businesses as part of this assistance. This kit can be provided to new businesses to ensure they are proactively implementing zero waste practices, as well as to current businesses that need to come into compliance with requirements such as the food ware ordinance or that wish to expand their zero waste practices. This kit may include components such as: informational videos, checklists, signage, internal containers, trainings, and more. It is recommended that this technical assistance include general outreach such as providing education materials, as well as in-person engagement, and staff would continue to explore ways to engage with businesses in their opening phase (versus post-opening). Developing relationships with small businesses will be critical to success, and providing in person outreach can support this goal. The City can also develop positive relationships by providing recognition for the businesses that are succeeding at zero waste practices, such as being featured on the City’s website or social media or receiving awards or decals that can be displayed in the businesses’ windows. This type of recognition not only rewards local businesses for their commitment but also demonstrates a culture of zero waste to the broader community, fostering a culture of sustainability.

One-Time Start Up Cost	\$84,000
On-Going Annual Cost per Year	\$33,000
On-Going Full Time Equivalent Staff per Year	0.06
Diverted Tons per Year	57
Change in Diversion	0.04%

PROGRAM 7: DEVELOP A GRANT PROGRAM FOR TAKE AWAY REUSABLES CUPS

Target Audience/Community: Small Business

Target Materials Diverted: Disposable Food Ware

Description:

In October 2017, the City demonstrated its commitment to reducing plastic pollution and diverting waste by developing a disposable food ware ordinance that requires businesses to use only reusable or compostable fiber-based food ware, and in 2022 adopted additional provisions requiring single-use food ware accessories and condiments to be provided upon request. With a multitude of different types of food ware items at restaurants, each with different uses and types of alternatives available, making the switch to reusables does not happen instantaneously. One strategy that can be used is a phased in approach, which more narrowly targets one material type initially, in order to build habits around reuse. For example, “bring your own” (BYO) campaigns have emerged across the State to encourage reuse of targeted items such as reusable bags and reusable to-go cups. While to-go cups are often designed as “recyclable” or “compostable,” many end up in landfills or are littered into the environment. Additionally, paper cups are often lined with polyethylene plastic, making them difficult to compost. Small plastics such as lids and straws that accompany cups are also not recyclable and clog machinery at recycling facilities. Switching to reusable cups helps mitigate these issues and is a tangible first step that consumers can take to shifting to zero waste practices.

This program uses a phased-in approach to promoting reusables, with an initial focus on developing a grant program to provide funding to small businesses to transition to reusable to-go cups. This approach aligns with the feedback received during the engagement process, which included strong support for reusables from stakeholder meetings but lower support for reusables from survey results. This variation in support indicates that a slower transition to reusable policies that focuses first on developing broad based support for the idea of reuse infrastructure may be necessary for widespread effectiveness. The proposed grant program will include awarding 10 grants of \$5,000 each per year over a span of five years to small businesses in the City. This funding can be used by small businesses to develop reusable cup programs, such as partnering with reusable cup return services. For example, 12 businesses in the City are partnering with Okapi Reusables, a reusable cup return service. This program proposes that the City develop education and outreach materials about the grant program, including outreach to the businesses as well as education materials that businesses can display for customers regarding the program. After the first and third year of the program, the City will evaluate the program to determine whether it should be expanded to other reusable materials or service types.

One-Time Start Up Cost	\$150,000
On-Going Annual Cost per Year	\$57,000
On-Going Full Time Equivalent Staff per Year	0.02
Diverted Tons per Year	3
Change in Diversion	Less than 0.01%



REUSABLES

This program proposes that the City develop education and outreach materials about the grant program, including outreach to the businesses as well as education materials that businesses can display for customers regarding the program.

PROGRAM 8: EXPAND C&D PROGRAM

Target Audience/Community: Small Construction and Demolition Projects

Target Materials Diverted: C&D

Description:

While the City has set largely successful C&D diversion programs and standards through requirements in the municipal code, waste management plans, and the use of the Green Halo reporting system, the City has the opportunity to divert even more waste not regulated under the current program. In addition to meeting the diversion requirement of 65% set forth under CALGreen, the City currently requires construction and demolition projects valued at and over \$100,000⁶. Permits with job values of at least \$100,000 or more must create a WMP utilizing GH for review and approval. Such project applicants must also consider deconstruction, to the maximum extent feasible, to prioritize reuse of the materials. C&D is a high tonnage material with potential to impact the City's waste stream and increase diversion.

To increase diversion, this program proposes expanding such requirements to smaller C&D projects (approximately 100 new projects), increasing the amount of education to support projects, and monitoring compliance. The City will maintain the diversion requirement of 65%, in alignment with CALGreen requirements, but expand the diversion and WMP requirement to all projects, including small projects with a cost under \$100,000. It is important to note that small construction projects have unique features and barriers compared to larger projects, such as generating less material and having less space at project sites for large debris boxes. This program proposes to include a "Fast Track" option for the WMP process for small construction projects that decide to have ACI collect their mixed C&D box. For example, the project permittee could open a WMP in the City's software system at the beginning of the project, and it would then be ACI's responsibility to ensure material is delivered to a facility that diverts at least 65% of C&D and to subsequently report diversion to the City via their quarterly reports. This approach allows small projects to meet diversion requirements with less administrative and logistical burden. While the 2025 ZWIP Update generally prioritizes upstream solutions over downstream solutions like mixed waste processing, the C&D stream is unique, and processing of mixed C&D is a commonly used practice in the industry under CALGreen. One downside of the fast-tracked system that relies on ACI to ensure and report diversion is that there are less direct touch points between the small projects and the City. Therefore providing additional technical assistance and education will be critical, as described below.

To support projects in complying with and implementing best practices, this program proposes that the City develop public education and outreach materials and provide targeted technical assistance to all newly regulated projects. It is recommended that a main focus of the education be on deconstruction⁶ and reuse at the project sites, in alignment with the 2025 ZWIP Update's reuse and behavior change approach. Following this education-first approach, the City will have authority to enforce requirements of the program, pursuant to the Municipal Code. The City will need to continue to monitor compliance with the program.

One-Time Start Up Cost	\$16,000
On-Going Annual Cost per Year	\$84,000
On-Going Full Time Equivalent Staff per Year	0.73
Diverted Tons per Year	228
Change in Diversion	0.15%

⁶ "Deconstruction" is an alternative to demolition that involves the careful disassembly of buildings to salvage materials to maximize reuse and recycling.

PROGRAM 9: CONDUCT ENFORCEMENT FOR ILLEGAL DUMPING

Target Audience/Community: City-Wide General

Target Materials Diverted: Illegally Dumped Materials

Description:

Illegal dumping of waste is a common problem that many jurisdictions face, with potentially significant consequences. When waste is improperly discarded, it often ends up in public spaces such as streets, parks, or waterways, leading to pollution, potential health hazards, aesthetic degradation, and strain on public resources. The City uses the “See-Click-Fix” system, which allows the public to report instances of illegal dumping to the City and provides a method for the City to track illegal dumping metrics. This system is mainly utilized to process service requests; however, it has potential to help monitor dumping trends and gather the necessary data to focus the City’s enforcement efforts. The City has also invested in clean-up efforts in the City, including through the City’s contract with ACI and through bi-monthly encampment cleanups that provide opportunities for those experiencing homelessness to access social services and disposal resources.

This program proposes that the City enhance its monitoring of illegal dumping, including installing cameras and signage at key illegal dumping hot spots and conducting follow-up enforcement in response to violations identified. Alameda Municipal Code updates would likely be required as part of this proposed enforcement. Based on analysis of illegal dumping hot spots from the City’s current data, the program anticipates that 20 cameras will be installed, including lighting and informational signage about reducing illegal dumping. The City will review footage when complaints are received to capture information about the instance of illegal dumping, confirm whether enforcement is necessary, and conduct follow-up enforcement as needed.

In addition to enforcement and monitoring, illegally dumped materials that are collected will be processed to recover reusable and recyclable materials. While the program’s main focus is on behavior change in alignment with the 2025 ZWIP Update goals, once materials have already been illegally deposited the City can further support its diversion goals by processing this unique material stream that would otherwise be disposed.

This program is designed to be implemented in tandem with the bulky item program described in Program #2 to provide education regarding collection alternatives to common illegally dumped materials. The success of the bulky program is anticipated to improve issues with illegal dumping, particularly at multi-family properties, as it will increase the likelihood of these materials being properly collected rather than illegally dumped. The costs of these two programs are also linked, as the resources ACI uses to collect both bulky and illegally dumped items are shared. As use of the bulky program increases, ACI will have less capacity to address illegal dumping, and the City will need to consider if an additional route for collecting these items will be necessary (this potential cost is included in Program #2). Alternatively, if illegal dumping is significantly reduced through this program, additional capacity may be available for increased Bulky Item Collections utilizing ACI’s current resources. This combination of education and accountability is critical to creating a holistic approach to reducing illegal dumping.

One-Time Start Up Cost	\$11,000
On-Going Annual Cost per Year	\$325,000
On-Going Full Time Equivalent Staff per Year	0.48
Diverted Tons per Year	522
Change in Diversion	0.34%



PROGRAM 10: PILOT AN EDUCATION & RESOURCE PROGRAM FOR THE LOW-INCOME COMMUNITY

Target Audience/Community: Low-Income Community

Target Materials Diverted: All/General

Description:

The City has a strong commitment to supporting low-income communities, as part of its General Plan and other initiatives. The City conducted stakeholder engagement specifically with the low-income community as part of the 2025 ZWIP Update, and a clear theme was that this community wishes to be included in the City's zero waste efforts but faces specific barriers to participate. Creating more educational opportunities and increasing access to programs is needed to support behavior change around zero waste programs.

This program proposes that the City issue a Request for Proposals (RFP) for a third-party to develop and implement a strategy for increasing reuse and recycling opportunities for the City's low-income community. The program developed would initially be implemented as a pilot program, requiring further evaluation prior to large-scale implementation. An example of this type of partnership is the City of Alameda Housing Authority's partnership with LifeSteps, who provides educational and support services (workshops, educational services, after school programs, community building, and case management) for low-income and senior populations. The RFP for the zero waste program can incorporate similar elements and should include coordination with the City Housing Authority for more information on lessons learned from the LifeSteps program. This program should focus on identifying opportunities to increase the affordability of and access to zero waste programs (e.g., hosting free repair and upcycling workshops and offering additional bulky item disposal options).

One-Time Start Up Cost	\$58,000
On-Going Annual Cost per Year	---
On-Going Full Time Equivalent Staff per Year	---
Diverted Tons per Year	---
Change in Diversion	---

PROGRAM 11: PILOT A CASH FOR TRASH PROGRAM

Target Audience/Community: Unhoused Community

Target Materials Diverted: All/General

Description:

The City and its community partners have made a strong commitment to supporting the unhoused community within Alameda. In 2021, City Council adopted “The Road Home: A 5 Year Plan to Prevent and Respond to Homelessness in Alameda” (“Homelessness Strategic Plan”), which identified challenges and strategies to addressing housing insecurity in the City. One of the key needs identified in the Homelessness Strategic Plan was providing accessible and flexible financial resources. With significant life barriers, the unhoused community often does not have the capacity or access to resources to properly manage waste. Providing solid waste services is an important piece of the puzzle, but it does not address the underlying socioeconomic conditions that are contributing to a growing unhoused population. The City has the opportunity to explore holistic solutions that provide economic empowerment to the unhoused community, while improving waste diversion practices.

This program proposes piloting a “Cash for Trash” program, similar to the program conducted in the City of San Jose. The Cash for Trash program includes establishing one or more drop-off sites where unhoused residents can collect and return bags of trash and receive compensation for each bag of trash collected. The City will develop an RFP for a third-party organization to conduct a one-year pilot program for the initiative and subsequently evaluate whether the program should be extended. As an initial step in the RFP development, the City will need to develop guidelines and create an outline for what the program entails. Considering the intersectional nature of this program, collaboration between departments will be essential, including between the Zero Waste Program, Health and Human Services Department, and Water Department. It is also recommended that the City engage with other communities that have done similar programs to understand lessons learned and inform the guidelines for the City’s program. For example, the City of San Jose noted in its program report that taking time to train staff and providing flexibility in resource allocation were critical to the success of the program.

One-Time Start Up Cost	\$142,000
On-Going Annual Cost per Year	---
On-Going Full Time Equivalent Staff per Year	---
Diverted Tons per Year	---
Change in Diversion	---

PROGRAM 12: DEVELOP AND INCREASE RESOURCES FOR EXISTING REUSE MARKETS

Target Audience/Community: City-Wide/General

Target Materials Diverted: All/General

Description:

While the City has implemented successful recycling and compost systems, reducing consumption and reusing materials at the source is the most effective method of reducing waste. A focus on reducing consumption and reusing materials supports the City's diversion goals and benefits the environment through reduced demand for resources in manufacturing new products. Promoting reuse can help shift the way people think about consumption, fostering long-term behavior change and a broader culture of sustainability. The City currently has existing services for reuse, such as ACI's reusable materials collection under its franchise agreement with the City. This program allows residents to separate, label, and set out reusable items for ACI to collect and deliver to a sorting and donation facility, as part of the annual bulky and on-call waste collection services. Additionally, local community organizations support reuse through repair events and upcycling programs. However, these markets are often underutilized if not properly advertised to the community or connected to each other. Historically, the City has distributed StopWaste resources as an educational tool for businesses and residents regarding reuse, such as StopWaste's "Re:Source" guide. While this has been beneficial, there is an opportunity to go one step further by making resources specific to Alameda so residents and businesses are empowered to reuse locally.

This program proposes that the City develop a comprehensive guide to existing reuse markets and businesses within the City. The guide would serve as a resource for the Alameda community and build a network of reuse businesses. This would require the City to build relationships with community organizations providing reuse and repair services and help build connections between different reuse markets.

One-Time Start Up Cost	\$12,000
On-Going Annual Cost per Year	\$10,000
On-Going Full Time Equivalent Staff per Year	0.04
Diverted Tons per Year	38
Change in Diversion	0.03%

Implementation Considerations

In implementing the programs listed above, there are several considerations that will impact effectiveness.

On-Going Efforts for Effectiveness.

The City will need to continue to prioritize funding and staff resources for these programs to ensure they are consistently implemented. Having gaps in programs creates a lag in momentum that can set programs back and require even more resources to reinitiate in the future. Fundamental culture change requires consistency, which can be more quickly eroded than it can be built. This was a challenge in the implementation of the 2018 ZWIP Update, particularly within the single-use food ware and technical assistance programs which were heavily impacted by the change in local needs, health restrictions, and consumption habits resulting from the COVID-19 pandemic. This potential for erosion in progress is also demonstrated by the City's reduction in diversion in 2023. The City has the opportunity in the 2025 ZWIP Update to improve consistency of implementation for maximum effectiveness.

Synergy of Programs.

Considering the interconnected nature of the waste system, a number of the programs are interrelated and present an opportunity for synergy across programs. For example, a successfully bulky item program can reduce illegal dumping, as discussed above and in Attachment C. The sequencing of programs is also an important consideration for leveraging program connections. For example, the City can first implement the CBSM program for multi-family bulky items (Program #2) prior to conducting any other CBSM campaign that targets the multi-family sector (Program #3), in order to focus City resources as well as apply the skills and lessons learned from the first pilot to the future programs. Future CBSM campaigns, regardless of who they target, will also benefit from the practice of fully implementing the multi-family bulky campaign. Alternatively, there may be instances where co-implementing programs could be beneficial in order to reduce delays. For example, the City might issue an RFP for a contractor to conduct both the Cash for Trash program and the education program for low-income communities, as having a unified voice in the community can help build trust, particularly with vulnerable populations.



Program Evaluation and Metrics.

For long-term program success, programs will need to be evaluated over time to identify whether adjustments are needed and to measure progress toward the City's goals. Collecting data throughout the programs is critical to having a basis for this evaluation, as well as using clear metrics to determine progress. For example, effectiveness of education programs can be measured based on type of outreach distributed, number of people reached, sectors and audience reached, engagement, public feedback, and resulting diversion. For metrics that have been historically difficult to measure, such as culture change, the City can conduct additional stakeholder engagement to better understand qualitative factors that may not be captured by diversion results alone. This stakeholder engagement aligns with the 2025 ZWIP Update's vision of reaching different parts of the community in a proactive and participatory process to foster equity and instill meaningful behavior change.

Establishing accountability measures can also support on-going program success and momentum. For example, City staff can evaluate the progress of the 2025 ZWIP Update annually and provide status report presentations to City Council and stakeholders. This not only promotes transparency and accountability but also reinforces zero waste programs as an on-going priority in the community.

Impact of State Legislation.

As discussed in Section 4.B, the City will not be able to meet its full diversion goal through the proposed programs alone. However, the implementation of the 2025 ZWIP Update programs will help the City further implement State-level policies, such as SB 1383. While the City has made significant efforts in implementing its SB 1383-related programming, the City has not achieved full participation. The 2025 ZWIP Update's goal of reaching deeper into the community and supporting priority populations will help establish the behaviors needed to enhance SB 1383 programming and support future diversion.

However, even if high-diversion programs are implemented to their fullest extent, there are certain unrecoverable materials in the waste stream that the City does not have control over. This is where State policies like EPR that regulate material upstream at the producer level come into play. As discussed in Section 3.A.2, recent EPR legislation such as SB 54 and SB 707 and "truth in labeling" laws like AB 1201 and SB 343 are examples of upstream solutions that can support the City's local diversion programs and restore the community's confidence in the recycling system. For example, according to StopWaste's 2023-2024 Waste Characterization Study, over 50,000 tons of textiles were disposed of in the County in one year, making up 6% of the single-family, 5.3% of the multi-family, and 5% of the commercial disposal streams. Reducing the amount of textiles in the waste stream and shifting responsibility to producers through emerging policy like SB 707's textile EPR program is an example of a State-level strategy that can have the local impact of reducing disposal while alleviating strain on local recycling programs. Similarly, StopWaste estimates that 20% of the County's disposal stream consists of materials regulated under SB 54, including packaging and single-use plastic food ware, demonstrating the significant potential for increased diversion if the recycling targets set forth under SB 54 are met. It is recommended that the City both continue to enhance its implementation of existing State-mandated programs as well as actively support and participate in new EPR programs implemented at the State level to help bridge the gap in diversion not met by local programs.



The development of the 2025 ZWIP Update was heavily influenced by community engagement, aiming to foster the City's zero waste culture and address barriers limiting participation.

Program Monitoring

Upon the City's initial implementation of the programs described in the 2025 ZWIP Update, the City and its staff must commit to monitoring the progress of each program and sharing the results to ensure success. This process will help identify opportunities for improvement and allow for adjustments based on community input and needs. HF&H recommends that City staff monitor each program on a monthly basis and provide a status report to the Council and community annually. Although the City has established a "big picture" diversion goal of 89%, the annual update should include a more detailed report of the programs, including how they have met the City's diversion and equity goals.

The following components should be presented to the Council and the community annually.

- **Completed Action Steps.** Acknowledgement of which steps the City has completed to implement or maintain the program, including any challenges and success.
- **Tonnage and Diversion.** Amount of materials collected and disposed or recycled, and the resulting diversion percentage.
- **Participation.** Number of times a resident, business, or other user participates in the program.
- **Community Engagement.** Results of other qualitative measures periodically used to assess how the City's equity goals are being met (e.g., community surveys, technical assistance reports/narratives).
- **Legislative Changes.** Regulatory changes that have the potential to impact the City's zero waste programs and diversion.
- **Potential Program Adjustments.** Staffing and budget options for Council to consider and provide input on prior to approving the City's annual budget.

City staff should also actively maintain the City's Zero Waste and Program Services website to include the program status information presented to Council and any other relevant information about the programs. It is recommended to present the annual report to Council prior to the City's annual budgeting process. This allows Council to be informed prior to any adjustments made to the City's budget resulting from the status of these programs.

B Cost and Diversion Analysis

For each program identified in Section 4.A of this 2025 ZWIP Update, HF&H used various City and industry metrics and assumptions to estimate the expected cost and staffing needs to implement and maintain the program, and the anticipated diversion resulting from the implementation of each program. HF&H has provided the complete diversion and cost model analysis, developed in excel, to City staff. This should allow City staff to monitor actual financial and operational performance compared to the assumptions used in the cost and diversion model. As it becomes clear that assumptions have shifted during the reality of the implementation, staff can make real-time adjustments to priorities and annual adjustments to budget based on those realities.

Each section below describes certain cost and staffing considerations, and potential diversion related to each program and policy. Each program considers one-time and on-going resources necessary for successful program implementation, as applicable. If a program is considered short term, no on-going resources have been allocated, which is reflected in the figures below.

Cost Summary

For each program, HF&H estimated the one-time start-up costs to implement the program and annual costs to continue programs on an on-going basis. Figure 4 summarizes these costs, which are inclusive of City staff wages, third-party contractor costs, infrastructure costs, education and outreach material costs, and other identified expenses. Due to varied implementation schedules of each program, in a given fiscal year, there may be on-going program activities conducted in addition to implementation tasks. As a result, during the City's budgeting process, the City should consider the implementation schedule of each program to determine if both implementation costs and on-going costs need to be budgeted for in a single fiscal year.

FIGURE 4. PROGRAM AND POLICY COST ESTIMATES

		ESTIMATED COSTS ⁷	
Program		One-Time Implementation Costs	On-Going Annual Costs (\$ per Year)
1	Conduct a City Zero Waste Rebrand	\$242,000	---
2	Conduct a Multi-Family Dwelling Bulky CBSM Campaign ⁸	\$186,000	\$565,000
3	Conduct Annual CBSM Campaigns	---	\$413,000
4	Develop Guidelines for Permitted City Events	\$34,000	\$17,000
5	Develop Zero Waste Policies for City Departments	\$37,000	\$23,000
6	Provide Small Businesses Support and Resources	\$84,000	\$33,000
7	Develop a Grant Program for Take Away Reusable Cups	\$150,000	\$57,000
8	Expand C&D Program	\$16,000	\$84,000
9	Conduct Enforcement for Illegal Dumping	\$111,000	\$325,000
10	Pilot an Education and Resource Program for the Low-Income Community	\$58,000	---
11	Pilot a Cash for Trash Program	\$142,000	---
12	Develop and Increase Resources for Existing Reuse Markets	\$12,000	\$10,000
Total		\$1,072,000	\$1,527,000

⁷ Each program will have a unique implementation schedule. As a result, there may be an overlap in implementation costs and on-going annual costs during a fiscal year.

⁸ Includes additional costs to ACI and rate payers. See Attachment C for additional information.

Staffing Summary

As demonstrated in Attachment C, the programs and policies selected each require an increase in City staff time for implementation and on-going monitoring and maintenance. This on-going monitoring and maintenance ensures that not only are programs implemented by the City but also that resources and support are provided to the community, whose behavior change is critical for the City to realize its diversion goal. Additionally, many of these programs require resources across departments, which increases the amount of staff time needed to coordinate cross-departmental interactions. Delegation to StopWaste and other third parties, such as consultants, has the potential to greatly minimize staff burdens placed on the City. Figure 5 below summarizes the additional City staffing needs for each program. Additional staff resources maybe requested as part of budget actions to fund programs in the ZWIP. Existing staff resources could be applied to some or all of these programs but it would result in reduction of service in other areas of the City's Zero Waste program.

FIGURE 5. PROGRAM AND POLICY STAFFING NEEDS

		ESTIMATED ADDITIONAL CITY LABOR	
Program		One-Time Implementation Labor (FTEs)	On-Going Annual Labor (FTEs/Year)
1	Conduct a City Zero Waste Rebrand	0.13	---
2	Conduct a Multi-Family Dwelling Bulky CBSM Campaign	0.02	0.14
3	Conduct Annual CBSM Campaigns	---	0.02
4	Develop Guidelines for Permitted City Events	0.10	0.14
5	Develop Zero Waste Policies for City Departments	0.29	0.11
6	Provide Small Businesses Support and Resources	0.07	0.06
7	Develop a Grant Program for Take Away Reusable Cups	0.14	0.02
8	Expand C&D Program	0.11	0.73
9	Conduct Enforcement for Illegal Dumping	0.03	0.48
10	Pilot an Education and Resource Program for the Low-Income Community	0.05	---
11	Pilot a Cash for Trash Program	0.10	---
12	Develop and Increase Resources for Existing Reuse Markets	0.06	0.04
Total		1.10	2.05

Diversion Summary

To predict the effectiveness of each program toward the City's diversion goal, HF&H developed a diversion analysis model. This analysis is intended to assist the City in making decisions regarding the selection of programs. In conducting the analysis, HF&H considered the diversion potential (measured by tons per year) and estimated the incremental additional diversion that may result from the implementation of each program. In some cases, these estimates were made by comparing program results in the City to benchmarks developed from program results in other communities. Upon each program's start, initial diversion potential remains low and then increases as a program matures over time. Program maturity brings not only an increase in participation from the community but an increase in the quality of participation. Both of these factors increase a program's diversion. It is therefore important to consider that the level of participation will impact the ultimate diversion results. For example, the level of increased diversion from Program 1 (Conduct a City Zero Waste Rebrand), assumes that the education materials developed as part of that program will result in increased participation in zero waste practices. Figure 6 presents the potential diversion estimates during the program's implementation and at full maturity.

FIGURE 6. PROGRAM AND POLICY ESTIMATED DIVERSION

		ESTIMATED DIVERSION POTENTIAL (TONS/YEAR)		CHANGE IN DIVERSION (%)	
Program		Program Start	Program Maturity	Program Start	Program Maturity
1	Conduct a City Zero Waste Rebrand	299	1,496	0.20%	0.98%
2	Conduct a Multi-Family Dwelling Bulky CBSM Campaign	532	1,473	0.35%	0.96%
3	Conduct Annual CBSM Campaigns	---	2,260	---	1.48%
4	Develop Guidelines for Permitted City Events	1	5	< 0.01%	< 0.01%
5	Develop Zero Waste Policies for City Departments	149	746	0.10%	0.49%
6	Provide Small Businesses Support and Resources	19	57	0.01%	0.04%
7	Develop a Grant Program for Take Away Reusable Cups	0	3	< 0.01%	< 0.01%
8	Expand C&D Program	228	228	0.15%	0.15%
9	Conduct Enforcement for Illegal Dumping	746	522	0.49%	0.34%
10	Pilot an Education and Resource Program for the Low-Income Community	28	---	0.02%	---
11	Pilot a Cash for Trash Program	4	---	< 0.01%	---
12	Develop and Increase Resources for Existing Reuse Markets	38	38	0.03%	0.03%
	Total	2,046	6,829	1.34%	4.46%

The proposed programs are estimated to add an additional 4.46% to the City's diversion rate, assuming 2022 figures, once each of the programs has reached full maturity. While this falls short of the City's 89% goal, the programs aim to establish the foundation for long-term behavior change to improve diversion over time and increase participation in future programs. There are multiple factors that will be needed to bridge the gap to 89%. As discussed above, consistent investment in zero waste programs is necessary to maintain momentum and put the City back on track with an upward growth trajectory in diversion. Additionally, as discussed in the implementation considerations in Section 4.A.2 above, even after programs are implemented at the local level, there are still unrecoverable materials that enter the City's waste stream due to product design at the producer level. Policy solutions like State EPR programs and "truth in labeling" laws that have the ability to regulate materials upstream will support the City in bridging the gap in its diversion by improving the recyclability and compostability of materials and encouraging source reduction, reuse, and redesign practices.

It is important to note that the goals of the 2025 ZWIP Update are not only focused on diversion, but also on equity and community engagement. Therefore, some programs that have limited diversion impact are still presented to invest in, in alignment with the City's commitment to equitable solutions.

Funding Approach

The City's ability to implement and maintain the programs identified in the 2025 ZWIP Update is dependent on the available financial resources of the City and the participants in such programs. It is likely the City will need to periodically revisit and adjust the funding strategies identified in this report as it proceeds with the implementation of each program.

The City currently relies on several funding mechanisms for the implementation and on-going support of its diversion programs, including those clearly defined in past zero waste plans and other City programs outside the scope of the zero waste plan. These funding mechanisms include the following:

- **ACI Franchise Agreement Reimbursements.** Many of the City's solid waste programs and diversion programs are supported by funding the City receives from ACI as stipulated in their franchise agreement for solid waste collection services.
- **Measure D Recycling Fund Revenues.** The City receives a share of the recycling fund revenues generated through a disposal surcharge under Measure D. The funds are designated for diversion program efforts. City policy allocates such revenues for one-time costs.
- **Grants.** The City has participated in grant funding offered by the State to help fund applicable programs. Due to the one-time nature of grants, such grants monies are not used to support long-term zero waste programs and do not make up a large portion of the total funding needed to support past and current zero waste programs. Past grant opportunities the City has received funding from include the SB 1383 Local Assistance Grant for the implementation of SB 1383 and the California Ocean Protection Council Grant for the ReThink Disposal Unpackaging Alameda Pilot. However, it is important to note that historically these grants have accounted for only a small percentage of overall program costs.
- **Permit Application Fees.** The City receives funding from application fees for permitted C&D projects within the City.
- **Code Enforcement Fees.** The City collects fees for violations against the City's municipal code. These violations can include prohibited activities related to solid waste programs.

In addition to the above-mentioned funding mechanisms, the City's general fund is a resource the City could choose to allocate funding from to support the goals and programs of this 2025 ZWIP Update. While the City's general fund has not been used for zero waste programs due to the availability of Measure D Recycling Funds revenues and Franchise Reimbursements, it remains an available funding source that the City may consider when implementing zero waste programs in the future.

Each of the proposed programs and policies has the potential to be funded by one or more of these sources. This plan recognizes the resources from these funding sources currently do not fund the entirety of the proposed programs and/or may not be fully dedicated to zero waste activities. The following Figure 7 identifies these potential sources. The 2025 ZWIP Update assumes that funding recommendations for implementation of the 2025 ZWIP Update will be analyzed and discussed in the upcoming and subsequent biennial budget process for consideration by City Council, within the context of the City-wide budget and the operational and programmatic needs of all City departments. Individual programs recommended by the 2025 ZWIP Update will be brought to City Council separately for approvals and funding as needed.

FIGURE 7. POTENTIAL PROGRAM AND POLICY FUNDING MECHANISMS

PROGRAM		FUNDING SOURCE					
		Franchise Agreement Reimbursements	Measure D Fund Revenues	Grants	Permit Application Fees	Code Enforcement Fees	General Fund
1	Conduct a City Zero Waste Rebrand		√				√
2	Conduct a Multi-Family Dwelling Bulky CBSM Campaign	√	√	√			√
3	Conduct Annual CBSM Campaigns	√		√			√
4	Develop Guidelines for Permitted City Events	√		√	√		√
5	Develop Zero Waste Policies for City Departments	√		√			√
6	Provide Small Businesses Support and Resources			√			√
7	Develop a Grant Program for Take Away Reusable Cups		√	√			√
8	Expand C&D Program	√			√	√	√
9	Conduct Enforcement for Illegal Dumping		√			√	√
10	Pilot an Education and Resource Program for the Low-Income Community		√	√			√
11	Pilot a Cash for Trash Program		√	√			√
12	Develop and Increase Resources for Existing Reuse Markets		√	√			√



attachment

City of Alameda

Zero Waste
Implementation
Plan 2025

A

Attachment A: 2018 ZWIP Update Program Progress

1 Program Status Summary

The following table shows the overall implementation status of each of the five strategy areas from the 2018 Zero Waste Implementation Plan (ZWIP) Update, including an overall status bar and implementation summary. The City made progress in many areas, while others require further effort. For further detail, a table showing the implementation status of the individual action items under each strategy is included in Section 2 below.


Status Key. The following status bar has been included for each category to visually demonstrate the extent of completion. The red, leftmost end of the spectrum indicates that the strategy was not implemented. The blue, rightmost end of the spectrum indicates the strategy was fully completed. A triangular status marker has been used to show the extent of completion within this range.




Implementation Status

STRATEGY 1. SUPPORT ZERO WASTE CULTURE	
Description:	This strategy focused on “culture change” and shifting the City’s culture toward zero waste in order to reduce disposal. This included recommendations for “zero waste culture activities and initiatives” and outreach and education.
Status:	
Status Notes:	<p>The City provided initial educational material regarding mandatory compost and recycling services to all collection service customers. The City’s franchise hauler, Alameda County Industries (ACI), conducts on-going outreach to collection customers, but this education is largely focused on mandatory service requirements rather than broader zero waste culture. Additional education on zero waste programs is needed.</p> <ul style="list-style-type: none">• The City has utilized established communication channels for education such as Community Action for Sustainable Alameda (CASA) and the Alameda County Solid Waste Management Authority (StopWaste).• The City did not conduct the recommended rebrand of the Zero Waste Alameda program.• The City has encouraged additional diversion and reuse services from external sources. For example, the City partnered with Rethink Disposables to launch the “Unpackaging Alameda” campaign, a pilot study that supported selected Alameda businesses with switching to reusable food ware. Additionally, CASA, a key partner of the City, conducted a reusable foodware pilot program in partnership with Dispatch Goods. Recently, 12 food businesses in the City have partnered with OKAPI Reusables for reusable cup exchange services.


STRATEGY 2. CONDUCT TECHNICAL ASSISTANCE TO COMMERCIAL / MULTI-FAMILY SECTOR

Description	This strategy recommended providing targeted technical assistance to businesses and multi-family properties on waste diversion programs. The strategy recommended that the City focus this assistance first on “large generators” that had the highest diversion potential.
Status:	
Status Notes:	<ul style="list-style-type: none"> • With the adoption of the 2018 ZWIP Update, City Council approved contracting for technical assistance for the commercial and multi-family sectors, with a focus on the City’s largest generators of waste. In subsequent City Council actions, funding and contracting for this strategy has continued. • The City successfully completed technical assistance for large generators, focused on collection and diversion of organic waste and recyclable materials. The City engaged a contractor, SCS Engineers (SCS), to conduct technical assistance to commercial businesses. According to SCS’s report, from October 2018 through July 2023, SCS conducted 931 site visits to commercial businesses, 246 site visits to multi-family dwellings, as well as other assessments, trainings, emails, and phone calls. • The consultant reported a positive correlation between the outreach conducted and increased diversion of recyclables and organics. From October 2018 through July 2023, 107 generators increased their diversion by increasing their service for recycling, organics, or both, in response to the SCS’s recommendations. • SCS conducted more visits to commercial business compared to the multi-family sector, due to the strategic decisions to focus on large commercial generators and a smaller number of major multi-family property management companies. Additional focus on the broader multi-family sector is recommended. • Technical assistance efforts thus far have been focused mainly on collection and diversion, and increased education on reuse and the City’s food ware ordinance would be beneficial. • The City faced challenges implementing its food ware ordinance due to COVID-19, as described below, but is now actively enforcing the ordinance.


STRATEGY 3. CREATE FOOD RECOVERY PROGRAM AND ENHANCE ORGANICS MANAGEMENT

Description	This strategy recommended implementing programs to reduce disposal of organic waste, such as partnering with local organizations for recovering edible food and expanding methods for managing organic waste.
Status:	
Status Notes:	<p>Food Recovery:</p> <ul style="list-style-type: none"> • Through a structured agreement(s), the City has delegated the majority of its food recovery program activities to StopWaste, including conducting outreach and inspections, providing education resources, tracking food recovery metrics, and conducting capacity planning for SB 1383 compliance. City staff have reported this to be an effective partnership. • The City has not conducted local food recovery activities such as collaborating with local non-profits and volunteers and conducting technical assistance. • The City has not yet included food recovery as a focus in existing technical assistance and hauler education. <p>Organics:</p> <ul style="list-style-type: none"> • The City procured and spread 1,600 cubic yards of finished compost within the City in 2023 and maximized the amount of compost it can receive from ACI per the franchise agreement. The City met its procurement target for 2024 and is on track to meet its procurement target for 2025 through a combination of its compost hub program, the Alameda Recreation and Parks Department, and a brokerage agreement with Agromin. • The City implemented a compost hub program, which has been successful and popular with the community. • The City’s amended franchise agreement included strategies for enhanced organic waste management, as described in Strategy 5 below. • Some suggestions in the 2018 ZWIP Update regarding organics were not implemented because they conflicted with the City’s ultimate needs and requirements for the new franchise agreement, particularly with suggestions that would require changes to collection routes (e.g., adding split-cart service and an edible food collection route).

STRATEGY 4. UPDATE CONSTRUCTION AND DEMOLITION DEBRIS (C&D) RECYCLING ORDINANCE AND CONDUCT OUTREACH

Description	This strategy recommended updating the City's ordinance regulating C&D to support higher diversion, enhancing C&D program processes, and conducting targeted education and outreach regarding C&D diversion.
Status:	
Status Notes:	<ul style="list-style-type: none"> • The City successfully updated, and is actively enforcing, its C&D ordinance. • The City has streamlined processes by requiring the use of software, GreenHalo, and updating building permit forms. • There has been effective collaboration between Public Works staff and Building Department staff. For example, Public Works staff provided resources for building inspectors regarding GreenHalo, and there is regular conversation regarding the C&D program during interdepartmental meetings. • The City has not yet conducted targeted education and outreach on C&D diversion. • The City included provisions in the ordinance encouraging deconstruction¹ and reuse practices, but such provisions are not mandatory, and the City has not planned further deconstruction programs.

STRATEGY 5. EXPAND HIGH DIVERSION PROGRAMS WITHIN THE CITY'S FRANCHISE AGREEMENT

Description	This strategy recommended expanding the City's franchise agreement with ACI to include additional requirements to support diversion, such as education and outreach, diversion targets, incentives, reporting requirements, and other provisions that support the City's zero waste goals.
Status:	
Status Notes:	<p>The City completed and implemented an amendment to the franchise agreement with ACI, including new services to support diversion, such as:</p> <ul style="list-style-type: none"> • Multi-family bulky item collection • Free City drop box service • Contamination monitoring • Additional route for recycling carts • Addition 0.5 route for organics bins • Bundled cardboard service • Multi-family motor oil and cooking oil service • Multi-family move-in and move-out kits • Large event and venue services • Provision of bulk compost and mulch • Compost giveaways • Enhanced reporting requirements • Increased public education and outreach • Full-time recycling coordinator • The amended franchise agreement includes minimum diversion requirements for ACI, which are phased in from 65% in rate period one to 89% in rate period ten. • The City will need to continue to monitor the agreement to ensure that services are accessible to the public and provided in accordance with the franchise agreement, data on diversion programs is accurately reported, and minimum diversion standards are met.

¹ "Deconstruction" is an alternative to demolition that involves the careful disassembly of buildings to salvage materials to maximize reuse and recycling. The City currently requires diversion of 65% of C&D materials, typically through recycling of mixed C&D materials. Deconstruction would involve additional separation of the recycling stream into materials that could be reused (e.g., metal, wood).



Challenges

Covid-19

The COVID-19 pandemic impacted the City's ability to implement programs such as the reusable foodware ordinance. Focusing on zero waste was less of a priority for local food service businesses dealing with the challenges of COVID-19, and there were concerns about health risks of reusable foodware. In response, the City paused the enforcement of the reusable foodware ordinance. Multi-family and commercial technical assistance efforts were also impacted, as SCS was unable to conduct in-person site visits during the COVID-19 pandemic.

Multi-family Sector

The City invested significant resources into supporting the multi-family sector, such as hiring a SCS, providing education through ACI, and working with large properties. However, educating and supporting the multi-family sector remains a challenge for the City and for most jurisdictions across the state. For example, multi-family complexes face the challenge of high tenant turnover, making it difficult to provide consistent on-going education on available programs and how to access them. The City and its SCS specifically faced difficulties communicating with property managers in order to provide technical assistance.

Lack of Clear Metrics or Action Steps

Some recommendations in the 2018 WIP Update lacked clear action steps for implementation of the programs. For example, the City struggled to implement and measure the strategy of "culture change" without specific action steps or metrics.

Funding and Staffing

Upon approval of the 2018 ZWIP Update, the City first sought funding for Strategy 2 (technical assistance), followed by funding for Strategy 5 (franchise agreement amendment). These two strategies were the only ones that were fully funded, and the City utilized its existing program budget to complete the remaining programs to the greatest extent possible under such constraints.

Identifying Opportunities

Based on the evaluation above, the following areas present opportunities for additional focus.

- ③ **Multi-Family Sector.** Due to the challenges mentioned above, the multi-family sector warrants specific attention. The City in particular has an opportunity to increase communication with property managers and develop outreach programs that meet the unique needs of the multi-family sector.
- ③ **Bulky Item Collection.** While additional education was conducted regarding the new bulky item collection service under the amended franchise, many residents remain unaware of the program. Implementation of multi-family bulky item programs has been a challenge for the City and other jurisdictions across the state, as described above. The City has an opportunity to provide further education and potential additional collection opportunities for bulky items to ensure the program is being used and this material stream is diverted. Investment in these programs has the potential to improve the City's diversion rate and help the City move toward its goals.
- ③ **Source Reduction.** The City has the opportunity to re-initiate zero waste programs that were put on pause, such as promoting reusable food ware. For example, CASA, a key partner of the City, conducted reuse campaigns and partnered with Dispatch Goods to provide and promote reusable food ware solutions. However, these programs were paused during the pandemic. The City has the opportunity to encourage these types of partnerships in the future. Additionally, much of the City's outreach has focused on downstream collection of materials, and the City now has the opportunity to place a greater focus on source reduction to improve diversion.
- ③ **Business Support.** The City has the opportunity to provide further support to businesses to implement zero waste programs and practices. In addition to food ware ordinance education and enforcement, providing direct resources is a positive approach to increase the likelihood of participation.
- ③ **C&D Diversion.** The City has the opportunity to develop and expand upon C&D education and outreach to ensure that projects are implementing waste reduction best practices and comply with the ordinance. This could be integrated into existing permit process steps, such as providing education and outreach during key inspection points (e.g., electrical or foundation inspections). The City also has an opportunity to reduce waste at the source by implementing deconstruction and reuse programs for C&D materials.
- ③ **On-Going Education.** The City has the opportunity to develop robust and on-going education campaigns to support behavior change and ensure the effectiveness of programs. There is an opportunity to leverage the hauler outreach requirements from the new franchise agreement as well as explore new education approaches such as Community Based Social Marketing (CBSM), which focuses on identifying barriers and opportunities and targets specific audiences and behaviors to drive meaningful behavior change.






Additional opportunities were identified through stakeholder engagement and input from City Council, as further described in Section 3 of the 2025 ZWIP Update.





2 Program Status Checklist











The following checklist provides supporting detail to the summary above and shows the status of individual action items identified in the 2018 ZWIP Update and the challenges and opportunities specific to each strategy.

Status Key










	Completed
	In progress or partial
	Not completed




Strategy	Status	2018 Update Recommended Action	Notes
1. Support Zero Waste Culture		Conduct outreach regarding mandatory collection ordinance	<ul style="list-style-type: none"> Initial education efforts were conducted Information was provided in hauler newsletters and inserts ACI provides on-going education regarding organics and recyclables collection services
		Provide tools to improve diversion	<ul style="list-style-type: none"> External resources were shared (e.g., StopWaste education materials) The City encouraged reusable initiatives through CASA and other programs (e.g., OKAPI reusable cup service) Additional tools would be beneficial
		Implement Zero Waste Alameda Program / community zero waste practices	<ul style="list-style-type: none"> The City did not conduct the Zero Waste Alameda rebrand Some outreach was provided (e.g., website, mailers, social media) More on-going education focused on zero waste programs and reuse is needed
		Feature green businesses online	<ul style="list-style-type: none"> This goal was previously in development but was not completed Clean Water Action supports a webpage with Oakland businesses that are compliant with the food ware ordinance, and City staff expressed future plans to include something similar for the City
		Collaborate with Public Works' Clean Water Program (CWP)	<ul style="list-style-type: none"> Collaboration on water pollution prevention program for students and other interdepartmental coordination has been effective CWP-specific collaboration to enhance zero waste efforts were not conducted
Challenges: <ul style="list-style-type: none"> Implementing and measuring "culture change" without specific actions or metrics Delay in education program due to City Communications Plan approval timeline Lack of dedicated funding for outreach 			Opportunities: <ul style="list-style-type: none"> Conduct the Zero Waste Alameda rebrand Leverage new hauler outreach requirements Expand interdepartmental communication Implement a combination of education and enforcement Expand education to focus on source reduction and zero waste programs

Strategy	Status	2018 Update Recommended Action	Notes
2. Conduct Technical Assistance to Commercial / Multi-Family Sector		<i>Conduct on-site waste assessments</i>	<ul style="list-style-type: none"> Technical assistance program was implemented by SCS, with a positive progress report
		<i>Target large waste generators</i>	<ul style="list-style-type: none"> Large waste generator assistance was completed
		<i>Provide education on contamination and diversion</i>	<ul style="list-style-type: none"> Education was provided, but additional support for the multi-family sector is recommended
		<i>Educate businesses on food ware ordinance and reusables</i>	<ul style="list-style-type: none"> Some education was provided, but additional focus in this area is recommended
Challenges: <ul style="list-style-type: none"> Unique challenges for multi-family sector: Communication with property managers Re-education during tenant turnover COVID-19 impacts: <ul style="list-style-type: none"> Shifting priorities for business community (economic recovery and public health) and difficulty implementing reusable foodware program Inability to conduct in-person site visits for technical assistance 			Opportunities: <ul style="list-style-type: none"> Leverage hauler resources and education Build relationships with multi-family property managers Provide additional resources to small businesses

Strategy	Status	2018 Update Recommended Action	Notes
3. Create Food Recovery Program and Enhance Organics Management		<i>Meet with franchised hauler and local non-profits recovering food to design a program</i>	<ul style="list-style-type: none"> City did not meet with local non-profits to design a food recovery program
		<i>Identify current and potential food donors</i>	<ul style="list-style-type: none"> Identification of food donors was delegated to StopWaste
		<i>Start an edible food collection route by hauler</i>	<ul style="list-style-type: none"> This recommendation was not seen as practical or cost-effective for inclusion within the City's new franchise agreement.
		<i>Promote the program and mobilize local volunteers for food recovery</i>	<ul style="list-style-type: none"> City did not mobilize local food recovery volunteers
		<i>Track edible food collected</i>	<ul style="list-style-type: none"> Metrics tracking was delegated to StopWaste
		<i>Identify additional food recovery partners, and promote local organizations and volunteer opportunities</i>	<ul style="list-style-type: none"> City did not conduct this task
		<i>Start a food waste prevention campaign for residents and businesses</i>	<ul style="list-style-type: none"> StopWaste conducts education and provides resources Additional City-specific education would be beneficial
		<i>Begin a food waste to animal feed program</i>	<ul style="list-style-type: none"> This recommendation conflicts with the franchise agreement and was therefore not implemented
		<i>Pilot a split-cart collection system for food waste and solid waste</i>	<ul style="list-style-type: none"> This recommendation was not seen as practical or cost-effective for inclusion within the City's new franchise agreement.
		<i>Implement anaerobic digestion for City's food waste</i>	<ul style="list-style-type: none"> This recommendation conflicts with the franchise agreement and was therefore not implemented

Challenges: <ul style="list-style-type: none"> • There were staffing capacity limitations to conduct additional food recovery outreach • There was a shortfall of the SB 1383 procurement target despite maximizing available compost • Some 2018 recommendations were not aligned with franchise services (e.g., split-cart service, edible food recovery route) 	Opportunities: <ul style="list-style-type: none"> • Develop local partnerships in multiple sectors (e.g., food, housing, urban farms) <ul style="list-style-type: none"> - Example: Alameda Point Collaborative • Explore City grant programs, such as equipment for food recovery organizations • Develop relationships with brokers and regional procurement options • Increase community programs • Incorporate organic product requirements into vendor relationships
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Strategy	Status	2018 Update Recommended Action	Notes
4. Update C&D Ordinance and Conduct Outreach		Update C&D ordinance	<ul style="list-style-type: none"> • The C&D ordinance was updated in 2021 • City enforcement is active
		Require GreenHalo and update building forms	<ul style="list-style-type: none"> • Completed
		Inform applicants of hauler C&D roll-off service	<ul style="list-style-type: none"> • Completed
		Train building department staff on CALGreen	<ul style="list-style-type: none"> • There has been effective collaboration between Public Works and the Building Department. For example, Public Works provided resources for inspectors and there has been on-going communication at interdepartmental meetings • The City did not conduct direct trainings for individual building department staff
		Expand requirements to cover all project types and sizes	<ul style="list-style-type: none"> • The City did not pursue this change to the system due to the additional staff burden required to oversee the additional projects and low diversion potential.
		Require facilities to have a third-party verification	<ul style="list-style-type: none"> • Third-party verification is required and enforced through GreenHalo, with additional follow-up by City staff as needed
		Explore deconstruction and reuse	<ul style="list-style-type: none"> • Deconstruction is encouraged but not required in the City's ordinance • Reuse is tracked in GreenHalo if reported by the user • Additional programs were not pursued
		Develop online C&D Guide	<ul style="list-style-type: none"> • C&D guide was not developed
		Conduct targeted education and outreach on C&D recycling	<ul style="list-style-type: none"> • Additional education is needed
Challenges: <ul style="list-style-type: none"> • City staff reported limited resources for conducting targeted C&D outreach 			Opportunities: <ul style="list-style-type: none"> • Consider expansion of covered project types • Establish C&D program metrics • Integrate GreenHalo and other City software • Support deconstruction and reuse • Support small construction projects

Strategy	Status	2018 Update Recommended Action	Notes
5. Expand High Diversion Franchise Agreement		<i>Partner with hauler on existing terms prior to amendment</i>	<ul style="list-style-type: none"> • City has a collaborative relationship with ACI
		<i>Develop franchise agreement with high diversion programs</i>	<p>The City's Franchise Agreement with ACI was amended and commenced on July 1, 2021. It included several expanded services to increase diversion, such as:</p> <ul style="list-style-type: none"> • Multi-family bulky item collection • Free City drop box service • Contamination monitoring • Additional route for recycling carts • Addition 0.5 route for organics bins • Bundled cardboard service • Multi-family motor oil and cooking oil service • Multi-family move-in and move-out kits • Large event and venue services • Provision of bulk compost and mulch • Compost giveaways • Enhanced reporting requirements • Increased public education and outreach • Full-time recycling coordinator
		<i>Expand the exclusive franchise system</i>	An immediate change to exclusivity was not practical. The five-year phase-out of the current permitted hauler system is scheduled to be completed in 2027.
Challenges <ul style="list-style-type: none"> • Staff capacity is needed to manage contract requirements • Changing exclusivity immediately would require administrative burden for minimal benefit due to small market share 			Opportunities: <ul style="list-style-type: none"> • Leverage increased hauler outreach staff • Utilize hauler customer satisfaction surveys to track success • Continue to encourage the school program implementation by leveraging ACI's service to schools

3 Diversion Trends

As described in Section 1 of the 2025 ZWIP Update, diversion is a key metric in measuring the City's progress toward its zero waste goals. The City set the goal of achieving an 89% diversion rate by 2020, calculated as described below. HF&H reviewed data from CalRecycle to identify overall disposal and diversion progress, as well as collection tonnage reports provided to the City by ACI to identify more specific trends by sector.

Diversion Measurement

The City measures diversion according to CalRecycle's calculations of per capital disposal, measured as pounds of waste disposed of per person per day (PPD). CalRecycle also assigns a PPD disposal target, unique to each jurisdiction, that represents 50% diversion (CalRecycle Disposal Target). Derived from the CalRecycle Disposal Target, the City's current PPD can be converted into a diversion equivalent according to the formula shown in Figure A-1.

FIGURE A-1. DIVERSION EQUIVALENT FORMULA

DIVERSION EQUIVALENT FORMULA	
<i>CalRecycle Disposal Target=50% Diversion</i>	
<i>Total Generation = CalRecycle Disposal Target × 2</i>	
<i>Diversion Equivalent = $1 - \left(\frac{\text{Current PPD}}{\text{Total Generation}} \right)$</i>	

The following example demonstrates how the City's current diversion of 76% was calculated from its 2023 disposal value of 2.6 PPD, using the above formula.

FIGURE A-2. DIVERSION CALCULATION EXAMPLE

CURRENT DIVERSION CALCULATION EXAMPLE	
<i>Cal Recycle Disposal Target</i>	<i>5.5 PPD</i>
<i>Total Generation</i>	<i>5.5 PPD × 2 = 11 PPD</i>
<i>Current Diversion (2023)</i>	<i>$1 - \left(\frac{2.6 \text{ PPD}}{11 \text{ PPD}} \right) = 76\%$</i>

The following chart is provided for reference of different PPD values and their corresponding diversion equivalent²

FIGURE A-3. DIVERSION EQUIVALENT CONVERSION CHART

DIVERSION CONVERSION CHART																		
Pounds per day disposal	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2
Diversion equivalent	74%	75%	75%	76%	77%	78%	79%	80%	81%	82%	83%	84%	85%	85%	86%	87%	88%	89%

² The following diversion equivalent percentages are rounded to the nearest percent.

Overall Diversion (2018-2023)

The City has not yet reached its 2020 target of 89% diversion or 1.2 PPD, as demonstrated by the 2018-2023 diversion trends shown in Figures A-4 and A-5 below. Other than a plateau during 2020-2021, the City saw a decrease in disposal and increase in diversion each year from 2018 to 2022. The City had a diversion rate of 77% (2.5 PPD) in 2018, which increased to 81% diversion (2.1 PPD) by 2022. As described above, the City faced challenges implementing certain programs due to COVID-19, which may correlate with the diversion stagnation in the years 2020-2021. The overall increase in diversion from 2018 to 2022 is a testament to the City’s efforts in implementing waste reduction and recycling programs after the 2018 ZWIP Update was published. However, there was a decrease in diversion from 81% in 2022 to 76% in 2023. This decrease in diversion in 2023 demonstrates that continued investment in zero waste programs is needed over time in order to see consistent progress. In order to regain a downward trend in disposal and reach the City’s diversion goals, significant programmatic efforts are still needed.

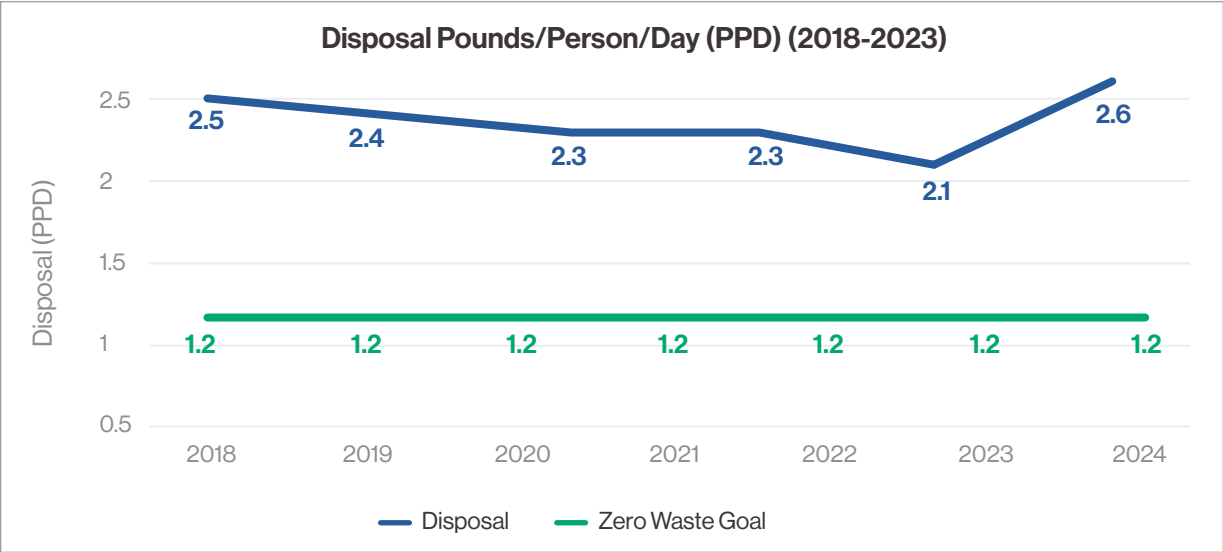


FIGURE A-4. DISPOSAL TRENDS 2018-2023

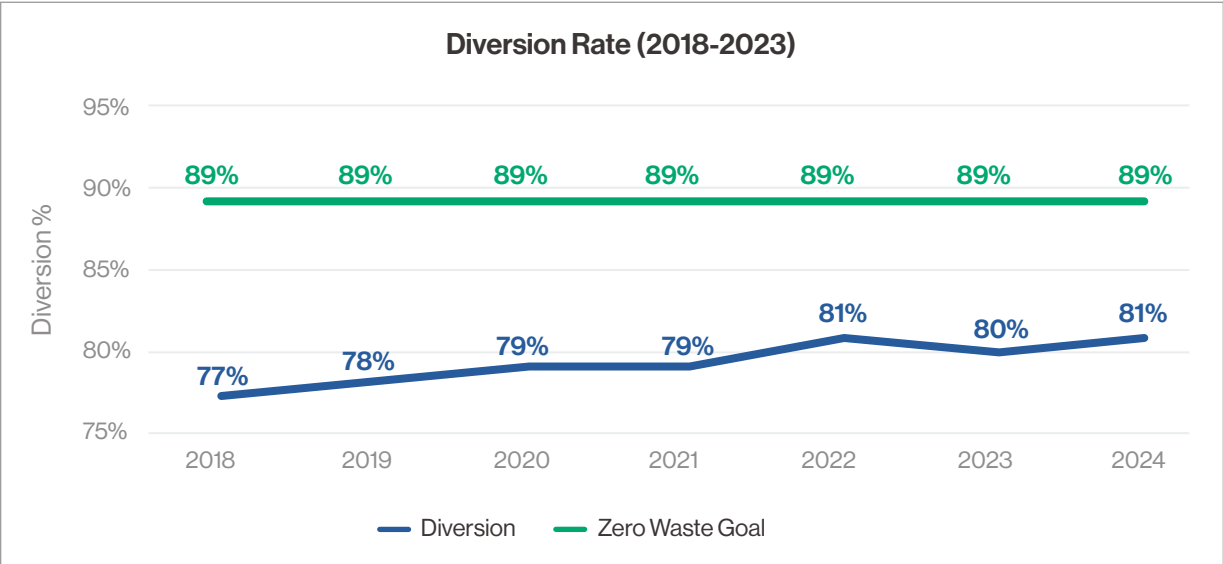


FIGURE A-5. DIVERSION TRENDS 2018-2023

Sector-Specific Trends

HF&H analyzed collection tonnage data reported to the City by ACI to evaluate diversion trends in the following sectors: single-family (SFD), multi-family dwellings (MFD), commercial businesses (COM), and industrial. Figure A-3 below shows the change in annual diversion from fiscal years (FY) 2021 to 2024, based on materials collected by ACI for each sector. Note that prior to 2021, ACI did not report single-family and multi-family data separately; therefore, 2021 has been used as the comparison point for sector diversion.

FIGURE A-6. COLLECTED MATERIALS DIVERSION BY SECTOR

	DIVERSION BY SECTOR			
YEAR	SFD	MFD	COM	INDUSTRIAL
FY 2021-2022	58.6%	58.0%	16.7%	45.0%
FY 2022-2023	58.1%	58.1%	18.0%	39.9%
FY 2023-2024	58.8%	58.7%	19.0%	39.9%

The data shows an increased diversion rate for commercial, a decreased diversion rate for industrial, and relatively similar diversion rates for single-family and multi-family from 2021 to 2024. The data also shows single-family and multi-family to have nearly the same diversion rate of approximately 58%. Upon further review, it was found that ACI determines the diversion rates for single-family and multi-family materials, which are co-collected, based on a calculated allocation rather than actual tracking of tonnage from each sector. This may explain why the diversion rates are similar across sectors and across years. Based on data from other regional jurisdictions, it is expected to see a diversion rate of around 55-75% for single-family and 20-50% for multi-family. Based on these trends, HF&H suspects the City's diversion to be higher for single-family and lower for multi-family than reported. Therefore, focusing on the multi-family sector is still recommended. This also demonstrates the need for the City to closely monitor reports provided by ACI to ensure data is accurate. Robust reporting, especially for sector-specific data, will be necessary for the City to monitor programs moving forward.



attachment

B




City of Alameda

Zero Waste
Implementation
Plan 2025

Alameda Resident Views of Zero Waste Programs

Key Findings of a Survey Conducted September 3-12, 2024

Survey Methodology

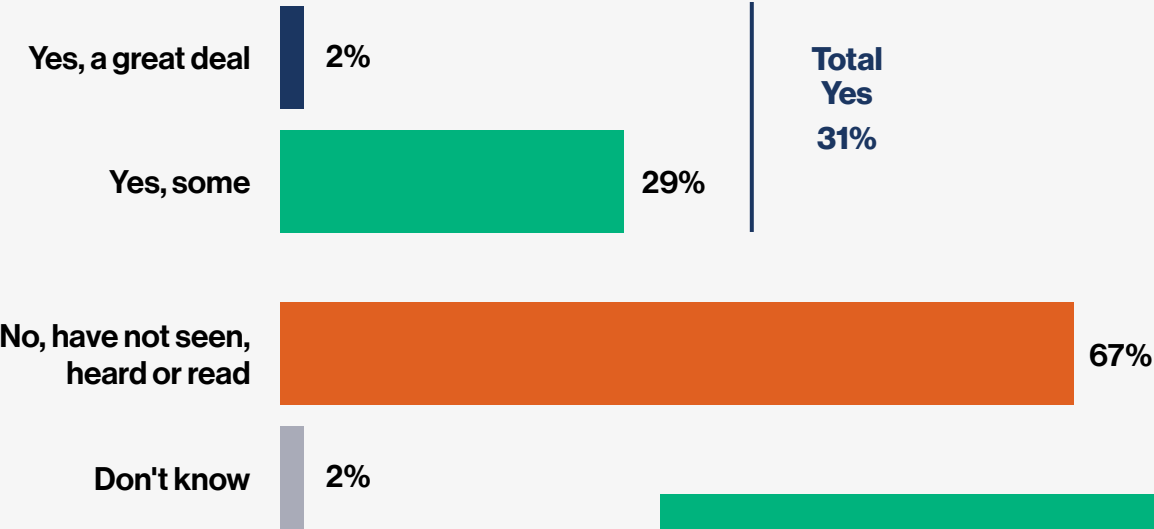
Dates	September 3-12, 2024			
Survey Type	Dual-mode Resident Survey			
Research Population	City of Alameda Residents			
Total Interviews	431			
Margin of Sampling Error	(Full Sample) ±4.9% at the 95% Confidence Level (Half Sample) ±7.0% at the 95% Confidence Level			
Contact Methods	 Telephone Calls	 Email Invitations	 Postcard Invitations	 Text Invitations
Data Collection Modes	 Telephone Interviews		 Online Interviews	
Languages	English, Spanish, and Chinese			

(Note: Not All Results Will Sum to 100% Due to Rounding)

Support for and Awareness of Zero Waste Implementation Plan

Three in ten have heard of the City’s Zero Waste plan, though they do not know it in great detail.

+ Have you seen, heard, or read about the City of Alameda’s Zero Waste Implementation Plan?



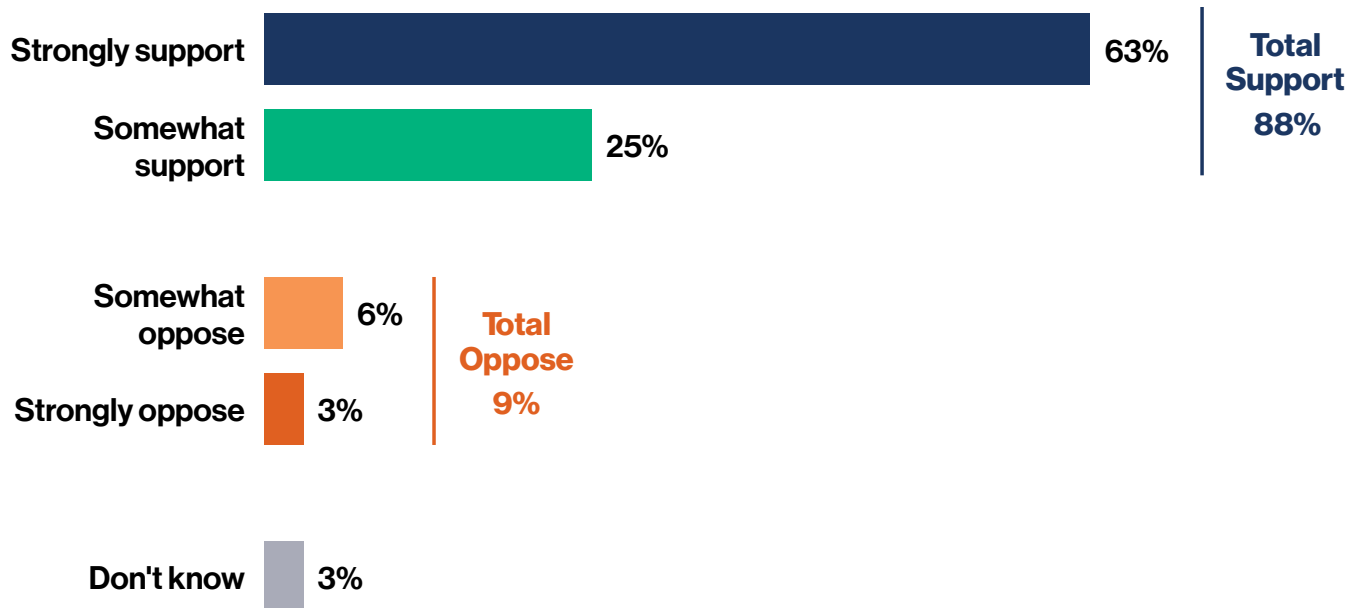
Those most likely to have heard of the Zero Waste plan in total are:

- Ages 65-74
- Live in buildings with 5-15 units
- Women ages 50+
- College-educated women
- Post-grad educated

Q6.

Nearly nine in ten support the City's Zero Waste program when given a basic description of it.

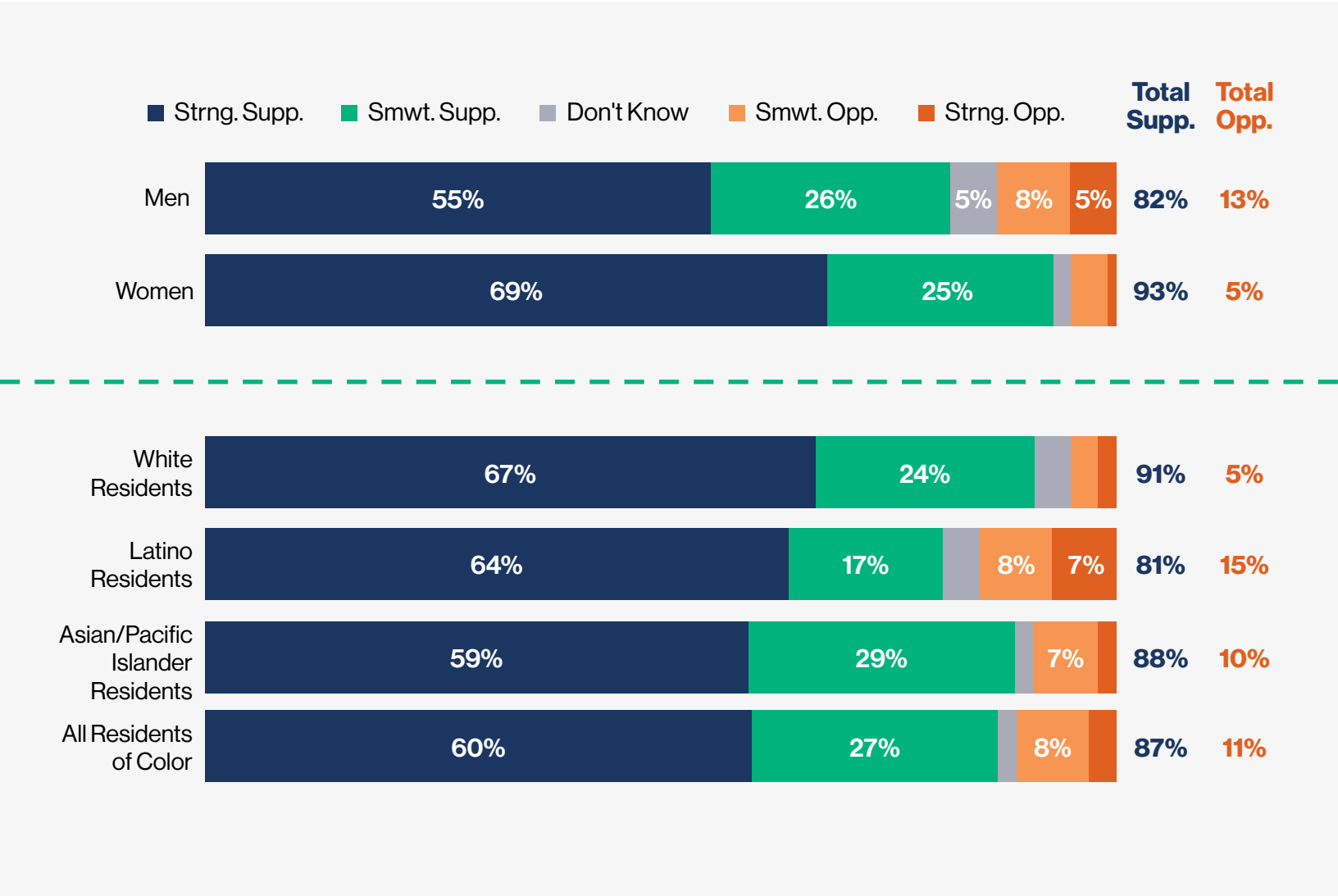
The City's Zero Waste program is a Council-approved policy aimed at reducing the amount of waste generated in Alameda. Reducing the amount of waste sent to landfills limits the pollution that causes climate change, protects Alameda's coastline and natural environment, and improves quality of life. Key elements of the zero-waste program include mandatory composting and recycling for all residents and businesses, education and outreach to help people and businesses reduce waste, and programs and policies to encourage reuse.



Q7. Generally speaking, do you support or oppose this effort overall?

Support for the proposal is shared broadly across gender and ethnicity.

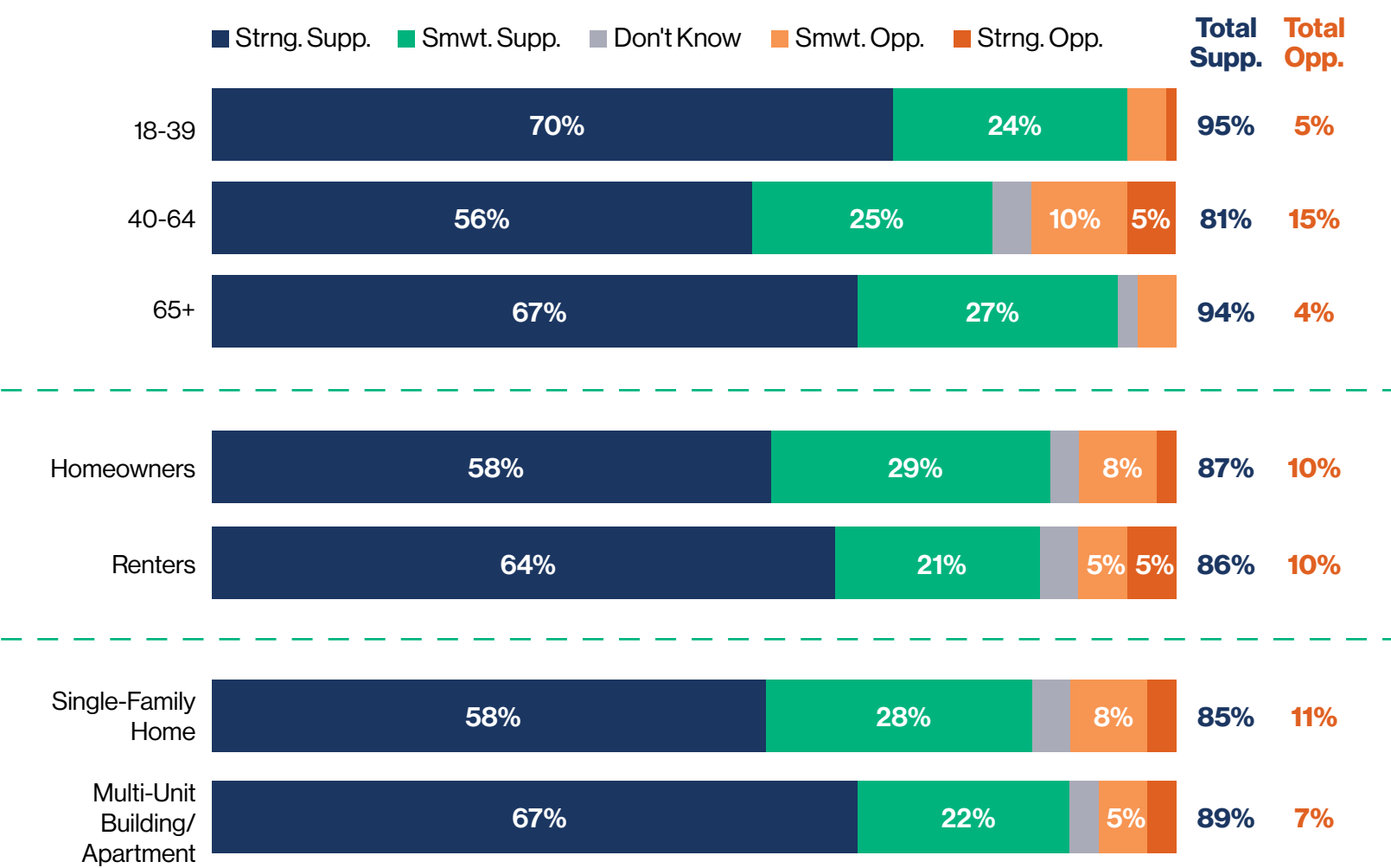
+ Initial Support by Gender & Race/Ethnicity



Q7. Generally speaking, do you support or oppose this effort overall?

Support also cuts across age group, homeownership status, and type of residence.

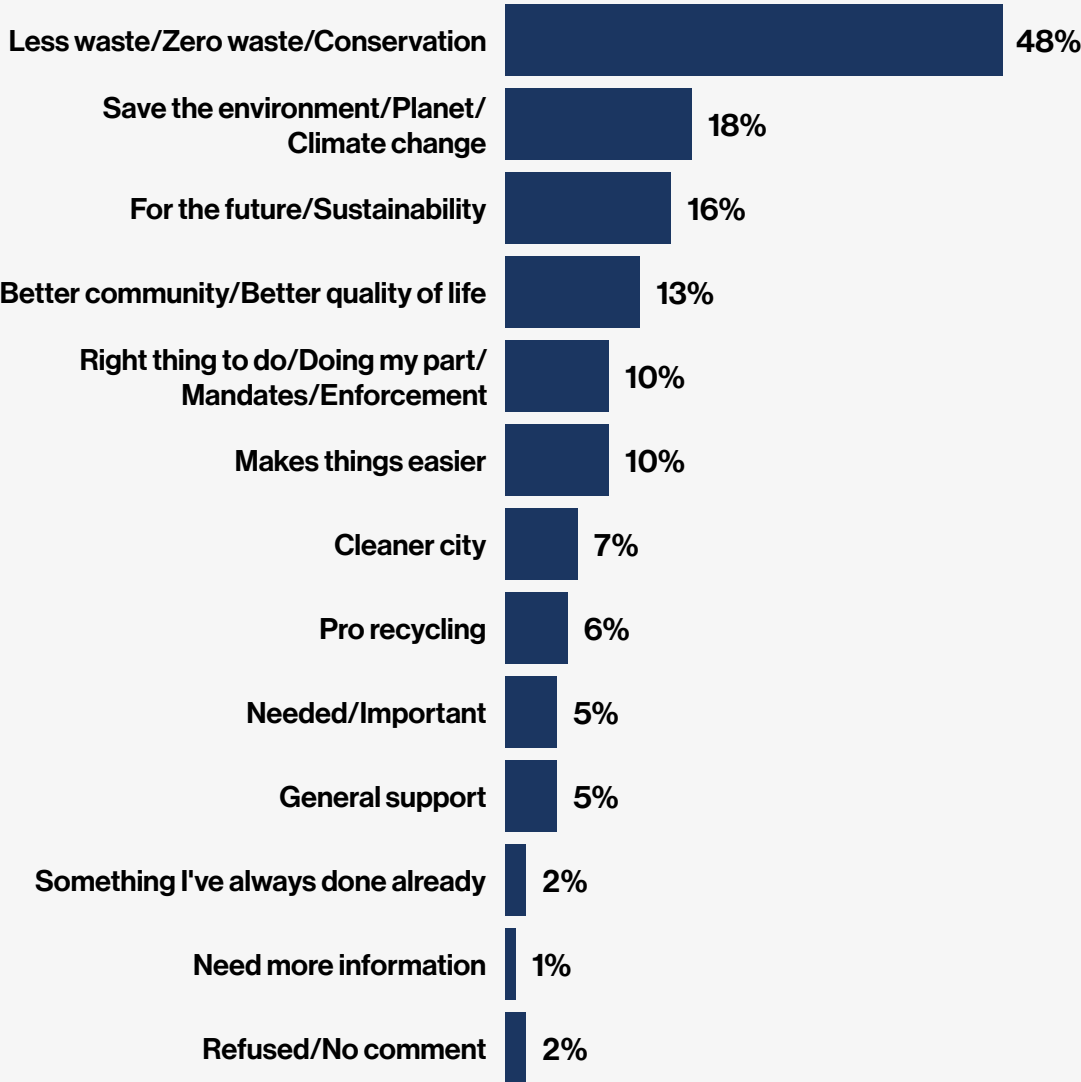
+ Initial Support by Age, Homeownership & Residence Type



Q7. Generally speaking, do you support or oppose this effort overall?

Supporters say they are motivated by addressing climate change impact.

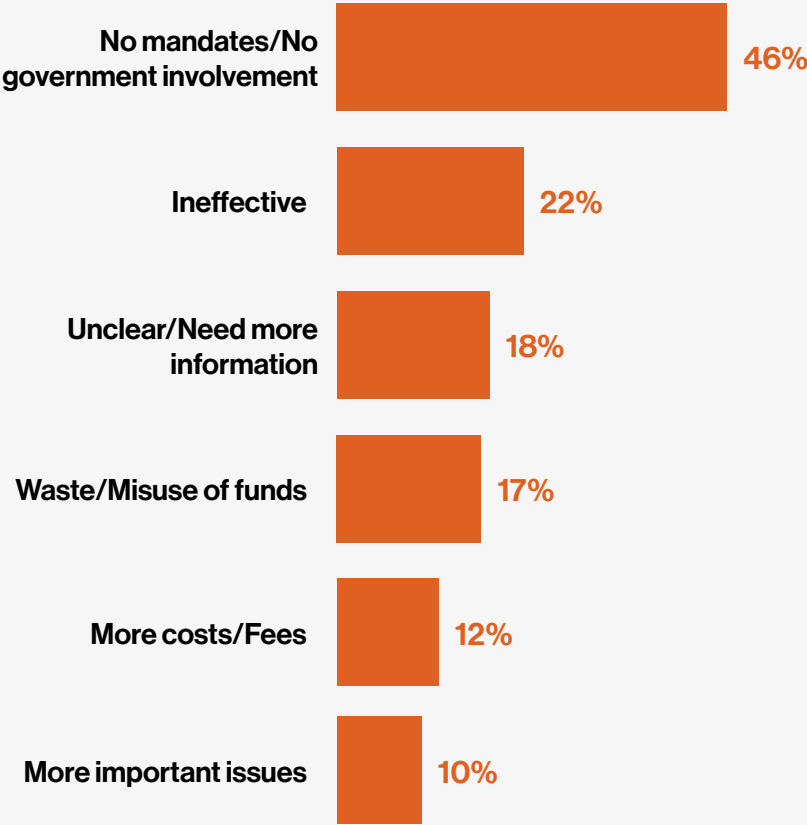
+ *In a few words of your own, why do you SUPPORT Zero Waste Alameda?
(Open-ended; Asked of Supporters Only, n=378)*



Q8a.

Opponents say they are against government mandates.

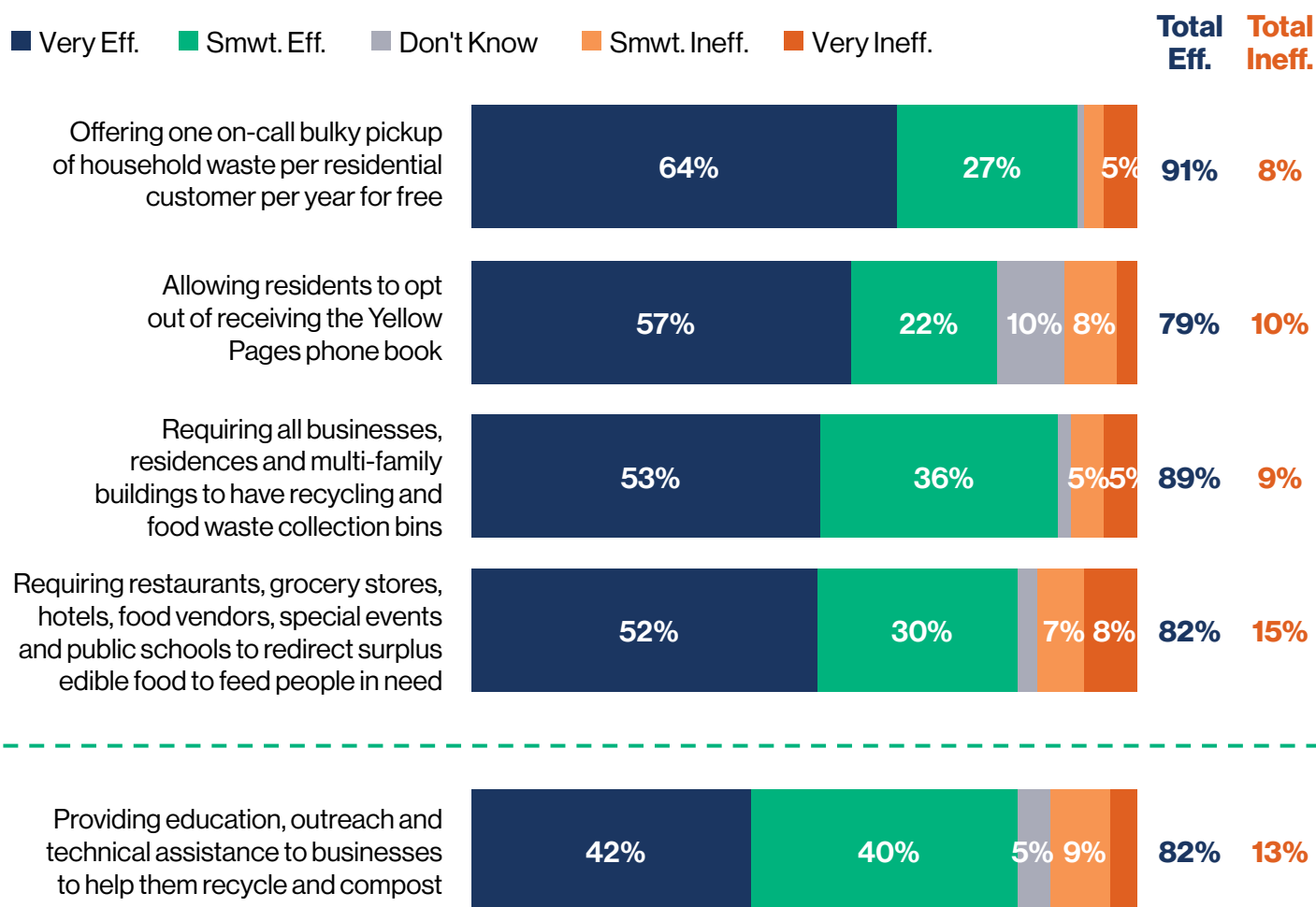
+ *In a few words of your own, why do you **OPPOSE** Zero Waste Alameda?
(Open-ended; Asked of Opponents Only, n=39)*



Q8b.

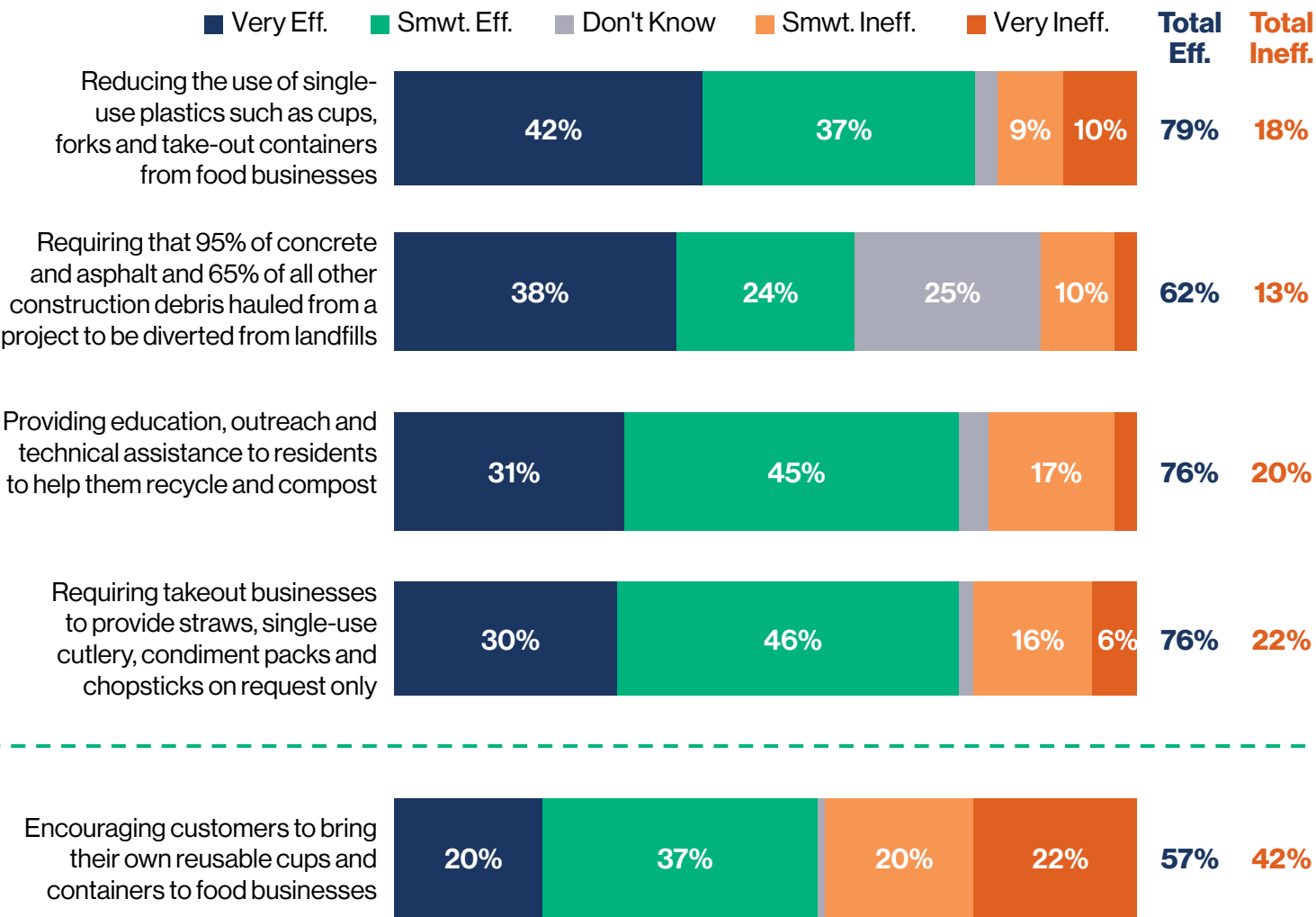
Bulky pickup, Yellow Pages opt-outs, bin requirements, and food recovery mandates are seen as very effective strategies.

+ Here are some different elements of Alameda's Zero Waste Implementation Plan. Please indicate whether you think it is an effective or ineffective way to help Alameda reach the goal of diverting 89% of waste from landfills.



Q9. Split Sample

Encouraging people to bring their own tableware to restaurants is seen as less effective than other strategies.



Q9. Here are some different elements of Alameda's Zero Waste Implementation Plan. Please indicate whether you think it is an effective or ineffective way to help Alameda reach the goal of diverting 89% of waste from landfills. Split Sample

Renters are more likely than homeowners to view bin and food recovery requirements as effective.

Element	Very Effective		
	Residence		
	All Res.	Homeowners	Renters
Offering one on-call bulky pickup of household waste per residential customer per year for free	64%	67%	66%
Allowing residents to opt out of receiving the Yellow Pages phone book	57%	59%	56%
Requiring all businesses, residences and multi-family buildings to have recycling and food waste collection bins	53%	47%	62%
Requiring restaurants, grocery stores, hotels, food vendors, special events and public schools to redirect surplus edible food to feed people in need	52%	47%	57%
Providing education, outreach and technical assistance to businesses to help them recycle and compost	42%	34%	45%
Reducing the use of single-use plastics such as cups, forks and take-out containers from food businesses	42%	43%	41%
Requiring that 95% of concrete and asphalt and 65% of all other construction debris hauled from a project to be diverted from landfills	38%	32%	47%
Providing education, outreach and technical assistance to residents to help them recycle and compost	31%	35%	30%
Requiring takeout businesses to provide straws, single-use cutlery, condiment packs and chopsticks on request only	30%	35%	28%
Encouraging customers to bring their own reusable cups and containers to food businesses	20%	20%	17%

Q9. Here are some different elements of Alameda's Zero Waste Implementation Plan. Please indicate whether you think it is an effective or ineffective way to help Alameda reach the goal of diverting 89% of waste from landfills. Split Sample

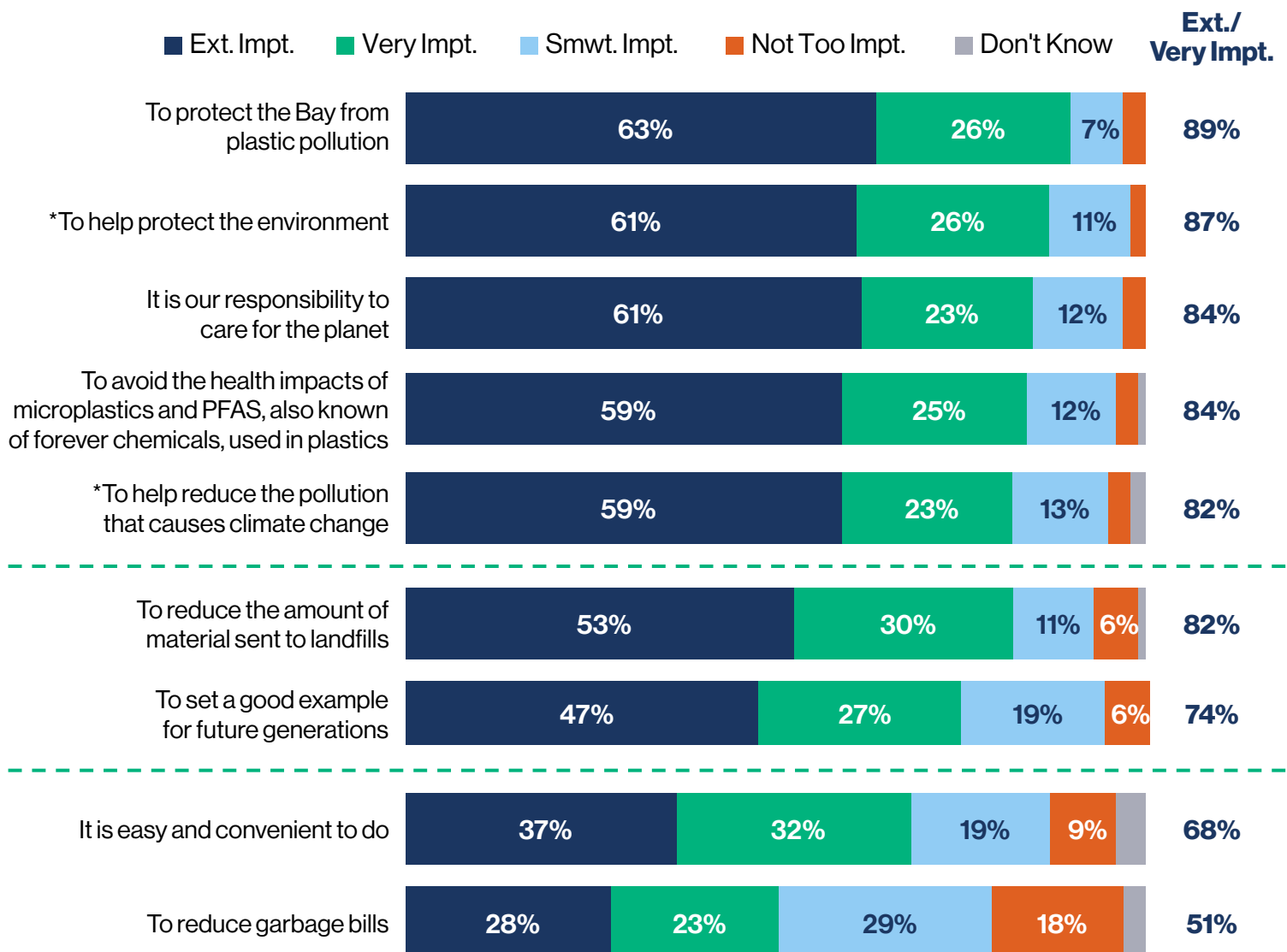
Multi-unit residents are more likely than those in single-units to view food recovery as effective.

Reason	Very Effective		
	Unit Type		
	All Res.	Single-Family Home	Multi-Unit Building/ Apartment
Offering one on-call bulky pickup of household waste per residential customer per year for free	64%	60%	73%
Allowing residents to opt out of receiving the Yellow Pages phone book	57%	51%	64%
Requiring all businesses, residences and multi-family buildings to have recycling and food waste collection bins	53%	50%	53%
Requiring restaurants, grocery stores, hotels, food vendors, special events and public schools to redirect surplus edible food to feed people in need	52%	41%	65%
Providing education, outreach and technical assistance to businesses to help them recycle and compost	42%	44%	39%
Reducing the use of single-use plastics such as cups, forks and take-out containers from food businesses	42%	45%	41%
Requiring that 95% of concrete and asphalt and 65% of all other construction debris hauled from a project to be diverted from landfills	38%	34%	39%
Providing education, outreach and technical assistance to residents to help them recycle and compost	31%	25%	39%
Requiring takeout businesses to provide straws, single-use cutlery, condiment packs and chopsticks on request only	30%	26%	34%
Encouraging customers to bring their own reusable cups and containers to food businesses	20%	22%	23%

Q9. Here are some different elements of Alameda's Zero Waste Implementation Plan. Please indicate whether you think it is an effective or ineffective way to help Alameda reach the goal of diverting 89% of waste from landfills. Split Sample

Motivations

Protecting the Bay and the environment overall are top reasons to participate in Zero Waste Alameda



Q10. Please indicate how important each potential reason to participate in Zero Waste Alameda efforts is for you personally: either extremely important, very important, somewhat important, or not too important. *Split Sample

Homeowners are more likely to say setting an example and convenience are important reasons to participate

Reason	Extremely/Very Important		
	Residence		
	All Res.	Homeowners	Renters
To protect the Bay from plastic pollution	89%	88%	89%
*To help protect the environment	87%	84%	89%
It is our responsibility to care for the planet	84%	82%	86%
To avoid the health impacts of microplastics and PFAS, also known of forever chemicals, used in plastics	84%	84%	84%
*To help reduce the pollution that causes climate change	82%	78%	84%
To reduce the amount of material sent to landfills	82%	83%	82%
To set a good example for future generations	74%	78%	69%
It is easy and convenient to do	68%	73%	63%
To reduce garbage bills	51%	53%	48%

Q10. Please indicate how important each potential reason to participate in Zero Waste Alameda efforts is for you personally: either extremely important, very important, somewhat important, or not too important. *Split Sample

Multi-unit residents are more likely to say taking care of the planet is an important reason for participating.

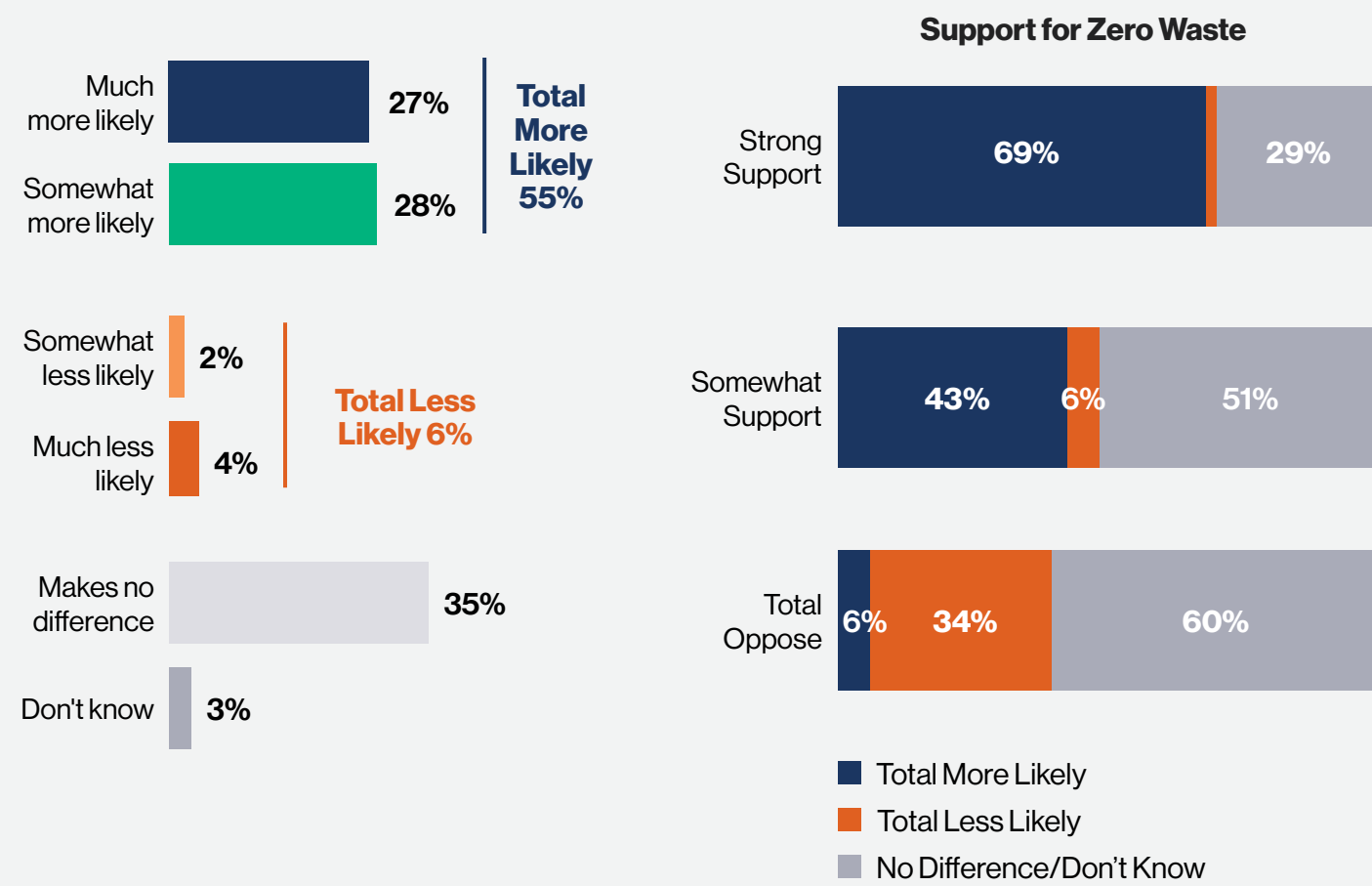
Reason	Extremely/Very Important		
	Unit Type		
	All Res.	Single-Family Home	Multi-Unit Building/ Apartment
To protect the Bay from plastic pollution	89%	87%	92%
*To help protect the environment	87%	81%	94%
It is our responsibility to care for the planet	84%	80%	90%
To avoid the health impacts of microplastics and PFAS, also known of forever chemicals, used in plastics	84%	80%	88%
*To help reduce the pollution that causes climate change	82%	80%	81%
To reduce the amount of material sent to landfills	82%	79%	85%
To set a good example for future generations	74%	72%	74%
It is easy and convenient to do	68%	71%	66%
To reduce garbage bills	51%	53%	50%

Q10. Please indicate how important each potential reason to participate in Zero Waste Alameda efforts is for you personally: either extremely important, very important, somewhat important, or not too important. *Split Sample

Views of Foodware Practices

A majority say they are more likely to order food if served in compostable foodware.

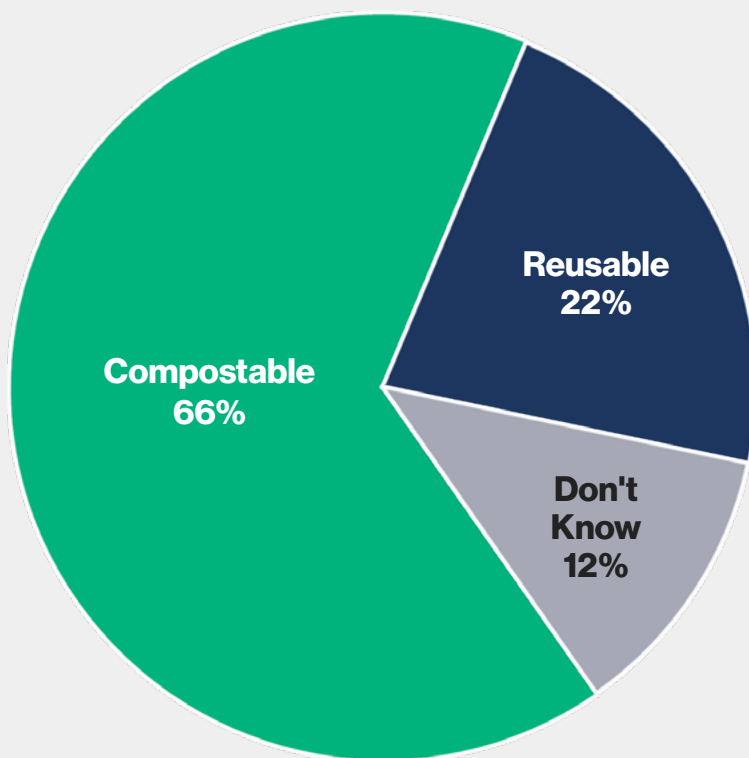
+ *Would you be more likely or less likely to order food or drinks in Alameda if you knew that they only used truly compostable foodware, that is, straws, forks, plates, cups and containers made of things like wood or paper?*



Q11.

Two thirds of residents prefer compostable foodware over reusable foodware.

+ *Generally speaking, would you prefer that food businesses package your order using compostable foodware, or reusable foodware that can be collected, washed and used again?*



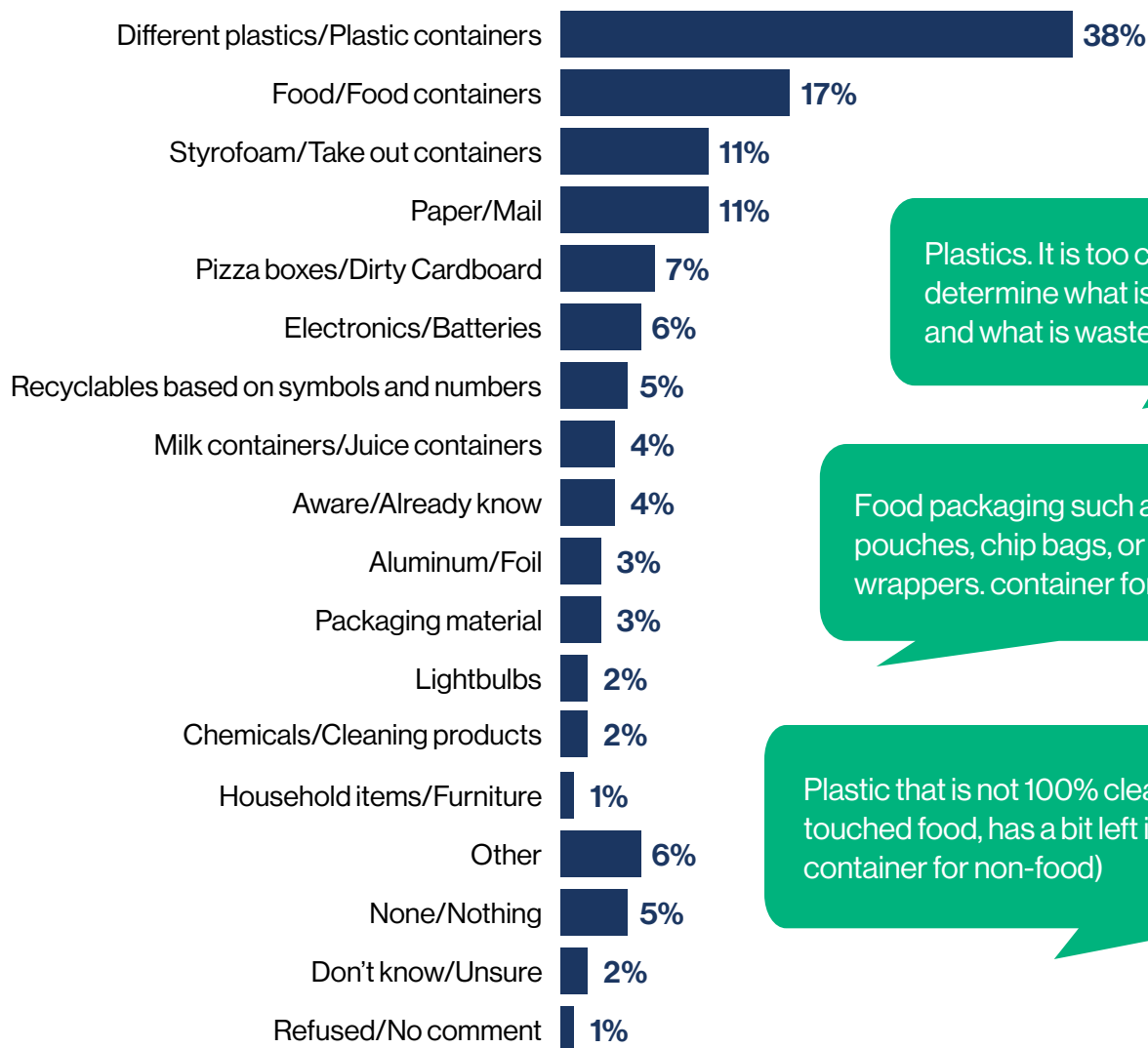
Non-college educated women, women under 50, and nonChinese Asian residents are most likely to prefer compostable foodware.

Latino residents, high school educated residents, and residents ages 65-74 are most likely to prefer reusable foodware.

Q12.

Residents have the most trouble with sorting plastics, followed by food packaging.

+ *There are probably some items that you are unsure how to dispose of. What are the items that you most often find yourself*



Plastics. It is too confusing to determine what is recyclable and what is waste.

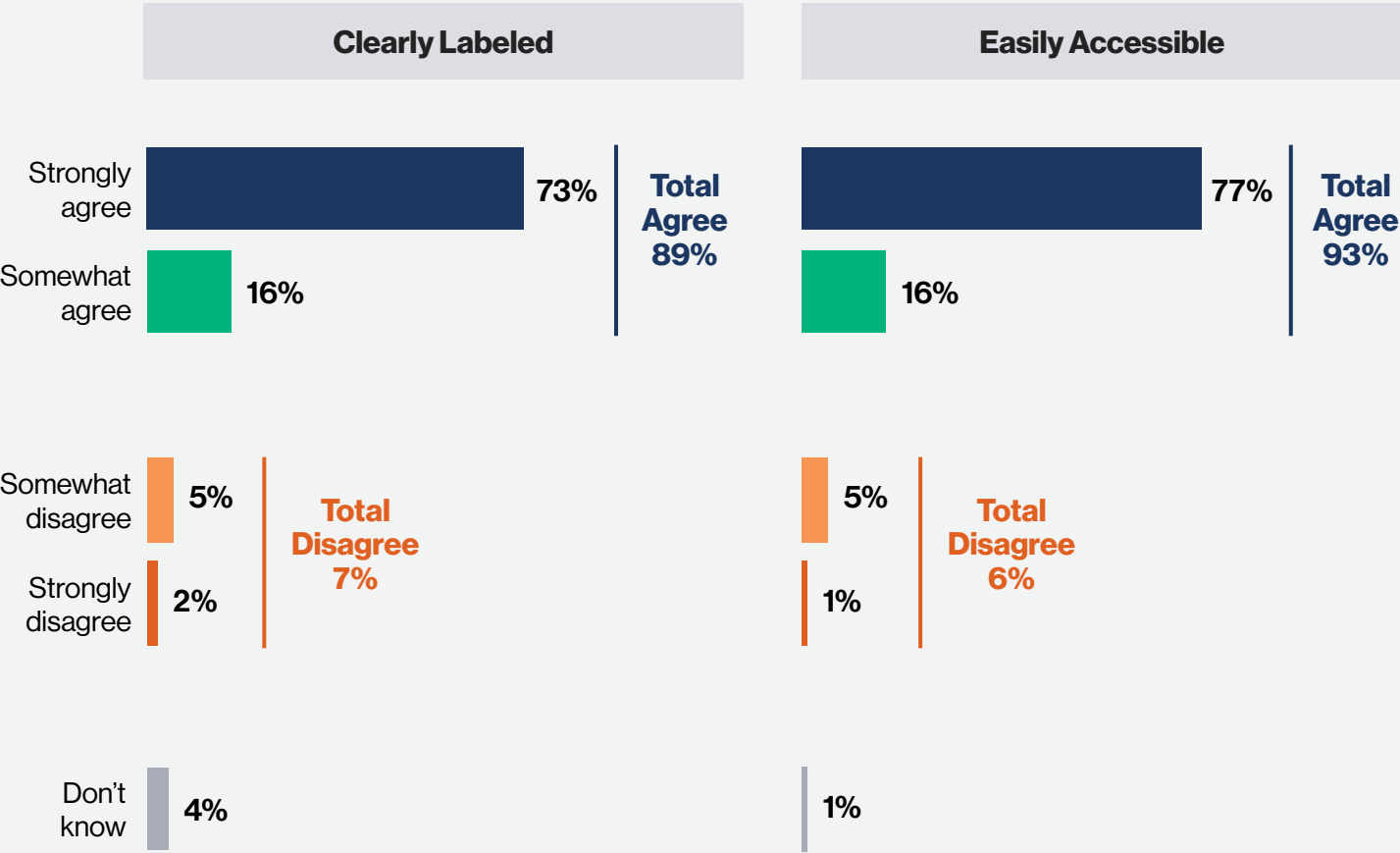
Food packaging such as apple sauce pouches, chip bags, or granola bar wrappers. container for non-food)

Plastic that is not 100% clean (i.e. has touched food, has a bit left in the container for non-food)

Q13.

Nine in ten residents agree that bins in their building are clearly labeled and accessible.

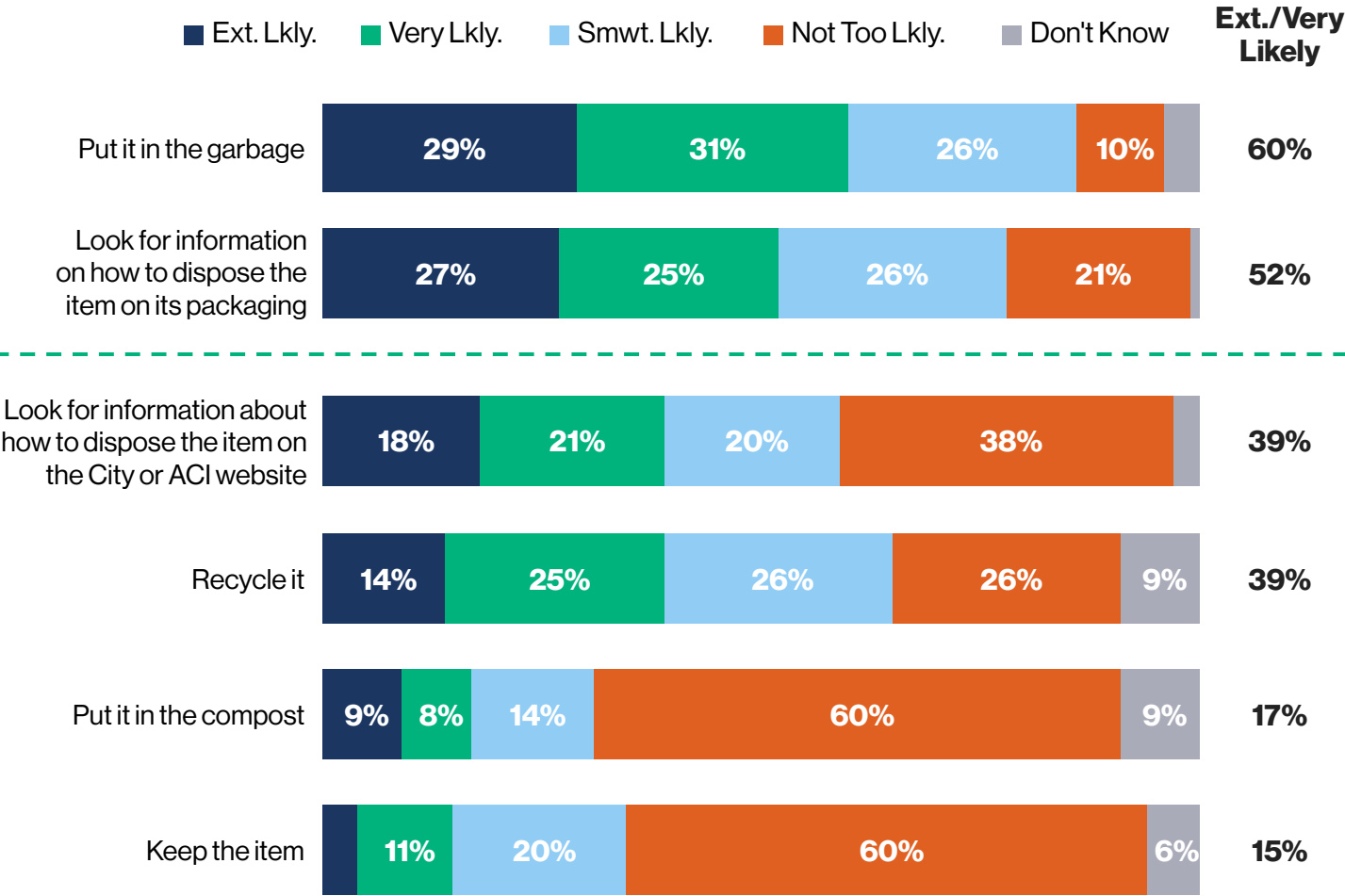
+ “The trash, recycling and compost bins in my building are...” (Asked of Renters Only, n=163)



Q20. Please indicate whether you agree or disagree with each statement.

Residents are most likely to put something in the trash if they're unsure how to dispose of it.

+ *I am going to read a list of things you may do when you are uncertain of how to dispose of something at home. Please indicate if you are extremely likely, very likely, somewhat likely, not too likely, or not at all likely to take this action when you don't know how to dispose of something at home.*



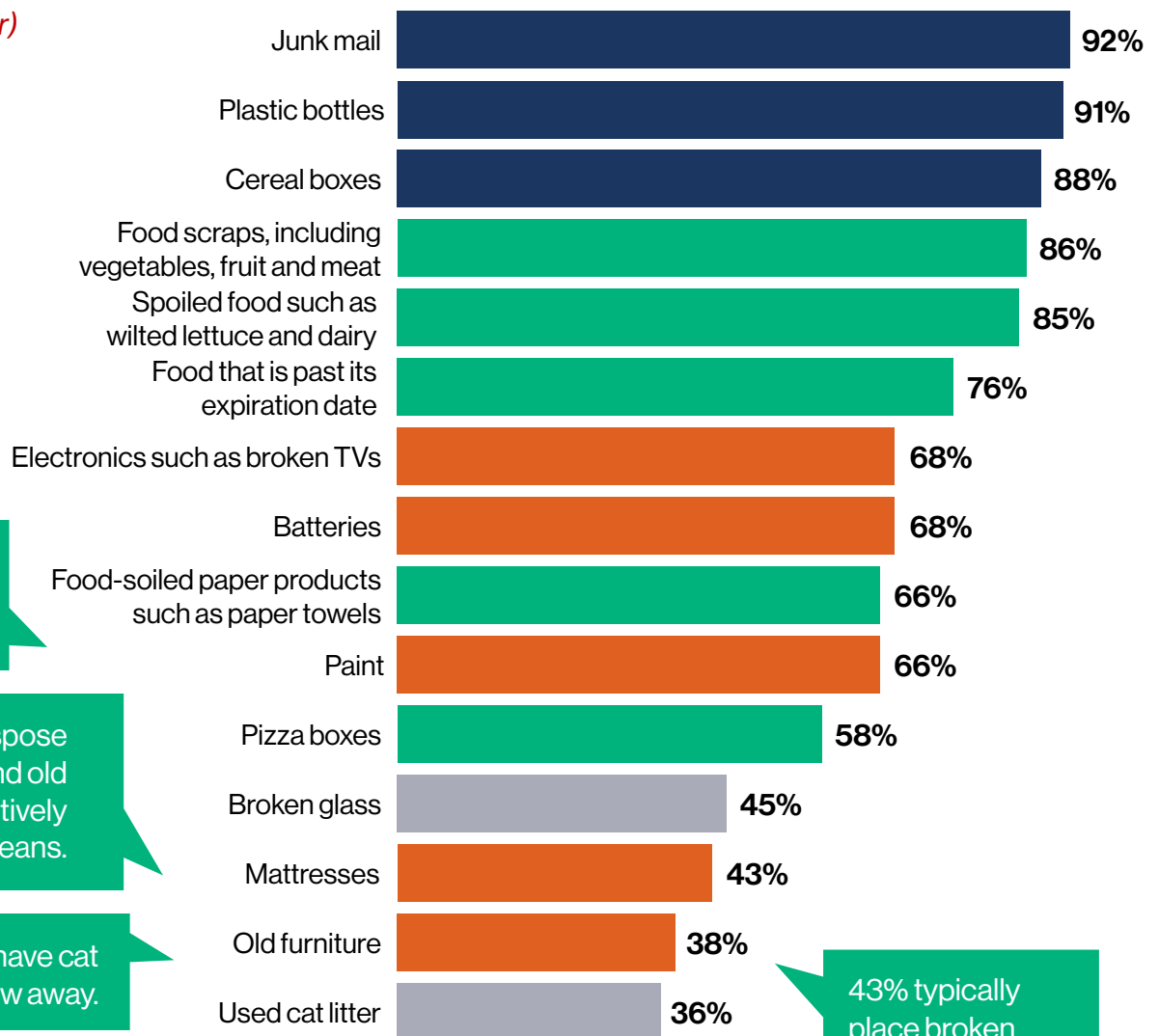
Q16.

Junk mail, plastic bottles, cereal boxes, and food waste are the most common items they dispose of correctly.

+ Here is a list of items. Please indicate how you typically dispose of it at home: do you typically put it in your curbside gray trash container, blue recycling container, or green compost container, or do you take it to a special disposal site?

Gray=Trash Blue=Recycling Green=Compost Orange=Disposal Site

(% Correct Answer)



30% place pizza boxes in recycling.

26% and 37% dispose of mattresses and old furniture respectively through "other" means.

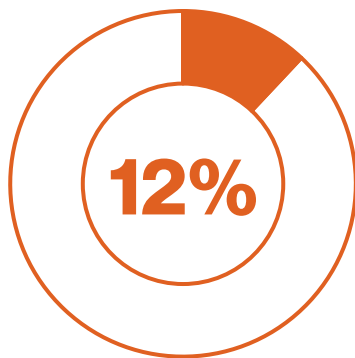
57% do not have cat litter to throw away.

43% typically place broken glass in recycling.

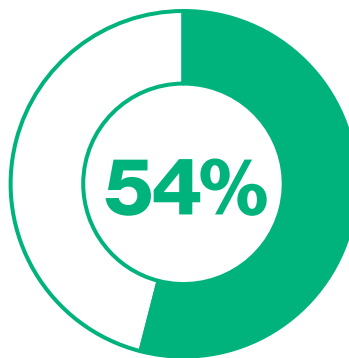
Q14.

A third of residents dispose of most items correctly; a majority do so with half of the items.

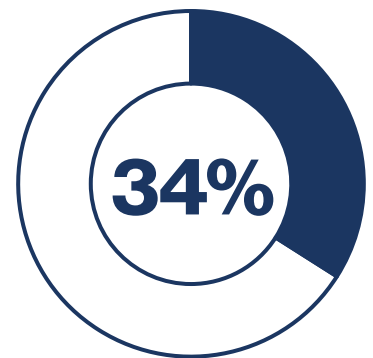
**Fewer than
7 out of 15 Items
Disposed Correctly**



**7-11 out of 15 Items
Disposed Correctly**



**At least
12 out of 15 Items
Disposed Correctly**



Residents most likely to fall into this category:

- Live in buildings with 16+ units
- Are Non-Chinese Asian/ Pacific Islander Residents
- Have shared bins
- Are ages 30-39
- Live in a multi-unit building

Residents most likely to fall into this category:

- Are ages 18-29
- Are high school educated
- Are non-college educated men
- Are ages 75+
- Are women ages 50+
- Are Chinese residents
- Have individual bins

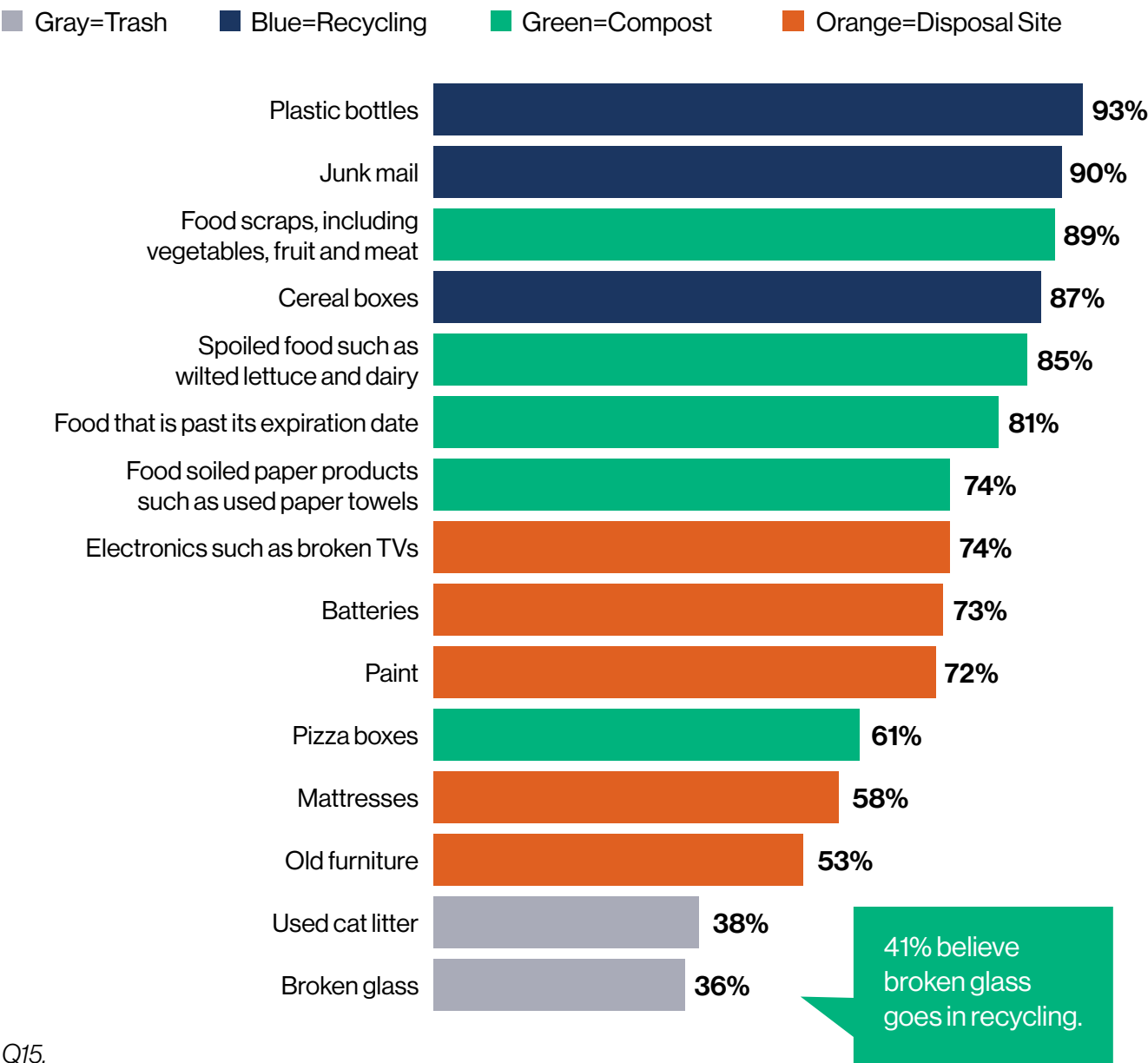
Residents most likely to fall into this category:

- Are ages 40-49
- Are Latino residents
- Are homeowners
- Are white residents

Q14. Here is a list of items. Please indicate how you typically dispose of it at home: do you typically put it in your curbside gray trash container, blue recycling container, or green compost container, or do you take it to a special disposal site?

When it comes to how they “should” dispose of items, they’re right about plastic, junk mail and food scraps.

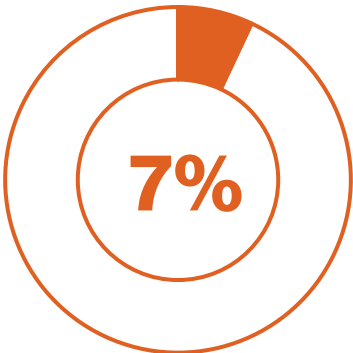
+ Here is the same list of items. Please indicate how you are supposed to dispose of it at home: do you put it in your curbside gray trash container, blue recycling container, or green compost container, or



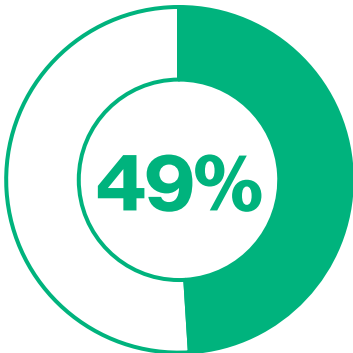
Q15.

Residents know how to dispose of more than half the tested items correctly.

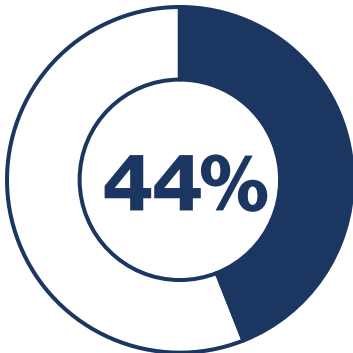
Fewer than
7 out of 15 Items
Disposed Correctly



7-11 out of 15 Items
Disposed Correctly



At least
12 out of 15 Items
Disposed Correctly



Residents most likely to fall into this category:

- Live in buildings with 16+ units
- Have some college education
- Are non-college educated men

Residents most likely to fall into this category:

- Are Non-Chinese Asian/ Pacific Islander Residents
- Are women ages 50+
- Ages 65 or older
- Ages 18-29
- Are residents of color

Residents most likely to fall into this category:

- Are ages 40-49
- Are white residents
- Are Latino residents
- Are women under 50
- Live in buildings with 5-15 units
- Are college graduates

Q15. Here is the same list of items. Please indicate how you are supposed to dispose of it at home: do you put it in your curbside gray trash container, blue recycling container, or green compost container, or do you take it to a special disposal site?

Items of Interest

Item



Broken Glass

- 43% typically throw broken glass in recycling and 41% believe recycling is correct, unaware that it's considered hazardous and therefore not accepted.
- 45% of respondents say they typically throw broken glass in the trash, while 36% believe the trash is correct disposal method. Meaning they are "accidentally" doing the right thing.



Food-soiled Paper

- 74% know to compost food-soiled paper, but fewer (66%) do so regularly.
- 24% regularly throw food-soiled paper in the trash while only 16% believe it is the correct disposal method.
- This gap in behavior is not as wide as with other compost items. The presence of compost bins in restaurant or commercial areas could be a determining factor.



Pizza Boxes

- 74% know to compost food-soiled paper, but fewer (66%) do so regularly.
- 24% regularly throw food-soiled paper in the trash while only 16% believe it is the correct disposal method.
- This gap in behavior is not as wide as with other compost items. The presence of compost bins in restaurant or commercial areas could be a determining factor.

Items of Interest

Item



Mattresses

- 43% say they typically dispose of mattresses at special disposal sites, while 58% believe this is the correct method.
- However, 26% typically dispose of them through “other” means and 27% say it “does not apply.”
- Given that few explicitly answered this incorrectly, it is likely that many residents are simply donating or reselling of their old mattresses



Old Furniture

- 38% say they typically dispose of old mattresses at special disposal sites, while 53% believe this is the correct method.
- 37% typically dispose of old furniture through “other” means and 17% say it “does not apply.”
- As with mattresses, it is likely that many are donating or re-selling old furniture rather than throwing them away.

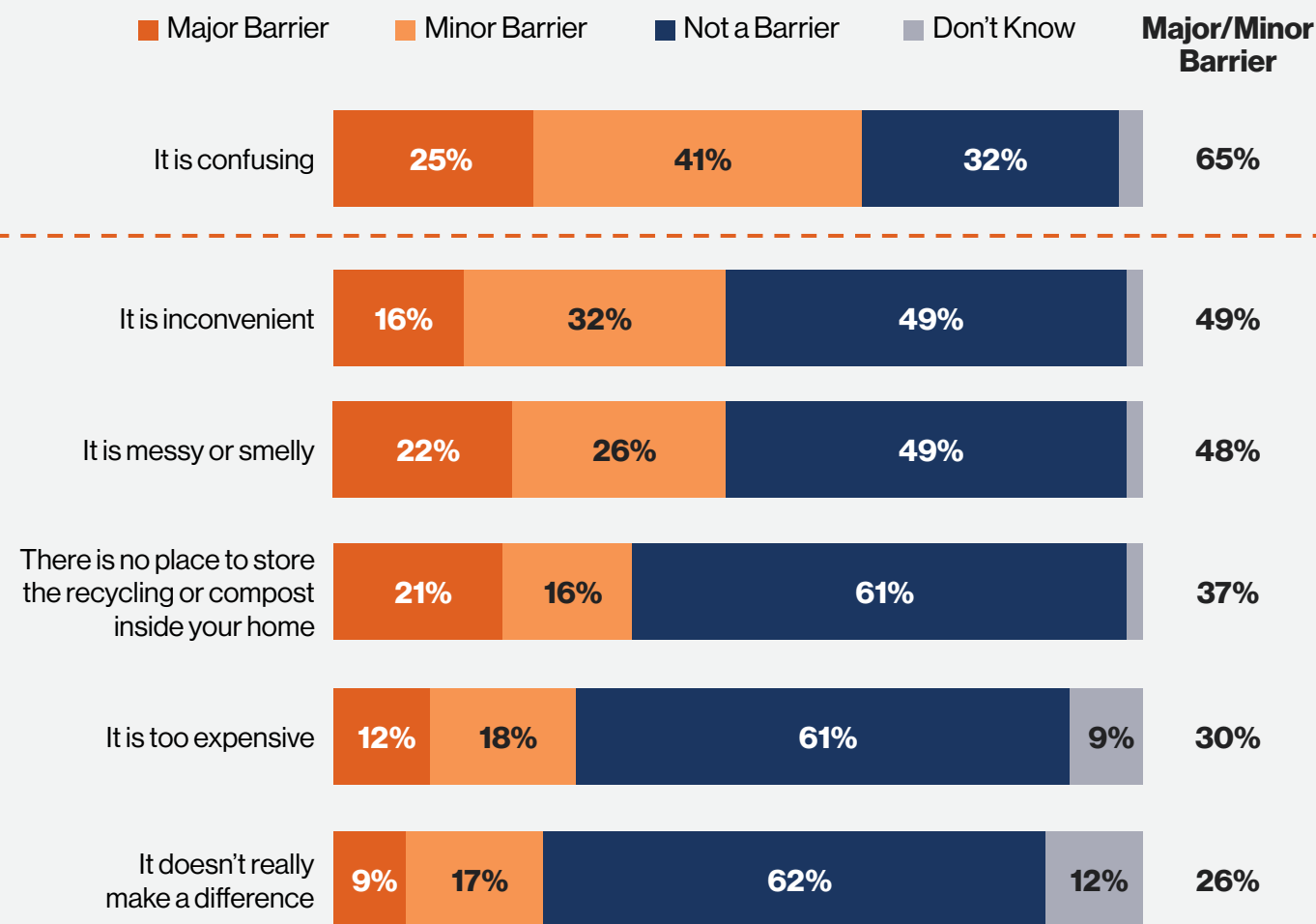
Residents typically know how to properly dispose of many items, but fewer do so.

Item	How Residents Typically Dispose of an Item	Supposed to Dispose of How Residents Are an Item	Difference (Typical vs. Correct Disposal at Home)
Trash Container			
Used cat litter	36%	38%	+2%
Broken glass	45%	36%	-9%
Recycling Container			
Plastic bottles	91%	93%	+2%
Cereal boxes	88%	87%	-1%
Junk mail	92%	90%	-2%
Compost Container			
Food soiled paper	66%	74%	+8%
Expired food	76%	81%	+5%
Food scraps	86%	89%	+3%
Pizza boxes	58%	61%	+3%
Spoiled food	85%	85%	0%
Take to Special Disposal Site			
Mattresses	43%	58%	+15%
Old furniture	38%	53%	+15%
Electronics	68%	74%	+6%
Paint	66%	72%	+6%
Batteries	68%	73%	+5%

Q14 & Q15.

Confusion is the most common barrier for residents sorting their waste.

+ Please indicate how much of a barrier each circumstance is to sorting your waste into recycling or compost: either a major barrier, a minor barrier, or not a barrier.



Q17.

Cost is a slightly larger barrier to sorting for renters than homeowners.

Circumstance	Major/Minor Barrier				
	All Res.	Residence		Unit Type	
		Homeowners	Renters	Single-Family Home	Multi-Unit Building/ Apartment
It is confusing	65%	68%	65%	62%	66%
It is inconvenient	49%	47%	50%	48%	48%
It is messy or smelly	48%	48%	50%	48%	51%
There is no place to store the recycling or compost inside your home	37%	34%	40%	36%	42%
It is too expensive	30%	28%	37%	28%	34%
It doesn't really make a difference	26%	23%	30%	22%	31%

Q17. Please indicate how much of a barrier each circumstance is to sorting your waste into recycling or compost: either a major barrier, a minor barrier, or not a barrier.

Conclusions

01

While relatively few Alameda residents have heard of the Alameda Zero Waste Implementation plan, they overwhelmingly support the plan's goals.

02

Support for conservation and the desire to protect the environment are highly motivating; those who oppose the plan object to government mandates.

03

They are divided on the effectiveness of bringing reusable foodware to restaurants as part of the Zero Waste plan.

04

Redirecting edible food to people in need, requiring bins at all properties, allowing Yellow Pages opt-outs, and offering bulky pickups are considered "very effective" elements of Zero Waste.

05

Half say they would be more likely to order from a restaurant using truly compostable foodware. Asked directly, they prefer restaurants to package their food with compostable foodware than provide reusable containers.

06

While residents know how to correctly dispose of many common items, there is room for education on which types of plastics are recyclable, and on what to do with broken glass and food soiled paper products.

07

Confusion is most common barrier to residents sorting their waste properly.

08

Most say they throw something away when they aren't sure how to dispose of it.

09

Residents are less enthusiastic about reusable foodware.

FOR MORE INFORMATION CONTACT:

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Miranda Everitt: Miranda@FM3research.com

Denny Han: Denny@FM3research.com



OPINION
RESEARCH
& STRATEGY



City of Alameda

Zero Waste
Implementation
Plan 2025

attachment

C



Attachment C:

Proposed Programs Descriptions

Based on the public input received, assessment of historical performance, and guidance from City staff, the following implementation strategies are proposed.

Proposed Programs

1 Conduct a City Zero Waste Rebrand

Program Summary

As part of the recommendations from the 2018 ZWIP Update, the City planned to conduct a rebrand of the current Department of Public Works Zero Waste Program (Zero Waste Program) as a new initiative called “Zero Waste Alameda.” The City did not conduct this rebrand in response to the 2018 ZWIP Update but now has the opportunity to initiate a rebrand and develop educational materials that will be supportive of the recommended programs. Compelling and consistent branding allows initiatives to be immediately recognized as part of the City’s zero waste efforts. This branding along with robust public education creates a positive public impression and aims to increase participation, reduce confusion, and ultimately support behavior change.

This program proposes that the City rebrand the current Zero Waste Program in order to increase consistency and recognition of zero waste programs and drive behavior change. This will include hiring a design firm to develop a new brand profile for the program (logo, colors, etc.) and template materials, as well as developing robust public education and outreach materials. This program proposes that the City update current education materials and the Zero Waste Program webpage with the new branding, as well as develop a suite of new public education and outreach materials (e.g., brochures, guides, flyers, videos) that can be distributed as part of the other recommended programs. The new program may be rebranded as “Zero Waste Alameda,” as recommended in the 2018 ZWIP Update, or another name determined by City staff and the selected design firm. Regardless of the selected name, it is critical that the new branding be used consistently and persistently in order to ensure recognition and retain momentum of the City’s efforts.

The proposed program also includes identifying third parties that may benefit from the branding, such as coordinating with the City’s franchise hauler, Alameda County Industries (ACI), to update their education materials. Additionally, the City can identify and work with influential community organizations on collaborative educational posts or campaigns to amplify the new branding and messaging.

Action Steps

- » **Hire Design Firm to Conduct Rebrand.** *Develop a Request for Proposals (RFP) and select a design firm to conduct a rebrand of the City's zero waste efforts to "Zero Waste Alameda."*
- » **Update Current Education and Outreach.** *Update existing education materials and the City's current Zero Waste Program webpage with the updated branding.*
- » **Develop Education Materials.** *Develop new multi-media education and outreach materials using the new branding.*
- » **Collaborate with Third-Party Partners.** *Identify third parties that may require use of the City's branding, such as ACI, in its customer education materials. Additionally, work to build partnerships with influential community organizations and individuals where shared messaging may be beneficial.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program in coordination with the Community Development Department, Information Technology (IT) Department, Public Information Officer, and City Manager's Office.
- This will be a one-time effort, with on-going education activities as part of current educational efforts and the other recommended programs.
- A budget of \$150,000 has been allocated for one-time costs for a design firm to conduct the rebrand.
- A budget of \$75,000 has been allocated for developing new and updated education and outreach materials.

Proposed Programs

2 Conduct a Multi-Family Bulky Program CBSM Campaign

Program Summary

The City currently provides a bulky item collection program under the City's franchise agreement with ACI. The bulky item program was expanded under the new franchise agreement (updated in response to the 2018 ZWIP Update) to allow single-family and multi-family residents to place bulky items out once per year for collection by ACI. Bulky item collection programs are a helpful tool to address illegal dumping and improper disposal of materials. The multi-family sector in particular is an important sector to target for bulky item collection programs considering the unique challenges that sector faces. For example, high turnover of tenants makes it difficult to provide consistent on-going education and often results in significant amounts of bulky item waste during move-in and move-outs. Multi-family education faces numerous challenges due to varying factors, such as infrastructure, demographics, and language barriers. Barriers in communication channels also create difficulties, such as reaching property managers regarding education and the inconsistent or lack of distribution of educational materials from property managers to tenants. The use of shared service also makes educating individual tenants more complicated compared to single-family homes with clear points of contact and fewer points of responsibility for disposed materials. Additionally, illegal dumping hot spots are often found near multi-family properties. Particularly with high volume of move-outs, items are often placed on the street, hoping that someone else will pick them up to use or assuming they will be collected by the City. When the items are not taken, illegally dumped materials can accumulate causing environmental and public health hazards.

During the stakeholder engagement process for this plan, there was strong support for the bulky program. However, despite prior education and outreach efforts by the City and ACI, the program has been underutilized thus far with an overall participation rate of approximately 40% and nearly 90% of usage by single-family residents. This utilization rate is not out of line with other regional programs, but it provides a helpful indication of where the program could be further targeted. Community stakeholders reported that multi-family residents are not utilizing the bulky item collection service because they are not aware of the program, and better messaging is needed in order to reach these residents. It is critical that this messaging be targeted and effective for that audience in order to promote meaningful behavior change. Community-Based Social Marketing (CBSM) is a tool that can be used to identify and implement the most effective messaging and educational approaches for specific audiences and drive such behavior change. CBSM involves several key steps, including: i) selecting the behaviors to target; ii) identifying the barriers to and benefits of implementing that behavior; iii) developing strategies that may promote behavior change; iv) piloting test strategies at representative test sites; and, v) implementing and evaluating the program. Using CBSM practices ensures outreach conducted within the City related to the zero waste program is specific to the community's needs and therefore is effective in creating behavior change.

This program proposes that the City conduct a CBSM campaign targeting increased use of the bulky item collection program at multi-family properties. This program anticipates that the City will hire a third-party contractor with experience in CBSM to conduct the initial CBSM program. The campaign should incorporate multiple communication channels to effectively reach tenants and property managers, such as door hangers, postcards, digital media, in-person engagements, and community events. To drive behavior change, a variety of CBSM strategies should be used. For example, if an identified barrier to participation was convenience and accessibility, a campaign could include convenience-based strategies, such as clearly marking drop-off locations making participation easy and accessible. Educational materials, such as easy-to-understand guides or video tutorials could be distributed via multiple channels, including emails, flyers, and in common areas, explaining the steps for proper disposal. By removing logistical barriers and simplifying the process, tenants are more likely to use the bulky item collection program, resulting in increased participation and less illegal dumping. Other CBSM tools, such as social norms, public commitments, and visual prompts, can also be utilized, as explained in Program #3.

Implementing these recommendations is beneficial not only for increasing diversion but also supporting other recommended programs. For example, providing education on proper handling of bulky item waste can help reduce illegal dumping, as described above, which supports other programs (e.g., Program #7) that aim to reduce illegal dumping. Additionally, training staff in CBSM will have the long-term benefit of effectively implementing enhanced education and outreach campaigns, including the annual CBSM campaigns in Program #3 below.

The CBSM pilot program is intended to produce a set of tested, educational treatments that can be applied to other properties in the City with similar conditions; however, the pilot program may need to identify treatments for several different types of barriers in order to scale the education tools across the City, as each property has different barriers. After the initial pilot program, it is recommended that education for the multi-family sector be continued on an on-going annual basis. Particularly considering the issue of high turnover at multi-family properties, new tenants will need to be educated using on-going CBSM strategies to support effectiveness of education efforts.



MANY BENEFITS

Implementing these recommendations is beneficial not only for increasing diversion but also supporting other recommended programs. For example, providing education on proper handling of bulky item waste can help reduce illegal dumping, as described above, which supports other programs.

Considering the goal of the program is to increase participation in the bulky item collection program, this program assumes that increased participation will exceed the capacity of the current bulky item collection route. The City will need to meet and negotiate with ACI regarding adding a second bulky item collection route. This potential new cost is reflected in the on-going annual cost per year for this program, and such costs will be lower if not adding a new route. The City will evaluate the results of the multi-family program on an on-going basis to determine whether further expansion would be beneficial and when the additional route would need to be added to ACI's services. The City may consider tying the frequency of this program review to the City's existing quarterly reviews of diversion reports provided by ACI. Additionally, upon maturity of the multi-family bulky item collection program, the City may consider expanding the bulky program to commercial businesses. Such costs of expansion to commercial customers have not been contemplated in this program.

Action Steps

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- » **Collect Data and Engage Stakeholders.** Review existing data from the City and ACI, conduct a survey of residents, and hold focus groups to gather data on barriers, opportunities, and potential strategies.
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- » **Conduct CBSM Trainings.** Train key staff on CBSM practices through attendance at one to two full-day CBSM trainings in order to ensure they are able to effectively implement and manage the program.
-
- » **Develop CBSM Strategies.** Determine which CBSM strategies and treatment options ("treatment intervals") will be tested during the pilot program and select representative sites to be used in the pilot program. Establish clear benchmarks for evaluating behavior change, engagement levels, and overall program impact.
-
- » **Pilot Test Strategies.** Conduct a pilot at identified test site(s) using different CBSM strategies. Analyze established benchmarks for evaluating behavior change, such as conducting audits of each test site to determine whether there was behavior change and documenting results and findings.
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- » **Evaluate the Pilot Program.** After completing the pilot program, conduct an evaluation to determine whether there was increased participation and determine how widescale implementation should be conducted.
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- » **Implement On-Going Education Program.** Implement on-going annual education at multi-family properties regarding bulky item collection.
-
- » **Evaluate Future Programs.** Based on the multi-family program results, evaluate whether expansion of the bulky item program to commercial businesses would be feasible and beneficial.
-
- » **Meet and Confer with ACI.** If participation increases to the point of exceeding the current route capacity, meet and confer with ACI, per the franchise agreement, to discuss changes to the program to accommodate the additional bulky item collection requests.

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program, including coordination with ACI.
- The pilot program may be conducted with resources by City staff and/or a third-party contractor.
- Staff will undergo two CBSM trainings.
- A budget of \$100,000 has been allocated for one-time costs of developing education materials and \$50,000 per year thereafter for on-going material costs.
- Estimated costs for this program include the anticipated cost of adding an additional bulky item collection route at a cost of \$500,000 per year. (Current costs for bulky item collection services are ratepayer funded. New costs may be added to current solid waste rates or funded through alternative means as described in Section 4 of this report).

3 Conduct Annual CBSM Campaigns

Program Summary

Education is critical to achieving culture change at the community level. However, with numerous types of educational approaches and sectors with distinct needs, there is a high likelihood for education to be ineffective unless specifically tailored and adapted to the audience. CBSM tools, as described above, can be used to identify barriers and benefits in various sustainability programs, such as participation in recycling initiatives. In particular, the multi-family sector may require enhanced education efforts due to the unique set of barriers and benefits to recycling that sector faces, such as high-turnover of residents, difficulty with communication channels, and high volumes of waste during move-in and move-outs, as detailed in Program #2 above.

This program proposes that the City conduct on-going CBSM campaigns to identify the barriers and benefits to participation in waste reduction programs and offer targeted education to various communities across the City. The focus of these campaigns will shift year to year, based on the specific needs of each target audience identified through CBSM processes; however, the program proposes placing an initial focus on educating the multi-family sector. Targeting the multi-family sector will help address the unique barriers and benefits of the sector described above, as well as create positive ripple effects on all other programs by increasing participation and fostering a culture of sustainability with residents of the City. There was significant support during the stakeholder engagement process for enhanced education and support for the multi-family sector, and specific feedback was provided on program features that will be most effective for that sector. For example, education needs to reach multiple parties, including the property manager, on-site staff, and any third-party contracts (e.g., janitorial services). CBSM, due to its on-going and dynamic nature, is especially necessary for multi-family properties as they face high turnover and need to be continuously educated.

Regardless of the target program, a variety of CBSM strategies can be used to drive behavior change, such as social norms, public commitments, and visual prompts. For example, a campaign can incorporate commitment devices by encouraging residents and businesses to make a public pledge to use the target program. These pledges could be made via a simple online form or during community events. Participants could receive a sticker or certificate to display in their business, home, or apartment, to reinforce community norms. Additionally, social norm messaging, such as highlighting the number of residents or businesses who properly use the program, can create a sense of collective responsibility. Another effective strategy may be the use of reminders and prompts. This might include sending personalized text messages or emails with reminders about the program and quick tips on how to participate. Throughout all of the CBSM approaches, providing multilingual materials and using visuals to explain the process can help overcome language barriers and make the information more accessible to all.

The City may consider commencing these annual CBSM campaigns after the completion of the multi-family bulky program campaign (Program #2), in order to minimize strain on City staff resources and provide an opportunity to apply lessons learned from the bulky item pilot program to refine future CBSM strategies, ensuring a more effective approach for the broader program implementation.

The program will include conducting an annual evaluation of the prior year's CBSM campaign to inform the design of the next year's campaign. Examples of evaluation metrics that may be used to determine the next campaign may include engagement, participation, diversion results, and community feedback. This program proposes a standard operating budget of \$250,000 to pay for the staffing and direct costs of implementing the identified annual campaign(s). The size of the CBSM campaigns may vary depending on the behaviors targeted and the operating budget may cover one or multiple CBSM campaigns each year.

This program anticipates that the City will hire a third-party contractor with experience in CBSM to conduct the program.

Action Steps

-
- » **Design CBSM Programs.** *Engage a third-party contractor to design education campaigns, using CBSM concepts, which include identifying the targeted behavior, specific audience, and the barriers and benefits to participation in zero waste programs. The initial CBSM campaign will focus on waste reduction initiatives at multi-family properties.*

 - » **Develop and Distribute Education Materials.** *Develop and distribute education materials using CBSM tactics that effectively address the targeted behaviors, barriers, and benefits identified through the process. These educational materials should be varied and may include media such as brochures, newsletters, videos, radio, social media, direct outreach, event booths, in-person engagements, and more.*

 - » **Monitor CBSM Program.** *Continuously monitor the program to ensure education is being properly distributed and reaching the intended audience and track the success of the targeted behavior. Use this information to identify areas of improvement.*

 - » **Evaluate and Design CBSM Campaigns.** *Annually evaluate programs and determine City's upcoming CBSM campaigns. Examples of evaluation metrics that may be used to determine the next campaign may include engagement, participation, diversion results, and community feedback.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program.
- An annual budget of \$250,000 will be dedicated to the design and implementation of CBSM programs, education campaigns, and materials. This is a dedicated budget pool per year, and the cost per campaign and number of campaigns per year will vary based on the annual evaluation and design process.
- The first campaign will be focused on multi-family property recycling initiatives, due to the potential for increased diversion and the unique needs of that sector described above.

4 Develop Guidelines for Permitted City Events

Program Summary

With numerous attendees, high volumes of food service, and challenges with oversight, a single event can generate significant amounts of waste in a short amount of time. Under state law, events and venues are required to implement basic waste reduction programs (AB 2176) and recover edible food, if over a certain size (SB 1383). The City's current special events application form includes information on the City's food ware ordinance, including encouraging the use of reusables. Additionally, the special events application describes the requirement for solid waste, recycling, and organic waste collection service through ACI, and asks applicants to describe how their waste will be handled at the event. However, there is an opportunity for the City to take a further leadership role in improving diversion at events and venues in the City. The City can implement upstream practices such as encouraging source reduction and increasing education, as well as downstream practices such as improving sorting stations and donating items. Considering large events need to be permitted by the City, this provides a touch point for the City to educate event organizers and implement zero waste practices.

This program proposes that the City implement a zero waste program for special events requiring a City permit to operate (approximately 42 per year), including developing policies and guides, supplying infrastructure, monitoring events, and providing ongoing support to improve zero waste practices at events. In alignment with the goals of the 2025 ZWIP Update, it is recommended that the program place a focus on reuse as a key strategy to improve diversion. Additionally, events can implement activities such as clean-up programs to manage downstream impacts of their events. This would involve event organizers conducting a community clean-up before and/or after events to help give back to the community.

The City's first step to implementing these changes is to develop a clearly defined policy that outlines the zero waste requirements. The requirements or guidelines may address areas such as source reduction, use of sustainable vendors, education and signage, acceptable food ware alternatives, encouragement for reuse, suggested features (e.g., water hydration stations to refill water bottles), food recovery, downstream management of waste, clean-up programs, and reporting. In particular, including more robust reporting requirements will be critical to allow the City to monitor program progress over time and identify specific areas of improvement.

In order to ensure the program is implemented effectively, the City will need to monitor events and enforce the requirements if not met. Such monitoring may include having City staff on-site both before the event to inspect event set up and ensure proper systems are in place and after the event to evaluate how the event was implemented. The City can use a combination of education and enforcement in order to align with the City's education-based focus while still ensuring accountability in the case of repeated violations. The City may consider issuing penalties in response to violations, and in the event of multiple violations, may consider revoking the permit of the special event. The penalties from this enforcement can be used to fund mitigation of waste issues caused by the event, as applicable.

Action Steps

- » **Develop Policies and Guides.** *Develop policies and guidance documents that outline requirements for City-permitted events to implement waste diversion practices and encourage reuse.*
- » **Develop Event Materials.** *Develop educational materials that event organizers can use during their events, such as signage for sorting stations or educational flyers about reuse, to the extent not already provided by ACI.*
- » **Monitor Events.** *Inspect events during set-up and after take-down to evaluate how effectively the requirements were implemented.*
- » **Monitor Compliance.** *Conduct on-going permit reviews and audits to identify compliance issues.*
- » **Enforce Requirements.** *Conduct enforcement activities, including initial education followed by monetary penalties for continued violations.*
- » **Evaluate the Program.** *Conduct an evaluation of the program after three years to compare progress of events year-over-year and determine whether modifications to the program are needed.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- Zero Waste Program staff will be responsible for the program, in coordination with the Finance Department, IT Department, and City Manager's office.
- There are approximately 40 City-permitted events.
- A budget of \$20,000 will be dedicated to producing initial education and outreach materials, and there will not be an on-going education and outreach material budget.

Proposed Programs

5 Develop Zero Waste Policies for City Departments

Program Summary

In order to demonstrate the importance of zero waste behavior, the City has the opportunity to lead by example within its own departments and facilities. In recent years, the City began the process of updating its environmentally preferable purchasing policy. The City is required to meet recycled content paper requirements set forth under state law, SB 1383, and the City updated the municipal code and purchasing policy to reflect such requirements. While these are beneficial first steps, the City has the opportunity to develop a more targeted and holistic model, with more dynamic monitoring, to successfully increase diversion and demonstrate culture change. This aligns with priorities in the community, as the City setting the example was a theme heard during the stakeholder engagement process for this 2025 ZWIP Update.

This program proposes that the City develop internal staff policies to encourage zero waste and monitor department activities in order to achieve the aforementioned goals. It is important to recognize that each department has unique functions and needs. Therefore, this program includes the Zero Waste Program staff conducting interviews with each department and developing department-specific action plans, to allow variation by department based on specific needs. For example, some departments may require a dishwasher for reusable food ware programs whereas other departments may focus on solutions such as removing desk-side trash containers to encourage use of sorting stations and reusable materials. The program would encourage, but not require, use of reusable products and practices around reusing materials. An example of encouraging reuse that may apply to City departments is purchasing used furniture or sharing furniture amongst departments first rather than purchasing new.

Examples of staff policies that could be implemented in the action plans include:

- Remove desk side trash containers in favor of centralized sorting stations
- Install dishwashers to encourage reusable food ware or partner with reusable food ware services
- Aim to purchase second-hand furniture prior to purchasing new, and donate reusable items at end of life rather than disposing
- Establish dedicated spaces for building reuse exchanges
- Purchase reusable and refillable office supplies (refillable pens, rechargeable batteries, etc.)
- Ensure items purchased are reusable or recyclable at end of life
- Digitize office practices that would otherwise require supplies (e.g., using electronic signatures and documents rather than printing hard copies)
- Default printer settings to print double sided and provide a scratch paper bin next to printers for paper reuse
- Install signage to remind staff of zero waste practices
- Update department employee onboarding materials to include the latest zero waste rules
- Increase the percentage of recycled content paper in purchases and give a price preference to recycled content products
- Purchase from vendors who minimize packaging and/or use recycled packaging

In addition to developing policies, incentive approaches can be implemented. For example, departments typically use their specified department funding to procure items; however, if implementing reusable programs, the City's zero waste budget could be used to support implementation. In order to incentivize culture change, the City can provide recognition of departments that are excelling at reuse practices, or the City can implement competitions between departments to encourage zero waste behaviors.

To set departments up for success, the program proposes that the City conduct trainings for department staff (including janitorial staff) on the new requirements. These trainings will occur in the first year of the program and annually thereafter. This training will allow Zero Waste Program staff to educate other department staff as well as provide outreach materials and tangible resources (e.g., containers) for their department to use on an on-going basis.

To make implementation more effective, this program proposes that the City identify a primary point of contact in each department that can serve as a "Sustainability Ambassador." The Sustainability Ambassador would be responsible for communicating with Zero Waste Program staff and would be encouraged to promote the program within their department. This allows not only more streamlined communication but also builds buy-in by having a known and trusted voice promote the program internally.

A policy is only as effective as its implementation, and monitoring of departments' progress will be a key aspect of successfully executing this program. Annual reporting by each department on the status of its department-specific action plan will allow the Zero Waste Program staff to collect data and more effectively monitor progress. Additionally, on-going monitoring and audits will allow Zero Waste Program staff to provide recommendations for improvement to each department. This will include the City reviewing annual reporting and conducting an annual audit of each department to determine the extent to which each department has implemented the requirements. The action plans for each department can be used as a compliance checklist for the audits. Following each audit, the City can use a combination of education, enforcement, and incentives, as described above, to support future compliance. The City will follow up with the Sustainability Ambassador regarding the results of the audit and provide suggestions for improvement.

The program proposes that the City conduct an overall evaluation of the program in year three of implementation, in order to measure year-over-year changes and inform whether future adjustments to policies or implementation strategies would be beneficial.

Action Steps

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- » **Develop Policies and Guidelines.** *Develop internal staff policies to encourage zero waste, with room for customization for each department.*

 - » **Research Support Options.** *Research options for providing compliance support to departments, such as providing dishwasher support or services for reusable cups.*

 - » **Conduct General Staff Trainings.** *Conduct annual trainings for department staff on requirements and best practices, including training janitorial staff.*

 - » **Conduct Trainings on External Vendors.** *Conduct trainings for City staff that manage contracts with external vendors regarding environmentally preferable purchasing practices and requirements.*

 - » **Implement Incentives.** *Implement incentives to encourage participation and compliance with policies (funding support, recognition of excelling departments, etc.).*

 - » **Monitor Program.** *Monitor progress of each department, including conducting annual audits of each department and providing follow-up recommendations.*

 - » **Provide Compliance Support.** *In response to annual audits as well as general on-going monitoring, support departments with compliance such as providing additional education and resources, answering questions, and addressing issues as they arise.*

 - » **Evaluate Program.** *Conduct an evaluation of the program in year three to compare year-over-year changes.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- Zero Waste Program staff will be responsible for developing policies and implementing the program, in coordination with the Finance Department, IT Department, and the City Manager's office.
- No budget was allocated for one-time education costs, as initial materials will be developed as part of the City zero waste rebrand program (Program #1).
- A budget of \$10,000 will be allocated for on-going education materials costs.
- There are 15 City departments.
- Three trainings per year will be conducted for janitorial staff.

6 Provide Small Businesses Support and Resources

Program Summary

Local businesses are vital members of the community in Alameda and continue to be critical to the success of City-wide zero waste efforts. A theme heard throughout the community engagement process was that more engagement with and support for local businesses will be needed during implementation of zero waste programs, particularly small businesses. In response to recommendations from the 2018 ZWIP Update, the City engaged a contractor, SCS Engineers (SCS) to conduct technical assistance to commercial businesses. Between October 2018 and July 2023, SCS conducted 931 site visits to commercial businesses and 246 site visits to multi-family dwellings, as well as other assessments, trainings, emails, and phone calls. SCS reported a positive correlation between the outreach conducted and increased diversion of recyclables and organics. That outreach first focused on targeting “large generators” and the content was largely focused on mandatory organics and recycling collection. Large generators have received more focus, as they produce more waste and therefore have a higher diversion potential. However, this has left small businesses with less support when such businesses already face barriers like limited resources compared to large generators. Small businesses would benefit from additional support from the City.

This program proposes that the City increase resources provided to small businesses to implement zero waste practices within their business operations. This will include reinitiating technical assistance visits conducted by a third-party contractor. These visits will be targeted at small businesses rather than large generators, with a greater focus on zero waste practices and reuse. The City can develop a “Zero Waste Start-Up Kit,” to provide to local businesses as part of this assistance. This kit can be provided to new businesses to ensure they are proactively implementing zero waste practices, as well as to current businesses that need to come into compliance with requirements, such as the food ware ordinance, or that wish to expand their zero waste practices. This kit may include components such as informational videos, check-lists, signage, internal containers, trainings, and more. City staff will continue to explore ways to engage businesses in their opening phase (versus post-opening). It is recommended that the technical assistance include general outreach such as providing education materials, as well as in-person engagement. Developing relationships with the small businesses will be critical to success, and providing in person outreach can support this goal. The City can also develop positive relationships by providing recognition for the businesses that are succeeding at zero waste practices. This might include featuring successful businesses on the City’s website and social media or providing a “Zero Waste Business” certification or award that businesses can display to the public to demonstrate they are implementing zero waste practices. This type of recognition not only rewards local businesses for their commitment but also demonstrates a culture of zero waste to the broader community, fostering a culture of sustainability.

The City will evaluate the program between years one and three to determine if changes are needed to improve effectiveness.

Action Steps

- » **Establish Baseline.** Determine the baseline conditions of small businesses' practices in order to have a point of comparison for on-going monitoring of the program.
- » **Develop Education and Outreach Materials.** Develop education and outreach materials to be provided to small businesses during technical assistance and on an on-going basis.
- » **Conduct Technical Assistance.** Work with a third-party contractor to reinstate technical assistance efforts for small businesses and oversee the contractor's efforts.
- » **Oversee Technical Assistance and Evaluate Program.** Oversee the contact for technical assistance and results of education campaigns and determine if alternative or additional resources are needed in response to shifting needs or new regulations.

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program, with technical assistance provided by a third-party contractor.
- A budget of \$175,000 has been allocated for one-time education and outreach materials costs.
- A budget of \$25,000 per year has been allocated for on-going education and outreach materials costs.
- The program will target approximately 75 businesses considered “small businesses” within the City.



7 Develop a Grant Program for Take-Away Reusables Cups

Program Summary

In October 2017, the City demonstrated its commitment to reducing plastic pollution and diverting waste by developing a disposable food ware ordinance that requires businesses to use only reusable or compostable fiber-based food ware, and in 2022 adopted additional provisions requiring single-use food ware accessories and condiments to be provided upon request. In 2017, the City partnered with Rethink Disposable on the “Unpackaging Alameda” program – a two year pilot program to encourage reuse at food businesses in the City. The program certified 80 Alameda businesses that switched from disposable to reusable food ware, estimating a reduction in 6,199,840 pieces of single-use food ware, prevention of 2.34 tons of waste, and cost savings of a collective \$139,231 per year. However, the City has faced challenges in implementing the disposable food ware ordinance and program. For example, the COVID-19 pandemic set back efforts to implement reusable programs due to public health concerns and shifting economic priorities for local businesses. Based on the community survey conducted during the stakeholder engagement process, there has been lower support for reusables as an effective method for reaching zero waste goals compared to other strategies. When presented with a list of programs from the 2018 ZWIP Update, respondents marked their perception of how effective various strategies were at helping the City achieve its zero waste goals. 57% of survey respondents reported that encouraging customers to bring their own reusable cups and containers to food businesses was an effective strategy, which was the lowest percentage of all strategies listed. When asked if they would prefer compostable or reusable foodware, 66% said compostable, 22% said reusable, and 12% did not know. In contrast, during stakeholder engagement meetings, there was strong enthusiasm for reusable programs and a desire to overcome barriers in implementation. This indicates there is a clear gap in how reusable programs are being implemented and perceived in the City and that additional education and implementation efforts are needed. It also suggests that a phased-in approach that focuses first on developing broad based support for the idea of reuse infrastructure may be beneficial for widespread effectiveness. To address these gaps, this program intends to implement education-focused and incentive-based campaigns first to create foundational support that may build into more robust reusables policies or requirements in the future.

With a multitude of different types of food ware items at restaurants, each with different uses and types of alternatives available, making the switch to reusables does not happen overnight. One strategy that can be used is a phased in approach, which more narrowly targets one material type or service type initially in order to build habits around reuse. For example, “bring your own” (BYO) campaigns have emerged across the state to encourage reuse of targeted items such as reusable bags and reusable to-go cups. This program proposes that the City use this targeted and phased in approach, with an initial focus on reusable to-go cups. While to-go cups are often designed as “recyclable” or “compostable,” many end up in landfills or are littered into the environment. Additionally, paper cups are often lined with polyethylene plastic, making them difficult to recycle and compost. Small plastics such as lids, straws, stirrers, and spill plugs that accompany cups are also not recyclable and clog machinery at recycling facilities. Switching to reusable cups helps mitigate these issues and is a tangible first step that consumers can take to shifting to zero waste practices.

This program proposes using a phased-in approach to promoting reusables, with an initial focus on developing a grant program for small businesses to transition to reusable to-go cups. While providing education is an important piece of the puzzle, providing tangible funding will make switching to reusables more feasible and accessible to small businesses. The proposed grant program will include awarding 10 grants of \$5,000 each per year over a span of five years to small

businesses in the City. This funding can be used by small businesses to develop reusable cup programs, such as partnering with reusable cup return services. For example, 12 businesses in the City have partnered with Okapi Reusables, which provides reusable cups for customers to borrow and then return to any café in the network within two weeks.

The proposed program includes the City developing education and outreach materials about the grant program, including outreach to the businesses as well as education materials that businesses can display for customers regarding the program. After the first and third year of the program, the City will evaluate the program to determine whether it should be expanded to other reusable materials or service types. For example, the City can consider expanding programs to support reusables for dine-in service, similar to the ReThink Disposable Unpackage Alameda Program described above. Additionally, the City can continue to evaluate whether to bring forward an updated food ware ordinance that includes some mandatory provisions regarding reusable food ware, and how that implementation should be sequenced with other programmatic efforts.

Action Steps

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- » **Develop and Distribute Grant Application.** *Develop an application for small businesses to complete to be eligible for the grant program and distribute the application via the City's website and in conjunction with existing outreach.*

 - » **Select Applicants and Award Funding.** *Review applications, select grant recipients, and provide funding and other resources to support implementation of the reusable cup program.*

 - » **Develop Outreach Materials.** *Develop education and outreach materials for local businesses on the grant program, both for the program and for businesses to display.*

 - » **Coordinate with County-Wide Efforts.** *Meet with StopWaste to coordinate with other County-wide efforts on reusables implementation.*

 - » **Evaluate Program for Expansion.** *Evaluate the results of the grant program after the first and third year and consider whether to expand programming to other types of food ware. For example, the City can determine whether to expand the program to cover reusable materials for dine-in customers, similar to the*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program, in coordination with the Finance Department and City Manager's office.
- Ten grants per year will be awarded over a period of five years.
- Each grant will be worth \$5,000.
- A budget of \$25,000 will be allocated for one-time education materials costs, and \$5,000 per year will be allocated for on-going education materials costs.

8 Expand Construction and Demolition Debris Program

Program Summary

While the City has set largely successful construction and demolition debris (C&D) diversion programs and standards through requirements in the municipal code, waste management plans, and the use of the Green Halo reporting system, the City has the opportunity to divert even more waste not regulated under the current program. The City is compliant with California's Green Building Standards Code (CALGreen), which requires specified construction and demolition projects to divert from landfills 65% of C&D generated at the project site through reuse or recycling. Additionally, pursuant to the City's Municipal Code, any projects with a cost of over \$100,000 are required to submit a waste management plan (WMP) to the City, which requires the construction project to detail how waste will be managed during the projects, including how the project will meet the City's required diversion goal and demonstration that such target has been met. Such project applicants must also consider deconstruction, to the maximum extent feasible, to prioritize reuse of the materials.

To increase diversion, this program proposes expanding such requirements to smaller C&D projects (approximately 100 new projects), increasing the amount of education to support projects, and monitoring compliance. The City will maintain the diversion requirement of 65% percent, in alignment with CALGreen requirements, but expand the diversion and WMP requirement to all projects, including small projects with a cost under \$100,000. It is important to recognize that small C&D projects have unique challenges that set them apart from large-scale C&D projects. There is often limited space at the project location and lower volumes of materials being generated for disposal and processing. As a result, solutions like source separating materials into separate roll-off containers for disposal and diversion may be more challenging. Smaller C&D projects should be encouraged to use deconstruction to the maximum extent feasible, as stated in the Municipal Code, but in most cases it will be most practical to meet the diversion requirement by having ACI collect the mixed C&D and deliver the material to a verified facility to process their materials. This will help the project meet diversion requirements, while minimizing the number of containers that need to fit on the premises. To meet the needs and constraints of small C&D projects, this program proposes that the City implement a "Fast Track" for permitting for small C&D projects. The project contractor would establish a WMP with the City, including their basic information, and indicate whether they plan to source separate or use ACI to deliver the materials to a mixed C&D facility. If the project elects to use ACI, it will then be ACI's responsibility to deliver the materials to an approved facility that diverts at least 65% of waste and then report diversion to the City. ACI will need to provide separate diversion rates for these small projects with its quarterly diversion reports. No changes to the franchise agreement would be required as the City has the authority under the current provisions to require such reporting adjustments. While the 2025 ZWIP Update generally prioritizes upstream solutions over downstream solutions like mixed waste processing, the C&D stream is unique, and processing of mixed C&D is a commonly used practice in the industry under CALGreen. One downside of the fast tracked system that relies on ACI activities is that there are less direct touch points between the small projects and the City, and therefore providing additional technical assistance and education will be critical, as described below.

To ensure proper implementation of this change, this program includes enhanced technical assistance to small C&D projects through on-site assistance at the start of the project. Additionally, the City will provide educational materials, such as a C&D guide detailing requirements and best practices, that can be referenced throughout the project. A primary focus of this technical assistance should be encouraging reuse and deconstruction.

As a final step to this program, the City will closely monitor the overall compliance of C&D projects under the updated program and begin to enforce upon non-compliant projects in accordance with the Municipal Code. However, considering that many projects will use the Fast Track system, the City will also need to monitor ACI's obligations and ensure that material delivery and reporting requirements are fulfilled. The City can use its existing contract management tools to ensure accountability.

The City should evaluate the program after year one to identify changes in diversion and the number of enforcement actions taken and determine if additional technical assistance or other program changes would be beneficial.

Action Steps

-
- » **Update Municipal Code to Regulate More Projects.** *Update the City's Municipal Code to lower the threshold for covered construction and demolition projects from \$100,000 to \$0 and make any other updates necessary to align with the new program processes specific to the smaller C&D projects.*

 - » **Meet and Discuss Requirements with ACI.** *Meet and negotiate with ACI regarding new requirements and the Fast Track permitting system for small construction projects.*

 - » **Update WMP Requirements.** *Align WMP forms and guidelines with any changes made to the City's Municipal Code for the new program.*

 - » **Develop Outreach Materials.** *Update existing education materials to align with the City's standards and develop additional outreach resources. This may include a brochure detailing best practices to reuse and recycle C&D materials.*

 - » **Provide Enhanced Technical Assistance.** *Provide additional support to each new project under the \$100,000 threshold during the permit and WMP process to ensure the appropriate party(ies) for each project are aware of how to fulfill the new requirements. This will include one on-site assistance visit as well as distribution of education and outreach materials to the projects.*

 - » **Monitor and Enforce for Non-Compliance.** *Monitor each project's adherence to their waste management plan and diversion status. For permittees that select the Fast Track option, monitor ACI's compliance with requirements for delivery of materials to an approved facility and reporting.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The program will be conducted by Zero Waste Program staff in coordination with the City Attorney's Office, IT Department, Building Department, and Code Enforcement Department.
- A budget of \$1,000 per year will be allocated for developing and distributing public education materials, such as printing brochures.
- The threshold for projects to qualify will be \$0 (i.e., all projects will need to comply with requirements, provided that small projects may have additional options for compliance).
- One hundred additional projects are expected to qualify compared to the current number of projects.
- The minimum diversion requirement remained at 65% for the purpose of the diversion model.

9 Conduct Enforcement for Illegal Dumping

Program Summary

Illegal dumping of waste is a common problem that many jurisdictions face, with potentially significant consequences. When waste is improperly discarded, it often ends up in public spaces such as streets, parks, or waterways, leading to pollution, potential health hazards, aesthetic degradation, and strain on public resources. The City has implemented a number of approaches to address illegal dumping. The City uses the “See-Click-Fix” system, which allows the public to report instances of illegal dumping to the City and provides a method for the City to track illegal dumping metrics. While this system is necessary, the City has faced challenges in using it to enforce and monitor illegal dumping as it does not generally provide enough data to garner evidence for enforcement on illegal dumpers. However, the data may be helpful to monitor dumping trends and highlight where enforcement efforts should be focused.

The City has invested in clean-up efforts in the City, including through the City’s franchise agreement with ACI and through bi-monthly encampment cleanups that provide opportunities for those experiencing homelessness to access social services and disposal resources. If the allotted collection capacity for ACI’s bulky collection program is not utilized for scheduled bulky item collections, the remaining capacity is redirected to be used to collect illegal dumped materials. This system inextricably links the bulky item program with the illegally dumped materials program. The focus on increasing use of the bulky program (Program #2) will help reduce illegal dumping, but it will also decrease the capacity available for illegal dumping pick-ups. Therefore, the City will need to foster a proportional reduction in illegal dumping at the source. If this proposed program does not reduce the demand for illegal dumping services at the same rate as the bulky item collection services are increased, the City may need to consider if an additional route for collecting these items will be necessary (this potential cost is included in Program #2). Provisions already exist within the current franchise agreement for the City to meet and confer with ACI regarding an additional collection route for bulky and illegally dumped items, should the demand increase for those services.

In addition to dumping in public rights-of-way, illegal dumping can occur when people place items in commercial businesses’ containers. The City has heard concerns from commercial business owners that then end up with notices for contamination or overfilled containers that cannot be collected by ACI.

This program proposes that the City install cameras and signage at key illegal dumping hot spots and conduct follow-up enforcement in response to violations identified. This is an approach utilized by other jurisdictions in the region, such as the City of Oakland. Based on analysis of illegal dumping hot spots from current data from the City’s See-Click-Fix system, the program proposes that 20 cameras be installed. The City will review footage when complaints are received to capture information about the instance of illegal dumping and confirm whether enforcement is necessary. Additionally, signage and lighting will be installed near each camera with messaging to encourage reducing illegal dumping and notification that the area is being recorded. After implementing and evaluating the camera system, the City can determine whether the cameras should be moved to different hot spot locations or if new cameras need to be added.

In addition to enforcement and monitoring, illegally dumped materials that are collected will be processed to recover reusable and recyclable materials. While the program’s main focus is on behavior change, in alignment with the 2025 ZWIP Update goals, once materials have already been illegally deposited, the City can further support its diversion goals by processing this unique material stream that would otherwise be disposed.

The program will benefit from the City providing education regarding collection alternatives to common illegally dumped materials. This education will be conducted as part of the bulky item program and CBSM campaign described in Program #2. The success of the bulky program is anticipated to improve issues with illegal dumping, particularly at multi-family properties, as it will increase the likelihood of these materials being properly collected rather than illegally dumped.

Action Steps

-
- » **Procure Monitoring Materials.** *Procure 20 cameras, 20 signs, and one truck for the code enforcement officer to use for the illegal dumping program.*

 - » **Determine Locations and Install Equipment.** *Using the illegal dumping hot spot data collected, identify the list of monitoring locations and install cameras and signs.*

 - » **Identify Illegal Dumping Violations.** *Review camera footage to identify illegal dumping instances.*

 - » **Conduct Enforcement.** *Conduct enforcement in response to illegal dumping violations identified, including the appeals process if necessary.*

 - » **Establish Taskforce.** *Establish a taskforce and conduct meetings to continuously monitor the program.*

 - » **Evaluate Program.** *Evaluate the progress of the program and consider whether cameras should be moved to different hot spot locations or if the program should be expanded.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- City staff will manage the program, including collaboration between staff from the Zero Waste Program, Code Enforcement Department, Police Department, and the City Attorney's office.
- Twenty cameras and signs will be installed.
- One truck will be allocated for an enforcement officer.
- One hundred twenty-six illegal dumping actions were assumed, with 25% of enforcement actions potentially resulting in appeals.
- The City has existing authority to initiate this program and no update to the Municipal Code is expected.

10 Pilot an Education and Resource Program for the Low-Income Community

Program Summary

The City's General Plan Action Strategy states the City's commitment to "provide planning and educational opportunities that support proactive participation and collaboration by all segments of Alameda's population at the start of processes, with a particular focus on those who will be most impacted by the effects of climate change, such as low-income individuals, seniors, youth, people of color, people experiencing homelessness, Tribes and indigenous peoples, individuals with disabilities, and socio-economically disadvantaged individuals."¹ The City has the opportunity to support this City-wide goal through the design of its zero waste program. The City conducted stakeholder engagement specifically with the low-income community as part of the 2025 ZWIP Update, and a clear theme was that this community faces specific barriers, and more education and support is needed to encourage behavior change.

This program proposes that the City issue a Request for Proposals (RFP) for a third-party to develop and implement a strategy for increasing reuse and recycling opportunities for the City's low-income community. The program developed would initially be implemented as a pilot program, requiring further evaluation prior to large-scale implementation. An example of this type of partnership is the City of Alameda Housing Authority's partnership with LifeSteps, who provides educational and support services (workshops, educational services, after school programs, community building, and case management) for low-income and senior populations. The RFP for the zero waste program can incorporate similar elements and should include coordination with the City Housing Authority for more information on lessons learned from the LifeSteps program. This program should focus on identifying opportunities to increase the affordability of and access to zero waste programs highlighting the benefits of reuse (e.g., hosting free local repair workshops or upcycling programs and offering additional bulky item disposable options). Involving these communities in sustainable practices not only addresses immediate needs but also fosters long-term environmental and economic resilience.

Action Steps

- » **Determine Budget and Project Scope.** Design project scope and determine budget. Meet with relevant departments (Zero Waste Program, Housing Authority, Health and Human Services, etc.) to obtain feedback based on experience from similar programs.
- » **Develop RFP.** Develop RFP process and document and select qualified third party.
- » **Oversee Program.** Coordinate with third-party contractor and monitor program.
- » **Evaluate Program.** Upon conclusion of the pilot program, evaluate program metrics and results, including conducting stakeholder engagement. Results may include metrics such as number of people served, demographics of people served, type of education provided, participant feedback, and diversion rates.

¹ City of Alameda General Plan Action Strategy (pg. 57, CC-1)

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program in collaboration with the City Manager's Office and City Attorney to develop the RFP.
- A budget of \$50,000 will be allocated for third-party contractor costs
- The program will be a pilot program, with no on-going cost

Proposed Programs

11 Pilot a Cash for Trash Program

Program Summary

The City and its community partners have made a strong commitment to supporting the unhoused community within the City. From 2017-2019, the City's unhoused population rose by 13%, and the subsequent COVID-19 pandemic created even further housing insecurity. In 2021, City Council adopted "The Road Home: A 5 Year Plan to Prevent and Respond to Homelessness in Alameda" ("Homelessness Strategic Plan"), which identified challenges and strategies to addressing housing insecurity in the City. With significant life barriers, the unhoused community often does not have the capacity or access to resources to properly manage waste. The City has developed some programs to help address this need by providing bi-monthly encampment cleanups. These clean-up efforts are provided in coordination with the City's Homeless Outreach Team to respond more holistically to people's needs. Providing solid waste services is an important piece of the puzzle, but it does not address the underlying socioeconomic conditions that are contributing to a growing unhoused population. One of the key needs identified in the Homelessness Strategic Plan was providing accessible and flexible financial resources. The City has the opportunity to explore holistic solutions that provide economic empowerment to the unhoused community while addressing waste issues. For example, the City of San Jose developed a "Cash for Trash" program, which incentivizes unhoused residents to collect trash at encampments in exchange for money for each bag of trash collected. Over the course of the program, the City reported that there has been increased cooperation in keeping encampments clean and an increase in participants each year of the program.

This program proposes that the City conduct a pilot program similar to the City of San Jose's Cash for Trash program. This will include developing a Request for Proposals (RFP) for a third party to conduct the pilot program. As an initial step in the RFP development, the City will need to develop guidelines and create an outline for what the program entails. Considering the intersectional nature of this program, collaboration between departments is essential, including between the Zero Waste Program and Health and Human Services. Additionally, considering it relates to public litter, the City's Clean Water Program should be consulted to see if there is any potential collaboration. It is also recommended that the City engage with other communities that have done similar programs to understand lessons learned and inform the guidelines for the City's program. For example, the City of San Jose noted in its program report that taking time to train staff and providing flexibility in resource allocation were critical to the success of the program. The City will need to secure a funding source for providing reimbursements to participants, which may include a combination of City program funding, donations, and grants.

Action Steps

- » **Develop Program Guidelines.** Collaborate with City departments (e.g., Health and Human Services and the Clean Water Program) and community partners (e.g., Alameda Point Collaborative) to develop clear program guidelines and define the scope and budget for the project
- » **Develop RFP and Conduct Procurement Process.** Draft and publish an RFP for pilot program services and select a qualified third party to conduct the program.
- » **Monitor and Evaluate Program.** Provide oversight to the program, monitor progress, and conduct an evaluation at the end of the pilot program to determine whether the program should be extended. It is beneficial for the evaluation to include stakeholder engagement in order to get participant feedback.

Assumptions

The following assumptions were made in the analysis of this recommended program:

- City staff will design the program and RFP, and a third party will conduct the pilot program.
- There will be collaboration between City departments such as the Zero Waste Program, Health and Human Services, City Attorney, and City Manager's office.
- A budget of \$75,000 will be allocated for contractor costs.
- The program will last for one year, with initial program funding of \$50,000.
- Thirty participants are anticipated for the pilot program.

Proposed Programs

12 Develop and Increase Resources for Existing Reuse Markets

Program Summary

While the City has implemented successful recycling and compost systems, reducing consumption and reusing materials at the source is the most effective method of reducing waste. A focus on reusing materials and reducing consumption, rather than disposal, not only reduces the demand for raw materials and energy used in manufacturing new products but also helps the City bridge the gap toward its diversion goals. Shifting consumption habits and promoting reuse also aims to achieve lasting behavior change. By transforming the way people think about consumption, through promotion of reuse, sustainable choices become a more regular part of daily life. This behavior change can shift cultural norms and create a broader culture of sustainability in the City.

The City has access to a number of existing reuse markets and has an opportunity to develop and increase resources for these markets. The Alameda County Solid Waste Management Authority (StopWaste) has a number of resources available for jurisdictions in the County to use, including education materials and a comprehensive "Re:Source" guide that identifies services and markets in the County. StopWaste also provides grant programs for reuse, such as reusable transport packaging and reusable food ware in cafeterias. However, these resources are not specific to the City and residents may be unaware of all of the local reuse markets available. Historically, the City has distributed StopWaste resources as an educational tool for businesses and residents. While this has been beneficial, there is an opportunity to go one step further by making resources specific to the City, so residents and businesses are empowered to reuse locally.

Examples of current reuse markets in Alameda include ACI's reuse program, included as part of the expanded franchise agreement. This program allows residents to separate, label, and set out reusable items for ACI to collect and deliver to a sorting and donation facility as part of the annual bulky and on-call waste collection services. Additionally, a number of community organizations provide opportunities for reuse and repair. For example, the Bay Area Maker Farm's Farmcycles program provides free bike clinics in Alameda Point to repair broken bicycles rather than disposing of them.

This program proposes that the City develop a comprehensive guide to existing reuse markets and businesses within the City. This guide would serve as a resource for the Alameda community and build a network of reuse businesses. This will require the City to build relationships with community organizations providing reuse and repair services and help build connections between different reuse markets.

Action Steps

-
- » **Connect with Community Organizations.** *Connect with community organizations that are conducting reuse and repair services and identify opportunities for collaboration between programs.*

 - » **Develop Reuse Guide.** *Develop a comprehensive guide to existing reuse markets and businesses within the City. The City may choose to mirror existing formats, such as StopWaste "Re:Source" guide, or develop a new format that best meets the City's needs.*

 - » **Distribute Resources.** *Advertise the new guide and distribute educational resources through the City's website and other public education and outreach initiatives.*

 - » **Monitor and Evaluate Program.** *Monitor key metrics (e.g., engagement with education materials, diversion, feedback from the community and reuse partners) to evaluate the effectiveness of the program and determine whether adjustments or expansions would be beneficial.*

Assumptions

The following assumptions were made in the analysis of this recommended program:

- The Zero Waste Program staff will manage the program.
- A budget of \$5,000 will be allocated for one-time education materials costs, and \$5,000 per year will be allocated for on-going education material costs.



attachment

D

City of Alameda

Zero Waste
Implementation
Plan 2025

Attachment D:

Cost and Diversion Analysis

Program	City Labor, Infrastructure, and Contractor Costs ¹		City Staffing		Diversion					
	One-Time Implementation	Ongoing Annual Costs	One-Time Implementation Labor	Ongoing Annual Labor	Total Tons Diverted		Cost Per Ton Diverted		Change in Diversion	
	Costs (\$)	(\$/Year)	(FTEs)	(FTEs/Year)	(Tons/Year)		(\$/Ton/Year)		(%)	
	Program Start	Program Maturity	Program Start	Program Maturity	Program Start	Program Maturity	Program Start	Program Maturity	Program Start	Program Maturity
1 Conduct a City Zero Waste Rebrand	\$ 242,000	---	0.13	---	299	1,496	\$ 809	---	0.20%	0.98%
2 Conduct a MFD Bulky CBSM Campaign ²	\$ 186,000	\$ 565,000	0.02	0.45	532	1,473	\$ 349	\$ 384	0.35%	0.96%
3 Conduct Annual CBSM Campaigns	---	\$ 413,000	---	0.02	---	2,260	---	\$ 183	---	1.48%
4 Develop Guidelines for Permitted City Events	\$ 34,000	\$ 17,000	0.10	0.14	1	5	\$ 32,381	\$ 3,238	Less than 0.01%	Less than 0.01%
5 Develop Zero Waste Policies for City Departments	\$ 37,000	\$ 23,000	0.29	0.11	149	746	\$ 248	\$ 31	0.10%	0.49%
6 Provide Small Businesses Support and Resources	\$ 84,000	\$ 33,000	0.07	0.06	19	57	\$ 4,421	\$ 579	0.01%	0.04%
7 Develop a Grant Program for Take Away Reusable Cups	\$ 150,000	\$ 57,000	0.14	0.02	0	3	\$ 959,326	\$ 18,227	Less than 0.01%	Less than 0.01%
8 Expand C&D Program	\$ 16,000	\$ 84,000	0.11	0.73	228	228	\$ 70	\$ 369	0.15%	0.15%
9 Conduct Enforcement for Illegal Dumping	\$ 111,000	\$ 325,000	0.03	0.48	746	522	\$ 149	\$ 622	0.49%	0.34%
10 Pilot an Education & Resource Program for the Low Income Community	\$ 58,000	---	0.05	---	28	---	\$ 2,043	---	0.02%	---
11 Pilot a Cash for Trash Program	\$ 142,000	---	0.10	---	4	---	\$ 32,502	---	Less than 0.01%	---
12 Develop and Increase Resources for Existing Reuse Markets	\$ 12,000	\$ 10,000	0.06	0.04	38	38	\$ 313	\$ 261	0.03%	0.03%
PROGRAMS TOTAL	\$ 1,072,000	\$ 1,527,000	1.10	2.05	2,046	6,829	\$ 524	\$ 224	1.34%	4.46%

¹Each program will have a unique implementation schedule. As a result, there may an overlap in implementation costs and ongoing annual costs during a fiscal year.

²Includes additional costs to ACI and rate payers of approximately \$500,000 a year. See Exhibit C for additional information.

City of Alameda

Zero Waste Implementation Plan 2025