

Sustainability Starts At Home:
A Study about Waste Sorting
Practices in Central Contra Costa

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Organization: Just A Pale Blue Dot

Introduction

Climate change poses a growing threat to our planet, almost entirely induced by human activity and the rise of unsustainable practices. Though large corporations are responsible for a large percentage of these negative hazards, individual and communal activity plays a major role in both local and global environmental issues. Living in a large consumer culture like America, people should be mindful of their waste management practices, which can significantly contribute to localized pollution and greenhouse gas emissions.

For example, organic material contamination landfill areas can decompose if covered with dense material that creates an environment without oxygen. As a result, methane — a gas more than 28 times more potent as a greenhouse gas than carbon dioxide — can be released as a byproduct and contribute to global warming. Improper recycling practices can also be detrimental for sustainable efforts; even mild contamination of trash in the recycling sector can render an entire recycling batch ineffective and to be sent to landfill.

Contra Costa County and other counties in the Bay Area have organizations that assist the waste management company with proper waste removal. Recycle Smart provides service to the residents of Central Contra Costa County and StopWaste assists those in Alameda County. Communication has been primarily via mailers through the USPS and information on their websites. It is important to understand how effective this has been on the recycling and composting habits of the residents. On January 1, 2022, California State Law SB1383 required residences and businesses separate organics from landfill. Local jurisdictions are required to monitor proper sorting and contamination by auditing neighborhoods, and can impose penalties if they wish.

Methods

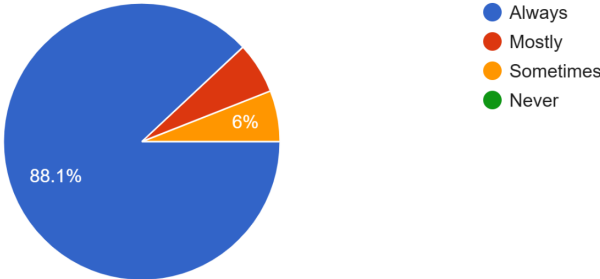
I conducted a survey to understand the sustainability practices of the residents in my local community of Central Contra Costa County. As the goal was to gather more responses, the survey was brief with 9 multiple choice questions including 1 optional write in response. I questioned the residents on their recycling and composting implementation, and their preferences on the method by which they wish to be educated on proper waste removal. I posted the survey on 2 websites, NextDoor and the Lamorinda Community Group on Facebook. Both of these sites have members from the communities of Lafayette, Orinda, Moraga and Walnut Creek. I also received some survey responses from people who were walking in the Larkey Park neighborhood.

RESULTS/ANALYSIS

I received responses from a total of 67 different households. Provided below is a summary and analysis of the data

I. Commitment to Sorting Practices

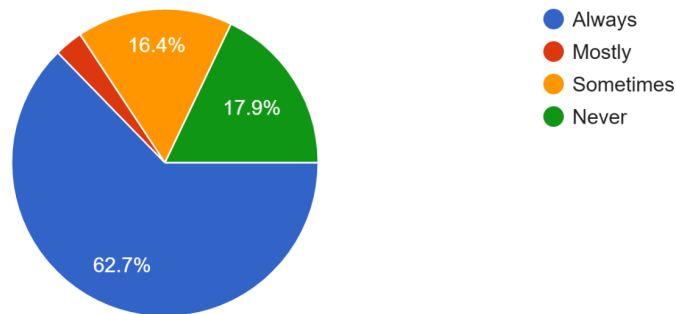
Do you recycle in your home?
67 responses



88.1% of households stated that they always recycle in their household. Since recycling has been historically instilled as an eco-friendly task that everyone should do, this number is not surprising. However, there exists 11.9% of participants who do not always recycle, requiring further investigation as to the barriers. This minor fraction either stated “mostly” or “sometimes,” thus indicating that they understand recycling practices but may lack the knowledge or commit low effort to sort properly.

Compost food scraps in your home?

67 responses

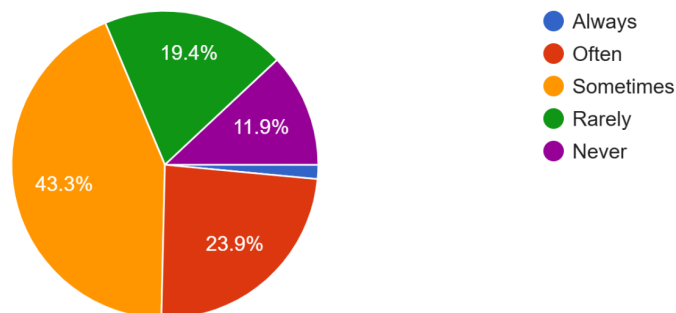


On the other hand, 62.7% of households always compost in their home, leaving a significant ~40% of households that do not always do this practice. This % is very concerning, considering that placing food scraps in landfill can have detrimental impacts on methane emissions. Given that the large majority of this 40% never compost, there needs to be both more impact awareness and access of green bin compost to residents. Additionally, those who “mostly” or “sometimes” compost have access and understand these services, but likely hesitate at times due to post-implementation barriers (too tedious, difficulty sorting, etc.)

II. Self-Reported Sorting Accuracy

How often do you find yourself unsure of where to dispose of an item (ex: Recycling vs. Trash)?

67 responses



A large majority of participants are “sometimes unsure” where to dispose of an item and a quarter of participants find themselves “often” unsure of disposal. These numbers are concerning and highlight the widespread confusion about proper waste disposal.

Identifying this knowledge gap can help prevent incorrect sorting. If people mistakenly place trash in the compost/recycling bin, this can render a whole batch unusable and sent to the landfill.

III. Summary of Resident Feedback/Communication Tips

Desire for Clarity and Simplicity:

Many residents expressed that current sustainability communications are “too broad,” “not locally specific,” or “confusing.” Respondents repeatedly requested “quick to read, simple messages,” “photo examples of what goes where,” and “visual guides” to make recycling and disposal decisions easier.

Local Relevance is Critical:

Residents want guidance tailored to local rules and available services. Several noted that “resources are usually more broad while local rules may differ,” and asked for “updated working links to other places to recycle/dispose of items” and lists of “local resources” for hard-to-recycle items.

Barriers of Current Engagement:

Some residents feel overwhelmed by the “time consuming” nature of recycling, or report “fear mongering” in messaging that turns them away. Others simply “don’t have much time to read” lengthy materials, reinforcing the need for concise, actionable information.

DISCUSSION:

Just A Pale Blue Dot Action Plan for Central Contra Costa

Survey data shows residents strongly prefer the online sustainability guides, newsletters, and visual examples for sustainability information. In addition, “bilingual materials” should be implemented to reach the diverse audience of the community.

Develop and Distribute Localized, Visual Guides:

Create clear, photo-based guides for recycling, compost, and trash, focusing on items that cause the most confusion (e.g., styrofoam, plastic bags, packaging). Since environmental communication can be confusing and always changing, add concise, updating messages and easy-to-follow information through newsletters. Make guides available online, in print, and as posters for community centers and multifamily buildings.

Launch a Digital Resource Hub:

The planned digital resource hub will function as a centralized connector, directing users to the most effective existing tools, current local rules, drop-off locations, and community solutions. The platform will also provide a dedicated space for questions, shared answers, and tailored guidance. By curating resources and facilitating community interaction, the hub will bridge information gaps and support confident, sustainable choices.

Regular Newsletters and Digests

Regular newsletters and digests provide an effective channel for delivering timely, relevant sustainability information directly to the community. Monthly or bi-weekly updates can feature seasonal recycling tips, highlight changes in local recycling programs, answer to frequently asked questions from residents, and ensure that they stay informed and engaged. Survey responses confirm that many individuals find newsletters and digests especially helpful for quick reference and ongoing education, supporting more confident and sustainable daily choices.

Limitations

This was a voluntary survey so those who responded may have more of an interest in reducing waste. The results could be an overestimation of the representative population.