

**If you're not for Zero Waste...
how much waste are you for?**



What is Zero Waste?

International Peer-Reviewed Definition of Zero Waste

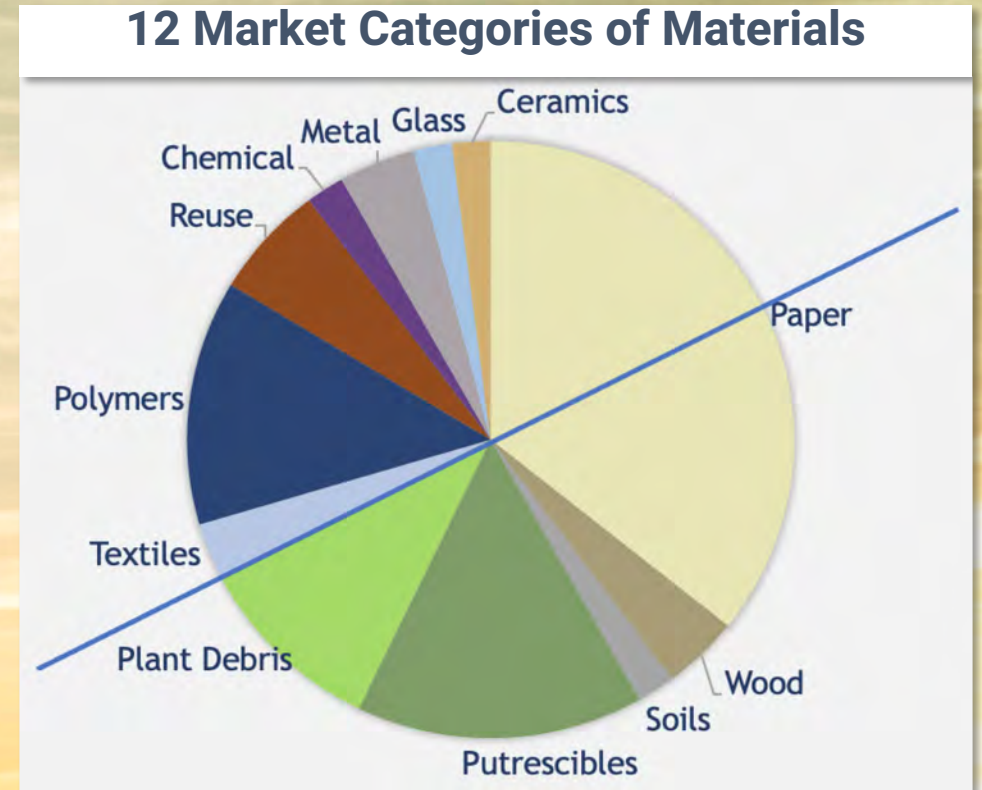
Zero Waste is the conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.

-- Zero Waste International Alliance (zwia.org)

Materials Characterization Study - Residential, Commercial, Self-haul

- Single-Family
- Multifamily
- Commercial
- Third Party/Self-Haul

- Refuse
- Recycling
- Organics



Codified by Urban Ore and Richard Anthony Associates
Note that 50% of discarded materials are compostable

Characterization Study – Recoverability

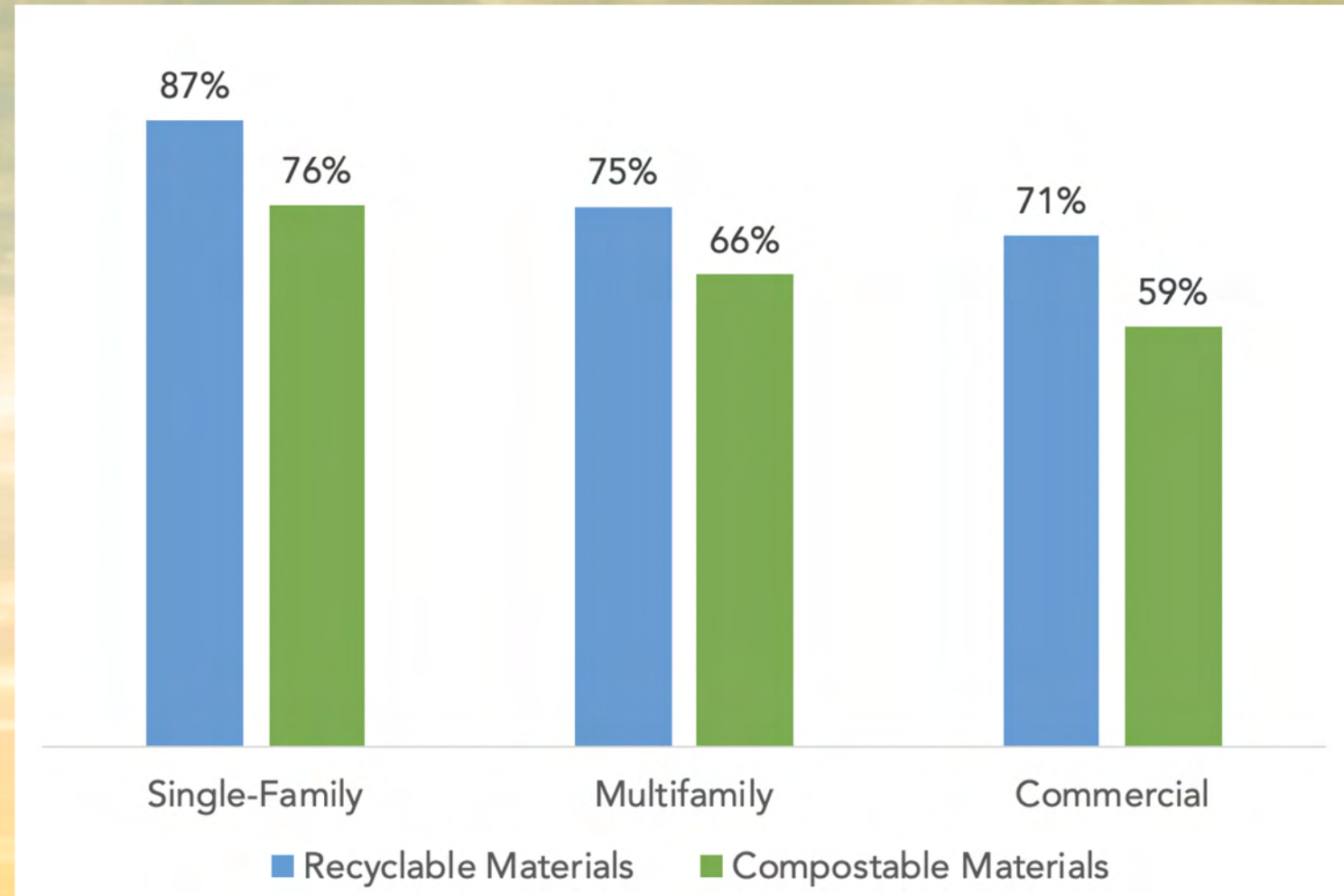
Materials were sorted into 113 material types. To help identify additional diversion opportunities, each of these 113 types was classified into one of five recoverability groups.

Index Category	Description	Examples
Recyclable	Acceptable in the City's current recycling collection program	Paper Glass bottles
Compostable	Acceptable in the City's current organics collection program	Food Plant debris
Problem Materials	Not currently marketable and must currently be landfilled	Composite materials Diapers
Dispose Elsewhere	Not appropriate for recycling, organics or refuse cart or bin, but should be handled appropriately elsewhere	Pharmaceuticals Electronics Hazardous materials Scrap metal

Characterization Study – Capture Rates

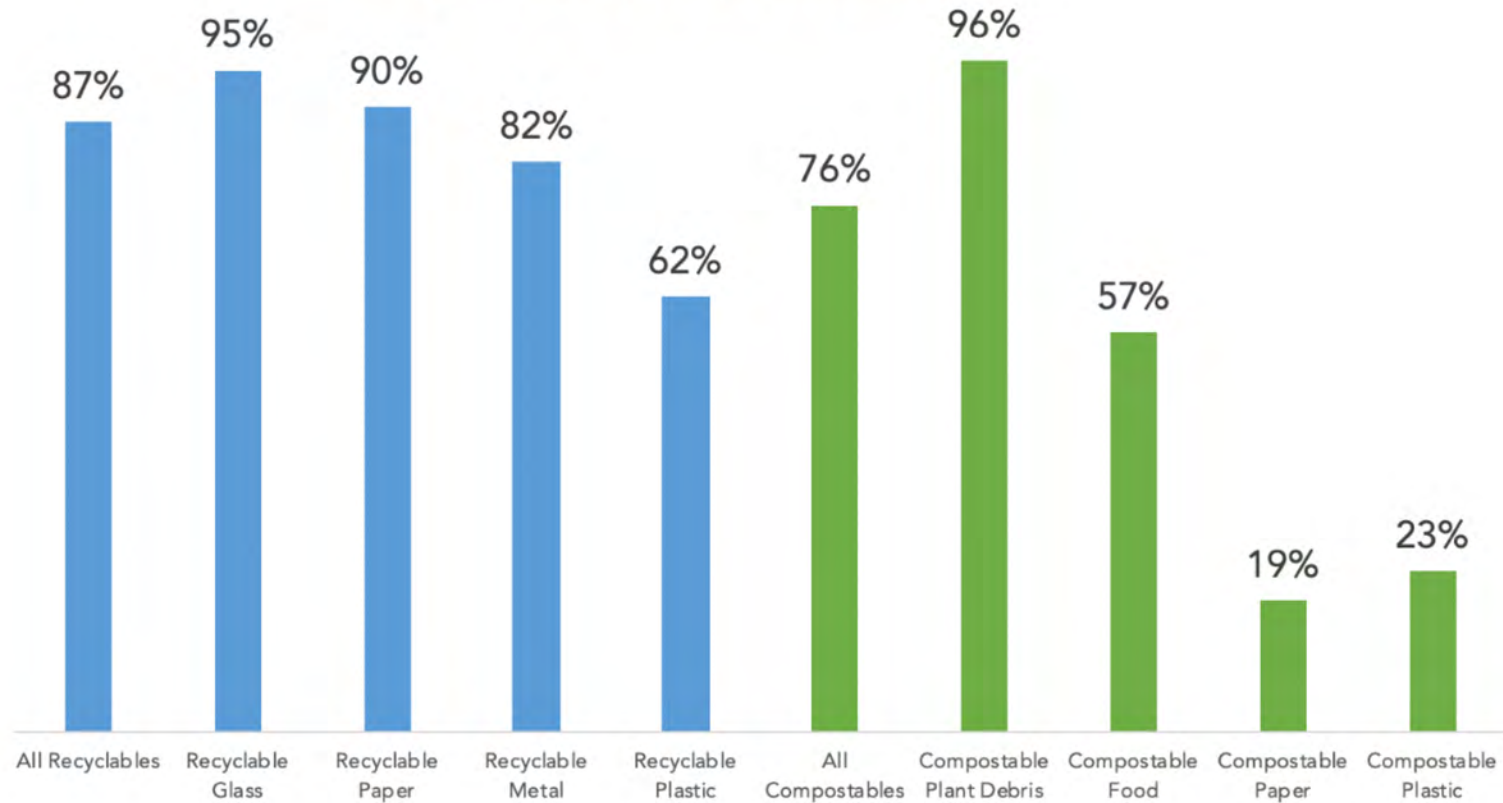
Capture rates were calculated for the major material categories.

A capture rate indicates what proportion of a material type is being placed in the correct container.

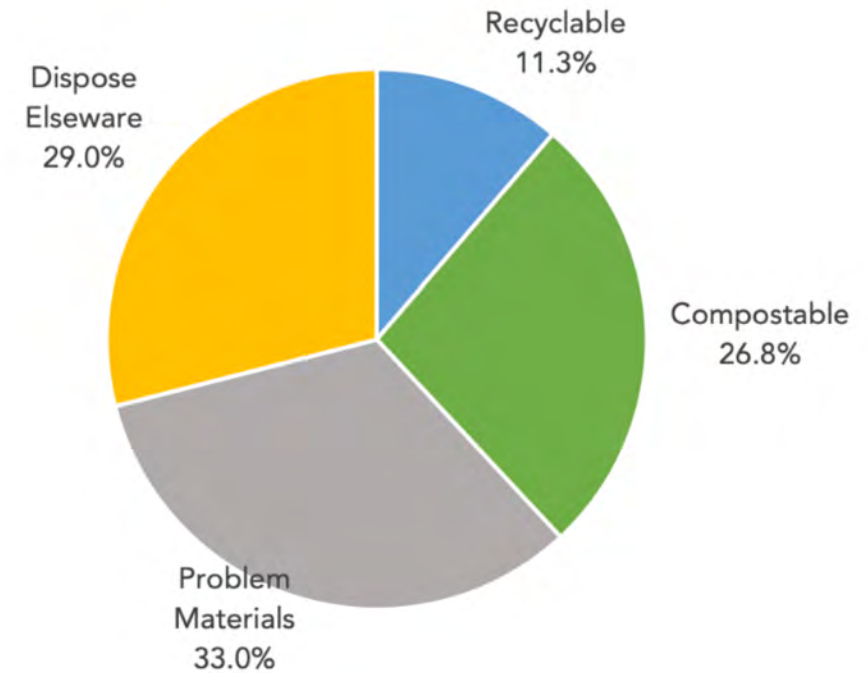


Characterization Study – Single Family

Single Family Capture Rates

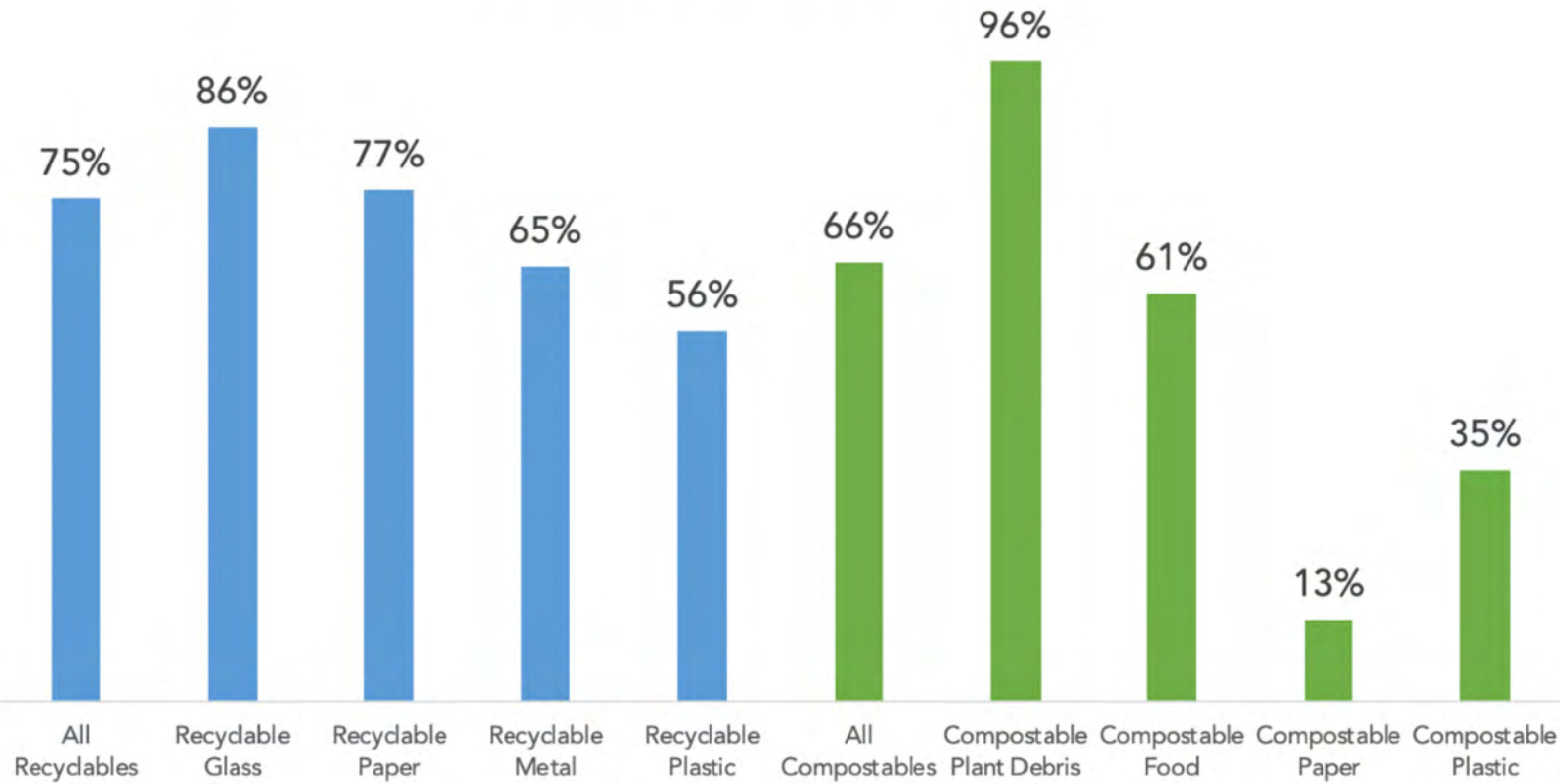


Single Family Refuse Material Recoverability

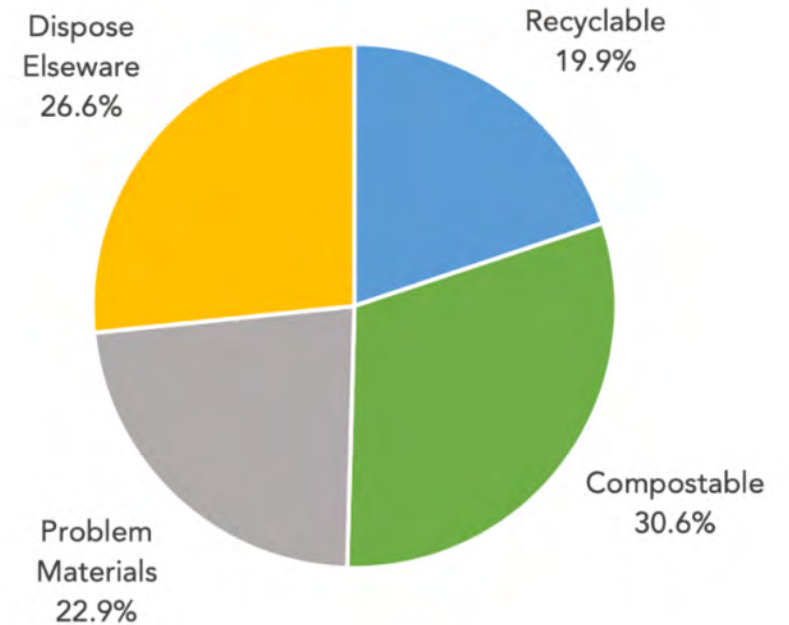


Characterization Study – Multi-family

Multifamily Capture Rates

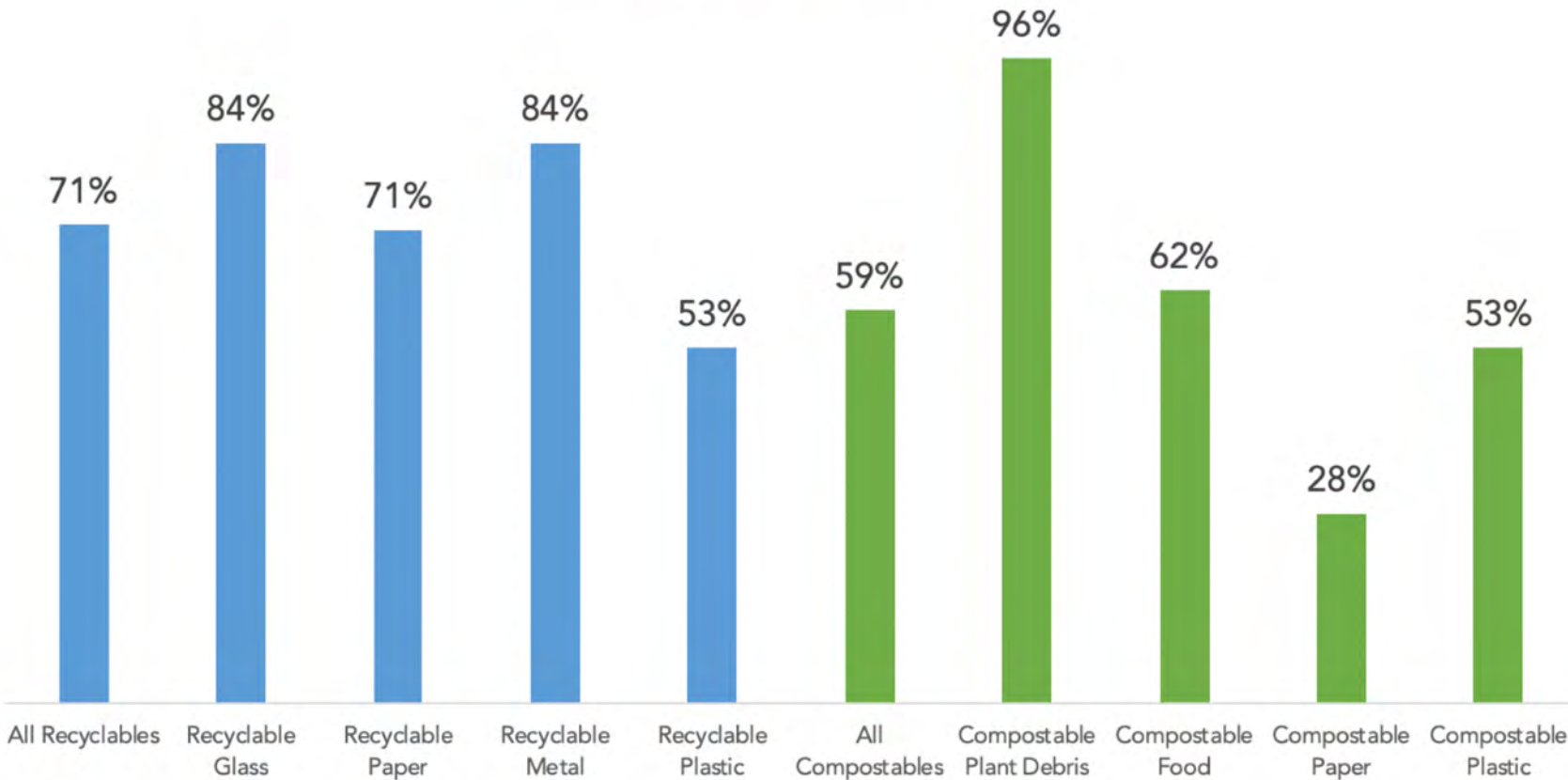


Multifamily Refuse Material Recoverability

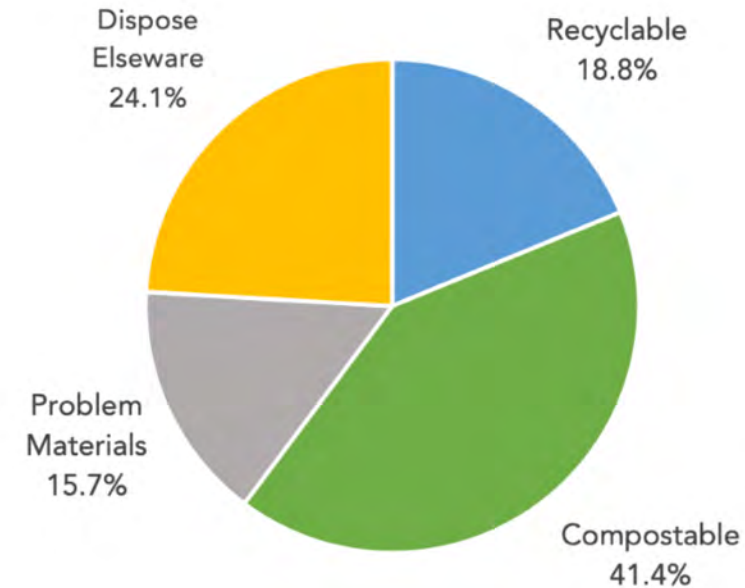


Characterization Study – Commercial

Commercial Capture Rates



Commercial Refuse Material Recoverability



Outreach and Stakeholder Engagement

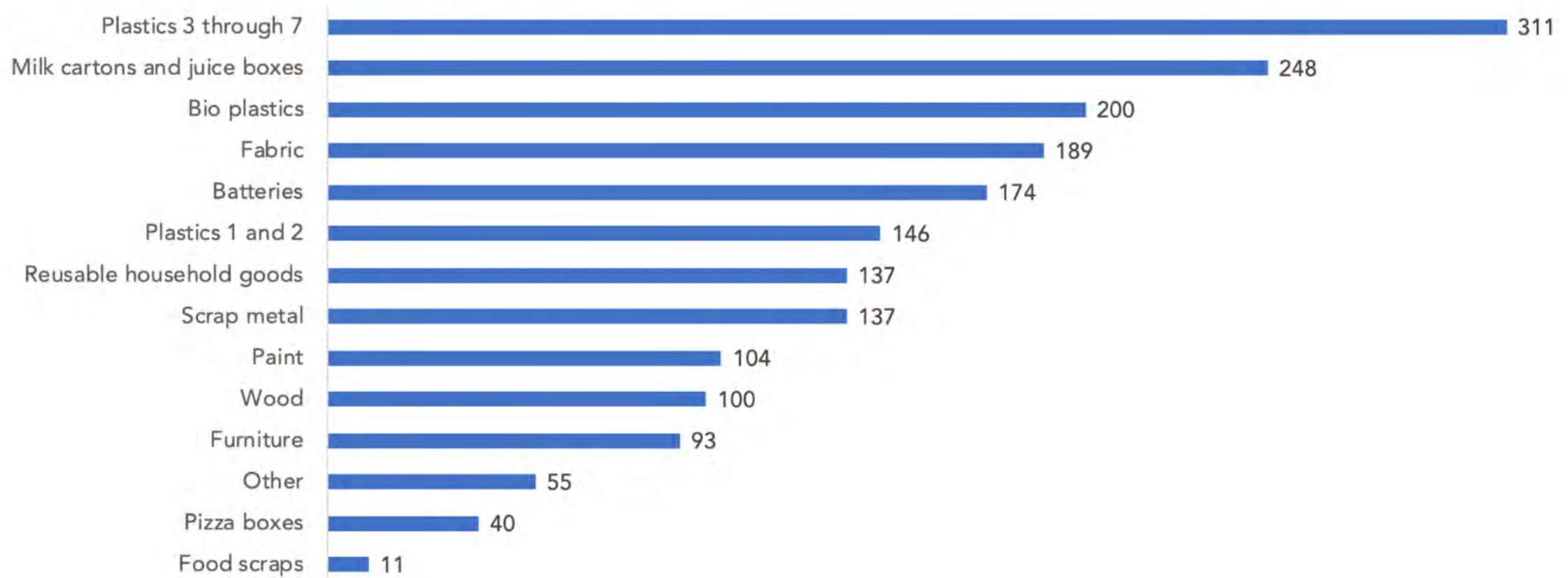
- 20 Listening Sessions
- 3 Online Town Halls
- Public Survey
- 3 Public Workshops to be held across the City
- Interviews or Meetings with City staff & Contractors
- Meetings with the Zero Waste Commission
- City Council study session



Berkeley Public Workshop June 2023

Citywide Survey – Highlights

Are there any materials that you are confused about or have difficulty recycling or composting in Berkeley? (461 responses)



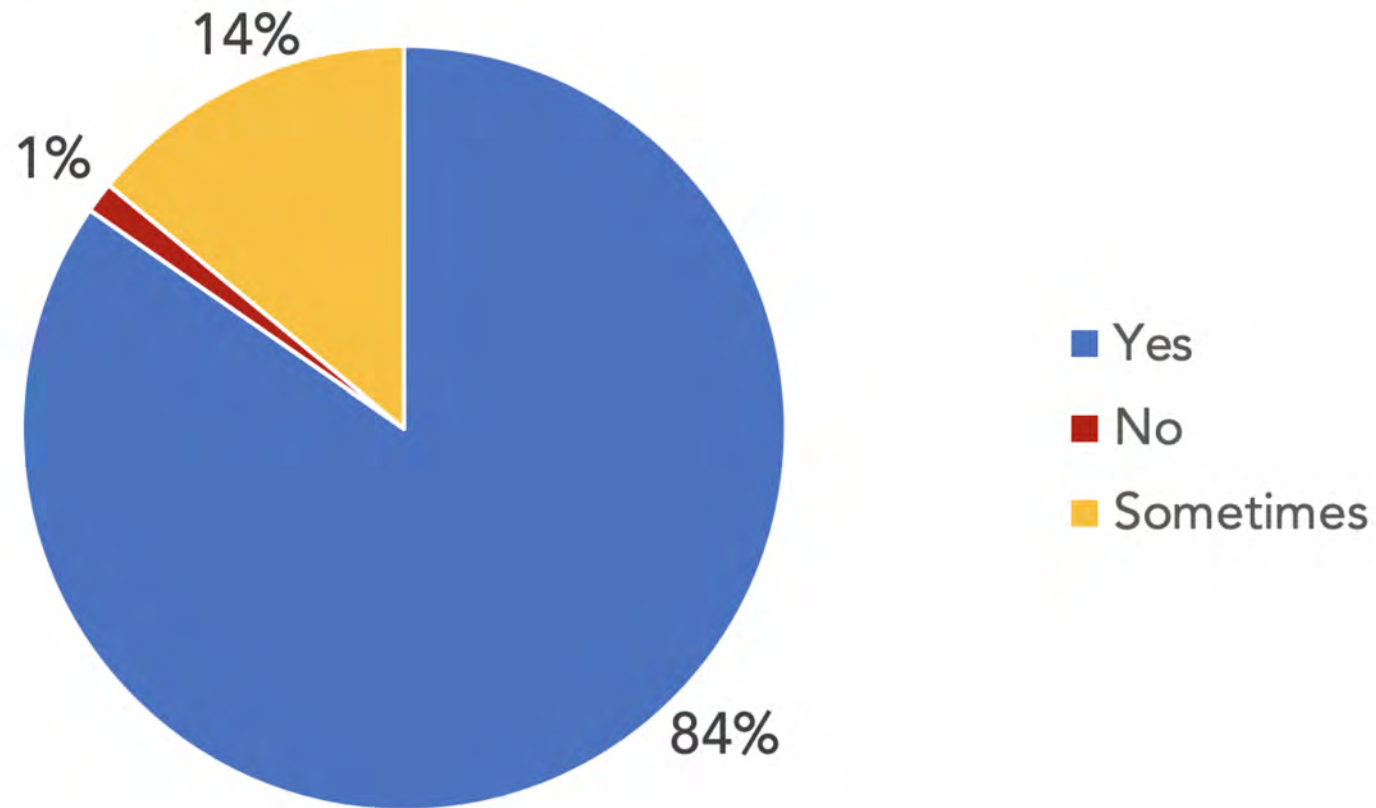
Citywide Survey - Highlights

Are there any materials that you are confused about or have difficulty recycling or composting in Berkeley? Other suggestions

- Butter wrappers
- Plastic bags
- Styrofoam
- Mattresses
- E-waste
- Chewing gum
- Rx bottles
- Electronics, small appliances
- Mylar bags
- Cardboard that doesn't fit in recycling bin
- Lids
- Cooking oil
- Aluminum foil
- Aseptic cartons
- Small amounts of concrete, rubble, dirt
- Old paint
- Reusable commercial goods
- Shredded paper

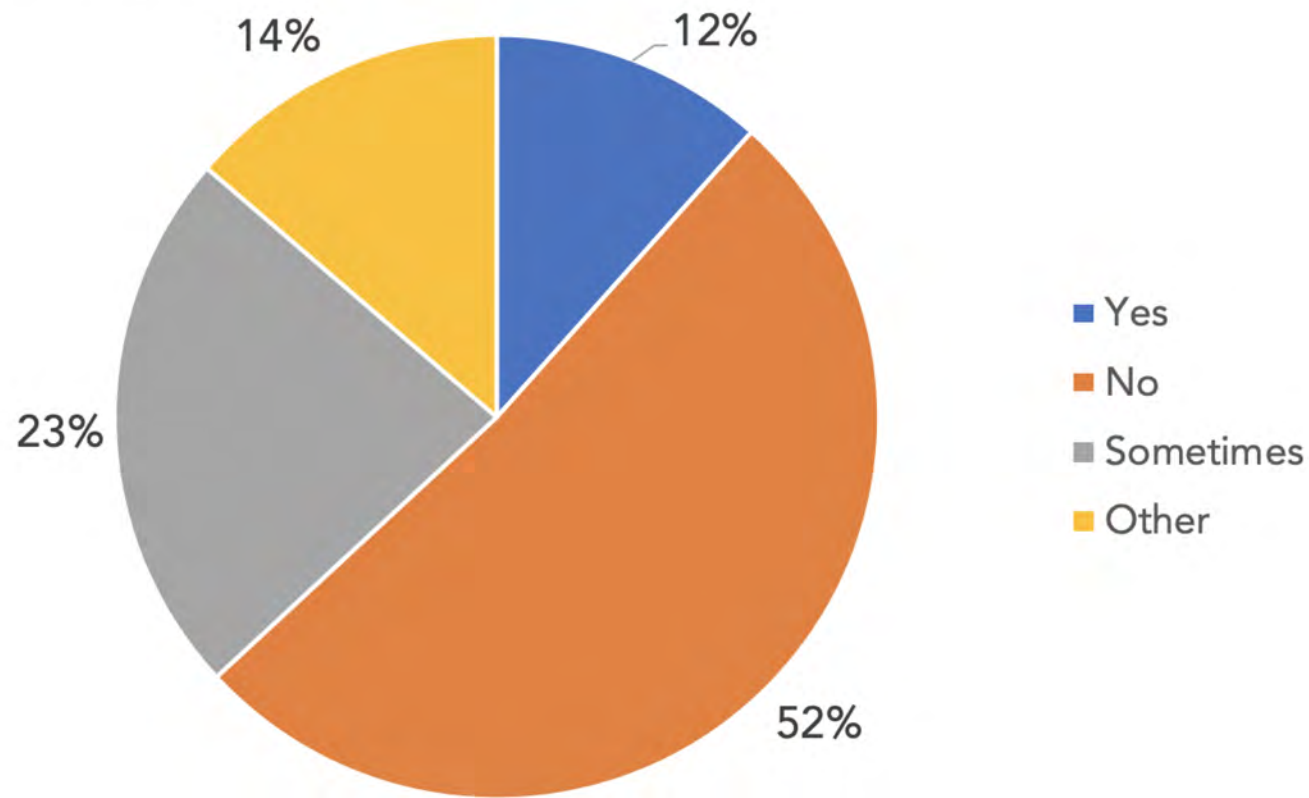
Citywide Survey - Highlights

Do you bring your own bags to the grocery store?
(458 Responses)



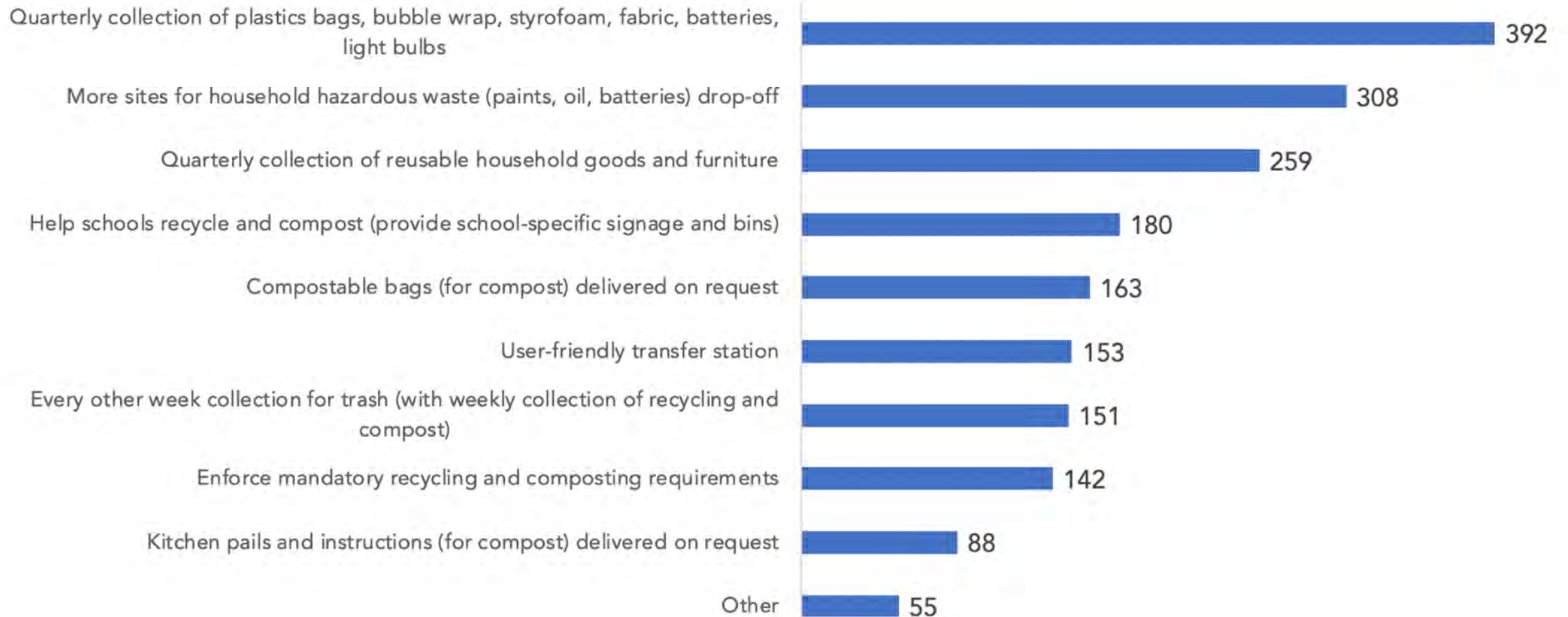
Citywide Survey - Highlights

Do you bring your own cup to cafes?
(456 Responses)



Citywide Survey - Highlights

Do you have suggestions for improving the City's reuse, recycling and composting programs? (458 Responses)



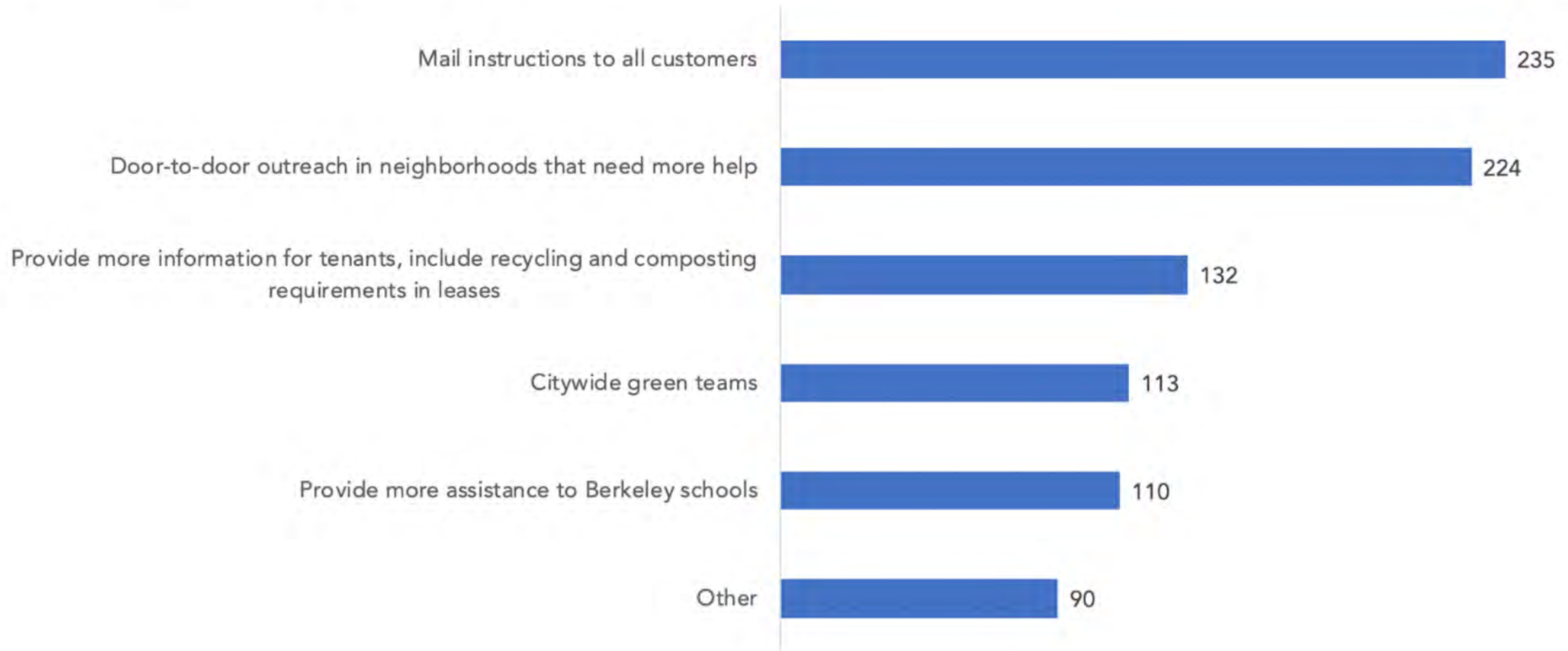
Citywide Survey - Highlights

Do you have suggestions for improving the City's reuse, recycling and composting programs? Other suggestions

- Work with UC Berkeley to teach students how to recycle
- Send flyers to households more frequently
- People need 1 on 1 education
- Education and outreach for multifamily buildings
- Give financial incentives to reduce
- I've done a lot of research and am still confused
- More transparency about what is recyclable and compostable
- I'm intimidated by the transfer station
- Form cooperative agreements with companies like Ridwell
- Better education of apartment dwellers
- Help businesses recycle and compost
- More alternatives to single use plastics

Citywide Survey - Highlights

Do you have suggestions for improving outreach and education programs for reuse, recycling or composting? (398 Responses)



Citywide Survey - Highlights

Do you have suggestions for improving outreach and education programs for reuse, recycling or composting? Other suggestions

- Multilingual outreach and outreach to UC Berkeley Students
- Put stickers on bins that are not being used properly
- Mail out weather-proof stickers with clear instructions
- Better labels on bins
- Better education
- Improve City's website
- Let some multiunit complexes have individual carts
- Webinars, tours of the transfer station
- I have no idea what is recyclable and what is compostable
- More graphics
- Online resource specific to Berkeley
- I don't understand plastic recycling

Guiding Principles

“Guiding principles” are the values and vision of the community that should be reflected in the plan

Draft Guiding Principles

1. Grow community power through public engagement, accountability & a sense of accomplishment

2. Ensure City department leadership in Zero Waste practices

3. Engage public & private institutions to model Zero Waste practices

4. Prioritize reduction, reuse & repair

5. Hold producers accountable for their problem products through state & federal advocacy

6. Create a culture of Zero Waste through reducing consumption & maximizing reuse, recycling & composting

7. Make "doing the right thing" convenient & accessible for all

Potential New or Expanded:

Policies

Programs

Infrastructure

Potential New Policies

1. Reusable Take-Out Packaging
2. Update Single Use Disposable Ordinance
3. Zero Waste Events Ordinance
4. Mobile Food Vending Ordinance
5. Space Allocation for All New Construction – Restrict Trash Chutes
6. Ordinance Requiring Living Walls, Landscaping or Rooftop Gardens
7. Water Efficient Landscape Ordinance
8. Storm water Management and Discharge Control Ordinance
9. Ordinance Requiring Lease Transition Plan

10. Serviced Collection Streams /Resources/Illegal Dumping Informational Notice in Rental/Lease Agreements
11. Mandatory recycling /compost /refuse service (establish per unit minimums, especially for MFD)
12. Space Allocation requirements for enclosures for 4 streams
13. Mandatory separation for reuse and recycling on-site at the transfer station (carpet, mattresses, metal, etc.)
14. Update Green Building ordinance

Potential New Programs

1. Household Hazardous Waste Collection

2. Expand Food Recovery Program

3. Robust Zero Waste behavior change and what goes where campaigns

4. Share, Reuse, Repair Events

5. Non-Durable Goods Collection - Reuse, Recycling

6. Textile Collection – Reuse, Recycling

7. Less Than Weekly/Every Other Week Collection - Refuse, Recycling

8. Shared Services

9. Battery Collection

10. Diaper Program (Compostable, Reusable, or Disposable) & Animal Waste Collection

11. Zero Waste Events And Venues

12. Reuse Exchange

Potential New Infrastructure

1. Reusable Foodware for Takeout

2. Tool Lending Library Expansion, Toy Lending Library

3. Retail Re-Filling Stations - Hardware, Grocery Store

4. Zero Packaging Store

5. Museum Of Bad Design - Short Term, Permanent

6. U.C. Berkeley Art Installation Collaboration – wasted stuff

7. Research & Development Institute

8. Household Hazardous Waste Drop-off in Berkeley

9. "User-friendly" transfer station

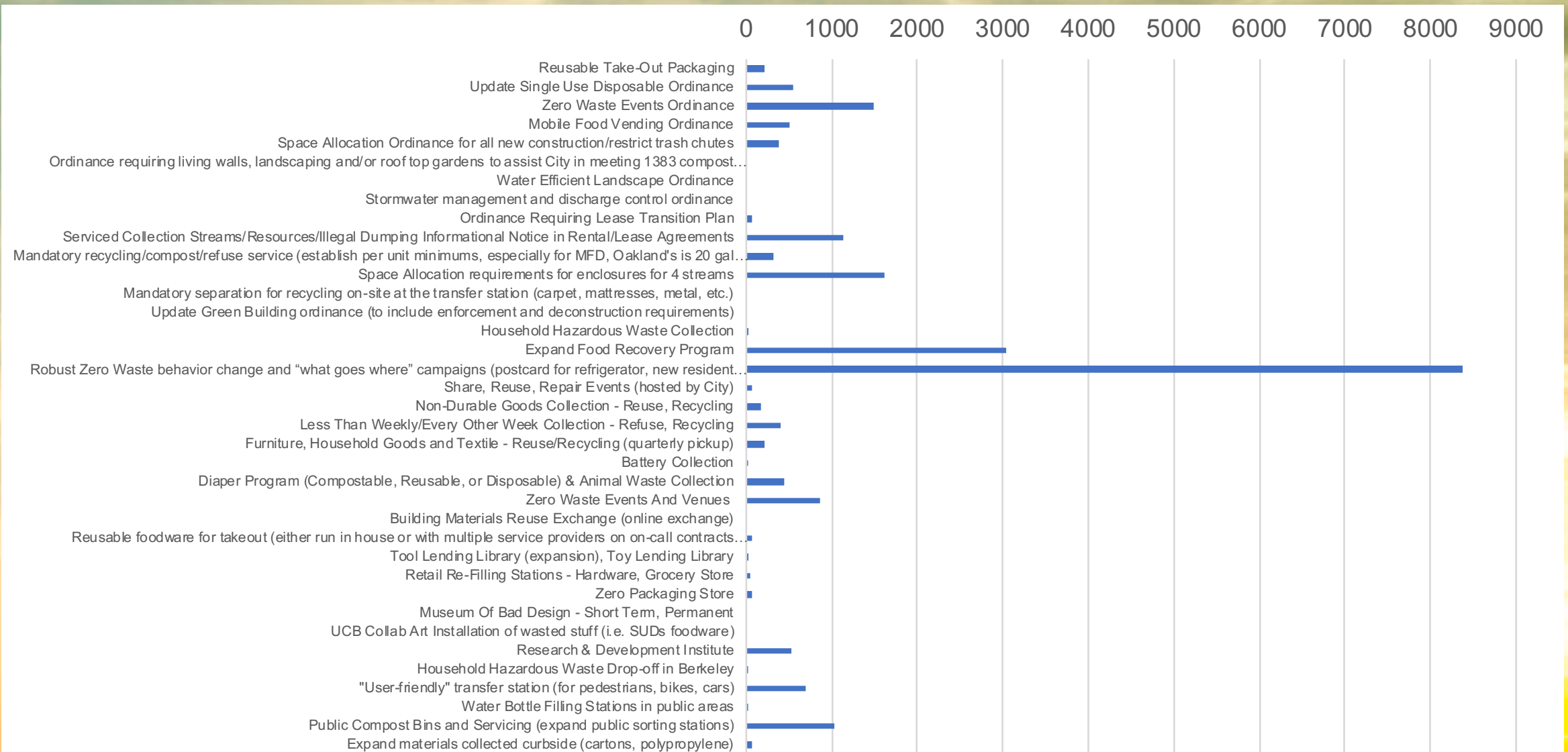
10. Water Bottle Filling Stations in public areas

11. Public Compost Bins and Servicing

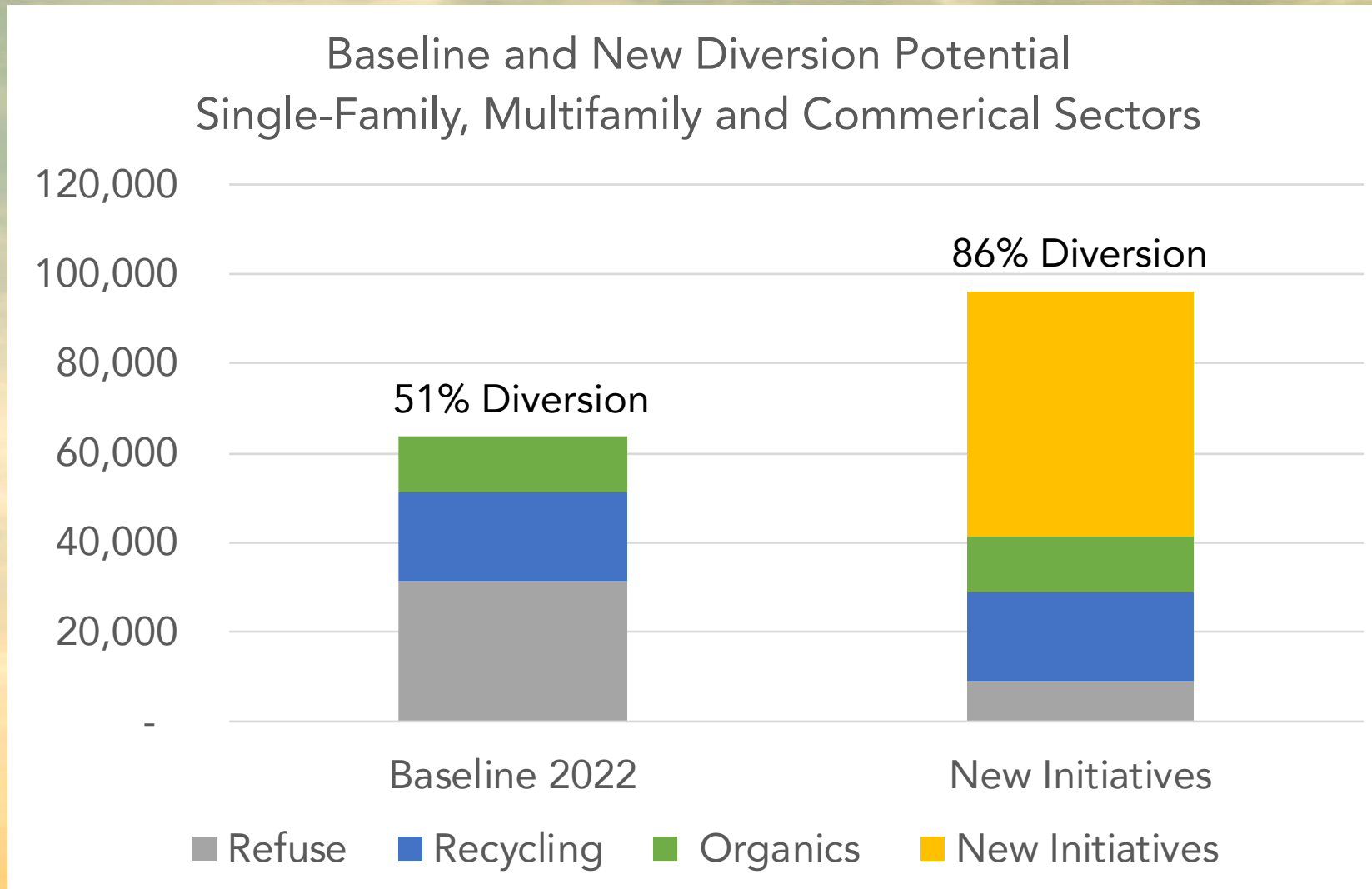
12. Expand materials collected curbside (cartons, polypropylene)

13. Resource Recovery Park Utilizing Twelve Market Categories

Relative Diversion Potential of New Policies, Programs and Infrastructure



Diversion Potential of New Policies, Programs and Infrastructure



Next Steps

- Characterization Study Self-Haul – October 2023
- Policy and Program Analysis – October 2023
- Public Workshops
 - October 18 (North Berkeley Senior Center)
 - October 19 (Online via Zoom)
- Staffing Analysis – Fall 2023
- Financial Analysis – Fall 2023
- Draft Plan – Winter 2024
- Public Workshops – January 2024