



# Zero Waste Commission Zero Waste Design Guidelines for New Construction Special Meeting Agenda

Tuesday, February 13, 2020

6:30pm-7:30pm

Au Coquelet Café, 2000 University Ave. Berkeley, CA 94704

## PRELIMINARY MATTERS (10 minutes):

1. Roll Call:

**Alfred Twu (Vice Chair)**, appointed by former CM Kriss Worthington, District 7

**Antoinette Stein**, appointed by CM Ben Bartlett, District 3

**David Grubb**, appointed by CM Lori Droste, District 8

2. Approve Agenda

3. Public Comments (public comment on agenda items only)

## DISCUSSION/ACTION ITEMS (50 minutes):

1. Discuss *DRAFT ZW Building Code Ordinance for increased Diversion* document (attached).

a. Discuss Background Information including but not limited to:

i. Zero Waste Division 2018 Metrics Staff Presentation:

[https://www.cityofberkeley.info/Clerk/Commissions/Commissions\\_Zero\\_Waste\\_Commission\\_Homepage.aspx](https://www.cityofberkeley.info/Clerk/Commissions/Commissions_Zero_Waste_Commission_Homepage.aspx)

ii. Discuss Berkeley's existing building code and best practices for Commercial and Multifamily Dwelling (MFD) Large refuse generators.

1. New Construction Guidelines for Waste Containers (attached)

b. Discuss what other Cities have done to reduce discards:

i. NYC -See AIA ZW Guidelines <https://www.zerowastedesign.org/about-the-guidelines/>

ii. Discuss SF


1. Discuss SF 2013 Administrative Bulletin on *Adequate Space Requirements Guidelines for new developments* into the SF:

[https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_zw\\_ab088\\_010114.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_zw_ab088_010114.pdf)

2. Discuss San Francisco's JULY 1, 2019 Refuse Separation Compliance law/Ordinance (No.180646): <https://sfenvironment.org/zerowastefacilitator>

2. Discuss possible actions to recommend for Berkeley to best improve diversion and recycling especially for organics that create methane GHG emissions when landfilled. Discuss if there are code changes or best practices that may make reduce refuse generation and diversion/source-reduction, reuse, recycling.
3. ACTION ITEM: Submit the following recommendations to the Zero Waste Commission for discussion and approval at the February 24, 2020 Zero Waste Commission regular meeting:
  - a. Recommend that the City Council refer to the City Manager a proposed building code for indoor and outdoor “adequate space requirements” inside of buildings and outside for bins and storage for pick up for ZW recycling and reuse work.
  - b. Recommend that the City Council refer to the City Manager a ZW “Separation Ordinance” similar to SF’s Ordinance (No. 180646) that requires Large Refuse Generators including MFDs to have a recycling, composting, and refuse/trash audit every X/3 years to ensure compliance with the County’s Mandatory Recycling and Composting Ordinance.
4. Other discussion on reducing Berkeley’s discards to landfill.

## ADJOURNMENT

 This meeting is being held in a wheelchair-accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services Specialist at 981-6418 (V) or 981-6347 (TDD) at least three business days before the meeting date. Please refrain from wearing scented products to this meeting.

*Communications to Berkeley boards, commissions or committees are public record and will become part of the City’s electronic records, which are accessible through the City’s website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission or committee, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the secretary of the relevant board, commission or committee. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the secretary to the relevant board, commission or committee for further information.*

Zero Waste Commission Secretary: Heidi Obermeit, Recycling Program Manager, 1201 2<sup>nd</sup> St. Berkeley, CA 94710, 510-981-6357, [hobermeit@cityofberkeley.info](mailto:hobermeit@cityofberkeley.info)



[Commission Name]

[CONSENT OR ACTION]  
CALENDAR

[Meeting Date (MM dd, yyyy)]

To: Honorable Mayor and Members of the City Council

From: ZW Commission

Submitted by: Antoinette Stein, ZW **Building Code: Adequate Space Requirements/Guideline** Subcommittee co-chair for recommendation to full ZW Commission February 2020 Chairperson Christienne De Tournay, ZW Commission

Subject: Zero Waste Building Codes and Guidelines update for increased diversion and reduction of refuse to landfill especially organics. to help end Climate Change by measurably reducing our Short-Lived Climate Pollutant (SLCP) Organic Waste Methane Green House Gas (GHG) Emissions

RECOMMENDATION [*this section is intentionally left open for discussion of options*]

Approve...

- 1. **New X Zero Waste Building Code: Adequate Space Requirements/Guideline for collection and storage of Recyclable and Compostable Material Ordinance for Large Waste Generators**
- 2. ?

or Direct...

- 1. **X to collect additional supporting information X**
- 2. Y?

or Conduct a public hearing and upon conclusion...

- 1. **Collect comments and ideas from Citywide Waste Stakeholders including Large waste and recyclable/organic material Generators and Processors and the public**

or other recommendation:

- 1.X?

**SUMMARY [This section is included only if report exceeds three pages.]**

City of Berkeley Staff presentation reveals that City of Berkeley Commercial and Multifamily Dwellings currently generate and send excessive quantity of organics, metal, glass & plastics cans & bottles & containers, and paper and cardboard to landfill even though the city provides separate services for these materials. There is need for the city to take immediate actions to correct this problem through 1) changes in building design to better support reuse and recycling in commercial and MFD buildings (Building Code ) and 2) implementation of other ZW best practices to eliminate and reduce the generation and landfilling of recyclable materials especially organics to be in compliance with existing law and to reduce GHG emissions and Climate change effects.

**FISCAL IMPACTS OF RECOMMENDATION****CURRENT SITUATION AND ITS EFFECTS**

1. **Current Situation:** On November 25th 2019, collected data by City of Berkeley Staff was presented in a presentation entitled, “**2018 Zero Waste Division Metrics**” (see attached) the presentation metrics reveal that:
  - a. Berkeley currently has **large amounts of discarded materials**; City of Berkeley Solid Waste & Recycling Transfer Station 2018 Total Inbound Tonnage: ~142,544 Tons
  - b. **Berkeley currently has large amounts of Refuse: 78,509 Tons** (see full attached PPT presentation with pie charts of waste characterization)
    - i. **Commercial & Large MFD Refuse tonnages have not reduced over time** back to 2013! (Slide 10 and 11 show that our
    - ii. **Commercial & Large MFD Diversion Rate is 36% which is below 50% compliance requirement** Slide 13
    - iii. **Commercial & Large MFD Refuse tonnages are nearly 3 times greater than the amount of compost (SSO) and recyclable (PCR) collected.** (see slide 12)
    - iv. **2019 Alameda County Waste Characterization study shows that the Commercial refuse studied contains 40% by weight “Good Stuff” including recyclable paper, plastic, metal, and organic materials including food and vegetative (ie grass clippings and tree brush) materials.**

**2. Its Effect:**

- a. The City of Berkeley is out of compliance with current requirements to keep organics and recyclable materials out of landfills and does not meet diversion requirements and is subject to enforcement requirements.
- b. Disposing of organics into landfill contributes significantly to climate change and there is therefore because we are in a climate emergency there is immediate need to take action to reduce these emissions as best we can.
  - i. State of California AB 32 Climate Change Bill has prioritized reducing Short-Lived Climate Pollutants. In September 2016, Governor Brown signed into law SB 1383 (Lara, Chapter 395, Statutes of 2016), establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California’s economy. The new law codifies the California Air Resources Board’s Short-Lived Climate Pollutant Strategy, established pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), to achieve reductions in the statewide emissions of short-lived climate pollutants. **As it pertains to CalRecycle, SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025.** SB 1383 went into effect in January 2020 setting new statewide Organic material law and regulations to implement actions to ban organic landfilling.(See State of California CalRecycle SB 1383 STATEMENT OF REASONS (Amendment to Original ISOR with Track Changes) document. They state

10.

**BACKGROUND**

- 1. The ZW Commission’s most recent set of **Commission Goals (see Exhibit A)** supports developing new updated ZW Building Code Guidelines to:
  - 1.1.increase **source reduction** (ie of otherwise waste Plastic containers and films)
  - 1.2.increase **reuse of discarded products** including increase of **food recovery** and actions to **fix, repair, refurbish discarded products**
  - 1.3.increase Source Separation (SS) of discards including Post-Consumer Recycled (PCR) materials and Organic materials (SSO) at the point of generation before it may otherwise be deposited into the waste or trash and sent to landfill.

2. **Existing City of Berkeley Building Codes and City of Berkeley Best Practices:**  
ZW Department currently gives out to Commercial Businesses and Multi Family Developers (MFDs) (ie our city's *large* MSW generators) the StopWaste Mandatory Fact Sheets:

- 2.1. [http://www.recyclingrulesac.org/docs/Biz\\_Overview\\_Flyer\\_MRO.pdf](http://www.recyclingrulesac.org/docs/Biz_Overview_Flyer_MRO.pdf)

- 2.2. [http://www.recyclingrulesac.org/docs/MF\\_Overview\\_Flyer\\_MRO.pdf](http://www.recyclingrulesac.org/docs/MF_Overview_Flyer_MRO.pdf)

- 2.3. Link to StopWaste Waste enclosure guidelines:

<http://www.stopwaste.org/sites/default/files/Building-Guidelines-Final-Apr8.pdf>

3. It is important and relevant to look at **Other Cities** that are also committed to Pollution Prevention and Zero Waste and have researched and developed ideas over the years to address using municipal Building codes and Guidelines to reduce the amount of refuse or waste discarded to landfill and reduce the organics to landfill and to increase diversion by source reduction, reuse, and recycling

- 3.1. **NYC** -See AIA ZW Guidelines <https://www.zerowastedesign.org/about-the-guidelines/> NYC suggested code reads: "...The storage space needs to be a minimum of 1.5 sf/dwelling unit or 350 sf (whichever is less)" They have a ZW Calculator: <https://www.zerowastedesign.org/waste-calculator/>

### 3.2. **City of San Francisco**

- 3.2.1. In 2013 the published an **Administrative Bulletin into the SF Code** (see [https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_zw\\_ab088\\_010114.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_zw_ab088_010114.pdf) for its ***Adequate Space Requirements Guidelines for new developments***. It states:

"Guidance on Recycling Design Guidance in providing adequate areas for collecting and loading of recyclable and compostable materials is available:

- The Department of the Environment (415-355-3700) will provide guidance to project sponsors regarding design for areas for collecting and loading of recyclable and compostable materials;
- The City's permitted refuse haulers will provide assistance in determining appropriate collection, storage and loading locations, dimensions and other requirements (for contact information please call the Department of the Environment at 415-355-3700) ;
- The California Integrated Waste Management Board, Planning and Assistance Division can provide a "Recycling Space Allocation Guide" and other assistance (916-255-2385). This publication is available at [www.ciwmb.ca.gov/publications/localasst/31000012.doc](http://www.ciwmb.ca.gov/publications/localasst/31000012.doc).

- US Green Building Council provides recycling area guidelines in various publications. Information is available on the USGBC website at [www.usgbc.org/resources](http://www.usgbc.org/resources). See attachment to this bulletin for an excerpt of USGBC recommendations. Note: Administrative Bulletin into the SF Code pastes into the 2013 USGBC's LEED-NC Version 2.2 excerpt MR Prerequisite 1

3.2.2. City and County of San Francisco on **JULY 1, 2019** the passed a new **Refuse Separation Compliance law/Ordinance (No.180646)** (see <https://sfenvironment.org/zerowastefacilitator>)

It is intended to increase compliance with its mandatory recycling and composting ordinance. **The new law requires that Large Refuse Generators (LRG) have their refuse audited** at least every 3 years to assess compliance with mandatory recycling and composting. If a property fails an audit and is found to have contamination above set limits in any of their three streams of refuse (recyclables, compostables, and trash), the new law requires them to engage the services of a Zero Waste Facilitator.

**Note: Large Refuse Generators** are defined as:

- Accounts with a roll-off compactor, OR
- Accounts that have at least 40 cubic yards or more of uncompacted refuse service per week. Refuse service includes all hauler serviced collection bins containing recyclables, compostables and trash.

Specifically, the new law requires the following:

1. Large Refuse Generators must have their refuse audited at least every 3 years to assess compliance with mandatory recycling and composting.
2. If a property fails an audit and is found to have contamination above set limits in any of the three streams of refuse (recyclables, compostables, and trash), the new law requires them to engage the services of a "Zero Waste Facilitator" to ensure adequate separation for refuse being collected by a hauler. (**See [FAQ](#)** for details on contamination limits.)

## Resources

[Refuse Separation Compliance Regulations](#) (PDF)  
[Refuse Separation Compliance Law](#) (PDF) - the full text of the law

[FAQ for Property Owners and Managers](#)

[FAQ for City Departments](#)

[Zero Waste Facilitators](#)

[Template Zero Waste Facilitator Job Description](#) (Word Doc)

[Refuse Separation Compliance Law - Letter to Property Owners and Managers](#) (PDF)

If an LRG fails an audit conducted by SF Environment or Recology, then SF Environment must issue a report on the findings of the audit, which includes photos of contamination along with a Notice of Noncompliance and Compliance Order. The Compliance Order will require remedial actions that the property must take, including engaging the services of a Zero Waste Facilitator for at least 24 consecutive months at a sufficient capacity. A property must present a compliance plan and documentation of hiring a Zero Waste Facilitator within 60 days of the City Order.

4. China Sword global policy has resulted in reported US reductions in recycling of plastic materials in China dropping markets and, in some cases, resulting in US stockpiles changing public perception on whether or not generators will source separate their recyclable materials. (see X)

#### ENVIRONMENTAL SUSTAINABILITY

See SB 1383

#### RATIONALE FOR RECOMMENDATION

In an effort to **prevent pollution** there is the need to increase our city's management of its own Resources through Community Collective Waste Reduction (ie increased waste diversion) through waste diversion through:

Because of this there is possible opportunity to significantly develop new policy to result in continuous improvement and gain increased source reduction, reuse of recoverable reusable products and materials, and increase in recoverable recyclable materials to make measurable and significant reduction of discarded refuse and increased SSO and PCR..

#### ALTERNATIVE ACTIONS CONSIDERED



CITY MANAGER

The City Manager [TYPE ONE] concurs with / takes no position on the content and recommendations of the Commission's Report. [OR] Refer to the budget process.

**Note: If the City Manager does not (a) concur, (b) takes any other position, or (c) refer to the budget process, a council action report must be prepared. Indicate under the CITY MANAGER heading, "See companion report." Any time a companion report is submitted, both the commission report AND the companion report are Action reports.**

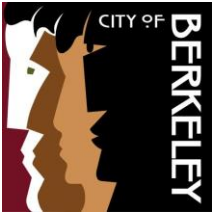
CONTACT PERSON

[Name], [Title], [Department], [Phone Number]

Attachments: [Delete if there are NO Attachments]

1: [Title or Description of Attachment]

2: [Title or Description of Attachment]



Public Works Department  
Zero Waste Division

## New Construction: Adequate Space Guidelines for Waste Containers

### 1) Mandatory Recycling and Composting Requirements:

- All commercial and multi-family (5 units +) properties are subject to Alameda County mandatory recycling and composting requirements: <http://www.recyclingrulesac.org/>
  - Adequate space must be provided for recycling and compost containers.
  - Tenants must have equally convenient access to recycle, compost and garbage containers.
- Collection rooms must be adequately sized to accommodate Berkeley's **FOUR** (4) material streams:
  1. Trash
  2. Recycling for Glass, Metal, Plastics
  3. Recycling for Cardboard, Mixed Paper
  4. Organics collection for Food Waste, Soiled Paper, Plant Debris

### 2) Material Collection Room Considerations:

- Tenant access: consider how tenants will bring their materials to waste collection containers.
- Adequate space is necessary to move and access each container.
- Ceiling clearance should be high enough to open container lids.
- Consider the distance/access from the material collection room to the service location.
  - Doorways should be wide enough to easily move containers in/out.
  - Bins need a smooth surface and a ramp to be wheeled curbside.
- Floor surface should be smooth and easy to clean; convenient access to a faucet is recommended for ease of cleaning and pest/odor avoidance.
- Wheel stops prevent damage to walls, electrical outlets, or exposed pipes.
- Designate wall space for instructional signage; adequate lighting to read signs and sort materials.
- Chutes are not recommended. If installing chutes, provide equal access to all four waste streams.
- Installation of compactors is allowed; be aware that waste services are provided on a minimum, once-a-week collection schedule and are billed at triple the maximum compactor volume.

### 3) Material Collection Room Space Guidelines:

- In a multifamily dwelling (MFD), a reasonable rule of thumb is to provide 50 gallons (or ¼ cubic yard) of container capacity for every three residents. It is good practice to provide 20% to 35% excess capacity for seasonal variation and other surges in volume.
- Follow the 40-40-20 guideline for MFD container sizes. For weekly collection services, 40% will be trash, 40% will be recycling, and 20% will be organics (not including landscape debris).
- For more info: <http://www.recyclingrulesac.org/docs/SpaceGuidelinesforRecycOrg.pdf>
- The City offers numerous service container sizes and collection frequencies.

### 4) Service Location Considerations

- City of Berkeley provides curbside collection of carts and/or bins.
- Property owners are responsible for placing carts and/or bins at the curbside for collection; cart/bin lids must close completely; and carts/bins must be removed from the curb within 24hrs of collection.
- Locating trash bins in underground garages or in areas inaccessible by collection vehicles is not advised. It increases the risk of injury and property damage. Bin service with long push outs or inclines may not be provided by the City; if provided, significant additional monthly charges apply.