

Litter Reduction Toolkit for
Multi-Family Dwellings



 SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

February 2018

Reducing Litter at Multi-Family Dwellings in San Mateo County

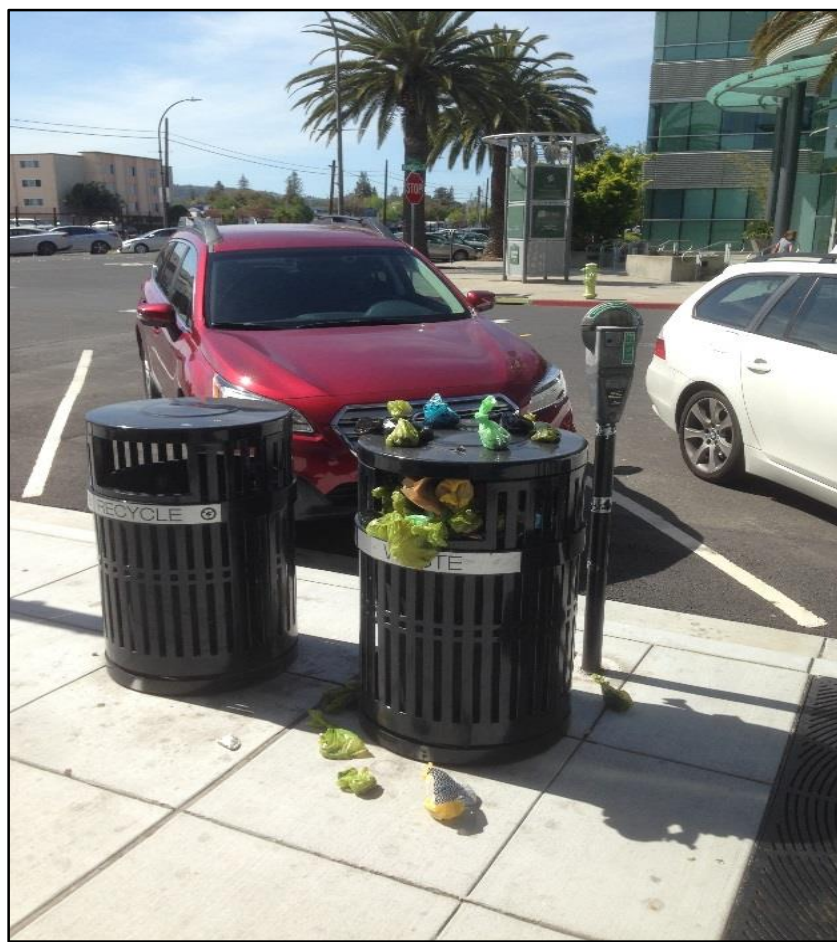
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C/CAG-SMCWPPP Stormwater Committee

May 17, 2018

Presentation Outline

- **Litter Work Group History**
- **Completed Activities**
- **Why Focus on Multi-Family Dwellings (MFDs)?**
- **Highlights of MFD Litter Reduction Toolkit**
- **Proposed Next Steps**



SMCWPPP Litter Work Group

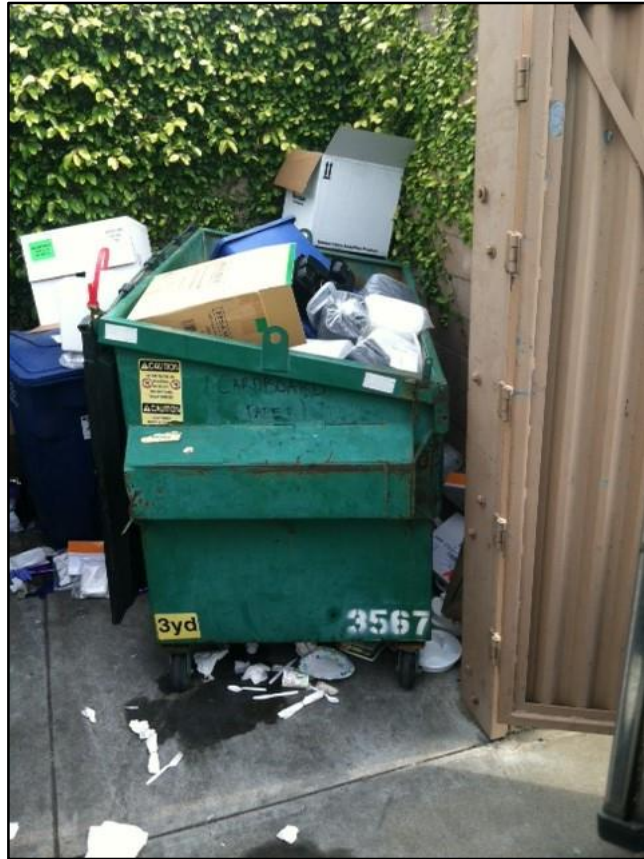
- **Work Group of Trash Subcommittee**
- **Initially convened in 2014**
- **Brings together municipal staff and franchised haulers**
- **Meets several times per year**
- **Holds Roundtable Events**



Work Group goals are to collectively identify opportunities to reduce the contributions of litter generated from disposal, collection-associated sources and illegal dumping; educate the public and those involved with litter control efforts; and to coordinate and share information with the Zero Litter Initiative (ZLI) in Santa Clara County.

Completed Work Group Activities

- **Best Practices for Franchise Agreement & Litter Reduction**
- **Maps of illegal dumping and container overages**
- **Coordination with Rethink Waste and Haulers in County**
- **Two Roundtable Events**
- **MFD Litter Reduction Toolkit**



Why Focus on MFDs?

- Can have complex management issues
- Can have high litter generation
- Once constructed, options can be limited
- Many being built in the County



Toolkit Highlights

- Regulatory drivers
- Summarize existing efforts at MFDs in San Mateo County
- Housing trends
- Litter Management Practices for existing MFDs
- Litter Management Practices for new MFDs
- Resources for more information



Regulatory Drivers

- **MRP requires trash reduction**
- **AB 341 and AB 1826 require more diversion and more types of containers**
 - More space, design planning and O&M coordination is needed to achieve the goals in the legislation
 - Most MFDs will be required to divert plant debris from landfill starting in 2019
- **MFDs are required to provide recyclables collection services now**



Housing Trends

- **MFDs are the housing type of the future**
- **1 in 5 residents in the County currently lives in an MFD***
- **Dense housing requires better planning and coordination with franchise haulers**
- **More efficient collection than single family homes, but sufficient space and coordination need to be provided**



*2016 Census – 22% of SMC population or 165,000 people

Existing MFDs

- **Coordination and communication between municipal staff, hauler, MFD property owner, management and residents**
- **Options for collection and understanding the waste rates**
- **Keeping containers indoors as much as feasible**
- **Reducing the frequency of overflowing containers**
- **Bulky item collection**



New MFDs

■ Discard Collection Plan

- Design for collection vehicle loading
- Method of internal collection process
- Considerations for storage and collection of bulky, special and HHW items
- Design of trash enclosure or trash room

■ Model Conditions of Approval

■ Reducing outdoor collection issues where feasible

■ Get review and approval of design and plan from franchised hauler

Storage Space Floor Area

Bin sizes can vary in all dimensions; check with the local collection companies for exact dimensions. The typical space needed for a 6 cubic yard bin is about 8' wide, 6' deep (front to back) and 6' tall at the back, sloping down to 4 feet tall at the front*. Generally, 4 cubic yard or smaller bins can be provided with wheels, and larger bins cannot, for safety reasons. Bins without wheels will need to be situated so that the collection truck can service them head-on, without moving them. Most 96-gallon carts fit comfortably in a footprint that is 28x36"; they are around 46" tall. Most 64-gallon carts require a 26x30" footprint and are around 42" tall.

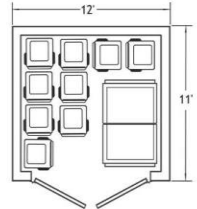
Bins and carts typically have hinged lids that must be lifted; these can damage low ceilings. In addition to space for the containers themselves, space is needed to walk among them and shift them around.

Where an enclosure will contain both carts and bins, an area that is 150% of the sum of bin and cart footprints will probably be needed. Enclosures that contain only carts or only bins will require less extra space because the containers fit together more easily.

Continuing with the example above for a multifamily setting, if the 60 units are in three buildings, each with an outdoor enclosure for discards, then each enclosure should hold one 4-cubic yard bin, five 96-gallon recycling carts and four 64-gallon organics carts. The total comes to 128 sq. ft., or less than one standard parking space.

$$\begin{array}{r} 28 \text{ sq. ft.} + 5 * 7 \text{ sq. ft.} + 4 * 5.5 \text{ sq. ft.} = 85 \text{ sq. ft.} \\ \hline \text{One 4-cubic yard} \quad \text{Five 96-gallon} \quad \text{Four 64-gallon} \quad \text{Total Container} \\ \text{garbage bin} \quad \text{recycling carts} \quad \text{recycling carts} \quad \text{Footprint} \end{array}$$

$$\begin{array}{r} 85 \text{ sq. ft.} * 1.5 = 128 \text{ sq. ft.} \\ \hline \text{Total Container} \quad \text{150\% Additional} \quad \text{Total Allocated} \\ \text{Footprint} \quad \text{Operation Space} \quad \text{Space} \end{array}$$



Average Container Footprints

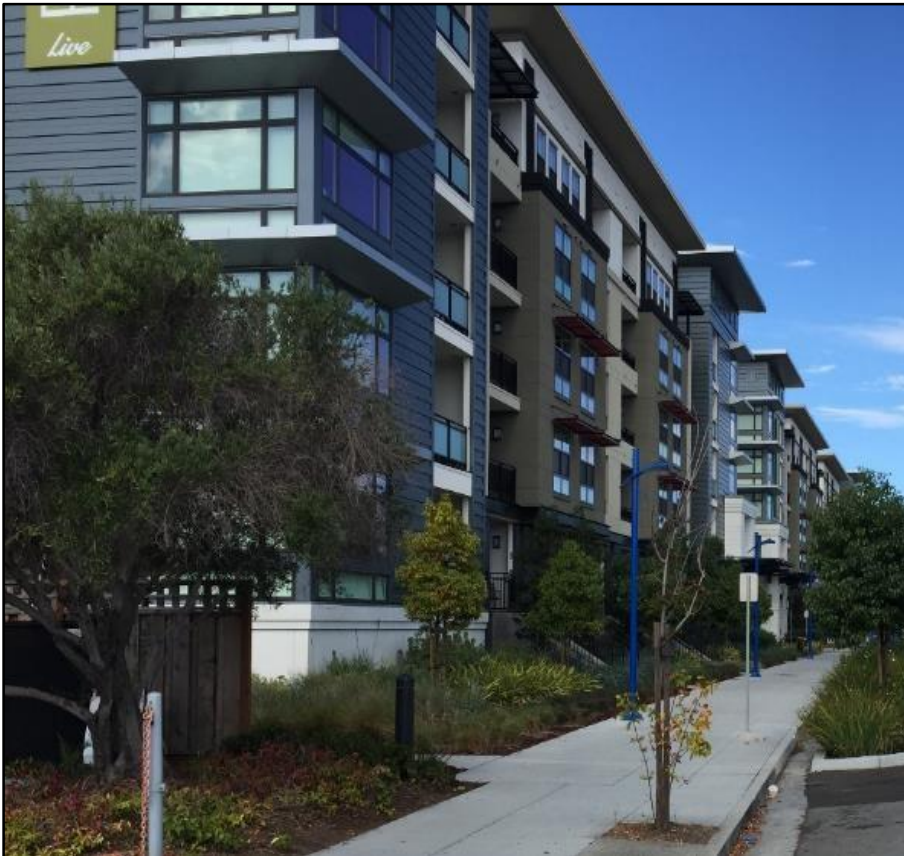
64-gallon cart	5½ sq. ft.
96-gallon cart	7 sq. ft.
4-cubic yard bin	28 sq. ft.
6-cubic yard bin	48 sq. ft.

* Example Bin Sizes: <http://www.rigersanitation.com/services/commercial/sizes-and-dimensions/>

Example Cart Sizes: <http://www.sanjosca.gov/index.aspx?nid=2372>

Examples do not constitute an endorsement of any service provider. Sizes vary, check locally.

Resources



- **C/CAG Website (Flowstobay.org)**
- **Hauler Websites**
- **County OOS Website**
- **County EH Website**
- **Rethink Waste Website**
- **City Websites**
- **State Websites**
- **Other Public Agency Website**
- **Other Design Resources**

Next Steps

- **Proposed Work Plan Tasks for the Litter Work Group in Fiscal Year 2018/2019**
 - Workshop for public and private sector design professionals
 - Fact sheet summarizing the Toolkit



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