

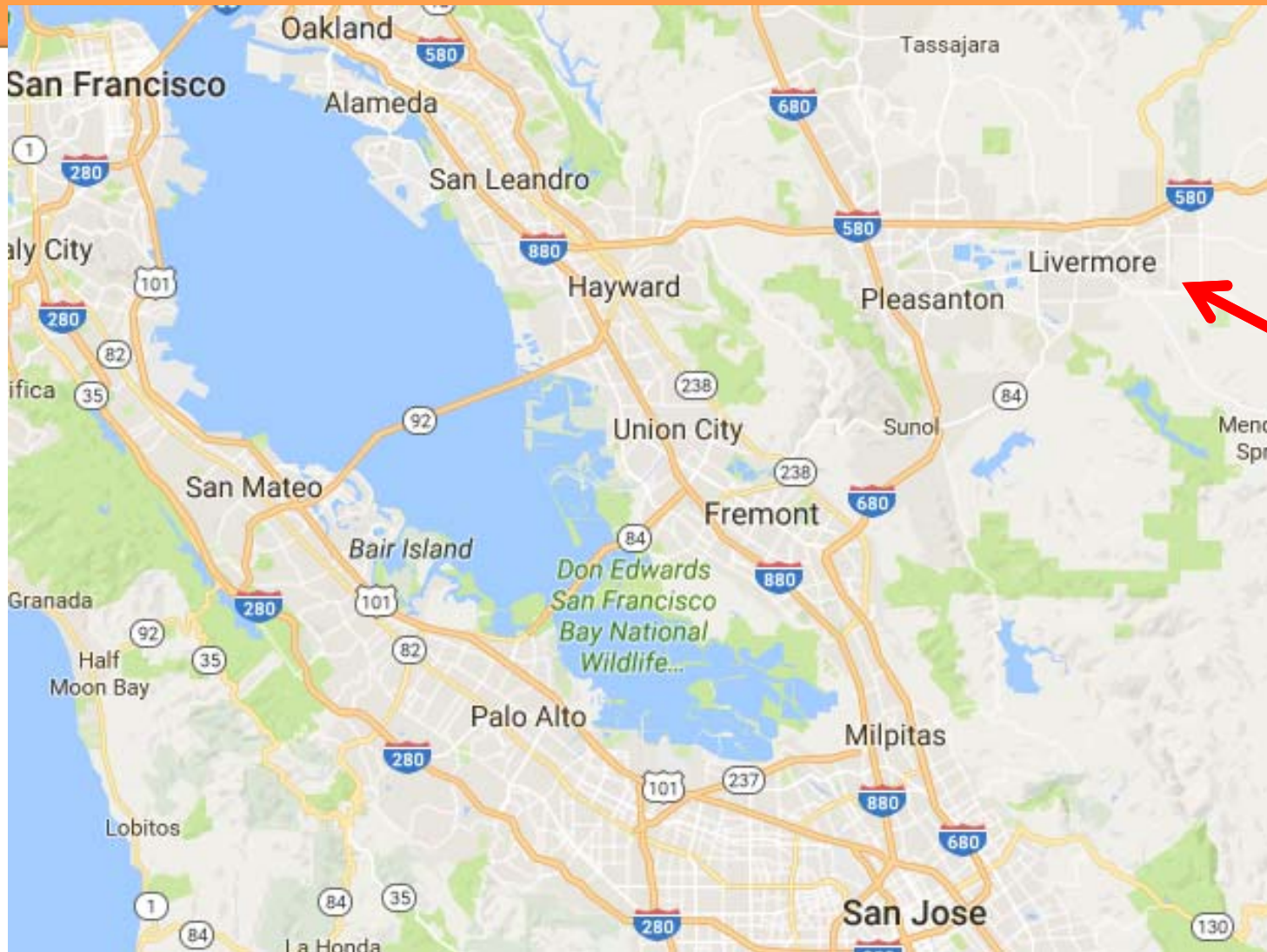
Litter Prevention in Multi-Family Buildings

A pilot project by:
Clean Water Program Alameda County

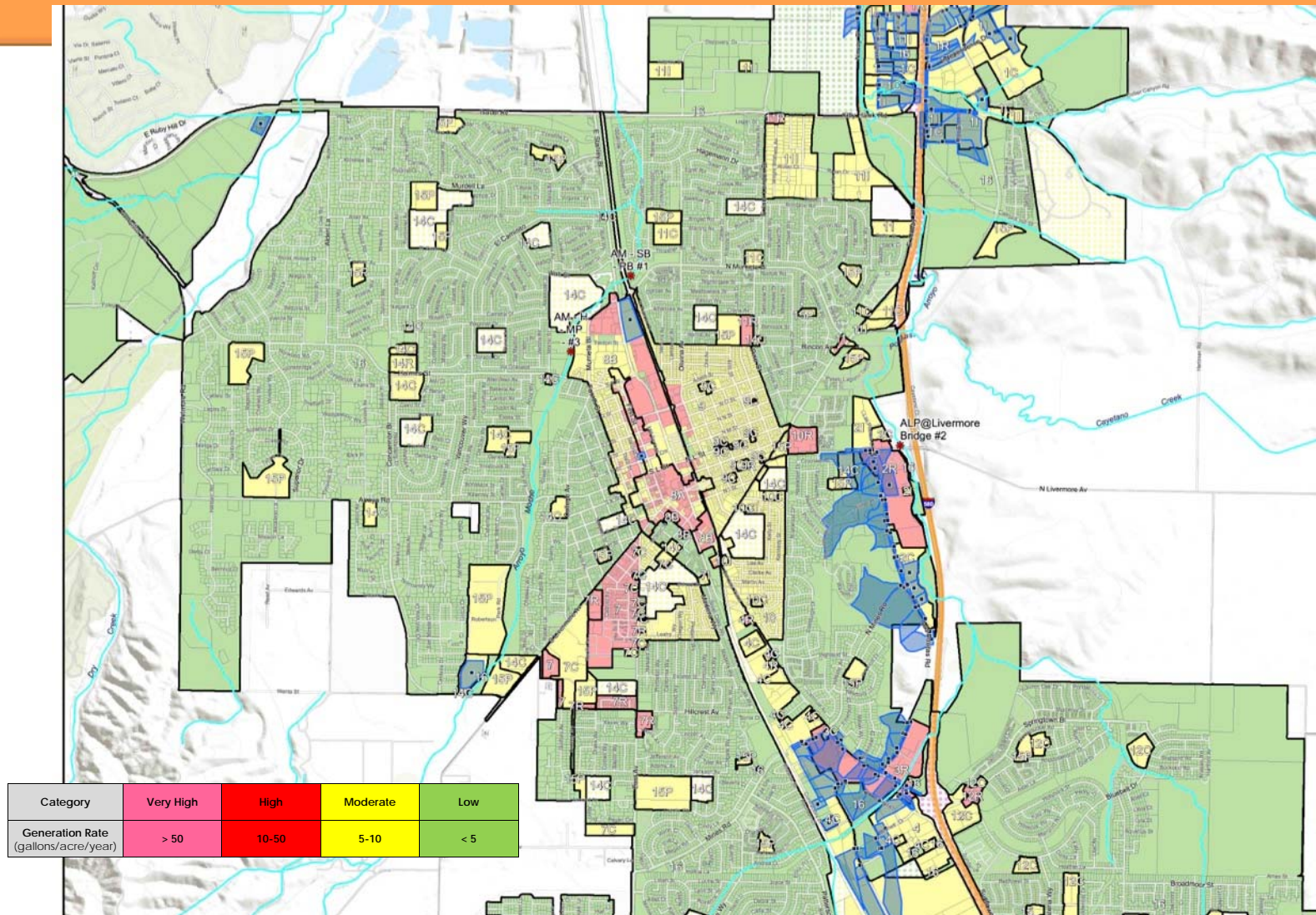
In collaboration with:
City of Livermore



Project Location



Livermore Trash Map



Project Background

- MRP permit requirements for Trash Hot Spot clean-up and trash load reduction goals: 70% by 2017
- Insights from cleanup groups: increased litter near multi-family dwellings (MFD)
- **Pilot Project:**
MFDs in high trash generating areas and
 - near trash hot spots
 - near creeks

Project Overview & Timeline

Dec 2013-Feb 2014:

- Selection of 3 pilot properties
- Establish baseline (pre-pilot)

Mar-Jun 2014:

Testing different approaches:

- Norming
- Outreach
- Control (no action)

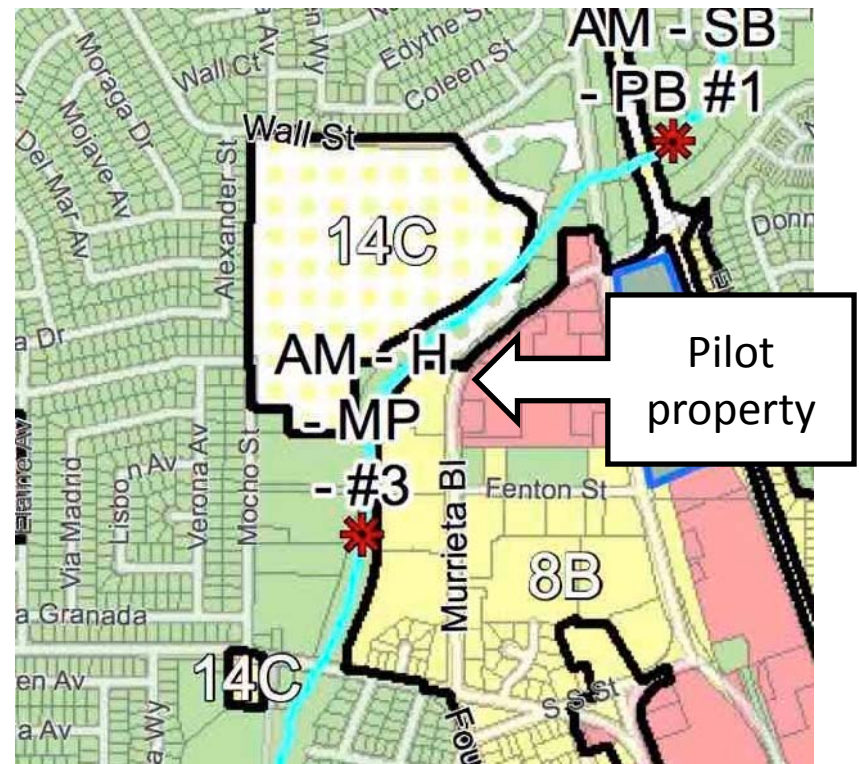
Jun-Dec 2014:

- Post-pilot measurement & Evaluation
- Create toolkit for replication elsewhere

Selection of Pilot Properties

Criteria:

1. MFD located in high trash generating area near Trash Hot spot or near creek
2. Availability of property owner contact info



Property Manager Interviews

Criteria:

1. On-site manager, at least part-time
2. Willingness to actively participate
3. Renters of various ethnicities, esp. Latino
4. Trash cans on-site
5. Existing communication channels
6. No changes in shared areas during pilot

Selected Pilot Sites

	Control	Norming	Outreach
Property Name	Livermore Garden Apts	La Castilleja Condominiums	Castilleja del Arroyo Condos
# of units	96	50	124
Ethnicities besides white	49% Latino 2% AfrAm, Asian	24% Latino 10% AfrAm & Asian	47% Latino 6% AfrAm & Asian
Onsite manager	24/7	12 hrs./week	24/7
Communication Channels	As needed written notices, in-person	As needed written notices	Monthly HOA newsletter delivered to each door, HOA website

Selection of Pilot Properties



Selected Pilot Sites



Establish Baseline (Pre-Pilot)

Baseline = litter count before pilot

Methodology (CA Coastal Commission):

- Collect litter from all shared areas of the property over 1 week, same time each day.
- At the end of the week:
 - ▣ categorize by litter type
 - ▣ measure by volume & number of items

Collection was handled by property management at each pilot site, measurement by Lynna.

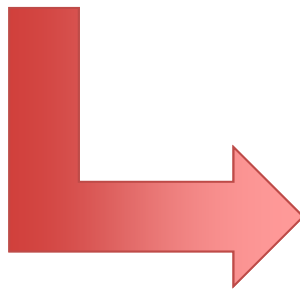
Measurement By Volume



Measurement By Category



Litter was sorted into categories and each measured.



Litter Categories

- Food packaging & related items
- Cigarette butts
- Other tobacco-related items
- Non-food packaging materials
- Personal care & hygiene products
- Clothing items
- Tiny trash pieces (less than 2.5cm)

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Site 1: Norming

“No litter” as a visible **social norm**, increasing the barrier to littering

“Treatment”:
Volunteer resident at the site picked up litter each morning over the course of the pilot.



Site 2: Outreach

Schedule	Activity	Purpose
Month 1: March 2014	<ul style="list-style-type: none">• Place Signs• Place Posters• 1st Newsletter Issue	Build awareness, introduction
Month 2: April 2014	<ul style="list-style-type: none">• 2nd Newsletter Issue• Pledge Poster	Persuasion, norming. Solicit commitment
Month 3: May 2014	<ul style="list-style-type: none">• 3rd Newsletter Issue	“Thank you” (Confirmation)

Site 2: Outreach – Campaign Identity

Site-Specific Identity Builds Sense of Ownership



Site 2: Outreach – Outdoor Signs



- Aluminum, permanent
- 12.5" x 15.5"
- Mounted on fences, near garbage enclosures, parking areas and walkways
- Total of 7 signs

Site 2: Outreach – Outdoor Signs



Site 2: Outreach – Outdoor Signs



Site 2: Outreach – Posters



- Laminated cardstock
- 11" x 17"
- Shows specific, commonly littered items
- Posted in hallways, poster kiosks, on pin boards etc.

Site 2: Outreach – Posters



Site 2: Outreach – Newsletter



- Distributed monthly
- Typically one page, double sided
- Bi-lingual
English/Spanish
- Taped to each unit door and displayed in kiosk

Site 2: Outreach – Newsletter



[Una versión en español de este boletín está disponible a petición del administrador local al (925) 290-7456.]

CDA Board Members

President - John Howard
Vice-President - Charles Katz
Secretary - Rick Mei
Treasurer - Chong Knowles
Director - Ajay Mittal

CDA is a Litter Free Zone!

Here at Castilleja del Arroyo, we take pride in our beautiful property and our caring community of tenants. That's why we're encouraging

residents and their guests to keep the grounds free from litter and cigarette butts, and to place these items into the trash cans located throughout the property. If you see a candy wrapper, chip bag or some other piece of trash in the parking lots or common areas, please put it in its place. If we each do our part, we will all benefit!

Contacts

On-Site Manager
Greg Knowles, CCAM
(925) 290-7456

Off-Site Manager
NAM - Dee Lachner
(925) 243-1797 x104
dee@neighborhoodam.com



¡Nuestra CDA es una zona libre de basura!

Aquí en Castilleja del Arroyo estamos orgullosos de nuestra bella propiedad y nuestra solidaria comunidad de inquilinos. Por eso es que estamos animando a nuestros residentes y a sus visitantes a que mantengan las áreas comunes libres de basura y colillas de cigarrillos, y a que coloquen todo desperdicio en los botes de basura que hay por toda la propiedad. Si usted ve envolturas de dulces, bolsas de papitas o alguna otra basura en los es-

tacionamientos o áreas comunes, por favor, póngalos en el bote apropiado. Si cada cual hace su poquito, todos nos beneficiaremos.

1st Issue:

- Awareness
- State desired behavior positively
- Introduce norm of not littering

Site 2: Outreach – Newsletter



April, 2014

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Interview with our resident cat Livermora

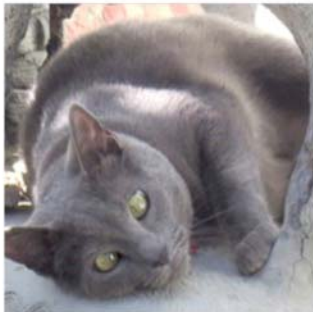
CDA: Livermora, you and JoAnn have been living in unit 5 for a few years now. How do you like it?

Livermora: We love it! Everybody is very nice and I get lots of attention, especially from the kids. I often take JoAnn out for walks around the complex. She really likes that.

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CDA: What do you do on your walks?

Livermora: Oh, I just roll around in the grass and keep an eye on the birds. JoAnn picks up stuff like candy wrappers and cigarette butts.

CDA: Are those things a problem?

Livermora: JoAnn thinks it's ugly to see litter scattered around our nice place here. I agree! Cigarette butts are especially bad. They stink! My nose is much closer to the ground than people's, so I know!

CDA: Anything else you'd like to tell our readers?

Livermora: Well, if everybody could just put their trash in the garbage, JoAnn would have more time to focus on me instead of the litter! And it would look nicer around here.

CDA: Thanks Livermora. You're the purr-fect neighbor!

FIRE at CDA

A fire broke out on the 1001-side of our complex shortly after 1 am on the morning of Thursday, March 27.

2nd Issue:

- Persuasion
- Leveraging resident as role model
- Make it entertaining

Site 2: Outreach – Newsletter

Future CDA HOA Board Meetings May 12, June 9 (Annual Meeting Only) & July 14

All Board meetings start at 6:30 PM in the meeting room on the second floor near unit 94.



If your vehicle has been towed, please contact R. Lance & Sons Towing company at (925) 245-8884. Their address is 6776 Patterson Pass Road, Livermore CA 94550.

CDA HOA Insurance

Aaron Katz
Katz Insurance
7011 Koll Center Pkwy Suite 180
Pleasanton CA 94566
(925) 484-5900



Do your part to keep CDA litter free!

Add your name and signature to our CDA Pledge of Support, posted near the mailboxes!

¡Ayuda a mantener a CDA libre de basura!

Agrega tu nombre y firma a la Promesa de Apoyo de CDA, colocada cerca de los buzones.

2nd Issue (back):

- Solicit commitment

Site 2: Outreach – Pledge Signs



Site 2: Outreach – Pledge Signs



- 8 commitments before kids' graffiti
- Took down signs soon after
- Several residents expressed disappointment

Site 2: Outreach – Newsletter



May, 2014

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Thanks For Pitching In!

May is one of the most beautiful months out here in Livermore—usually sunny and nice but not yet too hot! Here at Castilleja del Arroyo we do everything we can to help you enjoy the summer, keeping the grass looking healthy and

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the flowers blooming. Please do your part by putting any trash into the garbage cans around the property or holding onto it until you get home, if there's no garbage can nearby.



Earlier in April, many neighbors signed our pledge posters, making a commitment to keep CDA litter free. Thank you for your support! When everybody pitches in, we all get to enjoy and take pride in our beautiful home!

¡Gracias por encestar!

Mayo es uno de los meses más hermosos aquí en Livermore... generalmente soleado y agradable pero aún no demasiado caluroso. Aquí en Castilleja del Arroyo hacemos todo lo posible para ayudarle a disfrutar del verano, manteniendo el césped verde y las plantas florecidas. Por favor ponga de su parte colocando cualquier desperdicio en los botes de basura en las áreas públicas, o llevándola a casa si no hay un recipiente cerca.

A comienzos de abril muchos vecinos firmaron los cartones de promesa, haciendo el com-

3rd Issue (back):

- “Thank You” confirms desired behavior

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Mar-Jun 2014:

Testing different approaches:

- Norming
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- Control (no action)

Jun-Dec 2014:

- Post-pilot measurement & Evaluation
- Create toolkit for replication elsewhere

Post-pilot Measurement

Same methodology as pre-pilot:

- Collect litter from all shared areas of each property over 1 week, same time each day.
- Same week at all 3 properties
- At the end of the week:
 - ▣ categorize by litter type
 - ▣ measure by total volume & litter item count



Litter Item Count Eliminated

- **Count methodology** of cigarette butts and tiny trash pieces inconsistent at norming and outreach sites
- Butt warning notices issued at control site
- Butt can introduced at norming site

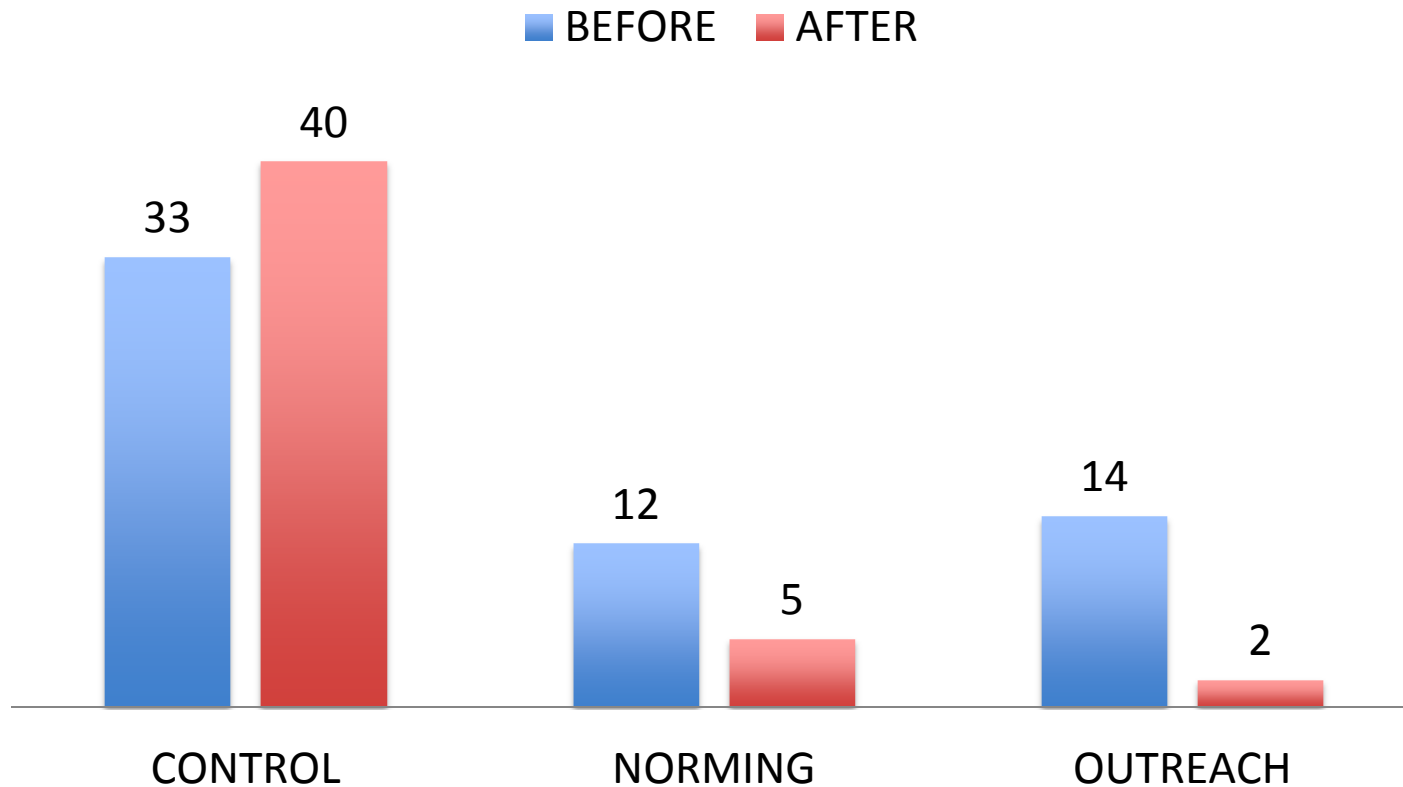


Results Overview

	Control	Norming	Outreach
Litter Volume BEFORE	33 gal	12 gal	14 gal
Litter Volume AFTER	40 gal	5 gal	2 gal
Litter Volume CHANGE	21% increase	58% decrease	86% decrease

Results by Volume

Litter by Volume (gallons)



And the winner is....



The **Outreach pilot** observed the most significant reduction in litter, both volume and number of pieces.

Resources at: CleanWaterProgram.org/MFD-litter-kit

The screenshot shows the Clean Water Program website. The header includes the logo and navigation links: Home, Report a Spill, News, Archive, Contact Us. Below the header is a blue navigation bar with links for RESIDENTS, BUSINESSES, TEACHERS, WATERSHEDS, and RESOURCES, along with a search bar. The main content area is titled 'Litter Prevention in Multi-Family Buildings' and includes a sub-heading 'LITTER REDUCTION AT MULTI-FAMILY DWELLINGS: A GUIDE FOR EFFECTIVE OUTREACH'. A photograph shows a trash can and a sign. The text describes the program's efforts in the City of Livermore and provides a link to the 'MFD Litter Reduction Pilot Report'. A sidebar on the right lists various resources under 'Residents Menu'.

Home > RESIDENTS > Multi-Family Litter Prevention

Litter Prevention in Multi-Family Buildings

LITTER REDUCTION AT MULTI-FAMILY DWELLINGS: A GUIDE FOR EFFECTIVE OUTREACH



Multi-family dwellings (MFDs) often have particularly high litter rates, making them a key source of contamination. However, outreach can be very effective in reducing littering behavior.

The Clean Water Program conducted a series of pilots in the City of Livermore in the spring of 2014, and developed a set of best practices, see [MFD Litter Reduction Pilot Report](#) linked below. Based on these learnings, the Program also put together a campaign kit so municipalities and other entities can design and implement MFD outreach campaigns. You can view and/or download the [MFD Litter Reduction Campaign Manual](#) and all related files on this page.

Residents Menu

- Protecting
- Yards and
- Car Care
- Around Yo
- Litter Prev
- Multi-Fam
- Volunteer
- Waterful A
- Hazardous
- Report a S
- Detain the

For Download:

- Project Report
- Campaign Manual
- All content and design files

Campaign Toolkit: Customization

“Generic”



Template to customize



Questions?

CleanWaterProgram.org/MFD-litter-kit

Lynna Allen, City of Livermore

lallen@cityoflivermore.net

(925) 960-8143

Stefanie Pruegel, Gigantic Idea Studio

stef@gigantic-idea.com

(510) 451-5500 x305



Campaign Toolkit

- Step-by-Step Campaign Manual
- Design files (generic and for customization)
 - Campaign logo
 - Poster
 - Sign
 - Pledge Sign
- Content templates
 - Property Manager letter
 - Newsletter articles

