

Used Oil/HHW Training &  
Conference – November 3, 2016

# Used Oil/Filter Curbside Collection: Workshop Highlights

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# Learning Outcomes



Source: San Benito County <http://www.cosb.us/county-departments/integrated-waste-management/oil-recycling/#.V4apvaJBnXA>

*After completing this session, participants will be better equipped to answer the following questions:*

- What are the obstacles that impede implementation of a used oil/filter curbside collection program?
- What qualities and characteristics make a successful used oil/filter curbside collection program?
- What steps are involved in implementing a used oil/filter curbside collection program?

# Outline of session

Introduction

Small group discussion

Cal Poly study

*Targeting Success - Guidance for  
California Jurisdictions*

Further discussion

Wrap-up



# Small group discussion



- Your city council or board of supervisors has decided to increase the priority attached to used oil/filter curbside collection
- Individually, jot down actions that your jurisdiction might take to increase the quantities of used oil and used oil filters collected curbside (2-3 minutes)
- Discuss in small group (5-10 minutes) and appoint a spokesperson to report out

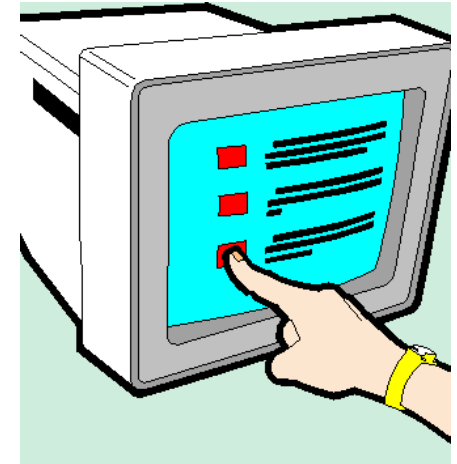
# Cal Poly study

- Identified characteristics of jurisdictions and their programs that appear to influence success in implementing the curbside collection of used oil and used oil filters
- Produced a guidance document for local jurisdictions on implementing a used oil/filter curbside collection program
- Conducted workshops in three different regions, aimed primarily at jurisdictions without existing programs



# Methodology

- Literature review
- Online survey of local jurisdictions
- Follow up / interviews
- Analysis of demographics
- Preparation of report and training/support materials
- Provision of training/support



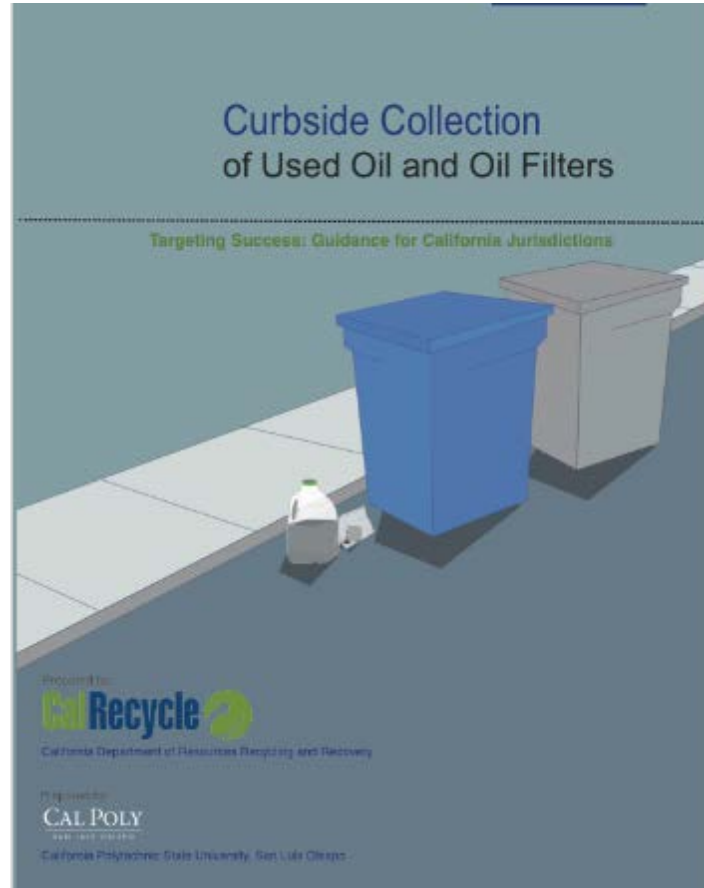
# Key elements of successful CC programs



- Leadership
- Frame of mind
- Networking
- Features
  - Willingness of hauler to participate
    - At least break even financially
  - Simplicity, convenience, and normalcy for households
  - Effective outreach

# Targeting Success

## *Guidance for California Communities (DRAFT)*





# Targeting Success

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- Appendix C: Summary of Implementation Steps
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# Why worry about improper disposal of used oil and filters?



- Environmental damage
  - 1 gallon of oil can pollute 1 million gallons of water
- Loss of valuable resources
  - Used oil can be re-used
  - Most filters contain recyclable oil and steel

# Why worry about improper disposal of used oil and filters?

(continued)

- Estimated improper disposal by DIYers in 2003-04
  - Nearly 14 million gallons of used oil (44% of oil consumed)
  - Between 10-24 million used filters (41-96% of filters disposed), each containing more than 10 ounces of used oil



Source: Public Research Institute, San Francisco State University (SFSU), 2005

# Why curbside collection of used oil and filters?

In collecting used oil and oil filters -

**convenience for the DIYer is critical**

- and curbside collection is almost as convenient as throwing used oil and filters in the trash!

*Curbside collection and collection at drop-off centers (including certified collection centers) are complementary, but curbside collection is typically more convenient*



# Implementing a used oil/filter curbside collection program

- Decide if curbside collection is right for your jurisdiction
- Identify the program champion
- Set goals and objectives
- Develop support for your program
- Contact private hauler(s)
- Determine curbside operations
- Determine outreach strategies
- Consider Community Based Social Marketing
- Develop program financing
- Understand administrative and regulatory requirements
- Evaluate your program
- Ensure program sustainability

# Decide if curbside collection is right for your jurisdiction

- If your jurisdiction currently offers curbside garbage collection, it is likely to be a good candidate for implementing a curbside used oil/filter collection program unless its population includes very few *Do It Yourselfers* (DIYers).



San Miguel curbside oil collection program truck  
Photo: Bill Worrell

# Identify the program champion

- If curbside collection seems like a possible option for your jurisdiction, identify one or more people who will lead the efforts to further assess and, if appropriate, implement the option.

# Set goals and objectives

- Decide on goals and objectives for a collection program in your jurisdiction. In addition to providing direction for program implementation, having explicit goals and objectives in place provides a reference point for subsequent evaluation of the program (see discussion in Implementation Step 11).





# Develop support for your program

- Develop a support network for implementing your curbside collection program. The support team can come from: political and administrative leadership; residents, waste hauler(s); local non-governmental organizations (NGOs) including environmental and other community groups; other jurisdictions.

# Contact private hauler(s)

- If your jurisdiction uses one or more private haulers to pick up garbage/recyclables, contact each one to discuss possible used oil/filter curbside collection pickup programs.

# Determine curbside operations

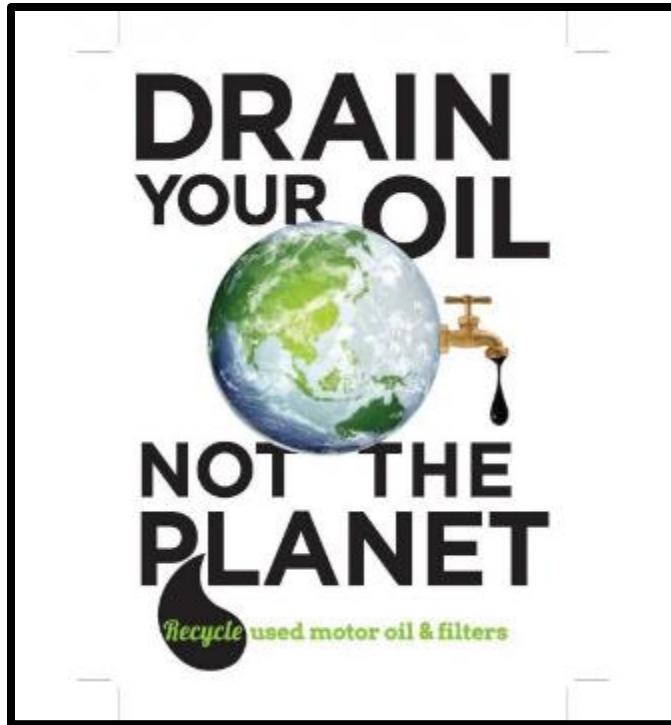
- Determine the type of curbside operation that might best suit your jurisdiction. Keep in mind that in general, the greater the convenience to households, the more used oil/filters will be collected. It also helps if everyone comes to view as “the normal way of doing things” that used oil/filters are collected curbside on a regular basis, along with trash and recyclables.



Standard Container Used by City of Folsom

Source: [http://www.folsom.ca.us/city\\_hall/depts/admin/solid\\_waste/hazmat/used\\_oil.asp](http://www.folsom.ca.us/city_hall/depts/admin/solid_waste/hazmat/used_oil.asp)

# Determine outreach strategies



Source: San Mateo County - <http://www.flowstobay.org/usedoil>

- Effective outreach to the community is essential if a used oil/filter curbside collection program is to be successful. At a minimum, residents need to know about the program if they are to use it. Outreach efforts cannot be one-time; they need to be sustained, especially in communities with rapid turnover of population.

# Consider Community Based Social Marketing

- Using variations of some of the methods listed in Implementation Step 7 above, and other techniques as appropriate, your jurisdiction may choose to go beyond traditional “outreach” and to adopt an approach known as “Community Based Social Marketing (CBSM),” in which psychological knowledge regarding behavior change is used to overcome barriers to the activity being promoted - here, participating in a used oil/ filter curbside collection program if offered.

# Develop program financing

- Consider what new funding, if any, might be required by you and/or your hauler(s) to pay capital and operating costs, after allowing for possible changes in revenue.



City of Manteca used oil pickup  
*Photo: Cal Poly San Luis Obispo*

# Understand administrative and regulatory requirements

- Administrative requirements must be met in order to qualify for any kind of used oil recycling funding from the State. Used oil is managed as a hazardous waste in California but specific regulatory requirements apply when used oil is collected at the curbside from households and is destined for recycling. Filters containing recyclable metal are also subject to specific provisions. To learn more about the latest administrative requirements, consult with CalRecycle's Used Oil Program; to learn more about the latest regulatory requirements, consult with a California Department of Toxic Substances Control Regulatory Assistance Officer and/or your Certified Unified Program Agency (CUPA).

# Evaluate your program



- Once your program has been up and running for a while (at least a year), and thereafter on a regular basis, it should be evaluated.

Source: Fresno County  
<http://www.co.fresno.ca.us/DepartmentPage.aspx?id=16359>



# Ensure program sustainability

- Do what you can to ensure that your program will be sustainable, in order to prolong the benefits of protecting the environment and conserving resources into the future.

For more information or support

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# Supplemental slides

- The following slides may be presented, depending on the discussion

# Survey & interviews

- Purpose
- Types of questions
- Numbers
  - About 216 surveyed
  - 112 completed responses
  - Follow-up interviews with more than 20 jurisdictions



# Obstacles – real or perceived

*Most broadly cited or observed*

- Frame of mind
- Costs anticipated to be too high
- Fear of spills/environmental damage and/or of rainfall contaminating the oil
- Quantities for collection anticipated to be too low
- Resistance from haulers
- Perception that CC doesn't make sense in a dispersed rural community



# Obstacles – real or perceived

*Less broadly cited or observed*

- Inertia
- Perception that “majority of jurisdictions with curbside have low success ratings”
- Administrative burden anticipated to be too high
- Perception that existing drop-off centers (certified collection centers, ABOPs, etc.) are convenient and adequate without adding CC program
- “No companies proposed oil collection when we put out an RFP” (for renewed garbage collection) - “it is not a priority for our jurisdiction”
- “Not aware of significant illegal disposal”
- “Very little demand from citizens”
- Belief that collecting curbside would be at expense of certified collection centers
- More demand for HHW program than for used oil/filter program
- Perception that certified collection centers collect much more oil than curbside despite extensive CC advertising

# Costs

- Back-of-the-envelope calculation
  - A typical collection route involves pickup from 700 households
  - 17.6 percent of all households in California are DIY
  - Each household in California in 2012 had 2.3 vehicles
  - Oil and filter are changed in each vehicle twice per year
- **There are**
  - About 570 oil changes per year by DIYers
  - Requiring 11 pickups per weekly route
  - Taking about 6 minutes per weekly route

# Examples of one-time costs

- **Storage racks** for used oil/filters on vehicles used to collect trash or recyclables (about \$600)
- **Pickup truck** bought specifically for used oil/filter curbside collection (approximately \$65,500 for vehicle outfitted with a 100 gallon tank and pneumatic pumping system as well as a stake bed and lift gate to accommodate the hauling of abandoned oil barrels)
- **Tank** (roughly \$14,000 for a 1000-gallon, double wall, steel waste oil storage tank with pumping system, delivered)
- **Filter crusher** (prices range from about \$1,300 to over \$10,000)
- **Contamination “sniffer”** (about \$1,000)
- **Used oil containers** (\$19,000 for 3,000 containers)
- **Filter bags** (\$4,000 for 10,000 bags)



# Curbside operations

- Pick up only oil alone or both oil and filters
- Require call-ahead by household or automatic pick-up
- Require standard containers
- Supply containers free
- Empty oil into tank on route or collect oil in containers
- Pick up oil in separate vehicle rather than vehicle used for garbage or recyclables

# Demographic analysis

- Purpose
- Regression analysis
- Vector analysis

Table 1: Top 30 Jurisdictions without curbside collection programs

Rank	Jurisdiction	D	Rank	Jurisdiction	D
145	City of San Buenaventura (Ventura)	0.9040551	145	City of San Buenaventura (Ventura)	1.061752
172	City of Upland	0.9062653	172	City of Upland	1.096708
218	Santa Barbara County	0.9639486	189	City of Whittier	1.121252
231	Ventura County	1.0773014	115	City of Oceanside	1.175665
115	City of Oceanside	1.1025442	70	City of Glendora	1.314561
183	City of Whittier	1.1100043	151	City of San Marcos	1.496384
70	City of Glendora	1.2213139	44	City of Covina	1.784193
151	City of San Marcos	1.3811055	177	City of Vista	1.853533
27	City of Camarillo	1.5006821	47	City of Cypress	1.901875
177	City of Vista	1.7884042	87	City of Lake Forest	1.959295
44	City of Covina	1.7871921	112	City of Novato	2.031741
47	City of Cypress	1.8335708	215	City of Ontario	2.094472
112	City of Novato	1.8765578	117	City of Ontario	2.169835
87	City of Lake Forest	1.9256237	82	City of La Mirada	2.346490
215	San Joaquin County	2.0406067	134	City of Rancho Cucamonga	2.414569
117	City of Ontario	2.1728759	88	City of Lakewood	2.421898
88	City of Lakewood	2.2027874	163	City of Sausalito	2.526919
180	City of West Covina	2.2126679	126	City of Pico Rivera	2.536237
82	City of La Mirada	2.3424996	93	City of Longue	2.569216
134	City of Rancho Cucamonga	2.3617944	131	City of Pomona	2.569567
30	City of Carson	2.4589535	218	Santa Barbara County	2.618101
105	City of Montebello	2.4645391	159	City of Santa Paula	2.672263
131	City of Pomona	2.4677617	50	City of Dixon	2.644500
154	City of Santa Barbara	2.4878807	51	City of Downey	2.763586
163	City of Sausalito	2.5028012	6	City of Anaheim	3.016190
93	City of Longue	2.5037942	231	Ventura County	3.056965
126	City of Pico Rivera	2.5187552	105	City of Montebello	3.061101
159	City of Santa Paula	2.5440996	169	City of Torrance	3.062877
132	City of Poway	2.5951084	89	City of Lancaster	3.084820
50	City of Dixon	2.5951581	119	City of Oxnard	3.185766

Table 2: Top 30 Jurisdictions without curbside collection programs

Rank	Jurisdiction	D	Rank	Jurisdiction	D
70	City of Glendora	0.7986271	183	City of Whittier	0.9146412
231	Ventura County	0.8076465	70	City of Glendora	1.0131624
183	City of Whittier	0.8363388	87	City of Lake Forest	1.0651065
87	City of Lake Forest	0.8454396	163	City of Sausalito	1.1748936
27	City of Camarillo	0.9726006	82	City of La Mirada	2.2872928
163	City of Sausalito	1.0827886	88	City of Lakewood	3.1064458
172	City of Upland	1.1499905	145	City of San Buenaventura (Ventura)	1.3972997
88	City of Lakewood	1.2314663	44	City of Covina	1.4532042
82	City of La Mirada	1.2497494	115	City of Oceanside	1.5086915
115	City of Oceanside	1.2961503	172	City of Upland	1.5411640
145	City of San Buenaventura (Ventura)	1.3561027	134	City of Rancho Cucamonga	1.5426369
134	City of Rancho Cucamonga	1.3833527	50	City of Dixon	1.6630628
44	City of Covina	1.3903019	47	City of Cypress	1.9192952
50	City of Dixon	1.5025997	231	Ventura County	2.2833171
132	City of Poway	1.7126027	132	City of Poway	2.3370080
47	City of Cypress	1.7155022	117	City of Ontario	2.4093736
218	Santa Barbara County	1.7792104	215	San Joaquin County	2.6780236
180	City of West Covina	1.3623338	126	City of Pico Rivera	2.8313316
30	City of Carson	2.1636740	112	City of Novato	2.8348412
117	City of Ontario	2.3192987	168	City of Thousand Oaks	2.9460774
112	City of Novato	2.4934765	218	Santa Barbara County	2.9864489
215	San Joaquin County	2.4989351	51	City of Downey	3.0267471
151	City of San Marcos	2.5770591	23	City of Brentwood	3.0655250
126	City of Pico Rivera	2.7860289	151	City of San Marcos	3.1400060
119	City of Oxnard	2.9080488	119	City of Oxnard	3.1983845
177	City of Vista	2.9278674	177	City of Vista	3.2126572
23	City of Brentwood	2.9303045	159	City of Santa Paula	3.3325420
16	City of Beaumont	2.9346124	89	City of Lancaster	3.3535852
168	City of Thousand Oaks	2.9480046	93	City of Longue	3.3541167
51	City of Downey	2.9732932	16	City of Beaumont	3.3701468