

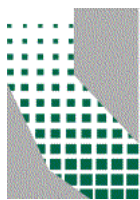
# **Contractor's Report to the Board**

## CSUS USED OIL RECYCLING PUBLIC EDUCATION PROJECT

November 2007

Produced under contract by:

Institute for Social Research, Sacramento State  
University



California Integrated Waste  
Management Board



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Publication #XXX-XX-XXX

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*Prepared as part of contract number IWM 0405.*

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# Executive Summary

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The CIWMB has awarded Public Education grants to programs across California to enhance the promotion of the used oil recycling services available in each grantee's jurisdiction. Annual reports are filed each year with CIWMB and they contain program elements and oil recycling data. Files frequently contain more detailed descriptions of programs, as well as samples of advertisements and premiums that give a fuller picture of the grantees public education approach.

The goals of this project are to conduct an independent analysis of grantees' past public education (PE) and outreach programs to promote used oil recycling to Do-It-Yourself oil changers (DIYers) and determine which PE programs and strategies have been the most effective. The ISR created a database using the Used Oil Block Grant August 15<sup>th</sup> Annual Report Form: FY 2004/2005 from each of the grantees and analyzed the report data, as well as supplemental information found in grantee files, to determine the most effective PE strategies employed by the grantees with different budget levels. The ISR also developed recommendations for changes to data collection procedures, based on our analysis.

The most effective programs (MEP) are more likely to have the following characteristics:

- Spend a smaller proportion of the total budget on PE
- Spend a smaller proportion of the total budget on mass media and person to person outreach
- Spend a larger proportion of the total budget on oil hauling and collection
- Have more certified collection centers
- Recycle more oil from each collection site
- Use cultural events, car club/auto events, environmental events and county fairs for person to person outreach
- Offer oil change related premiums, such as oil containers, funnels and rags
- Use fun, interactive exhibits at events
- Integrate media messages, events, premiums and media messages to target specific groups
- Evaluate program effectiveness and implement recommended changes
- Employ different strategies depending on budget size

The least effective programs (LEP) are more likely to have the following characteristics:

- Spend a larger proportion of their total budget on public education
- Spend a larger proportion of their total budget on mass media
- Use television and billboards as media types

- Use non-oil change related premiums, such as pens, pencils and calendars
- Target outreach toward children
- Use short term outreach programs
- Poorly execute evaluation and neglect to follow through with recommendations
- Have high staff turnover

Recommended changes to data collection include:

- Have electronic submission of forms
- Standardize response categories



# Introduction

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Since 1987 it has been illegal to dispose of used oil in sewers, drainage systems, surface or ground waters, water courses, or marine waters, by domestic incineration, or onto the land or in the trash. In 1991 the California State legislature passed the Oil Recycling Enhancement Act to address the significant threat to California's environment from illegally dumped used oil. The California Integrated Waste Management Board oversees the implementation of this act. The Board's Used Oil Recycling Program is charged with discouraging the illegal disposal of used oil and promoting used oil recycling statewide. For more information on the Used Oil Recycling program see the CIWMB website at <http://www.ciwmb.ca.gov/UsedOil/GeneralInfo.htm>.

The CIWMB issues block grants to help local governments create and maintain used oil and oil filter recycling programs. The block grant is noncompetitive and provides funds to establish and maintain used oil and filter collection programs. Recipients include local governments with used oil collection programs that include used oil and used oil filter collection opportunities and a public education element.

The CIWMB has awarded Public Education grants to programs across California to enhance the promotion of the used oil recycling services available in each grantee's jurisdiction. Annual reports are filed each year with CIWMB and contain program elements and oil reclamation data. Files frequently contain more detailed descriptions of programs, as well as samples of advertisements and premiums that give a fuller picture of the grantees public education approach.

The goals of this project are to conduct an independent analysis of grantees' past public education (PE) and outreach programs to promote used oil and oil filter recycling to Do-It-Yourself oil changers (DIYs) and determine which PE programs and strategies have been the most effective. The objectives of the project include the following: identifying past PE program components, strategies and expenditures; determining which PE programs/components/strategies have resulted in the most oil collected for the least PE cost; determining which PE campaigns targeting specific audiences have been the most cost-effective; identifying those elements/strategies common to the most effective grantee PE programs; recommending steps grantees can take to implement the most effective PE strategies in a training module and recommending proportions of grantee budgets to which PE expenditures should be targeted.

The ISR created a database using the annual block grant reports from each of the grantees and analyzed the report data, as well as supplemental information found in grantee files, to determine the most effective PE strategies employed by the grantees with different budget levels (see Appendix A for the Data Dictionary). The ISR researchers met with the CIWMB staff to discuss development and implementation of the project, and to strategize and determine research methodology, quantification of outcome variables, and data analysis strategies. The ISR also developed recommendations for changes to data collection procedures, based on our analysis. The ISR presented our findings at the annual meeting (see Appendix B) and produced a training module for new grantees (Appendix C).

# Grantee Effectiveness: Results from the Analysis of Annual Report Data

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## ***Methodology***

The data from the Used Oil Block Grant August 15<sup>th</sup> Annual Report Form: FY 2004/2005 were coded using a Data Dictionary created for this project (Appendix A) and entered into a database for analysis. The data were analyzed to determine the most and least effective public education programs managed by Block Grantees. The effectiveness of grantee PE programs was determined by dividing the dollars each grantee spent on public education by the number of gallons of oil they collected from all sources, which was then divided by their oil diversion rate. Data was entered for the 225 grantees that completed the annual report for 2004/2005 cycle, and 200 of the grantees provided the necessary data to be included in the analysis. For the quantitative analysis not taking budget size into consideration, the grantees with scores in the bottom quartile (those with the least cost per gallon of oil recycled) were designated the “Most Effective Programs”(N=50), while those in the top quartile (those with the highest cost per gallon of oil recycled) were designated the “Least Effective Programs” (N=50). For the comparisons of effectiveness incorporating the size of the grantees’ budgets, the bottom half of the grantees were classified as “Less Effective Programs” (N=100) and the top half as “More Effective Programs” (N=100). These broader categories were used to avoid having too few grantees in each category.

## ***Findings***

Table 1a below summarizes the proportions of the total budgets spent on various program elements by effectiveness of the program. The least effective programs (LEP) are spending a larger proportion of their total budgets on PE, on average, than are the most effective programs (MEP) (.64 and .39 respectively). The measure of effectiveness used in this study incorporates the amount of money spent on PE by the grantee, which has a correlation with the budget proportion spent on PE, but the relationship is weak (Pearson’s  $r=.33$ ) so this should not have a strong effect of the results. Within the PE budget categories of mass media, person to person, school programs, and premiums, the MEP are spending proportionately less on mass media and person to person outreach than are the LEP. The proportion of the total budget spent on school programs and premiums does not differ between the most and least effective programs. As for the budget categories other than PE, the MEP are spending proportionately more on oil hauling and collection and storm water mitigation than are the LEP. Little differences between the LEP and the MEP are found in the proportion of the total budget spent on support for the certified collection centers, oil collection events, data gathering and evaluation, oil filter hauling and collection, equipment and facilities, plastic oil bottle recycling, and grant planning and management.

In order to control for the effects of budget size, Table 1b shows the proportions of the total budgets spent on various program elements by effectiveness level for programs with total budgets that are less than \$20,000 and for programs with budgets of \$20,000 and over. The less effective programs at both budget levels spend a larger proportion of their budgets on public education than the more effective programs, with the difference being the greatest at the lower budget level. LEP with total budgets of less than \$20,000 spent .68 or 68% of their budgets on public education, while the lower budget MEP spent

**Table 1a. Proportion of Total Budget by Grantee Effectiveness**

Variables	Least Effective Programs (N=50)		Most Effective Programs (N=50)	
	Median	Mean	Median	Mean
<b>Proportion of total budget</b>				
Public education	.66	.64	.30	.39
Mass Media	.28	.37	.12	.18
Person to Person	.02	.09	.00	.03
K-12 School	.00	.02	.00	.02
Premiums	.07	.15	.07	.15
CCC support	.00	.03	.00	.03
Oil collection events	.00	.05	.00	.06
Data gathering and evaluation	.00	.06	.00	.03
Oil hauling and collection	.00	.08	.04	.21
Filter hauling and collection	.00	.01	.00	.03
Equipment and facilities	.00	.02	.00	.04
Plastic oil bottle recycling	.00	.00	.00	.00
Grant planning/management	.02	.08	.04	.11
Storm water mitigation	.00	.03	.00	.08

.44 or 44% of their budgets on public education. The proportion of the budget spent on different categories of public education also varied by effectiveness level. Mass media spending constituted a smaller proportion of the total budget for the MEP than for the LEP, with the difference being particularly striking at the lower budget level. LEP with lower total budgets are spending an average of 41% of their budgets on mass media, while MEP with lower total budgets spent an average of 18% of their budgets on mass media. The proportions of the total budget spent on person to person approaches to public education varied little by effectiveness level and budget size, however the general trend was for MEP to spend a smaller proportion of their total budgets on this approach than the LEP. Very little of the total budgets are allocated to school based PE programs, regardless of the size of the total budget or effectiveness level of the program. More the programs' budgets was allocated to premiums, however there was little variation between the MEP and LEP. The lower budget level MEP do spend a slightly higher proportion of their budgets on premiums than the programs with higher budget levels or lower effectiveness levels.

**Table 1b. Proportion of Total Budget by Budget Size and Grantee Effectiveness**

Variables	Less Effective Programs (N=100)		More Effective Programs (N=100)	
	Total Budget <\$20K	Total Budget \$20K+	Total Budget <\$20K	Total Budget \$20K+
Public education	.68	.59	.44	.50
Mass Media	.41	.31	.18	.26
Person to Person	.07	.09	.04	.07
K-12 School	.02	.02	.02	.01
Premiums	.17	.17	.20	.16
CCC support	.02	.03	.02	.02
Oil collection events	.04	.05	.05	.11
Data gathering and evaluation	.06	.05	.04	.12
Oil hauling and collection	.07	.19	.20	.24
Filter hauling and collection	.01	.05	.02	.06
Equipment and facilities	.02	.05	.03	.09
Plastic oil bottle recycling	.00	.00	.00	.00
Grant planning/management	.04	.10	.13	.09
Storm water mitigation	.03	.04	.03	.07

The higher budget level programs that are more effective devote larger proportions of their total budget on average to oil collection events (.11), data gathering and evaluation (.12) and equipment and facilities (.9) than the lower budget MEP and the LEP of both budget levels. The lower budget level programs that are more effective spend a larger proportion of their total budgets on grant planning and management than the LEP and the higher budget level MEP. The MEP of both budget levels spend more of their budgets on average on oil hauling and collection than the LEP of both budget levels, with the greatest difference between the MEP and LEP of lower budget levels. There is essentially no difference among programs by budget size and effectiveness level in proportions of the total budgets spent on support for certified collection centers, plastic oil bottle recycling, storm water mitigation and filter hauling and collection.

Table 2 compares the averages for program elements of LEP and MEP by total budget level (below \$20,000 or \$20,000 and over). As would be expected, the higher budget level programs have more certified collection centers than the lower budget level programs, and the MEP have more CCCs than the LEP. A similar pattern is found for gallons of oil recycled from every source. Higher budget

**Table 2. Program Elements by Public Education Program Effectiveness**

Variables	Less Effective Programs (N=100)		More Effective Programs (N=100)	
	Total Budget <\$20K	Total Budget \$20K+	Total Budget <\$20K	Total Budget \$20K+
# of CCC (July 1 <sup>st</sup> )	2.47	12.79	4.82	18.98
# of CCC (June 30 <sup>th</sup> )	2.53	12.71	4.73	20.03
Gallons CCC	4561	51,557	23,828	150,236
Gallons DIY from CCC	2676	17,453	6786	47,902
Gallons Ag CC	36	1468	269	1627
Gallons Non Cert. CC	680	1236	1298	6959
# Mobile Collection Vehicles	354	737	343	850
Gallons Temp/Mobile Collect	75	385	127	1553
Gallons from Res. Collection	485	2773	1522	4523
DIY households	2367	12,068	2663	16,480
Population in 2005	37,902	178,638	45,203	288,283
DIYer rate	.20	.19	.18	.20
Regionalized grantee rate	.10	.34	.06	.39
Number of site visits	2	11	4	22
Diversion rate	.51	.58	.78	.78
Dollars on PE	6689	37,095	4545	35,310
Total budget	9567	67,304	9502	195,807
Gallons recycled/CCC	1825	4767	4665	7404
PE dollars/DIY household	30	6	2	4
Gallons recycled/DIY household	16	9	19	17
CCCs/ 1000 DIY households	7	1	2	2
Site visits/CCC	1.01	1.00	.99	.84

level programs have more mobile collection vehicles, but the smaller budget MEP had fewer vehicles than the smaller budget LEP. The average population size in 2005 and average number of DIY households served by the program are higher for the larger budget and more effective PE programs;

however there are no meaningful differences in the do-it-yourself rate across budget and effectiveness categories. Being a part of a regional coalition is more common for the larger budget programs than for the smaller budget programs, but its contribution to effectiveness varies by the budget size. The MEP with smaller budgets are slightly less likely to be a part of a regional coalition, while the MEP with larger budgets are slightly more likely to be a part of a regional coalition. The higher budget programs do more site visits overall to CCCs than the lower budget programs, but when comparing the number of site visits per CCC across programs, there is little difference. The data in Table 2 also show that the MEP have more oil collection centers, on average, than the LEP, and the MEP take in more gallons of oil on average at each of the collection venues at both budget levels. The average number of dollars spent on PE per DIY household is higher for the small budget LEP (\$30) than for the large budget MEP (\$2), but there is little difference in dollars spent on PE per DIY household between large budget LEP and MEP (6 and 4, respectively). The average gallons of oil recycled per DIY household is similar for the low budget LEP and for both budget levels of MEP; however, the higher budget LEP collects fewer gallons of oil per DIY household.

Tables 3 and 4 show the average gallons of oil collected from different venues by budget size and grantee effectiveness. Table 3 compares the more effective and less effective grantees within PE budgets (below \$20,000 and \$20,000 or more) and finds that for every oil collection venue, the grantees with larger budgets and more effectiveness are collecting more gallons of oil on average than are the grantees with smaller budgets in the less effective category. The same pattern is found in Table 4, which compares grantees with total budgets below \$20,000 and \$20,000 or more.

**Table 3. Average Gallons of Oil Recycled by PE Budget Size and Effectiveness Level**

Variables	PE Budget Less than \$20K		PE Budget \$20K or More	
	Less Effective	More Effective	Less Effective	More Effective
CCC	2360	51,252	25,097	425,687
CCC DIY	1702	13,528	8807	196,373
PHHW & ABOPS	390	3814	1894	6721
Agricultural	190	578	1489	9458
Non-certified	586	2041	2140	28,762
Temporary/Mobile	67	336	253	3738
Residential	154	3417	1168	7028
Other	28	118	97	1086

**Table 4. Average Gallons of Oil Recycled by Total Budget Size and Effectiveness Level**

Variables	Less Effective Programs		More Effective Programs	
	Less than \$20K	\$20K or more	Less than \$20K	\$20K or more
CCC	1542	30,896	21,680	193,405
CCC DIY	1470	894 7	7720	78,378
PHHW & ABOPS	320	1961	1681	6361
Agricultural	23	351	1686	3731
Non-certified	453	1569	5192	11,350
Temporary/Mobile	61	187	402	1596
Residential	86	1534	3893	6225
Other	31	73	247	479

A more detailed analysis of the effectiveness of the public education approaches across budget sizes is summarized in Table 5. The LEP use slightly more languages in their mass media outreach, especially at the lower budget level than the MEP, while the LEP use basically the same number of languages in their person to person outreach than the MEP do at both budget levels. The higher budget level programs use more languages for mass media campaigns and for person to person outreach than the lower budget level programs regardless of effectiveness level. The larger budget MEP target slightly more groups than the LEP in their mass media outreach, but the smaller budget LEP target slightly more groups with their mass media outreach. MEP and LEP target similar numbers of groups in their person to person outreach, with larger budget programs targeting more groups than smaller budget programs. There are no differences by effectiveness level in the average number of media types used, in the number of person to person venues employed, or in the average number of premiums, but the larger budget programs do use more media types, venues and premiums than the smaller budget programs.

More detailed analyses (not included in Table 5) find that the MEP are more likely to target the general public, immigrants, auto enthusiasts, shade tree mechanics and growers, and less likely to target ethnic groups and fleet managers, than the LEP in their mass media and person to person outreach. The MEP are much more likely to use radio in their mass media outreach, as well as newspapers, bus/transit and the Penny Saver, than are the LEP. The MEP are more likely to do person to person outreach at cultural events, car club/auto events, environmental events and county fairs than are the LEP. The MEP are more likely to offer oil collection containers and oil funnels and oil rags as premiums, while the LEP are more likely to give calendars and oil/filter coupons.

**Table 5. Public Education Averages by Total Budget and Grantee Effectiveness**

Variables	Least Effective Programs		Most Effective Programs	
	Total Budget <\$20K	Total Budget \$20K+	Total Budget <\$20K	Total Budget \$20K+
<b>Mass Media Outreach</b>				
Number of languages	1.21	1.62	.94	1.59
Number of targeted groups	1.59	2.49	1.25	2.91
Number of media types	1.92	3.00	1.92	3.00
<b>Person to Person Outreach</b>				
Number of languages	.79	1.34	.78	1.38
Number of targeted groups	.90	2.59	.92	2.64
Number of venues	1.05	2.48	1.08	2.69
Number of Premiums	1.28	2.62	1.31	2.48

In order to examine how the factors related to effectiveness work in combination with each other, a multiple regression analysis was performed and the results are presented in Table 6 below. Multiple regression analysis is a tool for holding the effects of other factors constant to see if any one factor really influences another (in this case, effectiveness). The results indicate that the proportion of the total budget spent on public education negatively impacts effectiveness when controlling for other factors. This indicates that the larger the proportion of the total budget devoted to public education, the less effective the grantee’s program will be. As previous tables have demonstrated, the best proportion for the PE budget does vary by the size of the total budget, but this analysis says that if we hold the total budget size constant then those programs who allocate less of their budgets to PE are more effective. The findings from this type of analysis primarily hold true for the middle range of values, and not at the extremes, so it would not be valid to conclude that eliminating PE spending altogether would maximize effectiveness. It could be argued, however, that if the other factors included in the analysis are held constant, a smaller proportion of the budget directed toward PE would improve effectiveness. Two mass media outreach variables, the number of targeted groups and the number of media types used, both positively impact effectiveness. The more groups that are targeted and the more media types that are used, the more effective the grantee’s program will be. The number of site visits also positively impacts effectiveness. The more site visits conducted, the more effective the grantee’s program will be. The total budget has a negative impact on effectiveness, while the number of CCCs has a positive effect when controlling for the other factors in the model. This may indicate that smaller budget programs are able to (or forced to) be more efficient in the way they accomplish their used oil recycling goals, or perhaps that they are located in less urban areas where PE may be more efficient. The proportion of the total budget spent on used oil hauling and collection, the DIYer rate, and whether they are regionally affiliated do not have much of an impact on the effectiveness of the program when controlling for other factors.

**Table 6. Multiple Regression Analysis Predicting Effectiveness**

<b>Variables</b>	<b>Standardized Coefficients</b>
PE percentage of budget	-.385
Number of targeted groups	.162
Number of media types	.142
Oil Hauling and Collection percentage of budget	.039
Number of site visits	.336
DIYer Rate	-.054
Regional (not regional=0)	-.042
Number of CCC	.635
Total Budget	-.479
R <sup>2</sup>	.22

Based on the measure of effectiveness used in this analysis, the grantees with PE programs that have the highest and lowest levels of effectiveness for four budget levels are identified. The five or six programs included in the table for each budget category are the ones who were clearly at the top or bottom of the list. If a large gap separated the fifth and sixth program on the list, I did not include the sixth program. The grantees listed in Table 7 have the most effective PE programs, while the grantees listed in Table 8 have the least effective PE programs.

**Table 7. Most Effective PE Programs by PE Budget Size**

<b>Budget Size</b>	<b>Most Effective Programs</b>
<b>\$75,000 or more</b>	Los Angeles County
	Los Angeles
	Orange County
	San Joachin County
	San Mateo County
	Western Riverside Council of Governments
<b>\$50,000 to \$75,000</b>	Modesto
	Santa Ana
	San Bernardino County
	Santa Maria
	Torrance
<b>\$10,000 to \$49,999</b>	Anaheim
	Costa Mesa
	Manteca
	Nevada County
	Sacramento County
	Sonoma
<b>Less than \$10,000</b>	Apple Valley
	El Cajon
	Fillmore
	Hemet
	Montclair
	Victorville

**Table 8. Least Effective PE Programs by PE Budget Size**

<b>Budget Size</b>	<b>Least Effective PE Programs</b>
<b>\$75,000 or more</b>	Santa Barbara County
	El Centro
	El Monte
	Sacramento
	West Sacramento
<b>\$50,000 to \$75,000</b>	Alameda County
	Butte County
	Irvine
	Madera
	Marin Street Light Acquisition JPA
<b>\$10,000 to \$49,999</b>	Carlsbad
	Contra Costa County Clean Water Program
	Carpinteria
	Monterey Park
	Vista
<b>Less than \$10,000</b>	Albany
	Emeryville
	Hermosa Beach
	Pleasanton
	San Dimas
	Signal Hill

## Effectiveness of Programs Targeting Mass Media and Person-to-Person Efforts to Specific Groups

Programs reported on their efforts to target nine specific DIYer groups with their mass media and person to person campaigns, including auto enthusiasts, shade tree mechanics, ethnic groups, immigrants, small businesses, boaters, growers, truckers and fleet managers. Some programs also reported targeting such groups as: 18-30 year-old males, ball players, the business community, college students, community employees, general DIYers, home owners, multifamily property managers, raceway patrons, children, and students. The characteristics of the more and less effective programs that have targeted specific groups through mass media or person-to-person public education programs are found in Tables 9 and 10 (the characteristics of programs targeting growers, truckers, and fleet managers were not analyzed due to their small numbers). The results from the analysis presented in this section are tentative due to the small numbers of programs using many of the PE approaches analyzed.

**Table 9a. Characteristics of Programs Targeting Mass Media PE to Specific Groups by Effectiveness Level**

Variables	Auto enthusiasts		Shade tree mechanics		Ethnic groups	
	Less effective	More effective	Less effective	More effective	Less effective	More effective
Mass Media						
Substance of Ad						
Collection Events	42%	45%	56%	48%	48%	52%
CCC	74%	87%	75%	82%	91%	83%
Other	56%	64%	63%	70%	58%	69%
Ad Placement						
Radio	33%	43%	31%	45%	45%	59%
TV	37%	28%	38%	33%	52%	24%
Newspaper	51%	66%	44%	70%	52%	69%
Newsletter	30%	30%	13%	30%	27%	34%
Bus/Transit	7%	19%	13%	21%	12%	24%
Billboard	14%	9%	25%	6%	18%	10%
Bill inserts	19%	19%	19%	24%	27%	28%
Penny Saver	2%	19%	0%	21%	6%	10%
Direct mail	19%	17%	19%	21%	24%	28%
Ad Language						
Cambodian	0%	2%	0%	3%	0%	3%
Chinese	0%	2%	0%	3%	6%	7%
Hmong	2%	0%	6%	0%	3%	0%
Korean	0%	0%	0%	0%	0%	0%
Punjabi	2%	0%	6%	0%	3%	0%
Russian	0%	2%	0%	0%	0%	3%
Spanish	60%	60%	63%	79%	82%	72%
Tagalog	0%	0%	0%	0%	0%	0%
Vietnamese	0%	4%	0%	9%	3%	10%
Average dollars spent on mass media	\$17,373	\$20,897	\$17,595	\$18,522	\$20,908	\$28,021
Percent of budget spent on mass media	35%	30%	42%	27%	37%	28%

The more effective programs targeting auto enthusiasts are more likely to advertise certified collection centers and “other” items, such as curbside oil collection, non-certified collection centers, and household waste facilities, than are the less effective programs targeting this group (see Table 9a). The more effective programs targeting auto enthusiasts are more likely to place their advertisements on the radio, in the newspaper, in bus/transit systems and the Penny Saver, while the less effective programs who target auto enthusiasts are more likely to place ads on television and billboards. There are no significant differences in the languages used in mass media appeals to auto enthusiasts by the more and less effective programs. The less effective programs targeting auto enthusiasts devote a larger proportion of their budgets to mass media (35%) than do the more effective programs (30%).

The more effective programs targeting shade tree mechanics are advertising certified collection centers and “other” items, while the less effective programs are advertising collection events (Table 9a). The more effective programs targeting shade tree mechanics are using radio, newspaper, newsletters, bus/transit, bill inserts and Penny Savers, while the less effective programs are advertising on television and on billboards. The more effective programs are more likely to use Spanish and Vietnamese in their ads targeted at shade tree mechanics, while the less effective programs are more likely to use Hmong and Punjabi. The less effective programs targeting shade tree mechanics devote a larger proportion of their budgets to mass media (42%) than do the more effective programs (27%).

A higher percentage of less effective programs targeting ethnic groups are advertising certified collection centers, while a higher percentage of more effective programs targeting ethnic groups are advertising “other” items (Table 9a). A higher percentage of the more effective programs targeting ethnic groups advertised in radio, newspaper, newsletters and the bus/transit, while a higher percentage of the less effective programs advertised on television and billboards. The less effective programs targeting ethnic groups were more likely to use Spanish in their ads, and spent a greater percentage of their budgets on mass media than the more effective programs.

More effective programs targeting small businesses are more likely to advertise certified collection centers than are the less effective programs (Table 9b). The more effective programs targeting small businesses are more likely to advertise on the radio, television, newspapers, newsletters, and buses or transit. The less effective programs are advertising on billboards and through direct mail. The more effective programs targeting small businesses are more likely to use Spanish, Cambodian and Vietnamese in their mass media campaigns than the less effective programs.

Table 9b also shows that the more effective programs targeting immigrants are advertising something other than CCCs and collection events, while the less effective programs are advertising CCCs. The more effective programs targeting immigrants are placing ads in radio, newsletters, buses and mass transit, the Penny Saver and direct mail, while the less effective programs are advertising on television and billboards. The more effective programs targeting immigrants are less likely to use Spanish, but more likely to use Cambodian and Vietnamese than the less effective programs. The less effective programs are also spending a greater percentage of their budgets on mass media (33%) than the more effective programs (26%).

**Table 9b. Characteristics of Programs Targeting Mass Media PE to Specific Groups by Effectiveness Level**

Variables	Small Businesses		Immigrants		Boaters	
	Less effective	More effective	Less effective	More effective	Less effective	More effective
Mass Media						
Substance of Ad						
Collection Events	60%	62%	57%	59%	46%	29%
CCC	70%	92%	93%	82%	85%	71%
Other	50%	46%	57%	65%	38%	71%
Ad Placement						
Radio	20%	54%	29%	59%	31%	36%
TV	20%	46%	43%	12%	54%	29%
Newspaper	55%	92%	57%	53%	54%	93%
Newsletter	30%	54%	14%	24%	8%	21%
Bus/Transit	5%	23%	7%	18%	0%	29%
Billboard	15%	8%	36%	12%	23%	7%
Bill inserts	15%	15%	29%	29%	8%	14%
Penny Saver	5%	8%	7%	24%	0%	7%
Direct mail	35%	8%	29%	35%	23%	14%
Ad Language						
Cambodian	0%	8%	0%	6%	0%	7%
Chinese	0%	0%	14%	12%	0%	7%
Hmong	5%	0%	7%	0%	8%	0%
Korean	0%	0%	0%	0%	0%	0%
Punjabi	5%	0%	7%	0%	8%	0%
Russian	0%	0%	0%	0%	0%	0%
Spanish	40%	77%	86%	76%	62%	50%
Tagalog	0%	0%	0%	0%	0%	0%
Vietnamese	0%	8%	7%	18%	0%	14%
Average dollars spent on mass media	\$12,237	\$17,141	\$27,110	\$34,778	\$21,059	\$18,913
Percent of budget spent on mass media	29%	24%	33%	26%	29%	18%

The more effective programs targeting boaters follow similar mass media usage patterns as the effective programs targeting other groups. They are more likely to advertise “other” items than CCCs and collection events. They are more likely to use radio, newspapers, newsletters, bus/transit, and Penny Savers, and less likely to use television, billboards and direct mail. The more effective programs targeting boaters are more likely to use Cambodian, Chinese and Vietnamese in their campaigns, and less likely to use Spanish. The less effective programs targeting boaters are using a larger percentage of their budgets for mass media than the more effective programs.

Table 10a shows that more effective programs targeting auto enthusiasts using person-to-person public education approaches are more likely to use cultural events, car clubs and auto events, and environmental events than the less effective programs. There are no significant differences in the languages used in person-to-person approaches by more and less effective programs targeting auto

enthusiasts, and the percentage of the budget devoted to person-to-person approaches is also the same for both groups.

The more effective programs targeting shade tree mechanics are more likely to use neighborhood canvassing, car clubs and auto events, and environmental events as venues for person-to-person outreach, while less effective programs are more likely to use county fairs and drivers training or auto shop classes (Table 10a). The more effective programs targeting shade tree mechanics using person-to-person approaches are more likely to use the Spanish language, while the less effective programs are slightly more likely to use Hmong and Punjabi languages. The less effective programs targeting shade tree mechanics are also spending a larger percentage of their budgets on person-to-person approaches than the more effective programs.

Table 10a also shows that more effective programs targeting ethnic groups are more likely to use neighborhood canvassing, county fairs and cultural, auto and environmental events as person to person outreach strategies than are the less effective programs. The more effective and less effective programs targeting ethnic groups did not vary significantly in the languages used or the percent of their budgets spent on person to person outreach.

**Table 10a. Characteristics of Programs Targeting “Person-to-Person” PE to Specific Groups by Effectiveness Level**

Variables	Auto enthusiasts		Shade tree mechanics		Ethnic groups	
	Less effective	More effective	Less effective	More effective	Less effective	More effective
<b>Person to Person</b>						
Person to person venue						
Neighborhood canvass	7%	6%	6%	18%	6%	21%
ESL classes	2%	0%	0%	0%	6%	3%
Dock walking	2%	4%	6%	6%	3%	7%
Cultural events	26%	47%	44%	48%	36%	59%
Car club/auto event	58%	64%	44%	52%	33%	55%
Boat show/meeting	7%	9%	6%	6%	12%	10%
Driver training/shop	12%	11%	25%	3%	12%	17%
Ag/small growers	5%	9%	6%	9%	9%	14%
Environmental event	58%	81%	63%	82%	64%	86%
County fair	26%	26%	31%	21%	24%	21%
Language						
Cambodian	0%	0%	0%	0%	3%	0%
Chinese	0%	0%	0%	3%	3%	7%
Hmong	2%	0%	6%	0%	3%	0%
Korean	0%	0%	0%	0%	0%	0%
Punjabi	2%	0%	6%	0%	3%	0%
Russian	0%	2%	0%	0%	0%	3%
Spanish	53%	53%	56%	70%	64%	76%
Tagalog	0%	0%	0%	0%	0%	0%
Vietnamese	0%	2%	0%	3%	0%	3%
Average dollars spent on person to person	\$4674	\$5274	\$5680	\$4933	\$3705	\$7840
Percent of PE budget spent on person to person	9%	9%	13%	7%	8%	9%

More effective PE programs targeting their person to person strategies to small businesses are more likely to use cultural events, dock walking, car clubs and auto events, boat shows and environmental events as venues, while the less effective PE programs are more likely to use neighborhood canvassing, driver training and auto shop classes as venues (Table 10b). The more effective PE programs targeting small businesses were also more likely to use Spanish in their person to person outreach than the less effective programs. The less effective PE programs targeting small businesses spend a larger percentage of their budgets on person to person outreach than the more effective PE programs.

The more effective PE programs targeting immigrants are more likely to use neighborhood canvassing, boat shows and environmental events in their person to person outreach, while the less effective PE programs are using ESL classes, driver training classes and county fairs as venues (Table 10b). The less effective programs are more likely to use Hmong, Punjabi and Spanish in their person to person outreach than the more effective programs, which are more likely to use Vietnamese. Since the languages used are going to vary geographically, these results should not be assumed to apply to all programs.

**Table 10b. Characteristics of Programs Targeting “Person to Person” PE to Specific Groups by Effectiveness Level**

Variables	Small Businesses		Immigrants		Boaters	
	Less effective	More effective	Less effective	More effective	Less effective	More effective
<b>Person to Person</b>						
Person to person venue						
Neighborhood canvass	20%	8%	7%	24%	15%	14%
ESL classes	0%	0%	14%	6%	0%	0%
Dock walking	5%	15%	7%	12%	8%	14%
Cultural events	25%	38%	57%	53%	38%	50%
Car club/auto event	30%	46%	43%	47%	69%	43%
Boat show/meeting	5%	15%	7%	18%	38%	36%
Driver training/shop	15%	8%	21%	12%	31%	29%
Ag/small growers	10%	15%	14%	18%	15%	21%
Environmental event	70%	85%	79%	88%	77%	71%
County fair	40%	38%	43%	18%	46%	43%
Language						
Cambodian	0%	0%	0%	0%	0%	0%
Chinese	0%	0%	7%	6%	0%	7%
Hmong	5%	0%	7%	0%	8%	0%
Korean	0%	0%	0%	0%	0%	0%
Punjabi	5%	0%	7%	0%	8%	0%
Russian	0%	0%	0%	0%	0%	0%
Spanish	55%	77%	86%	76%	54%	36%
Tagalog	0%	0%	0%	0%	0%	0%
Vietnamese	0%	0%	0%	6%	0%	0%
Average dollars spent on person-to-person	\$6465	\$6609	\$4220	\$6817	\$9590	\$9821
Percent of PE budget spent on person-to-person	13%	8%	9%	8%	12%	10%

Table 10b also shows that the more effective programs targeting boaters are more likely to use dock walking, cultural events and agricultural meetings as venues for person to person outreach, while the less effective PE programs are using car clubs and auto events as well as environmental events. The more effective PE programs are more likely to use Chinese in their person to person approaches, while the less effective programs are more likely to use Hmong, Punjabi and Spanish in their outreach. Again, the results on languages used will vary geographically and cannot be assumed to apply to all programs.

# Grantee Effectiveness: Results from the Qualitative Analysis of Grantee Files

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## ***Methodology***

For the qualitative analysis, the grantees were divided into 4 categories based on the size of their public education budgets: less than \$10,000, \$10,000 to \$49,000, \$50,000 to 74,999 and \$75,000 and over. Within each of the PE budget categories, the grantees with the most (Table 7) and least (Table 8) effective programs were identified and the contents of their block grant files were analyzed for details about the programs that might indicate elements common to least effective programs and most effective programs.

## ***Findings from the Analysis of the Annual Report***

The detailed qualitative analysis substantiates the quantitative analysis, with few surprises. The first difference noted by the analysts when comparing the forms for the most and least effective programs is that the most effective programs fill out their forms in a more organized, detailed and complete manner than the least effective grantees.

The content of the forms reveals that the LEP with larger budgets share several attributes. Some are more likely to note that they delegate outreach to the certified collection centers rather than handling the outreach themselves. Outreach programs are introduced, but they are short term or are quickly abandoned. Funds are spent to hire evaluators, but there appears to be no plans for future implementation of the evaluation recommendations. One grantee attempted to survey the community, but had a response rate of only 3 percent, rendering the data virtually useless. Ironically, the LEP with larger budgets are more likely to complain about the lack of funds than are the LEP with smaller budgets. These complaints center on the cost of providing incentives to certified collection centers. A couple of the grantees expressed an interest in plastic oil bottle recycling, but the CCC staff members were concerned about the space required to store the bottles. Several of the larger- budget LEP also noted specific events at which they had performed outreach that they believe were an ineffective use of their resources, such as a reggae music festival, a yacht club and a kid's puppet show. Overall, the larger-budget LEP also appear to target their outreach to children more than the MEP. Many of the LEP produced their own brochures, but they seemed to share similar content, such as general instructions for recycling used oil and information about the importance of recycling used oil. The LEP with smaller budgets describe a wide variety of mass media and premium approaches to outreach, but no clear patterns emerge.

The MEP with larger budgets also share certain components. The larger budget MEP note regular attendance at general community events. They promote their appearances at these events on the radio and they feature fun, interactive exhibits to attract attendees. They tend to reach multiple DIY target groups and use a variety of premiums and use multiple types of mass media to promote their programs. The larger budget MEP also put their 800 number in every ad and on every premium. These grantees are responsive to their CCC partners and DIYers, mentioning changes that they implemented in response to suggestions from these partners. The larger-budget MEP are more likely to target adolescents than they are to target younger children. The MEP with smaller budgets are most likely to use newspaper or Penny Saver ads in their outreach, and are more likely to only use English in their outreach. The main distinction of the MEP is the multidimensional, targeted approach to outreach they employ. They carefully and thoughtfully match their media type, language use and venue to the group being targeted. A

couple of the smaller budget MEP mentioned that they are able to use their funds more effectively by pooling them with other neighboring cities. Overall, the smaller budget MEP have a wide variety of approaches to outreach.

## ***Findings from the Analysis of the File Contents***

Analysis of the grantee file contents for each of the 5 or 6 most and least effective programs at each budget level find many examples of best and worst practices.

Key components for the most effective programs include an emphasis on door-to-door outreach to DIYers, and attendance at events related to oil usage and/or recycling. MEP tend to attend more events on average, and focus their energy on events that are closely related to the target of the program. Least effective programs, in contrast, do not attend as many events, some even attending one, or in the case of the smaller budget programs program, no events. MEP are more likely to increase the number of recycling centers, offer recycling drop-off centers at automotive parts stores, as well as offer free containers to people. In fact, overall, the focus of the most effective programs tended to be about making it easier for DIYers, to meet their needs, by working on the distribution of recycling containers, offering more collection centers, and creating places to drop off used oil where centers do not exist. As one large budget MEP claimed, “convenience increases participation.” This does not mean the least effective do not have such programs. For example, a small budget LEP had 5 facilities for pick up, but they noted “they were under utilized.” One mid-sized budget LEP showed an increase in oil collection when they used a Kragen store for an event, but only held two events at this site. The MEP were more likely to hold regular and frequent events at the sites where they retrieved the most oil.

The least effective programs displayed other tendencies. One of the key differences appeared to be the instability of the personnel, primarily the supervisor of the program, which included several programs that changed supervisors either at the beginning or in the middle of the year. One small budget LEP had a “complete turnover of staff during the last 6 months” and none of the newly hired staff appeared to know anything about the used oil program at the time of hire. In one mid-sized LEP, they had one person working on the program, and when this staff member went on leave there was no one in place to manage the program. And in one mid-sized LEP, the “grant manager changed 4 times during the cycle.” Two other LEP were relying on interns to develop the used oil recycling programs.

The least effect programs also relied more on general media messages for outreach, such as the theme “Finish the job right” used by several LEP. This campaign appeared to be a general statement about recycling used oil accompanied by an 800 number to call for more information. Two other “general” media messages were used by LEP, including a newspaper ad that had a picture of a seal on it that had the statement “Do you recycle? I’d appreciate it if you did.”, and a phone book ad encouraging recycling. The DIYers are forced to seek out information in order to participate, as opposed to being provided with more practical information and instructions.

The least effective programs tended to repeatedly discuss the problems they encountered in developing programs, such as how to deal with oil that is “illegally” left after hours at drop off places. This does not mean the most effective programs did not encounter this issue, but rather that they were more likely to discuss how they were planning to address their problems, rather than just repeatedly identifying the problem.

Another tendency among the least effective programs was an emphasis on child education, often focusing their programs on educating younger children. Along with educating children, they also

appeared to offer a lot more handouts, or giveaways. But their handouts tended to be general items not directly related to oil recycling such as pens and pencils and calendars (very popular), while MEP were more likely to offer used oil recycling containers.

For the MEP, the outreach and programs were created in conjunction with one another and not as separate entities. For example, media outreach for MEP was designed to direct DIYers to a specific event that the grantees were attending or were holding, such as the use of direct mail in one small budget MEP that highlighted specific collection centers that were near the people receiving the mail, or programs that were directly related to the target DIYer's needs, like "door to door pick up, which helps out the elderly." In contrast, LEP often created programs, but did not designate who they were designed to serve and how they were to be used. This practice of targeting a particular group and connecting programs and outreach to that group is what appeared to most distinguish the MEP from the LEP. The targeting allowed more people to find out about programs, collection sites, events or just to find out where to gain information, while general outreach left the impetus of gaining the information in the hands of the general public, which appears to go against the convenience factor. In other words, convenience is not just about physical proximity of sites and containers, but also about minimizing the mental work of gaining knowledge. Overall, because of the claim of limited funding by a lot of the programs (predominantly from LEP), targeting and interconnecting different outreach and programs would help the effectiveness of these programs overall.

It also appears to be a good practice to target "niche" populations, in conjunction with creating programs to meet the needs of those specific populations (such as the program serving elderly DIYers mentioned by one small budget MEP). In one large budget MEP, they targeted a portion of the Asian population, including events, outreach in the media, and giveaways in Mandarin. Some of the LEP's offered ESL or bilingual outreach, but, as discussed above, it was not targeted at multiple levels. It was about disseminating information to the general populace, maybe using several languages to do so, but not focusing on them, and thus not meeting their needs. In fact, four different areas, all of which were LEP used some of the same outreach programs, thus not targeting to their specific population, or creating programs specific to their area.

Another key difference was the use of assessment to determine the utility of certain programs and/or outreach. MEP used information gained from their surveys to assess their programs. For example, in one mid-sized budget MEP, a survey was conducted to assess some of the programs, and then the results were used to create and alter programs, and to target a new population (Shade tree mechanics). Two LEP's did "conduct" surveys, but offered little explanation of how the information was used, other than to determine who was using the programs. One large budget LEP, El Monte, described plans to consolidate all used oil and hazardous materials recycling into one program, which may go against the need for targeting and lessen their effectiveness.

Overall, it can be said that the differences that exist between the groups can be identified as being about targeting the programs, and connecting them with specific outreach to help identify and disseminate information about specific programs, or specific events, or even to specific populations. This is crucial for increasing the convenience for the DIYers in terms of not only the practice of recycling but the mental work of finding out about it. A simple 800 number does not seem to be effective, but if it is used in conjunction with other outreach and programs, and targeted to a specific population, it appears to be more effective. If the effectiveness of the approach is formally assessed and the results are used to alter the program, effectiveness is maximized.

Finally, the stability of a workforce is obviously extremely important. Having experienced staff who understand the program, have some institutional memory of which practices have been effective and which have failed, and who can follow through with assessment from design to implementation is something for programs to prioritize. Effective public education requires an overall concerted effort to coordinate the media and services and target them to the specific groups in the grantees' jurisdiction.

# Improving Data Collection

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After working with the Used Oil Block Grant Annual Report forms for Fiscal Year 2004/2005, the evaluation team identified several potential areas for improving the annual report forms and process. This report outlines our recommendations for future reporting. The recommendations below will improve the efficiency of the annual reporting process and the quality of the data CIWMB receives from grantees.

The major improvement we could suggest for the Used Oil Block Grant Annual Report forms is to standardize the response options. Standardized response options will improve the quality of the data CIWMB receives and will save time on data analysis. If the responses are standardized, more information will be usable without the need for modification or extensive review after the grantees submit it. The current forms, which allow grantees to enter anything they want, allow too much variation for efficient data analyses. There are expected parameters for the responses to each question, but those parameters are not specified on the form or in the instructions. Therefore, CIWMB staff and evaluation staff must expend time reviewing the unexpected responses, considering what to do about them, and perhaps contacting the grantee for clarification. All of the issues are not resolved with one review, so several reviews are happening for each form.

Creating standardized forms will require some initial investment, but that investment will pay for itself quickly since it will save time later in the process and will reduce the need for reviews by staff. The cost savings from standardizing the forms will accumulate each year since making the process more efficient during the first year will decrease review and data analysis time in all the future years in which CIWMB collects similar data. Also, standardizing the forms will likely reduce the amount of missing data, which will improve the quality of any data analyses. Our specific recommendations for standardizing each question are listed below.

We feel that grantees will probably appreciate standardized forms since they will be easier to complete and the grantees will receive immediate feedback if their responses are outside of the expected parameters. Most grantees would probably also appreciate an on-line submission system if it was easy to use.

We recommend that CIWMB develops a web-enabled Annual Report submission form with range and logic checks embedded. So, the form will alert grantees when values do not fall within the expected range and the form will not allow final submission until all of the values are within range. Also, the form will direct grantees to answer any applicable questions that logically follow from certain responses. The forms will not allow final submission if any data are incomplete, so CIWMB will receive fewer incomplete forms.

We recommend that the instructions for each item should be embedded in the web-enabled forms, using help buttons or a similar method. This will likely improve the quality of data and will be less cumbersome for grantees since the instructions will be located with the forms.

Web forms will allow more flexibility in their design than the current forms. The current page layout dictates the possibilities for including information in the form itself. For example, question 4, which is a large chart, is more confusing than necessary because it must fit on half of a page. Internet forms will be easier to complete because the forms will not be constrained by the size of a page.

Submission via the internet will be the easiest submission process for grantees once they become accustomed to it. CIWMB can also include an electronic signature block, where the grantee certifies that the information is correct and is in accordance with their agreement.

Below is a list of each question on the form with a description of some of the non-standard answers we saw and our suggestions for standardization.

1. Grantee/Jurisdiction: there were no problems with these responses but we suggest supplying a drop-down list of grantees so they simply click on their name.
2. Active Grant/Funds Expended From:
  - a. There was a lot of variation in the formats on this answer, so we suggest that CIWMB should have boxes for the maximum number of values possible and instruct the grantees to enter zeroes where appropriate. For example, if the longest cycle number has 11 spaces, then all grantees should supply 11 numbers. UBG9-2-176 should be UBG09-02-0176.
  - b. We suggest that the form should first include a question about whether or not funds were expended during each cycle. Then, if funds were expended, the form should automatically generate the grant numbers.
3. Contact Information:
  - a. Some grantees entered information even though they selected “no changes,” and some left the contact information blank when they selected “no changes.” We recommend that CIWMB should require all grantees to complete the contact information regardless of whether or not there are any changes. This will ensure that both CIWMB and the grantee have the same contact person in their records.
  - b. We recommend that CIWMB provides space for the possibility of both a change to the primary contact and a change to signature authority.
4. Oil Collection Data and Summary: Fiscal Year 2004/2005:
  - a. Some grantees wrote in comments rather than inserting numbers, so we suggest that these data fields limit the responses to numbers or dates only, as applicable. We suggest adding common conversion information in the instructions, such as the number of gallons in a drum, etc. to assist grantees in providing numbers here.
  - b. Some grantees left items blank, leaving some uncertainty about whether or not they intended that the amount was zero. We suggest that standardize forms require an entry for each item. We recommend that the option “not applicable” is also available to clarify when a grantee does not have this type of collection available. Furthermore, we recommend that the instructions clearly describe the difference between selecting not applicable and entering zero as a response.
  - c. To ensure complete data, we recommend that the form requires grantees to submit information for the source-specific data if the grantee has available any oil and/or filter collection of each type.

5. Work Completed From July 1, 2004-June 30, 2005:

- a. Publicity and Education Expenditure: some grantees provided information in some but not all parts of each section. We recommend that standardized forms require that a grantee must report information in all parts of each section. For example, if a grantee reports that they spent money on mass media outreach, they are required to choose at least one target audience, at least one advertising what, at least one media type, and at least one language.

Similarly, if a grantee reports spending money on any expenditure category (c) through (o), the forms should require that they select at least one type of expenditure within that category.

- b. Some grantees left items blank, leaving some uncertainty about whether or not they intended that the amount was zero. To clarify this series of responses, (a) through (o), we recommend that CIWMB adds a question to each expenditure category asking if the grantee had expenses in that category. For example,

Did you spend money between July 1, 2004 and June 30, 2005  
on mass media outreach, such as radio, TV, newspaper,  
newsletter, bus/transit, billboard, bill inserts, Penny Saver ads,  
direct mail?

If they answer yes, the form will direct them to enter the amount spent and then the type, and if they answer no, the form will direct them to the next expenditure category.

- c. We suggest that CIWMB changes the question about target audiences to make the data more useful and meaningful. It is not clear how grantees target specific audiences, or what they intend to communicate when they select certain targets. Therefore, the data CIWMB has collected in these responses can not be analyzed adequately. We suggest that CIWMB focuses on the intent of asking this question to guide its modification.

The key questions we have identified that could enhance the information on target audiences are:

- 1) How are you targeting this group? and
- 2) Why are you targeting this group?

The answers to these questions would provide more meaningful information about each grantee than the current check box list. However, the final decision about which questions to ask should be linked to the rationale for collecting this information. If CIWMB does not have a clear rationale for including this question, we recommend deleting it from the form.

- d. (g) Oil Collection Events: some grantees were confused about the specific information requested in each part of this section. We recommend that standardized forms only allow grantees to enter numbers as appropriate and that the instructions are clarified regarding the difference between the bold-faced question about Oil Collection Events and the same question directly below it.

- e. Total Funds Expended: this number was often not equal to the total of the dollar amounts above it. We recommend that this number is auto-calculated by the form. If there is a programmatic reason for this discrepancy, we suggest that CIWMB adds more expenditure categories to capture any specific line items not already accounted for.
  - f. Estimate of In-Kind Contributions: there was wide variation in these answers. We recommend that the instructions for each part of this section be clearly described on the form itself. We recommend that grantees must estimate a dollar amount for all in-kind contributions and that the instructions clearly describe this requirement as well.
6. Program Highlights:
- a. The directions for the brief description of program highlights are very broad which makes the information difficult to analyze. We recommend breaking this question into smaller parts to facilitate data analysis. For example, CIWMB could change this question into a series of questions:
    - 1) Briefly describe any best practices you have identified
    - 2) Briefly describe any challenges or surprises you have identified in your program
    - 3) Briefly describe you most effective outreach strategies, if you identified any
    - 4) Briefly describe your most effective data collection efforts, if you have identified any

The selection of specific questions should focus directly on the information that CIWMB would find useful.
  - b. We recommend leaving space for grantees to respond yes or no to the question, “Did you attend CIWMB Training?” and then space to enter the number of attendees.
  - c. We recommend dividing the last question in this series into two questions: comments or suggestions for improvement, and needs for technical assistance.
7. Work Plan and Budget for FY 2005/2006 (Proposed): same as recommendations for question 5.
8. Program Changes Planned for FY2005/2006: same as recommendations for question 6.

Expenditure Itemization Summary: we recommend integrating this information into the appropriate places in the form above if this is programmatically logical.

In conclusion, we recommend that the establishment of a standardized form and an internet submission process will improve the quality and completeness of the data for the Used Oil Block Grant Annual Report and will be easier for grantees to complete. The data that is generated can be downloaded into a spreadsheet program, which will expedite analysis.

# Conclusions

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After analyzing the data from the Used Oil Block Grant August 15<sup>th</sup> Report Form: FY 2004/2005 and reviewing the information in the grantee files, we have identified many shared characteristics of programs that are more effective, as well as the characteristics of the less effective programs. We have also identified ways in which data collection can be improved.

## ***Practices of More Effective Programs***

In general, the more effective programs are spending a smaller proportion of their total budgets on public education than the less effective programs and spending less on mass media and person to person outreach in particular. The more effective programs are using a larger proportion of their total budgets on oil hauling and collection and storm water mitigation than the less effective programs. The more effective programs have more certified collection centers and tend to recycle more oil from every collection site than the less effective programs. The MEP are more likely to use cultural events, car club/auto events, environmental events and county fairs as person to person outreach venues. The premiums offered by MEP are more likely to be DIY oil changing oriented, such as oil collection containers, oil funnels and oil rags. They are more likely to use fun, interactive exhibits at events and to have targeted outreach campaigns in which the targeted group shapes the media message, the premium offered, and the outreach event or venue. The MEP are more likely to assess the effectiveness of their programs and adjust their approach accordingly.

More effective programs with larger budgets spend a larger proportion of their budgets on oil collection events, data gathering and evaluation, and equipment and facilities than do the LEP with large budgets and all smaller budget programs. They have many more certified collection centers and are recycling more oil from every collection method than the LEP with large budgets. They employ more mobile collection vehicles than the LEP with large budgets.

More effective programs with smaller budgets spend a much smaller proportion of their budgets on public education than the less effective grantees with smaller budgets. They also invest far less of their budgets in mass media outreach than the smaller budget LEP. The smaller budget MEP spend a greater proportion of their budgets on premiums than either the LEP or the larger budget MEP. They are more effective when targeting fewer groups, however, than the larger budget grantees. Smaller budget MEP also spend more on grant planning and management than the smaller budget LEP, which may supplement their more meager budgets and allow them to offer more services and perform more outreach. The smaller budget MEP also spend more on oil hauling and collection, but less on mobile collection vehicles.

## ***Practices of Less Effective Programs***

In general, the grantees with less effective PE programs use a larger proportion of their total budgets on public education, especially at the smaller budget levels, and they use a larger proportion of their budgets on mass media outreach. They are more likely to use television and billboards as media types and they use non-oil changing related premiums such as pens, pencils and calendars. They are more likely to target children than the MEP. They tend to use more short term outreach programs and they poorly execute evaluation and rarely implement changes to programs that are identified by the evaluation. These programs also suffer from high staff turnover.

## ***Recommended Changes to Data Collection***

To improve the efficiency of the annual reporting process and the quality of the data CIWMB receives from the grantees, it is recommended that an electronically submitted form with standardized responses be created that would allow grantees to submit their reports online. This would standardize the data and prevent incomplete forms from being submitted.



# APPENDIX A: USED OIL BLOCK GRANT 2004/05 DATA DICTIONARY

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\*\*NOTE: Data reported as a range was coded as the midpoint of the range.

Variable Description	Length	Name
1. <b>Grantee/Jurisdiction</b>	3	GRT
2. <b>Active Grant/Funds Expended From</b>		
8 <sup>th</sup> Cycle	6	AG8
9 <sup>th</sup> Cycle	6	AG9
10 <sup>th</sup> Cycle	6	AG10
MISSING = 99999		
3. <b>Contact Information</b>	1	CNT
0 = No changes		
1 = Change to Primary Contact		
2 = Change to Signature Authority		
3 = both 1 & 2		
9 = missing/blank		

NOTE: QUESTION 4, CODE BLANK/MISSING DATA, "UNKNOWN" AS ALL 9's

#### 4. **Oil Collection Data and Summary: Fiscal Year 2004/2005**

Certified Collection Centers (CCC) \* = unspecified were coded as "claimed"

Collection Type: Oil Gallons (Claimed)*	6	CERTOILC
Collection Type: Oil Gallons (Unclaimed)*	6	CERTOILU
Collection Type: Oil Filters	6	CERTFLT
# Centers July 1	3	CCTRJL1
# Centers June 30	3	CCTRJ30
# Site Visits	3	SITEVIS

CCC (DIY ONLY) \* = unspecified were coded as "claimed"

Collection Type: Oil Gallons (Claimed)*	6	DIYOILC
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Collection Type: Oil Gallons (Unclaimed)*	6	DIYOILU
Collection Type: Oil Filters	6	DIYFLT
PHHW and ABOPS (Non-Certified)		
Collection Type: Oil Gallons	6	NONOILC
Collection Type: Oil Filters	6	NONFLT
Check Collection Type Below	1	NCCOLTYP
1 = PHHW		
2 = ABOP		
3 = BOTH		
0 = None checked		

Agricultural Collection

Collection Type: Oil Gallons	6	AGOILC
Collection Type: Oil Filters	6	AGFLT
# Centers July 1	3	ACTRJL1
# Centers June 30	3	ACTRJ30

Non-Certified Facilities (Non-Ag)

Collection Type: Oil Gallons	6	NCOILC
------------------------------	---	--------

<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
-----------------------------	---------------	-------------

Collection Type: Oil Filters	6	NCFLT
# Facilities July 1	3	FACJL1
# Facilities June 30	3	FACJ30

Temporary or Mobile Collection (Temp Event or Mobile)

Collection Type: Oil Gallons	6	TMPOILC
Collection Type: Oil Filters	6	TMPFLT
# of Vehicles	4	VEHICLES
Date of Events	6	DATE

Residential Collection (Curbside or Door-to-Door)

Collection Type: Oil Gallons	6	RESOILC
Collection Type: Oil Filters	6	RESFLT
Check Collection Type Below	1	RCOLTYP

1 = Curb

2 = Door

3 = Both

Other (Marina, Load-Check, Airport, etc.)

Collection Type: Oil Gallons 6 OTHOILC

Collection Type: Oil Filters 6 OTHFLT

List collection type and list of facilities below 30 LIST

**\*\*NOTE: QUESTION 5 CODES FOR ALL QUESTIONS EXCEPT \$ AMOUNTS, DESCRIPTIONS, AND NUMBERS IN QUESTION 5g ARE**

1 = CHECKED

0 = NOT CHECKED. For descriptions, N/A = 0.

FOR \$ AMOUNTS, MISSING/BLANK = ALL 9'S

"in-kind," or "included in..." or "staff time," or N/A, or N/C = 0

**5a. Dollars Spent on Mass Media Outreach 9 MMDOLRS**

## TARGET AUDIENCES FOR MASS MEDIA:

General Public	1	MMTGTGP
Immigrants	1	MMTGTI
Ethnic Group(s)	1	MMTGTEG
Shade Tree Mechanics	1	MMTGTST
Auto Enthusiasts	1	MMTGTAE
Boaters	1	MMTGTB
Growers	1	MMTGTG
Truckers	1	MMTGTT
Fleet Managers	1	MMTGTFM
Small Businesses	1	MMTGTSB
Other 1	1	MMTGTO1
(Description)	20	OTDESC1
Other 2	1	MMTGTO2

<u>Variable Description</u>	<u>Length</u>	<u>Name</u>
(Description)	20	OTDESC2
<b><u>Advertising What?</u></b>		
Collection Events	1	MMADCE
Certified Collection Centers	1	MMADCCC
Other	1	MMADOTH
(Description)	20	OTDESC3
<b><u>Media Type:</u></b>		
Radio	1	MMTYPR
TV	1	MMTYPTV
Newspaper	1	MMTYPNP
Newsletter	1	MMTYPNL
Bus/Transit	1	MMTYPBUS
Billboard	1	MMTYPBB
Bill Inserts	1	MMTYPBI
Penny Saver	1	MMTYPPS
Direct Mail	1	MMTYPDM
Other 1	1	MMTYPO1
(Description)	20	OTDESC4
Other 2	1	MMTYPO2
(Description)	20	OTDESC5
<b><u>LANGUAGES used for mass media advertising/outreach:</u></b>		
English	1	MMLGE
Cambodian	1	MMLGCA
Chinese	1	MMLGCH
Hmong	1	MMLGH
Korean	1	MMLGK
Punjabi	1	MMLGP
Russian	1	MMLGR

Spanish	1	MMLGS
Tagalog	1	MMLGT
Vietnamese	1	MMLGV
Other 1	1	MMLGO1
(Description)	20	OTDESC6
Other 2	1	MMLGO2
(Description)	20	OTDESC7
5b. Dollars Spent on Person-to-Person Outreach	9	PPDOLRS

## TARGET AUDIENCES FOR PERSON-TO-PERSON OUTREACH:

General Public	1	PPTGTGP
Immigrants	1	PPTGTI
Ethnic Group(s)	1	PPTGTGEG
Shade Tree Mechanics	1	PPTGTST
Auto Enthusiasts	1	PPTGTAE
Boaters	1	PPTGTB
Growers	1	PPTGTG
Truckers	1	PPTGTT

<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
Fleet Managers	1	PPTGTFM
Small Businesses	1	PPTGTSB
Other 1	1	PPTGTO1
(Description)	20	OTDESC8
Other 2	1	PPTGTO2
(Description)	20	OTDESC9

### **Venue for Personalized Contact:**

Neighborhood Canvassing	1	PPVNC
ESL Classes	1	PPVESL
Dock Walkers	1	PPVDW

Cultural Events	1	PPVCE
Car Club/Auto Events	1	PPVCC
Boater Shows/Meeting	1	PPVBS
Driver Training/Auto Shop Classes	1	PPVDT
Agricultural/Small Grower Meetings	1	PPVAM
Environmental Events/Fairs	1	PPVEE
County Fair	1	PPVCF
Other 1	1	PPVOTH1
(Description)	20	OTDESC10
Other 2	1	PPVOTH2
(Description)	20	OTDESC11
<i><b>LANGUAGES used for personalized contact:</b></i>		
English	1	PPLGE
Cambodian	1	PPLGCA
Chinese	1	PPLGCH
Hmong	1	PPLGH
Korean	1	PPLGK
Punjabi	1	PPLGP
Russian	1	PPLGR
Spanish	1	PPLGS
Tagalog	1	PPLGT
Vietnamese	1	PPLGV
Other 1	1	PPLGO1
(Description)	20	OTDESC12
Other 2	1	PPLGO2
(Description)	20	OTDESC13

**5c. CBSM or Behavior-Modification Tools Used During Outreach:**

Personal Pledges	1	BMTPP
Premium or Sign Prompts	1	BMTPSP
Community Member Endorsements	1	BMTCME
Normative Messages	1	BMTNM
Collection Container Giveaways	1	BMTCCG
Oil Filter Exchanges	1	BMTOFE

**Variable Description**

**Length Name**

Other	1	BMTOTH
(Description)	20	OTDESC14
<b>5d. Dollars Spent on K-12 School Outreach</b>	9	SODOLR
<b>K-12 School Outreach:</b>		
Classroom Presentation (Curriculum)	1	SOCP
School Presentation	1	SOSP
Jiminy Cricket's Environmental Challenge (5 <sup>th</sup> graders)	1	SOJC
Other	1	SOOTH
(Description)	20	OTDESC15
<b>5e. Dollars Spent on Premiums</b>	9	PRDOLR
<b>Premiums:</b>		
Oil Collection Containers	1	PROCC
Oil/Filter Coupons	1	PROFC
Oil Funnels/Oil Rags	1	PROFOR
Calendars	1	PRC
Pencils/Pens	1	PRP
Other 1	1	PROTH1
(Description)	20	OTDESC16
Other 2	1	PROTH2
(Description)	20	OTDESC17
Other 3	1	PROTH3

(Description)	20	OTDESC18
Other 4	1	PROTH4
(Description)	20	OTDESC19
5f. Dollars Spent on Certified Collection Center (CCC Support)	9	SUPDOLR
<b>Certified Collection Center (CCC) Support:</b>		
Site Visits	1	SUPSV
Abandoned Oil Interventions	1	SUPAOI
Other	1	SUPOTH
(Description)	20	OTDESC20
5g. Dollars Spent on Oil Collection Events	9	EVTDOLR
<b>Oil Collection Events: Total # of Events</b>	6	NBREVNT
<b>Total # of Attendees</b>	3	NBRATND
Oil Collection Events	2	COLEVNT
88 = checked but no number provided		
Oil Filter Exchange Events	2	EXCEVNT
Other	1	OTHEVNT
(Description)	20	OTDESC21
5h. Dollars Spent on Data Gathering and Evaluation	9	DATDOLR
<b>Data Gathering and Evaluation:</b>		
Site Visits	1	DATSV
Surveys on Outreach Effectiveness	1	DATSOE
Barrier Study	1	DATBS
<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
Program Evaluation/Annual Report Preparation	1	DATPEAR
Other	1	DATOTH
(Description)	20	OTDESC22
5i. Dollars Spent on Used Oil Hauling/Collection Cost	9	UOHDOLR
<b>Used Oil Hauling/Collection Cost:</b>		
Certified Collection Centers	1	UOHCCC
HHW Permanent Facility/ABOPS	1	UOHHPF

Residential Curbside	1	UOHRC
Residential Door-to-Door	1	UOHRDD
Agricultural Collection	1	UOHAC
Non-Certified Collection Centers (Non-Ag)	1	UOHNCCC
Temporary/Mobile Events	1	UOHTME
Small Quantity Generators	1	UOHSQG
Airports	1	UOHA
Marinas	1	UOHM
Other	1	UOHOTH
(Description)	20	OTDESC23
5j. Dollars Spent on Used Oil Filter Hauling/Collection Cost	9	UFHDOLR
<b>Used Oil Filter Hauling/Collection Cost:</b>		
Certified Collection Centers	1	UFHCCC
HHW Permanent Facility/ABOPS	1	UFHHPF
Residential Curbside	1	UFHRC
Residential Door-to-Door	1	UFHRDD
Agricultural Collection	1	UFHAC
Non-Certified Collection Centers (Non-AG)	1	UFHNCCC
Temporary/Mobile Events	1	UFHTME
Small Quantity Generators	1	UFHSQG
Airports	1	UFHA
Marinas	1	UFHM
Other	1	UFHOTH
(Description)	20	OTDESC24
5k. Dollars Spent on Equipment Purchase and Facility Construction/ Expansion	9	EQPDOLR
<b>Equipment Purchase &amp; Facility Construction/Expansion:</b>		
Oil Tank	1	EQPOT
Filter Crusher	1	EQPFC
Oil/Filter Drums	1	EQPOFD
Contaminated Oil Detection kits	1	EQPCODK
Facility Construction	1	EQPFC

Facility Expansion	1	EQPFE
Other Equipment 1	1	EQPOTH1
(Description)	20	OTDESC25
<b>Variable Description</b>		
<hr/>		
Other Equipment 2	1	EQPOTH2
(Description)	20	OTDESC26
Other	1	EQPOTHER
(Description)	20	OTDESC27
5l. Dollars Spent on Plastic Oil Bottle Recycling Cost	9	RECDOLR
<b>Plastic Oil Bottle Recycling Cost:</b>		
Drums	1	RECD
Bottle Recycling Service	1	RECBRS
Other	1	RECOTH
(Description)	20	OTDESC28
5m. Dollars Spent on Grant Planning and Management	9	MGTDOLR
<b>Grant Planning and Management:</b>		
Grantee Staff	1	MGTGS
Subcontractor	1	MGTSUB
In-kind Staff Contribution	1	MGTIKSC
5n. Dollars Spent on Storm Water Mitigation Program	9	STMDOLR
<b>Storm Water Mitigation Program:</b>		
Equipment and Materials	1	STMEM
Publicity & Education	1	STMPE
Personnel	1	STMP
Other	1	STMOTH
(Description)	20	OTDESC29
5o. Dollars Spent - <b>Other Grant Related Expenses Not Included Above</b>	9	OTHDOLR
(Description)	20	OTDESC30
<b>TOTAL FUNDS EXPENDED: July 1, 2004-June 30, 2005</b>	9	FUNDS

**ESTIMATE OF IN-KIND CONTRIBUTIONS**

9 INKIND

Specify type, source and dollar amount:

1) Type:	20	TYPE1
from	20	FROM1
for \$	9	FOR1
2) Type:	20	TYPE2
from	20	FROM2
for \$	9	FOR2
3) Type:	20	TYPE3
from	20	FROM3
for \$	9	FOR3
4) Type:	20	TYPE4
from	20	FROM4
for \$	9	FOR4

<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
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**6. Program Highlights**

<b>Briefly describe program highlights....</b>	1	HIGHLITE
--	---	----------

1 = highlights described

0 = no highlights

9 = page is missing

<b>Do you have a project/activity...?</b>	1	PRESENT
---	---	---------

1 = project/activity to present

0 = nothing to present

9 = page is missing

**Did you attend CIWMB Training?**

If yes, check: Annual Used Oil/HHW Conference	1	HHWCONF
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1 = checked

0 = not checked

9 = missing

Used Oil/HHW Information Exchange (HHWIE)

1 HHWIE

1 = checked

0 = not checked

9 = missing

# attended

2 ATTEND

99 = missing

**Do you have any comments...?**

1 COMMENTS

1 = comments listed

0 = no comments

Supplemental funding (both "Local Govt. Opportunity" grants and  
"Nonprofit Cycle 4.")

9(.2) SUPPL

### **CALCULATED VARIABLES**

Sum of gallons of oil collected

11(.2) TOTALOIL

Sum of Publicity & Education Expenditures

11(.2) PE\_EXP

Sum of reported expenditures

11(.2) TOTALEXP

PE expenditures per gallon of oil collected

8(.2) PE\_OIL

**\*\*NOTE: QUESTION 7 CODES FOR ALL QUESTIONS EXCEPT \$ AMOUNTS, DESCRIPTIONS, AND NUMBERS IN QUESTION 7g ARE**

1 = CHECKED

0 = NOT CHECKED. For descriptions, N/A = 0.

FOR \$ AMOUNTS, MISSING/BLANK = ALL 9'S

"in-kind," or "included in..." or "staff time," or N/A, or N/C = 0

<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
7a. Dollars Proposed for Mass Media Outreach	7	PMMDOLRS

## Proposed Target Audiences for Mass Media:

General Public	1	PMMTGTGP
Immigrants	1	PMMTGTI
Ethnic Group(s)	1	PMMTGTEG
Shade Tree Mechanics	1	PMMTGTST
Auto Enthusiasts	1	PMMTGTAE
Boaters	1	PMMTGTB
Growers	1	PMMTGTG
Truckers	1	PMMTGTT
Fleet Managers	1	PMMTGTFM
Small Businesses	1	PMMTGTSB
Other 1	1	PMMTGTO1
(Description)	20	OTDESC31
Other 2	1	PMMTGTO2
(Description)	20	OTDESC32
<b><u>Advertising What?</u></b>		
Collection Events	1	PMMADCE
Certified Collection Centers	1	PMMADCCC
Other	1	PMMADOTH
(Description)	20	OTDESC33

**Media Type to be used:**

Radio	1	PMMTYPR
TV	1	PMMTYPTV
Newspaper	1	PMMTYPNP
Newsletter	1	PMMTYPNL
Bus/Transit	1	PMMTYPBUS
Billboard	1	PMMTYPBB
Bill Inserts	1	PMMTYPBI
Penny Saver	1	PMMTYPPS
Direct Mail	1	PMMTYPDM
Other 1	1	PMMTYPO1
(Description)	20	OTDESC34
Other 2	1	PMMTYPO2
(Description)	20	OTDESC35

**Variable Description** **Length** **Name**

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**Languages to be used for mass media outreach:**

English	1	PMMLGE
Cambodian	1	PMMLGCA
Chinese	1	PMMLGCH
Hmong	1	PMMLGH
Korean	1	PMMLGK
Punjabi	1	PMMLGP
Russian	1	PMMLGR
Spanish	1	PMMLGS
Tagalog	1	PMMLGT
Vietnamese	1	PMMLGV
Other 1	1	PMMLGO1
(Description)	20	OTDESC36
Other 2	1	PMMLGO2
(Description)	20	OTDESC37

7b. Dollars Proposed for Person-to-Person Outreach 7 PPPDOLRS

## Proposed Target Audiences:

General Public	1	PPPTGTGP
Immigrants	1	PPPTGTI
Ethnic Group(s)	1	PPPTGTEG
Shade Tree Mechanics	1	PPPTGTST
Auto Enthusiasts	1	PPPTGTAE
Boaters	1	PPPTGTB
Growers	1	PPPTGTG
Truckers	1	PPPTGTT
Fleet Managers	1	PPPTGTFM
Small Businesses	1	PPPTGTSB
Other 1	1	PPPTGTO1
(Description)	20	OTDESC38
Other 2	1	PPPTGTO2
(Description)	20	OTDESC39

### Proposed Venue for Personalized Contact:

Neighborhood Canvassing	1	PPPVNC
ESL Classes	1	PPPVESL
Dock Walkers	1	PPPVDW
Cultural Events	1	PPPVCE
Car Club/Auto Events	1	PPPVCC
Boater Shows/Meeting	1	PPPVBS
Driver Training/Auto Shop Classes	1	PPPVDT
Agricultural/Small Grower Meetings	1	PPPVAM
Environmental Evenets/Fairs	1	PPPVEE
County Fair	1	PPPVCF
Other 1	1	PPPVO1
(Description)	20	OTDESC40

<u>Variable Description</u>	<u>Length</u>	<u>Name</u>
-----------------------------	---------------	-------------

Other 2	1	PPPVO2
(Description)	20	OTDESC41
<i>Languages to be used for personalized outreach</i>		
English	1	PPPLGE
Cambodian	1	PPPLGCA
Chinese	1	PPPLGCH
Hmong	1	PPPLGH
Korean	1	PPPLGK
Punjabi	1	PPPLGP
Russian	1	PPPLGR
Spanish	1	PPPLGS
Tagalog	1	PPPLGT
Vietnamese	1	PPPLGV
Other 1	1	PPPLGO1
(Description)	20	OTDESC42
Other 2	1	PPPLGO2
(Description)	20	OTDESC43

**7c. Proposed CBSM or Behavior-Modification Tools Used During Outreach:**

Personal Pledges	1	PBMTTP
Premium or Sign Prompts	1	PBMTSP
Community Member Endorsements	1	PBMCME
Normative Messages	1	PBMTNM
Collection Container Giveaways	1	PBMTCCG
Oil Filter Exchanges	1	PBMTIFE
Other	1	PBMTOTH
(Description)	20	OTDESC44

7d. Proposed Dollars for K-12 School Outreach 7 PSODOLR

**Proposed K-12 School Outreach:**

Classroom Presentation (Curriculum)	1	PSOCP
School Presentation	1	PSOSP
Jiminy Cricket's Environmental Challenge (5th Graders)	1	PSOJC
Other	1	PSOOTH

(Description)	20	OTDESC45
7e. Proposed Dollars for Premiums	7	PPRDOLR
<b>Proposed Premiums:</b>		
Oil Collection Containers	1	PPROCC
Oil/Filter Coupons	1	PPROFC
Oil Funnels/Oil Rags	1	PPROFOR
Calendars	1	PPRC
Pencils/Pens	1	PPRP
Other 1	1	PPROTH1
(Description)	20	OTDESC46
Other 2	1	PPROTH2
(Description)	20	OTDESC47
<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
Other 3	1	PPROTH3
(Description)	20	OTDESC48
Other 4	1	PPROTH4
(Description)	20	OTDESC49
7f. Estimated Dollars for Certified Collection Center (CCC Support)	7	ESUPDOLR
<b>Estimated Certified Collection Center (CCC) Support:</b>		
Site Visits	1	ESUPSV
Abandoned Oil Interventions	1	ESUPAOI
Other	1	ESUPOTH
(Description)	20	OTDESC50
7g. Estimated Dollars for Oil Collection Events	7	EEVTDOLR
<b>Estimated Oil Collection Events: Number of Events</b>	2	ENBREVNT
Oil Collection Events	2	ECOLEVNT
Oil Filter Exchange Events	2	EEXCEVNT
Other	1	EOTHEVNT
(Description)	20	OTDESC51
7h. Dollars Estimated for Data Gathering and Evaluation	7	PDATDOLR
<b>Proposed Data Gathering and Evaluation:</b>		

Site Visits	1	PDATSV
Surveys on Outreach Effectiveness	1	PDATSOE
Barrier Study	1	PDATBS
Program Evaluation/Annual Report Preparation	1	PDATPEAR
Other	1	PDATOTH
(Description)	20	OTDESC52
7i. Dollars Estimated for Used Oil Hauling/Collection Cost	7	EUOHDOLR
<b>Used Oil Hauling/Collection Cost:</b>		
Certified Collection Centers	1	EUOHCCC
HHW Permanent Facility/ABOPS	1	EUOHHPF
Residential Curbside	1	EUOHRC
Residential Door-to-Door	1	EUOHRDD
Agricultural Collection	1	EUOHAC
Non-Certified Collection Centers (Non-Ag)	1	EUOHNCCC
Temporary/Mobile Events	1	EUOHTME
Small Quantity Generators	1	EUOHSQG
Airports	1	EUOHA
Marinas	1	EUOHM
Other	1	EUOHOTH
(Description)	20	OTDESC53
7j. Dollars Estimated for Used Oil Filter Hauling/Collection Cost	7	EUFHDOLR
<b>Used Oil Filter Hauling/Collection Cost:</b>		
Certified Collection Centers	1	EUFHCCC
HHW Permanent Facility/ABOPS	1	EUFHHPF
Residential Curbside	1	EUFHRC
Residential Door-to-Door	1	EUFHRDD
<b>Variable Description</b>	<b>Length</b>	<b>Name</b>
Agricultural Collection	1	EUFHAC
Non-Certified Collection Centers (Non-Ag)	1	EUFHNCCC
Temporary/Mobile Events	1	EUFHTME
Small Quantity Generators	1	EUFHSQG

Airports	1	EUFHA
Marinas	1	EUFHM
Other	1	EUFHOTH
(Description)	20	OTDESC54
7k. Dollars Estimated for Equipment Purchase and Facility Construction/ Expansion	7	EQPDOLR
<b>Proposed Equipment Purchase &amp; Facility Construction/Expansion:</b>		
Oil Tank	1	PEQPOT
Filter Crusher	1	PEQPFC
Oil/Filter Drums	1	PEQPOFD
Contaminated Oil Detection Kits	1	PEQPCODK
Facility Construction	1	PEQPFC
Facility Expansion	1	PEQPFE
Other Equipment 1	1	PEQPOTH1
(Description)	20	OTDESC55
Other Equipment 2	1	PEQPOTH2
(Description)	20	OTDESC56
Other	1	PEQPOTHER
(Description)	20	OTDESC57
7l. Estimated Dollars for Plastic Oil Bottle Recycling Cost	7	ERECDOLR
<b>Plastic Oil Bottle Recycling Cost:</b>		
Drums	1	ERECD
Bottle Recycling Service	1	ERECBRS
Other	1	ERECOTH
(Description)	20	OTDESC58
7m. Proposed Dollars for Grant Planning and Management	7	PMGTDOLR
<b>Proposed Grant Planning and Management:</b>		
Grantee Staff	1	PMGTGS
Subcontractor	1	PMGTSUB
In-kind	1	PMGTIKSC
7n. Proposed Dollars for Storm Water Mitigation Program	7	PSTMDOLR
<b>Proposed Storm Water Mitigation Program:</b>		

Equipment and Materials	1	PSTMEM
Publicity and Education	1	PSTMPE
Personnel	1	PSTMP
Other	1	PSTMOTH
(Description)	20	OTDESC59
<b>7o. Other estimated Grant Related Expenses not Included Above</b>	7	POTHDOLR
(Description)	20	OTDESC60

**Variable Description Length      Name**

**TOTAL FUNDS PLANNED: July 1, 2005—June 30, 2006**      7      PFUNDS

**(Check the Block Grant Cycles to be Used)**

1 = checked

0 = not checked

9<sup>th</sup> Cycle      1      UBG9

10<sup>th</sup> Cycle      1      UBG10

11<sup>th</sup> Cycle      1      UBG11

**ESTIMATE OF IN-KIND CONTRIBUTIONS**      7      EINKIND

Specify type, source and dollar amount:

- |          |    |        |
|----------|----|--------|
| 1) Type: | 20 | ETYPE1 |
| from     | 20 | EFROM1 |
| for \$   | 7  | EFOR1  |
| 2) Type: | 20 | ETYPE2 |
| from     | 20 | EFROM2 |
| for \$   | 7  | EFOR2  |
| 3) Type: | 20 | ETYPE3 |
| from     | 20 | EFROM3 |
| for \$   | 7  | EFOR3  |
| 4) Type: | 20 | ETYPE4 |
| from     | 20 | EFROM4 |
| for \$   | 7  | EFOR4  |

**8. Program Changes Planned for FY2005/2006**

**Briefly describe new program activities...** 1 NEW

1 = activities described

0 = none described

**Are there areas for which you would like technical assistance?** 1 TA

1 = yes

0 = no

If yes, please explain:


**List dates and describe any EVENTS...** 1 EVENTS

1 = events listed

0 = no events listed

# APPENDIX B: USED OIL/HOUSEHOLD HAZARDOUS WASTE 2007 WORKSHOP PRESENTATION

Slide 1



Used Oil Recycling Public Education Assessment  
Used Oil Recycling/Household Hazardous Waste  
2007 Workshops  
Institute for Social Research, Sacramento State University  
Jacqueline Carrigan, Ph.D.  
April 18, 2007

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Slide 2

Used Oil Recycling Public Education Assessment Tasks

- ❖ Analyzed data from the Used Oil Block Grant Annual Report Forms for 2004/05
- ❖ Measured "effectiveness" as public education dollars spent per gallon of oil collected, divided by the diversion rate
- ❖ Identified the most and least effective PE programs
- ❖ Identified the most and least cost-effective PE budget proportions and PE practices

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Slide 3

**Methodology**

- ❖ Entered Used Oil Block Grant Report Form (2004/2005) data into a statistical software program
- ❖ Calculated effectiveness of programs and divided programs into effectiveness quartiles
- ❖ Performed descriptive statistical analysis of characteristics of the top and bottom program effectiveness quartiles
- ❖ Performed multiple regression analysis of characteristics predicting effectiveness
- ❖ Identified the most effective programs in each of four budget levels

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Slide 4

**Proportion of Grant Budget Spent on PE by Most and Least Effective Programs**

Variables	Least Effective programs		Most Effective programs	
	Median	Mean	Median	Mean
Total Grant Budget				
Public Education	.66	.64	.30	.39
Mass Media	.28	.37	.12	.18
Person to Person	.02	.09	.00	.03
K-12 School	.00	.02	.00	.02
Premiums	.07	.15	.07	.15

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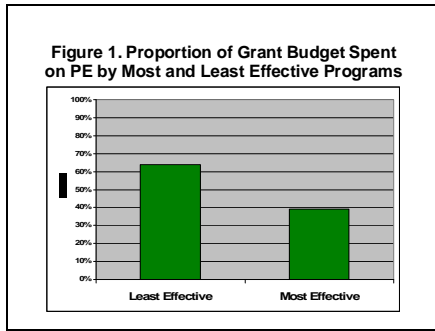
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Slide 5



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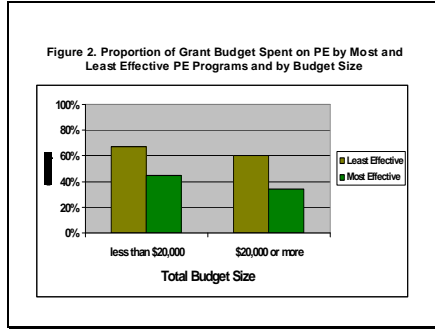
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Slide 6



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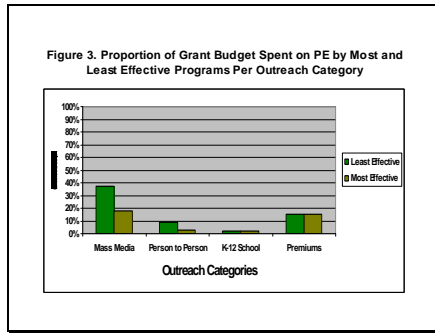
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Slide 7



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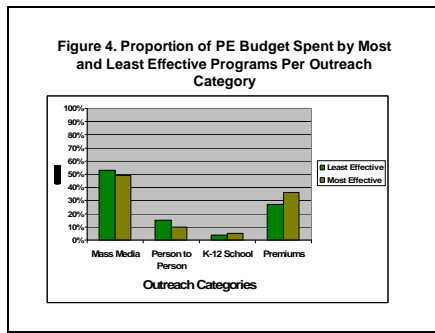
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Slide 8



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Slide 9

**Mass Media and Person to Person Outreach**

Most effective programs are more likely to target the following DIY groups:

- ❖ the general public
- ❖ auto enthusiasts
- ❖ immigrants
- ❖ shade tree mechanics
- ❖ growers

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Slide 10

**Mass Media and Person to Person Outreach**

- ❖ Most effective programs are more likely to use radio, newspapers, bus/public transit and the Penny Saver for mass media outreach
- ❖ Most effective programs are more likely to do person-to-person outreach at cultural events, car club/auto events, environmental events and county fairs

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Slide 11

**Mass Media and Person to Person Outreach**

- ❖ Most effective grantees are more likely to offer oil collection containers, oil funnels and oil rags as premiums
- ❖ Least effective grantees are more likely to offer calendars as premiums

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Slide 12

**Most Effective PE Program Practices**

❖ Detailed analysis of grantee files found that the most effective programs had the following in common:

- Regular assessment of PE methods
- Adjustment of PE methods to address identified problems
- Focus on target audiences and tailored approaches to reach each target audience
- Advertise via radio, Penny Saver, floor graphics at auto parts stores

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Slide 13

**Least Effective PE Program Practices**

❖ Detailed analysis of grantee files found that the less effective programs tended to exhibit the following:

- Minimal/less formal assessment of PE methods
- High staff turnover and reliance on interns
- No adjustment of PE methods to address identified problems
- Use television and billboards for outreach

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Slide 14

**Multiple Regression Analysis of Characteristics  
Predicting PE Program Effectiveness**

Variables	Standardized Coefficients
PE percentage of budget	-.383***
Number of targeted groups	.162**
Number of media types	.142*
Oil Hauling and Collection percentage of budget	.039
Number of site visits	.338*
DIY or Rate	-.054
Regional (not regional=0)	-.042
Total Budget	-.479***
Number of CCC	.635***
R <sup>2</sup>	.22***

Significance levels: \* = .10, \*\* = .05, \*\*\* = .01

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Slide 15

**All things being equal\*,  
the most effective programs...**

- ❖ Spend a lower percentage of their total budget on public education
- ❖ Target more DIY audiences
- ❖ Use more media types
- ❖ Conduct more site visits at CCCs

\*(Controlling for the size of the total budget, the percentage of DIYers, number of CCCs and whether or not the grantee is a part of a regional organization)

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Slide 16

**Conclusions**

The most effective grantee PE programs:

- ❖ Expend 40% or less of their total grant budget on PE
- ❖ Target a variety of DIY audiences
- ❖ Attend a variety of cultural and environmental events for person-to-person outreach
- ❖ Use a variety of low cost media types
- ❖ Formally assess PE practices and correct problems
- ❖ Conduct more site visits to CCCs

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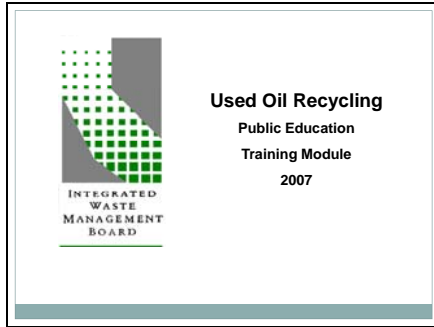
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# APPENDIX C: USED OIL RECYCLING PE TRAINING MODULE

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Slide 1



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Slide 2



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Slide 3

**Used Oil Recycling Program  
General Information\***

○

Since 1987 it has been illegal to dispose of used oil in sewers, drainage systems, surface or ground waters, water courses, or marine waters, by domestic incineration, or onto the land or in the trash.

In 1991 the California State Legislature passed the Oil Recycling Enhancement Act to address the significant threat to California's environment from illegally dumped used oil. The California Integrated Waste Management Board was charged with overseeing the implementation of the act. The mission of the Board's Used Oil Recycling Program is to discourage the illegal disposal of used oil and promote used oil recycling statewide.

\*See <http://www.ciwmb.ca.gov/UsedOil/GeneralInfo.htm>

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Slide 4

**Claiming Non-recycled Oil**

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In 1998, 140 million gallons of lubricating oil were sold in California.

Approximately 40 percent or 56 million gallons, leaked out of engines or was burned.

Of the remaining 84 million gallons, just 64 million gallons were recycled, leaving approximately 20 million gallons unaccounted for and possibly improperly disposed of down storm drains, into lakes or streams, or thrown in the garbage

(<http://www.ciwmb.ca.gov/UsedOil/GeneralInfo.htm>)

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Slide 5

**Used Oil Recycling Public Education  
Assessment Project Tasks**

○

The Institute for Social Research was hired to evaluate the effectiveness of PE approaches used by grantees at increasing the gallons of oil recycled per dollar spent on PE. The recommendations in this training module are based on the results from the following tasks:

- Analysis of data from the Used Oil Block Grant Annual Report Forms for 2004/05
- Identification of the most and least effective public education programs and practices
- Identification of the most and least effective public education budget proportions

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Slide 6

**How much of my budget should go to PE?**

The most effective Public Education programs allocated their budgets in the following ways:

- Programs with larger total budgets (>\$20,000) should allocate approximately 35% of their budget to public education
- Programs with small total budgets (<\$20,000) should allocate approximately 45% of the budget to public education
- Programs should spend approximately half of their public education budgets on mass media, one third on premiums
- Preliminary research finds that person to person approaches are promising

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Slide 7

**Proportion of Grant Budget Spent on PE by Most and Least Effective Programs**

Variables	Least Effective programs		Most Effective programs	
	Median	Mean	Median	Mean
Total Grant Budget				
Public Education	.66	.64	.30	.39
Mass Media	.28	.37	.12	.18
Person to Person	.02	.09	.00	.03
K-12 School	.00	.02	.00	.02
Premiums	.07	.15	.07	.15

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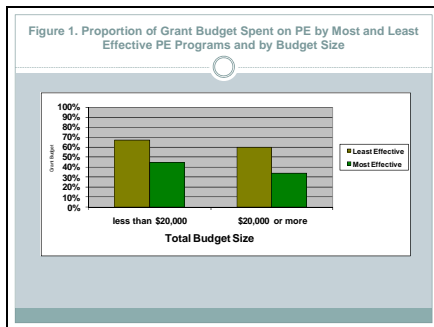
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Slide 8




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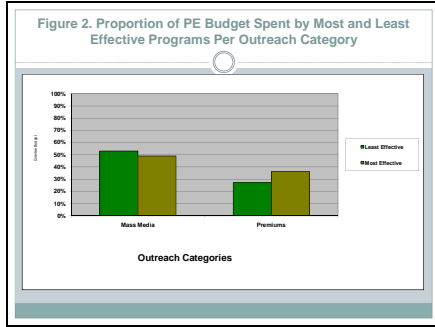
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Slide 9



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Slide 10

How to use Mass Media and Person to Person Outreach

Most effective programs are more likely to target the following DIY groups:

- the general public
- auto enthusiasts
- immigrants
- shade tree mechanics
- growers

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Slide 11

Targeting Shade Tree Mechanics and Auto Enthusiasts Examples

- Floor graphics placed at auto parts stores
- Events held at auto parts stores
- Oil and oil filter container giveaways at auto parts stores

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Slide 12

**Mass Media and Person to Person Outreach**

- **For mass media outreach use**
  - radio
  - newspapers
  - bus/public transit
  - the Penny Saver
- **For person-to-person outreach go to**
  - cultural events
  - car club/auto events
  - environmental events
  - county fairs

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Slide 13

**Premiums**

- **Most effective grantees are more likely to offer the following premiums:**
  - oil collection containers
  - oil funnels
  - oil rags
- **Least effective grantees are more likely to offer calendars as premiums**

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Slide 14

**Most Effective PE Program Practices**

**Recommended programs practices include:**

- Regular assessment of PE methods
- Adjustment of PE methods to address problems identified by assessments
- A focus on target audiences and tailored approaches to reach each target audience

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Slide 15

**Examples of Effective Assessment**

Outreach targeted to motorcycle riders was found to be ineffective because the oil containers were too large to carry while on a bike. The program responded by developing a strap to accompany the container that increases its portability.

A telephone survey was conducted to assess which PE elements found that floor graphics at auto parts stores were the strongest advertising vehicle for do-it-yourselfers. The program plans to increase its reliance on this inexpensive technique.

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Slide 16

**Things to Avoid:  
Least Effective PE Program Practices**

Detailed analysis of grantee files found that the less effective programs tended to:

- Have minimal or informal assessment of PE methods
- Have high staff turnover rates and an over-reliance on interns
- Make little adjustment of their PE approaches to address identified problems
- Rely on television and billboards for outreach

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Slide 17

**All things being equal\*,  
the most effective programs...**

- Spend less of their total budget on public education than less effective programs
- Target more DIY audiences
- Use more media types and less expensive media types
- Conduct more site visits at CCCs

\* (Controlling for the size of the total budget, the percentage of DIYers, number of CCCs and whether or not the grantee is a part of a regional organization)

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Slide 18

Conclusions

Our recommendations are that grantees do the following:

- Expend approximately 40% or less of their total grant budget on PE
- Target a variety of DIY audiences
- Attend a variety of cultural and environmental events for person-to-person outreach
- Use a variety of low cost media types
- Formally assess PE practices and correct problems
- Conduct more site visits to CCCs

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