



**CA4WDC CONSERVATION & EDUCATION FOUNDATION
USED OIL RECYCLING PROGRAM
NON-PROFIT GRANT #UNP5-02-17
TRAILHEAD SURVEY REPORT**

This report analyzes the results of surveys conducted at off-highway trailheads between July 2003 and April 2005. Volunteer members of 59 different clubs throughout California intercepted trail users to administer the survey. A total of over 5,000 surveys were conducted. Some of the data was lost, but 4,869 were data-entered and analyzed.

The survey was designed both to gather data on our target audience and to script the interaction between volunteers and trail users. Each respondent was offered a goodie bag with a variety of “prompts” to recycle oil and filters and to clean up spills on the trail. As the final question in the survey, they were asked for a commitment to continue “doing it right” or to “change” (that is, to recycle both oil and filters, and to properly clean up spills on the trail.)

The value of a survey conducted by literally hundreds of different volunteers may be considered questionable, but we feel that the information gained has real value. The volunteer surveyors did a remarkable job, and most of the entries were obviously individual (that is, they were different for each respondent), complete and legible. In addition, the sheer volume of data gives us some confidence in our ability to draw useful conclusions.

The survey included open-ended questions, with limited space for recording the responses (data was recorded on forms that included 20 surveys per sheet, as attached.) This strategy seemed to work fairly well for obtaining responses that could be coded and analyzed.

The questions were worded on the survey form as follows:

- What is your zip code?
- How many times in a season do you use these trails?
- Do you change your own motor oil? (yes/no)
- What do you do with the oil/ where do you take it? (specific)
- What do you do with the filter?
- Have you ever had a spill or leak on the trail?
- How did you (or would you) clean it up?
- Commitment: yes I will keep doing it right or yes I will change



ZipCode

Respondents represented over 1000 different zip codes. (That is, not the location where the survey was asked but the home zip code of the respondents.) We coded them by county and found that 52 of California's 58 counties were represented, as shown in the table below:

County	# surveys	% of total	County	# surveys	% of total	County	# surveys	% of total
LOS ANGELES	489	10.1%	TULARE	61	1.3%	MONTEREY	16	0.3%
SONOMA	463	9.5%	SAN MATEO	55	1.1%	SAN BENITO	16	0.3%
SACRAMENTO	307	6.3%	SOLANO	54	1.1%	SAN FRANCISCO	16	0.3%
SAN BERNARDINO	282	5.8%	BUTTE	52	1.1%	MONO	15	0.3%
ORANGE	256	5.3%	NEVADA	48	1.0%	NAPA	12	0.2%
SANTA CLARA	228	4.7%	MERCED	47	1.0%	CALAVERAS	11	0.2%
KERN	196	4.0%	SAN LUIS OBISPO	40	0.8%	MADERA	10	0.2%
SAN DIEGO	189	3.9%	KINGS	39	0.8%	SANTA BARBARA	9	0.2%
EL DORADO	146	3.0%	LAKE	36	0.7%	TEHAMA	8	0.2%
PLACER	109	2.2%	SHASTA	34	0.7%	HUMBOLDT	6	0.1%
STANISLAUS	97	2.0%	YUBA	34	0.7%	SIERRA	6	0.1%
FRESNO	95	2.0%	SANTA CRUZ	31	0.6%	GLENN	3	0.1%
MENDOCINO	93	1.9%	MARIN	30	0.6%	PLUMAS	3	0.1%
CONTRA COSTA	88	1.8%	YOLO	27	0.6%	DEL NORTE	1	0.0%
RIVERSIDE	80	1.6%	TUOLUMNE	24	0.5%	LASSEN	1	0.0%
VENTURA	78	1.6%	AMADOR	21	0.4%	MODOC	1	0.0%
SAN JOAQUIN	72	1.5%	INYO	17	0.4%	OUT-OF-STATE	711	14.7%
ALAMEDA	71	1.5%	SUTTER	17	0.4%	Total	4851	100.0%

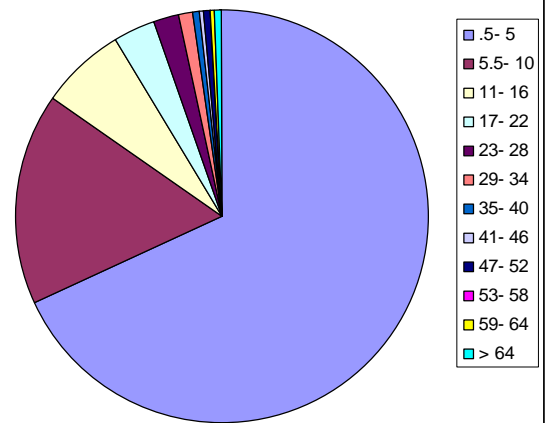
Frequency of Trail Use

"How many times in a season do you use these trails?"

We asked this partly as a "warm-up" question, and also in hopes that the information (along with the zip code data) might be useful to land managers.

After removing the answers that could not be recorded numerically, ("a lot," "as often as possible," "too much"), averaging those that named a range (so that "3-4" became "3.5" for example), and removing a couple of unlikely

Frequency of Trail Use



answers (“1000”) we had 4,623 answers.

Infrequent users dominated the responses. 68% used the trail 5 times per year or less, and 17% between 5.5 and 10 times. 29% of respondents said they use the trail once a year or less (this included those that said this was their first time on the trail.)

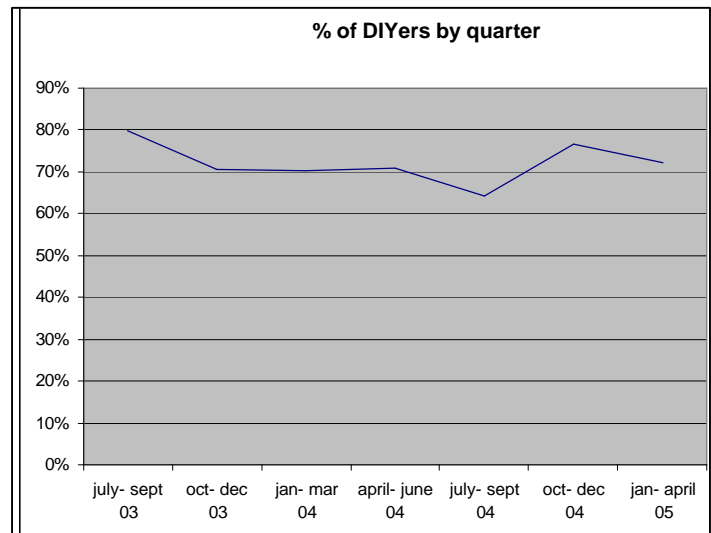
We did not ask how often the respondent engaged in off- highway recreation in general, so the results refer only to the particular trail where the question was asked. For the off-road locations where multiple outreach days were conducted, the low frequency of repeated trail use suggests that we were reaching new trail users each time.

DIYer status

“Do you change your own motor oil? (yes/no)”

Since the premise of our outreach project was that off-highway vehicle enthusiasts are more likely than the general public to be DIYers, this was an important question in verifying that we were interacting with an appropriate target audience. Of the 4,869 in our survey, 72% indicated that they change their own oil. This is more than 3.5 times the state-wide average.

A similar project in Sonoma County in 2002 (with a sample of 190 respondents, obviously much smaller) indicated that 84% were DIYers. To see whether this difference may be indicative of an overall trend toward fewer people changing their own oil, we plotted the responses by quarter (chart at right). The range over the 7 quarters was from 80% to 64%. There does seem to be a downward trend, and given the large volume of data and the likelihood that this question is answered honestly, this trend may be significant.



Oil Recycling Behavior

“What do you do with the oil/ where do you take it? (specific)”

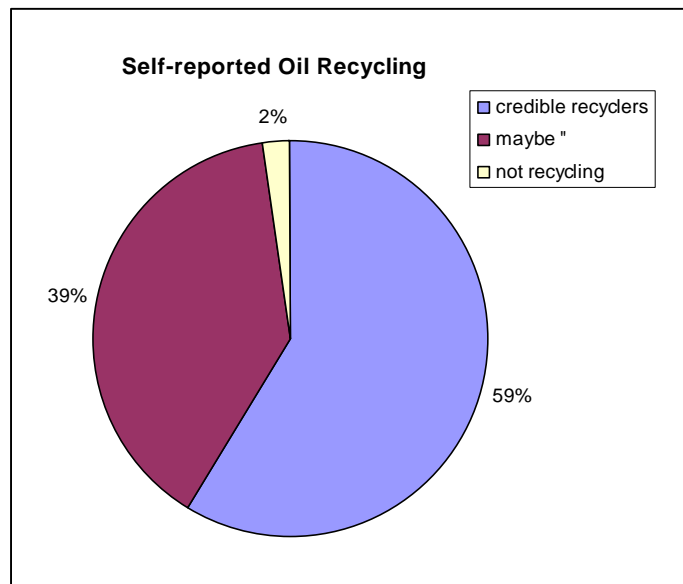
As Dr. Rufus Browning has made very clear, self-reported information about oil recycling habits is unreliable. People have a natural tendency to give the “right”



answer. In order to obtain as accurate an idea as possible of the rate of oil recycling in our target population, we directed the volunteer surveyors to ask for specific information on where the oil was taken.

Of the 3,501 respondents that said they change their own oil, the surveyors recorded (legible) data on where the oil was taken for 3,497. Of these, 74, slightly over 2%, gave answers that specifically indicated improper disposal. These included: 26 “trash” (“landfill,” “garbage,” etc); 18 “pour on ground” (“pour on weeds,” “pest control,” “spread out on road,” etc.); 15 “burn” (use in burn piles,” “recycle as heating oil,” etc.); 13 “store” (“use on farm/ ranch,” stack in garage,” “keep it for my use,” etc.); and one each “friend’s chain saw” and “declined to say.”

The remaining respondents, over 97%, gave answers that indicated recycling. We coded these responses based on their degree of specificity. Those that simply answered “recycled it” were placed in the “maybe” category while those that provided a specific location were considered “credible.” (In the case of those that answered with a generic location such as “auto parts store” we generally assigned them to the “maybe” category, unless their answer to the next question, “What do you do with the filter?” named a specific auto parts store.)



This doesn't mean that we are convinced that everyone who responded that they took their oil to "Kragen" necessarily did so, or that everyone who answered simply "recycled" did not. It does give us at least some idea of how many may have actually recycled their oil.

2,052 respondents, 59%, named a specific location where they took their oil for recycling. 1,371 (39%) indicated that they recycled the oil but did not give a specific location.

Types of Oil Recycling Locations

The specific locations where oil is taken show some interesting patterns.

65% named a certified collection center that is a business- as described in more detail below, most of these are auto parts businesses.

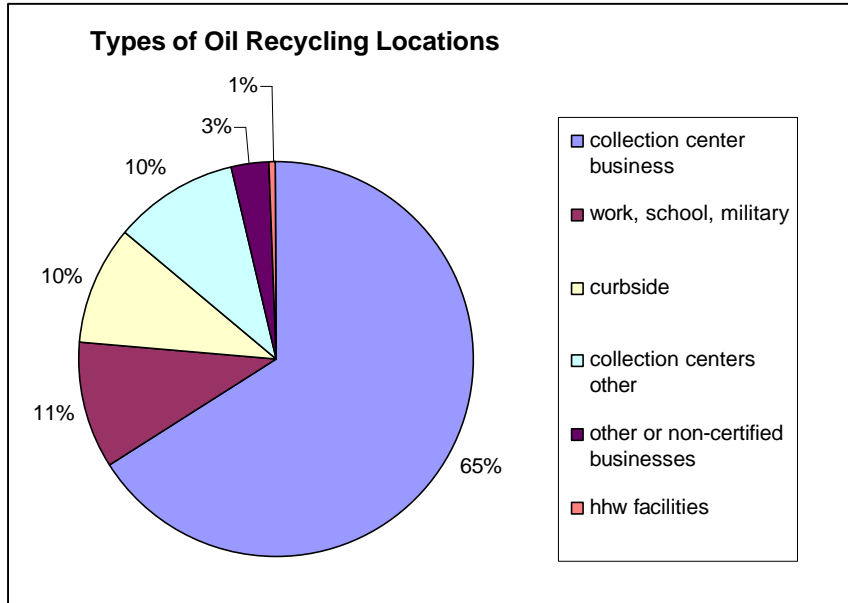


10% we coded as “other” collection centers- mostly probably certified, these included transfer stations, fire stations, airports, and various city or county recycling facilities. (A few of these may actually have meant curbside programs, but wherever there were several answers such as “Kern County Waste Management” we did a quick Internet search to learn whether curbside was in place.)

10% said they used curbside collection programs.

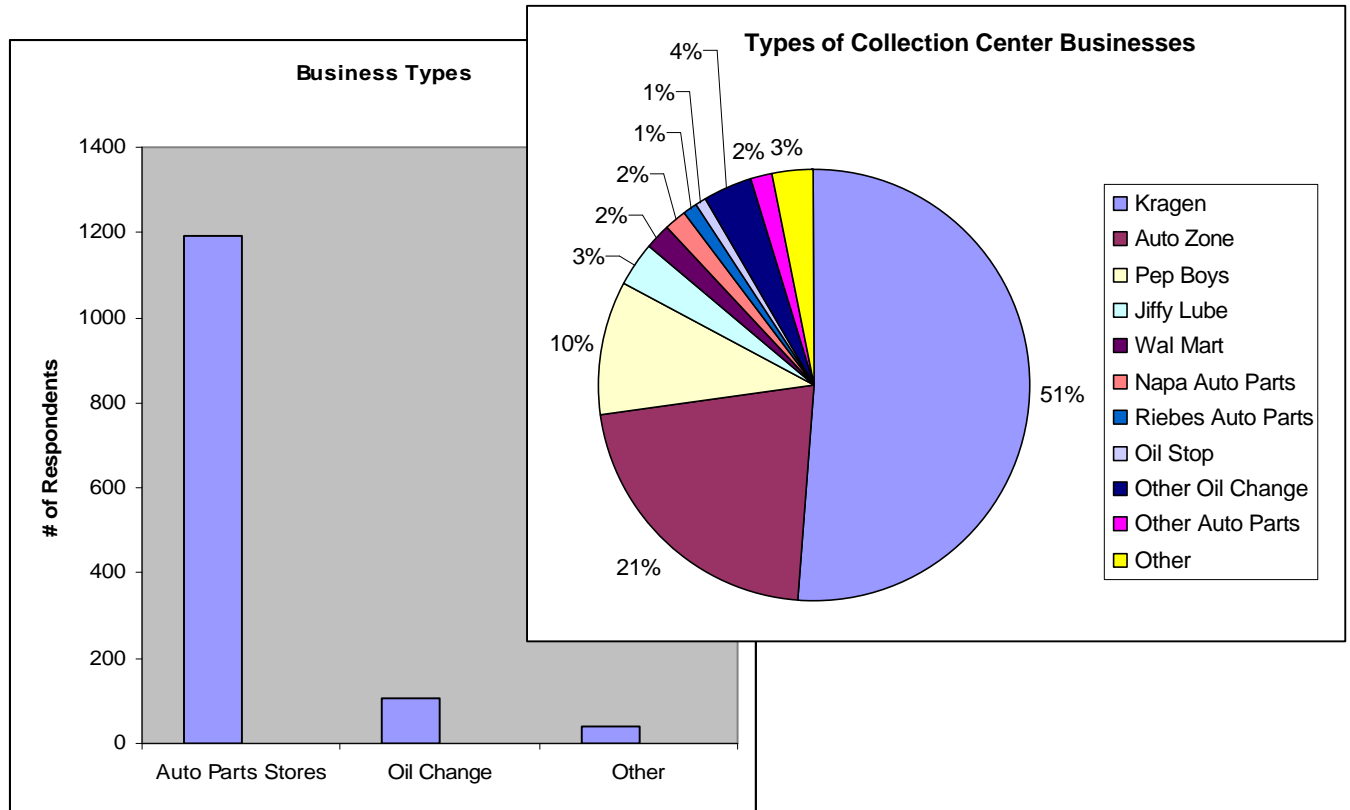
3% of answers were businesses that do not appear to be “official” collection centers. Again, we checked many of these against CIWMB certified center listings or other web lists of local oil recycling locations.

14 respondents, less than 1%, indicated that they took oil to a permanent or temporary HHW site.



The most striking in our view was that 11% indicated that they take the oil “to work.” (We included in this the 7 respondents who said they took the oil to “school” and the 8 who named a military location.) A few of these named their place of work, such as “clutch shop,” Ford dealer,” “heavy equipment,” “truck repair.” At least 10 indicated that they own an auto shop business. We surmise that this percentage is higher in the off-roader community than in the general DIYer population, but the findings still seem significant. When combined with the 3% “unofficial” businesses, this suggests that 14% of respondents are taking oil to locations which will not be included in aggregate oil recycling figures compiled by the CIWMB.

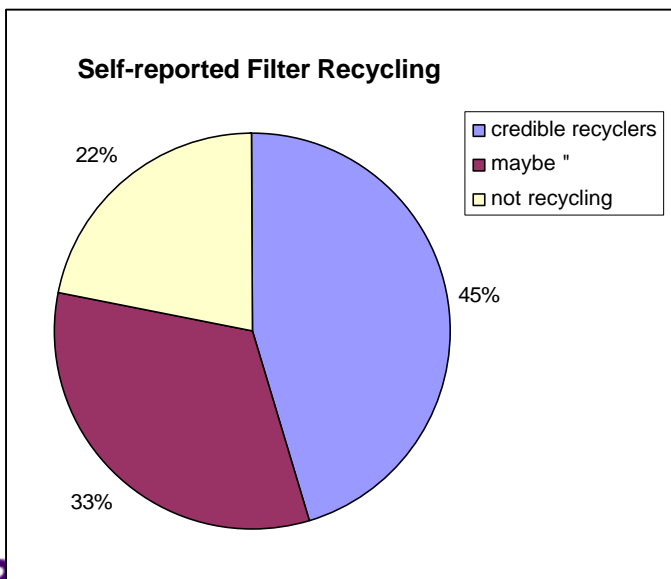
It will come as no surprise to those familiar with California oil recycling programs that 51% of the collection center businesses named were Krugen stores. Including Auto Zone, Pep Boys, Napa, Wal Mart, Riebes, and the other parts stores such as Chief, 89% of the businesses named by the 1,341 respondents were auto parts stores.



Filter Recycling

What do you do with the filter?

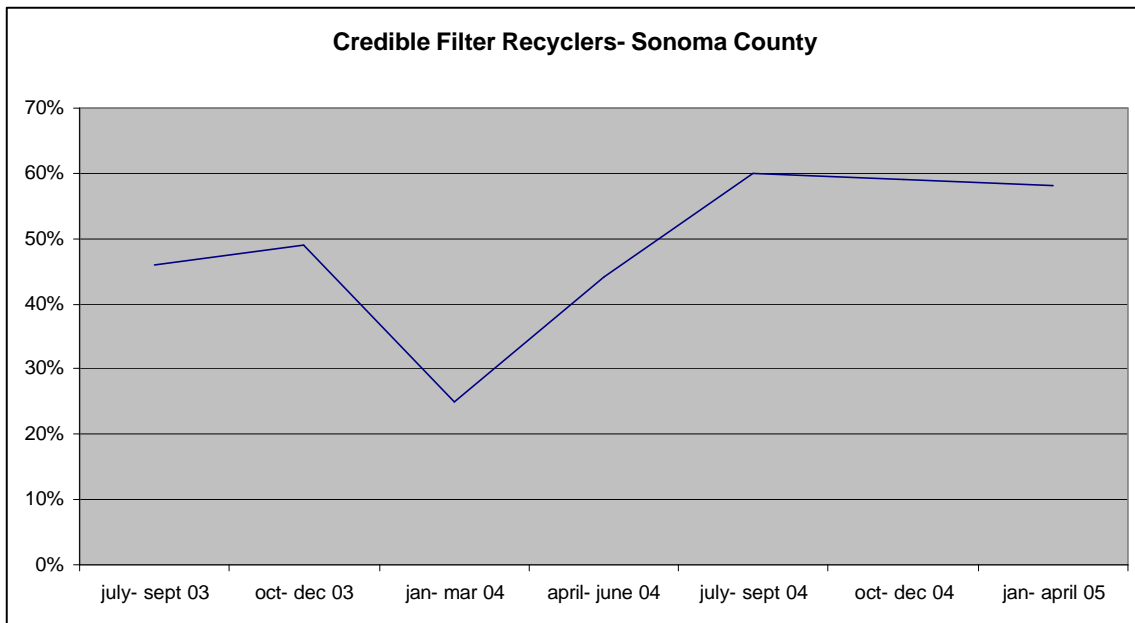
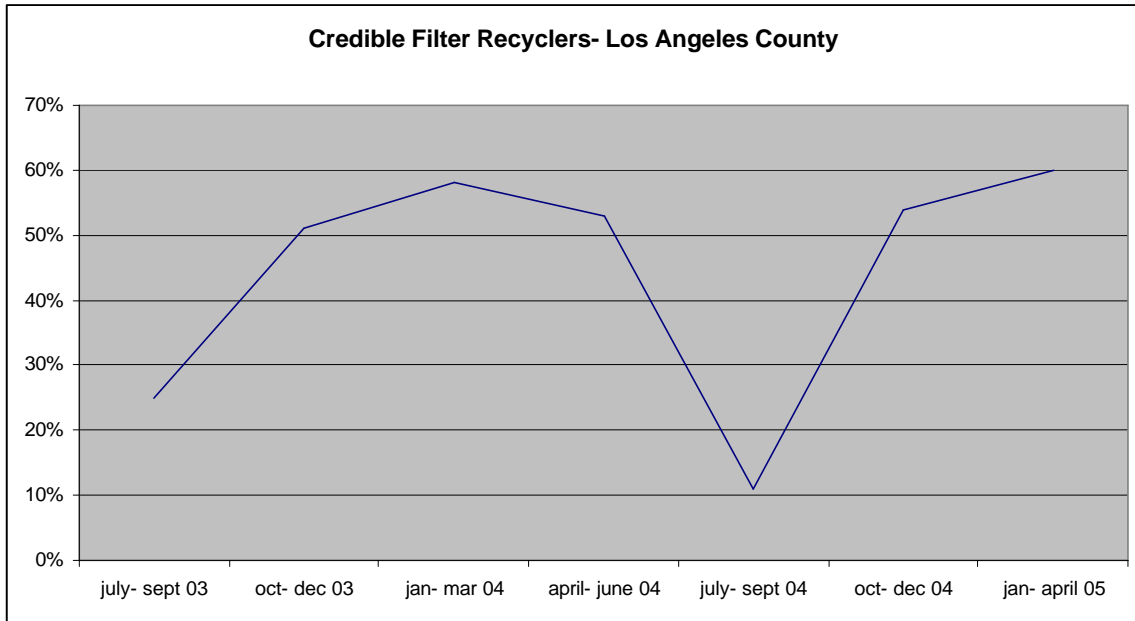
Not surprisingly, the number of respondents who gave an answer other than recycling for this question was much higher than with oil- about 22%. Filter recycling awareness is generally lower and the options available are fewer.



We coded answers to this question similarly to the previous question relating to oil.

We thought it would be interesting to see whether there was any change in the numbers of respondents that said they recycled their filters over the course of the project. This is because the emphasis on publicizing filter recycling has increased in many jurisdictions during the last few years.

We didn't find any significant change overall. However, in two jurisdictions that we know have done intensive public outreach about filters, there may be some increase over the 7 quarters of recorded surveys, as seen on the charts below.



Spill Incidence

Have you ever had a spill or leak on the trail?

Surveyors recorded 4,605 responses to this question. 12% answered that they had experienced a spill or leak. We looked for a correlation to frequency of trail use, but found none- possibly because use of the particular trail where the question was asked doesn't correlate well with the respondents' frequency of off-highway recreation in general.

Spill Cleanup

How did you (or would you) clean it up?

This open-ended question elicited a wide range of answers, but we found that they could be classified fairly consistently in the following categories:

Indicates proper cleanup: includes mention of both an absorbent material and a container: "cat litter zip lock bag," "coffee cans/rags," "grease sweep & bags." We also gave this classification to answers that implied the material was completely removed from the trail: "put in trash bag with shovel," "dug all around hauled out," or to respondents that referred to a spill kit.

Lists either absorbent or container: "absorbed baby diaper," "bag it," "clean up in bucket," "cleaned rocks with rags," "girl friend's sleeping bag," "ice chest."

Too ambiguous to class: "clean-up," "depends on situation," "husband cleaned it," "gas spill, can't scoop."

Partial cleanup: this was a small category, but included references to use of detergent which is an improper cleanup method: "cleaned up most-covered the rest," "pine needles," detergent, dispose," "bag or dig a hole."

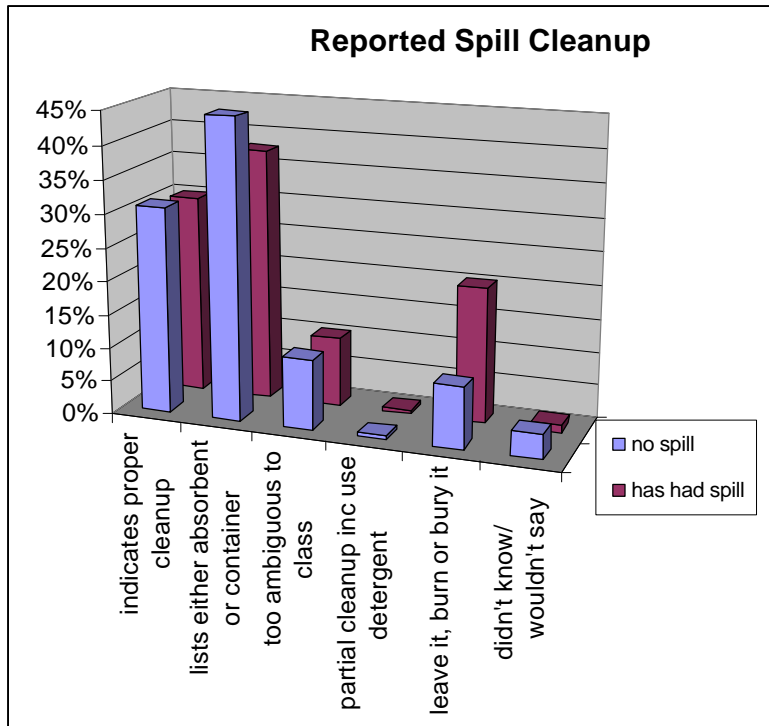
Leave it, burn it, bury it: this category is for those who either frankly left the spill with no action, or treated it improperly: "shovel it over," "light it on fire," "left it," "shovel off trail," "let geology work for me."

Didn't know/ wouldn't say: A small number of those that reported having had a spill or leak refused to say what they did with it. A larger number of those that reported never having a spill or leak answered that they didn't know what they would do: "call ranger," "don't know," "never thought about it."

The number of respondents who indicated proper cleanup techniques was very similar between those that reported having had a spill and those that hadn't: 30% and 31%. The difference between the two groups was most striking in those that left or improperly treated the spill. Of those that were speaking theoretically, 9%

said they'd leave it or cover it. Those that were describing real events reported such behavior 20% of the time. The experienced respondents were also less likely (38% vs 45%) to be in the category that mentioned either absorbent or container but not both.

It is interesting that although we didn't ask for specific information on how the spilled materials were (or should be) finally disposed, many respondents mentioned recycling. Since there is no way to recycle absorbents mixed with automotive fluids, this is a clear example of "giving the right answer." While this was more common in the respondents that had reported no spills, many that had experienced spills answered "scooped and recycled," "absorb, pick up & recycle," and even "scooped up dirt and took to Kragen."



Summary

The survey results clearly demonstrate that our project reached a target audience that includes a very high percentage of DIYers, 72%. Based on our method of assessing truthful answers to the question "What do you do with the oil?" it seems that about 40% of the DIYers may be improperly disposing of oil, though 98% gave answers that indicated that they know the "right answer" is recycling.

Our outreach at special events, through media and at trailheads may have had its greatest impact in increasing awareness of filter recycling and proper clean-up of spills on the trail. The survey showed that this information was new to a high percentage of off-highway vehicle enthusiasts.

Because the survey included respondents from throughout the state, was conducted over a period of almost two years, and gathered a large volume of data, it may be possible to "mine" it for further useful information. We will be happy to discuss this with CIWMB staff and others.



A final note:

This trailhead outreach campaign would have been impossible without the leadership of Steve Sampson of the Wine Country Rock Crawlers in Sonoma County. He recruited and trained clubs throughout the state to participate, received and tracked their completed surveys and cajoled them into completing all of the budgeted outreach days plus eight additional ones. Steve helped to design the “Make the Grade” slogan and logo, and he and other Wine Country Rock Crawlers members assembled, packaged and mailed the goodie bags and survey forms to participating clubs.



It is always a pleasure and a privilege to work with dedicated volunteers, and the off-highway vehicle enthusiasts have been absolutely outstanding.

